VOLKSWAGEN

AKTIENGESELLSCHAFT

ANNUAL REPORT 2021

NEW AUTO

Key Figures

VOLKSWAGEN GROUP

	2021	2020	%
Volume Data[1] in thousands			
Deliveries to customers (units)	8,882	9,305	–4.5
Vehicle sales (units)	8,576	9,157	–6.3
Production (units)	8,283	8,900	–6.9
Employees at Dec. 31	672.8	662.6	+ 1.5
Financial Data (IFRSs), € million			
Sales revenue	250,200	222,884	+ 12.3
Operating result before special items	20,026	10,607	+ 88.8
Operating return on sales before special items (%)	8.0	4.8	
Special items	–751	–931	–19.4
Operating result	19,275	9,675	+ 99.2
Operating return on sales (%)	7.7	4.3	
Earnings before tax	20,126	11,667	+ 72.5
Return on sales before tax (%)	8.0	5.2	
Earnings after tax	15,428	8,824	+ 74.8
Automotive Division[2]			
Total research and development costs	15,583	13,885	+ 12.2
R&D ratio (%)	7.6	7.6	
Cash flows from operating activities	32,402	24,721	+ 31.1
Cash flows from investing activities attributable to operating activities[3]	23,793	18,364	+ 29.6
of which: capex	10,496	11,065	–5.1
capex/sales revenue (%)	5.1	6.1	
Net cash flow	8,610	6,357	+ 35.4
Net liquidity at Dec. 31	26,685	26,796	–0.4
Return on investment (ROI) in %	10.4	6.5	
Financial Services Division			
Return on equity before tax[4] (%)	17.3	8.8	

VOLKSWAGEN AG

	2021	2020	%
Volume Data in thousands			
Employees at Dec. 31	117.6	118.7	–0.9
Financial Data (HGB), € million			
Sales revenue	70,917	67,535	+ 5.0
Net income for the fiscal year	4,041	6,338	–36.2
Dividends (€)			
per ordinary share	7.50	4.80	
per preferred share	7.56	4.86	

1 Volume data including the unconsolidated Chinese joint ventures. These companies are accounted for using the equity method. Prior-year deliveries updated to reflect subsequent statistical trends.
2 Including allocation of consolidation adjustments between the Automotive and Financial Services divisions.
3 Excluding acquisition and disposal of equity investments: €17,910 (17,175) million.
4 Earnings before tax as a percentage of average equity.

This version of the annual report is a translation of the German original. The German takes precedence. All figures shown in the report are rounded, so minor discrepancies may arise from addition of these amounts. The figures from the previous fiscal year are shown in parentheses directly after the figures for the current reporting period.
Specified vehicle ranges correspond to results obtained through the Worldwide Harmonized Light vehicles Test Procedure (WLTP) on the chassis dynamometer. WLTP value ranges for series-produced vehicles may vary depending on the equipment. The actual range will deviate in practice depending on various other factors.

NEW AUTO

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This annual report was published on the occasion of the Annual Media Conference on March 15, 2022.

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TO OUR SHAREHOLDERS

Letter to our Shareholders

Dear Shareholders,

It is with deep concern that we are currently looking to Ukraine, to the people there, to our colleagues and our European neighbors, who are suffering from the war. Since the start of the fighting, the Volkswagen Group and its brands have currently donated a total of more than 5 million euros to *UNO-Flüchtlingshilfe* (the German partner of the UN Refugee Agency) and other aid organizations. At many of our sites, the workforce is supporting relief efforts, and many brands are providing cars for helpers in Eastern Europe.

We cannot yet foresee the effects on the global economy. But it is already clear that a long war would harm not only Europe. The international community, whose prosperity is based on free world trade and functioning supply chains, would be set back by decades. A return to diplomacy and conflict resolution based on international law are indispensable.

The success of the Volkswagen Group with its 120 sites worldwide is also closely intertwined with globalization. In fiscal year 2021, the Covid-19 pandemic and the shortage of semiconductors repeatedly led to production stoppages and supply bottlenecks throughout the entire automotive industry. As a result, we produced two million cars fewer than planned. The fact that the Group was nevertheless able to double its operating profit before special items to 20 billion euros compared to the previous year is due to our resilience and the strong demand for our vehicles, both in the conventional combustion engine business and increasingly as electric vehicles. The premium group with its brands Audi, Bentley, Lamborghini and Ducati contributed disproportionately more to the result. We are investing the generated net cash flow of 8.6 billion euros in our transformation to emission-free, autonomous mobility. We are proposing to our shareholders a dividend of 7.56 euros per preferred share and 7.50 euros per ordinary share for the 2021 fiscal year.

The success of Volkswagen is the success of its 670,000 employees around the globe. Also in 2021, they achieved a great deal. The semiconductor task force found solutions to short-term supply bottlenecks with our suppliers and the semiconductor manufacturers, and our developers brought 150 technical alternatives into the cars to replace missing chips.

We also achieved a great deal strategically last year. Six years ago, we made the decision to switch our portfolio to electric drives. The present shows that this was the right decision. In 2021, we were market leader for electric vehicles in Europe with a market share of around 25% and were in second place in the USA with around 7.5%. This means that our market share for electric vehicles is already almost twice as high as for vehicles with combustion engines. The American climate policy is giving us a tailwind: more than two thirds of all ID.4 buyers in the US are new to the Volkswagen brand. In China, we delivered 93,000 electric vehicles, four times more than the previous year. By 2030, we will increase the global share of e-vehicles to 50%. The future of buses and trucks is also electric: TRATON will continually increase investments in the electrification.

We have reached important milestones in our key markets: In the US, the Volkswagen brand delivered 375,000 vehicles, the best result since 2013. After years of losses, the Volkswagen brand is profitable again in the US, as well as in Canada and Mexico. We are hitting all the right buttons for the American market with our Atlas family of SUVs, the Taos, Tiguan and ID.4

– these five SUV models account for approximately 70% of US sales. In 2021, the Volkswagen brand also turned the corner in South America. With locally developed models such as the Nivus and Taos, we have modernized our product portfolio in recent years, and managed to increase our market shares and return to profit and positive net cash flow. In China, we continue to be very profitable. The Volkswagen brand is the market leader with a share of almost 12%. Porsche, Bentley and Lamborghini have achieved their best delivery results ever.

With our NEW AUTO strategy, we have set the course to make our Group fit for the future. We are transforming ourselves from an automobile manufacturer with fascinating brands and excellent engineering to a vertically integrated mobility company. Battery and charging will become our core competence and source of revenue. By founding our own company under European law, we are bundling our battery activities and occupying all the stages of the value chain that are critical to success. In future, third parties will also be able to become involved in the company – we are not ruling out an IPO.

In the world of NEW AUTO, mobility will be emission-free and autonomous, with a high degree of customer orientation and new sources of revenue, for example through assistance systems or a broad range of entertainment services that can be booked on demand.

Software is the basis for this – our software unit CARIAD is building up the necessary competencies here. CARIAD now employs around 5,000 experts. Thanks to the close cooperation between CARIAD and our brands, around 56,000 customers of our ID. models were able to update their vehicles over the air last year. To accelerate progress in autonomous driving, we have integrated Hella’s camera software division and are continuing to expand strategic partnerships – for example between CARIAD and Bosch for the joint development of software.

We are gradually expanding our range of mobility services. We have initiated the acquisition of Europcar to add rental services to our range. For the operation of shuttle fleets, we are continuing to gather experience in Hamburg with MOIA after a pandemic-related break, with the aim of having autonomous shuttles driving through the Hanseatic city from 2025. To this end, we are already testing autonomous driving in Munich with the Volkswagen ID. Buzz and Argo AI.

As for our headquarters in Wolfsburg, we have developed a vision for 2030 to ensure the competitiveness of our largest location. We are going to build a new factory for two billion euros with faster and more efficient processes to produce a competitive, electric and Level 4-capable car from 2026 – Project Trinity. It will bring autonomous driving to the volume segment. We are investing 800 million euros in a new development center, the most modern in Germany. In addition, a leaner, more efficient headquarters will be created at the site, which will manage the Group worldwide.

Despite many successes, 2021 was not an easy year for many employees. I am therefore pleased that we achieved the best score ever in the annual employee opinion survey; this score has been rising continuously since 2018. Thank you very much for your trust. And I would also like to thank you, dear Shareholders, for supporting our strategy.

We are already seeing the dramatic consequences of the war in Ukraine. The effects on our company cannot be foreseen at present. However, in 2021, as in 2020, Volkswagen has shown that our business is resilient despite acute global challenges and that we are able to handle crises better than in the past. At the same time, we will continue to consistently implement our NEW AUTO strategy in order to play a leading role in the future world of mobility.

Sincerely,

Herbert Diess

In the world of NEW AUTO, mobility will be emission-free and autonomous, with a high degree of customer orientation and new sources of revenue.

– Herbert Diess –

NEW AUTO

THE BOARD OF MANAGEMENT

of Volkswagen Aktiengesellschaft

DR. HERBERT DIESS

Chair of Volkswagen AG

MURAT AKSEL

Purchasing

HILDEGARD WORTMANN

Sales

OLIVER BLUME

Sport & Luxury brand group

RALF BRANDSTÄTTER

Chief Executive Officer of the
Volkswagen Passenger Cars brand

DR. MANFRED DÖSS

Integrity and Legal Affairs

MARKUS DUESMANN

Premium brand group

HAUKE STARS

IT

THOMAS SCHMALL-VON WESTERHOLT

Technology

GUNNAR KILIAN

Human Resources and Truck & Bus

DR. ARNO ANTLITZ

Finance

Report of the Supervisory Board

(in accordance with section 171(2) of the AktG)

Ladies and gentlemen,

In fiscal year 2021, the work of the Supervisory Board of Volkswagen AG and its committees focused on the Volkswagen Group's strategic direction. The Supervisory Board regularly deliberated on the Company's position and development in the reporting period. We supervised and supported the Board of Management in its running of the business and advised it on issues relating to the management of the Company in accordance with our duties under the law, the Articles of Association and the rules of procedure. We also observed the relevant recommendations and suggestions of the German Corporate Governance Code (the Code) at all times. The Supervisory Board was directly involved in all decisions of fundamental importance to the Group. Additionally, we discussed strategic considerations with the Board of Management at regular intervals.

The Board of Management complied with its disclosure obligations, which are set out in the information policy adopted by the Supervisory Board in 2018. The Board of Management provided us with information regularly, promptly and comprehensively both in writing and orally, particularly on all matters of relevance to the Company relating to its strategy, business development and the Company's planning and position. This also included the risk situation and risk management. In this respect, the Board of Management also informed the Supervisory Board of further improvements to the risk and compliance management systems. In addition, the Supervisory Board received information about compliance and other topical issues from the Board of Management on an ongoing basis. We received the documents relevant to our decisions in good time for our meetings. At regular intervals, we also received a detailed report from the Board of Management on the current business position and the forecast for the current year. Any deviations in performance from the plans and targets previously drawn up were explained in detail by the Board of Management, either in person or in writing. Together with the Board of Management we analyzed the reasons for the deviations and determined corresponding countermeasures. In particular, the Board of Management reported in detail and in a timely manner on the impact of the Covid-19 pandemic and the semiconductor supply situation and explained the measures that had been taken.

In addition, the Chair of the Supervisory Board consulted with the Chair of the Board of Management at regular intervals between meetings to discuss important current issues. These included the Group's strategy and planning, its business development, and the risk situation and risk management, including integrity and compliance issues in the Volkswagen Group. Within reason, the Chair of the Supervisory Board discussed Supervisory Board-specific topics with investors and, in consultation with the Board of Management, also non-Supervisory Board-specific topics. Governance issues were one focus of the discussions. The Chair of the Supervisory Board informed the Supervisory Board of such discussions after they had taken place.

The Supervisory Board held a total of ten meetings in fiscal year 2021. The average attendance rate was 89.7%. In addition, resolutions on particularly urgent matters were adopted in writing or by using electronic communications media. The challenges and restrictions resulting from the Covid-19 pandemic again necessitated additional flexibility for the meetings of the Supervisory Board in fiscal year 2021. Moreover, the pandemic entailed travel and contact restrictions, especially for those members of the Supervisory Board who live outside Germany, and made additional demands of those members of the Supervisory Board who also hold special roles in industry and politics. Nevertheless, all members of the Supervisory Board except for Dr. Al Abdulla attended over half of the meetings of the Supervisory Board and the committees of which they are members. Supervisory Board members who could not attend a meeting were able to engage with the meeting topics using the preparatory documents.

COMMITTEE ACTIVITIES

In order to discharge the duties entrusted to it, the Supervisory Board has established four committees: the Executive Committee, the Nomination Committee, the Mediation Committee established in accordance with section 27(3) of the *Mitbestimmungsgesetz* (MitbestG – German Codetermination Act) and the Audit Committee. The Executive Committee is comprised of four shareholder representatives and four employee representatives. The shareholder representatives on the Executive Committee make up the Nomination Committee. The Audit Committee and the Mediation Committee are each composed of two shareholder representatives and two employee representatives. The members of these committees as of December 31, 2021 are stated in the Group Corporate Governance Declaration.

The Executive Committee met twelve times in the reporting period. At its meetings, the Executive Committee meticulously prepared the resolutions of the Supervisory Board, discussed the composition of the Board of Management and took decisions on matters such as contractual issues concerning the Board of Management other than remuneration, and consent to ancillary activities by members of the Board of Management.

The Nomination Committee is responsible for proposing suitable candidates for the Supervisory Board to recommend for election to the Annual General Meeting. This committee met on one occasion in 2021.

During the reporting year, the Mediation Committee established in accordance with section 27(3) MitbestG was not required to convene formally in the exercise of its statutory duties. However, in October 2021, the Supervisory Board entrusted the Mediation Committee with the additional task of developing a proposal for the future structure of areas of responsibility within the Board of Management and possible changes to the composition of the Board of Management. To this end, the Mediation Committee established in accordance with section 27(3) MitbestG met six times during the reporting year.

The Audit Committee held four meetings in 2021. It focused on the annual and consolidated financial statements, the Risk Management System including the effectiveness of the Internal Control System and the Internal Audit System, and the work performed by the Company's Compliance organization. In addition, the Audit Committee concerned itself with the Volkswagen Group's quarterly reports and the half-yearly financial report, as well as with current issues, the supervision of financial reporting and the financial reporting process, and the examination thereof by the auditors.

A further committee formed by the Supervisory Board is the Special Diesel Engine Committee, which was in existence from October 2015 to December 2021. Comprised of three shareholder representatives and three employee representatives, the Special Diesel Engine Committee was responsible for supporting the investigations in connection with the manipulation of emissions figures for Volkswagen Group diesel engines and preparing Supervisory Board resolutions for necessary measures at Supervisory Board level. To this end, the Special Diesel Engine Committee was provided with regular information by the Board of Management. The Chair of the Special Diesel Engine Committee reported regularly on the Committee's work to the Supervisory Board. The tasks of the Special Diesel Engine Committee were essentially completed by the end of December 2021: the Supervisory Board has completed its investigations into the diesel issue as far as the civil liability of the members of the boards are concerned. In light of this situation, the Supervisory Board dissolved the Special Diesel Engine Committee with effect from the end of December 31, 2021. Any measures connected with the diesel issue to be addressed in the future will be discussed directly by the full Supervisory Board and prepared by the Executive Committee. The Board of Management will also report to the Executive Committee or to the full Supervisory Board on current developments in connection with the diesel issue in future. In 2021, the Special Diesel Engine Committee met on two occasions to discuss, among other things, a report from the Board of Management on the state of affairs with respect to the diesel issue as well as the latest developments in the consumer action for model declaratory judgment brought by the *Verbraucherzentrale Bundesverband* (Federation of Consumer Organizations) and in various other legal proceedings.

Hans Dieter Pötsch

Furthermore, the shareholder and employee representatives generally met for separate preliminary discussions before each of the Supervisory Board meetings.

In connection with their seat on the Supervisory Board, members of the Supervisory Board receive support from the Company upon induction as well as with respect to education and training; the Company particularly supports the organization of seminars and bears the costs thereof. During the reporting year, for example, the members of the Supervisory Board participated in training on the amendments to the *Finanzmarktstabilisierungsgesetz* (German Financial Market Stabilization Act), on amendments to the remuneration report in accordance with the *Gesetz zur Umsetzung der Aktionärsrechte-Richtlinie* (German Act Implementing the Shareholders Rights Directive) and on developments in the field of sustainability reporting. In addition, the members of the Audit Committee received training on selected accounting issues and regulatory developments. Supervisory Board members appointed for the first time are also provided with a detailed introduction to topics that apply specifically to the Supervisory Board of Volkswagen AG.

TOPICS DISCUSSED BY THE SUPERVISORY BOARD

The first Supervisory Board meeting of the reporting year took place on February 26, 2021. Following a detailed examination, we approved the consolidated financial statements and the annual financial statements of Volkswagen AG for 2020 prepared by the Board of Management. We examined the combined management report, the combined separate nonfinancial report for 2020 and the precautionary Report by the Board of Management on Relationships of Volkswagen AG with Affiliated Companies in accordance with section 312 of the AktG (dependent company report). Upon completion of our examination of the dependent company report, we came to the conclusion that there were no objections to be raised to the concluding declaration by the Board of Management in the dependent company report. Other agenda items included the current state of affairs with respect to the diesel issue and financing measures at the Volkswagen Group. We also discussed the establishment of joint ventures by Bugatti and Rimac to develop, manufacture and sell hyper sports cars, and by Sitech and Brose to develop and manufacture complete seat units, seat structures and components, and solutions for the vehicle interior.

At the next meeting of the Supervisory Board, which was held from March 24 to 26, 2021, including breaks, we focused on the report concerning the liability of members of the Board of Management of Volkswagen AG in connection with the diesel issue and on the resolution concerning the possible assertion of claims against members of the Board of Management.

On May 8, 2021, the Supervisory Board met to discuss, in particular, the merger squeeze-out at MAN SE.

The agenda of the Supervisory Board meeting on June 5, 2021, included discussion of the composition of the Board of Management and Supervisory Board of Volkswagen AG, the conclusion of liability settlements with former members of the Board of Management, the conclusion of a coverage settlement with the D&O insurers in connection with the diesel issue, and also the agenda for the 61st Annual General Meeting of Volkswagen AG, especially the resolutions proposed by the Supervisory Board.

The Supervisory Board convened for its next meeting on July 9, 2021. As well as discussing the composition of the Board of Management of Volkswagen AG, we concerned ourselves particularly with the new Group strategy, NEW AUTO.

The next meeting of the Supervisory Board took place following the Annual General Meeting of Volkswagen AG on July 22, 2021; we discussed the composition of the Supervisory Board of Volkswagen AG and analyzed the Annual General Meeting.

At the meeting of the Supervisory Board on July 28, 2021, we discussed the takeover offer for the shares of Europcar Mobility Group S.A.

The following table shows the number of meetings of the full Board and the committees as well as the individual participation of the members of the Supervisory Board in 2021:

	Meetings of the full Supervisory Board	Meetings of the Committees
Hans Dieter Pötsch	9 out of 10	18 out of 19
Jörg Hofmann	9 out of 10	18 out of 18
Dr. Hussain Ali Al Abdulla	4 out of 10	–
Dr. Hessa Sultan Al Jaber	6 out of 10	–
Dr. Bernd Althusmann	9 out of 10	0 out of 2
Kai Bliesener (until March 31, 2021)	2 out of 2	–
Matías Carnero Sojo (since April 1, 2021)	7 out of 8	–
Daniela Cavallo (since May 11, 2021)	7 out of 7	15 out of 15
Dr. Hans-Peter Fischer	10 out of 10	–
Marianne Heiß	10 out of 10	4 out of 4
Ulrike Jakob	10 out of 10	–
Dr. Louise Kiesling	8 out of 10	–
Peter Mosch	10 out of 10	16 out of 16
Bertina Murkovic	10 out of 10	14 out of 14
Bernd Osterloh (until April 30, 2021)	2 out of 2	5 out of 5
Dr. Hans Michel Piëch	10 out of 10	13 out of 13
Dr. Ferdinand Oliver Porsche	10 out of 10	6 out of 6
Dr. Wolfgang Porsche	9 out of 10	14 out of 15
Jens Rothe (since October 22, 2021)	2 out of 2	–
Conny Schönhardt	10 out of 10	4 out of 4
Athanasios Stimoniaris (until August 31, 2021)	6 out of 7	–
Stephan Weil	6 out of 10	18 out of 19
Werner Weresch	9 out of 10	–

The meeting of the Supervisory Board on September 24, 2021 focused particularly on strategic issues.

At its meeting on October 27, 2021, the Supervisory Board prepared the resolution for investment and financial planning for the period from 2022 to 2026.

On December 9, 2021, at the last meeting of the Supervisory Board for the reporting year, we discussed the composition of the Board of Management of Volkswagen AG. We also held in-depth discussions on the Volkswagen Group's investment and financial planning for the period from 2022 to 2026. Another agenda item for the meeting was the current state of affairs with respect to the diesel issue. We also submitted the annual declaration of conformity with the Code together with the Board of Management, amended the diversity concept for the Board of Management, and approved the decision taken by the Board of Management that, in light of the specific circumstances of the pandemic, the Annual General Meeting in 2022 should be held as an online event.

In the reporting period, we voted in writing on matters such as elections to committees, the request for the court appointment of Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft (EY) as the auditor for the half-yearly financial report, necessitated by the postponement of the Annual General Meeting for 2021 to July 2021, and consent to ancillary activities by members of the Board of Management.

CONFLICTS OF INTEREST

Mr. Hans Dieter Pötsch was a member of the Board of Management of Volkswagen AG until October 2015. His move to the Supervisory Board had already been planned irrespective of the diesel issue. In order to avoid conceivable conflicts of interest, Mr. Pötsch generally left the meeting room prior to discussions and resolutions adopted by the Supervisory Board that might relate to his conduct in connection with the diesel issue. For this reason, Mr. Pötsch did not participate in the meeting of the Supervisory Board from March 24 to 26, 2021, at which we discussed the report concerning the liability of members of the Board of Management of Volkswagen AG in connection with the diesel issue and the resolution concerning the possible assertion of claims against members of the Board of Management. Mr. Pötsch also left the room during the meeting of the Supervisory Board on June 5, 2021, when additional information was provided on this topic and, in particular, when the resolution was taken concerning the agenda for the 61st Annual General Meeting of Volkswagen AG and the resolutions proposed by the Supervisory Board.

No other conflicts of interest were reported or were discernible in the reporting period.

CORPORATE GOVERNANCE AND DECLARATION OF CONFORMITY

The Supervisory Board meeting on December 9, 2021 focused on the implementation of the recommendations and suggestions of the Code in the Volkswagen Group. We discussed the Code's guidance in detail and issued the annual declaration of conformity with the recommendations of the Code in accordance with section 161 of the AktG together with the Board of Management.

The joint declarations of conformity by the Board of Management and the Supervisory Board are permanently available at www.volkswagenag.com/en/InvestorRelations/corporate-governance/declaration-of-conformity.html. Additional information on the implementation of the recommendations and suggestions of the Code can be found in the Group Corporate Governance Declaration.

In 2020, the Audit Committee agreed a suitable procedure with the Board of Management for ongoing monitoring of the Volkswagen Group's related-party transactions. No disclosures or approval decisions on the part of the Supervisory Board were required for related-party transactions under statutory provisions in the reporting year.

MEMBERS OF THE SUPERVISORY BOARD AND BOARD OF MANAGEMENT

Mr. Kai Bliesener, Head of Vehicle Construction, and Automotive and Supplier Industry Coordinator at IG Metall, stepped down from the Volkswagen AG Supervisory Board effective March 31, 2021. Mr. Bliesener had been a member of the Supervisory Board since June 20, 2020. The court appointed Mr. Matías Carnero Sojo, Chair of the General Works Council of SEAT, to replace him with effect from April 1, 2021.

Effective May 11, 2021, Ms. Daniela Cavallo was appointed by the court as a replacement member of the Volkswagen AG Supervisory Board. Moreover, the Supervisory Board elected her as a member of the Executive Committee on May 18, 2021. Ms. Cavallo has been the Chair of the General and Group Works Councils of Volkswagen AG since the end of April 2021. She succeeds Mr. Bernd Osterloh as a member of the Supervisory Board and Executive Committee of Volkswagen AG, who resigned his post with effect from April 30, 2021.

The terms of office of Dr. Louise Kiesling and Mr. Hans Dieter Pötsch as members of the Volkswagen AG Supervisory Board duly ended at the close of the 61st Annual General Meeting. The Annual General Meeting elected both for a further full term of office as shareholder representatives on the Supervisory Board. On July 22, 2021, the Supervisory Board of Volkswagen AG reelected Mr. Hans Dieter Pötsch as its Chair and Mr. Jörg Hofmann as its Deputy Chair.

Mr. Athanasios Stimoniaris, former Chair of the Group Works Council of TRATON SE, resigned from his post as a member of the Volkswagen AG Supervisory Board with effect from August 31. Mr. Stimoniaris had been a member of the Supervisory Board since 2015. Mr. Jens Rothe, Chair of the General Works Council of Volkswagen Sachsen GmbH, was appointed by the court to replace him with effect from October 22, 2021.

In December 2020, the Supervisory Board of Volkswagen AG decided to split up the responsibility for Components and Procurement from January 1, 2021, replacing it with two new Board positions: Purchasing and Technology. Effective January 1, 2021, the Supervisory Board appointed Mr. Murat Aksel, previously Board member for Procurement at the Volkswagen Passenger Cars brand, and Mr. Thomas Schmall-von Westerholt, previously Board member for Components at the Volkswagen Passenger Cars brand, as new members of the Board of Management. Mr. Aksel took over responsibility for Purchasing, while Mr. Schmall-von Westerholt became the Board member responsible for Technology.

Dr. Arno Antlitz, previously member of the Board of Management of AUDI AG for Finance and Legal Affairs, took over as the Volkswagen AG Board of Management member responsible for Finance and IT effective April 1, 2021. He succeeded Mr. Frank Witter, who left the Company at his own request effective March 31, 2021. With effect from July 1, 2021, the Finance and IT Board position was divided into two separate Board positions: Finance and IT. Dr. Antlitz was assigned responsibility for Finance, and also held interim responsibility for IT until the appointment of a further member of the Board of Management.

The Supervisory Board resolved in December 2021 to increase the number of members on the Group Board of Management and to reorganize the structure and functions of the Board in this context. A new Board division – Volkswagen Passenger Cars – was established as of January 1, 2022, managed by Mr. Ralf Brandstätter with effect from the same date. Moreover, a new Board division – Group Sales – was established as of February 1, managed by Ms. Hildegard Wortmann with effect from the same date. Ms. Hiltrud Werner's term of office on the Volkswagen AG Board of Management came to an end on January 31, 2022. Responsibility for the Integrity and Legal Affairs division, which she had led, passed to Dr. Manfred Döss with effect from February 1, 2022. Also with effect from February 1, 2022, Ms. Hauke Stars assumed responsibility for the IT Board position, which had been held during the interim by Dr. Antlitz.

Our sincere thanks go to all of the departing members of the Supervisory Board and the Board of Management for their work.

AUDIT OF THE ANNUAL AND CONSOLIDATED FINANCIAL STATEMENTS

In line with our proposal, the Annual General Meeting of Volkswagen AG on July 22, 2021 elected Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft (EY) as auditors and Group auditors for fiscal year 2021. The auditors audited the annual financial statements of Volkswagen AG, the consolidated financial statements of the Volkswagen Group and the combined management report and issued unqualified audit reports in each case.

The Supervisory Board also commissioned EY to conduct an external limited assurance review of the content of the combined separate nonfinancial report for 2021.

In addition, the auditors analyzed the Risk Management System and the Internal Control System, concluding that the Board of Management had taken the measures required by section 91(2) of the AktG to ensure early detection of any risks endangering the continued existence of the Company. The Report on Relationships of Volkswagen AG with Affiliated Companies in accordance with section 312 of the AktG (dependent company report) for the period from January 1 to December 31, 2021 submitted by the Board of Management was also audited by the auditors, who issued the following opinion: "In our opinion and in accordance with our statutory audit, we certify that the factual disclosures provided in the report are correct and that the Company's consideration concerning legal transactions referred to in the report was not unduly high."

The members of the Audit Committee and the members of the Supervisory Board were provided with the documentation relating to the annual and consolidated financial statements, including the dependent company report, the documentation relating to the combined management report, and also the audit reports prepared by the auditors and the report from EY on the external audit of the content of the combined separate nonfinancial report for 2021 in good time for their meetings both on March 11, 2022. The auditors reported extensively at both meetings on the material findings of their audit and were available to provide additional information. The Chair of the Audit Committee was also in close contact with the auditors, including between the meetings and during preparation for the Audit Committee meetings.

Taking into consideration the audit reports and the discussion with the auditors, and based on its own conclusions, the Audit Committee prepared the documents for the Supervisory Board's examination of the consolidated financial statements, the annual financial statements of Volkswagen AG, the combined management report, the dependent company report and the combined separate nonfinancial report for 2021, and reported on these at the Supervisory Board meeting on March 11, 2022. Following this, the Audit Committee recommended that the Supervisory Board approve the annual and consolidated financial statements. We examined the documents in depth in the knowledge and on the basis of the report by the Audit Committee and the audit report, as well as in talks and discussions with the auditors. We came to the conclusion that the documents are due and proper and that the assessment of the position of the Company and the Group presented by the Board of Management in the combined management report corresponds to the assessment by the Supervisory Board.

We therefore concurred with the auditors' findings and approved the annual financial statements and the consolidated financial statements prepared by the Board of Management at our meeting on March 11, 2022, which the auditors also attended for the agenda items relating to the annual and consolidated financial statements, the dependent company report and the combined management report. The annual financial statements are thus adopted. Upon completion of our examination of the dependent company report, there are no objections to be raised to the concluding declaration by the Board of Management in the dependent company report. We reviewed the proposal on the appropriation of net profit submitted by the Board of Management, taking into account in particular the interests of the Company and its shareholders, and endorsed the proposal. EY conducted an external audit of the content in the combined separate nonfinancial report for 2021 to attain limited assurance and issued an unqualified report. At our meeting on March 11, 2022, EY also took part in the discussions on the agenda items relating to the combined separate nonfinancial report for 2021. Upon completion of its own independent examination of the combined separate nonfinancial report for 2021, the Supervisory Board did not have any objections. We also resolved that, together with the Board of Management, we would prepare the remuneration report for fiscal year 2021. The Executive Committee prepared the resolution of the Supervisory Board concerning the preparation of the remuneration report. As well as reviewing whether the remuneration report contained all the disclosures required by law, EY went beyond statutory requirements to audit its content and issued an unqualified report.

We would like to offer our thanks and particular appreciation to the Board of Management, the Works Council, the management teams and all the employees of Volkswagen AG and its affiliated companies for their work in 2021. In the face of the major challenges which are still resulting from the Covid-19 pandemic on the one hand, and the difficult supply situation for certain raw materials and components on the other, they all displayed a high level of personal commitment and responsibility in contributing to what was nevertheless a successful year for the Volkswagen Group.

Wolfsburg, March 11, 2022

Hans Dieter Pötsch
Chair of the Supervisory Board

2

DIVISIONS

Brands and Business Fields

The Volkswagen Group faced challenges in fiscal year 2021 due to the Covid-19 pandemic and the limited vehicle availability as a result of the semiconductor shortage.

GROUP STRUCTURE

The Volkswagen Group consists of two divisions: the Automotive Division and the Financial Services Division. The Automotive Division comprises the Passenger Cars, Commercial Vehicles and Power Engineering business areas. Activities of the Automotive Division comprise in particular the development of vehicles, engines and vehicle software, and the production and sale of passenger cars, light commercial vehicles, trucks, buses and motorcycles, as well as businesses for genuine parts, large-bore diesel engines, turbomachinery and propulsion components. Mobility solutions are gradually being added to the range. The Ducati brand is allocated to the Audi brand and thus to the Passenger Cars Business Area. Navistar has supplemented the brands in the Commercial Vehicles Business Area since July 1, 2021. The Financial Services Division's activities comprise dealer and customer financing, vehicle leasing, direct banking and insurance activities, fleet management and mobility services.

VOLKSWAGEN GROUP REPORTING STRUCTURE

AUTOMOTIVE DIVISION			FINANCIAL SERVICES DIVISION
Passenger Cars Business Area	**Commercial Vehicles Business Area**	**Power Engineering Business Area**	Dealer and customer financing
Volkswagen Passenger Cars	Scania Vehicles and Services	Power Engineering	Leasing
ŠKODA	MAN Commercial Vehicles		Direct bank
SEAT	Navistar		Insurance
Volkswagen Commercial Vehicles			Fleet management
Audi			Mobility services
Bentley			
Porsche Automotive			
Others			

In this chapter, we present the key volume and financial data relating to the Group brands and to Volkswagen Financial Services. In light of the considerable importance of the development of business in the world's largest single market for the Volkswagen Group, we also report on business developments and the results of our activities in China in this chapter.

The production figures and deliveries to customers are differentiated by vehicle brands and their models that carry the corresponding brand logo. Unit sales figures contain vehicles sold by respective brand companies, including models of other Group brands. In some cases, there are marked differences between delivery figures and unit sales as a result of our business development in China.

KEY FIGURES BY MARKET

The Covid-19 pandemic and the limited vehicle availability due to the semiconductor shortage had a negative impact on business at the Volkswagen Group and its brands in 2021. In the reporting year, the Volkswagen Group generated an operating result before special items of €20.0 (10.6) billion. Special items resulting from the diesel issue weighed on operating result in the amount of €–0.8 (–0.9) billion.

The Volkswagen Group's unit sales in the reporting year stood at 8.6 (9.2) million vehicles. Sales revenue increased by 12.3% to €250.2 billion due to mix-related factors.

In the Europe/Other markets region, unit sales decreased by 5.2% year-on-year to 3.7 million vehicles. However, positive mix effects helped to lift sales revenue to €145.6 (133.5) billion. Exchange rate movements had a negative effect.

In the North American markets, unit sales in the reporting period were 8.2% up on the prior-year figure at 805 thousand vehicles. Due in particular to higher volumes and mix effects, as well as the consolidation of Navistar as from July 1, 2021, sales revenue rose to €45.3 (36.8) billion, more than compensating for the unfavorable exchange rate trends.

We lifted our unit sales on markets in the South America region to 503 thousand vehicles in 2021, an increase of 6.8% compared with 2020. As a result, sales revenue climbed by 27.9% to €11.0 billion. Exchange rate movements had a negative effect.

In the Asia-Pacific region, the Volkswagen Group's unit sales – including the Chinese joint ventures – fell to 3.5 (4.0) million vehicles in the reporting year. Driven by mix and exchange rate effects, sales revenue rose to €48.7 (44.3) billion. This figure does not include the sales revenue of our equity-accounted Chinese joint ventures.

Hedging transactions relating to sales revenue in foreign currency had a negative impact of €386 (345) million on the sales revenue of the Volkswagen Group in the reporting year.

KEY FIGURES BY BRAND AND BUSINESS FIELD

Thousand vehicles/€ million	Vehicle Sales 2021	Vehicle Sales 2020	Sales Revenue 2021	Sales Revenue 2020	Operating Result 2021	Operating Result 2020
Volkswagen Passenger Cars	2,719	2,835	76,127	71,076	2,503	454
ŠKODA	784	849	17,743	17,081	1,083	756
SEAT	494	484	9,614	9,198	–233	–339
Volkswagen Commercial Vehicles	326	345	9,909	9,358	73	–454
Audi	1,009	1,017	53,068	49,973	5,546	2,739
Bentley	15	11	2,845	2,049	389	20
Porsche Automotive[1]	297	265	30,289	26,086	5,006	4,021
Scania Vehicles and Services[2]	91	73	13,927	11,521	903	748
MAN Commercial Vehicles	151	118	13,000	10,838	–276	–631
At equity accounted companies in China[3]	3,042	3,577	–	–	–	–
Power Engineering[4]	–	–	3,278	3,640	179	–268
Volkswagen Financial Services	–	–	41,662	38,637	5,672	2,803
Other[5]	–353	–418	–21,263	–26,573	–818	759
Volkswagen Group before special items	**–**	**–**	**–**	**–**	**20,026**	**10,607**
Special items	–	–	–	–	–751	–931
Volkswagen Group	**8,576**	**9,157**	**250,200**	**222,884**	**19,275**	**9,675**
Automotive Division[6]	8,576	9,157	206,237	182,106	13,230	6,664
of which: Passenger Cars Business Area	8,303	8,965	172,868	156,311	13,051	7,224
Commercial Vehicles Business Area	273	191	30,092	22,156	134	–79
Power Engineering Business Area	–	–	3,278	3,640	45	–482
Financial Services Division	–	–	43,963	40,778	6,045	3,012

1 Porsche (including Financial Services): sales revenue €33,138 (28,695) million, operating result before special items €5,286 (4,176) million.
2 Scania (including Financial Services): sales revenue €14,400 (11,950) million, operating result €1,119 (855) million.
3 The sales revenues and operating results of the joint venture companies in China are not included in the figures for the Group. These Chinese companies recorded a proportionate operating result of €3,026 (3,602) million.
4 Prior-year figure includes the business of Renk.
5 In operating result, mainly intragroup items recognized in profit or loss, in particular from the elimination of intercompany profits; the figure includes depreciation and amortization of identifiable assets as part of purchase price allocation, as well as companies not allocated to the brands. Includes Navistar from July 1, 2021.
6 Including allocation of consolidation adjustments between the Automotive and Financial Services divisions.

KEY FIGURES BY MARKET

Thousand vehicles/€ million	Vehicle Sales 2021	Vehicle Sales 2020	Sales Revenue 2021	Sales Revenue 2020
Europe/Other Markets	3,727	3,929	145,570	133,499
North America	805	744	45,305	36,810
South America	503	471	11,039	8,632
Asia-Pacific[1]	3,540	4,012	48,672	44,288
Hedges on sales revenue	–	–	–386	–345
Volkswagen Group[1]	**8,576**	**9,157**	**250,200**	**222,884**

1 The sales revenue of the joint venture companies in China is not included in the figures for the Group and the Asia-Pacific market.

In the 2021 fiscal year, Volkswagen Passenger Cars celebrated the market debut of the ID.4, the brand's first all-electric SUV. The ID. family gained a new member with the ID.5, a modern symbiosis of SUV and coupé.

BUSINESS DEVELOPMENT

The Volkswagen Passenger Cars brand aims to move people. The centerpiece of the ACCELERATE 2030 strategy is a global initiative through which the brand aspires to transform itself into a technology and software business focused on customer needs.

In fiscal year 2021, the Volkswagen Passenger Cars brand launched the ID.4, the first all-electric SUV in the ID. family. Athletic proportions, a sleek design and a sculptured rear are the hallmarks of its exterior and give the all-rounder excellent aerodynamics. The impressive interior has generous space, puristic design, intuitive controls and sustainable upholstery materials. The recognition as "World Car of the Year 2021" underlines the brand's ambition to combine performance and everyday practicality with the ID.4. The ID.4 is currently built and sold in the core markets of Europe and China. This will be extended in future to include the United States. The ID.4 CROZZ, ID.4 X and ID.4 GTX are derivatives of the base model. In late autumn of the reporting year, Volkswagen Passenger Cars presented another model belonging to the ID. family. The new ID.5 is impressive with a its futuristic form that combines the strengths of an SUV with the aerodynamic silhouette of a coupé, creating a modern symbiosis of the two. The popular Golf family celebrated the 45th anniversary of the Golf GTI in the reporting year. To mark the anniversary of the sporty icon, the Volkswagen Passenger Cars brand presented the special-edition Golf GTI "Clubsport 45". The exclusive anniversary model has 221 kW (300 PS) of power and pays homage to the first Golf GTI with its special GTI features.

The Volkswagen Passenger Cars brand delivered 4.9 million vehicles worldwide in fiscal year 2021. The decline of 8.1% was due chiefly to the limited vehicle availability as a result of the semiconductor shortage. In the USA, sales increased by 15.1%.

The Volkswagen Passenger Cars brand sold 2.7 (2.8) million vehicles in the reporting year. There was strong demand for the T-Roc, T-Cross and Atlas models, and the ID.3 and ID.4 models were also very popular. The difference between deliveries and unit sales is due mainly to the fact that the vehicle-producing joint ventures in China are not attributed to the companies in the Volkswagen Passenger Cars brand.

The Volkswagen Passenger Cars brand produced 4.6 (5.1) million vehicles worldwide in 2021. In May 2021, Volkswagen Slovakia – consisting of the sites in Bratislava, Martin and Stupava – celebrated its 30th anniversary. The multi-brand plant in Bratislava currently produces eight models for five Group brands under one roof.

SALES REVENUE AND EARNINGS

The Volkswagen Passenger Cars brand increased its sales revenue by 7.1% year-on-year to €76.1 billion in 2021. The operating result before special items was influenced by margin-related factors and stood at €2.5 (0.5) billion. This was higher than the previous year's figure, which was particularly affected by the pandemic. Upfront expenditure for new products and technologies increased. The operating return on sales before special items amounted to 3.3 (0.6)%. The diesel issue gave rise to special items of €–0.7(–0.8) billion.

30 years

Volkswagen Slovakia

PRODUCTION

Units	2021	2020
Tiguan	598,656	754,276
Polo/Virtus/Nivus/Taigo	453,479	467,765
Lavida	394,222	416,209
Passat/Magotan	379,614	477,892
Jetta/Sagitar	295,490	422,908
T-Cross/Tacqua/Taigun	295,101	285,824
T-Roc	282,748	285,299
Golf	267,352	408,528
Bora	242,022	329,263
Tharu/Taos	206,789	149,781
Atlas/Teramont	180,873	178,954
JETTA	157,157	165,681
Santana	138,232	174,966
ID.4	134,319	6,487
Gol	131,129	117,471
up!	75,616	59,786
ID.3	73,738	64,259
Lamando	58,551	65,730
Arteon/CC	42,508	55,899
Saveiro	40,212	41,146
Touareg	34,957	41,136
Touran	30,603	56,833
ID.6	20,461	–
Fox/Suran	18,162	12,184
Sharan/Viloran	16,806	32,142
Phideon	6,618	10,344
	4,575,415	**5,080,763**

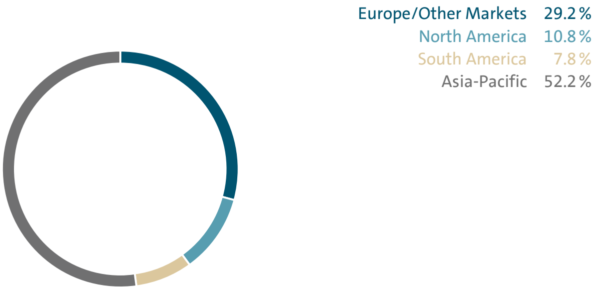
VOLKSWAGEN PASSENGER CARS BRAND

	2021	2020	%
Deliveries (thousand units)	4,897	5,328	–8.1
Vehicle sales	2,719	2,835	–4.1
Production	4,575	5,081	–9.9
Sales revenue (€ million)	76,127	71,076	+7.1
Operating result before special items	2,503	454	x
Operating return on sales (%)	3.3	0.6	

ID.5

DELIVERIES BY MARKET

in percent



FURTHER INFORMATION www.volkswagen.com

ŠKODA presented the fourth generation of its popular Fabia model in 2021, which is now based on the Modular Transverse Toolkit for the first time. With the Kushaq SUV, the Czech brand also launched its India 2.0 market offensive.

BUSINESS DEVELOPMENT

The ŠKODA models are synonymous with smart understatement, featuring a superior spacious interior, the highest standards of functionality, excellent value for money and a distinctive design. Added to that are a number of "Simply Clever" ideas and new digital services, all aimed at making customers' lives easier.

In fiscal year 2021, ŠKODA presented the fourth generation of the Fabia, which is now based on the Volkswagen Group's Modular Transverse Toolkit for the first time. The successful small car is even more dynamic and grown-up than its predecessor, boasting proportions and lines that stir the emotions. With its generous space and ergonomic controls, every part of the interior has been designed with the passenger in mind. New infotainment functions and numerous safety and assistance systems round off the vehicle concept. ŠKODA is regearing itself in the Indian market and presented the first model in its India 2.0 brand offensive in the reporting year: the ŠKODA Kushaq. The model name is derived from the Sanskrit language and roughly translates as "king". The SUV combines the Czech brand's typical qualities with the preferences of Indian customers: with an attractive design and excellent functionality, paired with ŠKODA's "Simply Clever" ideas, the Kushaq is a quintessential ŠKODA SUV. The interior combines ŠKODA's classic SUV design with Indian applications.

The ŠKODA brand delivered 0.9 (1.0) million vehicles worldwide in the reporting period. Sales increased year-on-year in France (+1.5%) and Spain (+19.2%) and more than doubled in India.

ŠKODA sold 0.8 (0.8) million vehicles in the past fiscal year. There was strong demand for the Kamiq and Karoq SUVs, and the new Enyaq iV was also very popular with customers. The difference between figures for deliveries and unit sales is due mainly to the fact that the vehicle-producing joint ventures in China are not attributed to ŠKODA brand companies.

ŠKODA produced 0.8 million vehicles worldwide in fiscal year 2021, a decrease of 14.8% versus 2020. The main plant in Mladá Boleslav celebrated a special milestone in the reporting year: 15 million vehicles have been manufactured there since automotive production began in 1905.

SALES REVENUE AND EARNINGS

Despite lower unit sales, the ŠKODA brand increased sales revenue by 3.9% to €17.7 billion in fiscal year 2021. In particular, positive margin and exchange rate effects as well as lower excess CO_2 emissions premiums raised the operating result to €1.1 (0.8) billion. The operating return on sales amounted to 6.1%, contrasting with 4.4% in the previous year.

15 million

Vehicles manufactured at the Mladá Boleslav plant

PRODUCTION

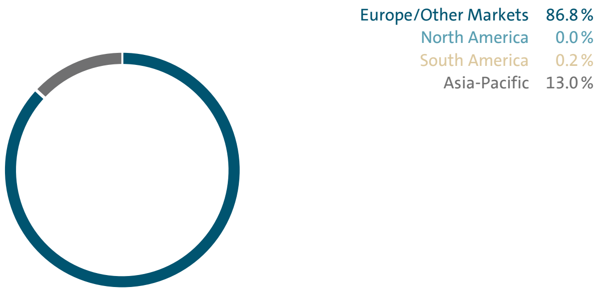
Units	2021	2020
Rapid/Scala	193,045	219,401
Octavia	172,077	233,902
Karoq/Kamiq	127,470	172,999
Fabia	94,105	100,425
Kodiaq	88,505	117,825
Superb	57,720	80,880
Enyaq iV	49,811	939
Kushaq	16,291	–
Citigo	2,886	14,482
	801,910	**940,853**

ŠKODA BRAND

	2021	2020	%
Deliveries (thousand units)	878	1,005	–12.6
Vehicle sales	784	849	–7.7
Production	802	941	–14.8
Sales revenue (€ million)	17,743	17,081	+3.9
Operating result	1,083	756	+43.2
Operating return on sales (%)	6.1	4.4	

Fabia

DELIVERIES BY MARKET
in percent



FURTHER INFORMATION www.skoda-auto.com

SEAT is a company with two brands: SEAT and CUPRA. In 2021, the automotive manufacturer took the next step on the road to e-mobility and launched the all-electric CUPRA Born.

BUSINESS DEVELOPMENT

CUPRA is the unconventional challenger brand that brings together emotion, electrification and performance to inspire the world from Barcelona. The range of vehicles is based on a contemporary interpretation of performance and design. In 2021, the brand brought its first fully electric vehicle to market. The CUPRA Born, which has garnered important awards and positive reviews across Europe, marks the start of a new era. Based on the Volkswagen Group's MEB platform, it has a maximum range of up to 540 km. The model is available in two powertrain variants: 110 kW (150 PS) and 150 kW (204 PS). The latter comes with an e-Boost performance option that can increase the power output to 170 kW (231 PS).

SEAT is the Group brand with Europe's youngest customer profile. In 2021, SEAT brought the updated Arona and Ibiza models to market. The design update of the Arona SUV brings its off-road character even more to the fore. The new Ibiza now features LED headlights as standard. Both vehicles offer a modern, digital interior with a larger infotainment system, improved voice recognition and new connectivity solutions. Additional driver assist systems and a wide range of efficient engines are also available.

At 471 thousand vehicles, deliveries to customers by SEAT and CUPRA were up 10.3% on the previous year in fiscal year 2021. The sales figures improved year-on-year in virtually all markets, partly thanks to the demand for electric vehicles and CUPRA models. The CUPRA brand virtually trebled its sales to 79 thousand vehicles.

The company's unit sales increased to 494 thousand units in the reporting year. This was 2.1% more than in the previous year. This figure also includes the A1 manufactured for Audi. The CUPRA Formentor, SEAT Arona and SEAT Ibiza recorded high demand.

SEAT and CUPRA produced 424 thousand vehicles in the reporting period. This was an increase of 4.2% year-on-year, despite the challenges due to the shortage of semiconductors.

SALES REVENUE AND EARNINGS

Sales revenue for SEAT increased by 4.5% in 2021 to €9.6 billion. The operating result stood at €–233 (–339) million. Positive volume effects, especially from the growth of CUPRA, were appreciably weakened by commodity price increases and the shortage of semiconductors, meaning that, after a weak year in 2020 due to the pandemic, the recovery was incomplete. The operating return on sales was –2.4 (–3.7)%.

10.3%

Increase in deliveries

PRODUCTION

Units	2021	2020
SEAT		
Arona	98,656	78,823
Ibiza	83,710	74,564
Leon	70,143	111,904
Ateca	53,995	65,885
Tarraco	22,437	18,726
Mii	8,648	7,593
Alhambra	4,169	14,672
	341,758	**372,167**
CUPRA		
Formentor	58,863	11,041
Leon	13,670	12,419
Born	4,801	–
Ateca	4,505	10,825
	81,839	**34,285**
SEAT and CUPRA	**423,597**	**406,452**

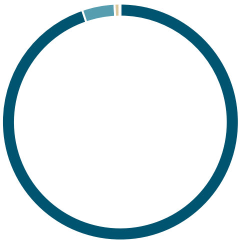
SEAT

	2021	2020	%
Deliveries (thousand units)	471	427	+10.3
Vehicle sales	494	484	+2.1
Production	424	406	+4.2
Sales revenue (€ million)	9,614	9,198	+4.5
Operating result	–233	–339	+31.2
Operating return on sales (%)	–2.4	–3.7	

CUPRA Born

DELIVERIES BY MARKET

in percent



FURTHER INFORMATION www.seat.com

Commercial Vehicles

In 2021, the Volkswagen Commercial Vehicles brand celebrated the world premiere of its new Multivan, now in its seventh generation, ushering in a new era for customers and brand alike. Another highlight was the presentation of the Caddy Maxi.

BUSINESS DEVELOPMENT

As a leading manufacturer of light commercial vehicles, Volkswagen Commercial Vehicles is making fundamental and sustainable changes to the way goods and services are distributed in cities in order to improve quality of life, especially in inner city areas. That is why the brand is the Volkswagen Group's leader in autonomous driving as well as in mobility services such as Mobility-as-a-Service and Transport-as-a-Service. For these solutions, Volkswagen Commercial Vehicles will develop special-purpose vehicles such as robo-taxis and robovans in the future. The Hanover site will be home to the production of vehicles from the Group's Artemis project as well as the bodywork for a new Bentley model. In this way, the brand will continue to keep the world of tomorrow moving, with all of its requirements regarding for clean, intelligent and sustainable mobility. This is what Volkswagen Commercial Vehicles stands for with its brand promise: We transport success, freedom and the future.

In 2021, the Volkswagen Commercial Vehicles brand presented the seventh generation of its bestseller: the Multivan. The latest version of the "Bulli" boasts an improved seat and cargo space system, a lounge-style interior, a newly designed instrument panel and an integrated display landscape. A first for the model range is the new 160 kW (218 PS) plug-in hybrid drive, which combines local emission-free driving with large ranges and a low total fuel consumption. The new Multivan is thus ushering in a new era for the brand on its Way to Zero. The Caddy Maxi was also presented in the reporting year. At 35 cm longer than the base version, the Caddy Maxi offers more space and more options: a trouble-free way to transport bulky items or carry up to seven people.

The ID. Buzz, the fully electric version of the iconic "Bulli" and one of the most important new models from the Volkswagen Commercial Vehicles brand, is ready and waiting in the starting blocks. And the successor to the Amarok, developed in cooperation with Ford, is also lined up for 2022.

Deliveries by Volkswagen Commercial Vehicles in fiscal year 2021 stood at 360 thousand units (–3.2%). Sales increased in Spain (+3.3%), Turkey (+17.0%) and Argentina (+44.6%).

Volkswagen Commercial Vehicles sold 326 thousand vehicles in the reporting period, 5.6% fewer than in the previous year. However, growth was seen above all by the Crafter and the Multivan/Transporter. The California models were also very popular, with sales increasing to 29.2%.

In 2021, the Volkswagen Commercial Vehicles brand produced 335 thousand vehicles, 2.5% fewer than in the previous year.

SALES REVENUE AND EARNINGS

At €9.9 billion, sales revenue for the Volkswagen Commercial Vehicles brand in fiscal year 2021 was 5.9% higher than in the previous year. The operating result increased to €73 (–454) million with a positive impact from mix effects in particular, but also from better price positioning and lower development costs. Lower excess CO_2 emissions premiums were taken into account compared with the previous year. The operating return on sales increased to 0.7 (–4.9)%.

5.9%

Increase in sales revenue

PRODUCTION

Units	2021	2020
Transporter	80,122	66,357
Caravelle/Multivan, Kombi, California	79,379	71,813
Crafter, Grand California	58,739	58,235
Amarok	42,755	36,343
Caddy Kombi	40,156	61,998
Caddy, Caddy California	33,805	48,799
	334,956	**343,545**

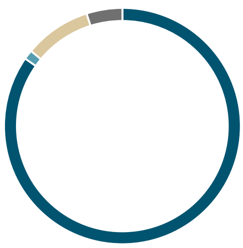
VOLKSWAGEN COMMERCIAL VEHICLES BRAND

	2021	2020	%
Deliveries (thousand units)	360	372	–3.2
Vehicle sales	326	345	–5.6
Production	335	344	–2.5
Sales revenue (€ million)	9,909	9,358	+5.9
Operating result	73	–454	x
Operating return on sales (%)	0.7	–4.9	

Multivan PHEV

DELIVERIES BY MARKET

in percent



Europe/Other Markets 84.7 %
North America 1.3 %
South America 9.2 %
Asia-Pacific 4.9 %

FURTHER INFORMATION www.volkswagen-commercial-vehicles.com

Audi

The Audi brand aspires to spearhead the Group both technically and technologically. With the Q4 e-tron and e-tron GT series, Audi advanced its electrification campaign in the reporting year.

BUSINESS DEVELOPMENT

“Vorsprung” is Audi’s global brand promise, and one which means the brand with the four rings is consistently focusing on the premium mobility of the future: connected, sustainable, electric, and autonomous. In developing innovative technologies, Audi plays a leading role within the Group, not least with the Premium Platform Electric (PPE) for all-electric premium vehicles. Audi continued to forge ahead with its electrification campaign in the reporting year and led the way with the presentation of the e-tron GT. The four-door coupé, which also comes in an RS model, reinterprets the traditional Gran Turismo concept. The Q4 e-tron and Q4 Sportback e-tron are playing a pivotal role in the electrification strategy as Audi’s first purely electric vehicles in the compact segment. Beneath the expressively designed bodywork, both SUVs offer a large interior, excellent everyday practicality and strong charging and driving performance. Depending on the powertrain chosen, they offer a range of over 500 km. The optional augmented reality head-up display brings a ground-breaking operating innovation into the cockpit. In 2021, Audi also presented impressive concept cars: with the A6 e-tron concept showcar, Audi revealed what an electric car could look like when based on the Premium Platform Electric (PPE) architecture. The concept vehicles Audi skysphere and Audi grandsphere give an insight into how the Audi brand plans to shape the future of the premium segment, particularly with new interior designs and a holistic digital ecosystem.

In a difficult market environment, the Audi brand delivered a total of 1.7 (1.7) million vehicles to customers in 2021. Increases were recorded in the United Kingdom (+9.4%), Italy (+9.9%), France (+10.2%) and the United States (+5.0%).

The Audi brand’s unit sales in the reporting year stood at 1.0 (1.0) million vehicles. The Chinese joint venture FAW-Volkswagen sold a further 644 (656) thousand locally produced Audi vehicles. The Q3, Q5, Q7, Q8 and A5 series were in especially strong demand, and the new Q4 e-tron was also very popular. Unit sales at Automobili Lamborghini S.p.A. amounted to 8,315 (7,460) vehicles.

In 2021, Audi produced 1.6 (1.7) million units worldwide. Lamborghini manufactured 8,303 (7,250) vehicles.

SALES REVENUE AND EARNINGS

Sales revenue by the Audi brand in fiscal year 2021 amounted to €53.1 (50.0) billion. The operating result before special items more than doubled to €5.5 (2.7) billion. This was due to positive effects from margins, the remeasurement of commodities, exchange rates effects and fixed-cost discipline. The operating return on sales before special items climbed to 10.5 (5.5)%. The diesel issue resulted in low negative special items (previous year: €–0.2 billion). The financial key performance indicators for the Lamborghini and Ducati brands are included in the financial figures for the Audi brand.

€5.5 billion

Operating result

PRODUCTION

Units	2021	2020
Audi		
Q5	279,712	275,888
Q3	250,852	219,662
A6	227,237	271,679
A4	199,628	243,566
A3	164,299	206,482
Q2	103,046	124,346
A5	64,012	56,786
A1	60,158	62,099
Q7	56,600	65,574
e-tron, e-tron GT	54,564	43,157
Q8	35,406	37,845
Q4 e-tron	27,519	–
A8	22,285	20,591
A7	16,533	18,083
TT	8,489	8,646
R8	1,679	1,517
	1,572,019	**1,655,921**
Lamborghini		
Urus	5,240	4,364
Huracán Coupé	1,753	1,258
Huracán Spyder	682	752
Aventador Roadster	410	595
Aventador Coupé	218	281
	8,303	**7,250**
Audi brand	**1,580,322**	**1,663,171**
Ducati, motorcycles	59,214	44,827

AUDI BRAND

	2021	2020	%
Deliveries (thousand units)	1,689	1,700	–0.7
Audi	1,681	1,693	–0.7
Lamborghini	8	7	+13.1
Vehicle sales	1,009	1,017	–0.7
Production	1,580	1,663	–5.0
Sales revenue (€ million)	53,068	49,973	+6.2
Operating result before special items	5,546	2,739	x
Operating return on sales (%)	10.5	5.5	

Q4 e-tron

DELIVERIES BY MARKET

in percent

FURTHER INFORMATION www.audi.com

BENTLEY

Bentley celebrated 70 years of Bentley Design in 2021. The brand continued its electrification with the Flying Spur Hybrid. The new generation of the GT Speed was launched in the Continental model range.

BUSINESS DEVELOPMENT

The Bentley brand is defined by exclusivity, elegance and power. The British brand had reason to celebrate in the reporting year, when Bentley Design turned 70. The design department in Crewe has been giving the brand its unmistakable DNA since 1951, creating successful models and true icons. The next chapter for Bentley Design will be the first purely battery electric model, another unique product in the making. In fiscal year 2021, Bentley took a further step on its way to becoming an end-to-end net-carbon-neutral company, adding the Flying Spur to its range of hybrid models on its journey to electrification. The saloon's new drivetrain delivers the customary luxury and familiar performance of a Flying Spur. A V6 petrol engine and state-of-the-art electric motor combine to generate a system power output of 400 kW (544 PS). The Flying Spur Hybrid can cover more than 40 km in fully electric mode, and has a total range of over 700 km. The driver receives additional information on the hybrid drive via the head-up display, the infotainment screen and the instrument cluster. Bentley also presented the new generation of the GT Speed and GT Speed Convertible in its Continental range in 2021. The GT Speed is the most dynamic vehicle in Bentley's 101-year history and is also the brand's most performance-oriented interpretation of a luxury grand tourer. It is fitted with a 485 kW (659 PS) 6.0-liter W12 TSI engine, enabling a sprint from 0 to 100 km/h in 3.6 seconds and a top speed of 335 km/h. Spearheading the Bentley brand, the two models offer an impressive exterior and a luxurious interior with high-quality materials.

Deliveries by the Bentley brand increased by 30.8% in 2021 to 14,659 vehicles, a new record figure. Sales experienced particularly strong growth in the USA (+36.9%) and China (+40.0%).

Bentley sold 14,594 (11,296) vehicles worldwide in fiscal year 2021; the Continental GT Coupé and Bentayga were particularly popular with customers.

The Bentley brand produced 14,788 vehicles in the reporting period, 38.3% more than in the previous year.

SALES REVENUE AND EARNINGS

In 2021, Bentley's sales revenue increased by 38.9% year-on-year to €2.8 billion. The operating result improved to €389 (20) million. The increase compared with the prior-year figure, which had been impacted by one-off expenses for restructuring measures, was largely attributable to higher volumes and improved pricing. The operating return on sales increased to 13.7 (1.0)%.

70 years

Bentley Design

PRODUCTION

Units	2021	2020
Bentayga	5,838	3,946
Flying Spur	3,947	3,381
Continental GT Coupé	3,031	1,995
Continental GT Convertible	1,972	1,244
Mulsanne	–	127
	14,788	**10,693**

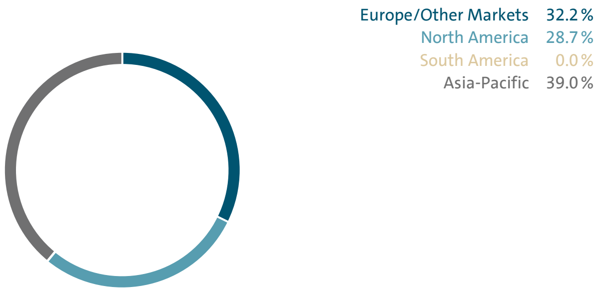
BENTLEY BRAND

	2021	2020	%
Deliveries (units)	14,659	11,206	+30.8
Vehicle sales	14,594	11,296	+29.2
Production	14,788	10,693	+38.3
Sales revenue (€ million)	2,845	2,049	+38.9
Operating result	389	20	x
Operating return on sales (%)	13.7	1.0	

Flying Spur

DELIVERIES BY MARKET

in percent



FURTHER INFORMATION www.bentleymotors.com

Porsche added the Cross Turismo to its all-electric Taycan model range in 2021. The new generation of the Macan arrived on the market with enhanced performance, modified design and a new control interface. Sales revenue and earnings increased.

BUSINESS DEVELOPMENT

Exclusivity and social acceptance, pioneering spirit and tradition, performance and sustainability, design and functionality – these are the brand values of the sports car manufacturer Porsche. Porsche continued on its path toward sustainable mobility in fiscal year 2021 and presented another derivative in the all-electric sports car segment: the Taycan Cross Turismo. The high-tech chassis with all-wheel drive and adaptive air suspension also ensures uncompromising dynamics when driving offroad. It has a range of up to 456 km. The 560 kW (761 PS) of power generated by the overboost function on the top-of-the-range model, the Taycan Turbo S Cross Turismo, underscores the all-rounder's uncompromising dynamics on and offroad. The Taycan Turbo S Cross Turismo sprints from 0 to 100 km/h in under 2.9 seconds. Porsche also launched its new Macan with enhanced performance, modified design and a new control interface. The popular compact SUV's visuals have been further sharpened with a series of targeted changes. The chassis has also been optimized further, which means that the Macan now responds even more sensitively and directly to the driving situation and road conditions. The new Porsche Macan offers a significantly enhanced interior with a modern and elegantly designed center console, touch surfaces instead of tactile buttons and many online functions as standard. These can be controlled via the 10.9-inch full HD touch display or by using voice commands. The development center in Weissach celebrated its 50th anniversary in the reporting year. From the first drawing to the finished prototype, Weissach is where vehicles are developed, tested and readied for series production. Since it opened 50 years ago, the center has stood for innovative vehicle solutions, intelligent development work and shaping the mobility of today and tomorrow.

In the reporting period, Porsche delivered 302 thousand sports cars to customers, an increase of 10.9% versus the previous year. In China, which remained the largest single market for Porsche, sales were up by 7.5%. In the USA, an increase of 22.2% was recorded.

Porsche's unit sales amounted to 297 thousand vehicles in the reporting year. This was 12.1% more than in the previous year. Demand was high for the 911 and the Taycan; the Macan and Panamera models were also popular with customers.

Porsche produced a total of 283 thousand vehicles in 2021, 7.6% more than in fiscal year 2020.

SALES REVENUE AND EARNINGS

Porsche Automotive generated sales revenue of €30.3 (26.1) billion in fiscal year 2021. At €5.0 billion, the operating result before special items was clearly better than in the previous year (+24.5%). Positive volume and mix effects more than offset the unfavorable exchange rate trends, increased product costs due to higher commodity prices and a rise in fixed costs attributable to strategy and growth. The operating return on sales before special items improved to 16.5 (15.4)%. The diesel issue gave rise to low positive special items.

24.5%

Increase in earnings

PRODUCTION

Units	2021	2020
Cayenne	78,850	82,137
Macan	76,506	78,490
911 Coupé/Cabriolet	38,347	28,672
Taycan	37,720	29,450
Panamera	33,233	21,832
718 Boxster/Cayman	18,472	22,655
	283,128	**263,236**

PORSCHE AUTOMOTIVE[1]

	2021	2020	%
Deliveries (thousand units)	302	272	+10.9
Vehicle sales	297	265	+12.1
Production	283	263	+7.6
Sales revenue (€ million)	30,289	26,086	+16.1
Operating result before special items	5,006	4,021	+24.5
Operating return on sales (%)	16.5	15.4	

1 Porsche (Automotive and Financial Services): sales revenue €33,138 (28,695) million, operating profit before special items €5,286 (4,176) million.

Macan

DELIVERIES BY MARKET

in percent

FURTHER INFORMATION www.porsche.com

In 2021, the TRATON GROUP achieved considerable milestones on its way to becoming a global champion. The merger with Navistar has opened access to the important North American market.

BUSINESS DEVELOPMENT

Since July 1, 2021, the US commercial vehicle manufacturer Navistar has been a TRATON GROUP brand. With its MAN, Scania, Navistar, Volkswagen Caminhões e Ônibus and RIO brands, TRATON aims to become a global champion of the commercial vehicle industry and drive the transformation of the logistics sector.

Climate change, the growing importance of sustainability, decarbonization and digitalization are presenting TRATON with new challenges. However, they also offer new opportunities. The new "TRATON Way Forward" strategy, presented for the first time at the TRATON SE virtual Annual General Meeting in 2021, focuses on three themes: responsible company, value creation and TRATON Accelerated!

For the TRATON GROUP, the future of transport is electric. To allow it to assume a leading role in e-mobility, TRATON is putting a total of €2.6 billion into research and development from 2021 to 2026, while scaling back investment in conventional drive systems. The success of e-mobility will depend on reliable infrastructure. With the planned establishment, agreed in 2021, of a joint venture between the TRATON GROUP, Daimler Truck and the Volvo Group, TRATON is making a contribution to battery-electric transport. The joint venture will create a high-performance charging infrastructure for trucks across Europe.

Since November 2021, the TRATON GROUP has participated in the UN Global Compact, the world's largest and most important initiative for sustainable and responsible corporate governance. Environmentally conscious business practices and respect for human rights are essential to making globalization socially and economically beneficial. The TRATON GROUP has committed to this as a member of the UN Global Compact.

In 2021, with the full takeover of the US commercial vehicle manufacturer Navistar, TRATON took an important step in opening up new sources of revenue and new markets. TRATON is also increasing its focus on Asia: Scania is set to be the first Western truck manufacturer with its own production in China; an important step for the TRATON GROUP.

After the successful squeeze-out of the noncontrolling interest shareholders of MAN SE, who received an appropriate cash settlement, MAN SE was merged into TRATON SE and delisted. As a result of the merger, particularly MAN Truck & Bus SE and Scania AB have become wholly owned direct subsidiaries of TRATON SE, enabling TRATON to create a more efficient overall structure for itself.

Focusing on logistics and digitalization, TRATON plans to establish new business models as well as partnerships that add value to the Group. The reporting year saw the start of test runs for autonomous driving in Sweden: these involve a self-driving vehicle operating along a selected stretch of highway at Level 4 (high automation) of the total five levels of automation and therefore almost autonomously. However, a driver remains on board for safety reasons.

€2.6 billion

For e-mobility from 2021 to 2026

PRODUCTION

Units	2021	2020
Scania	**92,718**	**72,536**
Trucks	89,528	67,106
Buses	3,190	5,430
MAN	**90,286**	**81,352**
Trucks	64,883	57,378
Buses	4,240	5,634
Light Commercial Vehicles	21,163	18,340
Navistar	**28,669**	**–**
Trucks	23,267	–
Buses	5,402	–
Volkswagen Caminhões e Ônibus	**57,095**	**37,478**
Trucks	52,690	31,813
Buses	4,405	5,665
TRATON	**268,768**	**191,366**

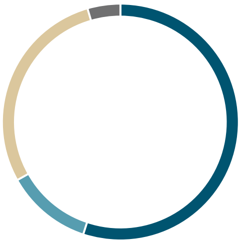
DELIVERIES

Units	2021	2020
Trucks	230,151	156,378
Buses	18,857	16,174
Light Commercial Vehicles	22,202	17,635
	271,210	**190,187**

Strong brands

DELIVERIES BY MARKET

in percent



FURTHER INFORMATION www.traton.com

Volkswagen Group China

Despite the challenges due to the Covid-19 pandemic and the semiconductor shortage, the Volkswagen Group defended its leading position in China in 2021 and further accelerated the shift to e-mobility.

BUSINESS DEVELOPMENT

The challenges of the Covid-19 pandemic and the shortage of semiconductors led to a fall in deliveries in the Volkswagen Group's largest single market, despite high customer demand and full order books. Together with the Chinese joint ventures, Volkswagen Group China delivered 3.3 million vehicles (including imports) in the Chinese market in 2021 (–14.1%). While the volume brands were appreciably affected by the shortage of semiconductors, Porsche (+7.5%), Bentley (+40.0%) and Lamborghini (+54.8%) achieved new sales records. Audi sold 701 thousand vehicles on the Chinese market, with imported models up 53.9%. The Volkswagen Passenger Cars brand, including JETTA, delivered 2.4 million vehicles and, with a market share of 11.7%, remained the number one with Chinese customers despite the challenging environment. The Volkswagen Group maintained its market leadership in China with a market share of 16%.

The fully electric vehicle (BEV) segment was the fastest growing segment in China in 2021. Despite early challenges, the Group's electrification strategy in China gained further momentum with the introduction of ten new NEV models, including seven BEVs. At 92.7 thousand vehicles, the number of BEVs delivered was more than four times the figure for 2020. This was primarily due to the new ID. models ID.3, ID.4 X and ID.4 CROZZ and to the ID.6 X and ID.6 CROZZ developed specially for the Chinese market. Customer communication was improved specifically for the ID. family and an agency-based sales model introduced along with a fully digitalized sales process, which is being very well received by Chinese customers.

In fiscal year 2021, Volkswagen laid the ground for continued future success in China: Volkswagen Anhui, the first majority-owned joint venture in China, will be the Group's new e-mobility hub and our third MEB plant in China after Foshan and Anting. Another strategic step in 2021 was the establishment of VW Anhui Components Company, the first battery system plant to be owned by the Group in China.

In September 2021, the first premium vehicle from SAIC Audi rolled off the production line: the A7 L. This opened a new chapter in China for the brand with the four rings and further strengthened the proven, almost four-decades-old partnership between Volkswagen Group China and SAIC Motor. With SAIC VOLKSWAGEN and FAW-Volkswagen, Audi will further expand its leading role in China.

For the tech-savvy Chinese market, CARIAD has set out an ambitious growth plan for software and connectivity in China. A strategic road map for business in China between now and 2030 has also been defined, concentrating on innovation and strong local research and development. In future, the aim is to be able to more quickly offer products and services specially developed for Chinese customers and their needs. The focus will be on technology for connectivity and automated driving.

92.7 thousand

BEVs delivered in China

Thousand units	2021	2020	%
Deliveries	3,305	3,849	−14.1
Vehicle sales[1]	3,042	3,577	−14.9
Production	2,949	3,575	−17.5

1 Produced locally.

EARNINGS

€ million	2021	2020
Operating result (100%)	8,740	9,744
Operating result (proportionate)	3,026	3,602

Our joint ventures produced a total of 2.9 (3.6) million vehicles in fiscal year 2021. The joint ventures produce a mixture of established Group models and those specially modified for Chinese customers (e.g. with extended wheelbases), as well as vehicles developed exclusively for the Chinese market (such as the Volkswagen Lamando, Teramont, ID.6 X, or ID.6 CROZZ).

The proportionate operating result of the joint ventures in the reporting year stood at €3.0 (3.6) billion. The negative impacts of pandemic-related lower unit sales and more intense market competition were offset by improvements in the mix and cost optimization.

The figures of the Chinese joint venture companies are not included in the operating profit of the Group as they are accounted for using the equity method. Their profits are included solely in the Group's financial result on a proportionate basis.

ID. family

LOCAL PRODUCTION

Units	2021	2020
Volkswagen Passenger Cars	2,288,021	2,751,717
Audi	606,509	671,659
ŠKODA	54,401	151,245
Total	**2,948,931**	**3,574,621**

VOLKSWAGEN FINANCIAL SERVICES

THE KEY TO MOBILITY

Volkswagen Financial Services continued its robust business performance in a difficult 2021. It expanded its attractive range of services and mobility services.

STRUCTURE OF VOLKSWAGEN FINANCIAL SERVICES

Volkswagen Financial Services comprises dealer and customer financing, leasing, direct banking and insurance activities, fleet management and mobility services in 47 countries. The key companies are Volkswagen Financial Services AG and its affiliated companies such as Volkswagen Leasing GmbH, as well as Volkswagen Bank GmbH, Porsche Financial Services and the financial services companies in the United States and Canada, the only exceptions being the financial services business of the Scania and Navistar brand and of Porsche Holding Salzburg.

BUSINESS DEVELOPMENT

Volkswagen Financial Services has offered its customers a car subscription (AutoAbo) since 2020 and further expanded this mobility service in the reporting year. Customers can book various classes of vehicles and conclude a contract for a minimum of three months. Thereafter, this contract can be terminated on a monthly basis. Subscribers pay only for the use of the vehicle and for fuel. All other relevant costs such as registration, servicing, insurance and taxes are covered by the monthly mobility rate. In the dynamic market for mobility products, the financial service provider is responding to the private customer's desire for a high degree of flexibility and comprehensive cost control with its AutoAbo car subscription service. The subscription service was expanded in the reporting year to include the ID.3. Volkswagen Financial Services is thus helping the Group to systematically implement its e-mobility strategy.

In 2021, Volkswagen Financial Services entered into the leasing and financing of bicycles. Volkswagen Financial Services has gained important partners through various equity investments and a sales cooperation with Bike Mobility Services GmbH. This enables customers throughout Germany to select the bicycle of their choice at a bike shop, sign the contract there and take the cycle with them. As well as leasing, customers can also obtain a financing solution through the FINANCE A BIKE brand.

Already established in Germany, the United Kingdom and Spain, the online used vehicle platform heycar was rolled out in France during fiscal year 2021. With the Renault Group and RCI Bank and Services, the Berlin-based heycar Group has another strategic partner and a strong investor at its side along with Volkswagen Financial Services, Volkswagen AG, Daimler Mobility AG and Allianz SE. This will allow heycar to gather further momentum in terms of expanding across Europe and growing its existing offering.

In 2021, Volkswagen Financial Services joined the Development and Climate Alliance Foundation, which was initiated in 2018 by the German Federal Ministry for Economic Cooperation and Development. Aimed primarily at the private sector, the foundation's objective is to create a non-governmental platform for climate protection efforts. Its supporters avoid and reduce greenhouse gas emissions or offset them through high-quality projects. Contributions are voluntary and go beyond existing legal obligations for reducing CO_2.

€5.7 billion

Operating result

The main refinancing sources for Volkswagen Financial Services are money market and capital market instruments, asset-backed securities (ABS) transactions, customer deposits from the direct banking business and bank credit lines.

In 2021, Volkswagen Financial Services AG issued three bonds with different terms and a total volume of €2.5 billion. Volkswagen Leasing GmbH placed a total of six bonds with a total volume of €5.5 billion. Risk premiums in fiscal year 2021 were back at, or in some cases even below, pre-crisis levels.

Other bond transactions were conducted in currencies such as pounds sterling, Swedish kronor and Norwegian kroner. In addition to this, private placements were issued in various currencies.

Volkswagen Bank did not enter into any transactions with secured or unsecured bonds in the reporting period.

In fiscal year 2021, Volkswagen Leasing GmbH placed three ABS transactions secured by lease receivables with a volume of €2.75 billion. The issuances met the quality criteria of the STS Securitization Regulation for particularly high-value securitizations and were oversubscribed several times.

Outside Germany, Volkswagen Financial Services issued a total of six ABS transactions in the United States, China, Japan, Australia and Brazil.

ID.3 in AutoAbo

The number of new financing, leasing, service and insurance contracts from Volkswagen Financial Services signed in fiscal year 2021 fell by 1.1% year-on-year to 7.8 million. With 22.0 (21.9) million contracts being closed as of December 31, 2021, the total number of contracts was higher than in the prior year. The number of contracts in the Customer Financing/Leasing area fell by 3.6% to 10.9 million. The Service/Insurance area accounted for 11.1 million contracts, 5.0% more than in the previous year. With credit eligibility criteria remaining unchanged, the penetration rate, expressed as the ratio of financed or leased vehicles to relevant Group delivery volumes – including the Chinese joint ventures – was at 35.8 (35.2)%.

As of the end of the reporting period, Volkswagen Bank GmbH managed 1.4 (1.4) million deposit accounts. Volkswagen Financial Services employed 14,681 people worldwide, including 7,385 in Germany, as of year-end 2021.

SALES REVENUE AND EARNINGS

Sales revenue at Volkswagen Financial Services amounted to €41.7 billion in the reporting year. This was 7.8% more than in the previous year. The operating result more than doubled to €5.7 (2.8) billion. The increase was due primarily to the high demand for used vehicles and considerably lower risk costs for credit risks and residual value risks compared with the previous year. The cost-cutting programs also paid off.

VOLKSWAGEN FINANCIAL SERVICES

		2021	2020	%
Number of contracts	thousands	22,033	21,907	+0.6
Customer financing		6,151	6,635	–7.3
Leasing		4,770	4,692	+1.7
Service/Insurance		11,111	10,580	+5.0
Lease assets	€ million	57,276	49,653	+15.4
Receivables from	€ million			
Customer financing		71,305	69,380	+2.8
Dealer financing		14,135	18,448	–23.4
Leasing agreements		46,409	45,379	+2.3
Direct banking deposits	€ million	25,400	27,734	–8.4
Total assets	€ million	235,620	225,608	+4.4
Equity	€ million	33,381	29,406	+13.5
Liabilities[1]	€ million	192,407	187,545	+2.6
Equity ratio	%	14.2	13.0	+8.7
Return on equity before tax[2]	%	17.9	8.9	x
Leverage[3]		5.8	6.4	–9.6
Operating result	€ million	5,672	2,803	x
Earnings before tax	€ million	5,628	2,577	x
Employees at Dec. 31		14,681	14,560	+0.8

1 Excluding provisions and deferred tax liabilities.
2 Earnings before tax as a percentage of average equity (continuing operations).
3 Liabilities as a percentage of equity.

ADDITIONAL INFORMATION
www.vwfsag.com

3

CORPORATE GOVERNANCE

Group Corporate Governance Declaration

The following chapter contains the content of the Group Corporate Governance Declaration required by sections 289f and 315d of the HGB and the recommendations and principles of the German Corporate Governance Code.

THE GERMAN CORPORATE GOVERNANCE CODE – A BLUEPRINT FOR SUCCESSFUL CORPORATE GOVERNANCE

Corporate governance provides the regulatory framework for corporate management and supervision. This includes a company's organization and values, and the principles and guidelines for its business policy. The German Corporate Governance Code (the Code) contains principles, recommendations and suggestions for corporate management and supervision. Its principles, recommendations and suggestions were prepared by a dedicated government commission on the basis of the material provisions and nationally and internationally accepted standards of sound, responsible corporate governance. In the interests of best practice, the government commission regularly reviews the Code's relevance in light of current developments and updates it as necessary. The Board of Management and the Supervisory Board of Volkswagen AG base their work on the principles, recommendations and suggestions of the Code. We consider good corporate governance to be a key prerequisite for achieving a lasting increase in the Company's value. It helps strengthen the trust of our shareholders, customers, employees, business partners and investors in our work and enables us to meet the steadily increasing demand for information from national and international interest groups.

DECLARATIONS OF CONFORMITY

(valid as of the date of the declaration)

The Board of Management and the Supervisory Board of Volkswagen AG issued the annual declaration of conformity with the Code as required by section 161 of the *Aktiengesetz* (AktG – German Stock Corporation Act) on December 9, 2021 with the following wording:

"The Board of Management and the Supervisory Board declare the following:

The recommendations of the Government Commission of the German Corporate Governance Code in the version dated 16 December 2019 (the Code) that was published by the German Ministry of Justice in the official section of the Federal Gazette (Bundesanzeiger) on 20 March 2020 were complied with in the period from the last Declaration of Conformity dated 13 November 2020 and will continue to be complied with, with the exception of the recommendations and reasons hereinafter and periods stated.

- a) Recommendation B.3 (Duration of first-time appointments to the Board of Management)
  As hitherto, the duration of first-time appointments to the Board of Management will be determined by the Supervisory Board in such a way as is appropriate to the particular case and focused on the good of the company.
- b) Recommendation C.5 (Mandate ceiling regarding Board of Management mandate)
  The Chair of the Supervisory Board is also Chair of the Supervisory Boards of two listed companies of the VOLKSWAGEN Group, namely VOLKSWAGEN AG and TRATON SE, as well as being on the Supervisory Board of Bertelsmann SE & Co. KGaA. He is also Chair of the Board of Management of Porsche Automobil Holding SE. Porsche Automobil Holding SE is not part of the same group as VOLKSWAGEN AG and TRATON SE within the meaning of German stock corporation law. We are, however, confident that the Chair of the Supervisory Board of VOLKSWAGEN AG has sufficient time at his disposal to fulfil the duties related to his mandate.
- c) Recommendation C.10 sentence 2 (Independence of the Chair of the Audit Committee)
  It is unclear from the wording of this recommendation whether the Chair of the Audit Committee is independent from the controlling shareholder within the meaning of this recommendation. Such independence could be considered lacking in view of the fact that the Chair of the Audit Committee, in addition to other members of the Porsche and Piëch families, who are also related to each other, has an indirect interest in Porsche Automobil Holding SE. While it is our opinion that these relationships do not con-

stitute a conflict of interest nor do they interfere with his duties as the Chair of the Audit Committee, purely as a precautionary measure, the Board of Management and the Supervisory Board have hitherto declared a deviation. The intention is to re-examine this course of action in the near future, especially in light of the question whether, given the situation following the revision of the Code in 2020, Porsche Automobil Holding SE is the controlling shareholder of VOLKSWAGEN AG.

> d) Recommendation C.13 (Disclosure regarding election proposals)
  With regard to this recommendation, according to which certain circumstances shall be disclosed when the Supervisory Board makes election proposals to the General Meeting, the guidelines in the Code are vague and the definitions unclear. Purely as a precautionary measure, we therefore declare a deviation from the Code in this respect. Notwithstanding this, the Supervisory Board will make every effort to satisfy the requirements of the recommendation.
> e) Recommendation D.4 (Independence of the Chair of the Audit Committee)
  Regarding justification, we refer to the statements made above regarding Recommendation C.10 sentence 2. If the Chair of the Audit Committee is not independent from the controlling shareholder, according to the definition of Recommendation C.6, sentence 2, he/she is also not independent within the meaning of Recommendation D.4.

The following recommendations of the Code, which have been deviated from in the past, are and will continue to be complied with in future as of the submission of this Declaration of Conformity:

> a) Recommendation C.10 sentence 1 (Independence of the Chair of the Supervisory Board and Chairs of Committees)
  According to Recommendation C.10 sentence 1, which was introduced in March 2020, the Chair of the Supervisory Board and the Chair of the committee that addresses Management Board remuneration shall be deemed by the shareholder representatives to be independent from the company and the Management Board. According to Recommendation C.7 (2), there is indication of a lack of independence from the company and Management Board if a member of the Supervisory Board was a member of the Management Board in the two years prior to their appointment to the Supervisory Board. The Chair of the Supervisory Board, who is also the Chair of the committee that addresses Board of Management remuneration, transferred directly from the Board of Management to the Supervisory Board in October 2015. However, this transfer occurred more than six years ago. Following his initial appointment by the court, the Chair of the Supervisory Board was elected by the Annual General Meeting as a member of the Supervisory Board for the second time in July 2021 and was re-elected by the Supervisory Board as Chair. Since his transfer from the Board of Management to the Supervisory Board in October 2015, the composition of the Board of Management has also fundamentally changed. In light of this, the shareholder representatives passed a resolution that, in future, they shall regard the Chair of the Supervisory Board as independent from the company and the Board of Management within the meaning of Recommendation C.10 sentence 1.
> b) The Supervisory Board had introduced a remuneration system in 2017, which took into account all recommendations of the Code in the applicable version at the time. These recommendations have changed significantly in the reformed Code. The remuneration system from 2017 did not comply with the amended recommendations in some aspects. As such, the Supervisory Board passed a resolution on 14 December 2020 on an enhanced remuneration system which complies with all of the new recommendations in the current Code. The enhanced remuneration system came into effect on 1 January 2021 and was approved by the Annual General Meeting on 22 July 2021. The following Code recommendations, from which deviations had been declared under the former remuneration system for Board of Management members, are complied with under the enhanced remuneration system:
  (1) Recommendations G.1 and G.2 (Remuneration system and target total remuneration)
  The remuneration ceilings within the previous remuneration system were established without taking into account pension scheme expenses and fringe benefits and therefore do not represent maximum remuneration within the meaning of Recommendation G.1. The justification from the Commission on Recommendation G.1 establishes that the total remuneration is the sum of all remuneration components for the year in question, including the service cost within the meaning of IAS 19. This also applies to the maximum remuneration. Using the former remuneration system, it was not possible to deduce the relative proportion of the individual remuneration components of target total remuneration, within the meaning of the recommendation. Furthermore, contrary to Recommendation G.2, the Supervisory Board had not passed a resolution on specific target total remuneration for the individual members of the Board of Management within the meaning of Recommendation G.1.
  (2) Recommendation G.10 sentence 2 (Four-year commitment period)
  According to this recommendation, granted long-term variable remuneration components shall be accessible to members of the Board of Management only after a period of four years. The previous remuneration system provided for a Performance Share Plan with a three-year term and cash settlement at the end of this term, meaning that this remuneration component is available to the members of the Board of Management after three years.

(3) Recommendation G.11 sentence 2 (Clawback provision) Contrary to sentence 2 of this recommendation, the former remuneration system made no provision for the company to retain or reclaim variable remuneration from the members of the Board of Management."

The current declaration of conformity and previous declarations of conformity are also published on our website shown below.

Our listed indirect subsidiary TRATON SE also issued a declaration of conformity with the German Corporate Governance Code. This can be accessed at the website shown below.

The suggestions of the Code are complied with.

BOARD OF MANAGEMENT

The Volkswagen AG Board of Management has sole responsibility for managing the Company in the Company's best interests, in accordance with the Articles of Association and the rules of procedure for the Board of Management issued by the Supervisory Board.

Accordingly, responsibilities were divided among ten board-level management functions until December 31, 2021. In addition to the Chair of the Board of Management, a function which also includes the Volume brand group, the other Board functions are Purchasing, Technology, Finance, Human Resources and Truck & Bus, Integrity and Legal Affairs, Premium, Sport & Luxury, IT and China. As of December 31, 2021, the Chair of the Board of Management has also been responsible for China and the board member for Finance has also been responsible for IT. With effect from February 1, 2022, a board member is responsible for IT alone and the board-level function for China has once again been assigned to a specific member of the Board of Management as of August 1, 2022.

In December 2021, the Supervisory Board decided to increase the number of members of the Board of Management and reorganize its structure and functions in the process. A new board-level management function for Volkswagen Passenger Cars was created effective January 1, 2022. A new board-level management function was also created for Group Sales effective February 1, 2022.

Information on the composition of the Board of Management can be found in the "Members of the Board of Management" section.

DECLARATION OF CONFORMITY OF VOLKSWAGEN AG
www.volkswagenag.com/en/InvestorRelations/corporate-governance/declaration-of-conformity.html

DECLARATION OF CONFORMITY OF TRATON SE
https://ir.traton.com/websites/traton/English/5000/corporate-governance.html

Working procedures of the Board of Management

In accordance with Article 6 of the Articles of Association, Volkswagen AG's Board of Management consists of at least three people, with the precise number determined by the Supervisory Board. As of December 31, 2021, there were eight members of the Board of Management.

The Board of Management generally meets weekly. Its rules of procedure require it to meet at least twice a month. Meetings of the Board of Management are convened by the Chair of the Board of Management. The Chair is required to convene a meeting if requested by any member of the Board of Management. The Chair of the Board of Management chairs the Board of Management meetings. In matters of general or fundamental importance, the decisions are taken by the entire Board of Management. The Board of Management takes decisions only after prior debate and/or using the written circulation procedure. Resolutions of the Board of Management are adopted by a majority vote. In the event of a tie, the Chair of the Board of Management casts the deciding vote.

Each Board of Management member manages their area of responsibility independently, without prejudice to the collective responsibility of the Board of Management. All Board of Management members must inform each other of events within their remit.

The Volkswagen Group companies are managed solely by their respective managements. The management of each individual company takes into account not only the interest of its own company but also the interests of the Group, the relevant brand group and the individual brands in accordance with the framework laid down by law.

Board of Management committees

Board of Management committees exist at Group level on the following areas: products, technologies, investments, digital transformation, integrity and compliance, risk management, human resources and management issues. Alongside the responsible members of the Board of Management, the relevant central departments and the relevant functions of the divisions are represented on the committees.

Cooperation with the Supervisory Board

The Supervisory Board advises and monitors the Board of Management with regard to the management of the Company. Through the requirement for the Supervisory Board to provide consent, it is directly involved in decisions of fundamental importance to the Company. In addition, the Supervisory Board of Volkswagen AG and the Board of Management regularly discuss factors affecting the strategic orientation of the Volkswagen Group. The two bodies jointly assess, at regular intervals, the progress made in implementing the corporate strategy. The Board of Management reports to the Supervisory Board regularly, promptly and comprehensively in both written and oral form on all issues of relevance for the Company particularly with regard to strategy, planning, the development of the business, the risk situation, risk management and compliance.

The Chair of the Board of Management is responsible for dealings with the Supervisory Board. The Chair is in regular contact with the Chair of the Supervisory Board and reports to him on all matters of particular significance without delay.

The Supervisory Board has set out the Board of Management's obligations to provide information and reports in an information policy. The Board of Management must report conscientiously and faithfully to the Supervisory Board or its committees. With the exception of the immediate reports from the Chair of the Board of Management to the Chair of the Supervisory Board on matters of particular importance, the Board of Management is required to report to the Supervisory Board in writing as a rule.

For transactions of fundamental importance, the Supervisory Board must provide its consent. The documents required for decision-making purposes must be provided to the Supervisory Board members in good time in advance of the meeting.

Diversity concept and succession planning for the Board of Management

The Supervisory Board has laid down the following diversity concept for the composition of the Board of Management (section 289f(2) no. 6 HGB):

The Supervisory Board must also take diversity into account when considering who would be the best persons to appoint to the Board of Management as a body. The Supervisory Board understands diversity, as an assessment criterion, to mean in particular different yet complementary specialist profiles and professional and general experience, also in the international domain, with both genders being appropriately represented. The Supervisory Board will also take the following aspects into account in this regard, in particular:

> Members of the Board of Management should have many years of management experience.
> Members of the Board of Management should, if possible, have experience based on different training and professional backgrounds.
> The Board of Management as a whole should have technical expertise, especially knowledge of and experience in the manufacture and sale of vehicles and engines of any kind as well as other technical products, and experience in the international domain.
> The Board of Management as a whole should have many years of experience in research and development, production, sales, finance and human resources management, as well as law and compliance.
> Efforts are made to achieve a higher proportion of women than the statutory minimum.
> The Board of Management should also have a sufficient mix of ages.

The aim of the diversity concept is for the Board of Management members to embody a range of expertise and perspectives. This diversity promotes a good understanding of Volkswagen AG's organizational and business affairs. Particularly, it enables the members of the Board of Management to be open to new ideas by avoiding groupthink. In this way, it contributes to the successful management of the Company. The diversity concept no longer contains any requirements for the Supervisory Board regarding a specific proportion of women on the Board of Management, as the *Gesetz zur Ergänzung und Änderung der Regelungen für die gleichberechtigte Teilhabe von Frauen an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst* (*Führungspositionen-Gesetz II,* FüPoG II – the Second Act on Equal Participation of Women and Men in Leadership Positions in the Private and Public Sector) has eliminated the requirement to set a target for the proportion of women on the Board of Management. Volkswagen AG will instead be subject to a mandatory participation requirement in the future.

In deciding who should be appointed to a specific Board of Management position, the Supervisory Board takes into account the interests of the Company and all the circumstances of the specific case. In taking this decision and in long-term succession planning, the Supervisory Board orients itself on the diversity concept. The Supervisory Board is of the view that the diversity concept is reflected by the current composition of the Board of Management. The members of the Board of Management have many years of professional experience, particularly in an international context, and cover a broad spectrum of educational and professional backgrounds. The Board of Management collectively has excellent technical expertise and many years of collective experience in research and development, production, sales, finance and human resources management, as well as law and compliance. In addition, the Board of Management has a sufficient mix of ages that corresponds to the requirements set by the Supervisory Board; the gender balance also meets the requirements set by the Supervisory Board up to now and the future legal requirements (see "Disclosures required by the *Führungspositionen-Gesetz*").

Long-term succession planning within the meaning of Recommendation B.2 of the Code is achieved through regular discussions between the Chair of the Board of Management and the Chair of the Supervisory Board as well as regular discussions in the Executive Committee. The contract terms for existing Board of Management members are discussed, along with potential extensions and potential successors. In particular, the discussions look at what knowledge, experience and professional and personal competencies should be represented on the Board of Management with regard to the corporate strategy and current challenges, and to what extent the current composition of the Board of Management already reflects this. Long-term succession planning is based on the corporate strategy and corporate culture and takes into account the diversity concept determined by the Supervisory Board.

As a rule, members of the Board of Management should be appointed for a term of office ending no later than their 65^{th} birthday. Board of Management members may be appointed to serve beyond their 65^{th} birthday until no later than their 68^{th} birthday, provided this is agreed by a two-thirds majority of the Supervisory Board.

SUPERVISORY BOARD

The Volkswagen AG Supervisory Board performs its role through its members working together. It advises and monitors the Board of Management with regard to the management of the Company and, through the requirement for the Supervisory Board to provide consent, is directly involved in decisions of fundamental importance to the Company.

Information on the composition of the Supervisory Board and the Supervisory Board committees and their chairs as well as on the terms of office of the individual Supervisory Board members can be found in the “Members of the Supervisory Board and committees” section. Further information on the work of the Supervisory Board and the Chair of the Supervisory Board’s discussions with investors can be found in the “Report of the Supervisory Board”.

Overview

The Supervisory Board of Volkswagen AG consists of 20 members, half of whom are shareholder representatives. In accordance with Article 11(1) of the Articles of Association of Volkswagen AG, the State of Lower Saxony is entitled to appoint two of these shareholder representatives for as long as it directly or indirectly holds at least 15% of the Company’s ordinary shares. The remaining shareholder representatives on the Supervisory Board are elected by the Annual General Meeting.

The other half of the Supervisory Board consists of employee representatives elected by the employees in accordance with the *Mitbestimmungsgesetz* (MitbestG – German Codetermination Act). A total of seven of these employee representatives are Company employees elected by the workforce; the other three employee representatives are trade union representatives elected by the workforce.

The Chair of the Supervisory Board is generally a shareholder representative, and the Deputy Chair is generally an employee representative. Both are elected by the other members of the Supervisory Board.

The business of the Supervisory Board is managed by a dedicated office of the Supervisory Board Chair. The Chair of the Supervisory Board ensures the independence of the office of the Supervisory Board Chair and its staff and exercises the right to appoint and supervise staff in consultation with the responsible Board of Management members.

The Supervisory Board appoints the Board of Management members and, on the basis of the Executive Committee’s recommendations, decides on a clear and comprehensible system of remuneration for the Board of Management members. It presents this system to the Annual General Meeting for approval every time there is a material change, but at least once every four years.

Each member of the Supervisory Board of Volkswagen AG is obliged to act in the Company’s best interests. Supervisory Board members are not permitted to delegate their responsibilities to others.

Every Supervisory Board member is obliged to disclose any conflicts of interest to the Chair of the Supervisory Board without delay. In its report to the Annual General Meeting, the Supervisory Board informs the Annual General Meeting of any conflicts of interest that have arisen and how these were dealt with. Material and not merely temporary conflicts of interest on the part of a Supervisory Board member should result in a termination of the member’s mandate.

Supervisory Board members should not hold board or advisory positions at major competitors of Volkswagen AG or major competitors of a company dependent on Volkswagen AG and should not be in a personal relationship involving a major competitor.

Members of the Supervisory Board receive appropriate support from the Company upon induction as well as with respect to education and training. Education and training measures are outlined in the “Report of the Supervisory Board”.

Working procedures of the Supervisory Board

As a rule, the Supervisory Board adopts its resolutions in meetings of all its members. It must hold at least two meetings in both the first and second halves of the calendar year. The precise number of meetings and the main topics discussed are outlined in the “Report of the Supervisory Board”. Due to the pandemic, many meetings were held virtually.

The Chair of the Supervisory Board coordinates the work within the Supervisory Board. He represents the interests of the Supervisory Board externally and represents the Company to the Board of Management on behalf of the whole Supervisory Board. Within reason, the Chair of the Supervisory Board discusses Supervisory Board-specific topics with investors and, in consultation with the Board of Management, may also discuss non-Supervisory Board-specific topics. More details can be found in the “Report of the Supervisory Board”.

To underline the importance of environmental sustainability, social responsibility and good corporate governance, the Supervisory Board has appointed an ESG (environmental, social and governance) officer. This role is currently performed by Mr. Hans Dieter Pötsch.

The Supervisory Board should meet regularly also without the Board of Management. Each Supervisory Board meeting generally ends in a debate. Board of Management members are not present during this part of the meeting. The Chair of the Supervisory Board convenes and chairs the

Supervisory Board meetings. If the Chair is unable to do so, the Deputy Chair performs these tasks. If the auditor is called to a meeting of the Supervisory Board or one of its committees as an expert, members of the Board of Management do not attend such a meeting if the Supervisory Board or the committee does not deem their attendance necessary.

The Supervisory Board is only quorate if at least ten members participate in passing the resolution. The Chair of the Supervisory Board or of the relevant committee decides the form of the meeting and the voting procedure for the Supervisory Board and its committees. Should the Chair so decide in individual cases, meetings may also be held using telecommunications technology, or members may participate in meetings using this technology. The Chair may also decide that members can participate in the Supervisory Board's or its committees' decision making in writing, by telephone or in another, similar form. Supervisory Board resolutions require a majority of votes cast, unless legislative provisions or the Articles of Association stipulate otherwise. Decisions to establish or relocate production sites require a two-thirds majority of the Supervisory Board members. If a vote results in a tie on this item, the vote is repeated. If this vote is also tied, the Chair of the Supervisory Board casts two votes. Minutes must be taken of each meeting of the Supervisory Board and its committees. Minutes of a meeting must record the time and location of the meeting, the participants, the items on the agenda, the material content of the discussions and the resolutions adopted.

In individual cases, the Supervisory Board may decide to call upon experts and other appropriate individuals to advise on individual matters.

Supervisory Board committees

In order to discharge the duties entrusted to it, the Supervisory Board has established four committees: the Executive Committee, the Nomination Committee, the Mediation Committee established in accordance with section 27(3) of the *Mitbestimmungsgesetz* (MitbestG – German Codetermination Act) and the Audit Committee. The Executive Committee is currently comprised of four shareholder representatives and four employee representatives. The shareholder representatives on the Executive Committee make up the Nomination Committee. The remaining two committees are each composed of two shareholder representatives and two employee representatives.

Which tasks the Supervisory Board has generally transferred to the respective committees is described below. This does not rule out that the Supervisory Board will not transfer other tasks to committees in individual cases, where legally admissible.

At its meetings, the Executive Committee meticulously prepares the resolutions of the Supervisory Board, discusses the composition of the Board of Management and takes decisions on matters such as contractual issues concerning the Board of Management other than remuneration and consent to ancillary activities by members of the Board of Management. The Executive Committee supports and advises the Chair of the Supervisory Board. It works with the Chair of the Board of Management to ensure long-term succession planning for the Board of Management.

The Nomination Committee proposes suitable candidates for the Supervisory Board to recommend to the Annual General Meeting for election. Before presenting such proposals, it ensures that the candidates can commit the expected time to their role and identifies the personal and business relationships of the candidates to Volkswagen AG and its Group companies, to Volkswagen AG's corporate bodies and to shareholders who directly or indirectly hold more than 10% of the voting shares in Volkswagen AG. In its proposals to the Supervisory Board, the Nomination Committee also takes into account the requirement for the Supervisory Board to adhere, in its proposals to the Annual General Meeting, to the specific targets it has set for the composition of the Supervisory Board and to the profile of skills and expertise it has decided on for the Board as a whole; the Nomination Committee also takes into account the diversity concept for the composition of the Supervisory Board.

The Mediation Committee has the task of submitting proposals to the Supervisory Board for an appointment or revocation of appointment if there is no majority for the relevant measure on the Supervisory Board in the first vote. The majority involves at least two-thirds of all Supervisory Board members.

Among other things, the Audit Committee discusses the auditing of financial accounting, including the annual and consolidated financial statements, as well as monitoring of the accounting process, and the audit of the financial statements. It also discusses compliance and the effectiveness of the risk management system, internal control system and internal audit system. In addition, the Audit Committee particularly concerns itself with the Volkswagen Group's quarterly financial reports and half-yearly financial report.

A further committee formed by the Supervisory Board is the Special Diesel Engine Committee, which was in existence from October 2015 to December 2021. Comprised of three shareholder representatives and three employee representatives, the Special Diesel Engine Committee was responsible for supporting the investigations in connection with the manipulation of emissions figures for Volkswagen Group diesel engines and preparing Supervisory Board resolutions for necessary consequences at Supervisory Board level. To this end, the Special Diesel Engine Committee was provided with regular information by the Board of Management. The Chair of the Special Diesel Engine Committee reported regularly on the Committee's work to the Supervisory Board. The tasks of the Special Diesel Engine Committee were essentially completed by the end of December 2021: the Supervisory Board has completed its investigations into the diesel issue as far as the civil liability of the members of the boards are concerned. In light of this situation, the Supervisory Board dissolved the Special Diesel Engine Committee with effect from the end of December 31, 2021. Any measures connected with the diesel issue to be addressed in the future will be discussed directly by the full Supervisory Board and prepared by the Executive Committee.

Objectives for the composition of the Supervisory Board, profile of skills and expertise and diversity concept

In view of the Company's specific situation, its purpose, its size and the extent of its international activities, the Supervisory Board of Volkswagen AG strives to achieve a composition that takes the Company's ownership structure and the following aspects into account:

> At least three members of the Supervisory Board should be persons who embody the criterion of internationality to a particularly high degree.
> In addition, at least four of the shareholder representatives should be persons who, in line with the criteria of Recommendations C.7 to C.9 of the Code, are independent within the meaning of Recommendation C.6 of the Code.
> At least three of the seats on the Supervisory Board should be held by people who make a special contribution to the diversity of the Board.
> Proposals for election should not normally include persons who have reached the age of 75 on the date of the election.

The above criteria have been met. Numerous members of the Supervisory Board embody the criterion of internationality to a particularly high degree; various nationalities are represented on the Supervisory Board and numerous members have international professional experience. Several members of the Supervisory Board contribute to the Board's diversity to a particularly high degree, especially Dr. Hessa Sultan Al Jaber, Ms. Marianne Heiß, Ms. Bertina Murkovic and Dr. Hussain Ali Al Abdulla. The Supervisory Board comprises members of various generations. Independent Supervisory Board members within the meaning of Recommendation C.6 of the Code currently comprise at least the following: Dr. Hessa Sultan Al Jaber, Dr. Hussain Ali Al Abdulla, Mr. Bernd Althusmann and Mr. Stephan Weil.

Supervisory Board members Dr. Hans Michel Piëch, Dr. Ferdinand Oliver Porsche and Dr. Wolfgang Porsche have been members of the Supervisory Board for more than 12 years and therefore fulfill one of the indicators set out in C.7 of the Code regarding a lack of independence from the Company and its Board of Management. The same will apply to Supervisory Board member Hussain Ali Al Abdulla from April 23, 2022. However, considering all the circumstances of the case in hand, the shareholder representatives are of the opinion that the aforementioned Supervisory Board members are nevertheless independent from the Company and its Board of Management. This opinion is based in particular on the following reasons:

> Hans Michel Piëch, Ferdinand Oliver Porsche and Wolfgang Porsche, together with other family shareholders, are indirectly controlling shareholders of Porsche Automobil Holding SE, which as the largest single shareholder of Volkswagen AG holds 31.4% of the share capital and 53.3% of the voting rights. The management by the Board of Management of Volkswagen AG therefore economically affects the personal assets of Hans Michel Piëch, Ferdinand Oliver Porsche and Wolfgang Porsche.
> Hussain Ali Al Abdulla is a representative of Qatar Holding LLC, which as one of the largest single shareholders of Volkswagen AG holds 16.4% of the share capital and 17.0 % of the voting rights. The management by the Board of Management of Volkswagen AG therefore also economically affects the assets of Qatar Holding LLC.
> The composition of the Board of Management has changed fundamentally several times over the past 12 years during the tenure of Hans Michel Piëch, Ferdinand Oliver Porsche, Wolfgang Porsche and Hussain Ali Al Abdulla. The incumbent Board of Management members have been in office for a maximum of approximately seven years. There are therefore no indications that Hans Michel Piëch, Ferdinand Oliver Porsche, Wolfgang Porsche and Hussain Ali Al Abdulla would stop behaving in an impartial manner towards incumbent members of the Board of Management as a result of a long period of collaboration. There is also no other evidence of “tunnel vision” on the part of Hans Michel Piëch, Ferdinand Oliver Porsche, Wolfgang Porsche and Hussain Ali Al Abdulla.
> Hans Michel Piëch, Ferdinand Oliver Porsche, Wolfgang Porsche and Hussain Ali Al Abdulla are not financially dependent on their remuneration as members of the Supervisory Board.

Aside from their Supervisory Board appointments, Hans Michel Piëch, Ferdinand Oliver Porsche, Wolfgang Porsche and Hussain Ali Al Abdulla have no personal relationship with the Company or the Board of Management that could give rise to a material and not merely temporary conflict of interest. The Supervisory Board work of Hans Michel Piëch, Ferdinand Oliver Porsche, Wolfgang Porsche and Hussain Ali Al Abdulla in recent years has also not given rise to any conflicts of interest.

In addition, the Supervisory Board has decided on the following profile of skills and expertise for the full Board: the Supervisory Board as a whole must collectively have the knowledge, skills and professional expertise required to properly perform its supervisory function and assess and monitor the business conducted by the Company. For this, the members of the Supervisory Board must collectively be familiar with the sector in which the Company operates. The key skills and requirements of the Supervisory Board as a whole include, in particular:

- Knowledge of or experience in the manufacture and sale of all types of vehicles and engines or other technical products,
- Knowledge of the automotive industry, the business model and the market, as well as product expertise,
- Knowledge in the field of research and development, particularly of technologies with relevance for the Company,
- Experience in corporate leadership positions or in the supervisory bodies of large companies,
- Knowledge in the areas of governance, law or compliance,
- Detailed knowledge in the areas of finance, accounting, or auditing,
- Knowledge of the capital markets,
- Knowledge in the areas of controlling/risk management and the internal control system,
- Human resources expertise (particularly the search for and selection of members of the Board of Management, and the succession process) and knowledge of incentive and remuneration systems for the Board of Management,
- Detailed knowledge or experience in the areas of codetermination, employee matters and the working environment in the Company.

The Supervisory Board has also specified the following diversity concept for its composition:

- The Supervisory Board must be comprised such that its members collectively have the knowledge, skills, and professional experience needed to properly perform their duties.
- It has therefore set targets for its composition that also take into account the recommendations of the German Corporate Governance Code. The targets set by the Supervisory Board for its composition also describe the concept through which the Supervisory Board as a whole strives to achieve a diverse composition (diversity concept in accordance with section 289f(2) no. 6 of the HGB). Attention should also be generally paid to diversity when seeking qualified individuals to strengthen the specialist and managerial expertise of the Supervisory Board as a whole in line with these targets. In preparing proposals for appointments to the Supervisory Board, it should be considered in each case how the work of the Supervisory Board will benefit from a diversity of expertise and perspectives among its members, from professional profiles, professional and general experience that complement one another (including in the international domain) and from an appropriate gender balance. A wide range of experience and specialist knowledge should be represented on the Supervisory Board. In addition, the Supervisory Board should collectively have an extensive range of opinions and knowledge in order to develop a good understanding of the status quo and the longer-term opportunities and risks in connection with the Company's business activities.
- In proposing candidates to the Annual General Meeting for the election of shareholder representatives to the Supervisory Board, the Supervisory Board should take its diversity concept into account in such a way that the corresponding election of these candidates by the Annual General Meeting would contribute to the implementation of this concept. However, the Annual General Meeting is not obliged to accept the candidates nominated.
- The aim of the diversity concept is for the Supervisory Board members to embody a range of expertise and perspectives. This diversity promotes a good understanding of Volkswagen AG's organizational and business affairs. It also enables the Supervisory Board members to challenge the Board of Management's decisions constructively and to be open to new ideas by avoiding groupthink. In this way, it contributes to the effective supervision of the management.
- The Supervisory Board and Nomination Committee, in particular, are called upon to implement the profile of skills and expertise and the diversity concept within the context of their candidate proposals to the Annual General Meeting. The Supervisory Board also recommends to employee representatives and unions (which have the right to submit proposals in employee representative elections) and the State of Lower Saxony (which has a right to appoint Supervisory Board members) that the diversity concept, composition targets and profile of skills and expertise should be taken into account. The same applies to individuals entitled to make proposals should a court-appointed replacement be necessary.

The current composition of the Supervisory Board fulfills both the diversity concept and the profile of skills and expertise. The Supervisory Board collectively has outstanding knowledge of the manufacture and sale of vehicles and engines, of the automotive sector and of the technologies relevant for Volkswagen AG; the members of the Supervisory Board are therefore collectively familiar with the sector in which Volkswagen AG operates. Moreover, numerous Supervisory Board members have extensive experience in managerial and supervisory functions. All the relevant expertise in the further individual areas specified in the profile of skills and expertise is represented on the Supervisory Board. Furthermore, several Supervisory Board members, including Ms. Heiß, Ferdinand Oliver Porsche and Mr. Pötsch, have expertise in both accounting and auditing: Ms. Heiß worked as a CFO for a long time and previously for audit and tax consulting firms for several years; Ferdinand Oliver Porsche is a long-standing member and chair of audit committees and worked for an audit firm for several years; Mr. Pötsch is a long-standing member and chair of audit committees and worked for many years as CFO and previously as Head of

Controlling at BMW AG. Details on the expertise of the Supervisory Board members can be found in their individual curriculum vitae. The curriculum vitae of the members of the Supervisory Board are available online at www.volkswagenag.com/en/group/executive-bodies.html.

In their proposal to the Annual General Meeting in fiscal year 2021 for the re-election of two Supervisory Board members, the Nomination Committee and Supervisory Board took into account the diversity concept, specific composition targets and profile of skills and expertise. The composition targets, diversity concept and profile of skills and expertise were also taken into account in the court appointment of three new Supervisory Board members by the employee representatives in 2021.

Self-evaluation of the Supervisory Board

The Supervisory Board regularly evaluates every two years how effectively the Board and its committees are performing their tasks. This initially involves distributing a questionnaire to all Supervisory Board members, in which they are able to give their view of the effectiveness of the work of the Supervisory Board and its committees and suggest possible improvements. Following analysis of the questionnaires, the findings and potential improvements are usually discussed at the next regular meeting of the full Board. The most recent self-evaluation took place from late 2021 to early 2022.

DISCLOSURES REQUIRED BY THE FÜHRUNGSPOSITIONEN-GESETZ

The statutory quota of at least 30% women and at least 30% men has applied to new appointments to the Supervisory Board of Volkswagen AG since January 1, 2016 as required by the *Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst (Führungspositionen-Gesetz,* FüPoG – German Act on the Equal Participation of Women and Men in Leadership Positions in the Private and Public Sectors). Shareholder and employee representatives have resolved that each side will meet this quota separately. The shareholder representatives have met the quota of at least 30% women and at least 30% men since the 56th Annual General Meeting on June 22, 2016. The employee representatives have met the quota since the end of the 57th Annual General Meeting on May 10, 2017. Both the shareholder and the employee representatives fulfilled the quota on December 31, 2021.

In accordance with the proportion of women on the Board of Management as defined by the *Führungspositionen-Gesetz*, the Supervisory Board had set a target of 11.1% for the period after December 31, 2016. The deadline set at the time for achievement of this target expired on December 31, 2021. The proportion of female members on the Board of Management at Volkswagen AG as of December 31, 2021 was 12.5%, thus meeting the target quota.

In line with the *Führungspositionen-Gesetz II* Volkswagen AG will in future be subject to a mandatory participation requirement under which the Board of Management must have at least one woman and at least one man. The participation requirement will apply to the appointment of one or more members of the Board of Management from August 1, 2022. Volkswagen AG already complied with this participation requirement in fiscal year 2021. The requirement to set a target for the proportion of women in the Board of Management already ended as of August 12, 2021. Ms. Werner's appointment ended on January 31, 2022. The Supervisory Board appointed two women as new members of the Board of Management effective February 1, 2022: Ms. Stars and Ms. Wortmann.

For the proportion of women in management in accordance with the *Führungspositionen-Gesetz*, Volkswagen AG had set itself the target of 13.0% women in the first level of management and 16.9% women in the second level of management for the period up to the end of 2021. As of December 31, 2021, the proportion of women in the active workforce at the first level of management was 13.5 (10.9)% and at the second level of management it was 18.3 (16.7)%. For the new period up to the end of 2025, Volkswagen AG has set itself the target of 16.5% women in the first level of management and 23.4% women in the second level of management, each as a proportion of the active workforce.

REMUNERATION REPORT

Extensive explanations of the remuneration system and the individual remuneration of the members of the Board of Management and Supervisory Board can be found in the Remuneration Report for fiscal year 2021, which forms part of the 2021 annual report, and on the website www.volkswagenag.com/en/InvestorRelations/corporate-governance/Remuneration.html. Further information on remuneration can be found in the notes to Volkswagen's 2021 consolidated financial statements and in the notes to the 2021 annual financial statements of Volkswagen AG.

CORPORATE PRACTICES APPLIED IN ADDITION TO STATUTORY REQUIREMENTS

Compliance and risk management

To ensure the Volkswagen Group's lasting success, we use forward-looking risk management and a uniform Group-wide framework based on the compliance management system. This includes:

> Compliance. Adherence to statutory provisions, internal company policies, ethical principles and our own values in order to protect the Company and its brands.
> Whistleblower system. The Volkswagen whistleblower system is the central point of contact for reporting potential cases of serious rule-breaking in the Volkswagen Group.

It focuses on investigating serious infringements that could cause major damage to the Company's reputation or financial interests or that involve major breaches of the Volkswagen Group's ethical principles.

> Business and human rights. Volkswagen fully recognizes its corporate responsibility for human rights. We essentially orient ourselves on the UN (United Nations) Guiding Principles on Business and Human Rights that are available on the website of the UN (United Nations Global Compact), the content of which particularly relates to the Universal Declaration of Human Rights and the core conventions of the ILO (International Labor Organization) that can be accessed on the website of the ILO.
> Risk management and internal control system. A comprehensive risk management and internal control system (RMS/ICS) helps the Volkswagen Group deal with risks in a responsible manner. The organizational design of the Volkswagen Group's RMS/ICS is based on the internationally recognized COSO framework for enterprise risk management (COSO: Committee of Sponsoring Organizations of the Treadway Commission) and can be accessed on the COSO website. Uniform Group principles are used as the basis for managing risks in a transparent and appropriate manner.

Voluntary commitments and principles

The Volkswagen Group has committed itself to sustainable, transparent and responsible corporate governance.

We coordinate our sustainability activities across the entire Group and have put in place a forward-looking system of risk management and a clear framework for dealing with environmental issues in a future-oriented manner, for employee responsibility and for social commitment across our brands and in the regions in which we operate.

Voluntary commitments and principles that apply across the Group are the basis and backbone of our sustainability management. These documents are publicly accessible on the Volkswagen Group's website in the section entitled "Sustainability."

Code of Collaboration and Together4Integrity

The Code of Collaboration, along with our integrity and compliance program Together4Integrity (T4I), is a central pillar of the new Group strategy NEW AUTO. This Code describes how collaboration is to take place within the Group and between individuals in their day-to-day work. Its core values are encapsulated in the terms "genuine", "straightforward", "open-minded", "as equals" and "united". T4I brings together all activities relating to integrity, culture, compliance, risk management and human resources, creating a common path toward a new corporate culture.

MEMBERS OF THE BOARD OF MANAGEMENT

(Appointments: as of December 31, 2021 or the leaving date from the Board of Management of Volkswagen AG or the start date after December 31, 2021)

DR.-ING. HERBERT DIESS (*1958)

Chair,
Volume brand group,
China
July 1, 2015[1], appointed until 2025
Nationality: Austrian

Appointments:

- ○ AUDI AG, Ingolstadt (Chair)[3]
- ⊙ FAW-Volkswagen Automotive Co., Ltd, Changchun[3]
- ⊙ Porsche Austria GmbH, Salzburg (Deputy Chair)[3]
- ⊙ Porsche Holding Gesellschaft m.b.H, Salzburg (Deputy Chair)[3]
- ⊙ Porsche Retail GmbH, Salzburg[3]
- ⊙ SAIC Volkswagen Automotive Co., Ltd., Shanghai (Deputy Chair)[3]
- ⊙ Volkswagen (China) Investment Co., Ltd., Beijing (Chair)[3]

MURAT AKSEL (*1972)

Purchasing
January 1, 2021[1], appointed until 2023
Nationality: German

Appointments:

- ⊙ ŠKODA Auto a.s., Mladá Boleslav (Chair)[3]

DR. ARNO ANTLITZ (*1970)

Finance and IT (since April 1, 2021,
IT until February 1, 2022),
April 1, 2021[1], appointed until 2024
Nationality: German

Appointments:

- ○ Dr. Ing. h.c. F. Porsche AG, Stuttgart[3]
- ○ CARIAD SE, Wolfsburg[3]
- ○ Volkswagen Financial Services AG, Braunschweig (Chair)[3]
- ⊙ Shanghai Volkswagen Powertrain Co., Ltd., Shanghai[3]
- ⊙ Volkswagen (China) Investment Co., Ltd., Beijing[3]
- ⊙ Volkswagen Group of America, Inc., Herndon (Chair)[3]

OLIVER BLUME (*1968)

Sport & Luxury brand group,
Chair of the Executive Board of
Dr. Ing. h.c. F. Porsche AG
April 13, 2018[1], appointed until 2023
Nationality: German

Appointments:

- ○ CARIAD SE, Wolfsburg[3]
- ⊙ Bugatti-Rimac d.o.o., Sveta Nedelja[3]
- ⊙ Porsche Cars Great Britain Ltd., Reading[3]
- ⊙ Porsche Cars North America Inc., Atlanta[3]
- ⊙ Porsche Consulting GmbH, Bietigheim-Bissingen[3]
- ⊙ Porsche Deutschland GmbH, Bietigheim-Bissingen[3]
- ⊙ Porsche Digital GmbH, Ludwigsburg[3]
- ⊙ Porsche Enterprises Inc., Atlanta[3]
- ⊙ Porsche Greater China, consisting of:
  (China) Motors Limited, Shanghai [3]
  Porsche Hong Kong Limited, Hong Kong[3]
- ⊙ SEAT, S.A., Martorell[3]

RALF BRANDSTÄTTER (*1968)

Volkswagen Passenger Cars (since January 1, 2022),
Chair of the Board of Management of the
Volkswagen Passenger Cars brand (since July 1, 2020)
January 1, 2022[1], appointed until 2026
Nationality: German

Appointments (as of January 1, 2022):

- ○ CARIAD SE, Wolfsburg[3]
- ⊙ ŠKODA Auto a.s., Mladá Boleslav[3]
- ⊙ Volkswagen (China) Investment Co., Ltd., Beijing[3]

DR. JUR. MANFRED DÖSS (*1958)

Integrity and Legal Affairs (since February 1, 2022)
February 1, 2022[1], appointed until 2025
Nationality: German

Appointments (as of February 1, 2022):

- ○ PTV Planung Transport Verkehr AG, Karlsruhe[2]
- ○ TRATON SE, Munich[3, 4]
- ⊙ Grizzlys Wolfsburg GmbH, Wolfsburg[3]

MARKUS DUESMANN (*1969)

Premium brand group,
Chair of the Board of Management of AUDI AG
April 1, 2020[1], appointed until 2025
Nationality: German

Appointments:

- ○ CARIAD SE, Wolfsburg (Chair)[3]
- ○ FC Bayern München AG, Munich (Deputy Chair)[2]
- ⊙ Audi (China) Enterprise Management Co., Ltd., Beijing (Chair)[3]
- ⊙ Automobili Lamborghini S.p.A., Sant´Agata Bolognese (Chair)[3]
- ⊙ Bentley Motors Ltd., Crewe, UK (Chair)[3]
- ⊙ Ducati Motor Holding S.p.A., Bologna (Chair)[3]
- ⊙ FAW-Volkswagen Automotive Co., Ltd, Changchun[3]
- ⊙ SAIC Volkswagen Automotive Co., Ltd., Shanghai[3]
- ⊙ Volkswagen (China) Investment Co., Ltd., Beijing[3]

○ Membership of statutory supervisory boards in Germany.
⊙ Comparable appointments in Germany and abroad.

1 Beginning or period of membership of the Board of Management.
2 Appointment outside the Group.
3 Appointment within the Group.
4 Listed company.

GUNNAR KILIAN (*1975)
Human Resources and Truck & Bus
April 13, 2018[1], appointed until 2026
Nationality: German
Appointments:
- ○ AUDI AG, Ingolstadt[3]
- ○ CARIAD SE, Wolfsburg[3]
- ○ MAN Energy Solutions SE, Augsburg (Chair)[3]
- ○ MAN Truck & Bus SE, Munich[3]
- ○ TRATON SE, Munich[3, 4]
- ○ Volkswagen Group Services GmbH, Wolfsburg (Chair)[3]
- ○ Wolfsburg AG, Wolfsburg (Chair)[2]
- ⊙ Allianz für die Region GmbH, Braunschweig[2]
- ⊙ Autostadt GmbH, Wolfsburg (Chair)[3]
- ⊙ FAW-Volkswagen Automotive Co., Ltd, Changchun[3]
- ⊙ Scania AB, Södertälje[3]
- ⊙ Scania CV AB, Södertälje[3]
- ⊙ Volkswagen Immobilien GmbH, Wolfsburg (Chair)[3]

THOMAS SCHMALL-VON WESTERHOLT (*1964)
Technology,
Chair of the Board of Management of
Volkswagen Group Components,
January 1, 2021[1], appointed until 2023
Nationality: German, Brazilian
Appointments:
- ○ Dr. Ing. h.c. F. Porsche AG, Stuttgart[3]
- ○ Volkswagen Group Services GmbH, Wolfsburg[3]
- ○ Wolfsburg AG, Wolfsburg[2]
- ⊙ SEAT, S.A., Martorell (Chair)[3]
- ⊙ Sitech Sp. z o.o., Polkowice (Chair)[3]

HAUKE STARS (*1967)
IT (since February 1, 2022)
February 1, 2022[1], appointed until 2025
Nationality: German
Appointments (as of February 1, 2022):
- ○ CARIAD SE, Wolfsburg[3]
- ○ RWE AG, Essen[2, 4]
- ⊙ Kühne + Nagel International AG, Schindellegi[2, 4]

HILTRUD DOROTHEA WERNER (*1966)
Integrity and Legal Affairs (until January 31, 2022)
February 1, 2017 – January 31, 2022[1]
Nationality: German
Appointments (as of January 31, 2022):
- ○ AUDI AG, Ingolstadt[3]
- ○ CARIAD SE, Wolfsburg[3]
- ○ Dr. Ing. h.c. F. Porsche AG, Stuttgart[3]
- ○ MAN Energy Solutions SE, Augsburg[3]
- ○ Mitteldeutsche Flughafen AG, Leipzig (Chair, since November 8, 2021)[2]
- ○ TRATON SE, Munich (until September 30, 2021)[3, 4]
- ⊙ Grizzlys Wolfsburg GmbH, Wolfsburg (until May 26, 2021)[2]
- ⊙ SEAT, S.A., Martorell (until September 30, 2021)[3]

HILDEGARD WORTMANN (*1966)
Sales (since February 1, 2022)
February 1, 2022[1], appointed until 2025
Nationality: German
Appointments (as of February 1, 2022):
- ○ CARIAD SE, Wolfsburg[3]
- ○ Volkswagen Financial Services AG, Braunschweig[3]
- ⊙ Audi (China) Enterprise Management Co., Ltd., Beijing [3]
- ⊙ Audi of America, LLC, Herndon / VA (Chair)[3]
- ⊙ Audi Sport GmbH, Neckarsulm[3]
- ⊙ FAW-Audi Sales Co., Ltd., Hangzhou[3]
- ⊙ Ferrovial S.A., Madrid[2, 4]
- ⊙ Porsche Austria Gesellschaft m.b.H., Salzburg[3]
- ⊙ Porsche Holding Gesellschaft m.b.H., Salzburg[3]
- ⊙ Porsche Retail GmbH, Salzburg[3]

FRANK WITTER (*1959)
Finance and IT (until March 31, 2021),
October 7, 2015 – March 31, 2021[1]
Nationality: German
Appointments (as of March 31, 2021):
- ○ TRATON SE, Munich[3,4]
- ○ Volkswagen Financial Services AG, Braunschweig (Chair, until March 31, 2021)[3]
- ⊙ ŠKODA Auto a.s., Mladá Boleslav (until March 31, 2021)[3]
- ⊙ Northvolt AB, Stockholm (until June 30, 2021)[2]
- ⊙ VfL Wolfsburg-Fußball GmbH, Wolfsburg (Chair)[3]
- ⊙ Volkswagen (China) Investment Co., Ltd., Beijing (until March 31, 2021)[3]
- ⊙ Volkswagen Group Services GmbH, Wolfsburg (until March 31, 2021)[3]
- ⊙ Volkswagen Immobilien GmbH, Wolfsburg (Chair, until March 31, 2021)[3]

○ Membership of statutory supervisory boards in Germany.
⊙ Comparable appointments in Germany and abroad.

1 Beginning or period of membership of the Board of Management.
2 Appointment outside the Group.
3 Appointment within the Group.
4 Listed company.

MEMBERS OF THE SUPERVISORY BOARD AND COMPOSITION OF THE COMMITTEES

(Appointments: as of December 31, 2021
or the leaving date from the Supervisory Board
of Volkswagen AG)

HANS DIETER PÖTSCH (*1951)
Chair (since October 7, 2015),
Chair of the Executive Board of Porsche Automobil Holding SE
October 7, 2015[1], elected until 2026
Nationality: Austrian
Appointments:
○ AUDI AG, Ingolstadt[3]
○ Bertelsmann Management SE, Gütersloh[2]
○ Bertelsmann SE & Co. KGaA, Gütersloh[2]
○ Dr. Ing. h.c. F. Porsche AG, Stuttgart[3]
○ TRATON SE, Munich (Chair)[3, 4]
○ Wolfsburg AG, Wolfsburg[3]
⊙ Autostadt GmbH, Wolfsburg[3]
⊙ Porsche Austria Gesellschaft m.b.H., Salzburg (Chair)[3]
⊙ Porsche Holding Gesellschaft m.b.H., Salzburg (Chair)[3]
⊙ Porsche Retail GmbH, Salzburg (Chair)[3]
⊙ VfL Wolfsburg-Fußball GmbH, Wolfsburg (Deputy Chair)[3]

JÖRG HOFMANN (*1955)
Deputy Chair (since November 20, 2015),
First Chair of IG Metall
November 20, 2015[1], appointed until 2022
Nationality: German
Appointments:
○ Robert Bosch GmbH, Stuttgart[2]

DR. HUSSAIN ALI AL ABDULLA (*1957)
Minister of State
April 22, 2010[1], elected until 2025
Nationality: Qatari
Appointments:
⊙ Gulf Investment Corporation, Safat/Kuwait (Board member)[2]
⊙ Qatar Supreme Council for Economic Affairs and Investment, Doha (Board member)[2]

DR. HESSA SULTAN AL JABER (*1959)
Former Minister of Information and Communications Technology, Qatar
June 22, 2016[1], elected until 2024
Nationality: Qatari
Appointments:
⊙ Malomatia, Doha (Chair)[2]
⊙ MEEZA, Doha[2]
⊙ Qatar Satellite Company (Es'hailSat), Doha (Chair)[2]
⊙ Trio Investment, Doha (Chair)[2]

DR. BERND ALTHUSMANN (*1966)
Minister of Economic Affairs, Labor, Transport and Digitalization for the Federal State of Lower Saxony
December 14, 2017[1], delegated until 2022
Nationality: German
Appointments:
○ Deutsche Messe AG, Hanover (Deputy Chair)[2]
⊙ Container Terminal Wilhelmshaven JadeWeserPort-Marketing GmbH & Co. KG, Wilhelmshaven (Chair)[2]
⊙ JadeWeserPort Realisierungs GmbH & Co. KG, Wilhelmshaven (Chair)[2]
⊙ JadeWeserPort Realisierungs- Beteiligungs-GmbH, Wilhelmshaven (Chair)[2]
⊙ Niedersachsen Ports GmbH & Co. KG, Oldenburg (Chair)[2]

KAI BLIESENER (*1971)
Head of Vehicle Construction and Automotive and Supplier Industry Coordinator at IG Metall
June 20, 2020 to March 31, 2021[1]
Nationality: German
Appointments (as of March 31, 2021):
○ Mahle GmbH, Stuttgart[2]

MATÍAS CARNERO SOJO (*1968)
Chair of the General Works Council of SEAT
April 1, 2021[1], appointed until 2022
Nationality: Spanish

DANIELA CAVALLO (*1975)
Chair of the General and Group Works Councils of Volkswagen AG
May 11, 2021[1], appointed until 2022
Nationality: Italian, German
Appointments:
○ TRATON SE, Munich[3, 4]
○ Volkswagen Financial Services AG, Braunschweig (Deputy Chair)[3]
○ Wolfsburg AG, Wolfsburg[3]
⊙ Allianz für die Region GmbH, Braunschweig[2]
⊙ Porsche Holding Gesellschaft m.b.H., Salzburg[3]
⊙ SEAT, S.A., Martorell[3]
⊙ ŠKODA Auto a.s., Mladá Boleslav[3]
⊙ VfL Wolfsburg-Fußball GmbH, Wolfsburg[3]
⊙ Volkswagen Group Services GmbH[3]

DR. JUR. HANS-PETER FISCHER (*1959)
Chair of the Board of Management of Volkswagen Management Association e.V.
January 1, 2013[1], appointed until 2022
Nationality: German
Appointments:
⊙ Volkswagen Pension Trust e.V., Wolfsburg[3]

○ Membership of statutory supervisory boards in Germany.
⊙ Comparable appointments in Germany and abroad.

1 Beginning or period of membership of the Supervisory Board.
2 Appointment outside the Group.
3 Appointment within the Group.
4 Listed company.

MARIANNE HEIß (*1972)
Chief Executive Officer of BBDO Group Germany GmbH, Düsseldorf
February 14, 2018[1], elected until 2023
Nationality: Austrian
Appointments:
- ○ AUDI AG, Ingolstadt[3]
- ○ Porsche Automobil Holding SE, Stuttgart[2, 4]

ULRIKE JAKOB (*1960)
Deputy Chair of the Works Council of Volkswagen AG, Kassel plant
May 10, 2017[1], appointed until 2022
Nationality: German

DR. LOUISE KIESLING (*1957)
Entrepreneur
April 30, 2015[1], elected until 2026
Nationality: Austrian

PETER MOSCH (*1972)
Chair of the General Works Council of AUDI AG
January 18, 2006[1], appointed until 2022
Nationality: German
Appointments:
- ○ AUDI AG, Ingolstadt (Deputy Chair)[3]
- ○ Audi Pensionskasse – Altersversorgung der AUTO UNION GmbH, VVaG, Ingolstadt[3]
- ○ CARIAD SE, Wolfsburg (Deputy Chair)[3]
- ⊙ Audi Stiftung für Umwelt GmbH, Ingolstadt[3]

BERTINA MURKOVIC (*1957)
Chair of the Works Council of Volkswagen Commercial Vehicles
May 10, 2017[1], appointed until 2022
Nationality: German
Appointments:
- ⊙ MOIA GmbH, Berlin[3]

BERND OSTERLOH (*1956)
Chair of the General and Group Works Councils of Volkswagen AG
January 1, 2005 to April 30, 2021[1]
Nationality: German
Appointments (as of April 30, 2021):
- ○ TRATON SE, Munich (until April 30, 2021)[3, 4]
- ○ Wolfsburg AG, Wolfsburg (until April 30, 2021)[3]
- ⊙ Allianz für die Region GmbH, Braunschweig (until April 30, 2021)[2]
- ⊙ Autostadt GmbH, Wolfsburg[3]
- ⊙ Porsche Holding Gesellschaft m.b.H., Salzburg (until April 30, 2021)[3]
- ⊙ SEAT, S.A., Martorell (until April 30, 2021)[3]
- ⊙ ŠKODA Auto a.s., Mladá Boleslav (until April 30, 2021)[3]
- ⊙ VfL Wolfsburg-Fußball GmbH, Wolfsburg[3]
- ⊙ Volkswagen Group Services GmbH[3]
- ⊙ Volkswagen Immobilien GmbH, Wolfsburg (until April 30, 2021)[3]

DR. JUR. HANS MICHEL PIËCH (*1942)
Lawyer
August 7, 2009[1], elected until 2024
Nationality: Austrian
Appointments:
- ○ AUDI AG, Ingolstadt[3]
- ○ Dr. Ing. h.c. F. Porsche AG, Stuttgart[3]
- ○ Porsche Automobil Holding SE, Stuttgart (Deputy Chair)[2, 4]
- ⊙ Porsche Cars Great Britain Ltd., Reading[3]
- ⊙ Porsche Cars North America Inc., Atlanta[3]
- ⊙ Porsche Greater China, consisting of:
  Porsche (China) Motors Limited, Shanghai[3]
  Porsche Hong Kong Limited, Hong Kong[3]
- ⊙ Porsche Holding Gesellschaft m.b.H., Salzburg[3]
- ⊙ Schmittenhöhebahn AG, Zell am See[2]
- ⊙ Volksoper Wien GmbH, Vienna[2]

DR. JUR. FERDINAND OLIVER PORSCHE (*1961)
Member of the Board of Management of Familie Porsche AG Beteiligungsgesellschaft
August 7, 2009[1], elected until 2024
Nationality: Austrian
Appointments:
- ○ AUDI AG, Ingolstadt[3]
- ○ Dr. Ing. h.c. F. Porsche AG, Stuttgart[3]
- ○ Porsche Automobil Holding SE, Stuttgart[2, 4]
- ⊙ Porsche Holding Gesellschaft m.b.H., Salzburg[3]
- ⊙ Porsche Lifestyle GmbH & Co. KG, Ludwigsburg[3]

DR. RER. COMM. WOLFGANG PORSCHE (*1943)
Chair of the Supervisory Board of Porsche Automobil Holding SE;
Chair of the Supervisory Board of Dr. Ing. h.c. F. Porsche AG
April 24, 2008[1], elected until 2023
Nationality: Austrian
Appointments:
- ○ AUDI AG, Ingolstadt[3]
- ○ Dr. Ing. h.c. F. Porsche AG, Stuttgart (Chair)[3]
- ○ Porsche Automobil Holding SE, Stuttgart (Chair)[2, 4]
- ⊙ Familie Porsche AG Beteiligungsgesellschaft, Salzburg (Chair)[2]
- ⊙ Porsche Cars Great Britain Ltd., Reading[3]
- ⊙ Porsche Cars North America Inc., Atlanta[3]
- ⊙ Porsche Greater China, consisting of:
  Porsche (China) Motors Limited, Shanghai[3]
  Porsche Hong Kong Limited, Hong Kong[3]
- ⊙ Porsche Holding Gesellschaft m.b.H., Salzburg[3]
- ⊙ Schmittenhöhebahn AG, Zell am See[2]

JENS ROTHE (*1970)
Chair of the General Works Council of Volkswagen Sachsen GmbH
October 22, 2021[1], appointed until 2022
Appointments:
- ○ Volkswagen Sachsen GmbH, Zwickau (Deputy Chair)[3]

○ Membership of statutory supervisory boards in Germany.
⊙ Comparable appointments in Germany and abroad.

1 Beginning or period of membership of the Supervisory Board.
2 Appointment outside the Group.
3 Appointment within the Group.
4 Listed company.

CONNY SCHÖNHARDT (*1978)
Union Secretary to the board of IG Metall
June 21, 2019[1], appointed until 2022
Nationality: German
Appointments:
- ○ CARIAD SE, Wolfsburg[3]
- ○ Volkswagen Bank GmbH, Braunschweig[3]

ATHANASIOS STIMONIARIS (*1971)
Chair of the Group Works Council of MAN SE, MAN Truck & Bus SE and TRATON SE (until August 31, 2021)
May 10, 2017 to August 31, 2021[1]
Nationality: German
Appointments (as of August 31, 2021):
- ○ MAN SE, Munich (until August 31, 2021)[3]
- ○ MAN Truck & Bus SE, Munich (until August 31, 2021)[3]
- ○ MAN Truck & Bus Deutschland GmbH, Munich (until August 31, 2021)[3]
- ○ Rheinmetall MAN Military Vehicles GmbH, Munich (until August 31, 2021)[3]
- ○ TRATON SE, Munich (Deputy Chair) (until August 31, 2021)[3, 4]

STEPHAN WEIL (*1958)
Minister-President of the Federal State of Lower Saxony
February 19, 2013[1], delegated until 2022
Nationality: German

WERNER WERESCH (*1961)
Member of the Executive Committee of the Works Council of Porsche Automobil Holding SE and Chair of the General and Group Works Councils of Dr. Ing. h.c. F. Porsche AG
February 21, 2019[1], appointed until 2022
Nationality: German
Appointments:
- ○ Dr. Ing. h.c. F. Porsche AG, Stuttgart[3]

COMMITTEES OF THE SUPERVISORY BOARD AS OF DECEMBER 31, 2021

Members of the Executive Committee
Hans Dieter Pötsch (Chair)
Jörg Hofmann (Deputy Chair)
Daniela Cavallo
Peter Mosch
Bertina Murkovic
Dr. Hans Michel Piëch
Dr. Wolfgang Porsche
Stephan Weil

Members of the Mediation Committee established in accordance with section 27(3) of the *Mitbestimmungsgesetz* (German Codetermination Act)
Hans Dieter Pötsch (Chair)
Jörg Hofmann (Deputy Chair)
Daniela Cavallo
Stephan Weil

Members of the Audit Committee
Dr. Ferdinand Oliver Porsche (Chair)
Peter Mosch (Deputy Chair)
Marianne Heiß
Conny Schönhardt

Members of the Nomination Committee
Hans Dieter Pötsch (Chair)
Dr. Hans Michel Piëch
Dr. Wolfgang Porsche
Stephan Weil

Special Diesel Engine Committee (until December 31, 2021)
Dr. Wolfgang Porsche (Chair)
Dr. Bernd Althusmann
Daniela Cavallo
Peter Mosch
Bertina Murkovic
Dr. Ferdinand Oliver Porsche

○ Membership of statutory supervisory boards in Germany.
⊙ Comparable appointments in Germany and abroad.

1 Beginning or period of membership of the Supervisory Board.
2 Appointment outside the Group.
3 Appointment within the Group.
4 Listed company.

Remuneration Report 2021

For fiscal year 2021, the Board of Management and Supervisory Board of Volkswagen AG have, for the first time, prepared a remuneration report in accordance with section 162 of the *Aktiengesetz* (AktG – German Stock Corporation Act) as amended by the *Gesetz zur Umsetzung der zweiten Aktionärsrechterichtlinie* (ARUG II – German Act on the Implementation of the Second Shareholders' Rights Directive). In this report, we explain the main features of the remuneration system for the members of the Board of Management and Supervisory Board. The remuneration report also contains an individualized breakdown of the remuneration components provided to current and former members of the Board of Management and Supervisory Board.

A. REMUNERATION OF THE MEMBERS OF THE BOARD OF MANAGEMENT

Throughout the reporting period, the Volkswagen Group's business was impacted by the effects of the Covid-19 pandemic and in particular by limited vehicle availability due to the semiconductor shortage. In this environment, the Volkswagen Group's deliveries declined year-on-year. Meanwhile, the operating result improved versus the prior year due to margin and mix effects. The Board of Management members also benefited from this in their remuneration.

I. Principles of Board of Management remuneration

The remuneration of the Board of Management is based on the remuneration system developed by the Supervisory Board and adopted on December 14, 2020 with effect from January 1, 2021. The remuneration system for the members of the Board of Management implements the requirements of the AktG as amended by ARUG II and takes into account the recommendations of the German Corporate Governance Code (the Code) in the version dated December 19, 2019 (which entered into force on March 20, 2020). The Annual General Meeting approved the remuneration system on July 22, 2021 with 99.61 % of the votes cast.

The new remuneration system has applied since January 1, 2021 to all Board of Management members with service contracts newly concluded or renewed after the Supervisory Board resolution of December 14, 2020. For the Board of Management members already appointed at the time of the resolution by the Supervisory Board on December 14, 2020, the new remuneration system also applies in principle from January 1, 2021. Until such time as their contracts are renewed, however, the following exceptions apply: the performance share plan of the Board of Management members already appointed continues to have only a three-year performance period but otherwise corresponds to the performance share plan described in this system. Penalty and clawback rules will only apply to Board of Management members already appointed on renewal of their contracts.

The level of the Board of Management remuneration should be appropriate and attractive in the context of the Company's national and international peer group. Criteria include the tasks of the individual Board of Management member, their personal performance, the economic situation, and the performance of and outlook for the Volkswagen Group, as well as how customary the remuneration is when measured against the peer group and the remuneration structure that applies to other areas of the Volkswagen Group. In this context, comparative studies on remuneration are conducted on a regular basis.

In this chapter, we provide an overview of the remuneration system for the Board of Management members in fiscal year 2021 before going into the components of the remuneration in fiscal year 2021.

II. Overview of the remuneration components

The table below provides an overview of the components of the remuneration system applicable for fiscal year 2021 for the members of the Board of Management. The table also outlines the composition of the individual remuneration components and explains their targets, particularly in respect of how the remuneration will promote the Company's long-term performance. A more detailed description of the remuneration system applicable for fiscal year 2021 for the members of the Board of Management is available at www.volkswagenag.com/en/InvestorRelations/corporate-governance/Remuneration.html.

REMUNERATION SYSTEM FOR 2021

Component	Composition	Target
Fixed remuneration components		
Base salary	• Twelve equal installments payable at month-end • Chair of the Board of Management: €2,235,000; Board of Management member: €1,420,000	The basic remuneration and fringe benefits are intended to reflect the tasks and responsibility of the Board of Management members, provide a basic income and prevent them from taking inappropriate risks.
Fringe benefits	• Fringe benefit allowance (€175,000) covers certain benefits at the discretion of the Board of Management member, for example: ○ Company cars ○ Preventive medical check-ups ○ Allowances for health and long-term care insurance ○ Accident insurance • Crediting of benefits against the fringe benefit allowance where these are subject to payroll tax • Payment of the remaining amount	
Occupational retirement provision	• Defined contribution plan by means of direct commitments to retirement, disability and surviving dependents' benefits • Normally when the members reach the age of 65 (or 63 in the case of Board of Management members who took office before January 1, 2020) • Annual pension contribution of 40 % of the contractually agreed base salary (or 50 % in the case of Board of Management members who took office before January 1, 2018)	The occupational retirement provision is intended to provide Board of Management members with an adequate pension when they retire.
Variable remuneration components		
Annual bonus	• Plan type: Target bonus • Chair of the Board of Management: €3,045,000; Board of Management member: €1,350,000 • Cap: 180 % of the target amount • Assessment period: fiscal year • Performance criteria: ○ Financial subtargets: ▪ Operating result (OR) incl. Chinese joint ventures[1] (proportionate) (50 %) and operating return on sales (50 %) ▪ The Supervisory Board defines minimum, target, and maximum values for the financial subtargets for each fiscal year. The minimum corresponds to subtarget achievement of 0 % of the OR including Chinese joint ventures (proportionate) or 50 % of the operating return on sales, while the target corresponds to a subtarget achievement of 100 % in each case and the maximum to subtarget achievement of 150 %; interim values are interpolated on a linear basis. ▪ Overall financial target achievement = subtarget achievement "operating result including Chinese joint ventures (proportionate)" x 50 % + "subtarget achievement operating return on sales" x 50 % ○ ESG factor ▪ Subtargets of 50 % each for the Environment (decarbonization index) and Social (sentiment rating and diversity index) as well as the Governance factor between 0.9 and 1.1 (compliance & integrity, standard value of 1.0) ▪ The Supervisory Board defines minimum, target, and maximum values for the Environment and Social subtargets for each fiscal year. The minimum, target, and maximum values correspond to subtarget achievement of 0.7, 1.0, and 1.3, respectively; interim values are interpolated on a linear basis. ▪ The Supervisory Board sets the Governance factor after the end of the fiscal year taking into account the collective performance of the Board of Management as a whole and the performance of each Management Board member individually. ▪ Calculation of the ESG factor: (Environment subtarget achievement x 50 % + Social subtarget achievement x 50 %) x Governance factor (0.9 – 1.1) • Annual bonus payment amount = individual target amount x financial target achievement x ESG factor • Payment: In cash in the month following approval of the consolidated financial statements for the fiscal year in question	The annual bonus is designed to motivate Board of Management members to pursue ambitious targets. The financial performance targets support the strategic target of achieving competitive profitability. Integration of the sustainability targets takes the importance of ESG factors into account.

1 Equity-accounted companies in China.

Component	Composition	Target
Long-term incentive (LTI)	• Plan type: Phantom performance share plan • Performance period: measured forward over four years[1] • Chair of the Board of Management: €3,830,000; Board of Management member: €1,800,000 • Cap: 200 % of the target amount • Allocation of performance shares: At the start of each fiscal year, the individually agreed target amount is divided by the arithmetic mean of the closing prices of Volkswagen's preferred shares (German Securities Identification Number: 766403) in the Xetra trading system of Deutsche Börse AG on the last 30 trading days prior to January 1 in the respective performance period (initial reference price). • Target-setting: At the start of the performance period, the Supervisory Board defines minimum, target and maximum values for EPS as presented in the annual report as audited, fully diluted earnings per Volkswagen preferred share from the Company's continuing and discontinued operations; the EPS minimum corresponds to target achievement of 50 %, the EPS target corresponds to target achievement of 100 % and the EPS maximum corresponds to target achievement of 150 %. • Determination of one-quarter of the allocated performance shares at the end of each fiscal year depending on EPS target achievement • Calculation of the payment amount: fixed performance shares are multiplied by the arithmetic mean of the closing prices of Volkswagen's preferred shares in the Xetra trading system of Deutsche Börse AG on the last 30 trading days prior to the end of the performance period ("closing reference price") and the dividends paid out per Volkswagen preferred share during the performance period ("dividend equivalent") • Payment: In cash in the month following approval of the consolidated financial statements for the last fiscal year of the respective performance period. • If the service contract ends before the end of the performance period due to a bad leaver case (extraordinary termination for cause or a breach of a contractual or post-contractual restraint on competition), all performance shares will be forfeited.	The long-term incentive serves to align the remuneration of the Board of Management members with the Company's long-term performance. The financial performance target EPS (earnings per share) in conjunction with share price performance and the dividends paid, measured over four years, ensures the long-term effect of the behavioral incentives and supports the strategic target of achieving competitive profitability.
Other services		
Special payment	• Only on the basis of a separate contractual agreement with the Board of Management member • The agreement is made in advance for the fiscal year and defines performance criteria for the special payment. • There are currently no special payment agreements with Board of Management members.	Special payments are intended to reward outstanding and exceptional performance and may only be granted if they are in the Company's interest and are associated with future benefits for the Company.
Benefits agreed with new Board of Management members for a defined period of time or for the entire term of their service contracts	• Only on the basis of a separate contractual agreement with the new Board of Management member • Payments to compensate for declining variable remuneration or other financial disadvantages • Benefits in connection with a relocation • Minimum remuneration guarantee • New Board of Management members did not receive any special benefits in the past fiscal year.	(Compensation) payments are designed to attract qualified candidates.

1 For the Board of Management members already appointed prior to December 14, 2020, a three-year performance period continues to apply until their contracts are renewed. In all other respects, the performance share plan corresponds mutatis mutandis to that described for fiscal year 2021.

Component	Composition	Target
Other remuneration provisions		
Penalty and clawback rules[1]	• The Supervisory Board can reduce or request repayment of the annual bonus and LTI by up to 100% in the event of relevant misconduct during the assessment period. • A clawback is not permissible if more than three years have elapsed since the bonus was paid.	Penalty and clawback rules are intended to counteract individual misconduct and negligence on the part of the organization.
Maximum remuneration	• The relevant components are the base salary paid for the respective fiscal year, the fringe benefits granted, the service cost for occupational retirement provision, the annual bonus granted for the respective fiscal year and paid out in the following year, the performance share plan paid out in the respective fiscal year and for which the performance period ended immediately before the respective fiscal year, any special payment granted for the respective fiscal year and any benefits granted to new Board of Management members. • For Board of Management members €7,000,000 (gross) per fiscal year and for the chair of the Board of Management €12,000,000 (gross) per fiscal year • If the maximum remuneration is exceeded, the annual bonus will be reduced; if a reduction is not sufficient, the Supervisory Board may, at its discretion, reduce other remuneration components or request repayment of remuneration paid out.	The aim of the maximum remuneration is to ensure that the remuneration of Board of Management members is not inappropriately high when measured against the peer group.
Cap on cash remuneration	• Additional to maximum remuneration • The cash remuneration includes the base salary paid in the respective fiscal year, the annual bonus granted for the respective fiscal year and paid out in the following year, the performance share plan paid in the respective fiscal year and any special payment granted for the respective fiscal year. • For Board of Management members €5,500,000 (gross) per fiscal year and for the chair of the Board of Management €10,000,000 (gross) per fiscal year.	The cap on cash remuneration is intended to prevent unacceptably high disbursements in the individual fiscal year.

1 For the Board of Management members already appointed prior to December 14, 2020, penalty and clawback rules only apply once their contracts have been renewed.

III. Remuneration of the Board of Management members appointed in fiscal year 2021

1. Board of Management members in fiscal year 2021

The members of the Volkswagen AG Board of Management in fiscal year 2021 were as follows:

> Herbert Diess, Chair of the Board of Management since April 13, 2018, member of the Board of Management since July 1, 2015
> Murat Aksel, member of the Board of Management since January 1, 2021
> Arno Antlitz, member of the Board of Management since April 1, 2021
> Oliver Blume, member of the Board of Management since April 13, 2018, also Chair of the Executive Board of Dr. Ing. h.c. F. Porsche AG
> Markus Duesmann, member of the Board of Management since April 1, 2020, also Chair of the Board of Management of AUDI AG
> Gunnar Kilian, member of the Board of Management since April 13, 2018
> Thomas Schmall-von Westerholt, member of the Board of Management since January 1, 2021
> Hiltrud Dorothea Werner, member of the Board of Management since February 1, 2017
> Frank Witter, member of the Board of Management from October 7, 2015, left the Board effective March 31, 2021

For their work on the Board of Management, its members do not receive additional remuneration for discharging other mandates on management bodies, supervisory boards or similar, especially in other companies of the Volkswagen Group. If such remuneration is nevertheless granted, it is counted toward the remuneration for their work as a member of the Board of Management of Volkswagen AG.

2. Remuneration granted and owed in fiscal year 2021

In accordance with section 162(1) sentence 1 of the AktG, the remuneration report must report on the remuneration granted and owed to each individual member of the Board of Management in the last fiscal year. These terms are understood as follows:

> The term "granted" (*gewährt*) refers to the actual receipt (*Zufluss*) of the remuneration component.
> The term "owed" (*geschuldet*) refers to all legally existing liabilities for remuneration components that are due but have not yet been fulfilled.
> This understanding differs from the terms "benefits granted" and "benefits received" used in previous remuneration reports. As per the 2017 version of the Code, "benefits granted" included, regardless of when they were to be paid out, all remuneration components that had been agreed at least in principle for a member of the Board of Management in the fiscal year and for which the amount

could be estimated. With the introduction of section 162 of the AktG, it is no longer possible to maintain the distinction between “granted” and “received” as previously understood. Instead, the meaning of the term “granted” in section 162 of the AktG corresponds to the previous understanding of “received”.

2.1. Overview in the tables

The following tables show the remuneration actually received by members of the Board of Management in fiscal year 2021. The time of actual payment is not relevant. The remuneration reported as granted in fiscal year 2021 thus consists of the base salary paid out in fiscal year 2021, the fringe benefits, the annual bonus paid in the month following the approval of the Company’s consolidated financial statements for fiscal year 2021 and the LTI for the performance period 2018 to 2020 paid in fiscal year 2021. As the Company was not in default on the payment of remuneration components, no remuneration owed is reported in the tables.

The relative shares shown in the tables relate to the remuneration components granted and owed in the respective fiscal year in accordance with section 162(1) sentence 1 of the AktG. They thus include all benefits actually received in the respective fiscal year, regardless of the fiscal year for which the Board of Management members received them. The relative shares indicated here are thus not comparable with the respective relative shares of fixed and variable remuneration components as part of total remuneration in the description of the remuneration system according to section 87a(1) sentence 2 no. 3 of the AktG. The shares indicated in the remuneration system relate to the targets agreed for the relevant fiscal year, irrespective of the time at which the respective remuneration component was paid out.

Pension expense is reported as service cost within the meaning of IAS 19. The service cost in accordance with IAS 19 does not constitute remuneration granted or owed within the meaning of section 162(1) sentence 1 of the AktG as it is not actually received by the Board of Management member in the reporting year.

Maximum remuneration corresponds to maximum remuneration within the meaning of section 87a(1) sentence 2 no. 1 of the AktG in accordance with the remuneration system adopted by the Supervisory Board and approved by the Annual General Meeting. As in the past, in addition to maximum remuneration, a limit on cash remuneration, which includes the base salary paid out for the relevant fiscal year, the annual bonus granted for the relevant fiscal year and paid out in the subsequent year, the performance share plan paid out in the relevant fiscal year and any special payment granted for the relevant fiscal year, has been agreed with the members of the Board of Management.

Board of Management service contracts that are new or have been renewed since the Supervisory Board adopted the new remuneration system for the members of the Board of Management on December 14, 2020 also contain the penalty and clawback rules provided for in this remuneration system. The service contracts of the Board of Management members Ms. Werner, Mr. Blume and Mr. Duesmann, who were already appointed as of December 14, 2020, therefore do not contain penalty or clawback rules, nor did Mr. Witter's service contract, which ended on June 30, 2021. Volkswagen AG did not make use of the existing penalty and clawback rules in fiscal year 2021.

	HERBERT DIESS	
	Chair, Volume brand group, China	
	2021	
	€	%
Fixed remuneration components		
Base salary	2,235,000.00	26.0
Fringe benefits	178,231.00	2.1
Total	**2,413,231.00**	**28.1**
Variable remuneration components		
One-year variable remuneration/annual bonus	5,294,646.00	61.6
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	886,668.16	10.3
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**8,594,545.16**	**100.0**
Pension expenses	1,717,037.00	x
Total remuneration including pension expenses	**10,311,582.16**	**x**
Maximum remuneration	12,000,000.00	x
Clawback in accordance with section 162(1) sentence 2 no. 4 of the AktG	–	x

	MURAT AKSEL	
	Purchasing	
	2021	
	€	%
Fixed remuneration components		
Base salary	1,420,000.00	36.0
Fringe benefits	180,481.00	4.6
Total	**1,600,481.00**	**40.5**
Variable remuneration components		
One-year variable remuneration/annual bonus	2,347,380.00	59.5
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	–	–
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**3,947,861.00**	**100.0**
Pension expenses	1,076,359.00	x
Total remuneration including pension expenses	**5,024,220.00**	**x**
Maximum remuneration	7,000,000.00	x
Clawback in accordance with section 162(1) sentence 2 no. 4 of the AktG	–	x

	ARNO ANTLITZ	
	Finance and IT (since April 1, 2021)	
	2021	
	€	%
Fixed remuneration components		
Base salary	1,065,000.00	36.0
Fringe benefits	135,764.00	4.6
Total	**1,200,764.00**	**40.5**
Variable remuneration components		
One-year variable remuneration/annual bonus	1,760,535.00	59.5
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	–	–
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**2,961,299.00**	**100.0**
Pension expenses	883,496.00	x
Total remuneration including pension expenses	**3,844,795.00**	**x**
Maximum remuneration	5,250,000.00	x
Clawback in accordance with section 162(1) sentence 2 no. 4 of the AktG	–	x

	OLIVER BLUME	
	Chair of the Executive Board of Dr. Ing. h.c. F. Porsche AG Sport & Luxury brand group	
	2021	
	€	%
Fixed remuneration components		
Base salary	1,420,000.00	33.0
Fringe benefits	180,442.00	4.2
Total	**1,600,442.00**	**37.2**
Variable remuneration components		
One-year variable remuneration/annual bonus	2,347,380.00	54.6
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	351,318.72	8.2
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**4,299,140.72**	**100.0**
Pension expenses	1,092,470.00	x
Total remuneration including pension expenses	**5,391,610.72**	**x**
Maximum remuneration	7,000,000.00	x
Clawback in accordance with section 162(1) sentence 2 no. 4 of the AktG	–	x

	MARKUS DUESMANN Chair of the Board of Management of AUDI AG, Premium brand group 2021	
	€	%
Fixed remuneration components		
Base salary	1,420,000.00	35.8
Fringe benefits	203,048.00	5.1
Total	**1,623,048.00**	**40.9**
Variable remuneration components		
One-year variable remuneration/annual bonus	2,347,380.00	59.1
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	–	–
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**3,970,428.00**	**100.0**
Pension expenses	1,120,404.00	x
Total remuneration including pension expenses	**5,090,832.00**	**x**
Maximum remuneration	7,000,000.00	x
Clawback in accordance with section 162(1) sentence 2 no. 4 of the AktG	–	x

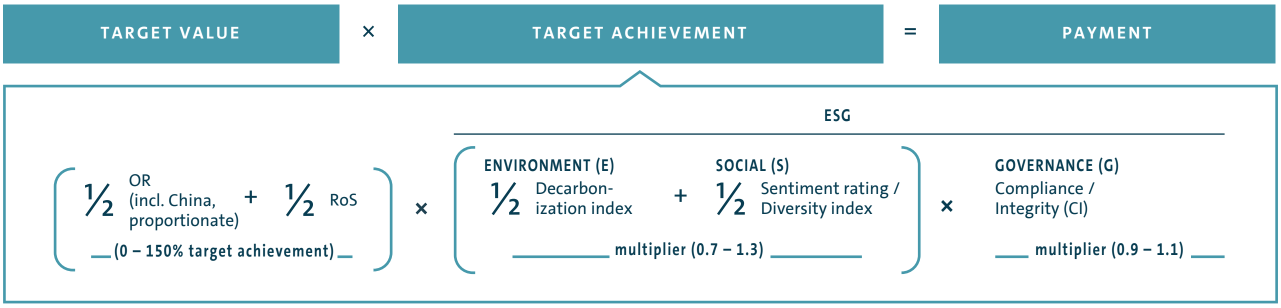
	GUNNAR KILIAN Human Resources and Truck & Bus 2021	
	€	%
Fixed remuneration components		
Base salary	1,420,000.00	26.6
Fringe benefits	180,442.00	3.4
Total	**1,600,442.00**	**30.0**
Variable remuneration components		
One-year variable remuneration/annual bonus	2,347,380.00	44.0
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	1,383,318.72	25.9
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**5,331,140.72**	**100.0**
Pension expenses	1,309,055.00	x
Total remuneration including pension expenses	**6,640,195.72**	**x**
Maximum remuneration	7,000,000.00	x
Clawback in accordance with section 162(1) sentence 2 no. 4 of the AktG	–	x

	THOMAS SCHMALL-VON WESTERHOLT	
	Technology, Chair of the Board of Management of Volkswagen Group Components	
	2021	
	€	%
Fixed remuneration components		
Base salary	1,420,000.00	36.0
Fringe benefits	180,235.00	4.6
Total	**1,600,235.00**	**40.5**
Variable remuneration components		
One-year variable remuneration/annual bonus	2,347,380.00	59.5
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	–	–
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**3,947,615.00**	**100.0**
Pension expenses	1,040,965.00	x
Total remuneration including pension expenses	**4,988,580.00**	**x**
Maximum remuneration	7,000,000.00	x
Clawback in accordance with section 162 (1) sentence 2 no. 4 of the AktG	–	x

	HILTRUD DOROTHEA WERNER	
	Integrity and Legal Affairs	
	2021	
	€	%
Fixed remuneration components		
Base salary	1,420,000.00	25.0
Fringe benefits	179,781.00	3.2
Total	**1,599,781.00**	**28.2**
Variable remuneration components		
One-year variable remuneration/annual bonus	2,149,931.72	37.9
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	1,930,068.28	34.0
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**5,679,781.00**	**100.0**
Pension expenses	1,261,258.00	x
Total remuneration including pension expenses	**6,941,039.00**	**x**
Maximum remuneration	7,000,000.00	x
Clawback in accordance with section 162(1) sentence 2 no. 4 of the AktG	–	x

	FRANK WITTER	
	Finance and IT (until March 31, 2021)	
	2021	
	€	%
Fixed remuneration components		
Base salary	355,000.00	32.0
Fringe benefits	45,012.00	4.1
Total	**400,012.00**	**36.1**
Variable remuneration components		
One-year variable remuneration/annual bonus	586,845.00	52.9
Multiyear variable remuneration/long-term incentive (LTI)		
LTI (performance share plan) 2018–2020	122,517.07	11.0
Other remuneration		
Special payments	–	–
Special benefits paid to new Board of Management members	–	–
Total remuneration granted and owed	**1,109,374.07**	**100.0**
Pension expenses	271,099.00	x
Total remuneration including pension expenses	**1,380,473.07**	**x**
Maximum remuneration	1,750,000.00	x
Clawback in accordance with section 162(1) sentence 2 no. 4 of the AktG	–	x

ANNUAL BONUS



2.2 Explanation

2.2.1 Performance criteria for variable remuneration

a) Performance criteria for the annual bonus

aa) Financial subtargets

The following overviews show the threshold values, target values and maximum values set by the Supervisory Board for fiscal year 2021 for the financial subtargets operating result, including Chinese joint ventures (proportionate), and operating return on sales (RoS), along with the actual figures and target achievement levels in percent in fiscal year 2021.

COMPONENT 1: OPERATING RESULT INCLUDING CHINESE JOINT VENTURES (PROPORTIONATE)

€ billion	2021
Maximum value	25.0
100 % target level	17.0
Threshold value	9.0
Actual	22.3
Target achievement (in %)	133

COMPONENT 2: OPERATING RETURN ON SALES

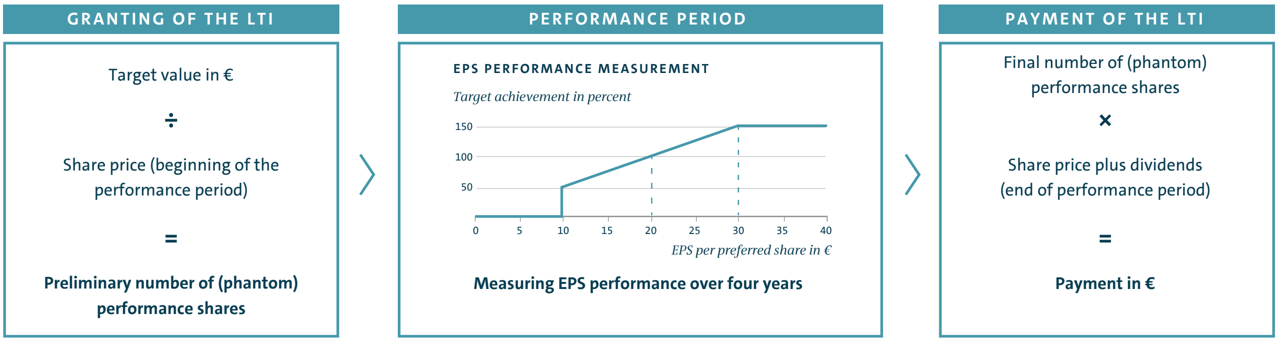
%	2021
Maximum value	8.0
100 % target level	6.0
Threshold value	4.0
Actual	7.7
Target achievement (in %)	143

bb) ESG factor

The following overview shows the minimum values, target values and maximum values set by the Supervisory Board for fiscal year 2021 for the environmental (decarbonization index) and social (sentiment rating and diversity index) subtargets along with the actual figures and target achievement levels in fiscal year 2021. The decarbonization index measures the emissions of CO_2 and CO_2 equivalents by the passenger car- and light commercial vehicle-producing brands over the entire life cycle and documents the progress we are making in improving our carbon footprint. The sentiment rating is an important parameter of the opinion survey – an employee poll with which the Group regularly gathers information regarding employee satisfaction. The diversity index is used worldwide to determine the development of the proportion of women in management and the internationalization of top management. The indicator provides incentives for an exemplary leadership and corporate culture. The governance factor is a means for the Supervisory Board to express its satisfaction with the expected and actual behavior of the Board of Management with regard to the criteria of integrity and compliance. As a rule, the governance factor should be 1.0 and may only be reduced to 0.9 or raised to 1.1 in exceptional circumstances based on a professional judgment of the Supervisory Board. For fiscal year 2021, the Supervisory Board has set the governance factor at the standard value of 1.0 for all current Board of Management members; it takes into account and assesses the collective performance of the Board of Management as a whole and the performance of each Management Board member individually.

	ENVIRONMENTAL		SOCIAL	
	Decarbonization index		Sentiment rating	Diversity index
in tCO_2e/vehicle	2021	Points	2021	2021
Maximum value	45.5	Maximum value	81.5	124
100 % target level	46.9	100 % target level	77.5	119
Minimum value	47.7	Minimum value	73.5	113
Actual	45.9	Actual	82.3	127
Target achievement (factor)	1.21	Target achievement (factor)	1.30	1.30

LONG-TERM INCENTIVE (LTI): (PHANTOM) PERFORMANCE SHARE PLAN (PSP)



b) Performance criteria for the long-term incentive (LTI)

The four-year performance share plan has applied since January 1, 2021 to all Board of Management members with service contracts newly concluded or renewed after the Supervisory Board resolution of December 14, 2020. This includes Mr. Antlitz, Mr. Aksel and Mr. Schmall-von Westerholt. For the Board of Management members already appointed at the time of the Supervisory Board resolution of December 14, 2020, a three-year performance period continues to apply until their contracts are renewed. This is the case for Ms. Werner, Mr. Duesmann, Mr. Blume and Mr. Witter. The four-year performance share plan applies pro rata from July 10, 2021 for Mr. Diess and pro rata from December 10, 2021 for Mr. Kilian.

aa) Information on the performance shares

€	PERFORMANCE PERIOD 2018– 2020 Number of performance shares allocated at the grant date	PERFORMANCE PERIOD 2019– 2021 Number of performance shares allocated at the grant date	PERFORMANCE PERIOD 2020– 2022 Number of performance shares allocated at the grant date	PERFORMANCE PERIOD 2021– 2023 Number of performance shares allocated at the grant date	PERFORMANCE PERIOD 2021– 2024 Number of performance shares allocated at the grant date
Herbert Diess	19,212	26,040	21,585	13,368	12,313
Murat Aksel (since January 1, 2021)	–	–	–	–	12,069
Arno Antlitz (since April 1, 2021)	–	–	–	–	9,052
Oliver Blume	7,614	12,238	10,144	12,069	–
Markus Duesmann	–	–	7,608	12,069	–
Gunnar Kilian	7,614	12,238	10,144	11,342	727
Thomas Schmall-von Westerholt (since January 1, 2021)	–	–	–	–	12,069
Hiltrud Dorothea Werner	10,624	12,238	10,144	12,069	–
Frank Witter (until March 31, 2021)	10,624	12,238	10,144	3,018	–
Total	**55,688**	**74,992**	**69,769**	**63,935**	**46,230**

bb) EPS performance

The following overview shows the minimum value, target value and maximum value set by the Supervisory Board at the beginning of the performance period for the performance share plan 2018–2020, which was paid out in fiscal year 2021, along with the actual figure and target achievement level in percent.

PERFORMANCE PERIOD 2018– 2020

€	2018	2019	2020
Maximum value	30.0	30.0	30.0
100 % target level	20.0	20.0	20.0
Minimum value	10.0	10.0	10.0
Actual	23.63	26.66	16.66
Target achievement (in %)	118	133	83

The following overviews show the minimum value, target value and maximum value set by the Supervisory Board at the beginning of the performance periods 2019 – 2021, 2020 – 2022 and 2021–2023 or 2021–2024 along with the actual figures and target achievement levels attained in percent so far for the individual years of the assessment period up to and including 2021. The performance share plans for the performance periods 2019 – 2021, 2020 – 2022 and 2020–2023 or 2021–2024 were not due in fiscal year 2021 and have not yet been paid out; they therefore do not constitute remuneration granted or owed in fiscal year 2021.

PERFORMANCE PERIOD 2019– 2021

€	2019	2020	2021
Maximum value	30.0	30.0	30.0
100 % target level	20.0	20.0	20.0
Minimum value	10.0	10.0	10.0
Actual	26.66	16.66	29.65
Target achievement (in %)	133	83	148

PERFORMANCE PERIOD 2020– 2022

€	2020	2021
Maximum value	30.0	30.0
100 % target level	20.0	20.0
Minimum value	10.0	10.0
Actual	16.66	29.65
Target achievement (in %)	83	148

PERFORMANCE PERIOD 2021– 2023

€	2021
Maximum value	30.0
100 % target level	20.0
Minimum value	10.0
Actual	29.65
Target achievement (in %)	148

PERFORMANCE PERIOD 2021– 2024

€	2021
Maximum value	30.0
100 % target level	20.0
Minimum value	10.0
Actual	29.65
Target achievement (in %)	148

cc) Reference prices/dividend equivalent for the performance periods

The relevant initial reference price, closing reference price and dividend equivalent for the performance period 2018–2020 can be found in the following overview.

	PERFORMANCE PERIOD
	2018 – 2020
Initial reference price	169.42
Closing reference price	149.14
Dividend equivalent	
2018	3.96
2019	4.86
2020	4.86

The following overview shows the initial reference price, closing reference price and dividend equivalent for the performance share plans not yet due and not yet paid out for the performance periods 2019–2021, 2020–2022 and 2021–2023 or 2021–2024.

	PERFORMANCE PERIOD			
	2019 – 2021	2020 – 2022	2021 – 2023	2021 – 2024
Initial reference price	147.08	177.44	149.14	149.14
Closing reference price	175.75	–[1]	–[1]	–[1]
Dividend equivalent				
2019	4.86	–	–	–
2020	4.86	4.86	–	–
2021	4.86	4.86	4.86	4.86

1 Determined at the end of the performance period.

dd) Advances

In the introductory phase of the performance share plan, the members of the Board of Management who were Board members as of December 31, 2016 generally received advances of 80% of their target amount for the 2017 to 2019 and 2018 to 2020 performance periods. Mr. Blume received corresponding advances for the performance periods 2018 to 2020 (proportionate) and 2019 to 2021. The advances were paid after the first year of the relevant performance period. Final settlement is based on actual achievement of targets at the end of the relevant three-year performance period.

2.2.2 Conformity with the remuneration system

The remuneration granted and owed to the Board of Management members in fiscal year 2021 meets the requirements of the remuneration system for the members of the Board of Management. There was no deviation from the applicable remuneration system in fiscal year 2021. There was no need to reduce the payments related to the annual bonus and performance share plan, as they did not exceed 180% of the target amount for the annual bonus or 200% of the target amount for the performance share plan. The total remuneration granted and owed to the Board of Management members in fiscal year 2021 did not exceed the maximum remuneration envisaged by the remuneration system. Due to the base salary paid out for fiscal year 2021, the annual bonus granted for fiscal year 2021 and paid out at the beginning of fiscal year 2022, and the performance share plan paid out in fiscal year 2021 for the 2018 to 2020 performance period, Board of Management member Ms. Werner would have received total cash remuneration above the agreed cash remuneration cap of €5.5 million gross in fiscal year 2021. Against this background, the payment amount from the annual bonus was reduced by the excess amount of €197,448.28. The table entitled "Remuneration granted and owed" therefore shows the reduced annual bonus amount for Ms. Werner. The Supervisory Board of Volkswagen AG reappointed Mr. Diess as a member of the Board of Management in fiscal year 2021 with effect from the beginning of July 10, 2021 and named him Chair of the Board of Management, thereby ending his existing appointment with effect from the end of July 9, 2021. A new service contract was concluded in this context, the terms of which correspond to the remuneration system applicable to members of the Volkswagen AG Board of Management from January 1, 2021. A four-year performance share plan has thus applied to Mr. Diess since July 10, 2021. For fiscal year 2021, the LTI was therefore based pro rata on a three-year performance share plan up to and including July 9, 2021 and a four-year performance share plan from July 10, 2021. The penalty and clawback rules were consequently only applicable as from July 10, 2021. Volkswagen AG also reappointed Mr. Kilian as a member of the Board of Management with effect from the beginning of December 10, 2021, thereby ending his existing appointment with effect from the end of December 9, 2021. A new service contract was concluded in this context, the terms of which correspond to the remuneration system applicable to members of the Volkswagen AG Board of Management from January 1, 2021. In line with the arrangements for Mr. Diess, a four-year performance share plan applied pro rata to Mr. Kilian starting on December 10, 2021, along with the penalty and clawback rules.

PENSIONS OF THE MEMBERS OF THE BOARD OF MANAGEMENT IN 2021 IN ACCORDANCE WITH IAS 19

€	Cash value	Pension expenses in fiscal year 2021
Herbert Diess	8,736,404.00	1,717,037.00
Murat Aksel	1,076,359.00	1,076,359.00
Arno Antlitz (since April 1, 2021)	883,496.00	883,496.00
Oliver Blume	3,669,616.00	1,092,470.00
Markus Duesmann	1,741,168.00	1,120,404.00
Gunnar Kilian	4,313,101.00	1,309,055.00
Thomas Schmall-von Westerholt	1,040,965.00	1,040,965.00
Hiltrud Dorothea Werner	5,724,252.00	1,261,258.00
Frank Witter (until March 31, 2021)	–	271,099.00
Total	**27,185,361.00**	**9,772,143.00**

2.2.3 Benefits and pension commitments in connection with termination

a) Benefits and pension commitments to Board of Management members for early termination

The remuneration system for the members of the Board of Management and the service contracts of the Board of Management members provide for severance payments in the event that an appointment as member of the Board of Management is revoked. In such cases – except where there is good cause entitling the Company to terminate the service contract prematurely or where the appointment is revoked due to a gross breach of duty – the Board of Management member receives a gross severance payment in the amount of the total remuneration of the past financial year up to the end of the regular term of the appointment, for a maximum of two years, calculated as of the date of the termination of the appointment as member of the Board of Management. Any special payment will not be taken into account for the calculation. Should a Board of Management member leave during the course of the first fiscal year of the appointment, the calculation will by way of exception be based on the expected total remuneration for the current fiscal year. The severance payment will be paid in a maximum of 24 monthly installments from the time of the termination of the appointment as a member of the Company's Board of Management. Contractual remuneration paid by the Company for the period from the termination of the appointment until the end of the service contract will be offset against the severance payment. Should Board of Management members take up other work after the termination of their appointment, the amount of the severance payment will be reduced by the amount of the income earned from that work. Should a post-contractual non-compete covenant be agreed, the severance payment will be offset against the compensation received for observing the post-contractual non-compete covenant.

The members of the Board of Management are also entitled to a pension and to a surviving dependents' pension as well as the use of company cars for the period in which they receive their pension in the event of early termination of their service on the Board of Management.

b) Pension commitments to Board of Management members for regular termination of service

In the event of regular termination of their service on the Board of Management, the members of the Board of Management are entitled to a pension, including a surviving dependents' pension, as well as the use of company cars for the period in which they receive their pension. The agreed benefits are paid or made available when the Board of Management member reaches the age of 63, or in Mr. Duesmann's, Mr. Aksel's, Mr. Schmall-von Westerholt's and Mr. Antlitz's case, when they reach the age of 65.

The Board of Management members received a defined contribution plan, which is based in principle on a works agreement that also applies to the employees of Volkswagen AG covered by collective agreements and includes retirement, invalidity and surviving dependents' benefits. A pension contribution in the amount of 50% of the base salary for Ms. Werner and Mr. Diess and in the amount of 40% of the base salary for Mr. Aksel, Mr. Blume, Mr. Duesmann, Mr. Kilian, Mr. Schmall-von Westerholt and Mr. Antlitz is paid to Volkswagen Pension Trust e.V. at the end of the calendar year for each year they are appointed to the Board of Management. The pension contribution for Mr. Witter was 50%. The annual pension contributions result in modules of what is, in principle, a lifelong pension in line with the arrangements that also apply to employees covered by collective agreements.

The individual pension modules vest immediately upon payment to Volkswagen Pension Trust e.V. Instead of a lifelong pension, benefits can optionally be paid out as a lump sum or in installments when the beneficiary reaches retirement age. Volkswagen AG has assumed responsibility for pension entitlements due to Mr. Witter from the time before his service with the Company. The earliest point at which he can draw his pension is when he reaches the age of 60; for his other pension entitlements, the earliest point at which Mr. Witter may retire is at the age of 62.

There were no changes to these commitments in fiscal year 2021.

The overview on the previous page shows the pensions for the individual members of the Board of Management in fiscal year 2021, indicating the present value and the pension expense for the Company during the last fiscal year.

c) Benefits and pension commitments to Board of Management members who left in fiscal year 2021

Mr. Witter left in fiscal year 2021. He was originally appointed as a member of the Volkswagen AG Board of Management until the end of June 30, 2021. Mr. Witter's appointment to the Board of Management of Volkswagen AG was terminated early by mutual agreement, effective March 31, 2021. Due to this termination, Volkswagen AG concluded a termination agreement with Mr. Witter. The subject of this termination agreement included the continuation of his service contract until its regular termination date, i.e. until the end of June 30, 2021. Volkswagen AG agreed to continue paying Mr. Witter his monthly base salary until the termination date of his service contract and to grant the annual bonus for 2021 and the LTI for the performance period 2021–2023 on a pro rata basis (6/12). Until the end of his service contract, Mr. Witter retained private use of his company cars and was entitled to fringe benefits.

2.2.4 No clawback claims in fiscal year 2021

Volkswagen AG did not seek to claw back any variable remuneration components from individual Board of Management members in fiscal year 2021. The prerequisites for a clawback claim did not apply.

IV. Remuneration of former Board of Management members

In accordance with section 162(1) sentence 1 of the AktG, the remuneration granted and owed to former members of the Board of Management must also be reported.

1. Remuneration granted and owed in fiscal year 2021 (individualized)

Under section 162(5) sentence 2 of the AktG, the obligation to report individually on the remuneration granted and owed to former Board of Management members also extends to remuneration granted and owed in the ten years after their most recent term of office on the Board of Management or Supervisory Board at Volkswagen AG.

The following tables show the remuneration granted and owed in fiscal year 2021 to the individual former members of the Board of Management who left after fiscal year 2011. As with the current Board of Management members, the annual bonus paid at the beginning of 2022 to former Board of Management members for the 2021 fiscal year is counted as remuneration granted in fiscal year 2021.

2. Total remuneration granted to former Board of Management members

Section 162(5) sentence 2 of the AktG does not require the Company to report individually on the remuneration granted and owed in 2021 to former members of the Board of Management whose most recent term of office on the Board of Management or Supervisory Board at Volkswagen AG came to an end before the beginning of 2012 and who were then granted and owed remuneration for more than ten years after leaving Volkswagen AG. A total of €9.1 million was granted and owed to such former Board of Management members and their surviving dependents in fiscal year 2021. Obligations for pensions for this group of persons measured in accordance with IAS 19 amounted to €119.9 million.

	KARLHEINZ BLESSING	
	2021	
	€	%
Pension payments	181,512.60	26.8
Base salary	–	–
Fringe benefits	5,667.50	0.8
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)	490,068.28	72.4
Severance payments	–	–
Total remuneration granted and owed	**677,248.38**	**100.0**

	FRANCISCO JAVIER GARCIA SANZ	
	2021	
	€	%
Pension payments	712,068.00	57.6
Base salary	–	–
Fringe benefits	34,128.00	2.8
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)	490,068.28	39.6
Severance payments	–	–
Total remuneration granted and owed	**1,236,264.28**	**100.0**

	JOCHEM HEIZMANN	
	2021	
	€	%
Pension payments	739,200.00	59.2
Base salary	–	–
Fringe benefits	18,489.00	1.5
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)	490,068.28	39.3
Severance payments	–	–
Total remuneration granted and owed	**1,247,757.28**	**100.0**

	CHRISTINE HOHMANN-DENNHARDT	
	2021	
	€	%
Pension payments	107,130.12	75.6
Base salary	–	–
Fringe benefits	34,521.14	24.4
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018 – 2020)	–	–
Severance payments	–	–
Total remuneration granted and owed	**141,651.26**	**100.0**

	MICHAEL MACHT	
	2021	
	€	%
Pension payments	739,200.00	95.7
Base salary	–	–
Fringe benefits	33,181.98	4.3
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018 – 2020)	–	–
Severance payments	–	–
Total remuneration granted and owed	**772,381.98**	**100.0**

	MATTHIAS MÜLLER	
	2021	
	€	%
Pension payments	1,108,800.00	78.5
Base salary	–	–
Fringe benefits	25,873.18	1.8
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018 – 2020)	277,297.32	19.6
Severance payments	–	–
Total remuneration granted and owed	**1,411,970.50**	**100.0**

	HORST NEUMANN	
	2021	
	€	%
Pension payments	660,058.20	95.1
Base salary	–	–
Fringe benefits	33,660.00	4.9
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)	–	–
Severance payments	–	–
Total remuneration granted and owed	**693,718.20**	**100.0**

	LEIF ÖSTLING	
	2021	
	€	%
Pension payments	243,848.76	100.0
Base salary	–	–
Fringe benefits	–	–
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)	–	–
Severance payments	–	–
Total remuneration granted and owed	**243,848.76**	**100.0**

	HANS DIETER PÖTSCH	
	2021	
	€	%
Pension payments	814,800.00	96.8
Base salary	–	–
Fringe benefits	26,719.14	3.2
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)	–	–
Severance payments	–	–
Total remuneration granted and owed	**841,519.14**	**100.0**

	ANDREAS RENSCHLER	
	2021	
	€	%
Pension payments	–	–
Base salary	–	–
Fringe benefits	73,765.00	1.3
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)	490,068.28	8.8
Severance payments	5,036,253.00	89.9
Total remuneration granted and owed	**5,600,086.28**	**100.0**

	RUPERT STADLER	
	2021	
	€	%
Pension payments	–	–
Base salary	–	–
Fringe benefits	4,354.68	0.9
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)[1]	468,508.74	99.1
Severance payments[2]	–	–
Total remuneration granted and owed	**472,863.42**	**100.0**

1 In the context of the diesel liability settlement, which was approved by the Annual General Meeting on July 22, 2021, Mr. Stadler has waived a further €420,000 gross of his LTI for fiscal year 2018 as his personal contribution.
2 In the context of the diesel liability settlement, which was approved by the Annual General Meeting on July 22, 2021, Mr. Stadler has waived his conditional claim to a severance payment of €5,112,500 gross from Volkswagen AG and AUDI AG. Moreover, Mr. Stadler has waived possible additional claims to severance payments from AUDI AG. In the context of the liability settlement, €3.6 million of the waived severance payment from Volkswagen AG and AUDI AG and €80,000 of the waived additional severance claims against AUDI AG were considered as Mr. Stadler's personal contribution.

	MARTIN WINTERKORN	
	2021	
	€	%
Pension payments	1,180,800.00	97.6
Base salary	–	–
Fringe benefits	28,572.00	2.4
One-year variable remuneration/annual bonus	–	–
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)[1]	–	–
Severance payments[2]	–	–
Total remuneration granted and owed	**1,209,372.00**	**100.0**

1 In the context of the diesel liability settlement, which was approved by the Annual General Meeting on July 22, 2021, Mr. Winterkorn has waived €1.335 million gross of his special benefits for fiscal year 2016, which were deferred to June 30, 2021 on the basis of a contractual agreement, as his personal contribution.
2 In the context of the diesel liability settlement, which was approved by the Annual General Meeting on July 22, 2021, Mr. Winterkorn has waived €2.655 million gross of his LTI for fiscal year 2016, which was deferred to June 30, 2021 on the basis of a contractual agreement, as his personal contribution.

	FRANK WITTER[1]	
	2021	
	€	%
Pension payments	216,385.92	13.7
Base salary	355,000.00	22.5
Fringe benefits	54,570.20	3.5
One-year variable remuneration/annual bonus	586,845.00	37.1
Multiyear variable remuneration/long-term incentive (LTI, performance share plan 2018–2020)	367,551.21	23.3
Severance payments	–	–
Total remuneration granted and owed	**1,580,352.33**	**100.0**
Pension expenses	271,099.00	–
Total remuneration incl. pension expenses	**1,851,451.33**	**–**

1 Mr. Witter was an active Board of Management member until March 31, 2021. The table shows his remuneration in fiscal year 2021 after his departure from the Board of Management.

V. Comparative presentation

The following table shows a comparison of the year-on-year percentage change in the remuneration of current and former Board of Management members with the earnings performance of Volkswagen AG and with the average remuneration of employees on a full time equivalent basis. For members of the Board of Management, the remuneration granted and owed in in the reporting year, is placed in relation to the equivalent figure for the previous year.

Earnings performance is shown on the basis of Volkswagen AG's net income or loss for the year. However, the remuneration of the Board of Management members is based on Group KPIs. In order to demonstrate more transparently how the remuneration of the Board of Management members has changed compared with earnings performance, the earnings after tax, operating result and operating return on sales of the Volkswagen Group, as reported in the consolidated financial statements, are also used in determining earnings performance. This means that Group KPIs are not only applied in calculating the remuneration of the Board of Management members but also in determining earnings performance. The Group KPIs used in determining earnings performance show the overall effect of the business activities for which the Board of Management is responsible.

The comparison with the growth in average employee remuneration is based on the personnel expenses of Volkswagen AG reported in the notes to the annual financial statements of Volkswagen AG, adjusted for the remuneration of the members of the Board of Management. These adjusted personnel expenses are divided by the number of full time equivalent employees of Volkswagen AG as of December 31, 2021, excluding the members of the Board of Management.

Annual change in %	2021 compared with 2020[1]
Board of Management remuneration[2]	
Herbert Diess	+40.1%
Murat Aksel	–
Arno Antlitz	–
Oliver Blume	+74.8%
Markus Duesmann	−56.6%
Gunnar Kilian	+128.3%
Thomas Schmall-von Westerholt	–
Hiltrud Dorothea Werner	+6.6%
Frank Witter[3]	−34.5%
Karlheinz Blessing	−83.0%
Francisco Javier Garcia Sanz	−43.8%
Jochem Heizmann	−50.7%
Christine Hohmann-Dennhardt	+2.7%
Michael Macht	+0.6%
Matthias Müller	−71.4%
Horst Neumann	+0.1%
Leif Östling	+1.0%
Hans Dieter Pötsch	−1.5%
Andreas Renschler	−0.2%
Rupert Stadler	−73.7%
Martin Winterkorn	+0.2%
Earnings performance	
Net income or loss for the year of Volkswagen AG	−36.2%
Earnings after tax of the Volkswagen Group	+74.8%
Operating result of the Volkswagen Group	+99.2%
Operating return on sales of the Volkswagen Group	+79.1%
Employees	
Volkswagen AG employees	+9.2%

1 Under the transitional provision of section 26j(2) sentence 2 of the *Einführungsgesetz zum Aktiengesetz* (EGAktG – Introductory Act to the German Stock Corporation Act), the comparative presentation is to be based on the average remuneration in the period since fiscal year 2020 only, rather than the average remuneration for the last five fiscal years; this provision applies until the end of fiscal year 2025.
2 Remuneration "granted and owed" within the meaning of section 162(1) sentence 1 of the AktG.
3 Remuneration "granted and owed" for full fiscal year 2021 as an active Board of Management member and after his departure from the Board of Management.

VI. Peer group

The Supervisory Board regularly reviews and, if necessary, adjusts the level of the remuneration, the total remuneration cap and the individual targets. Among other things, the Supervisory Board performs a vertical comparison with the remuneration and employment terms of the Company's employees and a horizontal comparison with the remuneration and employment terms of other companies' management board members. The Supervisory Board conducts a peer group comparison to assess whether the specific total remuneration paid to the members of the Board of Management is customary when measured against that paid in other companies. This peer group is regularly reviewed and adjusted, most recently in February and December 2020. The peer group currently comprises the following companies: BMW, Daimler, Ford, General Motors, Stellantis, Nissan Motor Corporation, Toyota, BYD, Tesla (excluding CEO), hp, IBM, Uber, SAP, Samsung, General Electric, Siemens, Hitachi and Boeing.

B. REMUNERATION OF THE MEMBERS OF THE SUPERVISORY BOARD

I. Principles of Supervisory Board remuneration

Following its regular review of Supervisory Board remuneration, the Supervisory Board proposed a revision of the remuneration for the members of the Supervisory Board to the 2017 Annual General Meeting. The proposed revision to the Supervisory Board remuneration system was approved by the Annual General Meeting on May 10, 2017 with 99.98% of the votes cast. The remuneration of the members of the Supervisory Board is governed by Article 17 of the Articles of Association of Volkswagen Aktiengesellschaft. Section 113(3) of the AktG, as amended by ARUG II, requires the Annual General Meeting of listed companies to pass a resolution on the remuneration of Supervisory Board members at least every four years, whereby a resolution confirming the existing remuneration is also permissible. Information on the system in place for the remuneration of the Supervisory Board members must also be provided in this process. At the Annual General Meeting on July 22, 2021, the Supervisory Board and Board of Management presented the existing remuneration of the members of the Supervisory Board for confirmation and the remuneration system for approval. The Annual General Meeting on July 22, 2021 confirmed the remuneration and approved the remuneration system with 99.99% of the votes cast.

The remuneration of the members of the Supervisory Board of Volkswagen AG is comprised entirely of non-performance-related remuneration components. Remuneration for supervisory board work at subsidiaries continues to be comprised partly of non-performance-related and partly of performance-related components.

II. Overview of remuneration

The members of the Supervisory Board of VolkswagenAG receive fixed remuneration of €100,000 per fiscal year. The Chair of the Supervisory Board receives fixed remuneration of €300,000; the Deputy Chair receives fixed remuneration of €200,000.

For their work in the Supervisory Board committees, the members of the Supervisory Board also receive additional fixed remuneration of €50,000 per committee and fiscal year provided the committee met at least once that year for the performance of its duties. Memberships of the Nomination and Mediation Committees established in accordance with section 27(3) of the *Mitbestimmungsgesetz* (MitbestG – German Codetermination Act) are not taken into account. Committee chairs receive double this amount, while the deputy chairs receive one-and-a-half times the committee remuneration listed previously. Remuneration is paid for work on a maximum of two committees, whereby the two most highly remunerated functions are taken into account if this maximum is exceeded. Supervisory Board members who belonged to the Supervisory Board or one of its committees for only part of the fiscal year receive remuneration on a pro rata temporis basis. Any value-added tax incurred on the remuneration is reimbursed by the Company.

Supervisory Board members receive an attendance fee of €1,000 for attending a meeting of the Supervisory Board or one of its committees; if several meetings take place on the same day, the attendance fee is paid only once.

The remuneration and attendance fees are each payable after the end of the fiscal year.

The remuneration enables suitable, qualified candidates to be recruited to the Supervisory Board. As such, the remuneration of the members of the Supervisory Board contributes to the ability of the Supervisory Board as a whole to properly and competently perform its duties of monitoring and advising the Board of Management. Restricting the payment to fixed remuneration is also appropriate to the duties of the Supervisory Board. The restriction provides the Supervisory Board members with an incentive in their monitoring and advisory duties to properly scrutinize the activities of the Board of Management without being guided primarily by the performance of key operating ratios.

Once they have retired from the Supervisory Board, former members no longer receive remuneration from Volkswagen AG for their previous work on the Supervisory Board.

III. Other remuneration

Volkswagen AG reimburses Supervisory Board members for the expenses they incur in the course of their work. In accordance with Article 17(7) sentence 2 of the Articles of Association of Volkswagen AG, the members of the Supervisory Board were also covered in the reporting year by the directors and officers (D&O) insurance taken out by the Company in their interest. The Company paid the premiums for the D&O insurance. There was a deductible of at least 10% of the damage up to at least one-and-a-half times the fixed remuneration of the relevant Supervisory Board member.

IV. Remuneration to Supervisory Board members in fiscal year 2021

1. Supervisory Board members in fiscal year 2021

The members of the Volkswagen AG Supervisory Board in office during the 2021 fiscal year are listed in the table below.

2. Remuneration granted and owed

The following table shows the remuneration individually granted and owed to each of the Supervisory Board members in fiscal year 2021. This is based on the same understanding of the term "granted and owed" as set out on page 4 of this remuneration report. The remuneration reported in the table therefore reflects the amounts actually received in fiscal year 2021.

€ (%)	FIXED REMUNERATION 2021	WORK IN THE COMMITTEES 2021	MEETING ATTENDANCE FEES 2021	TOTAL 2021	REMUNERATION FOR SERVING ON THE BOARDS OF OTHER GROUP COMPANIES[1] 2021
Hans Dieter Pötsch	300,000.00 (72.3 %)	100,000.00 (24.1 %)	15,000.00 (3.6 %)	**415,000.00**	498,900.00
Jörg Hofmann[2]	200,000.00 (69.0 %)	75,000.00 (25.9 %)	15,000.00 (5.2 %)	**290,000.00**	–
Hussain Ali Al Abdulla	100,000.00 (96.2 %)	–	4,000.00 (3.8 %)	**104,000.00**	–
Hessa Sultan Al Jaber	100,000.00 (94.3 %)	–	6,000.00 (5.7 %)	**106,000.00**	–
Bernd Althusmann[3]	100,000.00 (62.9 %)	50,000.00 (31.4 %)	9,000.00 (5.7 %)	**159,000.00**	–
Kai Bliesener (until March 31, 2021)[2]	25,000.00 (92.6 %)	–	2,000.00 (7.4 %)	**27,000.00**	–
Matías Carnero Sojo (since April 1, 2021)[4]	–	–	–	**–**	–
Daniela Cavallo (since May 11, 2021)[2]	63,888.89 (46.7 %)	61,944.44 (45.3 %)	11,000.00 (8.0 %)	**136,833.33**	86,308.59
Hans-Peter Fischer[2]	100,000.00 (90.9 %)	–	10,000.00 (9.1 %)	**110,000.00**	–
Marianne Heiß	100,000.00 (61.7 %)	50,000.00 (30.9 %)	12,000.00 (7.4 %)	**162,000.00**	83,700.00
Ulrike Jakob[2]	100,000.00 (90.9 %)	–	10,000.00 (9.1 %)	**110,000.00**	–
Louise Kiesling	100,000.00 (92.6 %)	–	8,000.00 (7.4 %)	**108,000.00**	–
Peter Mosch[2]	100,000.00 (47.1 %)	96,458.33 (45.4 %)	16,000.00 (7.5 %)	**212,458.33**	163,900.00
Bertina Murkovic[2]	100,000.00 (46.3 %)	100,000.00 (46.3 %)	16,000.00 (7.4 %)	**216,000.00**	–
Bernd Osterloh (until April 30, 2021)[2]	33,055.56 (42.2 %)	41,319.44 (52.7 %)	4,000.00 (5.1 %)	**78,375.00**	47,552.18
Hans Michel Piëch	100,000.00 (60.2 %)	50,000.00 (30.1 %)	16,000.00 (9.6 %)	**166,000.00**	190,800.00
Ferdinand Oliver Porsche	100,000.00 (38.0 %)	150,000.00 (57.0 %)	13,000.00 (4.9 %)	**263,000.00**	163,800.00
Wolfgang Porsche	100,000.00 (37.6 %)	150,000.00 (56.4 %)	16,000.00 (6.0 %)	**266,000.00**	215,800.00
Jens Rothe (since October 22, 2021)[2]	19,166.67 (90.6 %)	–	2,000.00 (9.4 %)	**21,166.67**	–
Conny Schönhardt[2]	100,000.00 (61.7 %)	50,000.00 (30.9 %)	12,000.00 (7.4 %)	**162,000.00**	–
Athanasios Stimoniaris (until August 31, 2021)[2]	66,666.67 (91.7 %)	–	6,000.00 (8.3 %)	**72,666.67**	199,586.15
Stephan Weil[3]	100,000.00 (61.3 %)	50,000.00 (30.7 %)	13,000.00 (8.0 %)	**163,000.00**	–
Werner Weresch[2]	100,000.00 (91.7 %)	–	9,000.00 (8.3 %)	**109,000.00**	94,500.00
Total	**2,207,777.79**	**1,024,722.21**	**225,000.00**	**3,457,500.00**	**1,744,846.92**

1 The remuneration for membership of other Group bodies includes variable remuneration components for the following members of the Supervisory Board: Hans Dieter Pötsch (€142,400.00), Marianne Heiß (€71,200.00), Peter Mosch (€142,400.00), Hans Michel Piëch (€106,800.00), Ferdinand Oliver Porsche (€106,800.00), Wolfgang Porsche (€106,800.00) and Athanasios Stimoniaris (€40,000.00).

2 These employee representatives have stated that they will transfer their Supervisory Board remuneration to the Hans Böckler Foundation in accordance with the guidelines issued by the *Deutscher Gewerkschaftsbund* (DGB –German Confederation of Trade Unions).

3 Under section 5(3) of the *Niedersächsisches Ministergesetz* (German Act Governing Ministers of the State of Lower Saxony), these members of the Supervisory Board are obliged to transfer their Supervisory Board remuneration to the State of Lower Saxony as soon as and in so far as it exceeds €6,200 per annum. Remuneration is defined for this purpose as Supervisory Board remuneration and attendance fees exceeding the amount of €200.

4 Mr. Carnero Sojo waived his remuneration for fiscal year 2021 in its entirety.

V. Comparative presentation

The following table compares the year-on-year percentage change in the remuneration of the Supervisory Board members with the earnings performance of Volkswagen AG and with the average remuneration of employees on a full time equivalent basis.

Earnings performance is shown on the basis of Volkswagen AG's net income or loss for the year. The Volkswagen Group's earnings after tax are also used as a Group KPI.

The comparison with the growth in average employee remuneration is based on the personnel expenses of Volkswagen AG reported in the notes to the annual financial statements of Volkswagen AG, adjusted for the remuneration of the members of the Board of Management. These adjusted personnel expenses are divided by the number of full time equivalent employees of Volkswagen AG as of December 31, 2021, excluding the members of the Board of Management.

Annual change in %	2021 compared with 2020[1]
Supervisory Board remuneration[2]	
Hans Dieter Pötsch	+1.5%
Jörg Hofmann	–3.0%
Hussain Al Abdulla	+1.0%
Hessa Sultan Al Jaber	–2.8%
Bernd Althusmann	–2.5%
Kai Bliesener (until March 31, 2021)	–54.3%
Matías Carnero Sojo (since April 1, 2021)	–
Daniela Cavallo (since May 11, 2021)	–
Hans-Peter Fischer	–2.7%
Marianne Heiß	+2.6%
Ulrike Jakob	–2.7%
Louise Kiesling	–4.4%
Peter Mosch	+2.1%
Bertina Murkovic	+7.8%
Bernd Osterloh (until April 30, 2021)	–68.3%
Hans Michel Piëch	+13.5%
Ferdinand Oliver Porsche	+3.1%
Wolfgang Porsche	+8.9%
Jens Rothe (since October 22, 2021)	–
Conny Schönhardt	–3.0%
Athanasios Stimoniaris (until August 31, 2021)	–35.8%
Stephan Weil	–4.1%
Werner Weresch	+9.1%
Earnings performance	
Net income or loss for the year of Volkswagen AG	–36.2%
Earnings after tax of the Volkswagen Group	+74.8%
Employees	
Volkswagen AG employees	+9.2%

1 Under the transitional provision of section 26j(2) sentence 2 of the *Einführungsgesetz zum Aktiengesetz* (EGAktG – Introductory Act to the German Stock Corporation Act), the comparative presentation is to be based on the average remuneration in the period since fiscal year 2020 only, rather than the average remuneration for the last five fiscal years; this provision applies until the end of fiscal year 2025.

2 Remuneration "granted and owed" within the meaning of section 162(1) sentence 1 of the AktG.

4

GROUP MANAGEMENT REPORT

Goals and Strategies

With the new Group strategy "NEW AUTO" – Mobility for generations to come, we are preparing ourselves for the global changes in mobility and thus driving Volkswagen's transformation into a software-centric company.

In the context of the fast-changing environment and the challenges resulting from it, the Group Board of Management adopted the new Group strategy "NEW AUTO" – Mobility for generations to come in May 2021 with the approval of the Supervisory Board. The strategy's focus is the world of mobility in 2030.

NEW AUTO thus continues the transformation initiated with the predecessor strategies, TOGETHER 2025 and TOGETHER 2025+, which kicked off one of the biggest processes of change in the Company's history with the aim of making the Group more focused, efficient, innovative, customer-oriented and sustainable, and systematically gearing it toward profitable growth. These strategies have already provided the framework and key pillars with which we aim to achieve our vision of being a world-leading provider of sustainable mobility.

As technology advances, the automotive industry is rapidly forging ahead with the transformation toward e-mobility and digitalization. The market for electric vehicles will thus continue to grow strongly in the next few years, meaning that cost-efficient and sustainable production of battery systems and the expansion of charging infrastructure will be crucial to success.

The shift to connected, intelligent and eventually self-driving vehicles will, however, bring more wide-reaching changes for the automotive industry. Increasing software development capabilities seeking to excite customers with constantly improving digital functionality is the prerequisite for this. The most important milestone in this context is the development of autonomous driving, which will change customers' experience of mobility forever and will additionally pave the way for new business models.

In equal measure to technological trends, the global economic and geopolitical environment is also posing increased challenges for the automotive industry. These include, for example, the economic influence of our largest mobility markets, China, the USA and Europe, and their diverging development. We anticipate that the Chinese economy will continue to gain influence and grow. The sustained growth in economic output (GDP), among other things, underlines the importance of the Asian market.

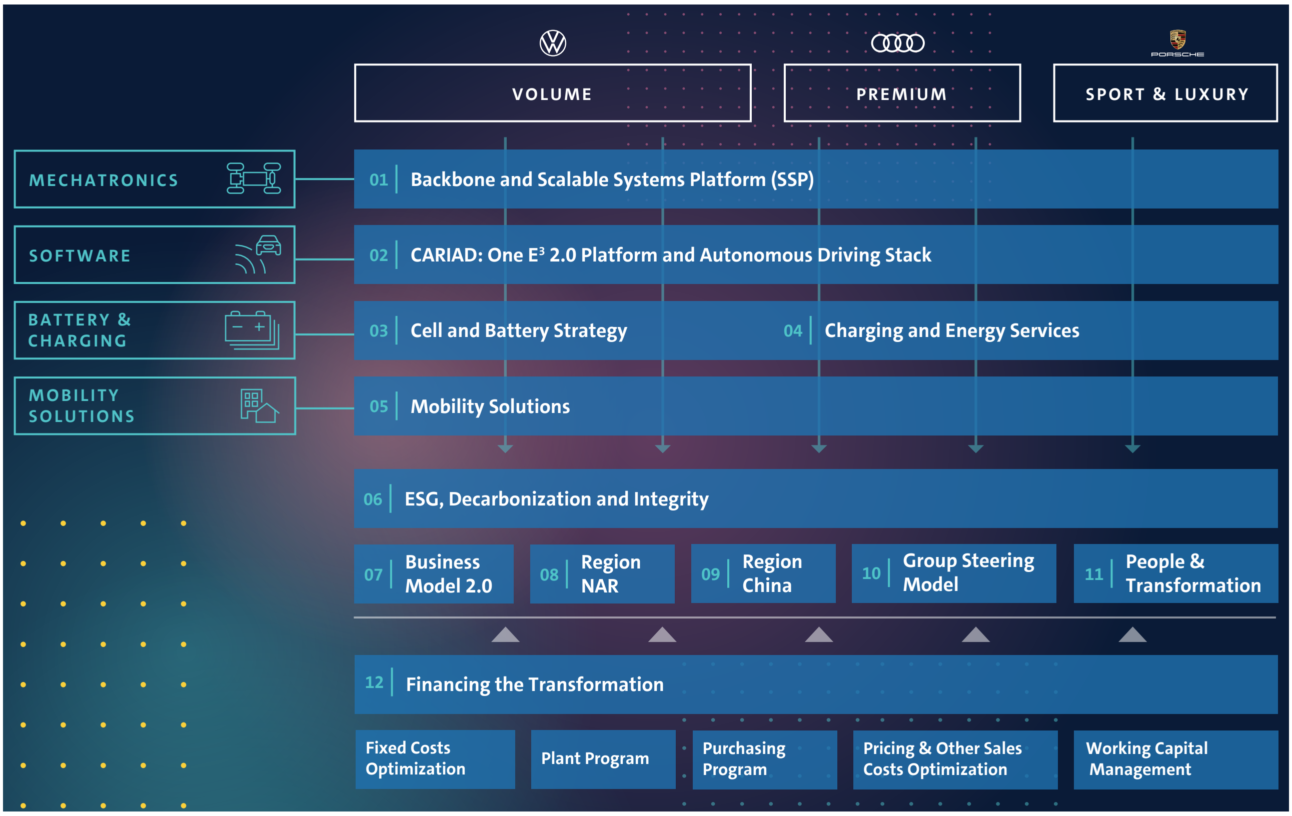
Sustainability will continue to be a recurring theme in the business world, driven by the increasingly noticeable consequences of climate change and customers' greater awareness of sustainable lifestyles. We are committed to the Paris Agreement on climate protection, which aims to keep the increase in global temperature by 2050 to well below 2 degrees Celsius, and have set ourselves the goal of becoming a net carbon-neutral company by 2050.

With NEW AUTO, we are resetting our priorities and developing the necessary expertise as we continue our transition from automotive manufacturer to mobility group. Alongside software development and capabilities in autonomous driving, this also includes areas such as battery technology, battery recycling, charging infrastructure and mobility services.

The new Group strategy consists of a total of twelve Group initiatives across the brand groups. The focus is on the main multidisciplinary topics of mechatronics, software, battery & charging, and mobility solutions, on which the five tech initiatives described below are based. A further seven base initiatives form the foundation for the Volkswagen Group's strategic realignment. These are ESG, Decarbonization & Integrity, Business Model 2.0, North America (NAR) and China Regions, Group Steering Model, People & Transformation and Financing the Transformation.

To make the progress in the relevant Group initiatives of our strategy as transparent as possible for management and employees, the Group Board of Management decided to structure and regularly measure the strategic goals and milestones using the OKR (Objectives and Key Results) method. This means that, for each Group initiative, achievable

THE 12 GROUP INITIATIVES OF THE NEW AUTO STRATEGY



strategic objectives will be defined along with envisaged key results, and their achievement discussed quarterly with the Board of Management.

MECHATRONICS – BACKBONE AND SCALABLE SYSTEMS PLATFORM

Innovation, technology and lasting competitiveness are to be ensured using a future-oriented mechatronics platform. A standard platform known as the SSP – Scalable Systems Platform will enable maximum synergy effects, reduced investment costs and fast, regular technology updates, while also ensuring the necessary product differentiation in the Group's portfolio. The Backbone and SSP tech initiative forms the basis for autonomous driving and supports us in being able to offer electric cars for all.

SOFTWARE – CARIAD: ONE E^3 2.0 PLATFORM AND AUTONOMOUS DRIVING (AD) STACK

Software-based customer functions (such as driver assistance systems) have already improved driving comfort and vehicle safety significantly in the past. As vehicles become fully connected in future and increasingly complex software technologies are developed (for instance with the aid of artificial intelligence), a completely new experience of mobility and additional product differentiation will become possible, due in part to the development of automated driving. To maximize synergies in the development of software platforms and software-based customer functions, the Volkswagen Group combines this development expertise with software subsidiary CARIAD's new software architecture E^3 2.0. The CARIAD: One E^3 2.0 Platform and AD Stack tech initiative thus comprises measures to drive the development of software platforms for connectivity and automated driving and their rollout to all Group's vehicles.

BATTERY – CELL AND BATTERY STRATEGY

We must become a profitable expert along the entire battery life cycle to achieve our objective of transforming into a world-leading provider of sustainable mobility. To this end, the Cell and Battery Strategy tech initiative pools expertise across the Group and drives the transformation process together with our strategic partners. This includes battery management along with cell production and recycling.

CHARGING – CHARGING AND ENERGY SERVICES

We need to ensure coordinated and cohesive cooperation across the whole Group to establish ourselves as a global, comprehensive charging and energy services provider in the future. The Charging and Energy Services tech initiative combines activities across the brands, creates synergies and drives the creation of a dense and extensive charging network.

MOBILITY SOLUTIONS

In keeping with its mission statement, "Mobility for generations to come", the Volkswagen Group is developing mobility solutions of the future, taking into account global trends and changing customer needs. Autonomous driving, combined with new mobility solutions, is expected to mark Volkswagen's transformation into a leading provider of sustainable mobility.

ESG, DECARBONIZATION AND INTEGRITY

ESG (Environmental, Social, Governance) refers to the basic principles of doing business sustainably. The Group's stakeholders (e.g. investors, employees, customers and non-profit organizations) have high expectations of the Company's ESG performance, including issues such as decarbonization and integrity, but also its conduct as an employer and as part of society. The ESG performance therefore directly affects the Group's market capitalization, cost of capital and investing activities.

BUSINESS MODEL 2.0

By connecting vehicles, we will be able in future to remain in contact with customers throughout the entire vehicle lifecycle and thus to offer them services and functions for their individual needs. The Business Model 2.0 base initiative is developing a Group-wide portfolio of services that aims to create a seamless and innovative product experience to connect brands, customers, dealerships, our partners and whole markets.

NORTH AMERICA (NAR) REGION

North America is the region with the greatest growth potential for the Volkswagen Group, especially in e-mobility. In the United States, we are putting a wide range of highly attractive electric vehicles on the roads, tailored to the market. We are positioning ourselves for the future and are ready to leverage the growth of an increasingly electrified market using our strong brands, products and services.

REGION CHINA

China is of major strategic significance to the Volkswagen Group as its largest single market, which we expect will continue growing in the future. This base initiative therefore brings together all key measures to continue the success story of Volkswagen in China. It includes a comprehensive program of measures to expand market share in the electric vehicle segment and safeguard market share in combustion engine vehicles. The core component remains a Group-wide localization strategy, which aims to offer Chinese customers tailored products using globally developed platform technologies (hardware and software).

GROUP STEERING MODEL

To achieve the objectives of the Group strategy and, consequently, long-term success for the Volkswagen Group, we need to establish mechanisms for making swift decisions and exploiting synergies at a consistently high level, and to constantly enhance them. The updated Group steering model hones the definition of responsibilities and roles and provides transparency, thus strengthening collaboration within the Group. The Volkswagen Group is creating a future-oriented governance model to match the changing environment.

PEOPLE & TRANSFORMATION

As it becomes a global tech company, the Volkswagen Group will see the biggest transformation of its workforce in its corporate history. To ensure the Group remains competitive in future, we need to attract and retain top talent in the long term and support employees by providing extensive training. Aligning the structure of the workforce with the fields that will be relevant for the future will also be centrally important.

FINANCING THE TRANSFORMATION

The transformation being driven by digitalization and electrification will require extensive investment. To meet the need for financing, this base initiative aims to leverage even more Group-wide synergies across all functional areas along the value chain, focusing on costs and efficiency. The initiative therefore includes multiple action areas, such as productivity increases at plants and measures to optimize cash flows in the Group.

GOALS AND KEY PERFORMANCE INDICATORS OF THE GROUP'S STRATEGY

The twelve newly defined Group initiatives describe how we intend to achieve our goals of sustainable mobility not only for today's, but also for tomorrow's generations. Our strategy will continue to be guided by four overarching target dimensions: excited customers, excellent employer, role model for environment, safety and integrity, and competitive profitability. We want to grow sustainably by consistently pursuing these objectives.

The target dimensions apply throughout the whole Group. The strategic KPIs that we use to measure how well we have implemented our Group strategy are dependent on the respective business model.

As the new Group strategy NEW AUTO is currently being concretized and enhanced, the content of the strategic KPIs and the correspondingly adjusted targets for 2030 in the target dimensions are still being determined. As part of this, the relevance of the KPIs will be reviewed at Group level and their focus will be continuously monitored and adjusted as necessary. We report on the originally defined nonfinancial strategic KPIs in the chapter entitled “Sustainable Value Enhancement”.

Target dimension: excited customers

This target dimension focuses on the diverse needs of our customers and on tailor-made mobility solutions. We aspire to exceed our customers’ expectations, thus generating maximum customer benefit. This requires not only the best products, the most efficient solutions and the best service, but also flawless quality and an outstanding image. We want to excite our existing customers, win over new ones and retain their loyalty in the long term – because only loyal and faithful customers will recommend us to others.

The strategic KPIs consist of the conquest rate and KPIs pertaining to loyalty, customer satisfaction and quality.

Target dimension: excellent employer

To achieve sustainable success, we need skilled and dedicated employees. We aim to boost their satisfaction and motivation by means of equal opportunities, an attractive and modern working environment, and a forward-looking approach to the organization of work. An exemplary leadership and corporate culture forms the basis for this, allowing us to retain our core workforce and attract new talents.

The strategic KPIs of this target dimension cover internal employer attractiveness determined by means of the opinion survey, external employer attractiveness, an external employer ranking and the diversity index.

Target dimension: role model for environment, safety and integrity

Every day, we at the Volkswagen Group assume and exercise responsibility in issues relating to the environment, safety and society. This commitment should be reflected both in our thoughts and actions and in all our decisions. We pay particular attention to the use of resources and the emissions of our product portfolio as well as those of our sites and plants, with the goal of continuously improving our carbon footprint and lowering pollutant emissions. Through innovations and outstanding quality, we aim for maximum product safety.

Our primary objectives in this process include complying with laws and regulations, establishing secure processes and dealing openly with mistakes so that they can be avoided or rectified in the future. In terms of integrity, Volkswagen aims to become a role model for a modern, transparent and successful enterprise.

The strategic KPIs of this target dimension consist of the decarbonization index and fleet CO_2 emissions figures, compliance, a culture of dealing openly with mistakes, and integrity.

Target dimension: competitive profitability

Investors judge us by whether we are able to meet our obligations as regards interest payments and debt repayments. As equity holders, they expect appropriate dividends and a long-term increase in the value of their shares.

We make investments with a view to achieving profitable growth and strengthening our competitiveness, thus keeping the Volkswagen Group on a firm footing for the future and ensuring it remains an attractive investment option.

The goals we have set ourselves are operational excellence in all business processes and becoming the benchmark for the entire industry.

The strategic KPIs are operationalized for internal management purposes: target and actual data are derived from Volkswagen Group figures.

STRATEGIC KPIS: COMPETITIVE PROFITABILITY

	2015	2025
Operating return on sales[1]	6.0%	8 to 9%
Research and development ratio (R&D ratio) in the Automotive Division	7.4%	~6%
Ratio of capex to sales revenue in the Automotive Division	6.9%	~5%
Net cash flow in the Automotive Division	€8,887 million	>€10 billion
Payout ratio	negative	≥ 30%
Net liquidity in the Automotive Division	€24,522 million, 11.5%	~10% of consolidated sales revenue
Return on investment (ROI) in the Automotive Division	–0.2%	>15%

1 2015 before special items.

Internal Management System and Key Performance Indicators

This chapter describes how the Volkswagen Group is managed on the basis of the Group strategy and the key performance indicators used for this purpose. In addition to financial measures, our management system also contains nonfinancial key performance indicators.

The Volkswagen Group's performance and success are expressed in both financial and nonfinancial key performance indicators.

In the following, we first describe the internal management process and then explain the Volkswagen Group's most significant performance indicators, known as the core performance indicators.

INTERNAL MANAGEMENT PROCESS IN THE VOLKSWAGEN GROUP

Consistent, close integration of the Group and brand strategies with the operational planning process ensures transparency at the Volkswagen Group when it comes to the financial assessment and evaluation of strategic decisions. The operational medium-term planning that is conducted once a year and generally covers a period of five years is incorporated into the strategic planning as a key management element of the Group.

Medium-term planning forms the core of our operational planning and is used to formulate and safeguard the requirements for realizing strategic projects designed to meet Group targets in both technical and economic terms – and particularly in relation to earnings, cash flow and liquidity effects. In addition, it is used to coordinate all business areas with respect to the strategic action areas concerned, namely functions/processes, products and markets.

When planning the Company's future, the individual planning components are determined on the basis of the timescale involved:

> The long-term unit sales plan, which sets out market and segment growth and then derives the Volkswagen Group's delivery volumes from this
> The product program as the strategic, long-term factor determining corporate policy
> Capacity and utilization planning for the individual site.

The coordinated results of the upstream planning processes are used as the basis for the medium-term financial planning: the Group's financial planning, including the brands and business fields, comprises the income statement, cash flow and balance sheet planning, profitability and liquidity, as well as the upfront investments needed for alternative products and the implementation of strategic options in the future. The first year of the medium-term planning period is fixed and a budget drawn up for the individual months. This is planned in detail down to the level of the operating cost centers.

The budget is reviewed each month to establish the target achievement level. Key internal management instruments comprise target/actual comparisons, prior-year comparisons, variance analyses and, where necessary, action plans to ensure targets are met. For the current fiscal year, detailed revolving monthly forecasts are prepared for the coming three months and the full year, taking into account the current risks and opportunities. The focus of intrayear internal management is therefore on adapting ongoing activities. The current forecast serves as a corrective to the medium-term and budget planning that follows on from it.

CORE PERFORMANCE INDICATORS IN THE VOLKSWAGEN GROUP

The Volkswagen Group's internal management system is based on nine core performance indicators, which are derived from our strategic goals:

> Deliveries to customers
> Sales revenue
> Operating result
> Operating return on sales
> Research and development ratio (R&D ratio) in the Automotive Division
> Ratio of capex to sales revenue in the Automotive Division
> Net cash flow in the Automotive Division
> Net liquidity in the Automotive Division
> Return on investment (ROI) in the Automotive Division

Deliveries to customers are defined as handovers of new vehicles to the end customer. This figure shows the popularity of our products and is the measure we use to determine our competitive position in the various markets. Deliveries are closely related to our goal of transforming the Volkswagen Group into a world-leading, software-centric mobility provider. One of the most important prerequisites for the Company’s long-term success is a strong brand portfolio that – on the basis of outstanding quality – offers tailor-made mobility solutions with safe, connected, resource-efficient and thus largely emission-free vehicles that meet the diverse needs of customers. Demand for our products and mobility services guarantees not only unit sales and production, but also full utilization of our sites and the jobs of our employees. The goals we are striving for cannot be achieved without a skilled, flexible and dedicated workforce and a consensus on shared values.

Sales revenue, which does not include the figures for our equity-accounted Chinese joint ventures, reflects our market success in financial terms. Following adjustment for our use of resources, the operating result reflects the Company’s actual business activity and documents the economic success of our core business. The operating return on sales is the ratio of the operating result to sales revenue.

The research and development ratio (R&D ratio) in the Automotive Division shows total research and development costs in relation to sales revenue. Research and development costs comprise a range of expenses, from futurology through to the development of marketable products. Particular emphasis is placed on the environmentally friendly orientation and digitalization of our product portfolio, the expansion of our battery expertise, the development of software and new platforms and the creation of new technologies. The R&D ratio reflects our activities undertaken to safeguard the Company’s future viability.

The ratio of capex (investments in property, plant and equipment, investment property and intangible assets, excluding capitalized development costs) to sales revenue in the Automotive Division reflects both our innovative power and our future competitiveness. It shows our capital expenditure – largely for modernizing, expanding, electrifying and digitalizing our product range and for environmentally friendly drivetrains, as well as for adjusting production capacities and improving production processes – in relation to the Automotive Division’s sales revenue.

Net cash flow in the Automotive Division represents the excess funds from operating activities available for dividend payments, for example. It is calculated as cash flows from operating activities less cash flows from investing activities attributable to operating activities.

Net liquidity in the Automotive Division is the total of cash, cash equivalents, securities, loans and time deposits not financed by third-party borrowings. To safeguard our business activities, we have formulated the strategic target that net liquidity in the Automotive Division should amount to approximately 10% of the consolidated sales revenue.

We use the return on investment (ROI) to calculate the return on invested capital for a particular period in the Automotive Division, including the equity-accounted Chinese joint ventures on a proportionate basis, by calculating the ratio of the operating result after tax to average invested capital. If the return on investment (ROI) exceeds the market cost of capital, the value of the Company has increased. This is how we measure the financial success of our brands, locations and vehicle projects.

Structure and Business Activities

This chapter describes the legal and organizational structure of the Volkswagen Group and explains the material changes in 2021 with respect to equity investments.

OUTLINE OF THE LEGAL STRUCTURE OF THE GROUP

Volkswagen AG is the parent company of the Volkswagen Group. It develops vehicles and components for the Group brands, but also produces and sells vehicles, in particular passenger cars and light commercial vehicles for the Volkswagen Passenger Cars and Volkswagen Commercial Vehicles brands. In its capacity as parent company, Volkswagen AG holds direct or indirect interests in AUDI AG, SEAT S.A., ŠKODA AUTO a.s., Dr. Ing. h.c. F. Porsche AG, TRATON SE, Volkswagen Financial Services AG, Volkswagen Bank GmbH and a large number of other companies in Germany and abroad. More detailed disclosures are contained in the list of shareholdings in accordance with sections 285 and 313 of the *Handelsgesetzbuch* (HGB – German Commercial Code), which can be accessed at www.volkswagenag.com/en/InvestorRelations.html and is part of the annual financial statements.

Volkswagen AG is a vertically integrated energy supply company as defined by section 3 no. 38 of the *Energiewirtschaftsgesetz* (EnWG – German Energy Industry Act) and is therefore subject to the provisions of the EnWG. In the electricity sector, Volkswagen AG generates, sells and distributes electricity as a group together with its subsidiaries.

The Volkswagen AG Board of Management has sole responsibility for managing the Company. The Supervisory Board appoints, monitors and advises the Board of Management; it is consulted directly on decisions that are of fundamental significance for the Company.

ORGANIZATIONAL STRUCTURE OF THE GROUP

The Volkswagen Group is one of the leading multibrand groups in the automotive industry. The Company's business activities comprise the Automotive and Financial Services divisions. All brands within the Automotive Division – with the exception of the Volkswagen Passenger Cars and Volkswagen Commercial Vehicles brands – are independent legal entities.

The Automotive Division comprises the Passenger Cars Business Area with the Volume, Premium and Sport & Luxury brand groups, as well as the Commercial Vehicles and Power Engineering business areas.

The Passenger Cars Business Area in essence consolidates the Volkswagen Group's passenger car brands and the Volkswagen Commercial Vehicles brand. Activities focus on the development of vehicles, engines and vehicle software, the production and sale of passenger cars and light commercial vehicles, and the genuine parts business. The product portfolio ranges from compact cars to luxury vehicles and also includes motorcycles, and is supplemented by mobility solutions.

The Commercial Vehicles Business Area primarily comprises the development, production and sale of trucks and buses, the corresponding genuine parts business and related services. The commercial vehicles portfolio ranges from light vans to heavy trucks and buses. Navistar has supplemented the brands in this business area since July 1, 2021. The collaboration between the commercial vehicle brands is coordinated within TRATON SE, which is listed on the stock exchange.

The Power Engineering Business Area combines the large-bore diesel engines, turbomachinery and propulsion components businesses.

The Financial Services Division's activities comprise dealer and customer financing, vehicle leasing, direct banking and insurance activities, fleet management and mobility services.

With its brands, the Volkswagen Group is present in all relevant markets around the world. The key sales markets currently include Western Europe, China, the USA, Brazil, Russia, Mexico, Poland and Turkey.

Volkswagen AG and the Volkswagen Group are managed by the Volkswagen AG Board of Management in accordance with the Volkswagen AG Articles of Association and the rules of procedure for Volkswagen AG's Board of Management issued by the Supervisory Board.

Accordingly, responsibilities were divided among ten board-level management functions until December 31, 2021. In addition to the Chair of the Board of Management, a function which also includes the Volume brand group, the other Board functions are Purchasing, Technology, Finance, Human Resources and Truck & Bus, Integrity and Legal Affairs, Premium, Sport & Luxury, IT and China. As of December 31, 2021, the Chair of the Board of Management has also been responsible for China and the board member for Finance has also been responsible for IT. With effect from February 1, 2022, a board member is responsible for IT alone and the board-level function for China has once again been assigned to a specific member of the Board of Management as of August 1, 2022.

In December 2021, the Supervisory Board decided to increase the number of members of the Board of Management and reorganize its structure and functions in the process. A new board-level management function for Volkswagen Passenger Cars was created effective January 1, 2022. A new board-level management function was also created for Group Sales effective February 1, 2022.

The Volume brand group comprises the Volkswagen Passenger Cars, ŠKODA, SEAT/CUPRA and Volkswagen Commercial Vehicles brands. Since March 1, 2021, Bentley has been assigned to the Premium brand group, which previously comprised the Audi, Lamborghini and Ducati brands. Following the departure of Bugatti from the Group's brand portfolio in November 2021, the Sport & Luxury brand group now consists of the Porsche brand. In the Truck & Bus brand group, TRATON SE acts as the umbrella for the Scania, MAN, Volkswagen Caminhões and Navistar commercial vehicles brands.

Alongside the brand groups, Volkswagen continued to build its software subsidiary CARIAD SE in the reporting year. This company is pooling and expanding the software expertise within the Volkswagen Group and is working toward providing a standardized operating system for Group brand vehicles.

We are confident that this management model will allow better use of existing expertise and economies of scale, boost synergy effects more systematically and accelerate decision making. In addition, it will prepare the Volkswagen Group for a management structure that is simpler, leaner and more effective, while strengthening the brands and giving them more autonomy. In line with the principle of subsidiarity, decisions will be taken at the lowest competent level, close to business operations, thus improving collaboration between the brands and the Group as a whole, leveraging more synergies and ensuring that management of the Group is a shared undertaking.

Each brand within the Volkswagen Group is managed by a brand board of management, which ensures the brand's independent and self-contained development and business operations. To the extent permitted by law, the board adheres to the Group targets and requirements laid down by the Board of Management of Volkswagen AG, as well as with the agreements in the brand groups. This allows Group-wide interests to be pursued, while at the same time safeguarding and reinforcing each brand's specific characteristics. Matters that are of importance to the Group as a whole are submitted to the Group Board of Management to be agreed upon, to the extent permitted by law. The rights and obligations of the statutory bodies of the relevant brand company thereby remain unaffected.

The Volkswagen Group companies are managed solely by their respective managements. The management of each individual company takes into account not only the interest of its own company but also the interests of the Group, the relevant brand group and the individual brands in accordance with the framework laid down by law.

In addition, at Group level, Board of Management committees address key strategic issues relating to products, technologies, investments, digital transformation, integrity and compliance, risk management, human resources and management issues. We are continually revising and optimizing the committees in order to review their relevance and further increase the efficiency of their decision making. This reduces complexity and reinforces governance within the Group.

Within the scope of our new Group strategy NEW AUTO, which was adopted in the fiscal year, we are using the Group Steering Model base initiative to enhance our governance model. The objective is to improve the manageability of the Group in unison with the brand groups and to make even better use of overarching areas of synergy. In addition to the further growth of CARIAD, these areas of synergy also include activities in fields such as mechatronics, battery technology and charging infrastructure, and mobility solutions.

MATERIAL CHANGES IN EQUITY INVESTMENTS

In November 2020, TRATON SE (TRATON) and Navistar International Corporation (Navistar), a leading US truck manufacturer, announced the signing of a binding merger agreement. At the end of 2020, TRATON held a 16.7% interest in Navistar. On March 2, 2021, TRATON's takeover of Navistar was approved by the shareholders of Navistar at their Annual General Meeting. In early July 2021, TRATON acquired all outstanding ordinary shares of Navistar for a purchase price of USD 3.7 billion through a TRATON GROUP company after receiving all the regulatory approvals. TRATON now holds 100% of the shares in Navistar.

The merger of MAN SE (MAN) with TRATON was adopted by resolution of the Annual General Meeting of MAN at the end of June 2021. The merger resolution also brought about the share transfer process in which the MAN shares held by noncontrolling interest shareholders were transferred to TRATON against payment of an appropriate cash settlement (merger squeeze-out). The merger of MAN with TRATON was entered in the commercial register for MAN and TRATON on August 31, 2021. The squeeze-out took legal effect upon entry in the commercial register. This was followed in early September 2021 by the disbursement of the cash settlement of €70.68 per ordinary and preferred share to the noncontrolling interest shareholders of MAN SE, thus completing the MAN SE squeeze-out. The appropriateness of the cash settlement is being reviewed by judicial award proceedings initiated by the noncontrolling interest shareholders who had received a settlement as a result of the squeeze-out.

In 2021, the Volkswagen Group and Rimac Automobili d.o.o., Sveta Nedelja/Croatia (Rimac), established Bugatti Rimac d.o.o., which has its headquarters in Sveta Nedelja. Volkswagen contributed its fully consolidated subsidiaries Bugatti Automobiles S.A.S, Molsheim/France and initially 51% of Bugatti International S.A., Strassen/ Luxembourg. Rimac holds 55% of the shares in the company, and Volkswagen holds 45% through Dr. Ing. h.c. F. Porsche AG (Porsche). In addition, Porsche holds a direct interest of 22% in Rimac. Initially, Bugatti Rimac d.o.o. will produce two hypercar models, the Bugatti Chiron and the Rimac Nevera. It is envisaged that further in the future the activities of Bugatti Rimac d.o.o. will focus on a joint product portfolio under the Bugatti brand name with the aim of developing, producing and selling electric-powered, luxury hyper sports cars.

At the end of July 2021, the Volkswagen Supervisory Board approved an agreement with investment firm Attestor Limited and with Pon Holdings B.V. for the submission via a consortium company of a joint public takeover offer for the shares of Europcar Mobility Group S.A., Paris/France. Following a successful review of the offer documents, the French regulator approved the takeover offer at the end of November 2021. The period during which the Europcar shareholders can tender their shares began at the end of November 2021. Together with its two partners, Volkswagen is offering a price of €0.50 per Europcar share through the consortium company. If more than 90% of the shares are tendered, an additional one cent per share will be paid. If the offer is accepted, the consortium – according to current information – will assume joint control of Europcar.

To expand its battery expertise, Volkswagen acquired an interest in Gotion High-Tech Co., Ltd., Hefei (China) through Volkswagen (China) Investment Co. Ltd, making it the largest shareholder of the Chinese battery supplier at 26%. The Group spent a total of €1.2 billion on this transaction. The investment is accounted for using the equity method.

LEGAL FACTORS INFLUENCING BUSINESS

Like other international companies, the business of Volkswagen companies is affected by numerous laws in Germany and abroad. In particular, there are legal requirements relating to services, development, products, production and distribution, as well as supervisory, data protection, financial, company, commercial, capital market, anti-trust and tax regulations and regulations relating to labor, banking, state aid, energy, environmental and insurance law.

GROUP CORPORATE GOVERNANCE DECLARATION

The Group Corporate Governance Declaration can be found in this annual report and is permanently available on our website at www.volkswagenag.com/en/InvestorRelations/corporate-governance/declaration-of-conformity.html.

i VOLKSWAGEN AG SHAREHOLDINGS
www.volkswagenag.com/en/InvestorRelations/news-and-publications/Financial_Statements.html

i GROUP CORPORATE GOVERNANCE DECLARATION
www.volkswagenag.com/en/InvestorRelations/corporate-governance/declaration-of-conformity.html

Disclosures Required under Takeover Law

This chapter contains the Volkswagen Group's disclosures relating to takeover law required by sections 289a and 315a of the HGB.

CAPITAL STRUCTURE

Volkswagen AG's share capital amounted to €1,283,315,873.28 (€1,283,315,873.28) on December 31, 2021. It was composed of 295,089,818 ordinary shares and 206,205,445 preferred shares. Each share conveys a notional interest of €2.56 in the share capital.

SHAREHOLDER RIGHTS AND OBLIGATIONS

The shares convey pecuniary and administrative rights. The pecuniary rights include in particular the shareholders' right to participate in profits (section 58(4) of the *Aktiengesetz* (AktG – German Stock Corporation Act)), the right to participate in liquidation proceeds (section 271 of the AktG) and preemptive rights to shares in the event of capital increases (section 186 of the AktG), which can be disapplied by the Annual General Meeting with the approval of the Special Meeting of Preferred Shareholders, where appropriate. Administrative rights include the right to attend the Annual General Meeting, to speak there, to ask questions, to propose motions and to exercise voting rights. When virtual Annual General Meetings are held to avoid risks during the Covid-19 pandemic, these rights are partially restricted. Shareholders can enforce their pecuniary and administrative rights in particular through actions seeking disclosure and actions for avoidance.

Each ordinary share grants the holder one vote at the Annual General Meeting. The Annual General Meeting elects shareholder representatives to the Supervisory Board and elects the auditors; in particular, it resolves on the appropriation of net profit, formally approves the actions of the Board of Management and the Supervisory Board, and resolves on amendments to the Articles of Association of Volkswagen AG, capital measures and authorizations to purchase treasury shares; if required, it also resolves on the performance of a special audit, the removal before the end of their term of office of Supervisory Board members elected at the Annual General Meeting and the winding-up of the Company.

Preferred shareholders generally have no voting rights. However, in the exceptional case that they are granted voting rights by law (for example, when preferred share dividends were not paid in one year and not compensated for in full in the following year), each preferred share also grants the holder one vote at the Annual General Meeting. Furthermore, preferred shares entitle the holder to a €0.06 higher dividend than ordinary shares (further details on this right to preferred and additional dividends are specified in Article 27(2) of the Articles of Association of Volkswagen AG).

The *Gesetz über die Überführung der Anteilsrechte an der Volkswagenwerk Gesellschaft mit beschränkter Haftung in private Hand* (VW-Gesetz – Act on the Privatization of Shares of Volkswagenwerk Gesellschaft mit beschränkter Haftung) of July 21, 1960, as amended on July 30, 2009, includes various provisions in derogation of the German Stock Corporation Act, for example on the exercise of voting rights by proxy (section 3 of the VW-Gesetz) and on majority voting requirements at the Annual General Meeting (section 4(3) of the VW-Gesetz).

In accordance with the Volkswagen AG Articles of Association (Article 11(1)), the State of Lower Saxony is entitled to appoint two members of the Supervisory Board of Volkswagen AG for as long as it directly or indirectly holds at least 15% of Volkswagen AG's ordinary shares. In addition, resolutions by the Annual General Meeting that are required by law to be adopted by a qualified majority require a majority of more than four-fifths of the share capital of the Company represented when the resolution is adopted (Article 25(2)), regardless of the provisions of the VW-Gesetz.

SHAREHOLDINGS EXCEEDING 10% OF VOTING RIGHTS

Shareholdings in Volkswagen AG that exceed 10% of voting rights are shown in the notes to the annual financial statements of Volkswagen AG, which are available online at https://www.volkswagenag.com/en/InvestorRelations.html. The current notifications regarding changes in voting rights in accordance with the *Wertpapierhandelsgesetz* (WpHG –

German Securities Trading Act) are also published on this website.

COMPOSITION OF THE SUPERVISORY BOARD

The Supervisory Board consists of 20 members, half of whom are shareholder representatives. In accordance with Article 11(1) of the Articles of Association of Volkswagen AG, the State of Lower Saxony is entitled to appoint two of these shareholder representatives for as long as it directly or indirectly holds at least 15% of the Company's ordinary shares. The remaining shareholder representatives on the Supervisory Board are elected by the Annual General Meeting.

The other half of the Supervisory Board consists of employee representatives elected by the employees in accordance with the *Mitbestimmungsgesetz* (MitbestG – German Codetermination Act). A total of seven of these employee representatives are Company employees elected by the workforce; the other three employee representatives are trade union representatives elected by the workforce.

The Chairman of the Supervisory Board is generally a shareholder representative elected by the other members of the Supervisory Board. In the event that a Supervisory Board vote is tied, the Chairman of the Supervisory Board has a casting vote in accordance with the MitbestG.

The goals for the composition of the Supervisory Board and information about its composition are described in the Group Corporate Governance Declaration.

STATUTORY REQUIREMENTS AND REQUIREMENTS OF THE ARTICLES OF ASSOCIATION WITH REGARD TO THE APPOINTMENT AND REMOVAL OF BOARD OF MANAGEMENT MEMBERS AND TO AMENDMENTS TO THE ARTICLES OF ASSOCIATION

The appointment and removal of members of the Board of Management are governed by sections 84 and 85 of the AktG, which specify that members of the Board of Management are appointed by the Supervisory Board for a maximum of five years. Board of Management members may be reappointed or have their term of office extended for a maximum of five years in each case. In addition, Article 6 of the Articles of Association of Volkswagen AG states that the number of Board of Management members is stipulated by the Supervisory Board and that the Board of Management must consist of at least three persons. In line with future legal requirements, the members of the Volkswagen AG Board of Management must include at least one woman and at least one man.

The Annual General Meeting resolves amendments to the Articles of Association (section 119(1) of the AktG). In accordance with section 4(3) of the VW-Gesetz as amended on July 30, 2009 and Article 25(2) of the Articles of Association of Volkswagen AG, Annual General Meeting resolutions to amend the Articles of Association require a majority of more than four-fifths of the share capital represented.

POWERS OF THE BOARD OF MANAGEMENT, IN PARTICULAR CONCERNING THE ISSUE OF NEW SHARES AND THE REPURCHASE OF TREASURY SHARES

According to German stock corporation law, the Annual General Meeting can authorize the Board of Management, for a maximum period of five years, to issue new shares. It can also authorize the Board of Management, for a maximum period of five years, to issue bonds on the basis of which new shares are to be issued. The Annual General Meeting also decides the extent to which shareholders have preemptive rights to the new shares or bonds. The maximum amount of authorized share capital or contingent capital available for these purposes is determined by Article 4 of the Articles of Association of Volkswagen AG, as amended.

At the Annual General Meeting on May 14, 2019, a resolution was passed authorizing the Board of Management, with the consent of the Supervisory Board, to increase the Company's share capital by a total of up to €179.2 million (corresponding to 70 million shares) on one or more occasions up to May 13, 2024 by issuing new nonvoting preferred shares against cash contributions.

Further details of the authorization to issue new shares and their permitted uses may be found in the notes to the consolidated financial statements.

MATERIAL AGREEMENTS OF THE PARENT COMPANY IN THE EVENT OF A CHANGE OF CONTROL FOLLOWING A TAKEOVER BID

At the end of fiscal year 2019, a banking syndicate granted Volkswagen AG a syndicated line of credit amounting to €10.0 billion, which currently runs until December 2026. With the new line of credit, the syndicate members were granted the right to call their portion of the syndicated line of credit in two cases. A call right exists if one individual or several individuals acting jointly who as of the date of this agreement exercise control over the Company have legal or economic ownership of shares that together make up more than 90% of the voting rights of the Company. However, a call right also exists if one individual or several individuals acting jointly who as of the date of this agreement do not exercise control over the Company obtain control over the Company. Such a call right does not exist, however, if one shareholder or several shareholders of Porsche Automobil Holding SE or one or several legal entities from the Porsche or Piëch family directly or indirectly obtain control over the Company.

Volkswagen AG and the Ford Motor Company entered into a Master Collaboration Agreement in January 2019. This agreement sets out a framework of obligations, which are to apply to the further co-operation agreements entered into between the parties, including those entered into in fiscal year 2021. It also covers the Development Agreement concluded in January 2019 for the development of the next-generation Amarok. The Master Collaboration Agreement provides for a right of termination with immediate effect in the event of a Change of Control. A Change of Control has been defined to mean a change affecting more than 50% of the voting capital of one of the companies or a change in the ability to directly or indirectly control the management of one company through its decision making bodies. The right of termination must be exercised within 90 days of the company becoming aware of a Change of Control.

Business Development

The global economy recorded positive growth in fiscal year 2021 as it recovered from the disruption caused by the Covid-19 pandemic. Global demand for vehicles was up on the previous year. Amid continued challenging market conditions, the Volkswagen Group delivered 8.9 million vehicles to customers.

GLOBAL SPREAD OF CORONAVIRUS (SARS-COV-2)

At the end of 2019, initial cases of a potentially fatal respiratory disease became known in China. This disease is attributable to a novel virus belonging to the coronavirus family. Infections also appeared outside China from mid-January 2020. The number of people infected rose very rapidly in the course of 2020, albeit with differences in timing and regional spread. Around the world, measures to contain the pandemic were taken and adapted at national level and with varying levels of intensity. However, these ultimately failed to bring the spread of the SARS-CoV-2 virus under control. In addition, aid packages to support the economy were agreed by the European Commission and by numerous governments in Europe and other regions, and economic stimulus measures were introduced to counter the pandemic's impact. Throughout the whole of 2020, the global spread of the SARS-CoV-2 virus brought enormous disruption to all areas of everyday life and the economy.

The mostly dynamic increase in the rate of infection continued in many places also throughout the first quarter of 2021. This was accompanied by ongoing disruption – such as contact and mobility restrictions or limitations on business activities – in many parts of the world. With the increased availability of testing capacities and vaccines, some countries have permitted the extensive reopening of everyday life and the economy. In China in particular, the measures taken resulted in a removal of restrictions. In most of the world, the rate of new infections initially declined in the second quarter of 2021, leading to further easing of the measures taken to contain the pandemic. From the middle of the year, however, some countries recorded a renewed increase in infection rates, which was mainly due to new variants of the SARS-CoV-2 virus. Some restrictions returned in response to the situation. Most regions of the world saw a declining rate of new infections in the third quarter of 2021. Against this backdrop, many countries largely lifted their restrictions on everyday life and the economy, depending on the progress of their vaccination campaigns. Temporary increases in case numbers – primarily associated with increased travel – only rarely resulted in the measures being tightened again. Mainly due to new variants of the SARS-CoV-2 virus, numerous countries around the world again recorded some very dynamic increases in infection rates in the course of the fourth quarter, which, depending particularly on the country's vaccination progress, resulted in renewed restrictions.

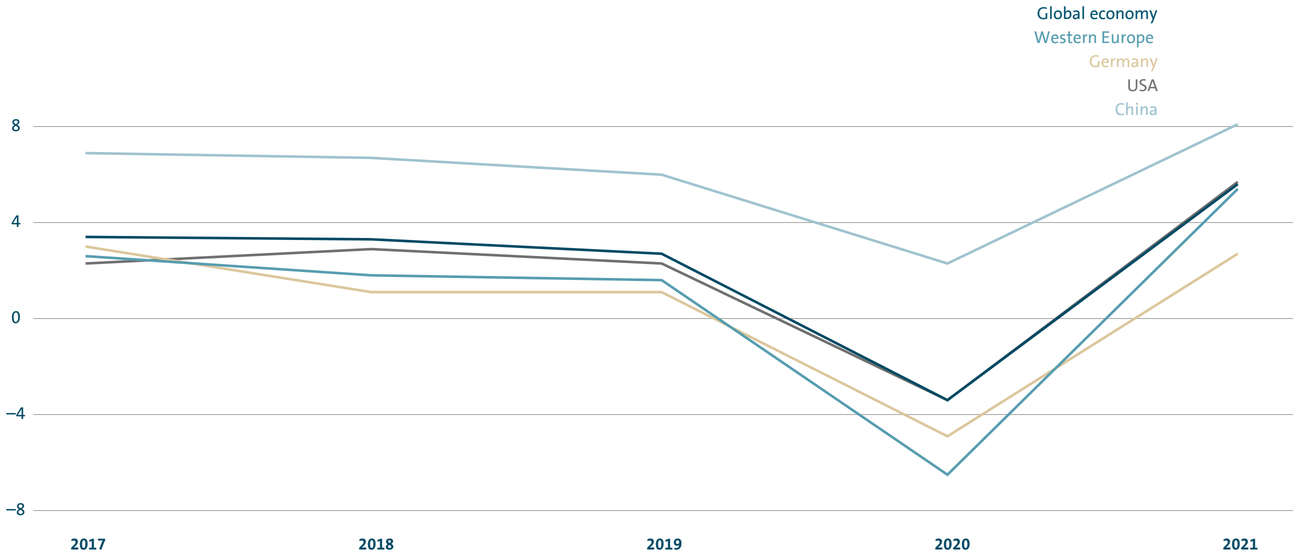
Overall in 2021, the global spread of the SARS-CoV-2 virus again brought substantial disruption to all areas of everyday life and the economy.

DEVELOPMENTS IN THE GLOBAL ECONOMY

The global economy recovered in 2021 due to the temporary relaxation of many restrictions and recorded growth of 5.6 (–3.4)%. The average rate of expansion of gross domestic product (GDP) was far above the previous year's level in both the advanced economies and the emerging markets. The progress made by many countries in administering vaccines to their populations had a positive effect, while the emergence of new variants of the virus led to renewed national rises in infections. At a national level, performance was dependent among other things on the extent to which the negative impacts of the Covid-19 pandemic were materializing and the intensity with which measures were taken to contain the spread. The governments and central

ECONOMIC GROWTH

Percentage change in GDP



banks of numerous countries continued to maintain their expansionary fiscal and monetary policy measures. Interest rates therefore remained relatively low. Prices for many energy and other commodities rose significantly on average year-on-year, amid growing shortages of intermediates and commodities. On a global average, consumer prices increased at a faster pace than in 2020, and global trade in goods grew in the reporting year.

Europe/Other Markets

The economy in Western Europe recorded significantly positive overall growth of 5.4 (–6.5)% in 2021. This trend was seen in all countries in Northern and Southern Europe. The reasons for this included the increased resilience to high infection rates experienced by the economies in many countries. At the same time, the economic recovery was hit by temporary national restrictions to contain the pandemic and the imbalances between supply and demand that partially resulted from them.

Further, uncertainty was caused in fiscal year 2021 by the United Kingdom's exit from the European Union (EU) and the new Trade and Cooperation Agreement associated with this.

In the economies of Central and Eastern Europe, real absolute GDP increased significantly by 5.6 (–2.4)% in 2021. Economic output increased by 6.4 (–2.1)% in Central Europe and 4.2 (–2.8)% in Eastern Europe. The same trend was also observed in Russia; economic output in Eastern Europe's largest economy grew by 4.3 (–2.9)%.

In Turkey, the GDP growth rate in fiscal year 2021 rose to 10.3 (1.6)% amid high inflation and a fall in the value of the local currency. South Africa saw significant GDP growth of 4.7 (–6.4)% in the reporting period, amid persistent structural deficits and political challenges.

Germany

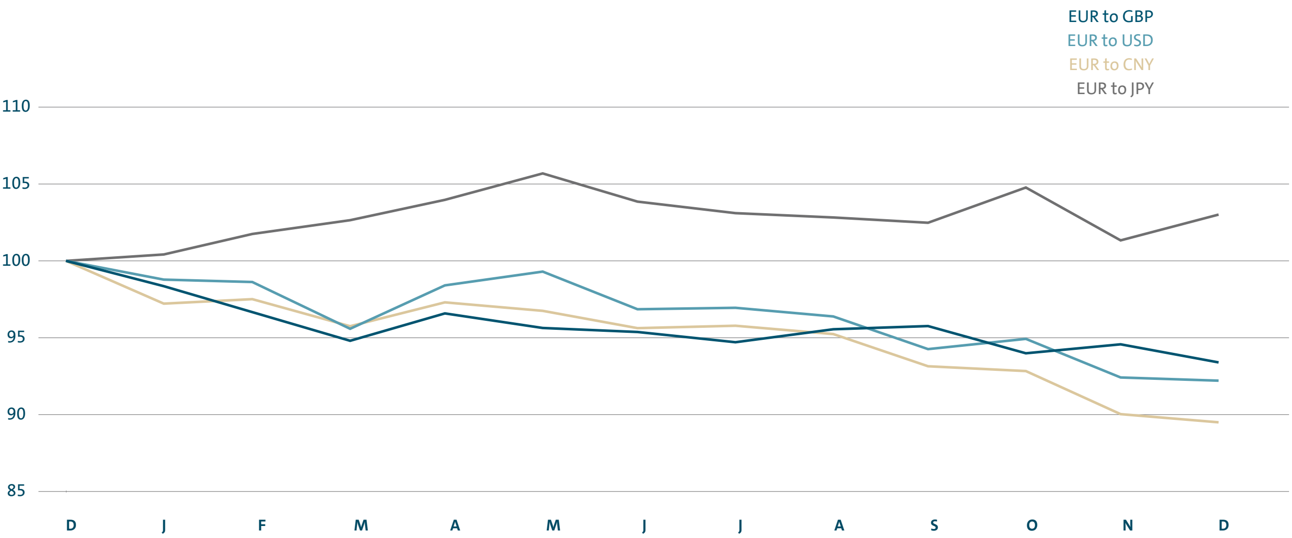
Germany's economic output recorded a positive growth rate of 2.7 (–4.9)% in the reporting year. The labor market recovered over the course of the year with a fall in the unemployment rate and the number of people on *Kurzarbeit* (short-time working). The temporary easing of restrictions on everyday life and economic activity led confidence among consumers and companies to improve. On average, it exceeded the prior-year levels. Confidence rose significantly in the industrial and service sectors.

North America

US economic output increased by 5.7 (–3.4)% in the reporting year despite soaring rates of infection at times. The US government approved a further comprehensive stimulus package in the first quarter of 2021 to strengthen the economy. The US Federal Reserve maintained its low interest rates, alongside other measures to support the economy. The weekly number of people filing new claims for unemployment benefits showed a downward trend. This was reflected accordingly in the unemployment rate, which fell

EXCHANGE RATE MOVEMENTS FROM DECEMBER 2020 TO DECEMBER 2021

Index based on month-end prices: as of December 31, 2020 = 100



significantly year-on-year in the reporting period to 5.4 (8.1)% but was still higher than the pre-crisis level seen in 2019. GDP rose by 4.6 (–5.2)% in neighboring Canada and by 5.5 (–8.4)% in Mexico.

South America

Brazil's economy posted growth of 4.4 (–4.2)% in 2021 despite high infection rates. Argentina registered a positive economic performance with year-on-year growth of 8.4 (–9.9)% amid continued high inflation and a substantial depreciation of the local currency.

Asia-Pacific

The Chinese economy, which had been exposed to the negative effects of the Covid-19 pandemic earlier than other economies and tackled isolated outbreaks in 2021 with a strict zero-Covid strategy, expanded by 8.1 (2.3)% overall. India registered strong growth of 8.1 (–7.5)% amid at times relatively high infection rates. Japan recorded positive growth of 1.9 (–4.5)% versus the prior year.

TRENDS IN THE MARKETS FOR PASSENGER CARS AND LIGHT COMMERCIAL VEHICLES

In fiscal year 2021, the volume of the passenger car market worldwide rose moderately by 4.2% to 70.9 million units from a weak level in the prior year. However, the growth was uneven owing to the effects of the Covid-19 pandemic, which varied strongly from region to region both in 2020 and in the reporting period. The semiconductor shortage and the resulting supply bottlenecks also had a negative impact in the second half of 2021. The overall markets of the Asia-Pacific, South America, Africa and Middle East regions recorded above-average growth. Increases in Central and Eastern Europe as well as in North America were slightly below the global average, while in Western Europe, the market volume declined further, falling short of the poor prior-year figure.

In the reporting period, the global volume of new registrations for light commercial vehicles was slightly (1.5%) higher than in the previous year.

Sector-specific environment

The sector-specific environment was influenced significantly by fiscal policy measures, which contributed considerably to the mixed trends in sales volumes in the markets in 2021. These measures included tax cuts or increases, incentive programs and sales incentives, as well as import duties.

In addition, non-tariff trade barriers to protect the respective domestic automotive industries made the movement of vehicles, parts and components more difficult.

Europe/Other Markets

In Western Europe, the number of new passenger car registrations in the reporting period was slightly down on the previous year's weak level, declining by 2.0% to 10.7 million vehicles. The continuing restrictions aimed at containing the Covid-19 pandemic led to a year-on-year decline in deliveries in the first two months of 2021. From March to June, demand in each of the individual months exceeded that of the previous year, which had been affected by the pandemic as of the last third of the first quarter and particularly in the second quarter of 2020. In the second half of 2021, the number of new passenger cars registered declined month-on-month, in some cases substantially. This was due to the market recovery that had been experienced in the previous year, and, in particular, to the semiconductor shortage which reduced vehicle availability. Nevertheless, with the exception of Spain (–0.9%), the performance of the large individual passenger car markets was positive on the whole in fiscal year 2021: France (+0.5%), United Kingdom (+1.0%) and Italy (+5.6%).

The volume of new registrations for light commercial vehicles in Western Europe was moderately higher than in the previous year, increasing by 4.4%.

In the Central and Eastern Europe region, the market volume of passenger cars in fiscal year 2021 stood at 2.9 million vehicles, a modest 2.8% more than in the previous year, which had been strained by the pandemic. Here, the development of demand in the reporting period differed from market to market. In Central Europe, the number of new registrations saw a slower rate of growth on the whole, with a rise of 1.4% to 1.1 million units. By contrast, sales of passenger cars in Eastern Europe rose at a somewhat faster pace (+3.8%) to 1.8 million units. Here, the absolute growth in demand was mainly attributable to a higher level of new registrations in Russia (+2.6%).

The market volume of light commercial vehicles in Central and Eastern Europe was significantly higher year-on-year (+12.1%). In Russia, the number of vehicles sold in the reporting period was distinctly higher than in the previous year with a 7.5% increase.

In the reporting period, the market volume of passenger cars in Turkey was distinctly lower than in the prior year, down 6.9%. In South Africa, the number of passenger cars sold in 2021 was substantially (+21.7%) higher than the very weak prior-year figure.

In the reporting period, the volume of new registrations of light commercial vehicles was moderately down (–3.9%) in Turkey compared with the prior-year figure; in South Africa, by contrast, substantial growth (+22.3%) was recorded.

Germany

New passenger car registrations in Germany in fiscal year 2021 stood at 2.6 million units, falling noticeably (–10.1%) short of the previous year's weak level and thus declining to the lowest level since German reunification. Along with the effects of the Covid-19 pandemic, this was attributable to early purchases made in 2020 due to the expiry of the temporary reduction in value-added tax and to the deterioration in the supply situation as a result of the semiconductor shortage.

Owing to a lack of semiconductor deliveries and related measures such as cutbacks in production and production shutdowns, domestic production and exports in the reporting period also fell short again of the comparable prior-year figures: passenger car production decreased by 11.9% to 3.1 million vehicles and passenger car exports fell by 10.3% to 2.4 million units.

Sales of light commercial vehicles in Germany in the reporting period were down by a slight 1.8% on the 2020 figure.

North America

At 17.7 million vehicles, sales of passenger cars and light commercial vehicles (up to 6.35 tonnes) in the North America region in fiscal year 2021 showed moderate growth of 3.9% on the prior-year figure, which had been impacted by the negative effects of the Covid-19 pandemic. However, this growth weakened during the second half of the year mainly due to supply bottlenecks for semiconductors. In this region, the market volume in the USA also rose moderately year-on-year to 15.1 million units (+3.4%), although the momentum was also weaker. Of the light commercial vehicles, the SUV models in particular benefited from this increase. The Canadian automotive market saw a distinct rise in sales in the reporting period (+6.7%). In Mexico, new registrations for passenger cars and light commercial vehicles were up 6.8%, also distinctly higher than the comparable prior-year figure.

South America

In the South America region, the volume of new registrations for passenger cars and light commercial vehicles in the 2021 reporting period was on the whole significantly higher at 3.5 million units (+12.9%) than the previous year's weak level, which had been very severely affected by the impact of the Covid-19 pandemic. At 2.0 million vehicles, the volume of new registrations in Brazil was up slightly (+1.1%) on the prior-year figure. Total exports of vehicles manufactured in Brazil increased by +16.0% to 376 thousand passenger cars and commercial vehicles. In the Argentinian market, demand for passenger cars and light commercial vehicles in the 2021 reporting period rose noticeably by 9.7% to 356 thousand units.

Asia-Pacific

In the Asia-Pacific region, the volume of the passenger car market in fiscal year 2021 rose to 32.7 million units, moderately (+5.0%) higher than the prior-year figure, which had been considerably impacted by the SARS-CoV-2 virus. Over half of the absolute rise in demand for passenger cars in the region was attributable to the favorable trend in the Chinese passenger car market, where the signs of a recovery that had begun during the second half of 2020 initially continued, but weakened in the latter months of the reporting period owing to the semiconductor shortage. Overall, the volume of demand totaled 20.8 million units, thus moderately exceeding the prior-year figure by 4.4%. In India, passenger car sales rose substantially by 26.2% to 3.0 million units compared with the comparatively weak prior-year figure. In the Japanese passenger car market, the number of new passenger cars registered in the reporting period was moderately down on the previous year at 3.7 million units (–3.2%).

There was a slight year-on-year decrease in demand for light commercial vehicles in the Asia-Pacific region in 2021, which was down by 1.2%. Registration volumes in China, the region's dominant market and the largest market worldwide, were slightly lower, falling 2.4% short of the prior-year figure. The number of new vehicle registrations in India was significantly (–14.3%) lower than the prior-year level; in Japan this figure was moderately (–3.7%) down year-on-year.

TRENDS IN THE MARKETS FOR COMMERCIAL VEHICLES

Since July 1, 2021, Navistar has been a TRATON GROUP brand, making it part of the Volkswagen Group's Commercial Vehicles Business Area. This has broadened the relevant markets in the commercial vehicles business, both for trucks and for the school bus segment, which expanded to include North America (consisting of USA, Canada and Mexico).

In the markets that are relevant for the Volkswagen Group, global demand for mid-sized and heavy trucks with a gross weight of more than six tonnes experienced pronounced growth versus the comparison period in fiscal year 2021 (+19.5%). In comparison with the previous year, which had been adversely affected by the Covid-19 pandemic, a recovery of the truck markets could be observed worldwide.

In the 27 EU states excluding Malta, but including the United Kingdom, Norway and Switzerland (EU27+3), the number of new truck registrations was significantly up on the prior-year figure, with growth of 17.1% to a total of 320 thousand vehicles. Growth could be observed in almost all truck markets in the region, albeit to differing degrees. The market recovery already evident since the second half of 2020 continued in the reporting year. Registrations in Germany, the largest market in this region, increased distinctly year-on-year (+6.2%). An increase of almost 60% was registered in Poland, while the UK recorded growth of 12.8%. There was also a distinct increase in demand in France (+6.1%). The Russian market experienced pronounced growth (+19.5%) and new registrations in Turkey increased by around 56% year-on-year, as compared with the low prior-year level. In the South African market, demand rose substantially (+20.8%). The truck market in North America is divided into weight classes 1 to 8. In the segments relevant for Volkswagen – Class 6 to 8 (8.85 tonnes or heavier) – new registrations were markedly higher (+13.0%) than the previous year's figure. In Brazil, the largest market in the South America region, demand for trucks in the reporting year was approximately 44% above the level seen in the previous year.

There was moderate growth in demand overall (+3.0%) in the bus markets that are relevant for the Volkswagen Group compared with the previous year. Demand for buses in the EU27+3 markets in the reporting year was overall in line with the weak level of the previous year (+0.1%), to differing extents in the individual countries. The bus market in North America recorded a moderate decline (–2.6%) year-on-year. Demand for buses in Brazil was slightly up on the previous year's level (+0.9%). As a consequence of the Covid-19 pandemic, demand for coaches in particular was still virtually non-existent in all of the bus markets that are relevant for the Volkswagen Group.

TRENDS IN THE MARKETS FOR POWER ENGINEERING

The markets for power engineering are subject to differing regional and economic factors. Consequently, their business growth trends are mostly independent of each other.

Despite the global impact of the Covid-19 pandemic and continuing uncertainty, for instance surrounding future emissions regulations, the marine market was significantly higher in 2021 than in the previous year. In merchant shipping, performance in the market for container ships in particular remained encouraging thanks to high demand combined with bottlenecks in transport capacity. Overall, the market areas excluding merchant shipping contracted slightly in 2021 compared with the prior year. Demand in the market for cruise ships and passenger ferries remained low due to the continuing difficult liquidity situation of shipping companies as a result of the Covid-19 pandemic. The special market for government vessels, which is supported by state investment, was below the prior-year level. In the offshore sector, the existing overcapacity continued to curb investment in offshore oil production. China, South Korea and Japan remained the dominant shipbuilding countries, accounting for a global market share of around 90% measured in terms of the number of ships.

The market for power generation improved slightly in 2021 compared with the previous year. Overall, there are initial signs of market recovery; however, due to factors such as CO_2 reductions, a great deal of hesitancy remains regarding investment decisions. The trend away from oil-fired power plants toward dual-fuel and gas-fired power plants continued. Demand for new energy solutions remained high with a strong trend toward greater flexibility and decentralized availability and a particular focus on hydrogen technologies.

The strong competitive and price pressures remained unchanged due to the ongoing negative effects of the Covid-19 pandemic.

Compared with a year earlier, the turbomachinery market recovered significantly from the negative impact of the Covid-19 pandemic. Prices for raw materials continued to increase significantly, resulting in rising demand for production facilities with turbo compressors in the raw materials and processing industry. The new business fields for turbomachinery used in the area of decarbonization expanded significantly on the prior year, driven by greater investment and markedly higher prices for carbon dioxide certificates in European trading. However, demand for steam turbines used for power generation and gas turbines used for decentralized, industrial combined-heat-and-power installations declined and deteriorated slightly year-on-year due to the shift in the focus of investments by electricity producers to the field of renewable energy.

The after-sales business for diesel engines continued to be adversely affected by the Covid-19 pandemic and remained at the prior-year level. The Covid-19 pandemic and the associated cash-flow difficulties on the part of customers reduced demand for standard products, and decisions about capital-intensive modifications were delayed.

Compared with 2020, the after-sales business for turbomachinery saw an initial recovery from the negative effects of the Covid-19 pandemic, especially in the second half of the year. However, it did not yet match the pre-crisis level.

TRENDS IN THE MARKETS FOR FINANCIAL SERVICES

Demand for automotive financial services was buoyant in 2021 due, among other things, to the persistently low key interest rates in the main currency areas. Nevertheless, the Covid-19 pandemic and the limited vehicle availability due to the semiconductor shortage put pressure on the demand for financial services in almost all regions. Overall, a continuing shift from financing to leasing is being observed. Demand for mobility services in the retail and business customer segment increased. These services focus on the use rather than ownership of an automobile, for example car subscription models. There was also a moderate increase in demand for service products such as maintenance and servicing agreements or insurance, given that they allow customers to calculate total operating costs.

The European passenger car market was increasingly affected in the reporting period by the impact of the semiconductor shortage; vehicle deliveries were slightly below the prior-year period, which had been weak due to the pandemic. New contracts for financial services products in the new vehicle business reached the prior-year level in this still difficult market environment. A positive trend was recorded in the financing of used vehicles; here particularly sales of after-sales products such as servicing, maintenance and spare parts agreements were up substantially on the previous year's level.

In addition to the impact of the Covid-19 pandemic, the financial services business in Germany increasingly faced the challenges presented by the semiconductor shortage over the course of 2021. Deliveries of new vehicles declined, which in turn also resulted in decreasing vehicle availability in the used vehicle market. Nevertheless, the number of new contracts for new vehicle leases among both retail and fleet customers increased compared with the prior-year period. In contrast, the number of new financing contracts for new and used vehicles and direct business were down on the previous year. New vehicle penetration exceeded the very good prior-year figure. Apart from a few exceptions, the number of new contracts for services and insurance products was down.

Demand for financing and insurance products for new and used vehicles in South Africa persisted at the previous year's level, continuing to be bolstered by campaigns, vehicle price inflation and persistently low interest rates. Financed vehicle purchases, however, remained difficult overall in light of the subdued economy and continuing pressure on disposable income.

In the North America region, the semiconductor shortage increasingly weighed on vehicle deliveries, although they exceeded the prior-year level. In the United States and Mexico, both the proportion of lease and financing contracts in percentage terms and the absolute number of contracts were down on the prior-year figures. In Canada, the proportion of lease and financing contracts in percentage terms was down on the prior-year figures; however, the absolute number of contracts increased. Demand for automotive-related after-sales products was up on the previous year throughout the entire region.

In the South America region, excess demand for new vehicles and a sharp rise in interest rates in Brazil led to a growing number of cash sales. As a result, the number of financing contracts decreased year-on-year. Demand for long-term leases rose, also among private customers. Sales in Argentina increased through car savings plans.

In the Chinese market, both the share of loan-financed vehicle purchases and growth in new contracts tapered off in 2021 owing to the persistent semiconductor shortage and the related drop in passenger car sales. As a result, the comparative prior-year figures were not reached in the reporting period.

The commercial vehicle market, which was heavily affected by the Covid-19 pandemic in the previous year, recorded a recovery compared to the prior year, particularly due to growth in the heavy commercial vehicles category. This positive trend was also seen in financing and lease contracts for heavy commercial vehicles in Europe and Brazil.

NEW GROUP MODELS IN 2021

The Volkswagen Group offers a broad portfolio of products covering almost all key segments and body types so that its customers can choose the right vehicle for their needs. In fiscal year 2021, we added further attractive vehicles, not only systematically expanding our portfolio of all-electric and hybrid vehicles, but also bringing compelling new products with conventional combustion engines onto the market.

In the compact segment, the Volkswagen Passenger Cars brand upgraded the Polo in 2021. It also launched the Taigo, Volkswagen's new sporty crossover, which is expected to appeal to new target groups with its emotional design and innovative technology. Once the updated version of the best-selling Tiguan was available, the Tiguan Allspace was also upgraded. In the high-end segments, the brand made two sporty statements with its launch of the Arteon R and the Arteon Shooting Brake R. In China, a large number of new models were brought out in 2021, including the all-electric ID.4 X, ID.4 CROZZ, ID.6 X and ID.6 CROZZ. The Passat, Teramont, Teramont X and Tiguan L were among the established vehicles with a conventional powertrain that received an update. The brand new Talagon and the CC Shooting Brake rounded off the portfolio of new models. In the United States, the Taos extended the lower end of the SUV portfolio, and the first all-electric SUV was brought out in the shape of the ID.4. The successful Jetta and Tiguan models received product upgrades. Volkswagen is catering to the desires of sporty drivers with the new Golf GTI and Golf R. In other key regions, too, models that meet regional requirements were introduced to the market, highlights in the reporting period being the Taigun in India and the Taos in Russia.

The Audi brand expanded its portfolio of all-electric cars in 2021 with the addition of the Q4 e-tron and the Q4 Sportback e-tron. At the upper end of the scale, Audi made a clear commitment to athleticism with the e-tron GT and the RS e-tron GT. In the conventional powertrain line-up, the RS3 received an update. The range of vehicles with plug-in hybrid drives was expanded by models including the Q3, the Q5 and the Q8. In China, Audi brought out the Q5L Sportback.

The era of state-of-the-art electric mobility based on the MEB dawned at ŠKODA in 2021 with the rollout of the Enyaq iV. The next generation of the popular Fabia model range was launched, and the top-selling Kodiaq was updated to make it fit for the digital future. In India, ŠKODA kicked off a market drive with the next generation of the Octavia and the new Kushaq.

The SEAT brand expanded the drive portfolio for its product lines in 2021: the successful Leon is now also available with a CNG drive, and the Tarraco will come with the option of a cutting-edge plug-in hybrid drive in future. The successful Ibiza and Arona models received product upgrades. CUPRA provided for further highlights with the launch of the powerful Formentor on the one hand, and on the other the Leon series, which is now available once again as the dynamic top-of-the-range model CUPRA Leon. Production of the sporty, all-electric CUPRA Born started in 2021.

Porsche expanded its Taycan range in 2021, adding the versatile Cross Turismo. The line of classic sports cars was expanded at the upper end of the scale with the addition of the 911 GT3, and the new generation of the 911 is now also available as a GTS version. In the SUV ranges, the Macan received an upgrade, and a new top-of-the-range model is available in the form of the Cayenne Turbo GT.

Bentley expanded the Bentayga range in the reporting period by adding a model with a plug-in hybrid drive plus the sporty derivative Bentayga S. The Continental GT is now available both as a coupé and as a convertible and is rounded off at the upper end of the scale by the top-of-the range model Speed.

Lamborghini brought racetrack technology to the road in 2021 with the Huracan STO.

Last year, Bugatti complemented its Chiron super sports car with two derivatives that further enhance the driving experience: the sporty Pur Sport and the Super Sport designed for top maximum speeds.

In 2021, Volkswagen Commercial Vehicles launched the T7, the new generation of its best-seller from Hanover and included for the first time ever an innovative plug-in hybrid option.

Scania introduced a new powertrain in 2021 that moves the company towards sustainability. It offers fuel savings over the predecessor model and will also be introduced gradually in the other brands of the TRATON GROUP.

MAN unveiled the MAN TGX Individual Lion S, the exclusive top-of-the-range model in the new MAN truck generation, which is available in the highest possible power ratings of 510 to 640 PS.

Navistar introduced new products in the field of electric mobility in 2021, including a mid-sized truck and a school bus.

The motorcycles unveiled by Ducati in 2021 include the new Multistrada V4 and additional variants in the XDiavel family. The Ducati Supersport 950 was launched as a new model in the sports family, while the Ducati Diavel 1260 Lamborghini enhanced the product portfolio.

VOLKSWAGEN GROUP DELIVERIES

The Volkswagen Group delivered 8,881,957 vehicles to customers worldwide in fiscal year 2021. This was 4.5% or

423,034 units less than in the previous year. While sales figures for the Passenger Cars Business Area fell short of the prior-year figure, commercial vehicle deliveries to customers rose year-on-year. The chart in this section shows the trend in deliveries worldwide for the individual months compared with the previous year. In the following, we report separately on deliveries in the Passenger Cars Business Area and the Commercial Vehicles Business Area.

VOLKSWAGEN GROUP DELIVERIES[1]

	2021	2020	%
Passenger Cars	8,610,747	9,114,804	−5.5
Commercial Vehicles	271,210	190,187	+42.6
Total	**8,881,957**	**9,304,991**	**−4.5**

1 Prior-year deliveries have been updated to reflect subsequent statistical trends. The figures include the Chinese joint ventures.

GLOBAL DELIVERIES BY THE PASSENGER CARS BUSINESS AREA

With its passenger car brands, the Volkswagen Group is present in all relevant automotive markets around the world. The key sales markets currently include Western Europe, China, the USA, Brazil, Russia, Mexico, Turkey and Poland.

Sales of Volkswagen Group passenger cars and light commercial vehicles worldwide declined by 5.5% in fiscal year 2021 to 8,610,747 units. Market conditions that resulted from the uncertainty and the measures taken around the world in connection with the Covid-19 pandemic have had a material impact on the prior-year figure. With regard to the trend in our deliveries to customers, there were some appreciable differences across individual countries and regions in the reporting year, depending on the latest infection rates, the related restrictions and the scale of disruption caused by the pandemic in the prior-year period. Furthermore, supply bottlenecks for semiconductors and the resulting limited availability of Group models meant that demand could not be adequately met in some regions, particularly from the third quarter of 2021 onwards. While the number of vehicles delivered to customers in the individual months of the first half of 2021 only failed to exceed the prior-year figure in January, the number of vehicles delivered to customers in the second half of the year was below the comparative figure for the previous year in every month. Nevertheless, SEAT, Bentley, Lamborghini and Porsche all surpassed their prior-year figures. In the North America, South America, Middle East and Africa regions, we registered higher sales figures than in the previous year.

The Group's sales figures continued to respond positively to its e-mobility campaign. In the fiscal year now ended, we delivered 452,944 all-electric vehicles to customers worldwide, 221,317 units or 95.5% more than in the previous year and accounting for 5.1 (2.5)% of the Group's total deliveries. Our plug-in hybrid models also remained very popular with our customers, with 309,462 units being sold (previous year: 191,970). As a result, electric vehicle deliveries climbed by 80.0%, with their share of total Group deliveries rising to 8.6 (4.6)%. The Group's most successful all-electric vehicles included the ID.4, ID.3 and e-up! from the Volkswagen Passenger Cars brand, the Audi e-tron and Audi Q4 e-tron, the ŠKODA Enyaq iV, the SEAT Mii electric and the Porsche Taycan. The most popular plug-in hybrid models included the Golf, Passat Estate and Tiguan from Volkswagen Passenger Cars, the Audi A3 Sportback and Audi Q5, the ŠKODA Octavia Combi and ŠKODA Superb Combi, the SEAT Leon Sportstourer, the CUPRA Formentor and the Porsche Cayenne.

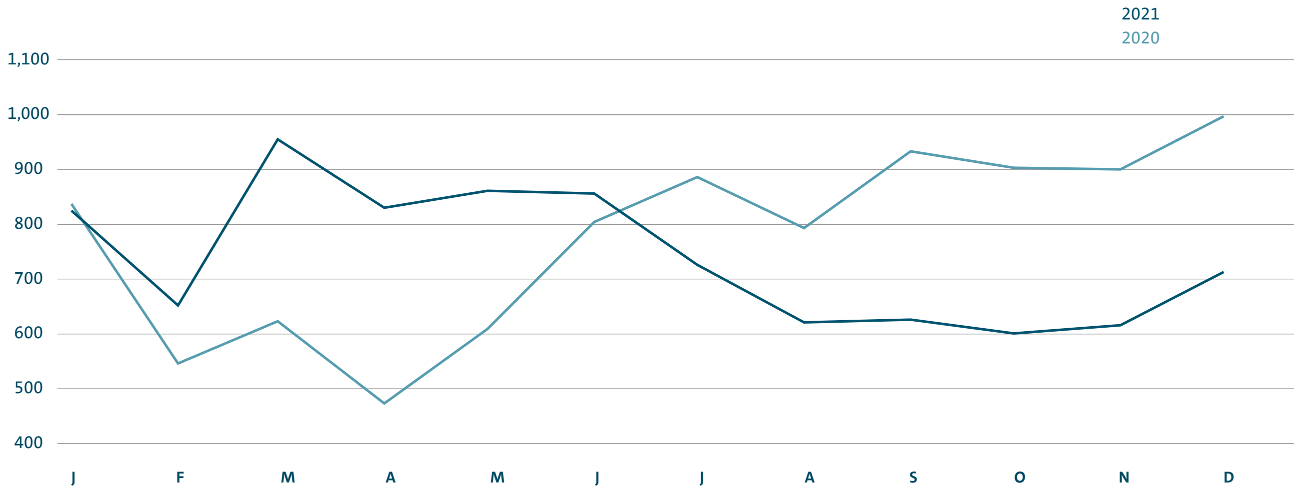
In an overall global market exhibiting moderate growth, we achieved a passenger car market share of 11.7 (12.9)%.

The table at the end of this section gives an overview of passenger car deliveries to customers of the Volkswagen Group in the regions and the key individual markets. The sales figures for Group models in these markets and regions are explained in the following sections.

Deliveries in Europe/Other Markets

In Western Europe, the Volkswagen Group delivered 2,761,568 vehicles to customers in 2021 in an overall market experiencing a slight contraction. This was 3.1% fewer than in the previous year, which had been strained by the pandemic. While the course of the Covid-19 pandemic and the restrictions introduced to contain it weighed on demand for Group models in the first quarter of 2021, there was an acceleration in demand, particularly at the beginning of the second quarter, as compared with the same quarter of the previous year, which had been affected most by the pandemic. This meant that the sales volume at the end of the first half of the year was higher than the comparable figure for 2020. From the third quarter of 2021 onwards, supply bottlenecks for semiconductors and the resulting limited availability of Group models increasingly meant that demand could not be adequately met. Consequently, the number of sales to customers fell again by the end of the year to below the prior-year figure. Customer interest in the Volkswagen Group's electric vehicles was strongest in Western Europe, where we delivered around three-quarters of our plug-in hybrids and nearly two-thirds of our all-electric models to customers in 2021.

VOLKSWAGEN GROUP DELIVERIES BY MONTH
Vehicles in thousands



Electric vehicles accounted for approximately 18.6% of the Group's total deliveries in Western Europe. The Group models with the highest sales volume were the T-Roc, Golf, Polo and Tiguan from the Volkswagen Passenger Cars brand. In addition, the following new or successor models introduced to the market in the previous year proved very popular with customers: the T-Roc Cabriolet, Arteon Shooting Brake, ID.3 and ID.4 from the Volkswagen Passenger Cars brand, the A3 saloon, A3 Sportback and e-tron Sportback from Audi, the ŠKODA Octavia saloon and the CUPRA Formentor. In the reporting period, the Polo, Taigo and Tiguan Allspace models from Volkswagen Passenger Cars, the Fabia and Kodiaq from ŠKODA, the Arona and Ibiza from SEAT and the Porsche Macan, as well as the all-electric e-tron GT, Q4 e-tron and Q4 Sportback e-tron from Audi, Enyaq iV from ŠKODA, CUPRA Born and Porsche Taycan Cross Turismo were among the vehicles successfully launched on the market as new or successor models. The new Multivan from Volkswagen Commercial Vehicles also celebrated its market debut. The Volkswagen Group's share of the passenger car market in Western Europe amounted to 23.5 (23.7)%.

In the Central and Eastern Europe region, the number of vehicles handed over to customers in 2021 was down 4.3% year-on-year. At the same time, the overall market recorded slightly higher volumes. Demand developed encouragingly for the T-Cross and T-Roc models from Volkswagen Passenger Cars, for the ŠKODA Rapid, Kamiq and Karoq and for the SEAT Arona. The Taos was one of the new models successfully launched by Volkswagen Passenger Cars. The Volkswagen Group's share of the passenger car market in the Central and Eastern Europe region amounted to 20.5 (22.0)%.

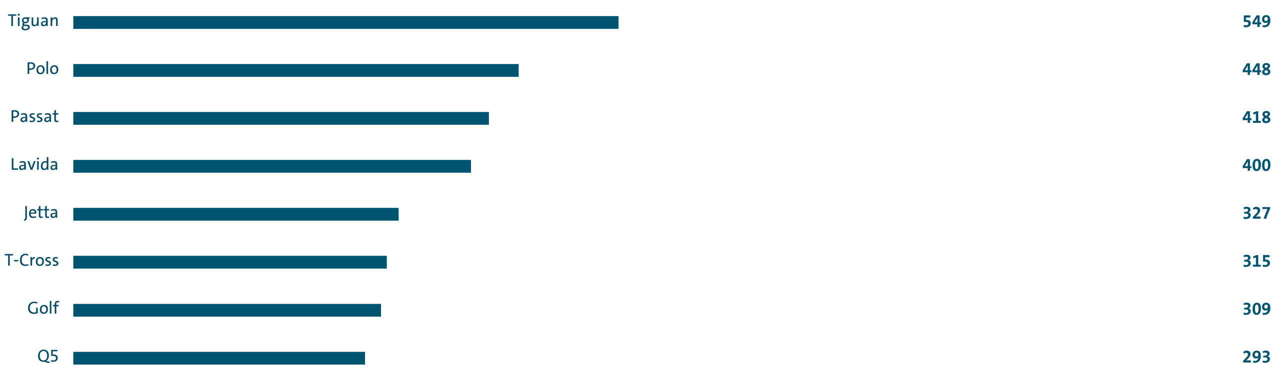
In Turkey, the Volkswagen Group delivered 0.6% more vehicles to customers than in 2020 despite the distinct overall market downtrend in the previous fiscal year. The Passat saloon was the most sought-after Group model. In the South African market, the number of Group models sold increased by 12.6%, a somewhat slower rise than that registered in the overall market. The Polo from the Volkswagen Passenger Cars brand remained the most sought-after Group model in this region.

Deliveries in Germany

In Germany, the number of Volkswagen Group vehicles handed over to customers in 2021 was down 10.0% on the pandemic-related weak prior year in an overall market that saw a noticeable decline. After the impact of the Covid-19 pandemic and early purchases made in the fourth quarter of 2020 in anticipation of the expiry of the temporary reduction in value-added tax (VAT) weighted on the volume of deliveries in the first quarter, demand recovered during the second quarter. Consequently, the volume of vehicles sold at the end of the first half of the year was higher than the comparative figure for 2020. The limited vehicle availability resulting from bottlenecks in the supply of semiconductors had an increasing impact on the Group's deliveries from the third quarter of 2021, and the number of vehicles handed over to customers therefore fell short of the prior-year figure again by the end of the year. The Group models with the highest

WORLDWIDE DELIVERIES OF THE MOST SUCCESSFUL GROUP MODEL RANGES IN 2021

Vehicles in thousands



sales volume were the Golf and Passat Estate from the Volkswagen Passenger Cars brand. In addition, the T-Roc Cabriolet and Arteon Shooting Brake together with the ID.3 and ID.4 from Volkswagen Passenger Cars, the Audi e-tron Sportback and the CUPRA Formentor, which had all been introduced as new or successor models the previous year, were very popular with customers. Eight Group models led the *Kraftfahrt-Bundesamt* (KBA – German Federal Motor Transport Authority) registration statistics in their respective segments: the up!, Golf, T-Roc, Tiguan, Passat, Audi A6, Porsche 911 and Multivan/Transporter. The Golf was again the most popular passenger car in Germany in terms of registrations in 2021.

Deliveries in North America

In North America, the number of Volkswagen Group vehicles delivered to customers in the reporting period climbed by 11.8% compared with the previous year, which had been weakened by the pandemic, and thus outperformed the overall market. The Group's share of the market in this region amounted to 4.9 (4.6)%. The Tiguan Allspace and Jetta from Volkswagen Passenger Cars were the most sought-after Group models in North America.

In the US market, which is witnessing moderate growth, the Volkswagen Group delivered 12.6% more vehicles to customers in fiscal year 2021 than in the previous year. The volume of all-electric vehicles delivered in the United States tripled year-on-year to 37,179 units. Here, too, bottlenecks in the supply of semiconductors had a negative impact on the Group's sales figures from the third quarter onwards. The Group models to record the greatest increases in absolute terms were the Tiguan Allspace, Atlas and Atlas Cross Sport from Volkswagen Passenger Cars, the Q3, Q5 and e-tron from the Audi brand and the Macan and Taycan from Porsche. The Taos and the Tiguan Allspace from Volkswagen Passenger Cars, the Audi A3 saloon and Audi Q5 Sportback and the Porsche Panamera, as well as the all-electric ID.4 from Volkswagen Passenger Cars, e-tron GT and Q4 e-tron from Audi and the Porsche Taycan Cross Turismo were successfully launched on the market during the reporting period as new or successor models.

In Canada, the number of vehicles delivered to Volkswagen Group customers rose in the reporting period by 18.3% compared with 2020. The overall market recorded a smaller increase during this period. The Tiguan Allspace and Atlas Cross Sport from Volkswagen Passenger Cars, the Audi Q3 and the Porsche Macan were some of the models to register encouraging volume growth.

In Mexico, where the market as a whole is seeing distinct growth, we sold 3.4% more vehicles to customers in the past fiscal year than in the year before. The Group models with the highest volume of demand were the Vento and the new Taos from the Volkswagen Passenger Cars brand, and the SEAT Ibiza.

Deliveries in South America

In the South American market for passenger cars and light commercial vehicles, which is seeing significant growth, the number of Group models handed over to customers in 2021 was down 0.8% on the prior-year figure. The Gol, T-Cross and the Nivus from Volkswagen Passenger Cars were the Group models with the highest demand. The new Taos from Volkswagen Passenger Cars was successfully launched on the market. The Group's share of the market in South America amounted to 12.4 (14.1)%.

In the Brazilian market, which is seeing slight growth, the Volkswagen Group delivered 7.5% fewer vehicles to customers in the reporting period than in the previous year. Together with the Gol and the T-Cross, the Nivus from Volkswagen Passenger Cars was in especially high demand.

In Argentina, the number of Volkswagen Group vehicles handed over to customers in 2021 decreased by 2.4% year-on-year in an overall market exhibiting noticeable growth. The Group models with the highest volume of sales were the Gol, the Nivus and T-Cross from Volkswagen Passenger Cars and the Amarok from Volkswagen Commercial Vehicles.

Deliveries in the Asia-Pacific region

In the past fiscal year, the Volkswagen Group saw deliveries to customers in the Asia-Pacific region drop by 12.5% compared with 2020 in a market that is experiencing moderate growth overall. Bottlenecks in the supply of semiconductors were most prevalent in this region and had an increased impact from the third quarter of 2021 onwards. The Group's share of the passenger car market in this region amounted to 10.9 (13.1)%.

In China, the recovery of the market as a whole continued at a slower pace in 2021. The Volkswagen Group delivered 14.1% fewer vehicles to customers there than in the preceding year. By contrast, the number of all-electric vehicles delivered to customers in China more than quadrupled year-on-year to 92,681 units. Particularly high demand was recorded for the new or successor models introduced in the course of 2020, these being the Tacqua, Tiguan X, Tayron X and Viloran from Volkswagen Passenger Cars, the VS7 from the JETTA brand, the Audi A5 Sportback, Audi Q7 and Audi e-tron, and the Porsche Taycan. Demand also developed encouragingly for models such as the Q3 and Q3 Sportback from Audi and the Porsche Macan. The Tiguan L, Passat, Talagon, CC Shooting Brake, Teramont and Teramont X models from Volkswagen Passenger Cars, the Audi A3L saloon and Audi Q5L Sportback, and the Porsche Panamera, as well as the all-electric ID.3, ID.4 X, ID.4 CROZZ, ID.6 X and ID.6 CROZZ from Volkswagen Passenger Cars were successfully launched on the market during the reporting period as new or successor models.

In the Indian passenger car market, which is recording substantial growth, the Volkswagen Group registered a surge in demand of over 80% in fiscal year 2021 compared with the weak previous year. The Polo and the new Taigun from the Volkswagen Passenger Cars brand together with the new Kushaq and the Rapid from ŠKODA were the most sought-after Group models there.

In Japan, the number of Group vehicles delivered to customers in 2021 was down 2.1% year-on-year in an overall market experiencing a moderate decline. The Group models to recorded the highest demand were the T-Cross and T-Roc from Volkswagen Passenger Cars.

PASSENGER CAR DELIVERIES TO CUSTOMERS BY MARKET[1]

	DELIVERIES (UNITS)		CHANGE
	2021	2020	(%)
Europe/Other Markets	**3,698,882**	**3,779,397**	**−2.1**
Western Europe	**2,761,568**	**2,848,474**	**−3.1**
of which: Germany	959,748	1,065,811	−10.0
France	238,366	222,520	+7.1
United Kingdom	422,594	409,016	+3.3
Italy	248,414	239,167	+3.9
Spain	220,148	213,700	+3.0
Central and Eastern Europe	**624,815**	**652,819**	**−4.3**
of which: Czech Republic	114,250	112,586	+1.5
Russia	204,772	221,811	−7.7
Poland	120,831	126,883	−4.8
Other Markets	**312,499**	**278,104**	**+12.4**
of which: Turkey	121,885	121,129	+0.6
South Africa	72,847	64,693	+12.6
North America	**876,558**	**784,299**	**+11.8**
of which: USA	647,521	574,822	+12.6
Canada	98,829	83,531	+18.3
Mexico	130,208	125,946	+3.4
South America	**436,852**	**440,326**	**−0.8**
of which: Brazil	311,519	336,773	−7.5
Argentina	56,186	57,555	−2.4
Asia-Pacific	**3,598,455**	**4,110,782**	**−12.5**
of which: China	3,301,444	3,844,679	−14.1
India	52,481	28,423	+84.6
Japan	65,549	66,935	−2.1
Worldwide	**8,610,747**	**9,114,804**	**−5.5**
Volkswagen Passenger Cars	4,896,914	5,328,090	−8.1
ŠKODA	878,202	1,004,816	−12.6
SEAT	470,531	426,641	+10.3
Volkswagen Commercial Vehicles	359,546	371,609	−3.2
Audi	1,680,512	1,692,773	−0.7
Lamborghini	8,405	7,430	+13.1
Bentley	14,659	11,206	+30.8
Porsche	301,915	272,162	+10.9
Bugatti[2]	63	77	−18.2

1 Prior-year deliveries have been updated to reflect subsequent statistical trends. The figures include the Chinese joint ventures.
2 Until October 31, 2021.

COMMERCIAL VEHICLE DELIVERIES

In fiscal year 2021, the Volkswagen Group delivered +42.6% more commercial vehicles to customers worldwide than in the same period of the previous year, when demand was affected by a slump in core markets, which had been further intensified by the uncertainty generated by the Covid-19 pandemic. We delivered a total of 271,210 commercial vehicles to customers. Trucks accounted for 230,151 units (+47.2%) and buses for 18,857 units (+16.6%). A total of 22,202 (+25.9%) vehicles from the MAN TGE van series were delivered. From July 1, 2021, the figures also include Navistar's sales (29,876).

In the 27 EU states excluding Malta, but plus the United Kingdom, Norway and Switzerland (EU27+3), sales in the reporting period were up by 13.2% on the previous year to a total of 119,029 units, of which 92,038 were trucks and 5,451 were buses. Here, the MAN brand delivered 21,540 vehicles from the MAN TGE van series.

In Russia, sales rose year-on-year to 11,293 (8,486) units, comprising 11,232 trucks and 61 buses.

In fiscal year 2021, deliveries in Turkey increased to 4,398 (2,681) vehicles. Trucks accounted for 4,204 units and buses for 28 units, while 166 vehicles from the MAN TGE van series were sold. In South Africa, deliveries of Volkswagen Group commercial vehicles increased by 26.7% year-on-year to a total of 3,942 units; of this figure 3,610 were trucks and 332 were buses.

Sales in North America rose in the reporting year to 31,869 vehicles (1,502); this included 25,815 trucks and 6,054 buses. From July 1, 2021, the figures also include Navistar's sales (29,003) whose vehicles were above all handed over to customers in the United States.

Deliveries in South America increased to a total of 77,774 vehicles (+57.5%) in 2021, of which 72,955 were trucks and 4,812 were buses. Sales in Brazil were up by 59.1%. Of the units delivered, 61,571 were trucks and 3,434 were buses. From July 1, 2021, the figures also include Navistar's sales (873).

In the Asia-Pacific region, the Volkswagen Group sold 12,140 vehicles in the reporting year; among these, 11,262 were trucks and 860 were buses. Overall, this was 6.3% more than in the previous year.

COMMERCIAL VEHICLE DELIVERIES TO CUSTOMERS BY MARKET[1]

	DELIVERIES (UNITS)		CHANGE
	2021	2020	(%)
Europe/Other Markets	**149,427**	**127,893**	**+16.8**
of which: EU27+3	119,029	105,131	+13.2
of which: Germany	32,130	31,859	+0.9
Russia	11,293	8,486	+33.1
Turkey	4,398	2,681	+64.0
South Africa	3,942	3,111	+26.7
North America	**31,869**	**1,502**	**x**
of which: USA	24,239	–	x
Mexico	5,375	1,498	x
South America	**77,774**	**49,372**	**+57.5**
of which: Brazil	65,005	40,855	+59.1
Asia-Pacific	**12,140**	**11,420**	**+6.3**
Worldwide	**271,210**	**190,187**	**+42.6**
Scania	90,366	72,085	+25.4
MAN	150,968	118,102	+27.8
Navistar	29,876	–	x

1 Prior-year deliveries have been updated to reflect subsequent statistical trends. From July 1, 2021, the figures include Navistar.

DELIVERIES IN THE POWER ENGINEERING SEGMENT

Orders in the Power Engineering segment are usually part of major investment projects. Lead times typically range from just under one year to several years, and partial deliveries as construction progresses are common. Accordingly, there is a time lag between incoming orders and sales revenue from the new construction business.

Sales revenue in the Power Engineering segment was largely driven by Engines & Marine Systems and Turbomachinery, which together generated more than two-thirds of overall sales revenue. Until October 2020, this included the business of Renk.

ORDERS RECEIVED IN THE PASSENGER CARS SEGMENT IN WESTERN EUROPE

In the reporting period, orders received in Western Europe increased by 17.7% compared with the previous year, which had been weakened by the pandemic. All key markets exceeded the respective prior-year level. The growth rates differed in strength from country to country: while Germany saw single-digit growth, the United Kingdom, France, Italy and Spain were up by more than 20%.

ORDERS RECEIVED FOR COMMERCIAL VEHICLES

Orders received for mid-sized and heavy trucks, for buses and for commercial vehicles from the MAN TGE van series rose by 66.5% year-on-year to 359,975 vehicles in 2021. The Navistar brand, included from July 1, 2021, contributed to this increase. The increase was seen in both the truck and bus markets and in the MAN TGE van series segment. The visible recovery in the markets since the second half of 2020 also continued in the first half of 2021. The second half of 2021 saw a decline, mainly resulting from falling truck orders in Europe.

Order intake in the bus business recorded a very sharp increase year-on-year. This was due to the inclusion of Navistar from July 1, 2021. With Navistar's school buses, the Volkswagen Group is now represented in North America.

ORDERS RECEIVED IN THE POWER ENGINEERING SEGMENT

The long-term performance of the Power Engineering business is determined by the macroeconomic environment. Individual major orders lead to fluctuations in incoming orders during the year that do not correlate with these long-term trends.

Orders received in the Power Engineering segment in 2021 amounted to €3.8 (3.4) billion. Engines & Marine Systems and Turbomachinery generated more than two-thirds of the order volume in a persistently difficult market environment. Until October 2020, this included the business of Renk.

In the marine business, for example, orders for 60 dual fuel engines were placed in 2021 in a project for ten ice-breaking LNG tankers. In the power plant business, orders were won for 66 engines and component sets for 28 completely knocked down engines of different types with an aggregate output of 840 MW. For turbomachinery, we received several orders for new applications which were driven by the energy transition and decarbonization such as carbon capture and storage in Europe and an energy storage facility in England.

VOLKSWAGEN GROUP FINANCIAL SERVICES

The Financial Services Division covers the Volkswagen Group's dealer and customer financing, leasing, banking and insurance activities, fleet management and mobility offerings. The division comprises Volkswagen Financial Services and the financial services activities of Scania and Porsche Holding Salzburg and also includes the contracts concluded by our international joint ventures. Since July 1, 2021, it has also included the financial services business of Navistar.

The Financial Services Division's products and services were popular in fiscal year 2021, although demand was impaired by the Covid-19 pandemic and the limited vehicle availability due to the semiconductor shortage. At 8.6 (8.6) million, the number of new financing, leasing, service and insurance contracts worldwide was on the previous year's level. The ratio of leased and financed vehicles to Group deliveries (penetration rate) in the Financial Services Division's markets rose to 36.1 (35.5)%. As of December 31, 2021, the total number of contracts was 24.5 million, up 1.7% from the end of 2020. The number of contracts in the customer financing/leasing area fell by 3.2% to 11.6 million, while it increased by 6.4% to 12.9 million in the service/insurance area.

In the Europe/Other Markets region, the financial services business was still impacted by the Covid-19 pandemic in the reporting year. The semiconductor shortage also had a detrimental effect. At 6.3 (6.3) million, the number of new contracts signed in 2021 reached the previous year's level. The penetration rate decreased to 48.8 (50.1)%. At 18.0 million, the total number of contracts at the end of the reporting year exceeded the 2020 figure of 17.6 million. The customer financing/leasing area accounted for 7.4 million of these contracts (–2.8%), while 10.5 million (+5.2%) related to the service/insurance area.

In North America, the number of new contracts signed increased year-on-year by 5.0% to 983 thousand. The ratio of leased or financed vehicles to Group deliveries in North America fell to 59.9 (67.0)% as deliveries grew at a higher rate than new contracts. The number of contracts in North America on December 31, 2021 was 3.2 (3.1) million. The increase resulted from the number of contracts acquired from Navistar. The customer financing/leasing area accounted for 1.9 million contracts (–2.4%) and 1.4 million contracts (+12.4%) related to the service/ insurance area.

In the South America region, the number of new contracts signed increased to 332 (318) thousand in the reporting year. The penetration rate rose to 34.5 (32.7)%. At 723 (721) thousand as of December 31, 2021, the total number of contracts was higher than the year before. The contracts mainly related to the customer financing/leasing area.

The number of new contracts signed in the Asia-Pacific region in the past fiscal year fell by 5.7% to 1.0 million units. The ratio of leased or financed vehicles to Group deliveries was unchanged at 17.7 (17.7)%. At 2.6 (2.6) million, the total number of contracts at the end of the reporting year reached the previous year's level. The number of contracts in the customer financing/leasing area fell by 5.5% to 1.8 million, while it increased by 13.5% to 0.8 million in the service/ insurance area.

SALES TO THE DEALER ORGANIZATION

The Volkswagen Group's unit sales to the dealer organization decreased by 6.3% to 8,575,590 units (including the Chinese joint ventures) in the reporting year. Navistar has been included in these figures since July 1, 2021. During the reporting period, demand in markets around the world recovered from the declines in sales in the prior-year period precipitated by the Covid-19 pandemic. However, the limited vehicle availability due to the semiconductor shortage had a detrimental impact. Overall, the unit sales volume fell by 5.5% outside Germany – especially in China – and unit sales decreased by 12.2% in Germany. Growth was recorded in the USA and Canada, India and the United Kingdom, in particular. At 11.3 (12.1)%, the proportion of the Group's total unit sales attributable to Germany was lower than in 2020.

The Tiguan, Polo, Passat, Jetta, T-Cross, Golf and T-Roc from the Volkswagen Passenger Cars brand were our biggest sellers last year. The largest increases in unit sales were recorded for the ID.4, Tharu and Taigo models from the Volkswagen Passenger Cars brand, the Q3 Sportback, Q5 and Q4 e-tron from Audi, the CUPRA Formentor and the ŠKODA Enyaq. The Porsche Taycan and Bentley Bentayga also achieved a strong growth rate.

PRODUCTION

In the reporting period the Volkswagen Group produced 8,282,954 vehicles (including the Chinese joint ventures), 6.9% less than in the same period of the previous year. The prior year had been marked by the impact of national measures to contain the pandemic, which had led to the disruption of supply chains with production subsequently being halted in the Volkswagen Group. In fiscal year 2021 as well, supply shortages, especially for semiconductors, resulted in production cutbacks so that the total annual production volumes dropped even further. Navistar has been included in the Group figures since July 1, 2021. In Germany, production contracted by 9.2% to a total of 1,483,281 vehicles. The percentage of the Group's total production accounted for by Germany fell to 17.9 (18.4)%.

INVENTORIES

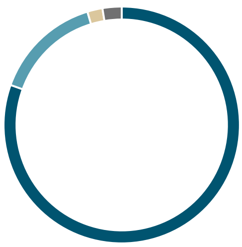
Global inventories of new vehicles at Group companies and in the dealer organization were much lower at the end of the reporting period than at year-end 2020.

EMPLOYEES

Including the Chinese joint ventures, the Volkswagen Group employed an average of 667,647 people in fiscal year 2021, an increase of 0.3% year-on-year. In Germany, we employed 294,479 people on average; at 44.1 (44.4)%, their share of the total headcount was slightly below the level of the previous year.

The number of active employees in the Volkswagen Group rose by 1.6% to 643,297 as of December 31, 2021. In addition, 12,341 employees were in the passive phase of their partial retirement and 17,151 young people were in vocational traineeships. At the end of the reporting year, the Volkswagen Group's total workforce grew to a total of 672,789 employees worldwide. This represents a year-on-year increase of 1.5%, mainly due to the inclusion of the Navistar workforce. A total of 295,065 people were employed in Germany (+0.2%) and 377,724 outside Germany (+2.6%).

EMPLOYEES BY DIVISION/BUSINESS AREA
as of December 31, 2021



Passenger Cars	541,522
Commercial Vehicles	99,626
Power Engineering	14,062
Financial Services	17,579

Shares and Bonds

During the reporting period trading in Volkswagen AG's ordinary and preferred shares continued to recover from the sharp fall in share prices in 2020. The price of our ordinary shares, in particular, was higher at the end of 2021 than before the pandemic.

EQUITY MARKETS AND PERFORMANCE OF THE PRICE OF VOLKSWAGEN'S SHARES

The recovery on the international stock markets, which began over the course of 2020, after the sharp falls in share prices triggered by the Covid-19 pandemic, continued to be strong for the most part of fiscal year 2021. Optimism was widespread, despite fears of setbacks in tackling the pandemic and of the resulting prolongation of restrictions to public life and the corresponding impact on economic growth.

The DAX recorded an increase of 15.8% compared with the end of 2020. Germany's benchmark index remained largely unperturbed by the continuing spread of the SARS-CoV-2 virus, although the dynamic pace of increase in the second quarter transitioned into sideways movement and then started a year-end rally, which was, however, overshadowed by renewed increases in infection rates. The main drivers of this positive development were the progress made in the vaccination campaigns and the continued economic stimulus by central banks and governments all around the world, as well as an emerging recovery in the global economy. Support also came from gains in automotive stocks. In contrast, the concerns of market participants regarding rising inflation had a negative impact, as did lack of parts availability due to supply bottlenecks.

Volkswagen AG's preferred and ordinary shares recovered from the loss in value caused by the pandemic. Their prices were up by 16% and 52% respectively compared to the end of 2020. As a result, their value was higher than before the Covid-19 pandemic, with the ordinary shares performing especially positively. The encouraging performance of Volkswagen shares was based firstly on the good business performance in the reporting year, especially in the first six months. Secondly, the new Group strategy NEW AUTO, including the Group's plans to accelerate the expansion of e-mobility and the associated battery technology, was well received by investors. The continued strained situation relating to the supply of semiconductors had a negative impact.

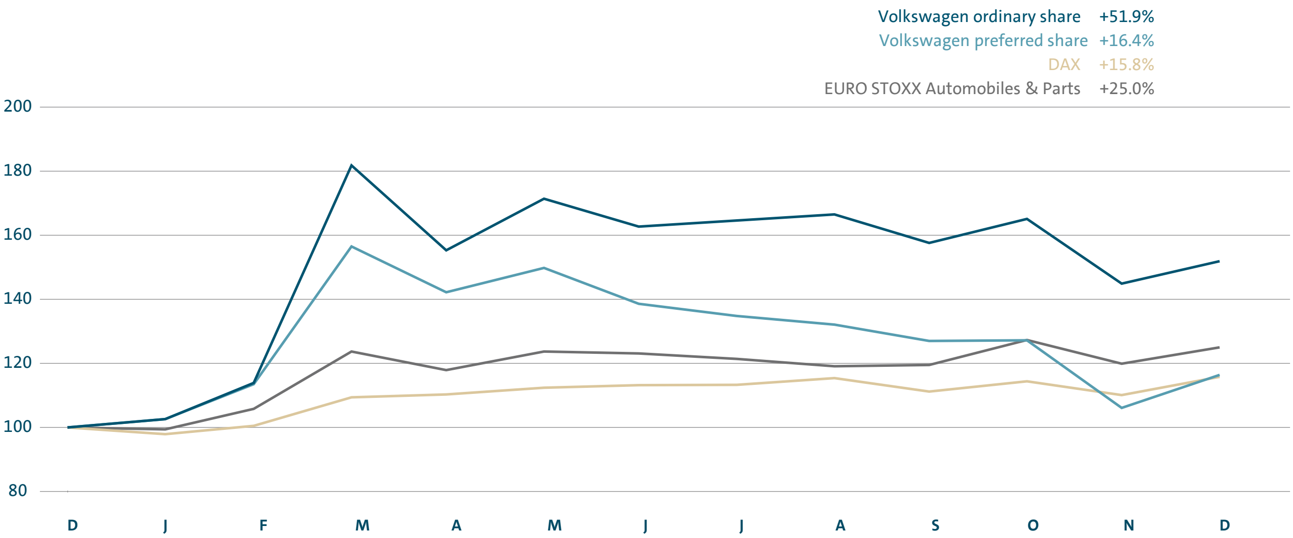
VOLKSWAGEN SHARE KEY FIGURES AND MARKET INDICES FROM JANUARY 1 TO DECEMBER 31, 2021

		High	Low	Closing
Ordinary share	Price (€)	327.20	165.70	258.40
	Date	Mar. 18	Jan. 12	Dec. 30
Preferred share	Price (€)	246.55	144.80	177.48
	Date	Apr. 6	Jan. 13	Dec. 30
DAX[1]	Price	16,251	13,433	15,885
	Date	Nov. 17	Jan. 29	Dec. 30
ESTX Auto & Parts	Price	672	491	630
	Date	Nov. 18	Jan. 11	Dec. 30

1 Effective September 20, 2021, the number of companies that make up the DAX rose from 30 to 40.

PRICE DEVELOPMENT FROM DECEMBER 2020 TO DECEMBER 2021

Index based on month-end prices: December 31, 2020 = 100



DIVIDEND POLICY

Our dividend policy matches our financial strategy. In the interests of all stakeholders, we aim for continuous dividend growth that allows our shareholders to participate appropriately in our business success. The proposed dividend therefore reflects our financial management objectives – in particular, ensuring a solid financial foundation as part of the implementation of our strategy.

The current dividend proposal can be found in the chapter entitled "Volkswagen AG (condensed, in accordance with the German Commercial Code)" of this annual report. The Board of Management and Supervisory Board of Volkswagen AG are proposing a dividend of €7.50 per ordinary share and €7.56 per preferred share for fiscal year 2021. On this basis, the total dividend amounts to €3.8 (2.4) billion. The payout ratio is based on the Group's earnings after tax attributable to Volkswagen AG shareholders. This amounts to 25.4% for the reporting period and stood at 29.0% in the previous year. A payout ratio of at least 30% is one of our strategic goals.

DIVIDEND YIELD

Based on the dividend proposal for the reporting period, the dividend yield on Volkswagen ordinary shares is 2.9 (2.8)%, measured by the closing price on the last trading day in 2021. The dividend yield on preferred shares is 4.3 (3.2)%.

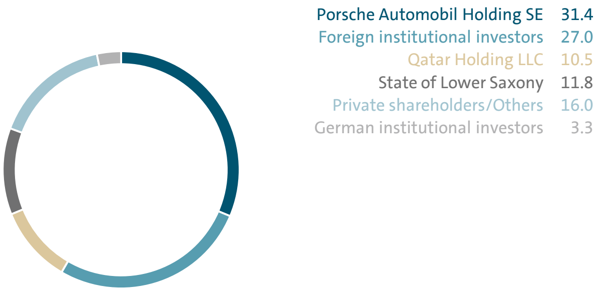
EARNINGS PER SHARE

Basic earnings per ordinary share were €29.59 (16.60) in fiscal year 2021. Basic earnings per preferred share were €29.65 (16.66). In accordance with IAS 33, the calculation is based on the weighted average number of ordinary and preferred shares outstanding in the reporting period. Since the number of basic and diluted shares is identical, basic earnings per share correspond to diluted earnings per share.

See also "Earnings per share" in the notes to the consolidated financial statements for the calculation of earnings per share.

SHAREHOLDER STRUCTURE AS OF DECEMBER 31, 2021

as a percentage of subscribed capital



VOLKSWAGEN SHARE DATA

	Ordinary shares	Preferred shares
ISIN	DE0007664005	DE0007664039
WKN	766400	766403
Deutsche Börse/Bloomberg	VOW	VOW3
Reuters	VOWG.DE	VOWG_p.DE
Primary market indices	CDAX, Prime All Share, MSCI Euro, S&P Global 100 Index	DAX, CDAX, EURO STOXX, EURO STOXX 50, EURO STOXX Automobiles & Parts, Prime All Share, MSCI Euro
Exchanges	Berlin, Dusseldorf, Frankfurt, Hamburg, Hanover, Munich, Stuttgart, Xetra	

SHAREHOLDER STRUCTURE AS OF DECEMBER 31, 2021

At the end of the reporting period, Volkswagen AG's subscribed capital amounted to €1,283,315,873.28. The shareholder structure of Volkswagen AG as of December 31, 2021 is shown in the chart on this page.

The distribution of voting rights for the 295,089,818 ordinary shares was as follows at the reporting date: Porsche Automobil Holding SE, Stuttgart, held 53.3% of the voting rights. The second-largest shareholder was the State of Lower Saxony, which held 20.0% of the voting rights. Qatar Holding LLC was the third-largest shareholder with 17.0%. The remaining 9.7% of ordinary shares were in free float.

Notifications of changes in voting rights in accordance with the *Wertpapierhandelsgesetz* (WpHG – German Securities Trading Act) are published on our website at https://www.volkswagenag.com/en/InvestorRelations/news-and-publications/Voting_Rights.html.

VOLKSWAGEN SHARE KEY FIGURES

Dividend development		2021	2020	2019	2018	2017
Number of no-par value shares at Dec. 31						
Ordinary shares	thousands	295,090	295,090	295,090	295,090	295,090
Preferred shares	thousands	206,205	206,205	206,205	206,205	206,205
Dividend[1]						
per ordinary share	€	7.50	4.80	4.80	4.80	3.90
per preferred share	€	7.56	4.86	4.86	4.86	3.96
Dividend paid[1]	€ million	3,772	2,419	2,419	2,419	1,967
on ordinary shares	€ million	2,213	1,416	1,416	1,416	1,151
on preferred shares	€ million	1,559	1,002	1,002	1,002	817

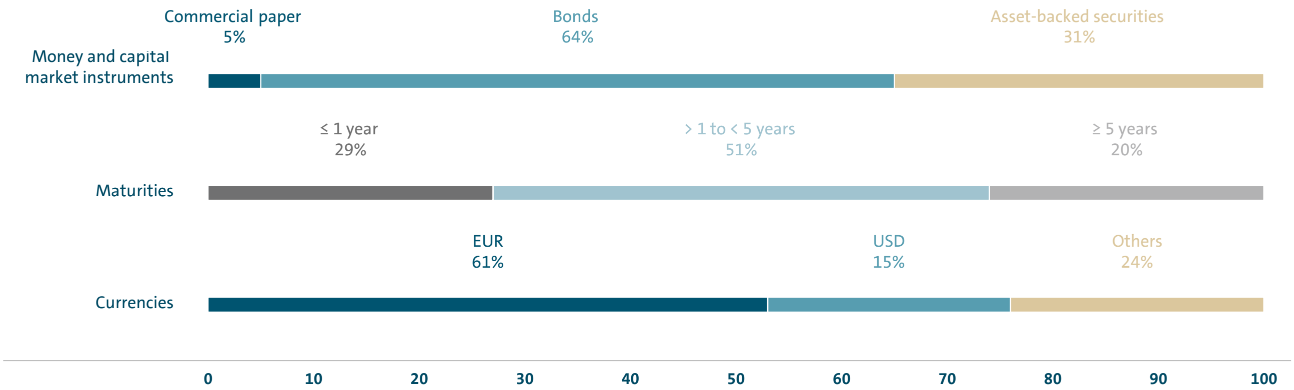
Share price development[2]		2021	2020	2019	2018	2017
Ordinary share						
Closing	€	258.40	170.10	173.25	139.10	168.70
Price performance	%	+51.9	–1.8	+24.6	–17.5	+23.4
Annual high	€	327.20	183.10	182.50	188.00	173.95
Annual low	€	165.70	101.50	135.60	131.10	128.70
Preferred share						
Closing	€	177.48	152.42	176.24	138.92	166.45
Price performance	%	+16.4	–13.5	+26.9	–16.5	+24.8
Annual high	€	246.55	185.52	184.24	188.50	178.10
Annual low	€	144.80	87.20	134.76	133.70	125.35
Beta factor[3]	factor	1.16	1.26	1.17	1.17	1.12
Market capitalization at Dec. 31	€ billion	112.8	81.6	87.5	69.7	84.1
Equity attributable to Volkswagen AG share-holders and hybrid capital investors at Dec. 31	€ billion	144.4	127.0	121.8	117.1	108.8
Ratio of market capitalization to equity	factor	0.78	0.64	0.72	0.60	0.77

Key figures per share		2021	2020	2019	2018	2017
Earnings per ordinary share[4]						
basic	€	29.59	16.60	26.60	23.57	22.28
diluted	€	29.59	16.60	26.60	23.57	22.28
Equity attributable to Volkswagen AG share-holders and hybrid capital investors at Dec. 31	€	288.15	253.44	242.93	233.63	217.13
Price/earnings ratio[5]						
Ordinary share	factor	8.7	10.2	6.5	5.9	7.5
Preferred share	factor	6.0	9.1	6.6	5.9	7.3
Dividend yield[6]						
Ordinary share	%	2.9	2.8	2.8	3.5	2.3
Preferred share	%	4.3	3.2	2.8	3.5	2.4

Stock exchange turnover[7]		2021	2020	2019	2018	2017
Turnover of Volkswagen ordinary shares	€ billion	6.1	3.1	3.3	4.3	3.5
	million shares	23.3	21.6	20.9	28.0	23.6
Turnover of Volkswagen preferred shares	€ billion	58.8	49.8	41.0	54.1	45.1
	million shares	300.4	361.2	266.0	346.6	312.3
Volkswagen share of total DAX turnover	%	6.6	4.7	4.6	5.4	5.4

1 Figures for the years 2017 to 2020 relate to dividends paid in the following year. For 2021, the figures relate to the proposed dividend.
2 Xetra prices.
3 For the calculation see chapter "Results of Operations, Financial Position and Net Assets" of this annual report.
4 For the calculation see "Earnings per share" in the notes to the consolidated financial statements. 2017 figure adjusted (IFRS 9).
5 Ratio of year-end-closing price to earnings per share.
6 Dividend per share based on the year-end-closing price.
7 Order book turnover on the Xetra electronic trading platform (Deutsche Börse).

REFINANCING STRUCTURE OF THE VOLKSWAGEN GROUP
as of December 31, 2021



REFINANCING

High cash inflows from operating activities and the robust net liquidity position significantly reduced the transaction volume in the Automotive Division's capital markets business year-on-year.

On February 11, 2022, the hybrid notes issued in March 2015 with a principal amount of €1.1 billion were canceled with effect from March 20, 2022.

Notes with a volume of CAD 1.0 billion were issued in the Canadian refinancing market. In addition, private placements in euros and Chinese yuan were issued under the automotive issuance program.

In March 2021, TRATON Finance Luxembourg S.A., an indirect subsidiary of TRATON SE, issued senior notes in the bond market with a total volume of €3.0 billion. In the remainder of the year, there were three private placements in euros. TRATON SE also borrowed €700 million through promissory note loans.

Official euro benchmark bonds with an aggregate volume of €8 billion were issued for the Financial Services Division. In addition to this, securities were issued in various currencies and regions.

Alongside the placement of senior, unsecured bonds, asset-backed securities (ABS) transactions were another element of our refinancing activities. In Europe, public ABS transactions with a total volume of €2.75 billion were placed. Public ABS transactions were also issued in the USA, China, Japan, Australia and Brazil.

The Volkswagen Group was also actively involved in the commercial paper market with several issuing companies.

The proportion of fixed-rate instruments in the past year was about three times as high as the proportion of floating-rate instruments.

In our refinancing arrangements, we generally aim to exclude interest rate and currency risk as far as possible with the simultaneous use of derivatives.

The table below shows how our money and capital market programs were utilized as of December 31, 2021 and illustrates the financial flexibility of the Volkswagen Group:

Programs	Authorized volume € billion	Amount utilized on Dec. 31, 2021 € billion
Commercial paper	44.4	8.1
Bonds	175.0	95.2
of which hybrid issues		14.3
Asset-backed securities	93.5	46.0

RATINGS

	VOLKSWAGEN AG		VOLKSWAGEN FINANCIAL SERVICES AG		VOLKSWAGEN BANK GMBH		TRATON SE	
	2021	2020	2021	2020	2021	2020	2021	2020
Standard & Poor's								
short-term	A – 2	A – 2	A – 2	A – 2	A – 2	A – 2	–	–
long-term	BBB+	BBB+	BBB+	BBB+	BBB+	A –	BBB	BBB
outlook	stable	negative	stable	negative	stable	negative	stable	negative
Moody's Investors Service								
short-term	P – 2	P – 2	P – 2	P – 2	P – 1	P – 1	–	–
long-term	A3	A3	A3	A3	A1	A1	Baa1	Baa1
outlook	stable	negative	stable	negative	stable	negative	negative	negative

Volkswagen AG's syndicated credit line of €10.0 billion agreed in December 2019 was extended by one year to 2026 by making use of the second extension option.

This credit facility was unused as of the end of 2021.

In November 2021, Volkswagen AG concluded for the first time a loan with terms tied to achieving a sustainability target (sustainability linked loan). The interest rate on the three-year €1.8 billion agreement depends on the Volkswagen Group achieving its CO_2 fleet emission target in Europe.

Of the syndicated credit lines with a total of €12.8 billion at other Group companies, €0.8 billion has been drawn down. The Volkswagen Group continued to have bilateral confirmed credit lines with national and international banks in various countries for a total of €5.6 billion, of which €0.7 billion was drawn down.

RATINGS

In April 2021, rating agency Standard & Poor's affirmed its short-term and long-term ratings for Volkswagen AG and Volkswagen Financial Services AG at A–2 and BBB+. The long-term rating of BBB for TRATON SE was also confirmed. The outlooks on Volkswagen AG, TRATON SE and Volkswagen Financial Services AG were revised from "negative" to "stable" on stronger-than-expected free cash flow generation in the automotive business. In June 2021, Standard & Poor's completed a review of different institutions within Germany's banking sector precipitated by pandemic-related structural changes in the banking industry. In this context, Volkswagen Bank GmbH's long-term rating was lowered from A–to BBB+ with a stable outlook.

Moody's Investors Service changed the outlook on the ratings of Volkswagen AG in March 2021 from "negative" to "stable", reflecting the continued recovery in global vehicle sales and the expected improvement in Volkswagen's credit metrics, and affirmed Volkswagen's short-term P–2 rating and long-term A3 rating. In this context, Moody's also left the short-term and long-term ratings for Volkswagen Financial Services AG unchanged at P–2 and A3 and those for Volkswagen Bank GmbH at P–1 and A1. The outlook for each company was revised from "negative" to "stable". For TRATON SE, the long-term rating and the outlook were left unchanged at Baa1 and "negative" respectively.

ESG RATINGS

Analysts and investors are referring increasingly to company sustainability profiles when making their recommendations and decisions. They draw on ESG ratings, among other things, to evaluate a company's environmental, social and governance performance. At the same time, these ratings are instrumental in determining whether we are meeting our goal in relation to the new Group strategy NEW AUTO, and they provide the basis for implementing internal measures.

After the diesel issue became public knowledge, the Volkswagen Group was downgraded significantly in numerous ESG ratings. With the successful completion of the Monitorship and reinstatement of the Group in the UN Global Compact, an improvement in ESG performance was achieved in the reporting period. The MSCI score thus improved from CCC to B and the Sustainalytics ESG risk score from "severe" to "medium". Volkswagen has been reinstated in the Dow Jones Sustainability Index Europe since November 2021. In addition, Volkswagen had a score of A– in the CDP climate rating in fiscal year 2021 and a rating of A in the Water Disclosure Project (WDP). Both these ratings were unchanged.

Results of Operations, Financial Position and Net Assets

Despite the continuing negative impact of the Covid-19 pandemic and, in particular, limited vehicle availability as a result of the semiconductor shortage, the Volkswagen Group generated significantly higher sales revenue and doubled its operating result in the reporting year.

The Volkswagen Group's segment reporting comprises the four reportable segments of Passenger Cars and Light Commercial Vehicles, Commercial Vehicles, Power Engineering and Financial Services, in compliance with IFRS 8 and in line with the Group's internal financial management and reporting structures.

At Volkswagen, segment profit or loss is measured on the basis of the operating result.

The reconciliation contains activities and other operations that do not, by definition, constitute segments. These include the unallocated Group financing activities. Consolidation adjustments between the segments (including the holding company functions) are also contained in the reconciliation. The purchase price allocations for Porsche Holding Salzburg and Porsche, Scania, MAN and, since July 2021, Navistar are allocated to their corresponding segments.

The Automotive Division comprises the Passenger Cars and Light Commercial Vehicles segment, the Commercial Vehicles segment and the Power Engineering segment, as well as the figures from the reconciliation. The Passenger Cars and Light Commercial Vehicles segment is combined with the reconciliation to form the Passenger Cars Business Area, while the Commercial Vehicles and Power Engineering segments are identical to the business areas of the same name. The Financial Services Division corresponds to the Financial Services segment.

ACQUISITION OF NAVISTAR

At the beginning of July 2021, a TRATON GROUP company acquired all of the outstanding shares in Navistar International Corporation (Navistar), a US manufacturer of commercial vehicles. The purchase price of €3.1 billion (USD 3.7 billion) was paid in cash. TRATON SE now indirectly holds 100% of the shares in Navistar, which was previously accounted for using the equity method (interest of 16.7%). The initial recognition of the acquisition has not been finalized due to the size of the transaction, as the internal reviews of the underlying information have not yet been completed. This means that the amounts recognized as of December 31, 2021 are provisional. Total assets increased as a result of the addition of the primary assets and liabilities of Navistar and of their remeasurement, which was required as part of the purchase price allocation. The acquisition resulted in goodwill in the amount of €2.8 billion to reflect the synergies arising from the business with Navistar. These relate particularly to the growth in the share of the market, to purchasing,

KEY FIGURES FOR 2021 BY SEGMENT

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles[1]	Power Engineering	Financial Services	Total segments	Reconciliation	Volkswagen Group
Sales revenue	192,767	30,092	3,278	43,963	270,099	−19,899	250,200
Segment profit or loss (operating result)	14,614	134	45	6,045	20,838	−1,563	19,275
as a percentage of sales revenue	7.6	0.4	1.4	13.8			7.7
Capex, including capitalized development costs	16,329	1,596	68	159	18,152	346	18,498

1 From July 1, 2021, the figures include Navistar.

production costs, modularization and the use of shared components, and to the area of research and development. The consolidation of Navistar as of July 1, 2021 led to an increase of €3.5 billion in the Volkswagen Group's sales revenue as of December 31, 2021. Moreover, the transition of the treatment of Navistar from equity accounting to consolidation gave rise to a non-cash gain of €182 million during initial consolidation, which was presented in the financial result. Earnings after tax including impairment losses on the realization of hidden reserves decreased by €0.2 billion.

EQUITY INVESTMENTS HELD FOR SALE

In March 2021, Brose Fahrzeugteile SE & Co. Kommanditgesellschaft (Brose) and VW Finance Luxemburg S.A., a subsidiary of Volkswagen AG, entered into an agreement to establish a jointly operated company for the development and manufacture of complete seat units, seat structures and components, and solutions for the vehicle interior. As part of this arrangement, Brose acquired half of the shares of the Volkswagen Group company SITECH Sp. z o.o., Polkowice/Poland. Brose and Volkswagen each hold 50% of the jointly operated company, whereby Brose will take the industrial lead. Consequently, Brose will control the jointly operated company and Volkswagen, given its significant influence following the transaction, will account for the company as an associate using the equity method. Once all closing conditions had been met, the transaction was completed on January 1, 2022. The assets of SITECH were classified as held for sale in accordance with IFRS 5 as of the end of the fiscal year.

ESTABLISHMENT OF BUGATTI RIMAC D.O.O., SVETA NEDELJA/CROATIA

In 2021, the Volkswagen Group and Rimac Automobili d.o.o., Sveta Nedelja/Croatia (Rimac), established Bugatti Rimac d.o.o., which has its headquarters in Sveta Nedelja. Volkswagen contributed its consolidated subsidiaries Bugatti Automobiles S.A.S, Molsheim/France and initially 51% of Bugatti International S.A., Strassen/Luxembourg. After proportional profit elimination, the contribution led to a non-cash gain of €124 million, which was recognized in the other operating result.

SALE OF MAN TRUCK & BUS ÖSTERREICH GESMBH, STEYR/AUSTRIA

The sale of MAN Truck & Bus Österreich GesmbH, Steyr/Austria (MTBÖ) as part of restructuring measures was completed with effect from August 31, 2021. The sale led to the recognition of an expense, of which €160 million was mainly attributable to impairment losses on property, plant and equipment and €144 million to a loss on deconsolidation. The total expense of €304 million related to the disposal is presented in other operating expenses. The sale of the shares in MTBÖ resulted in a net cash outflow of €199 million, which is presented in cash flows from investing activities.

MERGER OF MAN SE WITH TRATON SE

The merger of MAN SE (MAN) with TRATON SE (TRATON) was adopted by resolution of the Annual General Meeting of MAN SE at the end of June 2021. The merger resolution also triggered the process to transfer the shares held by noncontrolling interest shareholders of MAN to TRATON against payment of an appropriate cash settlement (merger squeeze-out). In this context, the present value of the put options granted, amounting to approximately €587 million, was recognized as a current liability directly in equity. The noncontrolling interests in the Volkswagen Group's equity, as well as the retained earnings and other reserves attributable to the shareholders of Volkswagen AG declined accordingly. The merger of MAN with TRATON was entered in the commercial registers for MAN and TRATON on August 31, 2021. The squeeze-out took legal effect upon entry in the commercial register. This was followed at the beginning of September 2021 by the disbursement of the cash settlement of €70.68 per ordinary and preferred share to the noncontrolling interest shareholders of MAN SE, thus completing the MAN SE squeeze-out. The appropriateness of the cash settlement is being reviewed by judicial award proceedings initiated by noncontrolling interest shareholders who had received a settlement as a result of the squeeze-out.

INVESTMENT IN NORTHVOLT AB

In mid-June 2021, Volkswagen and the Swedish battery cell producer Northvolt AB agreed to concentrate production of Volkswagen premium cells in Skellefteå/Sweden. In connection with this, Volkswagen participated in a financing round at Northvolt AB that was proportionate to its shareholding, investing a further USD 650 million in the company. Volkswagen also increased its existing convertible loan by a further €190 million and, at the same time, converted this part of the loan to preferred shares. This increased Volkswagen's ownership interest in Northvolt AB to 23.6%. Due to favorable terms and conditions on conversion, the measurement of the converted loan resulted in non-cash income of €62 million. As a result, the carrying amount of the equity investment in Northvolt AB rose by €796 million. A convertible loan of €240 million remains on issue.

EQUITY INVESTMENT IN GOTION HIGH-TECH CO., LTD.

To expand its battery expertise, Volkswagen acquired an interest in Gotion High-Tech Co., Ltd., Hefei/China through Volkswagen (China) Investment Co. Ltd., making it the largest shareholder of the Chinese battery supplier at 26%. The Group spent a total of €1.2 billion on this transaction. The investment is accounted for using the equity method.

SPECIAL ITEMS

Special items consist of certain items in the financial statements whose separate disclosure the Board of Management believes can enable a better assessment of our economic performance.

In fiscal year 2021, the operating result in the Passenger Cars Business Area was affected by negative special items of €–0.8 (–0.9) billion in connection with the diesel issue. The additional expenses, mainly for legal risks, were offset by income from agreements regarding the settlement of damages.

RESULTS OF OPERATIONS

Results of operations of the Group

Against the backdrop of a global economic recovery and despite the continuing impact of the Covid-19 pandemic, and in particular limited vehicle availability as a result of the semiconductor shortage, the Volkswagen Group generated sales revenue of €250.2 billion in fiscal year 2021, 12.3% more than in the previous year, despite the decline in unit sales. Mix effects, better price positioning, and the good business performance of the Financial Services Division and the Commercial Vehicles Business Area particularly had a positive impact. Bottlenecks in the supply of semiconductors and the resulting limited availability of vehicles led to a reduction in vehicle sales. Changes in exchange rates also had a negative effect. At 82.3 (80.8)%, most of the sales revenue was generated abroad. Gross profit increased by €8.3 billion to €47.2 billion. The gross margin went up to 18.9 (17.5)%.

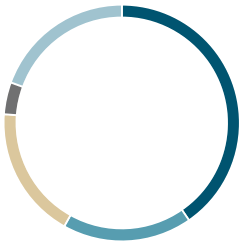
The Volkswagen Group's operating result before special items improved by €9.4 billion to €20.0 billion in the reporting period. The operating return on sales before special items increased to 8.0 (4.8)%. The rise was mainly attributable to positive mix effects, improved price positioning and positive effects of €2.5 (–0.1) billion from the measurement of derivatives to which hedge accounting is not applied (especially commodity hedging derivatives). The good business performance of the Financial Services Division also made a positive contribution. One-off expenses of €0.7 billion for restructuring measures were recognized in the Commercial Vehicles Business Area. These primarily include expenses from the sale of the commercial vehicle plant in Steyr, which became effective on August 31, 2021. In addition, incurred expenses of €0.5 billion in connection with the EU antitrust proceedings against Scania had a negative effect. Special items in connection with the diesel issue weighed on the operating result, reducing this item by €–0.8 (–0.9) billion. The Volkswagen Group's operating profit doubled to €19.3 (9.7) billion, resulting in a rise in the operating return on sales to 7.7 (4.3)%.

INCOME STATEMENT BY DIVISION

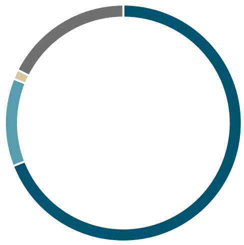
	VOLKSWAGEN GROUP		AUTOMOTIVE[1]		FINANCIAL SERVICES	
€ million	2021	2020	2021	2020	2021	2020
Sales revenue	**250,200**	**222,884**	**206,237**	**182,106**	**43,963**	**40,778**
Cost of sales	−202,959	−183,937	−167,645	−150,507	−35,314	−33,430
Gross profit	**47,241**	**38,947**	**38,592**	**31,599**	**8,649**	**7,348**
Distribution expenses	−19,228	−18,407	−18,068	−17,267	−1,160	−1,140
Administrative expenses	−10,420	−9,399	−7,964	−7,147	−2,456	−2,252
Net other operating result	1,682	−1,466	670	−522	1,012	−944
Operating result	**19,275**	**9,675**	**13,230**	**6,664**	**6,045**	**3,012**
Operating return on sales (%)	**7.7**	**4.3**	**6.4**	**3.7**	**13.8**	**7.4**
Share of profits and losses of equity-accounted investments	2,321	2,756	2,232	2,697	89	60
Interest result and Other financial result	−1,470	−765	−1,316	−469	−154	−296
Financial result	**851**	**1,991**	**915**	**2,227**	**−64**	**−236**
Earnings before tax	**20,126**	**11,667**	**14,146**	**8,891**	**5,981**	**2,776**
Income tax expense	−4,698	−2,843	−3,179	−2,228	−1,519	−615
Earnings after tax	**15,428**	**8,824**	**10,967**	**6,663**	**4,462**	**2,161**
Noncontrolling interests	46	−43	−42	−98	87	55
Earnings attributable to Volkswagen AG hybrid capital investors	539	533	539	533	–	–
Earnings attributable to Volkswagen AG shareholders	**14,843**	**8,334**	**10,469**	**6,227**	**4,374**	**2,106**

1 Including allocation of consolidation adjustments between the Automotive and Financial Services divisions.

SHARE OF SALES REVENUE BY MARKET 2021
in percent



SHARE OF SALES REVENUE BY DIVISION/BUSINESS AREA 2021
in percent



The financial result decreased by €1.1 billion year-on-year to €0.9 billion. The other financial result included negative effects from forward purchase agreements for new shares in QuantumScape (€–0.6 billion). In the previous year, the measurement and realization of these forward agreements had led to a non-cash gain of €1.4 billion. Moreover, the share of the result of equity-accounted investments was down on the prior-year period. This is primarily attributable to the lower profit generated by the Chinese joint ventures, which is again a reflection of the bottlenecks in the supply of semiconductors and the resulting limited availability of vehicles. The interest expenses included in the financial result increased, due mainly to the interest cost on provisions. In the previous year, changes in share prices had weighed on net income from securities and funds as a result of the Covid-19 pandemic.

The Volkswagen Group's profit before tax rose to €20.1 (11.7) billion. The return on sales before tax increased to 8.0 (5.2) %. Income taxes resulted in an expense of €4.7 (2.8) billion in fiscal year 2021, which in turn led to a tax rate of 23.3 (24.4) %. Profit after tax went up by €6.6 billion to €15.4 billion.

Results of operations in the Automotive Division

Despite the decline in unit sales, the Automotive Division's sales revenue of €206.2 billion in fiscal year 2021 was 13.3 % higher than in the prior-year period, which had been more severely impacted by the spread of the Covid-19 pandemic and its negative consequences. Improvements in the mix and in price positioning had a positive effect, while limited vehicle availability due to the semiconductor shortage and changes in exchange rates had an adverse impact.

In the Passenger Cars Business Area, sales revenue in the reporting period increased by a noticeable 10.6 %, while the Commercial Vehicles Business Area recorded a very strong year-on-year rise of 35.8 %. In the Power Engineering Business Area, sales revenue was 9.9 % lower than in fiscal year 2020, which had included the business of Renk until October. Since our Chinese joint ventures are accounted for using the equity method, the Group's business performance in the Chinese passenger car market is primarily reflected in the Group's sales revenue only through deliveries of vehicles and vehicle parts.

Cost of sales increased, driven by factors such as a rise in research and development costs recognized in profit or loss. As a result of the marked growth in sales revenue, the ratio of cost of sales to sales revenue decreased. Total research and development costs as a percentage of the Automotive Division's sales revenue (research and development ratio or R&D ratio) was unchanged from the previous year, at 7.6 (7.6) %. In addition to new models, our activities focused above all on the electrification of our vehicle portfolio, digitalization, new technologies and our modular toolkits and platforms.

There was a year-on-year rise in both distribution and administrative expenses in the reporting period. The ratio of distribution expenses to sales revenue went down, while the ratio of administrative expenses was virtually unchanged. The other operating result amounted to €0.7 (–0.5) billion, benefiting in particular from the effects of the fair value measurement of derivatives to which hedge accounting is not applied (especially commodity hedging derivatives) in the amount of €2.4 (–0.1) billion, and from currency effects. This was set against factors such as negative special items in connection with the diesel issue in the Passenger Cars Busi-

RESULTS OF OPERATIONS IN THE PASSENGER CARS, COMMERCIAL VEHICLES AND POWER ENGINEERING BUSINESS AREAS FROM JANUARY 1 TO DECEMBER 31

€ million	2021	2020
Passenger Cars		
Sales revenue	172,868	156,311
Operating result	13,051	7,224
Operating return on sales (%)	7.5	4.6
Commercial Vehicles[1]		
Sales revenue	30,092	22,156
Operating result	134	−79
Operating return on sales (%)	0.4	−0.4
Power Engineering[2]		
Sales revenue	3,278	3,640
Operating result	45	−482
Operating return on sales (%)	1.4	−13.2

1 From July 1, 2021, the figures include Navistar.
2 Figures up to October 2020 include Renk.

ness Area which had to be recognized here, an increase in provisions in connection with the EU antitrust proceedings against Scania in the reporting period and one-off expenses for restructuring measures in the Commercial Vehicles Business Area. In addition, the contribution of the two Bugatti subsidiaries to the newly established company Bugatti Rimac d.o.o. led to a non-cash gain after proportional profit elimination. The prior-year figure had included a gain of €0.8 billion from the contribution of the consolidated subsidiary Autonomous Intelligent Driving to Argo AI and a gain on the sale of the shares in Renk.

The Automotive Division's operating result doubled to €13.2 (6.7) billion in the reporting period. The operating return on sales of the Automotive Division climbed to 6.4 (3.7) %. Positive factors included favorable price positioning, the fair value measurement of derivatives to which hedge accounting is not applied and changes in the mix. Negative special items attributable to the diesel issue were down on the previous year. These factors were offset by limited vehicle availability as a result of the semiconductor shortage, an increase in provisions in connection with the EU antitrust proceedings against Scania in the reporting period, and one-off expenses for restructuring measures in the Commercial Vehicles Business Area.

The operating result before special items increased by €6.4 billion to €14.0 billion, while the operating return on sales before special items went up to 6.8 (4.2) %.

Our operating result largely benefits from the business performance of our equity-accounted Chinese joint ventures only through deliveries of vehicles and vehicle parts and through license income, as these joint ventures are included in the financial result.

Results of operations in the Financial Services Division

The Financial Services Division's sales revenue amounted to €44.0 billion in fiscal year 2021, 7.8% more than in the prior-year period. Cost of sales increased slightly more slowly than sales revenue, rising by 5.6% to €35.3 billion.

The Financial Services Division's operating result grew by €3.0 billion to €6.0 billion thanks to improved business performance, which was driven above all by strong demand for used vehicles, and lower risk costs for credit and residual value risks. The operating return on sales increased to 13.8 (7.4) %. The return on equity before tax almost doubled to 17.3 (8.8) %.

Principles and goals of financial management

Financial management in the Volkswagen Group covers liquidity management, the management of currency, interest rate and commodity price risks, and credit and country risk management. It is performed centrally for all Group companies by Group Treasury, based on internal guidelines and risk parameters. Some functions of the MAN Energy Solutions, Porsche Holding Salzburg and TRATON subgroups and of the Financial Services Division are included in the financial management and, in addition, have their own financial management structures.

The goal of financial management is to ensure that the Volkswagen Group remains solvent at all times and at the same time to generate an adequate return from the investment of surplus funds. We use cash pooling to optimize the use of existing liquidity between the significant companies. In this system, the balances, either positive or negative, accumulating in the cash pooling accounts are swept daily to a regional target account and thus pooled. The overriding aim of currency, interest rate and commodity risk management is to hedge, using derivative financial instruments and commodity forwards, the prices on which investment, production and sales plans are based when making planning assumptions and to mitigate interest rate risks incurred in financing transactions. In the management of credit and country risk, diversification is used to limit the Volkswagen Group's exposure to the so-called counterparty risk. To achieve this, counterparty risk management imposes internal limits on the volume of business allowed per counterparty when financial transactions are entered into. Various credit rating criteria are applied in this process. These focus primarily on the capital resources of potential counterparties, as well as the ratings awarded by independent agencies. The relevant risk limits and the authorized financial instruments, hedging methods and hedging horizons are approved by the Group Board of Management Committee for Risk Management. For additional information on the principles and goals of financial management, please refer to the chapter on “Financial risk management and financial instruments” in the notes to the consolidated financial statements.

FINANCIAL POSITION

Financial position of the Group

In the period from January to December 2021, the Volkswagen Group generated gross cash flow of €43.7 (35.0) billion. The increase compared with the previous year was largely attributable to the improvement in profit. In comparison with the previous year, which had been impacted by the pandemic, a decrease in inventories and receivables, a rise in lease assets and higher liabilities took the change in working capital to €–5.1 (–10.1) billion. Cash outflows attributable to the diesel issue were lower than in fiscal year 2020 and included the inflows from the agreements regarding the settlement of damages. As a result, cash flows from operating activities grew by €13.7 billion to €38.6 billion.

The Volkswagen Group’s investing activities attributable to operating activities increased by €5.8 billion to €24.2 billion in the reporting period, particularly due to the acquisition of Navistar for an amount of €2.6 billion (net of the cash funds acquired), the capital increase and acquisition of shares in Gotion High-Tech in an amount of €1.1 billion and a rise in capitalized development costs.

Financing activities accounted for total cash outflows of €–7.8 billion. Financing activities related primarily to the redemption of the hybrid note called in the first quarter of 2021, the dividend paid to the shareholders of Volkswagen AG and the issuance and redemption of bonds, as well as to changes in other financial liabilities. In the prior-year period, there had been a cash inflow of €7.6 billion to boost gross liquidity by placing hybrid bonds and issuing the green bond.

At the end of the reporting period, the Volkswagen Group reported cash and cash equivalents of €39.1 (33.4) billion in its cash flow statement.

FINANCIAL POSITION IN THE PASSENGER CARS, COMMERCIAL VEHICLES AND POWER ENGINEERING BUSINESS AREAS FROM JANUARY 1 TO DECEMBER 31

€ million	2021	2020
Passenger Cars		
Gross cash flow	26,221	21,823
Change in working capital	3,439	331
Cash flows from operating activities	29,659	22,154
Cash flows from investing activities attributable to operating activities	–19,266	–16,762
Net cash flow	10,393	5,392
Commercial Vehicles[1]		
Gross cash flow	2,491	1,845
Change in working capital	–109	159
Cash flows from operating activities	2,382	2,004
Cash flows from investing activities attributable to operating activities	–4,453	–1,328
Net cash flow	–2,071	676
Power Engineering[2]		
Gross cash flow	333	–25
Change in working capital	29	588
Cash flows from operating activities	362	562
Cash flows from investing activities attributable to operating activities	–74	–274
Net cash flow	287	289

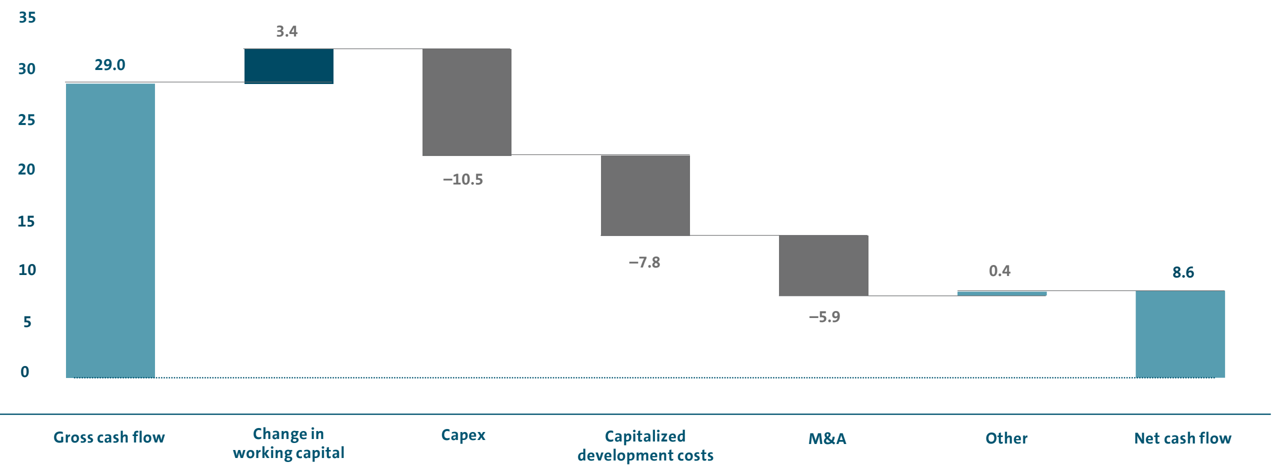
1 From July 1, 2021, the figures include Navistar.
2 Figures up to October 2020 include Renk.

At the end of December 2021, the Volkswagen Group’s net liquidity stood at €–136.6 billion, compared with €–137.4 billion at the end of 2020.

Financial position of the Automotive Division

The Automotive Division recorded gross cash flow of €29.0 billion in fiscal year 2021, which exceeded the prior-year figure by €5.4 billion due to earnings-related reasons. The change in working capital amounted to €3.4 (1.1) billion. The rise of €2.3 billion compared with the previous year, which had been impacted more severely by the Covid-19 pandemic, was due to increases in liabilities and in other provisions, offset by a smaller decline in inventories.

AUTOMOTIVE DIVISION NET CASH FLOW 2021
€ billion



In the reporting period, cash outflows attributable to the diesel issue were lower than in the previous year. This applies even if the inflows from the agreements regarding the settlement of damages are not taken into account. Consequently, cash flows from operating activities were up €7.7 billion on the previous year, to €32.4 billion.

Investing activities attributable to operating activities increased by €5.4 billion to €23.8 billion. Within this figure, investments in property, plant and equipment, investment property and intangible assets, excluding capitalized development costs (capex) decreased by €0.6 billion to €10.5 billion. Thanks to higher sales revenue and a decline in capital expenditure, the ratio of capex to sales revenue was down on the prior-year figure, at 5.1 (6.1)%. A considerable portion of capex was allocated to our production facilities and to models that we launched in 2021 or are planning to launch in 2022, or for which production is set to start. These are primarily vehicles in the ID. family and the new Taigo model, the Multivan T7, the next generation of the ŠKODA Fabia as well as the Enyaq, CUPRA Born, Audi Q4 e-tron, Audi A8, new model variants in the Bentley Bentayga and Flying Spur series, and the Porsche Taycan and the Porsche Macan. Other investment priorities include the electrification and digitalization of our products and our modular toolkits and platforms. Additions to capitalized development costs rose to €7.8 (6.5) billion in the reporting period. The "Acquisition and disposal of equity investments" item (M&A) expanded by €4.7 billion to €5.9 billion as a result of strategic investments in a number of companies, in particular Navistar, the associates Gotion High-Tech and Northvolt, and the joint venture Argo AI. In the prior-year period, this item had included the sale of the shares in Renk.

Despite the investment in Navistar (€–2.6 billion), the Automotive Division's net cash flow of €8.6 billion in the period from January to December 2021 was €2.3 billion higher than the comparative figure for 2020.

In the reporting period, the financing activities of the Automotive Division resulted in a cash outflow of €–7.4 billion; in the prior-year period, there had been a cash inflow of €2.9 billion to boost gross liquidity through measures such as the placement of hybrid notes and the issuance of the green bond. The redemption of the hybrid note called in the first quarter of 2021 led to a cash outflow of around €–1.2 billion. A dividend totaling €2.4 billion was paid to the shareholders of Volkswagen AG in July 2021. Financing activities also include the issuance and redemption of bonds and changes in other financial liabilities. The "Transactions with noncontrolling interests" item includes the present value of the cash settlement for MAN noncontrolling interest shareholders in connection with the merger of MAN and TRATON; the settlement was paid at the beginning of September 2021. In the prior-year period, the transfer of all outstanding Audi shares to Volkswagen AG had been reported in this item.

At the end of the reporting year, the Automotive Division's net liquidity was €26.7 billion, compared with €26.8 billion on December 31, 2020. With net liquidity almost unchanged and a noticeable increase in sales revenue, the Automotive Division's net liquidity as a proportion of consolidated sales revenue declined to 10.7 (12.0)% in the reporting period.

CASH FLOW STATEMENT BY DIVISION

€ million	VOLKSWAGEN GROUP 2021	VOLKSWAGEN GROUP 2020	AUTOMOTIVE[1] 2021	AUTOMOTIVE[1] 2020	FINANCIAL SERVICES 2021	FINANCIAL SERVICES 2020
Cash and cash equivalents at beginning of period	**33,432**	**24,329**	**23,758**	**18,098**	**9,674**	**6,231**
Earnings before tax	20,126	11,667	14,146	8,891	5,981	2,776
Income taxes paid	−4,216	−2,646	−3,329	−2,009	−887	−637
Depreciation and amortization expense[2]	27,473	27,069	18,378	17,798	9,094	9,272
Change in pension provisions	992	806	947	767	45	39
Share of the result of equity-accounted investments	787	536	839	584	−52	−48
Other noncash income/expense and reclassifications[3]	−1,473	−2,461	−1,938	−2,388	465	−73
Gross cash flow	**43,690**	**34,971**	**29,044**	**23,642**	**14,646**	**11,329**
Change in working capital	**−5,056**	**−10,070**	**3,358**	**1,079**	**−8,415**	**−11,148**
Change in inventories	2,110	1,334	624	1,406	1,486	−72
Change in receivables	1,888	712	421	45	1,466	668
Change in liabilities	1,856	540	2,009	−138	−153	678
Change in other provisions	951	−2	938	−214	14	211
Change in lease assets (excluding depreciation)	−16,205	−12,914	−536	52	−15,669	−12,966
Change in financial services receivables	4,345	260	−97	−72	4,442	332
Cash flows from operating activities	**38,633**	**24,901**	**32,402**	**24,721**	**6,231**	**180**
Cash flows from investing activities attributable to operating activities	**−24,181**	**−18,372**	**−23,793**	**−18,364**	**−388**	**−8**
of which: investments in property, plant and equipment, investment property and intangible assets, excluding capitalized development costs	−10,655	−11,273	−10,496	−11,065	−159	−208
capitalized development costs	−7,843	−6,473	−7,843	−6,473	–	–
acquisition and disposal of equity investments	−6,151	−1,037	−5,882	−1,188	−268	151
Net cash flow[4]	***14,453***	***6,529***	***8,610***	***6,357***	***5,843***	***172***
Change in investments in securities, loans and time deposits	−1,948	−4,319	−933	−3,015	−1,015	−1,304
Cash flows from investing activities	**−26,128**	**−22,690**	**−24,726**	**−21,379**	**−1,403**	**−1,312**
Cash flows from financing activities	**−7,754**	**7,637**	**−7,375**	**2,938**	**−380**	**4,699**
of which: capital transactions with noncontrolling interests	−590	−238	−590	−238	–	–
capital contributions/capital redemptions	−1,071	2,984	−1,575	2,952	504	33
MAN noncontrolling interest shareholders: compensation payments and acquisition of shares tendered	–	2	–	2	–	–
Effect of exchange rate changes on cash and cash equivalents	942	−745	839	−619	102	−125
Change of loss allowance within cash & cash equivalents	−1	−0	−1	−0	−0	0
Net change in cash and cash equivalents	**5,691**	**9,103**	**1,141**	**5,660**	**4,550**	**3,443**
Cash and cash equivalents at Dec. 31[5]	**39,123**	**33,432**	**24,899**	**23,758**	**14,224**	**9,674**
Securities, loans and time deposits	34,515	32,645	16,200	15,868	18,314	16,777
Gross liquidity	**73,637**	**66,078**	**41,099**	**39,626**	**32,539**	**26,451**
Total third-party borrowings	−210,213	−203,457	−14,413	−12,830	−195,800	−190,627
Net liquidity[6]	**−136,576**	**−137,380**	**26,685**	**26,796**	**−163,261**	**−164,176**

1 Including allocation of consolidation adjustments between the Automotive and Financial Services divisions.
2 Net of impairment reversals.
3 These relate mainly to the fair value measurement of financial instruments and the reclassification of gains/losses on disposal of noncurrent assets and equity investments to investing activities.
4 Net cash flow: cash flows from operating activities, net of cash flows from investing activities attributable to operating activities (investing activities excluding change in investments in securities, loans and time deposits).
5 Cash and cash equivalents comprise cash at banks, checks, cash-in-hand and call deposits.
6 The total of cash, cash equivalents, securities, loans to affiliates and joint ventures as well as time deposits net of third-party borrowings (noncurrent and current financial liabilities).

Financial position in the Financial Services Division

In fiscal year 2021, the Financial Services Division generated gross cash flow of €14.6 (11.3) billion. The increase was mainly attributable to improved earnings. The change in working capital amounted to €–8.4 (–11.1) billion. A reduction of receivables and inventories were set against a rise in lease assets and led to a decrease in funds tied up in working capital compared with the prior-year period. Cash flows from operating activities went up by €6.1 billion to €6.2 billion.

Investing activities attributable to operating activities expanded to €0.4 (0.0) billion. The "Acquisition and disposal of equity investments" item went up in the reporting period as a result of strategic investments in a number of companies.

The Financial Services Division's financing activities relate primarily to the issuance and redemption of bonds and other financial liabilities; there was a total cash outflow of €–0.4 billion in the reporting period. In the previous year, financing activities had accounted for cash inflows of €4.7 billion.

At the end of 2021, the Financial Services Division's negative net liquidity, which is common in the industry, was €–163.3 billion, compared with €–164.2 billion on December 31, 2020.

NET ASSETS

Consolidated balance sheet structure

At the end of the reporting year, the Volkswagen Group had total assets of €528.6 billion, 6.3 % more than one year earlier. The increase was mainly attributable to higher earnings, the initial consolidation of Navistar and changes in exchange rates. A chart showing the structure of the consolidated balance sheet as of the reporting date can be found in this chapter. The Volkswagen Group's equity rose by €17.4 billion to €146.2 billion. The equity ratio went up to 27.6 (25.9) %.

As of the end of fiscal year 2021, the Group had off-balance-sheet commitments in the form of contingent liabilities in the amount of €9.7 (8.6) billion and in the form of financial guarantees in the amount of €1.4 (0.4) billion. In addition, there were other financial obligations of €34.7 (30.3) billion. The contingent liabilities relate primarily to legal risks in connection with the diesel issue, as well as to potential liabilities from tax risks in the Commercial Vehicles Business Area in Brazil. Other financial obligations primarily result from purchase commitments for property, plant and equipment, irrevocable credit commitments to customers and from development and supply contracts. They also include commitments to invest in the infrastructure for zero-emission vehicles and in initiatives to promote access to and awareness of this technology. These commitments were made as part of the settlement agreements in the USA in connection with the diesel issue. The other financial obligations include an amount of €0.7 (0.9) billion for this purpose. In the previous year, this item had also reflected the payment of the purchase price for the acquisition of all of Navistar's outstanding shares totaling around USD 3.7 billion. In addition to the other financial obligations, there are purchase commitments for inventories with a short turnover period, which arise primarily from the Master Collaboration Agreement with Ford Motor Company for the joint development of vans and mid-sized pickups for the global market.

BALANCE SHEET STRUCTURE OF THE PASSENGER CARS, COMMERCIAL VEHICLES AND POWER ENGINEERING BUSINESS AREAS

€ million	Dec. 31, 2021	Dec. 31, 2020
Passenger Cars		
Noncurrent assets	133,857	130,237
Current assets	86,362	83,180
Total assets	**220,218**	**213,417**
Equity	93,894	81,423
Noncurrent liabilities	80,621	82,263
Current liabilities	45,704	49,731
Commercial Vehicles[1]		
Noncurrent assets	34,730	24,777
Current assets	12,264	11,256
Total assets	**46,994**	**36,033**
Equity	12,807	13,389
Noncurrent liabilities	17,778	10,592
Current liabilities	16,409	12,052
Power Engineering		
Noncurrent assets	1,804	1,847
Current assets	2,914	2,800
Total assets	**4,718**	**4,647**
Equity	2,322	1,922
Noncurrent liabilities	524	668
Current liabilities	1,872	2,057

1 From July 1, 2021, the figures include Navistar.

Automotive Division balance sheet structure

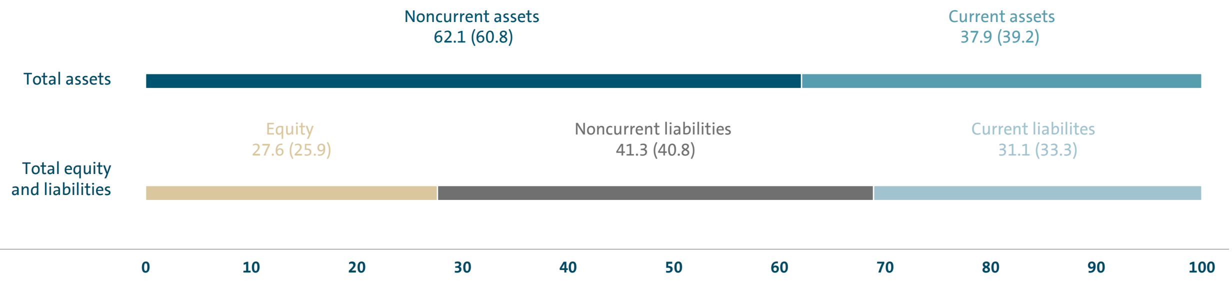
As of December 31, 2021, intangible assets in the Automotive Division increased, driven among other factors by a rise in capitalized development costs. The goodwill recognized as a result of the acquisition of Navistar also had to be taken into account. Property, plant and equipment was on a level with

CONSOLIDATED BALANCE SHEET BY DIVISION AS OF DECEMBER 31

€ million	VOLKSWAGEN GROUP 2021	VOLKSWAGEN GROUP 2020	AUTOMOTIVE[1] 2021	AUTOMOTIVE[1] 2020	FINANCIAL SERVICES 2021	FINANCIAL SERVICES 2020
Assets						
Noncurrent assets	**328,261**	**302,170**	**170,391**	**156,861**	**157,871**	**145,309**
Intangible assets	77,689	67,968	77,290	67,781	399	187
Property, plant and equipment	63,695	63,884	62,684	62,807	1,011	1,077
Lease assets	59,699	50,686	2,316	1,512	57,383	49,174
Financial services receivables	84,954	82,565	−781	−377	85,735	82,942
Investments, equity-accounted investments and other equity investments, other receivables and financial assets	42,224	37,067	28,882	25,137	13,342	11,930
Current assets	**200,347**	**194,944**	**101,539**	**97,236**	**98,808**	**97,708**
Inventories	43,725	43,823	40,361	39,055	3,363	4,768
Financial services receivables	56,498	58,006	−936	−557	57,434	58,562
Other receivables and financial assets	37,195	38,044	18,275	17,012	18,921	21,033
Marketable securities	22,532	21,162	17,674	17,503	4,858	3,658
Cash, cash equivalents and time deposits	39,723	33,909	25,491	24,222	14,232	9,687
Assets held for sale	674	–	674	–	–	–
Total assets	**528,609**	**497,114**	**271,930**	**254,097**	**256,679**	**243,017**
Equity and liabilities						
Equity	**146,154**	**128,783**	**109,022**	**96,733**	**37,131**	**32,050**
Equity attributable to Volkswagen AG shareholders	130,009	111,336	93,592	79,913	36,417	31,423
Equity attributable to Volkswagen AG hybrid capital investors	14,439	15,713	14,439	15,713	–	–
Equity attributable to Volkswagen AG shareholders and hybrid capital investors	144,449	127,049	108,031	95,626	36,417	31,423
Noncontrolling interests	1,705	1,734	991	1,107	714	627
Noncurrent liabilities	**218,062**	**202,921**	**98,923**	**93,523**	**119,139**	**109,398**
Financial liabilities	131,618	114,809	24,639	15,637	106,978	99,173
Provisions for pensions	41,550	45,081	40,769	44,207	781	874
Other liabilities	44,894	43,031	33,515	33,680	11,379	9,352
Current liabilities	**164,393**	**165,410**	**63,984**	**63,840**	**100,409**	**101,569**
Financial liabilities	78,584	88,648	−10,237	−2,806	88,821	91,454
Trade payables	23,624	22,677	20,977	19,539	2,647	3,137
Other liabilities	61,948	54,085	53,007	47,107	8,940	6,978
Liabilities associated with assets held for sale	238	–	238	–	–	–
Total equity and liabilities	**528,609**	**497,114**	**271,930**	**254,097**	**256,679**	**243,017**

1 Including allocation of consolidation adjustments between the Automotive and Financial Services divisions, primarily intragroup loans.

CONSOLIDATED BALANCE SHEET STRUCTURE 2021
in percent



the previous year. Due to the rise attributable to capital increases and the investment in Gotion High-Tech among other factors, equity-accounted investments were up substantially in the fiscal year under review, despite dividend resolutions. In total, noncurrent assets increased to €170.4 (156.9) billion.

Current assets expanded by €4.3 billion compared with the figure at the end of 2020, to €101.5 billion. The inventories included in this item were driven higher, primarily by exchange rate effects. Current other receivables and financial assets increased.

The Automotive Division's cash and cash equivalents grew by €1.3 billion to €25.5 billion.

The "Assets held for sale" item consists mainly of the carrying amounts of the assets of SITECH intended for derecognition. The "Liabilities held for sale" item comprises the carrying amount of the corresponding liabilities intended for derecognition.

Equity in the Automotive Division amounted to €109.0 billion at the end of the reporting period, up 12.7% from December 31, 2020. Good earnings performance, lower actuarial losses from the remeasurement of pension plans and positive currency translation effects pushed equity higher, while the dividend paid to the shareholders of Volkswagen AG, negative effects from the measurement of derivatives recognized directly in equity, and the redemption of the hybrid note called in the first quarter of 2021 weighed on this item. Noncontrolling interests are primarily held by the noncontrolling interest shareholders of the TRATON GROUP. The equity ratio was 40.1 (38.1)%.

Noncurrent liabilities increased by €5.4 billion to €98.9 billion. The noncurrent financial liabilities included here were driven up by exchange rate effects, among other factors. Pension provisions were lower than the comparative 2020 figure, due mainly to the actuarial remeasurement following a change in the discount rate.

At €63.9 (63.8) billion, current liabilities were on a level with the previous year. Current financial liabilities amounted to €–10.2 (–2.8) billion due primarily to reclassifications from noncurrent to current liabilities. The figures for the Automotive Division also contain the elimination of intragroup transactions between the Automotive and Financial Services divisions. As the current financial liabilities for the primary Automotive Division were lower than the loans granted to the Financial Services Division, a negative amount was disclosed in both periods. Trade payables were up distinctly, by 7.4%, compared with the end of 2020.

Current other liabilities exceeded the figure as of December 31, 2020; the other financial liabilities included in this item increased, due among other things to the effects of the measurement of derivatives and to higher liabilities from buyback transactions. Other current provisions rose because, among other reasons, provisions in connection with the EU antitrust proceedings against Scania had to be increased to €0.9 billion in the reporting period.

At the end of 2021, the Automotive Division's total assets stood at €271.9 billion, an increase of 7.0% compared with December 31, 2020.

Financial Services Division balance sheet structure

The Financial Services Division's total assets on December 31, 2021 were €256.7 billion, exceeding the figure on the 2020 reporting date by 5.6%, mainly due to exchange rate effects.

Noncurrent assets were 8.6% higher than at the end of 2020, at €157.9 billion; the property, plant and equipment included in this item was down. Lease assets and noncurrent financial services receivables were up, driven by business growth and changes in exchange rates.

At €98.8 (97.7) billion, current assets were virtually on a level with the previous year's reporting date. Current other receivables and financial assets, inventories and current financial services receivables ended the year lower, while total securities and cash and cash equivalents in the Financial Services Division amounted to €19.1 billion, thus exceeded the figure at the end of 2020 by €5.7 billion.

At the balance sheet date, the Financial Services Division accounted for around 48.6 (48.9) % of the Volkswagen Group's assets.

On December 31, 2021, the Financial Services Division's equity stood at €37.1 billion, 15.9% more than a year earlier, driven by earnings and exchange rate effects. The equity ratio was 14.5 (13.2) %.

Noncurrent liabilities increased by 8.9% overall, mainly because of a rise in noncurrent financial liabilities to refinance the business volume and higher noncurrent other liabilities. Overall, current liabilities were in a similar range as in the previous year. A reduction in current financial liabilities was offset mainly by higher current other liabilities.

Deposits from the direct banking business amounted to €26.7 (28.9) billion, down from the figure recorded a year earlier.

RETURN ON INVESTMENT (ROI) AND VALUE CONTRIBUTION

The central focus of the Volkswagen Group's financial target system is continuously and sustainably increasing the value of the Company. In order to make efficient use of resources in the Automotive Division and to measure the success of this, we have been using a value-based management system for a number of years, with return on investment (ROI) as a relative indicator and value contribution[1], a key performance indicator linked to the cost of capital, as an absolute performance measure.

The return on investment serves as a consistent target in strategic and operational management. If the return on investment exceeds the market cost of capital, there is an increase in the value of the invested capital and a positive value contribution. The concept of value-based management allows the success of the Automotive Division and individual business units to be evaluated. It also enables the earning power of our products, product lines and projects – such as new plants – to be measured.

Components of value contribution

Value contribution[1] is calculated on the basis of the operating result after tax and the opportunity cost of invested capital.

The operating result shows the economic performance of the Automotive Division and is initially a pre-tax figure. Based on our companies' income tax rates, which vary from country to country, we assume an overall average tax rate of 30% when calculating the operating result after tax.

The cost of capital is multiplied by the average invested capital to give the opportunity cost of capital. Invested capital is calculated as total operating assets reported in the balance sheet (property, plant and equipment, intangible assets, lease assets, inventories and receivables) less non-interest-bearing liabilities (trade payables and payments on account received). Average invested capital is derived from the balance at the beginning and the end of the reporting period.

As the concept of value-based management only comprises our operating activities, assets relating to investments in subsidiaries and associates and the investment of cash funds are not included when calculating invested capital. Interest charged on these assets is reported in the financial result.

Determining the current cost of capital

The cost of capital is the weighted average of the required rates of return on equity and debt.

The cost of equity is determined using the Capital Asset Pricing Model (CAPM).

This model uses the yield on long-term risk-free Bunds, increased by the risk premium attaching to investments in the equity market. The risk premium comprises a general market risk and a specific business risk.

The general risk premium of 7.5% reflects the general risk of a capital investment in the equity market.

The specific business risk – price fluctuations in Volkswagen preferred shares – is modeled in comparison to the MSCI World Index when calculating the beta factor. The MSCI World Index is a global capital market benchmark for investors.

1 The value contribution corresponds to the Economic Value Added (EVA®). EVA® is a registered trademark of the consulting firm Stern Stewart & Co.

COST OF CAPITAL AFTER TAX IN THE AUTOMOTIVE DIVISION

%	2021	2020
Risk-free rate	0.1	–0.2
Market risk premium	7.5	7.5
Volkswagen-specific risk premium	1.2	2.0
(Volkswagen beta factor)	(1.16)	(1.26)
Cost of equity after tax	**8.8**	**9.3**
Cost of debt	1.3	1.4
Tax	–0.4	–0.4
Cost of debt after tax	**0.9**	**1.0**
Proportion of equity	66.7	66.7
Proportion of debt	33.3	33.3
Cost of capital after tax	**6.2**	**6.5**

The analysis period for the beta factor calculation spans five years with annual beta figures calculated on a weekly basis followed by the subsequent calculation of the average. A beta factor of 1.16 (1.26) was determined for 2021.

The cost of debt is based on the average yield for long-term debt. As borrowing costs are tax-deductible, the cost of debt is adjusted to account for the tax rate of 30%.

A weighting on the basis of a fixed ratio for the fair values of equity and debt gives an effective cost of capital for the Automotive Division of 6.2 (6.5)% for 2021.

RETURN ON INVESTMENT (ROI) AND VALUE CONTRIBUTION IN THE REPORTING PERIOD

At €11,740 (7,450) million, the operating result after tax in the Automotive Division, including the proportionate operating result of the equity-accounted Chinese joint ventures, exceeded the previous year's figure, which had been more severely impacted by the Covid-19 pandemic and its negative effects. The increase resulted primarily from favorable price positioning, positive effects from the fair value measurement of derivatives to which hedge accounting is not applied and positive mix effects. Negative special items due to the diesel issue were lower than in the previous year. Contrary effects resulted from factors such as limited vehicle availability due to the semiconductor shortage, increased provisioning in the reporting year in connection with the EU antitrust proceedings against Scania and one-off expenses for restructuring measures in the Commercial Vehicles Business Area. The effect of purchase price allocation on earnings and assets is not taken into account as this cannot be influenced by management in the course of business operations.

At €113,386 (114,907) million, invested capital in the reporting year was on a level with the previous year.

The return on investment (ROI) is the return on invested capital for a particular period based on the operating result after tax. The ROI improved due to the higher operating result and, at 10.4 (6.5)%, exceeded our minimum required rate of return of 9%.

At €6,984 (7,504) million, the opportunity cost of capital (invested capital multiplied by cost of capital) was slightly below the prior-year figure. After deduction of the opportunity cost of invested capital, the operating result after tax – which had clearly improved despite still being affected by the Covid-19 pandemic and particularly the shortages in the supply of semiconductors – led to a positive value contribution of €4,756 (–54) million.

More information on value-based management is contained in our publication entitled "Financial Control System of the Volkswagen Group", which can be downloaded from our Investor Relations website: www.volkswagenag.com/en/InvestorRelations/news-and-publications/More_Publications.html.

RETURN ON INVESTMENT (ROI) AND VALUE CONTRIBUTION IN THE AUTOMOTIVE DIVISION[1]

€ million	2021	2020
Operating result after tax	**11,740**	**7,450**
Invested capital (average)	113,386	114,907
Return on investment (ROI) in %	**10.4**	**6.5**
Cost of capital in %	6.2	6.5
Cost of invested capital	**6,984**	**7,504**
Value contribution	**4,756**	**–54**

1 Including proportionate inclusion of the Chinese joint ventures (including the relevant sales and component companies) and allocation of consolidation adjustments between the Automotive and Financial Services Divisions.

SUMMARY OF BUSINESS DEVELOPMENT AND ECONOMIC POSITION

The Board of Management of Volkswagen AG considers business development and the economic position to be satisfactory overall in the context of the current challenges.

The Volkswagen Group's business was impacted by the effects of the Covid-19 pandemic and in particular by the limited vehicle availability as a result of the semiconductor shortage throughout the entire reporting period, and this led to deviations from the original forecast. Moreover, our industry is affected by fierce competition, technological change and growing environmental awareness. In this environment, we delivered 8.9 million vehicles to customers. The Group's sales revenue was up 12.3%, mainly due to mix effects and as a result of the improved financial services business. The operating result before special items went up to €20.0 billion. The operating return on sales before and after special items was 8.0% and 7.7% respectively, putting it above the forecast range.

Research and development costs reflect our activities undertaken to safeguard the Company's future viability; the R&D ratio in the Automotive Division was higher than expected, at 7.6%, because of a rise in research and development costs and lower sales revenue.

The reduction in capital expenditure meant that the Automotive Division reached the forecast ratio of capex to sales revenue of 5.1%. Net cash flow amounted to €8.6 billion; mainly for earnings-related reasons, this was, as expected, noticeably up on the previous year despite higher cash outflows for M&A activities. Including the acquisition of Navistar, net liquidity stood at €26.7 billion at the end of fiscal year 2021 and was therefore better than recently estimated.

Return on investment (ROI) in the Automotive Division improved to 10.4% and was therefore, as anticipated, above our minimum required rate of return on invested capital.

FORECAST VERSUS ACTUAL FIGURES

	Actual 2020	Original Forecast for 2021	Adjusted Forecast for 2021	Actual 2021
Deliveries to customers (units)	9.3 million	considerable increase	around the prior-year level	8.9 million
Volkswagen Group				
Sales revenue	€222.9 billion	significant increase	considerable increase	€250.2 billion
Operating return on sales before special items	4.8 %	5.0 – 6.5 %	6.0 – 7.5 %	8.0 %
Operating return on sales	4.3 %	5.0 – 6.5 %	6.0 – 7.5 %	7.7 %
Operating result before special items	€10.6 billion	in forecast range	in forecast range	€20.0 billion
Operating result	€9.7 billion	in forecast range	in forecast range	€19.3 billion
Passenger Cars Business Area				
Sales revenue	€156.3 billion	significant increase	considerable increase	€172.9 billion
Operating return on sales before special items	5.2 %	5.0 – 6.5 %	6.0 – 8.0 %	8.0 %
Operating return on sales	4.6 %	5.0 – 6.5 %	6.0 – 8.0 %	7.5 %
Operating result before special items	€8.2 billion	in forecast range	in forecast range	€13.8 billion
Operating result	€7.2 billion	in forecast range	in forecast range	€13.1 billion
Commercial Vehicles Business Area				
Sales revenue	€22.2 billion	considerable increase	very strong increase	€30.1 billion
Operating return on sales	–0.4 %	4.0 – 5.5 %	~ 1.5 %	0.4 %
Operating result	€–79 million	in forecast range	in forecast range	€134 million
Power Engineering Business Area				
Sales revenue	€3.6 billion	noticeable decrease	noticeable decrease	€3.3 billion
Operating result	€–482 million	at the break even point	at the break even point	€45 million
Financial Services Division				
Sales revenue	€40.8 billion	noticeable increase	noticeable increase	€44.0 billion
Operating result	€3.0 billion	around the prior-year level	very strong increase	€6.0 billion
R&D ratio in the Automotive Division	7.6 %	~ 7.0 %	~ 7.0 %	7.6 %
Capex/sales revenue in the Automotive Division	6.1 %	~ 6.0 %	~ 5.0 %	5.1 %
Net cash flow in the Automotive Division	€6.4 billion	around the prior-year level	noticeable increase	€8.6 billion
Net liquidity in the Automotive Division	€26.8 billion	moderate increase	distinct decrease	€26.7 billion
Return on investment (ROI) in the Automotive Division	6.5 %	noticeably over 9 %	moderately over 9 %	10.4 %

Volkswagen AG

(Condensed, in accordance with the German Commercial Code)

Effects of the Covid-19 pandemic and the limited vehicle availability due to the semiconductor shortage hit Volkswagen AG's unit sales in 2021.

ANNUAL RESULT

Additional special items in connection with the diesel issue were recognized in 2021 and amounted to €0.7 billion. These particularly related to further provisions for legal risks. Special items had an impact of €–0.7 (–0.8) billion on net other operating result.

Sales revenue increased by 5.0% year-on-year to €70.9 billion in the reporting year. Sales generated abroad accounted for a share of €42.3 billion or 59.6%. Cost of sales increased faster than sales revenue, rising by 6.3% to €67.4 billion, mainly because of higher commodity prices for vehicles.

Gross profit on sales fell accordingly to €3.5 (4.1) billion.

At €7.0 billion, distribution, general and administrative expenses were down €0.3 billion on the prior-year figure.

The other operating result decreased by €0.3 billion to €0.1 billion. The decline was due in particular to increased expenditure for risks from commodity forwards and higher expenditure for legal and litigation risks.

The financial result went down by €1.2 billion to €8.5 billion, mainly because of a decline in income from profit transfers.

Taxes on income rose to €–1.1 (–0.7) billion, particularly due to higher tax expenses for prior years. Net income for fiscal year 2021 thus amounted to €4.0 (6.3) billion.

INCOME STATEMENT OF VOLKSWAGEN AG

€ million	2021	2020
Sales	70,917	67,535
Cost of sales	–67,424	–63,418
Gross profit on sales	**3,494**	**4,117**
Distribution, general and administrative expenses	–6,973	–7,269
Net other operating result	66	398
Financial result[1]	8,545	9,787
Taxes on income	–1,091	–693
Earnings after tax	**4,041**	**6,338**
Net income for the fiscal year	**4,041**	**6,338**
Retained profits brought forward	1,609	855
Release of/appropriation to revenue reserves	13,450	–3,165
Net retained profits	**19,101**	**4,028**

1 Including write-downs of financial assets.

BALANCE SHEET OF VOLKSWAGEN AG AS OF DECEMBER 31

€ million	2021	2020
Fixed assets	136,892	130,377
Inventories	6,921	6,542
Receivables[1]	32,355	38,766
Cash-in-hand and bank balances	10,168	8,803
Total assets	**186,336**	**184,488**
Equity	41,172	39,549
Special tax-allowable reserves	17	18
Long-term debt	40,748	43,086
Medium-term debt	38,087	36,348
Short-term debt	66,312	65,487

1 Including prepaid expenses.

NET ASSETS AND FINANCIAL POSITION

Total assets amounted to €186.3 billion on December 31, 2021, up €1.8 billion on the comparative 2020 figure. Property, plant and equipment was up by €0.4 billion, with capital expenditure exceeding depreciation charges. The rise in financial assets to €127.6 (121.6) billion was primarily attributable to the reinvestment of the dividend distributed for fiscal year 2020 in the capital reserves of VW Finance Luxemburg S.A. in an amount of €3.2 billion as well as a number of capital increases at affiliated companies.

Fixed assets accounted for a share of 73.5 (70.7)% of total assets.

Current assets (including prepaid expenses) amounted to €49.4 (54.1) billion on December 31, 2021. Inventories went up due primarily to the addition of precious metals. Receivables decreased, mainly due to the repayment of loans to subsidiaries. Cash instruments increased, driven particularly by raising restricted short-term time deposits.

Equity at the end of the reporting year was €41.2 billion; the increase was primarily due to earnings-related factors. The equity ratio was 22.1 (21.4)%.

Other provisions decreased by €0.6 billion to €19.2 (19.9) billion, due mainly to the reduction in sales-related provisions. Provisions for pensions rose by €2.2 billion to €21.3 billion, particularly as a result of a change in measurement inputs, while provisions for taxes increased by €0.5 billion to €4.8 billion.

The €1.9 billion decrease in total liabilities (including deferred income) to €99.8 billion was primarily due to reduced liabilities to banks and lower liabilities from commercial paper.

Volkswagen AG's cash funds, comprising cash instruments with a maturity of less than three months, less bank liabilities repayable on demand and cash pooling liabilities, improved year-on-year from €–5.1 billion to €–2.1 billion. The interest-bearing portion of debt amounted to €84.3 (89.8) billion. In our assessment, given the context created by the extensive and persistent negative impact of the spread of the SARS-CoV-2 virus and the limited vehicle availability due to the semiconductor shortage, the economic position of Volkswagen AG is just as positive overall as that of the Volkswagen Group.

DIVIDEND POLICY

Our dividend policy matches our financial strategy. In the interests of all stakeholders, we aim for continuous dividend growth that allows our shareholders to participate appropriately in our business success. The proposed dividend therefore reflects our financial management objectives – in particular, ensuring a solid financial foundation as part of the implementation of our strategy.

In our Group strategy, we have set ourselves the goal of achieving a payout ratio of at least 30%. The payout ratio is based on the Group's earnings after tax attributable to Volkswagen AG shareholders. This amounts to 25.4% for the reporting period and stood at 29.0% in the previous year.

DIVIDEND PROPOSAL

In fiscal year 2021, net retained profits amounted to €19.1 billion. The Board of Management and Supervisory Board are proposing to pay a total dividend of €3.8 billion, i.e. €7.50 per ordinary share and €7.56 per preferred share. In addition, a special dividend could be distributed in the event that Dr. Ing. h.c. F. Porsche AG goes public.

PROPOSAL ON THE APPROPRIATION OF NET PROFIT

€	2021
Dividend payout on subscribed capital (€1,283 million)	3,772,086,799.20
of which on: ordinary shares	2,213,173,635.00
preferred shares	1,558,913,164.20
Appropriation to other revenue reserves	–
Balance (carried forward to new account)	15,328,896,181.40
Net retained profits	**19,100,982,980.60**

EMPLOYEE PAY AND BENEFITS AT VOLKSWAGEN AG

€ million	2021	%	2020	%
Direct pay including cash benefits	7,816	67.5	7,477	70.6
Social security contributions	1,340	11.6	1,379	13.0
Compensated absence	1,084	9.4	1,099	10.4
Retirement benefits	1,345	11.6	634	6.0
Total expense	**11,585**	**100.0**	**10,588**	**100.0**

VEHICLE SALES

Volkswagen AG sold a total of 1,775,556 (1,941,821) vehicles in fiscal year 2021. During the reporting period, demand recovered from the declines in sales in the prior-year period precipitated by the Covid-19 pandemic. However, the limited vehicle availability due to the semiconductor shortage had a detrimental impact. Vehicles sold abroad accounted for a share of 66.3 (64.9)%.

PRODUCTION

Volkswagen AG manufactured a total of 631,655 vehicles (–20.3%) in the reporting year at its vehicle production plants in Wolfsburg, Hanover and Emden. In fiscal year 2021, supply shortages, especially for semiconductors, limited production and resulted in a further reduction in total annual production volumes, after the pandemic had had a strong impact in the previous year.

EMPLOYEES

As of December 31, 2021, a total of 117,633 (118,673) people were employed at the sites of Volkswagen AG, excluding staff employed at subsidiaries. Of this figure, 4,635 (4,848) were vocational trainees. 7,235 (6,210) employees were in the passive phase of their partial retirement.

Female employees accounted for 17.9 (17.8)% of the workforce. Volkswagen AG employed 7,227 (7,002) part-time workers. The percentage of foreign employees was 6.5 (6.4)%. In the reporting period, 83.3 (83.1)% of the employees in Volkswagen AG's production area were in possession of vocational or additional training. The proportion of graduates was 21.4 (20.7)% in the same period. The average age of employees in fiscal year 2021 was 44.8 (44.5) years.

RESEARCH AND DEVELOPMENT

Volkswagen AG's research and development costs as defined in the German Commercial Code amounted to €3.5 (3.6) billion in the reporting period. 13,507 (+1.4%) people were employed in this area at the end of the reporting period.

BUSINESS DEVELOPMENT OF VOLKSWAGEN AG

As the parent of the Volkswagen Group, Volkswagen AG is fundamentally subject to the same expected developments and risks and opportunities. The forecast is explained in the chapter entitled "Report on Expected Developments" and the risks and opportunities in the chapter entitled "Report on Risks and Opportunities" of this annual report.

RISKS ARISING FROM FINANCIAL INSTRUMENTS

Risks for Volkswagen AG arising from the use of financial instruments are generally the same as those to which the Volkswagen Group is exposed. An explanation of these risks can be found in the chapter "Report on Risks and Opportunities" of this annual report.

DEPENDENT COMPANY REPORT

The Board of Management of Volkswagen AG has submitted to the Supervisory Board the report required by section 312 of the *Aktiengesetz* (AktG – German Stock Corporation Act) and issued the following concluding declaration:

"We declare that, based on the circumstances known to us at the time when the transactions with affiliated companies within the meaning of section 312 of the AktG were entered into, our Company received appropriate consideration for each transaction. No transactions with third parties or measures were either undertaken or omitted on the instructions of or in the interests of Porsche or other affiliated companies in the reporting period."

The Annual Financial Statements of Volkswagen AG (in accordance with the German Commercial Code) can be accessed from the electronic company register at www.unternehmensregister.de.

Sustainable Value Enhancement

Our goal is to run our business responsibly along the entire value chain. Everyone should benefit from this – our customers, our employees, the environment and society. Even in our new Group strategy NEW AUTO – Mobility for generations to come, we aim to make mobility sustainable for present and future generations.

The main financial performance indicators for the Volkswagen Group are described in the “Results of Operations, Financial Position and Net Assets” chapter. Nonfinancial key performance indicators also provide information on the efficiency of our Company’s value drivers. These include the processes in the areas of research and development, purchasing, technology, production, marketing and sales, information technology and quality assurance. In all of these processes, we are aware of our responsibility towards our customers, our employees, the environment and society. In this chapter we provide examples of how we want to increase the value of our Company in a sustainable way.

SUSTAINABILITY

Sustainability means maintaining intact environmental, social and economic systems with long-term viability at a global, regional and local level. The Volkswagen Group can influence these systems in various ways, and actively takes responsibility to make a contribution to their sustainability. We have thus developed a sustainable style of company management and put in place the necessary management structures.

We have also anchored our goal to sustainably shape mobility for present and future generations in our new Group strategy NEW AUTO. Especially the Group’s ESG, Decarbonization and Integrity base initiative will drive this topic further.

The materiality process is used to identify and evaluate the most important sustainability issues for the Group. The decisive factors here are the impact on the environment and society, stakeholder expectations, the business model of Volkswagen AG and compliance with legal provisions and internationally established reporting standards.

We conducted another materiality analysis in the reporting period. In reviewing potentially material issues, we considered both external and internal company perspectives. During the development phase of the Group’s NEW AUTO strategy, financial and capital market requirements were also taken into consideration for the selection of focus issues. As a result of this process, the four already defined focus areas – decarbonization, circular economy, responsibility in supply chains and in business, and people & transformation – were confirmed from the 2020 materiality analysis. Two new focus areas – diversity as well as integrity – were added in 2021, and all focus areas were classified as material by the Group Sustainability Steering Committee. The associated United Nations Sustainable Development Goals (SDGs) including the relevant subgoals were assigned to the focus areas in parallel. The six focus areas cover most of the requirements formulated in the ESG ratings for assessment criteria applied. The focus areas are each underpinned by explicit goals and milestones, measurable KPIs – where available – and clear responsibilities allocated to the respective Group functions and appropriate packages of measures. ESG-related KPIs such as the decarbonization index and the diversity index are already today reflected in the remuneration of members of the Board of Management.

For more information on sustainability, please see our Sustainability Report for fiscal year 2021.

Parameters and guiding principles

Our actions are determined by the Volkswagen Group Essentials as the foundation of values and the basis for our shared corporate culture. The Volkswagen Group Essentials support managers and employees in overcoming legal and ethical challenges that arise in their daily work. At the same time, we are guided in our activities by several internal guidelines on sustainability.

On this basis, we seek to align the Volkswagen Group's actions with international agreements and frameworks such as the Sustainable Development Goals (SDGs) of the United Nations (UN), the declarations of the International Labour Organization (ILO), the principles and conventions of the Organization for Economic Co-operation and Development (OECD) and the UN covenants on basic rights and freedoms.

Reinstatement in the UN Global Compact

Since 2021, after a five-year hiatus, the Volkswagen Group has officially been reinstated as a participant of the UN Global Compact, the world's largest corporate sustainability initiative. The Volkswagen Group formally requested renewed participation in the reporting period and its request was granted. We had been removed from the list of members in the wake of the diesel issue. An important prerequisite for reinstatement was met on successful completion of the compliance monitorship in 2020.

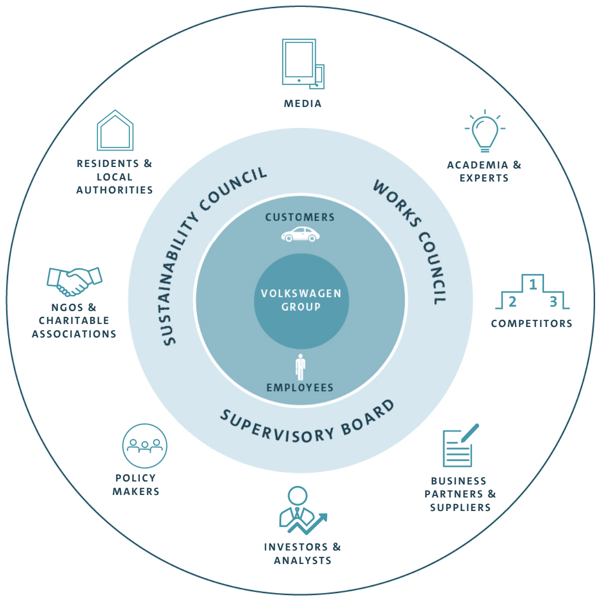
Management and coordination

The Volkswagen Group has established a Group-wide sustainability management. The related structures, processes and responsibilities are codified in a specific Group policy. We view sustainability management as a continuous improvement process. The core elements include assumption of overall responsibility for sustainability by the Chair of the Board of Management of Volkswagen AG, specification of the competence of the responsible Board members for specific sustainability management concepts and implementation of the Group Sustainability Steering Committee as a top management committee. The members of this steering committee include managers from central Board of Management and from Group Divisin positions as well as representatives of the brands and the Group Works Council. The steering committee defines concrete strategic goals and programs, establishes measures for uniform further development of sustainability management across divisions, brands and regions and decides on fundamental sustainability issues. It also handles the enhancement of Group-wide sustainability management. The offices of the Group Sustainability Steering Committee are the responsibility of the Group's Sustainability function.

Strategic stakeholder management

Our stakeholders are individuals, groups, or organizations who have an influence on or are influenced by the course or the result of corporate decisions. Our customers and employees are at the center of our stakeholder network. Based on our annual stakeholder analysis, we have identified eight more

THE VOLKSWAGEN GROUP'S STAKEHOLDERS



stakeholder groups of importance around this core. The Group's supervisory and advisory bodies such as the Supervisory Board, the Works Council and the Sustainability Council act as interfaces between internal and external stakeholders.

We understand stakeholder management as systematic, continuous interaction with key interest and stakeholder groups in line with our new Group strategy NEW AUTO. Our stakeholder management aims to actively shape and promote an open, constructive and also critical exchange with non-profit organizations (NGOs), investors, business partners, associations, policymakers and the scientific community regarding their requirements and expectations, as well as central strategic issues and their implementation.

To be able to systematically incorporate our stakeholders' suggestions and recommendations, we have given our stakeholder management an organizational structure in the form of external committees. At Group level, these are the Sustainability Council mentioned above and the Stakeholder Panel. The latter once again took a break in 2021 due to the pandemic. In addition, we offer our stakeholders a broad range of opportunities for interaction and feedback channels including regular discussion panels with stakeholders, stakeholder surveys and international cooperative projects.

Sustainability Council

The Sustainability Council set up in 2016 provides assistance to the Volkswagen Group with important, strategic sustainability issues and is made up of internationally renowned experts from the academic world, politics and society. This advisory body establishes its own working methods and areas of focus independently, has far-reaching rights for the purposes of exchanging information, consultation and initiating action, and consults regularly with the Board of Management, top management and the employee representatives.

Dialogue between Volkswagen and the Sustainability Council in 2021 focused on the new Group strategy NEW AUTO and on the topics of ESG, decarbonization, sustainable supply chains, circular economy, diversity and workforce transformation. Following the discussions, the Sustainability Council submitted two letters of recommendation on these aspects to the Group Board of Management.

Furthermore, the Council launched a project to examine the importance of digitalization for sustainability as well as a study on the potential of future forms of work and training. In the reporting period, the research project with the Mercator Research Institute on Global Commons and Climate Change begun in 2020 focused on dialogue and initial analyses of the inclusivity and effectiveness of climate legislation in the transport sector.

Corporate citizenship

As a good corporate citizen, we aim to be a constant source of economic impetus for local structural development and equal opportunities. We have always believed in the importance of recognizing our social responsibilities toward our stakeholders. The main focus of our corporate social engagement activities is on supporting future, educational and community projects at many of our sites across the world. In 2021, the brands and companies launched or continued around 800 projects and initiatives worldwide.

CSR-PROJECTS
https://www.volkswagenag.com/en/sustainability/reporting/cc-projects.html

TOGETHER4INTEGRITY

1
Integrity and compliance are central to our business strategy

2
Integrity and compliance risks are identified, owned, managed and mitigated

3
Our leaders at all levels across our organization build and sustain a culture of integrity

4
We encourage, protect and value the reporting of concerns and suspected wrongdoing

5
We take action and hold ourselves accountable when wrongdoing occurs

Together4Integrity
We keep our word

HOLISTIC INTEGRITY AND COMPLIANCE MANAGEMENT SYSTEM

Integrity and compliance are major priorities in the Volkswagen Group. We firmly believe that, for long-term commercial success, it is important that each and every individual complies with laws, regulations and commitments. Compliant behavior must be a matter of course for all Group employees. This is why integrity and compliance remain key elements of our new Group strategy NEW AUTO and a focus topic in matters of sustainability.

Our objective is to be a role model and deepen the trust of our employees, customers, shareholders and partners in our Company. Our regulations, processes and corporate culture focus on all employees acting with integrity and complying with the rules at all times.

At the same time, we have embedded integrity in our decision-making processes. For example, every resolution proposal submitted to the Board of Management must explain that the intended decision is in line with integrity and compliance, what risks may be associated with it, and how the risks can be reduced. Similar requirements apply to Group brands and companies and to Group bodies to which the Board of Management has delegated decision-making powers.

Integrity and compliance must have an equally important strategic and operational priority as performance indicators in our Company as, for example, sales revenue, profit, product quality or employer attractiveness.

We have been building a holistic integrity and compliance management system (ICMS) since 2018. This system is in line with the five internationally recognized ECI (Ethics and Compliance Initiative) principles: strategy, risk management, a culture of integrity, a speak-up environment and resolute accountability.

We are implementing our Together4Integrity (T4I) program to anchor integrity and compliance throughout the Group. This program brings together the vast majority of the Group’s integrity and compliance activities under one roof, applying uniform, robust process and implementation standards.

Thus, we are not only establishing a worldwide ICMS for all Group and brand companies, we are also advancing one of the most extensive change and cultural programs in the history of the Volkswagen Group.

T4I – eleven key initiatives

T4I is to be rolled out in the Volkswagen Group in 2022 and implemented by 2025. The Group’s headquarters is overseeing the program planning and rollout of T4I. The managing directors of the individual companies are responsible for implementing the program at a local level. The packages of measures may differ depending on local circumstances. The implementation time will also vary.

The packages of measures are divided into eleven key initiatives:

1. HR (Human Resources) Compliance Policies and Procedures

The aim of this key initiative is the integration of integrity and compliance into the standard HR processes such as recruitment, training, promotion and remuneration (bonus payments). Integrity and compliance are also a compulsory topic in annual employee appraisals and form part of training measures for employees across all levels of the Company.

2. Code of Conduct

The Code of Conduct (CoC) is the key instrument for reinforcing employees’ awareness of responsible action and decision making, creating the basis for complying with the rules within the Company. The CoC provides support to employees and managers, helping them to find the right contact persons in cases of doubt. Included in the employment contracts, the CoC commits all Group employees to comply with it. Our employees undergo regular mandatory training in the key contents of the CoC.

3. Integrity Program

The integrity program is designed to reinforce the culture of integrity. Its objective is to communicate to employees the importance of integrity and motivate employees to behave with integrity in their everyday work. We regard integrity as an attitude; it provides an inner compass for correct action and becomes particularly decisive in gray areas, when explicit rules are missing or conflicting goals exist. We place particular emphasis on making decisions with integrity. Appropriate training modules on this topic provide support to all management levels, from foremen up to executives.

4. Risk Management and Internal Controls

All business activities entail risks. Binding structures and processes are designed to help create transparency and manage risk. These include the quarterly risk process, which is focused on acute risks, the standard internal control system (ICS), which is designed to protect key processes, and root cause analysis.

5. Internal Compliance Risk Assessment

The internal compliance risk assessment (ICRA) identifies and addresses compliance risks in the Group, in particular those risks involving corruption, money laundering, embezzlement and risks relating to business and human rights. Compliance measures are defined for each company based on its risk profile. The ICRA also defines implementation standards for the Code of Conduct, whistleblower system and compliance training.

6. Whistleblower System

The whistleblower system is the central point of contact for reporting cases of rule-breaking by Group employees such as white collar crimes, acts of corruption, tax offenses, environmental offenses, human rights violations, infringements of antitrust and competition legislation, money laundering and terrorism financing, breaches of product safety and licensing regulations, and serious breaches of privacy. Employees and third parties can report misconduct at any time and in many languages. A wide range of channels is available for this purpose, including completely anonymously, if preferred. The aim is to avert damage to the Company and its employees through the use of binding principles and a clearly governed process.

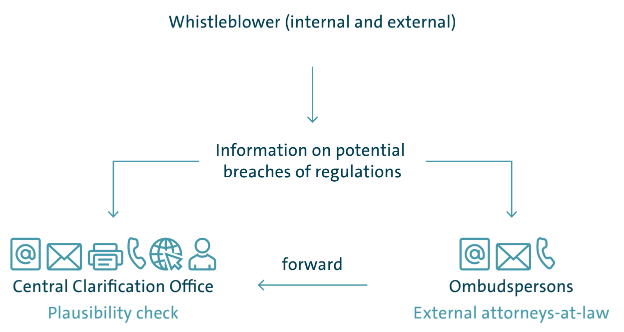
7. M&A and NCS compliance

In the event of planned mergers and acquisitions (M&A transactions), the relevant companies are audited for commercial risks such as corruption, breaches of trust or fraud. The analyses provide recommendations to mitigate the risks identified. This also applies to joint ventures as well as industrialization and cooperation projects with external partners. Furthermore, the Group Compliance organization works to achieve appropriate compliance management at non-controlled shareholdings (NCSs), i.e. companies that are not controlled by a Volkswagen Group company as a majority shareholder.

8. Business Partner Due Diligence

The business partner due diligence (BPDD) process entails reviewing the integrity, and especially corruption risks, of suppliers, service providers and sales partners. The aim is to identify risks of legal infringements, such as corruption or the violation of ethical standards, at an early stage, to avoid risky business partners and to define measures to minimize risks and implement these with the business partner. If this is not possible, options for terminating the business relationship are explored, or the business relationship is not established in the first place. As such, we have already established the fundamental prerequisites for the implementation of parts of the *Lieferkettensorgfaltspflichtengesetz* (German Supply Chain Due Diligence Act).

REPORTING CHANNELS OF THE WHISTLEBLOWER SYSTEM



9. Product Compliance

The product compliance management system (PCMS) is designed to ensure that our products comply with the legal and regulatory requirements of the exporting and importing country, internal and external standards, contractually agreed customer requirements and externally communicated voluntary commitments over their life cycle. We have defined clear roles and responsibilities for our PCMS with regard to design, implementation and monitoring.

10. Environmental Compliance

Statutory environmental regulations and voluntary commitments are binding at all locations and in all business fields. The Group's environmental policy and the environmental compliance management system stipulate the relevant requirements and responsibilities for all strategy, planning and decision-making processes in the Group brands and companies. This includes a system of key indicators to determine progress in meeting environmental targets in the fields of renewable energy, CO_2 emissions and resource efficiency. We make allowances for the actual and potential environmental risks and opportunities across our products' entire life cycle.

11. Anti-Corruption

The Volkswagen Group has a zero-tolerance policy on active or passive corruption. This is anchored in both our internal Code of Conduct and our Code of Conduct for Business Partners. Our investigation offices look into and process any reported violations of our principles, and sanctions are imposed on the employees concerned. This initiative also includes the development and implementation of mandatory training for employees in divisions or companies with a high risk exposure.

Hence, T4I aims not only to strengthen uniform corporate governance throughout the Group in relation to integrity and compliance, the program is also designed to advance the culture of integrity by inspiring and motivating employees and strengthening their own drive to act with integrity in all situations. This includes steadfastness in adhering to principles of integrity – regardless of economic or social pressures. Thus, T4I and the ICMS contribute significantly to increasing sustainability in the Volkswagen Group.

Sustainably measuring success

Methods for monitoring effectiveness and measuring progress are an integral part of the compliance management system. The central planning and reporting system of the T4I program provides continuous transparency on the implementation status of the key initiatives. It is used for internal reporting to the Group Board of Management and the Brand Board of Management, makes project advances known and serves to provide assistance when countermeasures are being introduced in response to project delays.

The annual opinion survey also provides information about the development stage of our culture of integrity. The Group-wide employee survey examines whether each individual is able to act with integrity. Where a fixed threshold value is not achieved, the relevant manager must identify and remove the possible obstacles together with the team.

To measure the level of target achievement in relation to Integrity and Legal Affairs, we have defined a strategic indicator for the major brands that manufacture passenger cars:

> Compliance, a culture of error management and behaving with integrity.
  This is based on an evaluation of the answers to three questions in the opinion survey that address compliance with regulations and processes, dealing with risks and errors and the opportunity to act with integrity. In the event of negative deviations, the affected departments develop and implement measures. From an already good basis – the level of agreement among employees has always been in the highest category of the underlying five-level range – the indicator has continuously improved up to and including 2021. The index was up by 4.1 points compared with the baseline value and 0.2 points year-on-year.

In addition, Volkswagen uses the integrity index. It measures a company's integrity holistically and functions as a structural early warning system. Determination of the index began in 2019 as a pilot project for the Volkswagen Passenger Cars and Audi brands. Independent business ethicists collect more than 100 measuring points in the categories of compliance & infrastructure, working atmosphere & integrity culture, products & customers, society, and partners & markets. The assessment conducted in the reporting period showed encouraging progress in the index value. Gains in, among other things, the categories of compliance & infrastructure, working atmosphere & integrity culture, products & customers, and society contributed.

The Group also conducted its first-ever integrity and compliance survey in the reporting period, with 47,000 employees taking part anonymously.

Compliance: clear rules in the Group

Compliance with the rules must be a matter of course for all employees of the Volkswagen Group. The Group compliance organization provides support worldwide in the form of programs, guidelines, processes and practical advice. It helps the Group and brand companies to comply with the rules when carrying out their business activities and to comply with the relevant laws and internal regulations. The compliance work focuses on the prevention of corruption and fraudulent breaches of trust, money laundering and the topic of business and human rights.

The Compliance Infopoint has established itself as the central help center for compliance questions at the Volkswagen Group. The team either directly issues a recommendation on the matter in question or forwards the query to a competent body. Case studies derived from these consultations are regularly incorporated into communications about compliance. The accessibility of the Infopoint was expanded further in the reporting period; using the Volkswagen 360° app, employees can now contact the Compliance Infopoint directly. This makes it much easier particularly for employees without a computer workstation of their own.

In addition, the Group Compliance organization offers training and communication formats tailored to specific target groups – management discussions and training courses for multipliers being two of these. Moreover, compliance content is part and parcel of all career development paths from the induction program for trainees to programs for leadership and management development to the senior management program. The measures are supplemented by information and communication activities such as awareness campaigns, film and dialogue formats, newsletters and interactive games for learning about laws and rules.

In the reporting period, the Group Compliance organization dedicated itself to important future areas with a set of actions, including projects for cross-Group collaboration in the markets, further development of IT-based compliance tools and exchange formats with internal and external compliance experts.

Responsibility in supply chains and in business

Requirements and aim

The Volkswagen Group aims to make mobility sustainable for generations to come. It is therefore only natural that we comply with our legal, social and environmental responsibility not just within the Group but also in our supply chains.

This is the reason Volkswagen defined “responsibility in supply chains and in business” as a focus topic and integrated it into the initiatives of the new Group strategy NEW AUTO. We recognize our corporate responsibility for human rights in our business units, at our sites and in our business relationships. We condemn forced and child labor, respect the freedom of assembly, put tolerance and diversity into practice, protect the disadvantaged and do not engage in unlawful activities. This is also anchored in our Code of Conduct.

Our goal is to strengthen the compliance management system for human rights, which is in force throughout the Group. This system has been designed to comply with the UN’s Human Rights Due Diligence requirements. We aim to effectively reduce ESG (environmental, social, governance) risks including human rights risks by no later than 2025. All Group companies within the scope of Group Compliance are to have implemented the topic of business and human rights in their compliance management system by 2023. We will support the achievement of targets with suitable measures and manage this by means of corresponding KPIs.

Focal points: business and human rights

We compared the pertinent human rights frameworks with our business-specific activities and defined the aspects that are relevant for us as focal points. These salient business & human rights issues refer to:

> Labor rights
> Safety
> Tolerance

In 2019, the Volkswagen Group Board of Management established a coordination function for the topic of business and human rights within the Volkswagen Group, which also coordinates the collaboration with the brands and regions. We use an appropriate committee structure to manage this topic from the Group Board of Management down to the regional level in the Group brands.

Dialogue and cooperation

We communicate with our workforce on the topic of business and human rights via various channels. We communicate our positioning to the public and external stakeholders in interviews and media reports.

We are the only automobile manufacturer involved in the international, cross-sectoral Global Business Initiative for Business and Human Rights (GBI). In addition, we are active in Econsense, the sustainability association for German industry. Furthermore, we are in dialogue within the German automotive industry as part of the National Action Plan for Business and Human Rights and seek close exchange with other companies as well as institutional investors and investment banks, for example at our annual ESG conference for investors.

Transparency through risk assessments

The topic of business and human rights is closely integrated into our internal compliance risk assessments. Group Compliance has now assessed the human rights risks at 782 controlled Group companies in a total of 83 countries. The results were reviewed and confirmed by the companies, which were then notified of risk-specific measures that they were required to implement by the end of the reporting period. The implementation will be monitored starting in 2022.

Preparations for the Lieferkettensorgfaltspflichtengesetz (LkSG – German Supply Chain Due Diligence Act)

We are currently intensively preparing for the German Supply Chain Due Diligence Act. The Volkswagen Group supports the newly created binding legal framework under which companies and their suppliers commit to respecting human rights. We welcome the fact that the law creates longer-term legal certainty for companies. Yet the LkSG will also impose requirements that can only be fulfilled with great effort on the part of companies.

For more information on integrity and compliance as well as the topic of business and human rights, please see our 2021 Group Sustainability Report.

WHISTLEBLOWER SYSTEM
https://www.volkswagenag.com/en/group/compliance-and-risk-management/whistleblowersystem.html
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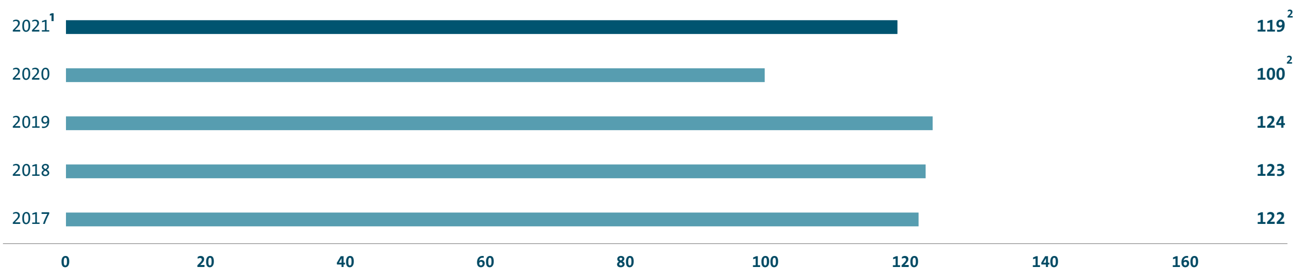
CO_2 EMISSIONS OF THE VOLKSWAGEN GROUP'S EUROPEAN (EU27+2) NEW PASSENGER CAR FLEET
in grams per kilometer (WLTP)



1 The European Commission switched its calculation of CO_2 fleet emissions from NEDC to WLTP in 2021.
2 Subject to confirmation of CO_2 data within the scope of official publication by the European Commission.

RESEARCH AND DEVELOPMENT

Forward-looking mobility solutions with brand-defining products and services would be unthinkable without innovation. This makes our research and development work essential for sustainably increasing the value of the Company.

Together with our Group brands, we have launched measures based on our NEW AUTO strategy to link development activities across the Group. At the heart of this new strategy is an efficient, cross-brand development alliance characterized by a close network of our experts, collaboration on an equal footing, an innovative working environment and the pooling of development activities. The aim is to make use of synergies across the Group and act as a role model for the environment, safety and integrity. The development alliance plays a major part in driving the Volkswagen Group's transformation and helping to make it fit for the future.

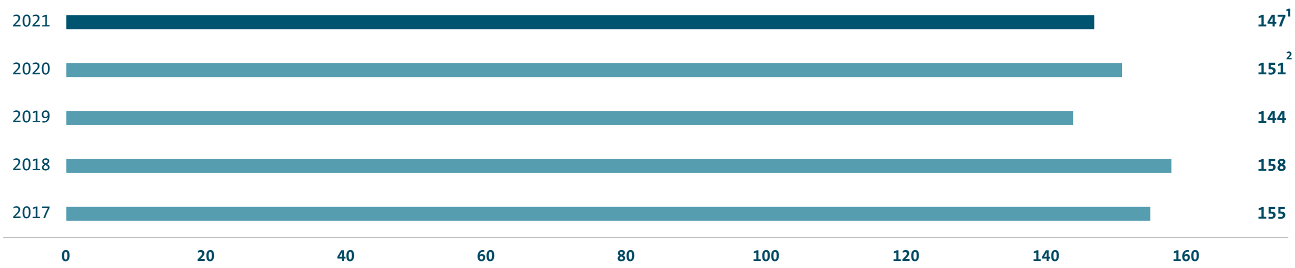
In view of this strategic focus, we concentrated in the reporting period on continuing to develop forward-looking mobility solutions, establishing technological expertise to strengthen our competitiveness, expanding our range of products and services and improving the functionality, quality, safety and environmental compatibility of our products and services.

CO_2 fleet emissions

We use a strategic indicator in Europe and the United States to evaluate the effectiveness of our measures to reduce CO_2 emissions when driving:

> CO_2 fleet emissions. The Volkswagen Group's new passenger car fleet in the EU (excluding Lamborghini and Bentley) (EU27+2) emitted an average of 119 g CO_2/km (WLTP)[1] in the reporting period in accordance with the statutory measurement bases. The statutory target is 121 g CO_2/km (WLTP)[1]. The Volkswagen Group thus more than met the EU's CO_2 fleet target. Under European CO_2 legislation, the Lamborghini and Bentley brands are considered small volume manufacturers with an independent fleet and are assessed accordingly. Both exceeded their individual targets. Bentley and Lamborghini will be integrated into the Volkswagen Group's new passenger car fleet in the EU from 2022. The European Commission is striving to cut CO_2 emissions by 15% by the year 2025, which corresponds to a CO_2 target of less than 105 g CO_2/km for our new passenger car fleet in the EU. A reduction of 55% has been proposed for 2030, equivalent to a CO_2 target of less than 60 g CO_2/km. We assume that our new passenger car fleet in the EU will meet this target for 2025 and exceed the target for 2030. The Volkswagen Group's new light commercial vehicles fleet in the EU emitted an average of 202 g CO_2/km (WLTP)[1] in the 2021 reporting period according to the statutory measurement bases. The statutory target is 198 g CO_2/km (WLTP)[1]. Contrary to the original planning, the Group fell just short of this target owing to the semiconductor shortage, which resulted in limited vehicle availability. The CO_2 pool established together with other manufacturers achieved its target. All figures are subject to confirmation of CO_2 data within the scope of official publication by the European Commission. The European Commission is striving to cut CO_2 emissions by 15% by the year 2025, which corresponds to a CO_2 target of less than 175 g CO_2/km for our new light commercial vehicles fleet in the EU. A reduction of 50% has been proposed for 2030, equivalent to a CO_2 target of less than 115 g CO_2/km. We assume that our new light commercial vehicles fleet in the EU will meet this target for 2025 and exceed the target for 2030. In the United Kingdom and Switzerland/Liechtenstein

CO_2 EMISSIONS IN VOLKSWAGEN GROUP PASSENGER CARS AND LIGHT COMMERCIAL VEHICLES UNDER GHG STANDARDS IN THE USA
in grams per kilometer for the model year



1 Subject to submission of the final MY report MY21 and subsequent confirmation by EPA and CARB (internal data as of September 2021).
2 Subject to confirmation by EPA and CARB (final MY report MY20 submitted but not yet confirmed).

markets, the Volkswagen Group fleets fell just short of the statutory requirements for the 2021 reporting period. In the United States, the emission pool – comprising the Group brands Volkswagen Passenger Cars, Audi, Lamborghini, Bentley, Porsche and Bugatti – commits to the Green House Gas (GHG) and Corporate Average Fuel Economy (CAFE) regulations with which all manufacturers are required to comply in connection with passenger cars and light commercial vehicles, taking into account credits for air conditioning and off cycle credits. Due to the delay in the confirmation by the authorities of model years differing from the calendar year, internal calculations are used to determine the figures for the current and preceding model year. The average GHG CO_2 value (internal data as of September 2021) for the passenger car and light commercial vehicle fleets in model year 2021 is 147 g CO_2/km (model year 2020: 151 g CO_2/km). The statutory target is 142 g CO_2/km (model year 2020: 139 g CO_2/km). Application of the statutory flexibility offered by GHG and CAFE together with externally acquired credits enabled the Volkswagen Group to comply with the applicable requirements for model year 2021 subject to confirmation by the authorities. The figure given for model year 2020 is subject to confirmation by EPA and CARB. For 2025, we anticipate a CO_2 target in the USA of approximately 110 g CO_2/km and expect to meet this target. For 2030, we will increase the share of electric vehicles in our new vehicle fleet to significantly more than 40%, putting us within the target range of the current administration.

Fuel and drivetrain strategy

With a view to the legal regulations on emissions, we are currently developing a forward-looking vehicle and drivetrain portfolio: we have set ourselves the objective of increasing drive system efficiency with each new model generation – irrespective of whether it is a combustion engine, a hybrid or a purely electric drive system. The Volkswagen Group closely coordinates technology and product planning with its brands so as to avoid breaches of fleet fuel consumption limits. These would entail substantial excess emissions premiums. Around one in five new Volkswagen Group vehicles worldwide is therefore to have a purely electric drive by the year 2025; depending on market development, this could be over two million electric vehicles a year. As part of our electrification campaign, we aim to offer our customers worldwide around 70 fully battery-electric vehicles by 2030; production of approximately 20 of these models has already started. In addition, a total of around 60 hybrid models are planned by the end of the decade, just over half of which are already in production. By 2030, the Volkswagen Group aims to have electrified its entire model portfolio, from high-volume models to premium vehicles. This will mean offering at least one electric version – battery electric or hybrid vehicles – of each of our passenger car models across all Group brands. To this end, in addition to the Modular Electric Drive Toolkit (MEB), we have also developed an all-electric platform for our premium and sports brands – the Premium Platform Electric (PPE). Furthermore, we are currently concentrating our energies on designing the Scalable Systems Platform (SSP), the successor platform for our future all-electric vehicles, in the Mechatronics technology initiative within the Group's new strategy NEW AUTO. The strategic goals of this SSP platform are to further reduce variance by consistently leveraging synergies and thus tapping into considerable potential for cost savings. Audi's Artemis vehicle project will use key SSP modules for the first time from 2025. As of

2026, Volkswagen will then launch its first model based on the SSP in the volume segment in the shape of the Trinity vehicle project.

To offer sustainable, affordable mobility in the future for as many people around the world as possible, we offer a range of drivetrains with a focus on electrification. From today's perspective, conventional combustion engines will continue to make up a large share of the drive portfolio in the coming years. In the interest of using resources responsibly, it is therefore essential to further enhance this engine segment and systematically consolidate it for specific markets. Powertrain measures such as significantly more sophisticated exhaust gas purification or mild hybridization of our vehicles, as well as vehicle measures such as optimized aerodynamics or reduced rolling resistance will be necessary to fulfill future emissions standards. We are preparing intensively for this as we develop our product portfolio.

It is more important to us than ever to rigorously pursue our modular approach. We are reducing the number of individual modules so that we can make a large product portfolio economically viable. For example, we aim to reduce the number of versions of conventional combustion engines in the Group in the long term as part of our transformation. This will create capacity for the development and production of new hybrid and electric drives.

Life cycle engineering and recycling

Technological innovation for reducing fuel consumption is not enough on its own to minimize the effect of vehicles on the environment. We consider the environmental impact caused by our products throughout the entire vehicle life cycle and at all stages of the value chain. This includes the manufacturing process with the associated extraction of raw materials, the production of materials, the processes at our suppliers and our own production operations at our sites, the use phase with the resulting vehicle emissions and the necessary supply of fuel and charging current, and ultimately the recycling of the vehicle at the end of its life cycle. We identify the stages of the life cycle at which improvements will have the greatest effect and develop appropriate solutions. We call this life cycle engineering. Recycling, for example, is an important means of reducing environmental impact and conserving resources. We therefore already take the recyclability of the required materials into consideration when developing new vehicles, use high-quality recycled material and avoid pollutants. One of the recommendations for achieving this goal is avoiding substances on the EU REACH Candidate List of Substances of Very High Concern. Under the European Directive on end-of-life vehicles, passenger cars and light commercial vehicles must be 85% recyclable and 95% recoverable. Our vehicles registered in Europe comply with these standards.

Leveraging synergies increases efficiency

When developing vehicles, we cooperate closely with our brands to leverage synergies. The joint strategy of our development alliance involves, for example, making the Group more competitive and viable in the long term by deploying resources more effectively and efficiently in the research and development of new mobility-related technologies, products and services. In our Group-wide development alliance, the brands therefore not only work with each other, but also for each other on key technologies, forming cross-brand networks of expertise to address topics of importance for the future. Against this background, responsibilities in the Development division were reorganized in 2020 in order to coordinate module development even more efficiently and leverage synergies in module variance, components, parts and processes.

We also manage our modules centrally to reduce costs, capital expenditure and complexity. We are seeking to reduce expenditure in the modular toolkits, while at the same time facilitating widespread electrification and a focus on autonomous systems. We wish to achieve this through a considerable reduction in complexity using streamlined platforms that synergize but do not overlap. To this end, the individual Group brands draw on the modular toolkits, thus creating synergies between the various models of a product line, as well as across the product lines. By streamlining the toolkits, we are giving ourselves the financial leeway needed for developments in the future trends of digitalization and autonomous driving. The high-volume passenger car brands have introduced an organizational structure based on product lines, thus strengthening their responsibility for the success of vehicle projects, improving project work across the divisions, accelerating decision-making and intensifying the focus on project results.

We are also leveraging synergies by constantly sharing best practices, for instance in virtual development and testing. Last but not least, the centralized development and consolidation of our IT systems is also helping to strengthen cooperation across the brands, make development activities more comparable and reduce the Group's IT costs.

Sustainable mobility, connectivity and automated driving

The mobility of people and goods is a prerequisite for economic growth and social development. But natural resources are dwindling and climate change is advancing. This calls for comprehensive mobility concepts to minimize the environmental impact. Such solutions need to be efficient, sustainable, crisis-proof, customer-oriented and accessible anytime and anywhere.

We are researching and developing such concepts in our Group-wide alliance: when shaping the future of mobility, we are looking not only at the automobile and related services, but at all modes of transport, transport infrastructures and people's mobility habits. Digital connectivity and automated driving allow for completely new approaches to solving problems. They can help us play our part in a comprehensive mobility system for the future and drive forward our industry's transformation.

New software solutions are the basis for this. This is why the Volkswagen Group has declared software development to be one of its targeted core competencies by introducing the software key initiative to its new strategy NEW AUTO. This initiative is the responsibility of our software subsidiary CARIAD. Founded in 2020 as the Car.Software Organisation and renamed CARIAD in 2021, the company is to develop a sustainable, convenient, connected, safe automotive experience for the customers of our Group brands. CARIAD provides answers to the strategic aspects of digitalization and pools the Group's software expertise.

Developers from CARIAD work at plants in Germany and collaborate with development teams in North America and China. The establishment of separate CARIAD branches in North America and China was initiated in 2021. The company employs around 4,500 specialists who are developing the following solutions in the Group:

> VW.OS, a uniform vehicle operating system for all Group vehicles
> A uniform end-to-end electronics architecture
> Connectivity with VW.AC, a shared Volkswagen Automotive Cloud
> An infotainment platform with an app store for third-party providers
> Driver assistance systems, autonomous parking functions and autonomous driving for private mobility
> A data marketplace
> New mobility services and digital business models

It is envisaged that CARIAD will pool these solutions on a specially developed, scalable software platform called E^3 2.0 and make it available to the Group brands from the middle of this decade. The intention is to use it for the first time from 2025 in an Audi brand model as part of the Artemis project. From 2026 the software platform will move into the volume segment within the scope of Volkswagen's Trinity project. Further Group models will follow to generate economies of scale and to lower the cost of growing software requirements in the vehicle for all brands.

CARIAD is already supplying updatable software to the Group brands today. Our goal is to make the software secure and traceable. It can be installed in the vehicles as over-the-air updates – an important prerequisite for fulfilling regulations R.155 and R.156 of the United Nations Economic Commission for Europe (UNECE).

The new software platform E^3 2.0 is set to pave the way for the autonomous driving functions of the future, with CARIAD responsible for developing assisted and highly automated driving functions up to Level 4 for all of the Volkswagen Group's passenger car brands. Volkswagen is developing robotic shuttles and vans as part of its strategic Mobility Solutions technology initiative, which is promoting autonomous driving in conjunction with service models, i.e. shared mobility (Mobility as a Service, Transportation as a Service).

The Group brands presented new concept vehicles in 2021 that showcase their vision of sustainable future mobility. These vehicles aim to enable new forms of mobility in both cities and rural areas, also addressing user groups that have so far been excluded from access to mobility: Volkswagen Commercial Vehicles presented its autonomous shuttle for the first time in conjunction with Argo AI. The Volkswagen ID.Life will offer sustainable electric mobility for urban life, while the Audi Grandsphere defines the future of autonomous business travel.

Pooling strengths with strategic alliances

The aim of our new strategy NEW AUTO is to transform our core business activities and to expand the mobility solutions business area at the same time. It is decisive to the success of this plan that we place our innovative strength on even broader foundations.

Within the Volkswagen Group, we combine our technological innovation activities in the Volkswagen Group Innovation unit. At seven locations worldwide in the USA, Europe and Asia, employees are working on sustainable solutions for urban and interurban mobility systems in line with our motto "Mobility for generations to come". Technologies and activities that are ready for pre-development are regularly transferred from Volkswagen Group Innovation to our Group brands to ensure that the areas of digitalization, sustainability and e-mobility receive continuous support in innovative projects. In this way, we are creating an agile innovation structure that allows us to initiate new milestone projects with innovative international partners, even at short notice.

Growth in the mobility sector is strongly defined through regional innovation activities. Volkswagen therefore concentrates its strategic venture-capital activities and partnerships in the Group's international innovation ecosystem. This helps us to identify the regional needs of customers more precisely, to adjust our product range correspondingly and to establish competitive cost structures. In doing so, we rely to a greater extent than in the past on partnerships, acquisitions and venture-capital investments and manage investment selection centrally so as to generate maximum value for the Group and its brands. It is against this backdrop that we formed an alliance with Ford Motor Company with the intention of working together on vans and mid-sized pickups. At the beginning of June 2020, Ford Motor Company and Volkswagen AG signed additional contracts within their existing global alliance for light commercial vehicles, electrification and autonomous driving. Among other things, the contracts serve as the foundation for a total of three vehicle projects. In addition to the existing collaboration on the mid-sized pickup, projects are underway for a city van and a one-tonne cargo van. In addition, we are investing with Ford in Argo AI, a company that is working on the development of a system for autonomous driving. This alliance allows both companies to integrate Argo AI's self-driving system into their own models independently of each other. The system is to make fully automated driving possible, and thus to open up new opportunities, particularly for ride-sharing providers and delivery services in urban areas through the use of fully automated vehicles. To this end, we completed a transaction to cooperate in the development of autonomous driving with Argo AI and Ford at the start of June 2020. As part of this transaction, the former Volkswagen Group company AID was incorporated into Argo AI. In addition, Ford will use the Modular Electric Drive Toolkit (MEB) developed by Volkswagen for a zero-emissions volume model that is expected to be offered in Europe from 2023. The aim of the cooperation is to place both Volkswagen and Ford in a position that enables them to improve their competitiveness, tailor their products to better meet the needs of customers worldwide and at the same time to leverage synergies related to cost and investment.

We are accelerating our transformation into a mobility provider with a fully connected vehicle fleet and our "Volkswagen We" digital ecosystem through our strategic partnership with Microsoft. Together, we will press ahead with software development for the automobile of tomorrow and new services for our customers, including cloud-based driver assistance systems and automated driving and parking functions, thus comprehensively strengthening and expanding our IT expertise and solutions.

We support the design of the framework conditions for the approval and introduction of our own self-driving system through active involvement in public projects. The experience we are gathering here benefits the Group brands and thus our customers.

Key R&D figures

In fiscal year 2021, we filed 5,638 (6,795) patent applications worldwide for employee inventions, the majority of them in Germany. The fact that an ever-increasing share of these patents is for important cutting-edge fields underscores our Company's innovative power. These fields include driver assistance systems, automation and connectivity, as well as alternative drive systems.

The Automotive Division's total research and development costs in the reporting period amounted to €15.6 (13.9) billion and were 12.2% higher than in the previous year; their percentage of the Automotive Division's sales revenue – the R&D ratio – remained unchanged at 7.6 (7.6)%. In addition to new models, our activities focused above all on the electrification of our vehicle portfolio, digitalization, new technologies and our modular toolkits and platforms. The capitalization ratio was 50.3 (46.6)%. Research and development expenditure recognized in profit or loss in accordance with the IFRSs increased to €12.8 (12.1) billion.

As of December 31, 2021, our Research and Development departments – including the equity-accounted Chinese joint ventures – employed 53,046 people (+0.6%) Group-wide, corresponding to 7.9% of the total workforce.

RESEARCH AND DEVELOPMENT COSTS IN THE AUTOMOTIVE DIVISION

€ million	2021	2020
Total research and development costs	15,583	13,885
of which capitalized development costs	7,843	6,473
Capitalization ratio in %	50.3	46.6
Amortization of capitalized development costs	5,050	4,644
Research and development costs recognized in profit or loss	12,790	12,056
Sales revenue	206,237	182,106
Total research and development costs	15,583	13,885
R&D ratio	**7.6**	**7.6**

PURCHASING

In fiscal year 2021, the main task for Purchasing (formerly Procurement) was once again to safeguard supplies, and to help create competitive, innovative products and optimize cost structures. In addition, we continued to drive digitalized purchasing processes forward. The first half of 2021 was marked by significantly higher demand for Group vehicles, though it became apparent that the capacity that had been drastically reduced in 2020 due to the pandemic could not be built up quickly enough in many areas. As a result, a large number of raw materials and components saw growing shortages of market capacity in 2021; one example being semiconductors, also due in part to the parallel increase in demand in the consumer, IT and telecommunications sectors, which led to supply bottlenecks and price increases.

Purchasing strategy

The new Group strategy NEW AUTO also stands for more speed, focus and stringency within the Purchasing division, accelerating change even more. In 2021, the Purchasing division launched the functional area strategy NORTH STAR, a cross-organizational, comprehensive strategic program. Alongside short-term cost targets, the program seeks to improve our supply situation, increase product quality and boost innovative power and sustainability. Its goals are based on the NEW AUTO Group strategy and are driving Volkswagen's transformation also from within the Purchasing division. NORTH STAR is also creating optimized structures for our purchasers and setting further focus areas with the digitalization of our processes and increased employee orientation.

E-mobility

A key task for Purchasing is to safeguard supplies for the continually growing requirements of the e-mobility offensive over the next five to ten years in a sustainable way, while optimizing cost structures.

When awarding contracts to our electric mobility partners, we lay down requirements as regards sustainable supplier sources, transparent, traceable supply streams, and energy- and carbon-optimized supply chains. We pool global demand from the European, American and Asian markets and award Group contracts with the aim of achieving cost leadership for electric mobility solutions. To this end, we consider diversification in conjunction with dual-supplier strategies as well as localization of the supplier portfolio for all core components of the electric vehicle fleet in an effort to reduce economic and geopolitical risks.

Digitalization of supply

We are working systematically to implement a completely digitalized supply chain. This is intended to help us to safeguard supply and leverage synergies throughout the Group in order to take a leading position in terms of cost and innovation. We are therefore creating a shared database and using innovative technologies to enable efficient, networked collaboration in real time – both within the Group and with our partners. The Purchasing division aims to standardize transactions with our suppliers in the future and automate them where possible. This will not only reduce transaction costs but will also accelerate business processes. Potential supply risks can be reported in an automated way in order to identify measures and alternatives faster together. The cornerstone for the future of Purchasing was laid in 2018 in the form of Group Purchasing's digitalization strategy. This strategy aims not only to eliminate the weaknesses of Purchasing's IT system environment but also to increase the organization's effectiveness, efficiency and future viability. The initial systems, such as a bot project for automating supply chain business processes, were developed and integrated into the existing system environment.

Structure of key purchasing markets

Our purchasing process is organized at a global level, with a presence in the key markets around the world. This allows us to purchase production materials, investments in property, plant and equipment, and services worldwide at the quality required and on the best possible terms. Networking among the brands' purchasing organizations enables us to leverage synergies across the Group in the various purchasing markets.

In addition to the brands' purchasing units, the Volkswagen Group operates seven regional offices. In growth markets, we identify and train local suppliers to generate cost advantages for all Group production sites. In this context, we are also focusing on start-ups and software suppliers. In familiar and established markets, the regional offices support access to the latest technologies and innovations.

Management of purchased parts and suppliers

Today's supplier portfolio is characterized by global distribution, segmentation and diversification. We address the challenges this presents by supporting and monitoring the industrialization of suppliers with our purchasing supplier management. This starts with auditing and assessing suppliers in preparation for the nomination process and continues with monitoring the maturity of the industrialization of purchased parts, to the complete acceptance and confirmation of the required production capacity at the individual supplier locations. The complexity of the components requires regular monitoring of production processes in order to identify any disruptive factors at an early stage and take action to remedy these. Close cooperation with the quality assurance units at the production sites is crucial for a stable supply of purchased parts for our start-up and series production vehicle projects. The global supplier management network worked reliably, particularly in the face of the persistent challenges posed by the Covid-19 pandemic, and supplies to vehicle and component plants were largely safeguarded throughout the reporting period. However, the supply situation remained precarious in fiscal year 2021, especially for semiconductors, resulting in limited vehicle availability for customers.

Sustainability in supplier relationships

Successful relationships with our business partners are based on respecting human rights, compliance with occupational health and safety standards, active environmental protection and combating corruption. These sustainability standards are defined in the contractually binding Volkswagen Group requirements for sustainability in relations with business partners (Code of Conduct for Business Partners). The Code of Conduct for Business Partners also sets out the expectation that business partners will take steps to ensure compliance in their supply chain. We review compliance with the requirements, which has been an explicit condition for award of contract since 2019, using sustainability ratings for relevant suppliers. The relevance of a business partner for the S-Rating depends, among other things, on the size of the company or the risk exposure arising from the type of service provided.

In our sustainability rating, we determine suppliers' sustainability performance by means of self-disclosures and risk-based on-site audits. Sustainability ratings had been incorporated into the global procurement processes of relevant companies by the end of the reporting period. By then, we had obtained 12,483 ratings for suppliers, covering 85% of the total order volume. Both the validation of the questionnaire and the on-site audits are carried out by selected service providers. As a rule, contracts are not awarded to suppliers who fail to meet our requirements concerning compliance with sustainability standards. Tying award decisions to sustainability criteria is one of the strongest levers for enforcing these. We address existing sustainability risks and violations of sustainability principles by systematically defining and implementing measures to correct the violations; this also includes the upstream supply chain. Despite the adversities caused by the Covid-19 pandemic, we once again stepped up our focus on advanced and continuing training for suppliers. In fiscal year 2021, more than 1,700 thousand suppliers took advantage of our training programs such as digital supplier training courses and e-learning.

Our activities in 2021 continued to focus on compliance, decarbonization and human rights.

With regard to decarbonization, the Volkswagen Group is striving to continuously reduce greenhouse gas emissions or avoid them altogether over the entire life cycle of a vehicle. The Group's transformation into a provider of sustainable mobility solutions and in particular the trend towards electric mobility are shifting the action required from the service life of the vehicle to supply chains and the manufacture of vehicles and components. We are aware of our social responsibility and are committed to the Paris Climate Agreement. We have therefore incorporated the use of renewable energy, among other things, into the specifications for cell manufacturers.

In respecting human rights in our supply chains, we are guided by international agreements and frameworks as required by the UN Guiding Principles on Business and Human Rights and the principles and conventions of the OECD. To comply with these requirements, we introduced a human rights due diligence management system in 2021 to mitigate human rights risks in our supply chain. An additional management system has been set up to effectively manage the sometimes extensive risks in the raw material supply chains. This sets out in detail the prioritization and processing of the raw material supply chains that we classify as particularly high risk. Transparency requirements for our battery suppliers constitute an important basis for responsible raw material purchasing. These contractual requirements include the disclosure of the entire upstream supply chain by our battery suppliers and are effective for new contracts awarded.

TECHNOLOGY

The newly created Technology Board position will be responsible for the following focus areas: all activities of Volkswagen Group Components, the marketing of the Volkswagen platforms and components to third parties, the development, manufacturing and procurement of battery cells (Cell and Battery Strategy initiative), the areas of charging and energy with the corresponding joint ventures worldwide (Charging and Energy Services initiative).

The aim is further improvement of future viability and competitiveness through cross-brand management of technology activities and a value creation strategy coordinated throughout the Group. Synergies are to be leveraged across both traditional technologies and future areas to advance the transition to e-mobility.

The Volkswagen Group presented its technology roadmap for battery and charging until 2030 at its first Power Day in March 2021. The objective of the roadmap is to significantly reduce the complexity and cost of the battery so as to make electric vehicles attractive and affordable for as many people as possible. Volkswagen is establishing a European stock corporation (Société Européenne) to consolidate activities along the value chain for batteries – from processing raw materials to developing a unified Volkswagen battery cell to managing the European gigafactories. The company's scope will also include new business models based around reusing discarded car batteries and recycling the valuable raw materials they contain. The Group is thus creating efficient and future-proof structures for the rapidly growing battery business.

Battery

By standardizing properties like format and geometry, the unified battery cell provides the basis for a competitive orientation of electric mobility at Volkswagen. There are plans to introduce unified battery cells in 2024. Six gigafactories will be required in Europe alone to meet our needs until 2030. Two of the six gigafactories planned for Europe have already been decided. In addition to the site of its partner Northvolt AB in Skellefteå, Sweden, Volkswagen is building its own gigafactory in Salzgitter.

One of the most modern laboratories for cell research and development in Europe was opened at the Salzgitter site in the second half of 2021. In the future, some 250 experts will conduct research in the areas of cell development, analytics and testing at a total of four laboratories. For the Volkswagen Group, Salzgitter is also a pioneer in sustainable responsibility throughout the service life of the battery and opened the Group's first facility for recycling high-voltage vehicle batteries here. The objective is industrialized recovery of valuable raw materials such as lithium, nickel, manganese and cobalt in a closed loop, as well as aluminum, copper and plastic. In collaboration with partners, Volkswagen will achieve a recycling rate of more than 90% percent in the future through mechanical and hydrometallurgical processes.

Volkswagen expanded its shareholdings in different companies again in 2021 within the framework of its electric mobility strategy. The primary transactions in the past fiscal year were the capital increase at Swedish battery partner Northvolt AB for continuing the stake of about 20%. Volkswagen also increased its stake in QuantumScape with the goal of driving forward the joint development of solid-state battery technology. In the future, solid-state batteries are expected to significantly increase range and shorten charging times further. The partnership with Gotion High-Tech Co., Ltd. was deepened in the reporting period on the basis of a substantial buy-in in May 2020. The Volkswagen Group entered a strategic cooperation framework with the major Chinese battery manufacturer headquartered at Hefei. The goal of both partners is to industrialize the planned battery cell production at the Salzgitter site.

Vertical integration

Vertical integration, which is a strategic component of the newly created Board position, targets key success criteria of the electrification strategy, such as maximizing customer benefit, ensuring competitive cost structures and achieving transparency in the supply chain to safeguard channels critical for supply and crucial to sustainability.

In the current business model, overall responsibility for all input materials in the battery cell lies with the battery cell manufacturers. Volkswagen's involvement in the supply chain gives it access to costs and capacity for the materials and raw materials needed for battery production, particularly for lithium, nickel, manganese and cobalt (vertical integration). The objective of intervening in the supply chain is to influence costs and capacity so as to maximize the benefit for the Company.

Charging and Energy

Since early 2021, all activities in the Charging and Energy area have been combined and managed by the Technology Board position, which will thus play a key role in the Group's electric mobility strategy in its bid to become the leading provider of a smart charging and energy ecosystem.

As part of the Group's strategic alignment, the Charging and Energy area is focusing on two key areas. Firstly, sales of electric vehicles are being underpinned by the international development of a widespread charging infrastructure. As part of the joint participation of our Group brands Volkswagen Passenger Cars, Audi and Porsche in the pan-European high power charging (HPC) joint venture IONITY, an extensive charging infrastructure is being developed to safeguard long-distance mobility, which already consisted of 1,586 charging points at the end of the reporting period. The number of public fast charging points in Europe is to be increased to 18,000 by 2025. At the same time, the charging network in North America is to be increased to 10,000 fast charging points in collaboration with Electrify America, while the charging network in China will be expanded to 17,000 fast charging points in conjunction with CAMS. Secondly, sustainable business models are being developed by expanding value creation, such as smart and energy market-integrated charging.

Drivetrain and Platform

The independent corporate entity Volkswagen Group Components, under the umbrella of Volkswagen AG, employs around 70 thousand people worldwide. The focus of their expertise is the development and manufacture of vehicle components. As part of the restructuring of Group Components, the former business unit structure was transferred to the Drivetrain and Platform area in a modified form as product lines (conventional powertrain, chassis and electric drivetrain) with effect from April 1, 2021. The product lines assume responsibility for product management and product costs across all locations, covering Volkswagen Group Components' conventional portfolio.

Besides the product lines, the development areas of Group Components are combined in the Drivetrain and Platform area. The development portfolio focuses on the following areas: chassis components, steering systems, drive shafts, transmissions, electric drives and thermal management systems in the electric drivetrain. The new Systems and Innovation Development department, which was created when all components were bundled at organizational level, is working on the holistically optimized electric drivetrain across all business areas. Close integration of product management and development in the Drivetrain and Platform area are expected to optimize product costs, further sharpen the portfolio of Group Components and play a key role in shaping the electric drivetrain of the future.

Platform Business

Since January 1, 2021, Group-wide responsibility for external sales of platforms and components has been combined in the new Technology Board position. This effectively concentrates the existing activities and resources in one place in the Group. The scope of this new Platform Business organizational unit extends to successful initiation and acquisition (including contract design) as well as to support of customer projects including the related order processing (logistics, billing). In the current cooperation project with Ford, the necessary cross-brand structures and processes have been created within the Volkswagen organization so that other external customers can also be efficiently served in the future.

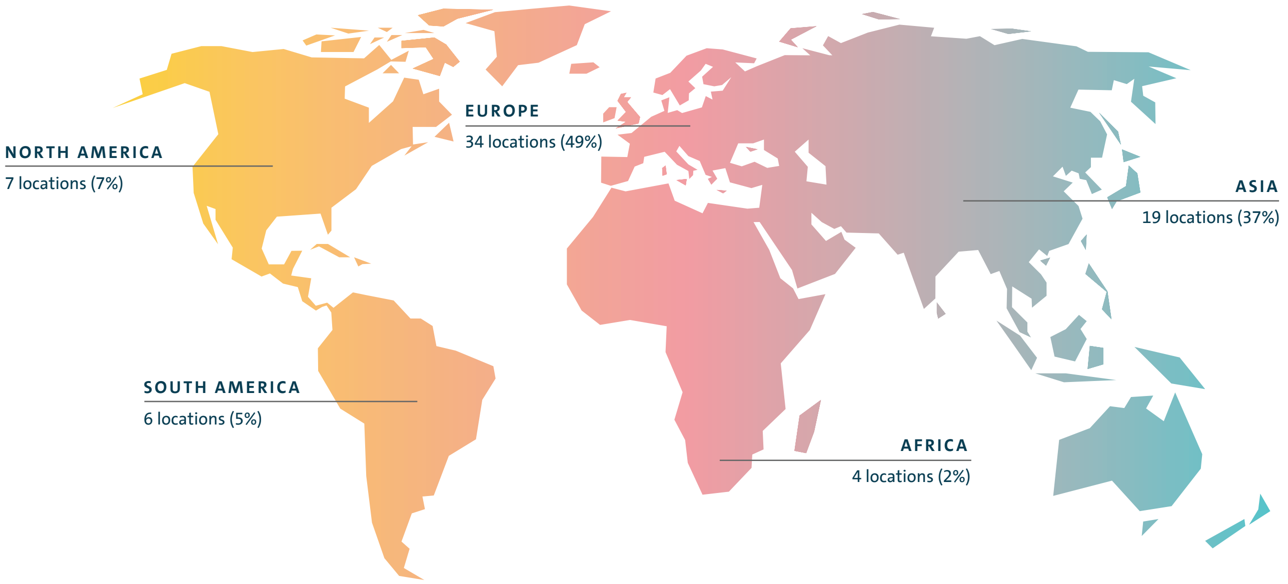
PRODUCTION

The international, cross-brand production network enables the process from the supplier to the factory and assembly line, and from the factory to dealers and customers. Enduring efficiency is a prerequisite for our competitiveness. To be able to meet the challenges of the future, we rely on holistic optimizations, forward-looking innovations, robust supply streams and structures, and a flexible team. At 8.3 million vehicles, global vehicle production in fiscal year 2021 was 7.0% down on the prior-year figure, which had been affected by national measures to contain the Covid-19 pandemic. Productivity increased by 1.1% year-on-year.

Although most of the restrictions and measures taken in response to the pandemic were lifted during the reporting period and factories were able to operate in compliance with hygiene protocols and other Covid-19-compliant codes of conduct, semiconductor production for key supplier parts had a comparatively slow start. Shortages of market capacity in the semiconductor industry coupled with brisk demand in the consumer goods, IT and telecommunications sectors led to supply bottlenecks and consequently restricted our production. The situation was further exacerbated by extraordinary events such as snowstorms in Texas in early 2021 and pandemic-related closures of semiconductor plants in Southeast Asia starting in June 2021.

To maintain production processes amid the pandemic conditions and protect our employees, we continuously review the behaviors and measures developed as part of our Safe Production Initiative so as to prevent possible chains of infection between the people working in the network and adjust them if necessary.

VEHICLE PRODUCTION LOCATIONS OF THE VOLKSWAGEN GROUP
Share of total production 2021 in percent



"one.PRODUCTION" production strategy

Production is supporting the new Group strategy NEW AUTO with its "one.PRODUCTION" functional area strategy, which was also recently developed. By adopting a common approach for the thematic focus of our activities, we aim to pool the strengths and potential of our global production and logistics across brands and take advantage of the resulting synergy effects. The production strategy is guided by our five strategic goals:

> PRODUCTION.NETWORK
> EFFECTIVITY.EFFICIENCY
> ENVIRONMENT.RESPONSIBILITY
> DIGITALIZATION.INNOVATION
> TEAM.WORK

With these strategic goals we have created content clusters in which expert teams work on the strategic topics relevant for production in the Group. Examples include the design of our global production network, increasing efficiency in production processes, the reduction and offsetting of environmental impact throughout the production process, and the digital transformation of production and working processes and of collaboration formats.

Our scenario-based strategy process provides the thematic framework for the strategic goals. The overarching aim is to increase productivity and profitability. We want to ensure that our sites remain competitive by having our factories work at optimal capacity, enabling us to manufacture high-quality products that give customers maximum benefit at competitive prices.

Global production network

The Group's production network encompasses 120 production sites, including our Chinese joint ventures. Standardizing production with uniform product concepts, plants, operating equipment and production processes within a product family is a key factor in our forward-looking production. We are constantly enhancing our production concepts and aligning them with new technologies to achieve ambitious targets in the individual projects.

The flexible production capacities provided by our platforms allow us to respond to market challenges, make requirements-based use of the production network and leverage synergies across brands through multibrand sites. Currently, almost half of the 46 passenger car locations are already multibrand locations. The Bratislava plant continues to serve as a prime example in the Group, producing vehicles for the Volkswagen Passenger Cars, ŠKODA, SEAT, Audi and Porsche brands.

With its new Group strategy NEW AUTO, the Volkswagen Group has set itself the goal of developing sustainable, connected, safe and tailored mobility solutions for future generations and accelerating the Group's realignment from vehicle manufacturer to a leading, global software-centric mobility provider. The foundation for these efforts was the introduction of the Modular Electric Drive Toolkit (MEB), which we are using to complement our range with additional battery-electric vehicles. We have been manufacturing battery-electric vehicles based on the MEB in Zwickau, the Volkswagen Group's first electric car factory, since 2019. One example is the ID.3 from the Volkswagen Passenger Cars brand. The portfolio of the MEB platform in Zwickau was expanded in 2021 through the addition of the CUPRA Born and the Audi Q4 e-tron. Furthermore, we use an all-electric platform for premium and sports brands – the Premium Platform Electric (PPE) – to leverage synergies across brands in production.

Production sites

The acquisition of Navistar increased the Volkswagen Group's global production network to 120 sites in which passenger cars, commercial vehicles and motorcycles, as well as powertrains and various components are manufactured. With 63 factories, Europe remains the center of production activities, and the importance of the Asia-Pacific region is underpinned by 34 sites.

The effects of the Covid-19 pandemic and the additional global supply bottlenecks, especially for semiconductors, caused headwinds for starts of production in the past fiscal year. The Volkswagen Group nevertheless succeeded in starting up 64 vehicle projects, 26 of which were new products and successor products and 38 were product upgrades and derivatives.

New technologies and digitalization

Digital and innovative technologies are systematically validated in the Volkswagen Group and their use for production and logistics is piloted and rolled out. This is to enable the Group to exploit potential for cost savings in the value chain and realize more flexible implementation options as well as quality improvements. The goal of the digital transformation in production is to simplify the entire process chain and make the best possible use of new technologies. Fields of innovation in 2021 were computer vision, augmented reality and process mining.

Based on Volkswagen's proprietary computer vision platform, artificial intelligence is being used for complex label inspections, among other things, and implemented across brands at the Group's sites. Here, for example, the correct positioning and possible damage to the vehicle's name plate are checked. In addition, augmented reality technology (which links the virtual world with the physical world), particularly through the use of the output medium of data glasses, is being tested in initial pilot projects in employee training and in remote support and collaboration. This lays the technical and IT-specific foundations for Group-wide use in production. Work is being done on the use of process mining (visualization and systematic evaluation of IT-based processes in their entirety) so that overarching production and logistics processes can be digitally mapped and better understood. Initial fields of application in process mining are being worked on together with Group Logistics and individual sites. At the Kassel site, for example, the causes of faults in exhaust systems are being identified to increase plant efficiency and reduce resource requirements.

Innovative applications are also being developed locally at the plants and are made available to the Group via the central cloud-based digital production platform (DPP). Despite the Covid-19 pandemic and difficult conditions, the expansion of the DPP was driven forward in collaboration with Amazon Web Services (AWS) and Siemens. Further production sites were linked up to the DPP and equipped with the first applications developed in-house for improving production and logistics. 2021 also saw increased exchange of local solutions between the sites via the DPP. Examples of overarching solutions on the DPP include localization services for vehicles and car bodies on the factory premises, intelligent plant monitoring systems, digital shop floor management, and quality processes and end-to-end quality control loops supported by artificial intelligence. Moreover, collaborative work is being done on predictive maintenance applications (predictive, proactive technology for maintenance and servicing) as well as data analytics functions for analyzing and comparing cross-plant processes.

The Volkswagen Group consciously harnesses the innovative power generated by our continuously growing innovation ecosystem. The Group's open innovation platform provides the central point of contact for start-ups and other innovative companies to work together on new solutions and concepts for production.

With the Industrial Cloud, the Volkswagen Group is going one step further and establishing an open ecosystem based on DPP together with Amazon Web Services (AWS) and integration partner Siemens, in which IoT (Internet of Things) and data analytics solutions will be made available for a more efficient and transparent value chain in the future. The Industrial Cloud community already had over 15 industrial partner companies in 2021.

GoTOzero Impact Factory

We are planning the production of tomorrow with our "one.PRODUCTION" functional area strategy. Emissions levels and the use of resources at Volkswagen Group sites require particular attention. The goTOzero Impact Factory program is developing specific steps toward production that has no adverse environmental impact with an underlieing vision of creating a factory that has no adverse environmental impact.

We have developed a checklist to help the plants determine the status of their progress on their path to becoming a "Zero-Impact Factory". This currently comprises 143 environmental criteria and provides the basis for the continuous reduction of energy consumption and CO_2 emissions, for example.

To implement such and other programs, a management system will be introduced at all production sites worldwide, linking the main compliance issues with environmental management. This environmental compliance management system (ECMS) provides a solid foundation for compliance with all external and internal rules and regulations relating to the environment within the context of production processes.

We implemented the ECMS in the first Group companies in 2020 and rolled it out to others in 2021. This process is being actively supported, monitored and tracked.

We are encouraging networking and communication between the brands worldwide in order to leverage synergies. Our environmental experts meet regularly in working groups. In addition, we provide our managers and employees with specific training on the topic of environmental protection.

We record and catalog measures in another IT system and make these available for a Group-wide exchange of best practices. In the reporting period, around 1,544 implemented measures in the area of environment and energy were tracked and documented in this system via the Maßnahmen@Web system. They serve to improve infrastructure and production processes for passenger cars and light commercial vehicles and are incorporated into the decarbonization index (DKI), for example. These activities are beneficial from an environmental and often also from an economic perspective as well as having a positive effect on the Group's environmental indicators.

GoTOzero Impact Logistics

In the joint "goTOzero Impact Logistics" initiative, Group and brand logistics departments work together to help achieve the goals of the goTOzero environmental mission statement. Continuous optimization of the transport network and logistics processes can reduce emissions – this includes the use of digitalization tools. The use of new low-emission technologies for transporting production materials and vehicles will also be continuously analyzed and accelerated.

The measures the Volkswagen Group is taking to achieve future carbon-neutral logistics include, for example, moving shipments from road to rail and almost complete avoidance of CO_2 through the use of green electricity in rail transport in Germany in collaboration with Deutsche Bahn AG.

Specific examples of the use of the railways as a low-emission mode of transport are the delivery of battery modules to Braunschweig from the supplier in Wrocław, Poland, and the transport of battery systems from the component site in Braunschweig to the Zwickau plant in order to produce completely battery-electric vehicles.

In addition, Group Logistics is using the two roll-on/roll-off (RoRo) charter ships powered by low-pollution liquefied natural gas (LNG) for transporting vehicles across the North Atlantic. Group Logistics plans to replace conventionally operated ships on the North Atlantic route with four more car freighters with the same propulsion system from the end of 2023. In contrast to other LNG-fueled marine engines, Group Logistics' charter ships are climate-friendly because the high-pressure technology of the two-stroke engines from MAN Energy Solutions allows almost no methane to escape. The dual-fuel engines will also enable non-fossil fuels – biogas (bio-LNG), e-gas (synthetic gas) from renewable sources, or biofuel – to be used in the future so that carbon emissions can be reduced even further.

In addition, Group Logistics permanently operates two charter ships on European sea routes using certified renewable fuel. Used cooking oils and fats – waste and residual materials from the catering and food industries, for example, that cannot be used for further processing into food or animal feed – provide the raw material for the biofuel, which produces at least 85 % less CO_2 than conventional fossil fuels.

SALES AND MARKETING

We regard ourselves as an innovative and sustainable mobility provider for all commercial and private customers worldwide – with a unique product portfolio encompassing our successful brands and innovative financial services.

Together with their sales partners and importers, our passenger car brands agreed on a procedure for integrating state-of-the-art products and services into the sales network. The priority thereby is the safe and legally compliant handling of customer data and the way in which this is processed for digital products and services or in connection with the vehicle purchase. The legal requirements for handling customer data have been tightened in many countries. At the same time, new Group vehicles that are permanently connected to the internet are about to be launched. We are increasingly investing in distribution systems and processes with the goal of further digitalizing and improving the individual customer experience in all distribution channels.

The Volkswagen Group's financial strength and profitability is attributable to an extensive portfolio of strong brands. The objective of our Best Brand Equity instrument is to continuously sharpen the brand profiles and to distinguish as clearly as possible between the customer segments served by the brands, supplementing them as required with tailored solutions. Our aim is to achieve high market saturation with great efficiency and a low level of brand cannibalization. Market positioning is an important element for increasing brand values. To this end, we have established automobile-specific customer segmentation to steer the positioning of our brands which we consistently apply throughout the strategy and product process.

As part of our new strategy NEW AUTO we have introduced strategic base initiatives for China as the largest single market and North America as the market with the greatest growth potential due to their considerable strategic importance for the Volkswagen Group.

Customer satisfaction, customer loyalty and customer conquest

The Volkswagen Group aims its sales activities at exciting its customers. This is our top priority, as satisfied customers remain loyal to our brands and recommend our products and services to others. In addition to satisfaction with our products and services, we value our customers' emotional connection to our brands. It is important for us to retain customers and win new ones. To measure our success in this area, we compile and analyze two strategic indicators for the passenger car-producing brands:

> Loyalty rate. Proportion of customers of our passenger car brands who have bought another Group model. Thanks to their faithful customers, the Volkswagen Passenger Cars, ŠKODA and Porsche brands have remained in the upper loyalty rankings of the core European markets in comparison with their competitors for a number of years. Following a decrease in the loyalty rates between 2016 and 2018, these figures improved for all group brands. Compared to other manufacturer groups, the Volkswagen Group continues to hold a top spot in the core European markets in terms of loyalty.

> Conquest rate. Newly acquired passenger car customers as a proportion of a brand-specific selection of competitors. This KPI is stable for the Volkswagen Passenger Cars brand, while Audi and ŠKODA show improved conquest rates.

In the core European markets, the brand image of the Volkswagen Passenger Cars brand stabilized at the level of the market as a whole in 2021, and confidence in the brand improved. Porsche remains in top position in the image ranking.

In the financial services business, we use two strategic indicators of customer satisfaction and customer loyalty. The two indicators are currently being revised in light of changes in customer needs and in the product range, the short- and long-term impact of the Covid-19 pandemic and the strategic alignment of financial services in the Volkswagen Group.

E-mobility and digitalization in Group Sales

As part of our electrification campaign, we aim to offer our customers worldwide around 70 completely battery-electric vehicles and approximately 60 hybrid models by 2030. This campaign will be complemented by vehicle-related, customer-focused offerings, such as customized charging infrastructure solutions and mobile online services. The Volkswagen Group is thus transforming from an automotive manufacturer into a mobility service provider. This poses new challenges for Sales.

We are making highly targeted use of the opportunities of digitalization in Sales, which include an improved customer approach. Our actions are guided by a clearly defined strategy that requires extensive cooperation between the brands and markets to achieve the greatest possible synergies. Our aim here is to create a completely new product experience for the customers of our brands – one which impresses with a seamless communication process, from the initial interest in purchasing a vehicle, to servicing and ultimately to the sale of the used car. In doing so, we are opening up new business models relating to the connected vehicle – in particular with regard to mobility and other services. Vehicles are becoming an integral part of the customer's digital world of experience.

We also align our internal processes and structures to the methods and new forms of working created by digital innovation. This results in project teams operating across different business areas, new forms of cooperation, a more intensive relationship with the international start-up scene, a consolidation of venture capital expertise – as a form of supporting innovative ideas and business models – and new lean systems and cloud-based IT solutions.

Fleet customer business

Business relationships with fleet customers are often long-term partnerships. In a volatile environment, this customer group guarantees more stable sales of well-equipped, profitable vehicle models than the private customer segment.

The Volkswagen Group has an established base of business fleet customers, especially in Germany and the rest of Europe. Our extensive product range enables us to satisfy their individual mobility needs from a single source.

In an overall passenger car market in Germany that declined by 10.1% in the reporting period, business fleet customers accounted for 16.6 (16.2)% of total registrations.

The Volkswagen Group's share of this customer segment remained consistent at 42.1 (42.1)%. Outside Germany, the Group's share of registrations by fleet customers in Europe was 26.5 (26.6)%. This shows that fleet customers' confidence in the Group remains at a high level. We were able to consolidate our strong market position in the fleet customer business in Europe.

After Sales and Service

In addition to individual service, the timely provision of genuine parts is essential to assure passenger car customer satisfaction in After Sales. The genuine parts supplied by our passenger car brands and the expertise of the service centers stand for quality, safety and value retention of our customers' vehicles. With our global after sales network including more than 130 of our own warehouses, we are creating the prerequisites to supply almost all our authorized service facilities around the world within 24 hours. We regard ourselves as a complete provider of all products and services relevant to customers in the after sales business. Together with our partners, our mission is to ensure the worldwide mobility of our customers. The partner businesses offer a comprehensive portfolio of services in all vehicle classes. We are continuously expanding our range of tailored services in order to improve convenience for our customers and increase customer satisfaction.

In After Sales, we are supporting the changing world of mobility and our consistent orientation on e-mobility by developing new services and innovative concepts. As the Group transforms from vehicle manufacturer to a leading, global software-centric mobility provider, our software company CARIAD is working on the development of the new software architecture for vehicles in future. With the resulting connectivity services, we will be able to leverage synergies in After Sales across all the Volkswagen Group's brands and take advantage of new opportunities to boost customer loyalty.

In the Digital After Sales project, we are modernizing processes and IT systems in After Sales. By adopting an approach that focuses product and service development on the specific needs of both dealers and customers, we aim to reduce the time needed for administrative tasks at the dealers through automated, interrelated services and also stabilize existing IT systems and boost efficiency. Innovative digital after-sales services will additionally improve the customer experience.

Around the world, our commercial vehicles business also prides itself on products of quality and on customer focus. Our range of trucks, buses and engines is complemented by services that aim to guarantee fuel efficiency, reliability and wide vehicle availability. By offering vehicles equipped with an all-electric or hybrid drive system, we take into account both customers' wishes and our responsibility to contribute to emission-free transportation. Workshop service and service contracts are intended to offer customers a high degree of certainty, in addition to a high level of quality. We are reducing servicing times and costs with a view to the vehicles' total operating costs.

In the Power Engineering segment, we help our customers to secure the availability of machinery with MAN PrimeServ. The global network of more than 100 PrimeServ locations stands for excellent customer focus and offers, among other things, replacement parts of genuine-part quality, qualified technical service and long-term maintenance contracts.

QUALITY

The quality of our products and services plays a key role in maintaining customer satisfaction. Customers are particularly satisfied and loyal when their expectations of a product or service are met or even exceeded. Appeal, reliability and service determine quality as it is perceived by the customer throughout the entire product experience. Our objective is to positively surprise our customers and inspire enthusiasm in all areas, and thus to win them over with our quality.

Digitalization was once again the beating heart of our work in the reporting year: we are sharpening our focus on software-based system development, which is a critical factor for success in respect of customer satisfaction. Consistent application of the "Automotive SPICE" process assessment model that we use to improve our processes is particularly important in our activities. It is a key building block for meeting the requirements of our customers, as well as those of the regulatory and legislative bodies.

Volkswagen has been implementing cybersecurity measures in the Group for some time now. For example, we have an independent cybersecurity network in place across all regions and Group brands and monitor potential cyber risks. This enables us to act fast when potential threats arise. The UNECE (United Nations Economic Commission for Europe) has provided for corresponding certification and homologation in the future to ensure that companies can guarantee that these aspects are dealt with properly so as to protect the users of our vehicles from potential attacks. Our Group pursues the goal of implementing standards in the areas of both accident prevention and security. We are refining the established processes within the framework of an Automotive Cyber Security Management System in keeping with the requirements of the UNECE regulation. In this context, Volkswagen is implementing comprehensive measures across departments in the Group. One of these is a Group-wide communications campaign launched for the Volkswagen Passenger Cars brand to underline the importance of this issue.

Strategy of Group Quality

We review our functional area strategy periodically and coordinate it with the brands. We align our activities with our goal expressed in the motto: “We embody outstanding quality and ensure reliable mobility for our customers worldwide.” The NEW AUTO Group strategy announced in 2021 sets new parameters for transforming the Group into a software-centric mobility provider. Based on this, our quality strategy focuses primarily on achieving maximum levels of customer satisfaction throughout the entire customer experience – from ordering through to the digital ecosystem and up to aftersales and customer service. The work packages that are still being implemented will be integrated. Group Quality and the brands’ quality organizations play an active role at all stages of product emergence and testing, making an important contribution to successful product launches, high customer satisfaction and low warranty and ex gratia repair costs.

Contributing to the Group’s strategic indicators

We use a strategic indicator to measure the contribution of Group Quality at the top level of consideration for the major passenger car-producing brands.

> Warranty and ex gratia repair payments per vehicle after 12 months in service. This indicator shows all warranty and ex gratia repair payments for the vehicles produced worldwide in each production year, expressed in euros per vehicle. All vehicles from the Volkswagen Passenger Cars, Volkswagen Commercial Vehicles, ŠKODA, SEAT, Audi and Porsche brands are included in this figure. Extraordinary items resulting from initiatives such as recalls to assure product safety or comply with laws are not taken into account. While the figures starting from the 2017 production year remained at a constant low level, they increased in the 2020 production year due to the growing use of new technologies in the vehicle and rising complexity. Action was taken to reduce these figures.

Legal and regulatory compliance

The legal and regulatory compliance of our products is paramount in our work. In our processes we employ the principle of multiple-party verification, which involves mutual support and control between the business units. Among other things, software development is accompanied by quality milestones at all brands, whereby all systems, components and parts that directly influence a vehicle’s safety, type approval and functioning and therefore require particular vigilance are safeguarded through multiple-party verification. At the series production stage, we are ensuring that the conformity checks on our products are carried out and assessed with the participation of all business units involved. This applies particularly to checks related to emissions and fuel consumption.

We are also dedicating attention to our quality management system, reinforcing the interdisciplinary, process-driven approach throughout the Group. The quality management system in the Volkswagen Group is based on the ISO 9001 standard and the official type approval requirements. These standards and requirements must be complied with for us to obtain type approval for the manufacture and sale of our vehicles. We conducted numerous system audits in the reporting period to verify that our sites and brands comply with these requirements. Particular focus was placed on assessing the risk of non-compliance with defined processes. Our quality management consultants pay attention to ensuring that these and other new requirements, as well as official regulations, are implemented and complied with; they are coordinated and supported in this endeavor by a central office in Group Quality.

Observing regional requirements

We use a variety of feedback instruments, such as specific customer surveys, to collection information on region-specific customer requirements. In addition, we monitor relevant internet forums and social media postings worldwide to obtain direct customer feedback and identify sentiment and trends at an early stage.

In order to be able to make the perceived quality of our vehicles commensurate with that of our competitors, we take the needs of our regional customers into account in our vehicle audits. Every brand works together with the individual regions to decide how its product is to be positioned there. In this way, we strengthen the brands’ responsibility. So that the vehicle audit returns comparable results, consistent quality benchmarks apply across all brands and regions. We are continually adapting these to changing requirements. For more than 40 years now, we have been deploying auditors around the world to assess, from the customer’s perspective, the vehicles that are ready for delivery and to ensure that these vehicles comply with the benchmarks defined.

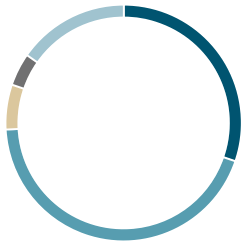
EMPLOYEES

The Volkswagen Group is one of the world’s largest private employers. On December 31, 2021, we employed a total of

672,789 people, which includes the Chinese joint ventures. This figure represents a 1.5 % increase compared with the end of 2020. The ratio of Group employees in Germany to those abroad remained largely stable over the past year; at the end of 2021, 43.9 (44.4) % of the workforce worked in Germany.

EMPLOYEES BY MARKET

in percent, as of December 31, 2021



Human resources strategy and principles of the human resources policy

The 2021 reporting period saw the Volkswagen Group adopt the new "Transform to Tech" human resources strategy that builds on the "Empower to transform" functional area strategy and takes up the objectives of the new Group strategy NEW AUTO and its People & Transformation base initiative.

With its new human resources strategy, the Volkswagen Group is also continuing with key approaches in its human resources policy. These include the pronounced stakeholder focus in corporate governance, comprehensive participation rights for employees, comprehensive training opportunities, the principle of long-term service through systematic employee retention and remuneration that is fair and transparent. Throughout the Group, we offer individual remuneration components for employees not covered by collective agreements that we continuously update to reflect new working realities and business models.

At the same time, the new human resources strategy is setting innovative trends. Employee experience is to be considered systematically, the teams strengthened as the most important units in the company's organization, and modern forms of working, such as agile methods, are to be developed. However, our main aim is to improve the individual experience of employees in order to become more attractive as an employer and take the performance of our organization to the next level.

This is why "Transform to Tech" looks at employees and their needs throughout the entire work experience: "Me" (Me@Volkswagen), "My team" (Teams@Volkswagen), "All of us at Volkswagen" (All of us@Volkswagen) and "Volkswagen in society" (We@Volkswagen and the world around us) are the perspectives from which we address employees' needs and expectations in a holistic manner. Together, these four dimensions make up the work experience, job satisfaction and, ultimately, the success of the work and the Group's integration into society.

> The first dimension, "Me@Volkswagen", follows the principle that every employee should have the best possible conditions in which to do their job. Starting with availability of first-class work equipment and tools, this also entails avoidance of red tape and overly complex process steps and includes state-of-the-art workspaces, opportunities for 360° feedback, individual health coaching, and training opportunities tailored to the individual.
> The "Teams@Volkswagen" dimension is pivotal to the Group's success: high-performance teams in the Volkswagen Group are groups that trust each other, have a common goal and can rely on each other. Yet they also discuss matters critically and speak their minds.
> "All of us@Volkswagen" describes the corporate culture dimension. The Volkswagen Group provides a strong culture, unique products, fair working conditions, safe work, good opportunities for participation and attractive development paths.
> The fourth dimension is "We@Volkswagen and the world around us". Without long-term social legitimacy at our locations and in our markets, we will not be able to carry forward our business model in times of accelerated changes in values – this applies from an economic, environmental and social perspective. Employees are representatives of the Volkswagen Group and communicate our values to society.

By extension, we are guided within the framework of our strategy by five overarching objectives:

> The Volkswagen Group, including all of its brands and companies, aims to be an excellent employer worldwide.
> Competent and dedicated employees strive for excellence in terms of innovation, added value and customer focus.
> A forward-looking work organization ensures optimal working conditions in factories and offices.
> An exemplary corporate culture creates an open work environment that is characterized by mutual trust and collaboration.
> The Company's human resources work is highly focused on employees, strives for operational excellence, and yields strategic value-added contributions.

Although our new human resources strategy "Transform to Tech" already came into effect in fall 2021, the key performance indicators for 2021 are reported in line with the predecessor strategy "Empower to Transform". As part of the strategy, we compile and analyze the following performance indicators:

- Internal employer attractiveness. This indicator is determined by asking respondents, as part of the *Stimmungsbarometer* (opinion survey), whether they perceive the respective company as an attractive employer. The opinion survey is conducted in the majority of our Group companies. The target for 2025 is 89.1 out of a possible total of 100 index points. A score of 86.8 index points was achieved in the reporting period, contrasting with 88.2 points in the previous year.
- External employer attractiveness. The ability to recruit top talent is of decisive importance, particularly in view of the Company's transformation into one of the world's leading providers of sustainable mobility solutions and the associated development of new business fields. We use this strategic indicator once a year to check the positioning of the major passenger car-producing brands in the brand's home country. Rankings in surveys conducted by the Universum Institute, in which we aim to achieve ambitious scores set individually for the Group brands featured, serve as the basis for this. In fiscal year 2021, the Porsche and ŠKODA brands fully met and partially exceeded the targets set for them. While SEAT partially achieved the targets, the Volkswagen Passenger Cars, Volkswagen Commercial Vehicles and Audi brands did not meet their targets.
- Diversity index. Given the cultural diversity in our global markets and the growing economic momentum, success in a highly competitive marketplace requires an ever-wider range of experience, world views, solutions to problems and product ideas. The diversity of our workforce provides potential for innovation in this area, which we aim to make even better use of in future. As we establish a diversity management system across the Group, this strategic indicator is being used to show the trends in the proportion of women in management and the internationalization of top management as a percentage of the active workforce in the Group as a whole, excluding vocational trainees and employees in the passive phase of their partial retirement. In particular, it underpins the objective of the human resources strategy, which is aimed at contributing to an exemplary leadership and corporate culture. The figures for the proportion of women in management (management, senior management, top management including Group Board of Management members) and the internationalization of top management are placed equally weighted in an index and the figures for the year 2016 set to an index value of 100 in each case. The proportion of women in management amounted to 16.3% in 2021 and was 1.2 percentage points up on the prior-year level. We aim to raise this figure to 20.2% by 2025. Our goal is to increase the level of internationalization in top management, the uppermost of our three management tiers, to 25.0% in 2025; in the past fiscal year this was 20.3 (18.7)%. The diversity index in fiscal year 2021 was 127 compared to 117 in the prior-year.

One strategic indicator has been defined for the financial services business:

- External employer ranking. This involves taking part in the "Great Place to Work" external benchmarking, in general once every two years. The aim is to position ourselves as an attractive employer and derive appropriate measures to achieve a ranking among the top-20 employers by 2025, not just in Europe, but globally. For 2023, we plan to participate in the global ranking of "Great Place to Work". In the European ranking, we achieved our targeted top 20 position in the reporting year. Volkswagen Financial Services AG was represented in other national and international best-employer rankings in 2021.

To master the challenges of the transformation, the Group and the employee representatives have signed agreements for the future that will position the Group's individual brands more efficiently and also structure employee career prospects. Volkswagen AG's roadmap for digital transformation is one example, as is the Audi brand's Audi.Zukunft agreement.

We are also driving large-scale cultural change to achieve greater openness and transparency in line with our corporate strategy. The seven Volkswagen Group Essentials define the shared underlying values and the foundation for cultural change across all of the brands and companies:

- We take on responsibility for the environment and society.
- We are honest and speak up when something is wrong.
- We break new ground.
- We live diversity.
- We are proud of the work we do.
- We not me.
- We keep our word.

Group-wide activities such as team dialog and the role model program are designed to encourage employees to analyze the Group Essentials and incorporate them into all work processes. In the role model program, managers from all brands strive to improve the corporate culture together with their staff.

Training and professional development

At Volkswagen, our capacity for innovation and our competitive position largely depends on the commitment and knowledge of our employees, particularly during the transformation.

Staff training at Volkswagen is organized according to vocational groups. These comprise all employees whose tasks are based on similar technical skills and who require related

AGE STRUCTURE IN YEARS OF EMPLOYEES

as of December 31, 2021; in percent

expertise in order to perform their jobs. A skills profile lays down the specialist and interdisciplinary skills for each job and serves as a guide for training measures.

Volkswagen Group employees have access to a wide range of training measures – from further training in general Company-related issues to specific training or personal development programs. Thanks to these opportunities, Volkswagen employees are able to further develop and steadily deepen their knowledge throughout their working lives. In this process, they are also able to learn from more experienced colleagues, who pass on their knowledge as experts in the vocational group academies. Training measures are based on the dual training principle, which combines theoretical content with practical experience on the job by means of specific tasks.

The range of learning opportunities is being expanded continuously. The Volkswagen Group Academy forges partnerships with renowned external training portals to expand online learning, for example on IT topics. The Company has set aside additional funds for the transformation of personnel skills made necessary by digitalization. These resources are used for special training for the groups of employees and departments affected by the transformation. In addition, Volkswagen is striking out in new directions with the Faculty 73 program and is providing in-house training for the software developers who are needed for the digital transformation. In 2021, all 94 graduates of the first phase of the program were placed within Volkswagen AG. In March 2021, 100 students embarked on the training program, which is now in its third year. The program is designed for employees and also external applicants with an affinity for IT and an interest in software development.

Volkswagen AG and CARIAD promoted the establishment of innovative programming schools in Wolfsburg and Berlin in cooperation with the non-profit École 42. The training institute in Wolfsburg commenced operations in May 2021 with initially 170 students from 30 countries. By the end of 2022, it plans to take on 600 students in Wolfsburg and 600 in Berlin, who will learn from and with each other following an innovative training approach.

Vocational training and cooperative education

The core component of training at Volkswagen is vocational training or, for young people eligible to enter university, cooperative education (dual study programs combining university studies with on-the-job training). As of the end of 2021, the Volkswagen Group trained 17,151 young people. We have introduced the principle of dual vocational training at many of the Group's international locations over the past few years and are continuously working on improvements. Once a year, Volkswagen honors its highest-achieving vocational trainees in the Group with the Best Apprentice Award.

Even after their vocational training has been completed, young people at the start of their careers are encouraged to continue their professional development in our Company.

Development of university graduates

Volkswagen offers two structured entry and development programs for university graduates and young professionals. In the StartUp Direct trainee program, graduate trainees gain an overview of the Company over two years while working in their own department and also take part in supplementary training measures. University graduates interested in working internationally can participate in the 18-month StartUp Cross program. The aim here is to get to know the Company in all its diversity and to build up a broad network. During their participation in the program, young professionals become familiarized with several locations in Germany and other countries by working in various departments. Both programs also include several weeks' experience working in production. In 2021, Volkswagen AG hired a total of 82 graduate trainees as part of these programs, 31.7% of whom were women.

Young people can also take part in graduate trainee programs at the other Group companies as well as at the Group's international locations, such as ŠKODA in the Czech Republic, SEAT in Spain or Scania in Sweden.

Increasing attractiveness as an employer and development programs for specific target groups

A human resources policy that promotes a work-life balance is a major component of Volkswagen's attractiveness as an employer; in particular, it contributes to greater gender equality. We are working continuously to develop family-friendly working time models and to increase the number of women in management positions. For Volkswagen AG, we have set targets for the proportion of women in management in accordance with German legislation. Volkswagen AG has achieved the targets set in line with the *Gesetz zur gleichberechtigten Teilhabe von Frauen und Männern an Führungspositionen* (German Act on the Equal Participation of Women and Men in Leadership Positions) and section 76(4) of the *Aktiengesetz* (AktG – German Stock Corporation Act). As of December 31, 2021, the proportion of women in the active workforce at the first level of management (senior management, top management and brand Board of Management) was 13.5% (target: 13.0%). At the second level (management) it was 18.3% (target: 16.9%). The used time credits from deferred compensation (time asset bonds) are not taken into account. For the new period up to the end of 2025, Volkswagen AG has set itself the target of 16.5% women in the first level of management and 23.4% women in the second level of management, each as a proportion of the active workforce. The Group Board of Management and Supervisory Board are regularly informed of the figures achieved and the current target paths.

In order to encourage women with great potential to advance within the Company, we have set targets relating to the development of the proportion of women in management for every Board of Management business area at Volkswagen AG. This approach is supported by many different measures ranging from cross-brand mentoring programs to a quota system for the management selection procedure and targets for the share of women among external hires.

The Group also has a large number of collective regulations in place to make it easier for employees to balance the demands and needs of work and home life and allow staff to arrange their own individual working model. In addition to flexible working hours and the use of working time accounts and flextime, these include variable part-time work and shift models, leave of absence programs enabling employees to care for family members, the possibility to convert salary components into paid leave, childcare services that are associated with the company or are company-owned, and remote working. “Meine AusZeit” is one of the latest programs to be offered by Volkswagen AG and allows employees to take a self-financed leave of absence with an upfront payment from the Company.

The Covid-19 pandemic brought fundamental changes to the way we work and collaborate with one another. One of the consequences of the pandemic is that hybrid working – a combination of remote working and working onsite – is increasingly becoming the norm. This has also forced the Volkswagen Group to modify its organization of work and collaboration and prompted it to launch several initiatives during the reporting period. One of these is the Office 2025 project, which led to the development of a holistic concept spanning the dimensions of people, space and technology

PROPORTION OF WOMEN

as of December 31

%	2021	2020
Employees	17.9	17.0
Vocational trainees[1]	20.1	20.5
Graduate recruits[2]	31.7	32.5
Total management	15.9	14.9[3]
Management	17.9	17.1[3]
Senior management	12.5	11.4[3]
Top management	8.3	7.0

[1] Excluding Scania and Navistar
[2] Volkswagen AG
[3] Prior-year figures adjusted

that focuses on the topics of modular working environments, desk sharing and technical infrastructure, including hardware and software. Volkswagen AG, which first entered into its works agreement for remote working back in 2016, made use of this agreement in 2021 – a year dominated by the global pandemic – to give its employees every opportunity to work remotely and thus safeguard against infection as far as possible. Existing regulations were updated in the reporting period at Volkswagen AG and Porsche, for instance, so as to make working arrangements more flexible.

In July 2021, Volkswagen held a “Digital Week” at its Wolfsburg plant on the hybrid working world with numerous interactive events, around 40 speakers and over 20,000 attendees.

As in other companies, at Volkswagen the pandemic acted primarily as a catalyst for the breakthrough of digitalization in knowledge work: virtual communication and collaboration, and new formats of knowledge transfer and training, for example through podcasts or online tutorials, were set up and expanded at short notice.

Preventive healthcare and occupational safety

Preventive healthcare and occupational safety are key elements of human resources policy in the Volkswagen Group. In fiscal year 2019, we underpinned this by drawing up a corresponding Group Policy. This defines basic requirements and objectives relating to occupational health and safety, laying down rules for the organization thereof as well as the responsibilities of the Group, brands and companies.

In addition to fulfilling statutory requirements, Volkswagen’s Health department places strong emphasis on preventive approaches with regard to health, fitness and performance. Employees are given the opportunity to have regular check-ups. In the follow-up appointment, they are offered options for improving their health that are tailored to their needs and draw on the latest medical knowledge. Since fiscal year 2020, our Health department has faced unique challenges due to the spread of the Covid-19 pandemic and the measures that needed to be put in place. Our top priority has been to safeguard production in the Group without putting the protection and health of our employees in jeopardy. To this end, we developed and implemented a variety of actions such as hygiene measures, setting up dedicated test and vaccination centers at Volkswagen locations and providing input and guidance from the Health department on the Safe Production Initiative, which supports safe and healthy manufacturing under pandemic conditions.

Employee participation

Codetermination and employee participation are important pillars of our human resources strategy. Volkswagen aims to promote high levels of expertise and a strong sense of team spirit. This includes employees' opinions, assessments and criticism being heard.

We brief our employees extensively on upcoming changes so as to involve them in strategic decision-making as early as possible. When shaping labor relations to embody cooperation and social peace, we are guided by universal human rights and the standards of the International Labour Organization (ILO). Building on these principles, we have agreed various charters and declarations with the European and the Global Works Councils which set out the principles of labor policy in the Volkswagen Group as well as employee rights.

Employee participation in the Company's success through the issuance of treasury shares in the form of an employee share program is not currently offered.

By means of the opinion survey (*Stimmungsbarometer*), the Company regularly gathers information regarding employee satisfaction and also surveys employees on our corporate culture. Based on the results, follow-up processes are implemented in which measures are developed and executed. The 2021 opinion survey covered 165 companies in 40 countries. Of the 596,905 employees in the companies surveyed, 466,021 participated. This was a participation rate of 78%. The sentiment rating calculated from 22 questions is the main parameter of the opinion survey and is used to help determine Board of Management remuneration, among other things. It is calculated from the total of all the related answers in the survey and, in 2021, stood at 82.3 out of a possible total of 100 index points. The score achieved in 2021 was thus just above the previous year's figure, which amounted to 82.2 points.

In addition, we also encourage employee involvement by means of Idea Management. Employees have the opportunity to put their creativity and knowledge to use by contributing their ideas for making improvements, thus contributing to streamlining workflows, further enhancing ergonomics in the workplace, reducing costs and continuously increasing efficiency. The system also provides monetary incentives by offering set rewards.

INFORMATION TECHNOLOGY (IT)

Volkswagen is working hard on strengthening its digital competencies with a view to shaping and safeguarding the Company's future viability. To this end, we are continuously upgrading our IT systems so that they are sustainable in the long term and are progressively moving our systems and applications over to new cloud platforms. Our primary concern is further increasing the efficiency of the IT systems used throughout the Company and standardizing these as far as possible. We are also concentrating on building up our expertise and specialist IT knowledge, especially in key digital technologies such as artificial intelligence and the use of new IT technologies in products, services and business processes.

To safeguard the development of core competencies in our Company in the fields of technology, digitalization and autonomous driving, we are building up IT resources that will help shape and push the Company's digital transformation.

Due to the global spread of the Covid-19 pandemic, we took extended measures to protect the workforce, such as an increased use of remote working, similar to in the previous year. In this context, safeguarding access to the IT infrastructure in all brands and companies was a major priority again in fiscal year 2021. The use of digital applications to promote more efficient forms of digital collaboration and more effective options for applying these within the Company increased once again compared to the prior year. For example, the Company's internal network, Group Wiki, promotes knowledge transfer and networking among all employees. The platform puts the user in touch with one another across the brands and the world. The provision of state-of-the-art IT applications for digital collaboration and the expansion of options for conducting business on mobile devices are designed to improve productivity in the long term. Building on the rollout of Microsoft 365, the first steps in implementing the Microsoft Power Platform were taken in 2021. The software environment allows employees without programming skills to automate individual work processes in the Office context, such as the filing of e-mail attachments.

Use of IT solutions and digitalization

The Group IT Steering Committee was formed in 2019 to leverage synergies, to manage the Group's IT project portfolio and promote communication with departments on IT projects. Planning and managing the IT project portfolio at Group level ensures that resources are employed in a coordinated fashion in the development, implementation and use of IT solutions. Particular emphasis is placed on IT projects aimed at digitalizing business processes across departments.

Volkswagen embraces digitalization in the Company; its in-house software innovation centers (SIC, formerly IT Labs) are just one example of this. They act as centers of innovation and expertise that conduct research, pilot new technologies and develop these in areas relevant for the Company and make these available for productive use in applications for the organization. Here, Group IT, research institutes, educational institutions (such as universities), technology partners and policy-makers work closely together on future trends in information technology. At the same time, the SICs function as liaison offices for start-ups. This allows the experience and strategic expertise of a large company like Volkswagen to be combined with the pragmatism, the ideas for new areas of business and the speed of young start-ups. Highly specialized experts at the SICs in Munich, and increasingly also in Wolfsburg, are working, for example, on exploiting the potential of quantum computers for areas that have a commercial application. The focus here is on the optimization of traffic flows, the data-driven management, pricing and optimization of spare parts in the after-sales business, and smart management of energy use to generate sustainable savings using artificial intelligence methods (for example in the compressed air control systems used at the Wolfsburg plant to reduce CO_2 emissions). Initial experimental projects are also investigating opportunities for combining the potential of quantum computers with self-learning systems (quantum machine learning).

In addition, the SICs are used to transfer knowledge throughout the entire Company on topics such as data analytics (process for the systematic analysis of data in electronic form) and decentralized databases, which allow network participants to jointly process and store data (distributed ledger technologies), and to make new technologies usable for the Company. For instance, numerous bot projects are being implemented to automate business processes (robotic process automation).

The further convergence of different business areas with IT is also opening up potential. In production, for example, big data processes help us to analyze faulty machinery and take action at an early stage. Big data refers to data volumes that are too vast and too complex to be analyzed and evaluated using manual or conventional methods. Production processes are also safeguarded by artificial intelligence and camera systems (computer vision). The systems and equipment in the factories are linked together in an integrated overall system, enabling efficiency to be increased and digital pilot projects to be integrated into the existing architecture much more easily than before. In conjunction with the different departments, Group IT is also contributing its expertise to the field of research and development. For instance, digitalized work tools such as the "virtual concept vehicle" make the product development process faster and more efficient. Value creation in sales is being increased with the help of advanced analytics (a process for systematic analysis of future events and behavior), for example in optimizing the use of parking lots and vehicle collection processes.

Software development

We develop cross-brand software for digital ecosystems, for new and existing business processes in the Group in our software development centers. Cutting-edge technologies for the industrial Internet of Things are being developed at the Software Development Center in Dresden. In collaboration with a leading cloud provider, Amazon Web Services, we are refining the digital production platform already in use which aims to enable Volkswagen to reduce its production costs in the future.

IT security

Safeguarding data and information throughout the Volkswagen Group worldwide is one of the main tasks of IT and was continued in fiscal year 2021 with the Group Information Security Program. The objective of the program is to create uniform processes and solutions across the Group to further enhance information security. The main focus is on topics that could one day pose information security risks for the Group and that need to be specially safeguarded as part of the Group's digital transformation strategy, including cloud security and secure software development. The program's content and orientation will be reviewed annually and updated if necessary.

We are one of the first vehicle manufacturers to require our suppliers to have passed TISAX (Trusted Information Security Assessment Exchange) certification. This sends out a strong signal about cross-company information and data security. TISAX certification is an assessment method developed by the German Association of the Automotive Industry and is based on the international industry standard and the requirements of the automotive world. The aim is for sensitive data and information to be dealt with securely by our suppliers.

CAR2X technology offers our customers protection by warning them, for example, of traffic hazards. CAR2X technology enables direct wireless communication from vehicle to vehicle and from the vehicle to the transport infrastructure. This TÜV IT-certified technology, implemented in accordance with European standards, represents a technical milestone in our CAR2X program.

The tasks of automotive cybersecurity are to avert cyber attacks on our vehicles throughout the entire product life cycle and in the supply chains and to protect our customers' personal data in our vehicles. The Group policies in the Volkswagen Group based on the legal requirements of the UNECE regulation have been implemented. Cross-brand organizational guidelines are being specified and implemented on this basis, taking the organizational circumstances into account.

The "Protected Customer" program addresses the requirements of the UNECE regulation. To enable us to protect our customers against cyber attacks, and to implement our solutions in conformity with national and international legislation, we are establishing integrated, cross-brand, cross-regional security management systems for information and cybersecurity. These were confirmed with UNECE CSMS certification in 2021. Safeguarding of the complete life cycle of our vehicles and the digital mobility services was transferred to the responsible line organizations after the program ended in 2021 and continues to be performed there.

Key central information security processes have been audited within the international ISO 27001 framework and were recertified in 2021. This is the most important standard for information security and extends beyond IT to also cover issues such as human resource security, compliance, physical security and legal requirements.

Other key milestones in fiscal year 2021 were the successful completion of the central GDPR (General Data Protection Regulation) project and the associated integration into standard operation. This project gave rise to uniform processes and procedures for GDPR compliance. The introduction of the data protection management system and the data protection management organization has thus established the infrastructure for implementing and complying with data protection requirements at Volkswagen AG. Increasing digitalization and interconnectedness of business processes, new planned legislation with data protection relevance and the sharp rise in the extent of international data protection legislation continue to require a high level of attention if ongoing compliance with data protection requirements is to be ensured. Continuously raising awareness among the workforce and further standardizing and automating processes remain the focus of activities. Going forward, compliance requirements will be already built into the design of IT solutions and infrastructure decisions.

ENVIRONMENTAL STRATEGY

As one of the largest automobile manufacturers, Volkswagen takes responsibility for the environmental impact of its activities. Based on the new Group strategy NEW AUTO, we have put further focus on our ambitious environmental targets. With our environmental mission statement goTOzero, we aspire to minimize environmental impact along the entire life cycle – from raw material extraction until end-of-life – for all our products and mobility solutions in order to keep ecosystems intact and to exert a positive influence on society. Compliance with environmental regulations, standards and voluntary commitments is a basic prerequisite of our actions.

Our focus is on four prioritized action areas:

> Climate change. We are committed to the Paris Climate Agreement, which aims to keep the increase in global temperature by 2050 to well below two degrees Celsius. By 2025, we plan to reduce the greenhouse gas emissions of our passenger cars and light commercial vehicles by 30% over the total life cycle compared with 2015. In addition, the Company has set a target of a 30% reduction by 2030 compared with 2018, not including emissions offsetting. This decarbonization target has been validated by the Science Based Targets Initiative. We use the decarbonization index to document our progress. We intend to become a net-carbon-neutral company by 2050.

> Resources. We intend to reduce production-related environmental impact, maximize our resource efficiency and promote circular economy approaches in the areas of materials, energy and water.

> Air quality. We are driving e-mobility forward with the intention of improving the local air quality.

> Environmental compliance. Where integrity is concerned, we aim to become a role model for a modern, transparent and successful enterprise by taking into account the environmental impact of our mobility solutions over all stages of the life cycle. To this end, we use effective management systems, the effectiveness of which is monitored regularly.

We have defined a strategic indicator that aligns with our existing and future strategic direction:

> the decarbonization index (DKI). The DKI measures the emissions of CO_2 and CO_2 equivalents (jointly referred to as CO_2e) by the passenger car- and light commercial vehicle-

producing brands in the regions of Europe (EU27, United Kingdom, Norway and Iceland), China and the USA over the entire life cycle. In this index, the use phase is calculated over 200,000 km and with reference to region-specific fleet values without statutory flexibilities. The CO_2e intensity of the charging current of the electric vehicles is also calculated based on region-specific electricity mixes. Our vehicle life cycle assessments, which are used as the data basis for calculating supply chain and recycling emissions, have been verified externally and independently in accordance with ISO 14040. The DKI gives us an informative measuring tool that makes our progress and interim results public and verifiable. The DKI calculation methodology is regularly adapted according to internal and external requirements, such as new test cycles for fleet emissions. Published DKI values can therefore also be adjusted to the new methodology and thus changed to facilitate the presentation of a time series that is methodologically consistent. In 2021, the methodology was adjusted to the WLTP test cycle for fleet emissions. By 2030, the DKI is to be reduced by 30% compared with the base year 2018 (NEDC), and emissions offsetting will not be included in the figure. In the reporting year, the DKI value averaged 45.9 t CO_2e/vehicle. This represents a reduction of 1.7 t CO_2e/vehicle compared with the WLTP-adjusted figure for 2020.

Organization of environmental protection

Volkswagen has created an environmental policy that sets out guidelines for environmental decision-making, for the management of projects and for the Group's environmental stewardship. Thus, parameters are set for the conduct and working methods of management and staff in five areas: management behavior, compliance, environmental protection, collaboration with stakeholders and continuous improvement.

The Board of Management of Volkswagen AG is the highest internal decision-making body for environmental issues. Both it and the brands' boards of management take business, social and environmental criteria into account when making key company decisions. The Group-wide management of environmental protection is the responsibility of the Group Steering Committee for the Environment and Energy. Other bodies take responsibility for steering key individual aspects. They include the Group CO_2 Steering Committee, the Group Steering Committee for Fleet Compliance and Exhaust Gas, and the Group Sustainability Steering Committee.

The Volkswagen Group coordinates the activities of the brands, which in turn steer the measures in the regions. The brands and companies are responsible for their own environmental organization. They base their own environmental protection activities on the targets, guidelines and principles that apply throughout the Group.

Our declared aim is to comply with legal and regulatory requirements. Furthermore, we are guided by company standards and targets. The intention of our environmental compliance management systems is to ensure that environmental aspects and obligations are taken into account in our business operations. Disregard for the rules is treated as a severe compliance violation, as are fraud and misconduct. Compliance with our Environmental Policy Statement and with other Group environmental requirements is evaluated annually and reported to the Board of Management of Volkswagen AG, the respective boards of management of the brands or the managing directors of the companies.

SEPARATE NONFINANCIAL GROUP REPORT

The combined separate nonfinancial report of Volkswagen AG and the Volkswagen Group in accordance with sections 289b and 315b *Handelsgesetzbuch* (HGB – German Commercial Code) for fiscal year 2021 will be available on the website https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2021/Nichtfinanzieller_Bericht_2021_d.pdf in German and at https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2021/Nonfinancial_Report_2021_e.pdf in English by no later than April 30, 2022.

REPORT ON POST-BALANCE SHEET DATE EVENTS

References to the Russia-Ukraine conflict can be found in the "Report on Expected Developments" and in the "Report on Risks and Opportunities".

We describe the hybrid note we called in the section entitled "Shares and Bonds".

For more information on the analysis of a possible IPO of Dr. Ing. h.c. F. Porsche AG, please refer to the section entitled "Events after the balance sheet date" in the notes to the consolidated financial statements.

EU Taxonomy

Doing business in an environmentally sustainable way is one of the central challenges of our time. The EU has defined criteria for determining the corporate degree of environmental sustainability. With our taxonomy-aligned investments in development activities and in property, plant and equipment, we are today already shaping our future in an environmentally sustainable way as envisaged by the EU taxonomy.

BACKGROUND AND OBJECTIVES

As part of the European Green Deal, the European Union (EU) has placed the topics of climate protection, the environment and sustainability at the heart of its political agenda in order to achieve climate neutrality by the year 2050. To this end, the EU Action Plan on financing sustainable growth was developed that aims to reorient capital flows towards sustainable investment, to mainstream sustainability in risk management and to foster transparency and long-termism in financial and economic activity. The Action Plan comprises ten measures and centres around the EU taxonomy (Regulation (EU) 2020/852 and associated delegated acts).

The EU taxonomy is a classification system for sustainable economic activities. An economic activity is considered taxonomy-eligible if it is listed in the EU taxonomy and can potentially contribute to realizing at least one of the following six environmental objectives:

> Climate change mitigation
> Climate change adaptation
> Sustainable use and protection of water and marine resources
> Transition to a circular economy
> Pollution prevention and control
> Protection and restoration of biodiversity and ecosystems.

An activity is only considered environmentally sustainable, i.e. taxonomy-aligned, if it meets all three of the following conditions:

> The activity makes a substantial contribution to one of the environmental objectives by meeting the screening criteria defined for this economic activity, e.g. level of CO_2 emissions for the climate change mitigation environmental objective.
> The activity meets the Do-No-Significant-Harm (DNSH) criteria defined for this economic activity. These are designed to prevent significant harm to one or more of the other environmental objectives, e.g. from the production process or by the product.
> The activity is carried out in compliance with the minimum safeguards, which apply to all economic activities and relate primarily to human rights and social and labor standards.

FIRST-TIME REPORTING FOR FISCAL YEAR 2021

Under the EU taxonomy, the Volkswagen Group is required to report on the climate change mitigation and climate change adaptation environmental objectives for the first time for fiscal year 2021; the disclosure requirements extend to the share of economic activities that are taxonomy-eligible and that are not taxonomy-eligible in sales revenue, capital expenditure and operating expenditure. The figures reported relate to the consolidated companies included in the Volkswagen Group's financial statements. Volumes and financial data for our Chinese joint ventures are therefore excluded. As the EU taxonomy is being applied for the first time, prior-year figures are not provided.

The wording and terminology used in the EU taxonomy are currently subject to some uncertainty in interpretation. Our interpretation is set out below.

In addition to the current disclosure obligations, we have voluntarily assessed our business activities for taxonomy alignment. We already report the relevant figures for passenger cars and light commercial vehicles, and for our hydrogen activities in the Power Engineering Business Area.

ECONOMIC ACTIVITIES OF THE VOLKSWAGEN GROUP

In its Group strategy NEW AUTO – Mobility for Generations to come, the Volkswagen Group is driving its transformation towards becoming one of the world's leading providers of sustainable mobility. We pay particular attention here to the use of resources and the emissions of our product portfolio, as well as those of our sites and plants.

The Volkswagen Group's activities in its vehicle-related business with passenger cars, light commercial vehicles, trucks, buses and motorcycles cover the development, production and sale of vehicles and extend to our financial services and other vehicle-related products and services. Activities in these areas are suited under the EU taxonomy to making a substantial contribution to the environmental objective of climate change mitigation by increasing clean or climate-neutral mobility.

The Volkswagen Group's activities in the Power Engineering Business Area comprise the development, design, production, sale and servicing of machinery and equipment. These activities also fall under the environmental objective of climate change mitigation.

The analysis of the economic activities in the context of the EU taxonomy has not revealed any activities that contribute specifically to the environmental objective of climate change adaptation.

The table below sets out the allocation of our activities in the vehicle-related business and in Power Engineering to the economic activities listed in the EU taxonomy under the environmental objective of climate change mitigation. Changes may be made to the economic activities in future as the rules around the EU taxonomy dynamically evolve.

Economic activity in accordance with the EU taxonomy	Description of economic activity	Allocation in the Volkswagen Group
Environmental objective: mitigating climate change		
3. Manufacturing		
3.2 Manufacture of equipment for the production and use of hydrogen	Manufacture of equipment for the production and use of hydrogen.	Power Engineering
3.3 Manufacture of low-carbon technologies for transport	Manufacture, repair, maintenance, retrofitting, repurposing and upgrade of low-carbon vehicles, rolling stock and vessels.	Vehicle-related business
3.6 Manufacture of other low-carbon technologies	Manufacture of technologies aimed at substantial greenhouse gas emission reductions in other sectors of the economy, where those technologies are not covered by other economic activities in the manufacturing sector.	Power Engineering
9. Professional, scientific and technical activities		
9.1 Close to market research, development and innovation	Research, applied research and experimental development of solutions, processes, technologies, business models and other products dedicated to the reduction, avoidance or removal of greenhouse gas emissions for which the ability to reduce, remove or avoid greenhouse gas emissions in the target economic activities has at least been demonstrated in a relevant environment, corresponding to at least Technology Readiness Level 6.	Power Engineering

Economic activities in vehicle-related business

Economic activity 3.3 Manufacture of low-carbon technologies for transport

We allocate all activities in our vehicle-related business associated with the development, production, sale (including financial services), operation and servicing of vehicles to this economic activity. This includes all passenger cars, light commercial vehicles, trucks, buses and motorcycles manufactured by us, irrespective of their powertrain technology, and also includes genuine parts.

In our vehicle-related business, we have detailed the vehicles manufactured by us by model and powertrain technology and analyzed the CO_2 emissions associated with them in accordance with the WLTP. In this way, we have identified those vehicles among all of our taxonomy-eligible vehicles that meet the screening criteria and with which the substantial contribution to climate change mitigation is measured. These include all of the Volkswagen Group's all-electric vehicles. Until December 31, 2025, they also include passenger cars and light commercial vehicles with CO_2 emissions of less than 50 g/km. This encompasses the majority of our plug-in hybrids. Buses meeting the EURO VI standard (Stage E) are also included until December 31, 2022.

At this stage, other activities that are directly associated with the primary vehicle-related business and that in our view should also be allocated to this economic activity have not yet been included or have been interpreted as not yet being taxonomy-eligible. This is because, as the rules of the EU taxonomy currently stand, it is still unclear where to record them in accordance with the EU taxonomy. These activities particularly include the sale of engines and powertrains, as well as parts deliveries, the sale of non-Group products and production under license by third parties. Hedging transactions and individual activities that we present primarily under Other sales revenue in the consolidated financial statements do not conform to the descriptions of economic activities in the EU taxonomy, and we have therefore initially classified them as not being taxonomy-eligible.

Economic activities in Power Engineering

In the Power Engineering Business Area, we have analyzed our activities with respect to their classification under the EU taxonomy and, with the exception of the heavy fuel oil engine new building business and individual components for the extraction and processing of fossil fuels, have identified them as taxonomy-eligible.

Economic activity 3.2 Manufacture of equipment for the production and use of hydrogen

Our activities relating to the manufacture of equipment for the production and use of hydrogen that meet the screening criteria and make a substantial contribution to the climate change objective are taxonomy-eligible. One example is the use of green hydrogen. At Volkswagen, these include the power-to-X technology for the production of low-carbon or carbon-neutral synthetic fuels, as well as components for the storage of hydrogen.

Economic activity 3.6 Manufacture of other low-carbon technologies

The description of this economic activity means that only those technologies manufactured for the purpose of reducing greenhouse gas emissions substantially in other sectors of the economy are taxonomy-eligible. At Volkswagen, this comprises all new-build activities that enable the use of gas and climate-neutral synthetic fuels (e.g. manufacturing of gas and dual-fuel engines), all industrial solutions for energy storage and sector coupling (e.g. heat pumps) and all solutions for carbon capture, storage and usage; it also includes subsea compression (subsea compression close to the wellhead for the extraction of natural gas). These activities are rounded off by the service and after-sales business, comprising the upgrading and modernization of existing equipment. For example, we retrofit existing maritime fleets with technology that makes it possible to reduce CO_2 emissions.

Economic activity 9.1 Close to market research, development and innovation

The description of this economic activity includes applied research in technologies for the reduction or avoidance of greenhouse gas emissions. We allocate our licensing business to this economic activity. This business provides our development services in the form of production documents, based on which our licensees are authorized to manufacture corresponding gas and/or dual-fuel engines.

For economic activity 3.2 Manufacture of equipment for the production and use of hydrogen, we meet the screening criteria that are a requirement for the substantial contribution to the climate change mitigation objective. Given that the new reporting obligations and the requirements specified therein have only very recently been introduced, it was not yet possible to provide corresponding proof of economic activities covered by 3.6 Manufacture of other low-carbon technologies and 9.1 Close to market research, development and innovation.

DO NO SIGNIFICANT HARM (DNSH)

The DNSH criteria were analyzed in the reporting year for economic activities covered by 3.3 Manufacture of low-carbon technologies for transport and 3.2 Manufacture of equipment for the production and use of hydrogen.

In the vehicle-related business, an analysis was performed for each vehicle production site where passenger cars, light commercial vehicles, trucks and buses are or will be produced that meet the screening criteria for the substantial contribution of economic activity 3.3 Manufacture of low-carbon technologies for transport, or that are to meet them in future according to our five-year planning. Of the approximately 30 sites included, the majority are located in the EU, with some in the United Kingdom, Turkey, the USA, Mexico, Brazil and China.

For the Power Engineering Business Area, an analysis was performed for each site that produces relevant components for systems or is responsible for supply chains that meet the screening criteria for the substantial contribution of economic activity 3.2 Manufacture of equipment for the production and use of hydrogen, or that are to meet them in future according to our five-year planning. There are two such sites, located in Germany and Sweden.

Below, we set out our interpretation and describe the main analyses we used to examine whether there was any substantial harm to the other environmental objectives. The assessments confirm that we meet the requirements of the DNSH criteria in the reporting year for the sites producing passenger cars and light commercial vehicles. The outcome of the evaluation of the two Power Engineering sites was also positive.

Climate change adaptation

We performed a climate risk and vulnerability assessment to identify which production sites may be affected by physical climate risks. The physical climate risks we identified were assessed on the basis of the lifetime of the relevant fixed asset.

Volkswagen's climate-based DNSH assessment is based on Representative Concentration Pathway (RCP) scenario 8.5 to the year 2050 and thus assumes the highest concentration of CO_2 according to the Intergovernmental Panel on Climate Change (IPCC). The relevance of the identified threats was assessed for the local environment and, if appropriate, the measures needed to mitigate the risk were developed.

Sustainable use and protection of water and marine resources

We evaluated our economic activities with respect to the sustainable use and protection of water and marine resources looking at the three following criteria: preserving water quality, avoiding water stress, and an environmental impact assessment (EIA) looking at the impact on water, or a similar process. We based the analysis primarily on ISO 14001 certificates, the findings of official approval procedures and other external data sources in relation to regions exposed to increased risks.

Transition to a circular economy

Environmentally compatible waste management in the manufacturing process, reuse and use of secondary raw materials and a long product lifespan are a major part of Volkswagen's environmental management system. Volkswagen defines clear and unambiguous guidelines on the circular economy in its environmental principles, in its overall factory white paper and in its goTOzero strategy.

The product-related requirements for passenger cars and light commercial vehicles are reflected in the implementation of the statutory end-of-life vehicle requirements in conjunction with the type approval of the vehicle models. In addition to this, each brand has targets and measures for the use of recycled materials in new vehicles.

Pollution prevention and control

The DNSH criteria for this environmental objective require that the economic activity in question does not lead to substances listed in a variety of EU chemical regulations and directives being manufactured, placed on the market or used. Approval and monitoring processes are implemented with the aim of ensuring compliance with the legislation specified in the DNSH criteria.

Protection and restoration of biodiversity and ecosystems

In order to verify adherence to the requirements on biodiversity and ecosystems, the relevant areas were identified. Where biodiversity-sensitive areas are located close to a production site, we checked whether a nature conservation assessment had been performed and whether nature conservation measures had been defined in the environmental approvals and subsequently implemented.

MINIMUM SAFEGUARDS

The minimum safeguards consist of the OECD Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights, the Fundamental Conventions of the International Labour Organisation (ILO) and the International Bill of Human Rights. Below, we describe the main analyses we used to examine whether the minimum safeguards are adhered to.

The Volkswagen Group has 120 production sites in 83 countries, including those of the Chinese joint ventures. We conducted human rights risk assessments for 782 controlled Group companies worldwide; this included all sites that were also examined under the DNSH criteria.

For the risks identified in the analysis, the companies received risk-specific measures to be implemented by the end of 2021.

KEY PERFORMANCE INDICATORS IN ACCORDANCE WITH THE EU TAXONOMY REGULATION

The EU taxonomy defines sales revenue, capital expenditure and operating expenditure as the key performance indicators that must be reported on. Disclosures on taxonomy eligibility are mandatory for fiscal year 2021. We have voluntarily assessed our business activities for taxonomy alignment and already report the relevant figures for passenger cars and light commercial vehicles, and for our hydrogen activities in the Power Engineering Business Area.

The financial figures relevant for the Volkswagen Group are based on the IFRS consolidated financial statements for fiscal year 2021. Where possible, the figures have been directly assigned to an economic activity. In our vehicle-related business, for example, we compiled the financial figures based on the vehicle model and powertrain technology. This applies both to the vehicles themselves and to the corresponding financial services and other services and activities. Only where this was not possible for capital expenditure and operating expenditure, the figures were broken down using allocation formulas. In the vehicle-related business, we based the allocation formulas on the long-term sales plan and the capacity and utilization planning at the individual sites. In the Power Engineering Business Area, we used allocation formulas based on planned sales revenue. This data and planning form part of the medium-term financial planning for the next five years, on which the Board of Management and Supervisory Board have passed a resolution.

Sales revenue

The definition of turnover in the EU taxonomy corresponds to sales revenue as reported in the IFRS consolidated financial statements, which amounted to €250.2 billion in fiscal year 2021 (see also note 1 "Sales revenue" in the notes to the consolidated financial statements).

Of this total, €225.4 billion, or 90.1% of Group sales, was attributable to economic activity 3.3 Manufacture of low-carbon technologies for transport and classified as taxonomy-eligible. This includes sales revenue after sales allowances from new and used vehicles, including motorcycles, from genuine parts, from the rental and lease business, and from interest and similar income, as well as sales revenue directly related to vehicles, such as workshop and other services.

Of the taxonomy-eligible sales revenue, €21.3 billion meet the screening criteria used to measure the substantial contribution to climate change mitigation. This includes all of our all-electric vehicles, the majority of the plug-in hybrids, and the buses meeting the EURO VI standard (Stage E).

Taking into account the DNSH criteria and minimum safeguards, sales revenue of €21.1 billion attributable to our passenger cars and light commercial vehicles, accounting for 8.5% of consolidated sales revenue, was taxonomy-aligned. Of this amount, €14.6 billion, or 5.8% of consolidated sales revenue, was attributable to our all-electric models (BEVs).

In the Power Engineering Business Area, the majority of our taxonomy-eligible sales revenue was attributable to economic activity 3.6 Manufacture of other low-carbon technologies (€2.4 billion). A further €13 million was contributed by economic activity 9.1 Close to market research, development and innovation. Our activities that fall under economic activity 3.2 Manufacture of equipment for the production and use of hydrogen recorded taxonomy-aligned sales revenue of €5 million, taking into account the DNSH criteria and minimum safeguards.

Of the Volkswagen Group's total sales revenue in fiscal year 2021,

- €227.8 billion, or 91.0%, was taxonomy-eligible sales revenue and
- €21.2 billion, or 8.5%, was taxonomy-aligned sales revenue.

SALES REVENUE

Economic activities	Sales revenue € million	Sales revenue %[1]	Substantial contribution to climate change mitigation € million	Substantial contribution to climate change mitigation %[1]	Compliance with DNSH criteria Y/N	Compliance with minimum safeguards Y/N	Taxonomy-aligned sales revenue € million	Taxonomy-aligned sales revenue %[1]
A. Taxonomy-eligible activities	**227,787**	**91.0**	**21,268**	**8.5**	**Y/N**	**Y**	**21,152**	**8.5**
Vehicle-related business								
3.3 Manufacture of low-carbon technologies for transport	225,380	90.1	21,264	8.5	Y/N	Y	21,147	8.5
of which taxonomy-aligned BEVs (passenger cars and light commercial vehicles)	–	–	–	–	Y	Y	14,579	5.8
Power Engineering								
3.2 Manufacture of equipment for the production and use of hydrogen	5	0.0	5	0.0	Y	Y	5	0.0
3.6 Manufacture of other low-carbon technologies	2,390	1.0	–	–	–	–	–	–
9.1 Close to market research, development and innovation	13	0.0	–	–	–	–	–	–
B. Taxonomy-non-eligible activities	**22,413**	**9.0**						
Total (A + B)	**250,200**							

1 All percentages relate to the Group's total sales revenue.

Capital expenditure

Capital expenditure for the purposes of the EU taxonomy refers to the following items in the IFRS consolidated financial statements: additions to intangible assets, additions to property, plant and equipment, and additions to lease assets and investment property. These are reported in the notes to the 2021 consolidated financial statements in note 12 “Intangible assets”, note 13 “Property, plant and equipment” and note 14 “Lease assets and investment property”. Additions from business combinations, each of which is reported under “Changes in consolidated Group”, are also included. By contrast, additions to goodwill are not included in the calculation.

In fiscal year 2021, additions in the Volkswagen Group as defined above amounted to

> €9.1 billion from intangible assets,
> €10.7 billion from property, plant and equipment and
> €29.1 billion from lease assets (mainly vehicle leasing business) and investment property.

Additions from changes in the consolidated Group, which amounted to €5.1 billion in fiscal year 2021, can also be added to this figure. These mostly related to Navistar. Total capital expenditure to be included in accordance with the EU taxonomy therefore came to €54.0 billion.

All capital expenditure attributable to our vehicle-related business is associated with economic activity 3.3 Manufacture of low-carbon technologies for transport. Taxonomy-eligible capital expenditure for the vehicle-related business amounted to €53.5 billion, or 99.1% of the Group’s capital expenditure.

To determine the substantial contribution in the vehicle-related business, we compiled the financial figures based on the vehicle model and powertrain technology, in the same way as for sales revenue. Where possible, capital expenditure was directly attributed to vehicles. It was included, if the vehicles in question make a substantial contribution to the climate change mitigation objective. We did not include any capital expenditure directly attributable to vehicles that do not meet the screening criteria. Capital expenditure that was not clearly attributable to a particular vehicle was taken into account on a proportionate basis using allocation formulas. In our vehicle-related business, we used model- and brand-specific allocation formulas based on the long-term sales plan and the capacity and utilization planning for the Group companies. Depending on the primary business activity, allocation formulas from the long-term sales plan were used for sales companies, for example, and allocation formulas based on the capacity and utilization planning were used for production companies. This means that capital expenditure on sites that according to our medium-term planning will only produce vehicles meeting the screening criteria for the substantial contribution in the next five years was counted in full via the allocation formula. In contrast, capital expenditure on sites that only produce vehicles not meeting the screening criteria was not counted under the allocation formula. Calculated in this way, capital expenditure relating to vehicles that meet the screening criteria for the substantial contribution amounted to €14.4 billion.

Taking into account the DNSH criteria and minimum safeguards, capital expenditure of €14.2 billion on our passenger cars and light commercial vehicles was taxonomy-aligned. This represented 26.2% of the Group's total capital expenditure. This figure includes additions to capitalized development costs of €3.5 billion and additions to property, plant and equipment of €3.8 billion for our all-electric passenger cars and light commercial vehicles (BEVs).

Taxonomy-eligible capital expenditure in the Power Engineering Business Area has been allocated to economic activity 3.6 Manufacture of other low-carbon technologies. Capital expenditure was broken down based on planned sales revenue. Taxonomy-eligible capital expenditure amounted to €65 million.

Of the Volkswagen Group's total capital expenditure in fiscal year 2021,

> €53.6 billion, or 99.2%, was taxonomy-eligible capital expenditure and

> €14.2 billion, or 26.2%, was taxonomy-aligned capital expenditure.

CAPITAL EXPENDITURE

	CAPITAL EXPENDITURE		SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION		COMPLIANCE WITH DNSH CRITERIA	COMPLIANCE WITH MINIMUM SAFEGUARDS	TAXONOMY-ALIGNED CAPITAL EXPENDITURES	
Economic activities	€ million	%[1]	€ million	%[1]	Y/N	Y/N	€ million	%[1]
A. Taxonomy-eligible activities	**53,596**	**99.2**	**14,437**	**26.7**	**Y/N**	**Y**	**14,165**	**26.2**
Vehicle-related business								
3.3 Manufacture of low-carbon technologies for transport	53,531	99.1	14,437	26.7	Y/N	Y	14,165	26.2
of which additions to capitalized development costs for BEVs (passenger cars and light commercial vehicles)	–	–	–	–	Y	Y	3,504	6.5
of which additions to property, plant and equipment for BEVs (passenger cars and light commercial vehicles)	–	–	–	–	Y	Y	3,760	7.0
Power Engineering								
3.2 Manufacture of equipment for the production and use of hydrogen	–	–	–	–	–	–	–	–
3.6 Manufacture of other low-carbon technologies	65	0.1	–	–	–	–	–	–
9.1 Close to market research, development and innovation	–	–	–	–	–	–	–	–
B. Taxonomy-non-eligible activities	**443**	**0.8**						
Total (A + B)	**54,039**							

1 All percentages relate to the Group's total capital expenditure.

Operating expenditure

The operating expenditure reported by us for the purposes of the EU taxonomy comprises non-capitalized research and development costs, which can be taken from note 12 “Intangible assets”. We also include the expenditure for short-term leases recognised in our consolidated financial statements, which can be found in note 33 “IFRS 16 (Leases)”, and expenditure for maintenance and repairs.

The allocation of operating expenditure to the economic activities followed the same logic as that described for capital expenditure.

All operating expenditure attributable to the vehicle-related business is associated with economic activity 3.3 Manufacture of low-carbon technologies for transport and has been classified as taxonomy-eligible.

Where possible, non-capitalized research and development costs were directly attributed to vehicles. It was included, if the vehicles in question make a substantial contribution to the climate change mitigation objective. We did not include any non-capitalized research and development costs directly attributable to vehicles that do not meet the screening criteria. Non-capitalized research and development costs that were not clearly attributable to a particular vehicle were taken into account on a proportionate basis using allocation formulas. For these and other operating expenses, the same allocation formulas were used as for capital expenditure.

Taxonomy-eligible operating expenditure in the Power Engineering Business Area falls under economic activity 3.6 Manufacture of other low-carbon technologies. As with capital expenditure, operating expenditure was broken down on the basis of planned sales revenue.

OPERATING EXPENDITURE

	OPERATING EXPENDITURE		SUBSTANTIAL CONTRIBUTION TO CLIMATE CHANGE MITIGATION		COMPLIANCE WITH DNSH CRITERIA	COMPLIANCE WITH MINIMUM SAFEGUARDS	TAXONOMY-ALIGNED OPERATING EXPENDITURES	
Economic activities	€ million	%[1]	€ million	%[1]	Y/N	Y/N	€ million	%[1]
A. Taxonomy-eligible activities	**9,911**	**99.2**	**3,463**	**34.7**	**Y/N**	**Y**	**3,265**	**32.7**
Vehicle-related business								
3.3 Manufacture of low-carbon technologies for transport	9,702	97.1	3,463	34.7	Y/N	Y	3,265	32.7
Power Engineering								
3.2 Manufacture of equipment for the production and use of hydrogen	–	–	–	–	–	–	–	–
3.6 Manufacture of other low-carbon technologies	209	2.1	–	–	–	–	–	–
9.1 Close to market research, development and innovation	–	–	–	–	–	–	–	–
B. Taxonomy-non-eligible activities	**81**	**0.8**						
Total (A + B)	**9,992**							

1 All percentages relate to the Group’s total operating expenditure.

Report on Expected Developments

The global economy is expected to continue growing overall in 2022, albeit at a somewhat lower level. Global demand for passenger cars will probably vary from region to region and increase moderately year-on-year. With our brand diversity, broad product range, technologies and services, we believe we are well prepared for the future challenges in the mobility business.

In the following, we describe the expected development of the Volkswagen Group and the general framework for its business activities. Risks and opportunities that could represent a departure from the forecast trends are presented in the Report on Risks and Opportunities.

Our assumptions are based on current estimates by third-party institutions. These include economic research institutes, banks, multinational organizations and consulting firms.

DEVELOPMENTS IN THE GLOBAL ECONOMY

Our planning is based on the assumption that global economic output will continue to grow in 2022, albeit at a somewhat lower level overall, after the recovery observed in the past fiscal year – provided that the Covid-19 pandemic does not flare up again and that shortages of intermediates and commodities become less intense. We continue to believe that risks will arise from protectionist tendencies, turbulence in the financial markets and structural deficits in individual countries. In addition, growth prospects will be negatively impacted by ongoing geopolitical tensions and conflicts, with risks arising especially from the Russia-Ukraine conflict. We assume that both the advanced economies and the emerging markets will experience positive momentum.

Furthermore, we are forecasting that the global economy will also continue to grow in the period from 2023 to 2026.

Europe/Other Markets

In Western Europe, we expect comparatively robust economic growth, exceeding the 2019 pre-crisis level. The widespread impact of the Covid-19 pandemic and the uncertain consequences of the United Kingdom's exit from the EU will fundamentally pose major challenges.

We likewise anticipate relatively robust growth rates in Central Europe in 2022. Economic output in Eastern Europe is also expected to continue growing – subject to the further development of the Russia-Ukraine conflict – though at a somewhat slower pace, similar to the Russian economy.

For Turkey we expect markedly positive, albeit slower growth than in the reporting period given high inflation and a weak local currency. The South African economy will probably be dominated by political uncertainty and social tensions again in 2022 resulting from high unemployment, among other factors. Here we anticipate only moderate growth.

Germany

We expect gross domestic product (GDP) in Germany to grow at a significantly positive pace in 2022, comparatively speaking, exceeding the 2019 pre-crisis level. The labor market situation is likely to improve further in 2022.

North America

We anticipate comparatively high economic growth in the USA in 2022 with a continued recovery of the labor market situation. The US Federal Reserve expects interest rates to rise in the course of the year, albeit at a relatively low level. Further inflationary trends and developments in the labor market will play a key role as decisive factors for possible adjustments to the key interest rate. Economic growth in Canada is also likely to be significantly positive, comparatively speaking, while growth in Mexico is expected to be moderate.

South America

In all probability, the Brazilian economy will record a moderately positive rate of growth in 2022. The economic situation in Argentina is likely to improve slightly amid continued very high inflation and depreciation of the local currency.

Asia-Pacific

The Chinese economy will probably continue growing at a relatively high level in 2022. We also expect a relatively high rate of expansion for the Indian economy in 2022. A robust rise in economic output is anticipated in Japan.

TRENDS IN THE MARKETS FOR PASSENGER CARS AND LIGHT COMMERCIAL VEHICLES

We predict that trends in the markets for passenger cars in the individual regions will be mixed in 2022. Overall, the global volume of new vehicle sales is expected to be moderately up on the prior year without reaching the pre-pandemic level. This prediction assumes that the Covid-19 pandemic does not flare up again and that shortages of intermediates, especially semiconductors, and commodities become less intense. We are forecasting growing demand for passenger cars worldwide in the period from 2023 to 2026.

Trends in the markets for light commercial vehicles in the individual regions will also be mixed; on the whole, we anticipate a slight increase in the sales volume for 2022. This assumes that the Covid-19 pandemic does not flare up again and that shortages of intermediates, especially semiconductors, and commodities become less intense. For the years 2023 to 2026, we expect demand for light commercial vehicles to increase globally.

We believe we are well prepared overall for the future challenges pertaining to automotive business activities and for the mixed development of the regional automotive markets. Our brand diversity, our presence in all major world markets, our broad and selectively expanded product range, and our technologies and services put us in a good competitive position worldwide. With electric drives, digital connectivity and autonomous driving, we want to make the automobile cleaner, quieter, more intelligent and safer. We have set ourselves the goal of continuing to excite our customers in the future and meeting their diverse needs with an appealing product portfolio of impressive vehicles and forward-looking, tailor-made mobility solutions.

Europe/Other Markets

For 2022, we anticipate that the volume of new passenger car registrations in Western Europe will be distinctly above that recorded in the reporting period. At the same time, however, the possible impact of the pandemic and the still uncertain consequences of the United Kingdom's exit from the EU may result in ongoing uncertainty among consumers and dampen demand. Limited vehicle availability as a result of the semiconductor shortage may also continue to weigh on the volume of new registrations. Nevertheless, we assume a significant increase for the United Kingdom and Spain in 2022. In France and Italy, there will probably be a slight or moderate increase respectively in the volume of new registrations compared to the reporting period.

For light commercial vehicles, we expect the volume of new registrations in Western Europe in 2022 to be moderately up on the previous year's level despite the possible impact of the pandemic, continuing supply bottlenecks for semiconductors and the still uncertain consequences of the United Kingdom's exit from the EU. We predict a moderate to noticeable increase in the United Kingdom, Spain and France and a slight decline in Italy.

Sales of passenger cars in 2022 are expected to distinctly exceed the prior-year figures in markets in Central and Eastern Europe – subject to the further development of the Russia-Ukraine conflict. In the region's other markets, a slight to significant rise in the number of new registrations is expected.

Registrations of light commercial vehicles in 2022 are expected to slightly exceed the prior-year figures in markets in Central and Eastern Europe – subject to the further development of the Russia-Ukraine conflict.

The volume of new registrations for passenger cars in Turkey in 2022 is projected to be significantly above the previous year's level. In South Africa, the market volume in 2022 is likely to be up moderately year-on-year.

The volume of new registrations for light commercial vehicles in 2022 is expected to be significantly higher in Turkey and moderately higher in South Africa compared with the respective prior–year figure.

Germany

In the German passenger car market, we expect the volume of new registrations in 2022 to distinctly exceed the prior-year figure.

We also anticipate that the number of registrations of light commercial vehicles will be moderately up on the previous year.

North America

The sales volume in the markets for passenger cars and light commercial vehicles (up to 6.35 tonnes) in North America as a whole and in the USA in 2022 is likely to be slightly higher than the previous year's level. Demand will probably remain highest for models in the SUV and pickup segments. In Canada, the number of new registrations is projected to be moderately higher than the previous year's level. For Mexico we also expect a moderate increase in new registrations compared with the reporting period.

South America

Owing to their dependence on demand for raw materials worldwide, the South American markets for passenger cars and light commercial vehicles are heavily influenced by developments in the global economy. We anticipate a distinct increase overall in new registrations in the South American markets in 2022 compared with the previous year. The market volume in Brazil is also expected to grow distinctly compared with 2021. We anticipate that the volume of new registrations in Argentina will also be distinctly higher year-on-year.

Asia-Pacific

The passenger car markets in the Asia-Pacific region are expected to be slightly up on the prior-year level in 2022. We estimate that the market volume in China will also be slightly higher than the comparative figure for 2021. Attractively priced entry-level models in the SUV segment in particular should still see strong demand. As long as there is no resolution in sight, the trade dispute between China and the United States is likely to continue to weigh on business and consumer confidence. We anticipate that the Indian market will perform at the previous year's level. Japan should see distinct growth in market volume in 2022.

The volume of new registrations for light commercial vehicles in 2022 will probably be slightly higher than the previous year's figure. We are expecting demand in the Chinese market to be on a level with the prior year. For India, we are forecasting a distinctly higher volume in 2022 than in the reporting period. In the Japanese market, we estimate that volumes will be slightly up year-on-year.

TRENDS IN THE MARKETS FOR COMMERCIAL VEHICLES

Since July 1, 2021, Navistar has been a TRATON GROUP brand, making it part of the Volkswagen Group's Commercial Vehicles Business Area. This has broadened the relevant markets in the commercial vehicles business, both for trucks and for the school bus segment, which expanded to include North America (consisting of USA, Canada and Mexico).

For 2022, we expect a significantly positive development in new registrations for mid-sized and heavy trucks with a gross weight of more than six tonnes compared with the previous year, with variations from region to region, in the markets that are relevant for the Volkswagen Group.

Noticeable market growth is expected for the 27 EU countries excluding Malta, but plus the United Kingdom, Norway and Switzerland (EU27+3) because it has so far not been possible to fully satisfy the high demand for trucks due to existing supply bottlenecks. We anticipate that Turkey will witness a distinct rebound in demand and there will be a moderate increase in demand in South Africa. The truck market in North America is divided into weight classes 1 to 8. We expect a profound increase in new registrations in the segments relevant for Volkswagen – Class 6 to 8 (8.85 tonnes or heavier). We estimate that demand in Brazil will be noticeably higher than in the previous year.

On average, we anticipate slight growth rates in the relevant truck markets for the years 2023 to 2026.

A significant increase in overall demand, with regional variations, is expected for 2022 in the bus markets relevant for the Volkswagen Group. We anticipate slight year-on-year market growth in the EU27+3 countries. Here, we are assuming that the coach segment will start to recover and that we will receive orders in the context of government-funded programs. We expect significant growth in North America. New registrations in Brazil are anticipated to be substantially higher than the prior-year figure.

Overall, we expect a moderate increase in the demand for buses in the relevant markets for the period from 2023 to 2026.

TRENDS IN THE MARKETS FOR POWER ENGINEERING

In the Power Engineering segment, we expect the market environment to remain difficult in 2022. The course of the Covid-19 pandemic thus far and its consequences are resulting in continued uncertainty.

The 2022 market volume for merchant shipping is expected to dip below the level of the reporting year. Despite an expected higher volume of sea trade, combined with calls for high energy efficiency and low pollutant emissions, the market is anticipated to be slightly below the prior-year level due to high order figures in 2021 and the associated shipyard capacity utilization. By contrast, the market areas excluding merchant shipping are expected to reach a slightly higher level than in 2021. Following the recommencement of international travel, demand for cruise ships is forecast to improve slightly from the low level of the reporting year. The passenger ferry market is also expected to grow slightly. We are anticipating stable demand for government vessels. In the offshore sector, new order volumes for special applications such as offshore wind look set to be on the low side due to continued overcapacity. Overall, we expect the marine market to be at a slightly lower level than that seen in the reporting year with competitive pressure continuing.

The global spread of the Covid-19 pandemic and the measures taken to contain it have reduced demand for energy and made it harder to raise capital for investment in power generation plants. Uncertainty surrounding climate-neutral power generation and the route to achieving this goal can also be seen. The ultimate aim is to invest in future-proof power generation plants. Despite this impact and uncertainty on the power generation markets, we expect the trend toward decentralized future-proof power stations and gas-based applications to further intensify. In addition, demand for new and carbon-neutral technologies should continue to increase in future.

With regard to the market development for conventional power generation plants, we are anticipating a slow recovery of what has been a very weak order situation for many years, with increasing investment in power generation using biomass and natural gas as transitional energy sources. Consequently, we are assuming a slight increase in demand for steam and gas turbines. Growth in the power generation market will be driven by renewable energy in particular. The irregularity of power produced in this way will require an increase in storage capacity, which will result in a corresponding expansion of the market for turbocompressors and turboexpanders.

We are expecting good demand for turbomachinery in 2022 due to catch-up capital expenditure and strong demand for raw materials amid rising prices. It is expected that the production plants of market participants will be well utilized. This should result in a relaxation of the competition which had been intensified by the pandemic.

In 2022, we anticipate a slight recovery in the after-sales business for both diesel engines and turbomachinery. There may be a temporary catch-up effect in order intake following the postponement of projects over the past two years.

For the period 2023 to 2026, we expect to see growing demand in the power engineering markets. However, the extent and timing of this growth will vary in the individual business fields. It remains to be seen for how long the pandemic will continue to affect the market.

TRENDS IN THE MARKETS FOR FINANCIAL SERVICES

We anticipate that automotive financial services will prove highly important to global vehicle sales in 2022, particularly in the context of the ongoing challenges posed by the Covid-19 pandemic and limited vehicle availability as a result of the semiconductor shortage. We expect demand to rise in emerging markets where market penetration has so far been low. Regions with already established automotive financial services markets will probably see a continuation of the trend towards enabling mobility at the lowest possible total cost. Integrated end-to-end solutions, which include mobility-related service modules such as insurance and innovative packages of services, are likely to become increasingly important for this. Additionally, we expect that demand will increase for new forms of mobility, such as rental and car subscription (*Auto-Abo*) services, and for integrated mobility services, for example parking, refueling and charging, and that the shift initiated in the European financial services business with individual customers from financing to lease contracts will continue. Especially in the Chinese market, we anticipate an increase in the importance of direct business between manufacturers and customers. The seamless integration of financial services into the online vehicle offering will take on increasing importance in efforts to promote this type of business. We estimate that this trend will also persist in the years 2023 to 2026.

In the mid-sized and heavy commercial vehicles category, we anticipate rising demand for financial services products in emerging markets. In these countries in particular, financing solutions support vehicle sales and are thus an essential component of the sales process. In the developed markets, we expect to see increased demand for telematics services and services aimed at reducing total cost of ownership in 2022. This trend is also expected to persist in the period 2023 to 2026.

EXCHANGE RATE TRENDS

In 2021, the euro appreciated slightly against the US dollar on an annual average, but fell slightly against sterling. Here, the new EU-UK Trade and Cooperation Agreement continued to cause uncertainty. The euro appreciated against the currencies of some emerging markets, in some cases considerably. In particular, the Argentinian peso, Turkish lira, Brazilian real and Russian ruble lost value against the European single currency. The South African rand, Chinese renminbi and Mexican peso appreciated year-on-year against the euro. The currencies of some Asian emerging markets weakened against the euro on an annual average. For 2022, our planning anticipates that the euro will strengthen somewhat against the US dollar, pounds sterling and the Chinese renminbi. We assume that the Argentinian peso, Brazilian real, Mexican peso, South African rand, Russian ruble and Turkish lira will depreciate further. As a result of the Russia-Ukraine conflict, we expect additional pressure on the Russian currency. For 2023 to 2026, we expect that the euro will be stable against the key currencies, while the comparative weakness of the currencies in the aforementioned emerging markets will probably continue. However, there is still a general event risk, defined as the risk arising from unforeseen market developments.

INTEREST RATE TRENDS

The challenging macroeconomic conditions, particularly as a result of the ongoing Covid-19 pandemic, resulted in interest rates around the world remaining very low in relative terms in fiscal year 2021. National central banks in the major Western industrialized nations made hardly any adjustments to their key interest rates, while in contrast they were increased in several emerging markets. The US Federal Reserve and the European Central Bank left their key interest rates at a low level. While the Bank of England already implemented a first increase in rates at the end of 2021, the US Federal Reserve expects rate hikes in 2022. With monetary policy remaining relatively expansionary, we expect a gradual departure from the existing measures in 2022. Changes in key interest rates will depend to a considerable extent on inflationary trends in the individual countries. Whether the higher inflation rates currently being seen in many countries are judged to be temporary or lasting will be crucial here. Base effects resulting from the Covid-19 pandemic and disruption to supply chains could be seen as grounds to assume that they are a temporary phenomenon. We expect interest rates to increase slightly for the years 2023 to 2026.

COMMODITY PRICE TRENDS

The global spread of the SARS-CoV-2 virus has also affected commodity markets. As a result of the imbalance between supply and demand both during the pandemic and during economic recovery the increase in the price of many raw and input materials was very high in relative terms during 2021. Compared with the previous year, there was a rise in the average prices of the commodities coking coal, lithium, crude oil, cobalt, copper, iron ore, natural rubber, aluminum, nickel and lead. The price of the precious metals platinum and palladium, and especially of rhodium, also rose on average over the year. Based on analyses of factors of influence and of trends in the commodity markets, we expect the prices of most commodities to continue to increase in 2022. There is a risk that this will be exacerbated as a result of the Russia-Ukraine conflict. For the years 2023 to 2026, we anticipate continued volatility in the commodity markets with prices trending both upwards and downwards.

NEW MODELS IN 2022

The Volkswagen Passenger Cars brand will add the crossover derivative ID.5 to its ID. family in 2022. A locally produced version of this model tailored to the North American market will be available in this region. The successful T-Roc series will undergo extensive updating. In China, the next generation of the Lamando will be launched. The portfolio of vehicles with conventional powertrains, ranging from the Bora, Lavida and Sagitar saloons to the Tayron, Teramont and Viloran SUVs, will be comprehensively revamped. Product upgrades are also planned in South America in the Polo, Jetta and Virtus series. A local version of the Virtus will additionally be brought out in India for the first time.

Audi's flagship A8 will be updated in 2022 and the R8 series will get a rear-wheel drive derivative. The electrification campaign will be continued; in China, Audi will bring out a new vehicle based on the Modular Electric Drive Toolkit (MEB). The Q4 e-tron and e-tron GT models will also be launched in China. With the A7L, Audi will bring out the first vehicle produced together with new joint venture partner SAIC.

The ŠKODA brand will expand its Enyaq series by adding a sporty top-of-the range model as well as a completely new crossover derivate. The Karoq will be updated. ŠKODA will also live up to its role as an important brand in growth markets and will launch a new notchback saloon called the Slavia in India.

Porsche will supplement its Taycan model range in 2022 with a new body style. The 718 Cayman series will be rounded off with a sporty derivative. New derivatives will also be launched in the 911 family.

Bentley will bring out a plug-in hybrid version of its new Flying Spur starting in 2022 and expand the Bentayga series.

Lamborghini will top off the Aventador range with the Ultimae and also expand the range of the successful Urus.

In 2022, Volkswagen Commercial Vehicles will launch the long-awaited ID. Buzz, a state-of-the-art all-electric vehicle that will be available in both a passenger and a cargo version. In addition, the cooperation with Ford will produce the next generation of the Amarok.

Scania will be the first brand of the TRATON GROUP to introduce the Group-wide 13-liter drive in a large number of models in 2022.

MAN aims to expand its portfolio of battery electric trucks by adding heavy-duty models for long-haul use. It plans to expand deliveries of the battery electric e-Delivery model presented in fiscal year 2021.

Navistar will also work on electrifying its model variants in 2022 and systematically align its models with customer needs.

Motorcycles Ducati will bring onto the market in 2022 include the new Multistrada V2 and the Multistrada V4 Pikes Peak. The Ducati Streetfighter family will be enriched by the new Streetfighter V2 and Streetfighter V4 SP models. The Scrambler 1100 Tribute PRO and the Scrambler Urban Motard will also be launched. Furthermore, the Italian motorcycle manufacturer is bringing out a completely new model – the Ducati Desert X.

INVESTMENT AND FINANCIAL PLANNING

To meet people's needs for individual, sustainable, fully connected mobility and thus increase the Volkswagen Group's future viability, we will continue to mobilize our strengths in innovation and technology and push the Volkswagen Group's transformation into a software-centric mobility provider while leveraging our economies of scale and maximizing synergies.

In our current planning for 2022, most of the capex (investments in property, plant and equipment, investment property and intangible assets, excluding capitalized development costs) will be spent on new products and the electrification of our model portfolio as well as further development of the modular toolkits, such as the all-electric platform for our volume brands – the Modular Electric Drive Toolkit (MEB) – and those for our premium and sports brands – the Premium Platform Electric (PPE) –, which are currently being rolled out throughout the Group. In addition, the Scalable Systems Platform (SSP) marks the development of a successor platform, which will bundle the requirements of the volume, premium and luxury brands and generate high levels of synergy in the future. We will also focus on the growing digitalization of our vehicles and sites and increase our capital expenditure on these. Moreover, we are investing in the gradual conversion of our locations for the production of electric vehicles and in the creation of battery manufacturing capacity with the aim of establishing a battery supply chain under our own control. The Automotive Division's ratio of capex to sales revenue is expected to fluctuate around a level of around 5.5%.

Besides capex, investing activities will also cover additions to capitalized development costs. Among other things, these reflect upfront expenditures in connection with updating the model range as well as electrification and digitalization. Also included are the services of CARIAD, which is developing a standardized operating system for Group brand vehicles, along with other projects.

With the investments in our facilities and models, as well as in the development of electric drives and modular toolkits and in digitalization, we are laying the foundations for profitable, sustainable growth at Volkswagen. These investments also include commitments arising from decisions taken in previous fiscal years.

We aim to finance the investments in our Automotive Division from our own capital resources and expect cash flows from operating activities to exceed the Automotive Division's investment requirements. For 2022, we anticipate that cash outflows resulting from the diesel issue will rise and mergers and acquisitions will be on a level with the previous year. Including any cash outflows in connection with the EU antitrust proceedings against Scania, we expect the net cash flow to be in the same range as in the previous year.

In 2022, net liquidity in the Automotive Division is anticipated to be up to 15% higher than the previous year's level.

These plans are based on the Volkswagen Group's current structures.

Our equity-accounted joint ventures in China are not included in the figures above. For 2022, these joint ventures plan to invest in e-mobility, further optimization of the model portfolio, the development of new mobility solutions and digitalization. Their capex will probably exceed the 2021 level and be financed from the companies' own funds.

In the Financial Services Division, we are planning higher investments in 2022 than in the previous year. We expect the development of lease assets and of receivables from leasing, customer and dealer financing to lead to funds tied up in working capital, of which around half will be financed from the gross cash flow. As is common in the sector, the remaining funds needed will be met primarily through unsecured bonds on the money and capital markets, the issuing of asset-backed securities, customer deposits from the direct banking business, and through the use of international credit lines.

TARGETS FOR VALUE-BASED MANAGEMENT

Based on long-term interest rates derived from the capital market and the target capital structure (fair value of equity to debt = 2:1), the minimum required rate of return on invested capital defined for the Automotive Division remains unchanged at 9%.

In the 2021 reporting period, the Volkswagen Group's business continued to be impacted by the Covid-19 pandemic and, in particular, the semiconductor supply shortages. Compared to the previous year, ROI increased in the reporting period due to earnings-related factors and, at 10.4 (6.5)%, was above both the prior-year figure and our minimum required rate of return of 9% (for further information, please see the headline "Return on investment (ROI) and value contribution in the reporting period" in the chapter entitled "Results of Operations, Financial Position and Net Assets"). We expect the return on investment (ROI) in the Automotive Division for 2022 to be between 12% and 15%.

SUMMARY OF EXPECTED DEVELOPMENTS

Our planning is based on the assumption that global economic output will continue to grow in 2022, albeit at a somewhat lower level overall, after the recovery observed in the past fiscal year – provided that the Covid-19 pandemic does not flare up again and that shortages of intermediates and commodities become less intense. We continue to believe that risks will arise from protectionist tendencies, turbulence in the financial markets and structural deficits in individual countries. In addition, growth prospects will be negatively impacted by ongoing geopolitical tensions and conflicts, with risks arising especially from the Russia-Ukraine conflict. We anticipate that both the advanced economies and the emerging markets will experience positive momentum.

The trend in the automotive industry closely follows global economic developments. We assume that competition in the international automotive markets will intensify further.

We predict that trends in the markets for passenger cars in the individual regions will be mixed in 2022. Overall, the global volume of new vehicle sales is expected to be moderately up on the prior year without reaching the pre-pandemic level. This prediction assumes that the Covid-19 pandemic does not flare up again and that shortages of intermediates, especially semiconductors, and commodities become less intense. For 2022, we anticipate that the volume of new passenger car registrations in Western Europe will be distinctly above that recorded in the reporting period. In the German passenger car market, we expect the volume of new registrations in 2022 to also distinctly exceed the prior-year figure. Sales of passenger cars in 2022 are expected to moderately exceed the prior-year figures in markets in Central and Eastern Europe – subject to the further development of the Russia-Ukraine conflict. Sales volume in the markets for passenger cars and light commercial vehicles (up to 6.35 tonnes) in North America in 2022 is forecast to be slightly higher than the previous year's level. We anticipate a moderate increase overall in new registrations in the South American markets in 2022 compared with the previous year. The passenger car markets in the Asia-Pacific region are expected to be slightly up on the prior-year level in 2022.

Trends in the markets for light commercial vehicles in the individual regions will also be mixed; on the whole, we anticipate a slight increase in the sales volume for 2022. This assumes that the Covid-19 pandemic does not flare up again and that shortages of intermediates, especially semiconductors, and commodities become less intense.

For 2022, we expect a significantly positive development in new registrations for mid-sized and heavy trucks with a gross weight of more than six tonnes compared with the previous year, with variations from region to region, in the markets that are relevant for the Volkswagen Group. A pronounced increase in overall demand, with regional variations, is expected for 2022 in the bus markets relevant for the Volkswagen Group.

We anticipate that automotive financial services will continue to prove highly important to global vehicle sales in 2022.

We believe we are well prepared overall for the future challenges pertaining to automotive business activities and for the mixed development of the regional automotive markets. Our brand diversity, our presence in all major world markets, our broad and selectively expanded product range, and our technologies and services put us in a good competitive position worldwide. As part of the transformation of our core business, we are positioning our Group brands with an even stronger focus on their individual characteristics, and are optimizing our vehicle and drive portfolio. The focus is primarily on our vehicle fleet's carbon footprint and on the most attractive and fastest-growing market segments. In addition, we are working to leverage the advantages of our multibrand Group even more effectively with the ongoing development of new technologies and the enhancement of our toolkits. With electric drives, digital connectivity and autonomous driving, we want to make the automobile cleaner, quieter, more intelligent and safer. We have set ourselves the goal of continuing to excite our customers in the future and meeting their diverse needs with an appealing product portfolio of impressive vehicles and forward-looking, tailor-made mobility solutions.

We anticipate that, given the continuing challenging market conditions, deliveries to customers of the Volkswagen Group in 2022 will be 5% to 10% up on the previous year. This assumes that the Covid-19 pandemic will not flare up again and that shortages of intermediates and commodities will become less intense. The 2022 fiscal year will continue to be affected by shortfalls in supply due to the structural shortage of semiconductors. We anticipate that the supply of semiconductors will improve in the second half of the year, compared with the first half.

Challenges will arise particularly from the economic situation, the increasing intensity of competition, volatile commodity and foreign exchange markets, securing supply chains and more stringent emissions-related requirements.

We expect the sales revenue of the Volkswagen Group and of the Passenger Cars Business Area in 2022 to be 8% to 13% higher than the prior-year figure. In terms of operating result for the Group and the Passenger Cars Business Area, we forecast an operating return on sales in the range of 7.0% to 8.5% in 2022. For the Commercial Vehicles Business Area, we anticipate an operating return on sales of 5.0% to 7.0% amid a strong year-on-year increase in sales revenue, including Navistar. In the Power Engineering Business Area, we expect sales revenue to be moderately above the prior-year figure and the operating result to be in the low triple-digit million euro range. For the Financial Services Division, we forecast that sales revenue will be noticeably higher than the prior-year figure and that the operating result will be around €4.5 billion.

In the Automotive Division, we expect the R&D ratio to come in at around 7% and the ratio of capex to sales revenue at around 5.5% in 2022. For 2022, we anticipate that cash outflows resulting from the diesel issue will rise and mergers and acquisitions will be on a level with the previous year. Including any cash outflows in connection with the EU antitrust proceedings against Scania, we expect the net cash flow to be in the same range as in the previous year. In 2022, net liquidity in the Automotive Division is anticipated to be up to 15% higher than the prior-year figure. We expect the return on investment (ROI) to be between 12% and 15%. Our declared goal remains unchanged, namely to continue with our robust liquidity policy.

The basis of our success are skilled and dedicated employees. We aim to boost their satisfaction and motivation by means of equal opportunities, an attractive and modern working environment, a forward-looking approach to the organization of work and targeted advanced training programs. We aim for operational excellence in all business processes and plan our actions so that, every day, we exercise responsibility in issues relating to the environment, safety and society. In terms of integrity, Volkswagen aims to become a role model for a modern, transparent and successful enterprise.

Report on Risks and Opportunities

(CONTAINS THE REPORT IN ACCORDANCE WITH SECTION 289(4) OF THE HGB)

Promptly identifying the risks and opportunities arising from our operating activities and taking a forward-looking approach to managing them is crucial to our Company's long-term success. A comprehensive risk management and an internal control system help the Volkswagen Group deal with risks in a responsible manner.

In this section, we first explain the objective and structure of the Volkswagen Group's risk management system (RMS) and internal control system (ICS) and describe these systems with regard to the financial reporting process. We then outline the main risks and opportunities arising in our business activities.

OBJECTIVE OF THE RISK MANAGEMENT SYSTEM AND INTERNAL CONTROL SYSTEM AT VOLKSWAGEN

Only by promptly identifying, accurately assessing and effectively and efficiently managing the risks and opportunities arising from our business activities can we ensure the Volkswagen Group's long-term success. The aim of the RMS/ICS is to identify potential risks at an early stage so that suitable countermeasures can be taken to avert the threat of loss to the Company, and any risks that might jeopardize its continued existence can be ruled out.

Assessing the likelihood of occurrence and extent of future events and developments is, by its nature, subject to uncertainty. We are therefore aware that even the best RMS cannot foresee all potential risks and even the best ICS can never completely prevent irregular acts.

STRUCTURE OF THE RISK MANAGEMENT SYSTEM AND INTERNAL CONTROL SYSTEM AT VOLKSWAGEN

The organizational design of the Volkswagen Group's RMS /ICS is based on the internationally recognized COSO framework for enterprise risk management (COSO: Committee of Sponsoring Organizations of the Treadway Commission). The purpose of structuring the RMS/ICS in accordance with the COSO framework for enterprise risk management is so that potential risk areas are covered in full. Uniform Group principles are used as the basis for managing risks in a standardized manner. Opportunities are not recorded in the RMS/ICS processes.

THE VOLKSWAGEN THREE LINES MODEL

Another key element of the RMS/ICS at Volkswagen is the Three Lines Model, a basic element required by, among other bodies, the European Confederation of Institutes of Internal Auditing (ECIIA). In line with this model, the Volkswagen Group's RMS/ICS has three lines designed to protect the Company from significant risks occurring.

The minimum requirements for the RMS/ICS, including the Three Lines Model, are set out in guidelines for the entire Group.

Following completion of the implementation of the Risk Radar risk management IT system in 2020 and of the standardization of the ICS for business processes associated with risk at significant companies, the RMS/ICS will continue to be developed in future.

First line: Operational risk management

The first line comprises the operational risk management and internal control systems at the individual Group companies and business units. The RMS/ICS is an integral part of the Volkswagen Group's structure and workflows. Events that may give rise to risk are identified and assessed locally in the divisions and at the investees. Countermeasures are introduced, the remaining potential impact is assessed, and the information incorporated into the planning in a timely manner. Material risks are reported to the relevant committees on an ad hoc basis. The results of the operational risk management process are incorporated into budget planning and financial control on an ongoing basis. The targets agreed in the budget planning rounds are continually reviewed in revolving planning updates. At the same time, the results of risk mitigation measures are promptly incorporated into the monthly forecasts regarding further business development. This means that the Board of Management also has access to an overall picture of the current risk situation via the documented reporting channels during the year.

Second line: Group-wide standardized quarterly risk identification and reporting

Each quarter, in addition to the ongoing operational risk management, the Group Risk Management department sends standardized surveys regarding the risk situation and the implementation of countermeasures to all Group brands, to significant Group companies and to Volkswagen Financial Services AG and Volkswagen Bank GmbH.

Acute risks for the Volkswagen Group are reported in this survey of the risk situation – the quarterly risk process (QRP). The responses are used to update the picture of the potential risk situation. The assessment of risks from the QRP is conducted in the Risk Radar IT system

The methodology for aggregating risks and assessing the Volkswagen Group's risk-bearing capacity was developed further in 2021. The aggregated risk situation and risk-bearing capacity are compared at half-yearly intervals. There were no indications of insufficient risk-bearing capacity at the Volkswagen Group in the 2021 fiscal year.

A score is calculated for each risk by multiplying the likelihood of occurrence (Prob) by the potential extent of the damage. This enables comparison of the risks. The extent of the damage is calculated from the criteria of financial loss (Mat) and reputational damage (Rep) and the potential threat to adherence to external legal requirements (Req). A score between 0 and 10 is assigned to each of these criteria. The measures taken to manage and control risk are taken into account in the risk assessment (net perspective).

The score for a likelihood of occurrence of more than 50% in the analysis period is classified as high; for a medium classification, the likelihood of occurrence is at least 25%. For the criterion of financial loss, the score rises in line with the loss; the highest score of 10 is reached when the potential loss is upwards of €1 billion. The criterion of reputational damage can have characteristics ranging from local erosion of confidence and loss of trust at local level to loss of reputation at regional or international level. The potential threat to adherence to external legal requirements is classified based on the influence on the local company, the brand or the Group.

In addition to strategic, operational and reporting risks, risks arising from potential compliance violations (compliance risks) are also integrated into this process.

Risk reporting to the committees of Volkswagen AG depends on materiality thresholds. Acute risks from a risk score of 40 or potential financial loss of €1 billion or more are regularly presented to the Board of Management and the Audit Committee of the Supervisory Board of Volkswagen AG. In addition, the reporting includes all risks from the QRP with a risk score of 20.

In addition, significant changes to the risk situation that can arise in the short term, for instance from unexpected external events, are reported to the Board of Management as

CALCULATION OF RISK SCORE

$$\overbrace{\quad\text{RISK SCORE}\quad}$$

$$= \text{LIKELIHOOD OF OCCURRENCE} \times \text{POTENTIAL EXTENT OF DAMAGE}$$

$$= \underset{\text{Prob}}{\text{SCORE}} \times \left(\underset{\text{Mat}}{\text{SCORE}} + \frac{\underset{\text{Rep}}{\text{SCORE}} + \underset{\text{Req}}{\text{SCORE}}}{2} \right)$$

required. This is necessary if the risk may lead to potential financial loss of €1 billion or more and the likelihood of occurrence is estimated at greater than 50%.

In recent years, a standardized ICS has been developed that goes significantly beyond the requirements for the ICS posed by financial reporting. In 22 catalogs of controls, the companies within its scope are presented with requirements in respect of the process risks and control objectives to be covered in order to protect the value chain in a standardized manner. In addition to financial reporting issues, for example, their content addresses process risks in development, production or compliance.

Key controls to cover process risks and control objectives are also tested for their effectiveness; any weaknesses identified are reported to the responsible bodies at Volkswagen AG and resolved in the departments. Like the quarterly risk process, the standardized ICS is fully supported by the Risk Radar IT system.

In terms of its content and organizational aspects, the standardized ICS thus offers broader protection than the regular governance, risk and compliance (GRC) process used in the past. With the introduction of the standardized ICS in further companies in 2021, the regular GRC process is being gradually shut down.

A separate Group Board of Management Committee for Risk Management examines the key aspects of the RMS/ICS every quarter. Its tasks are as follows:

> to further increase transparency in relation to significant risks to the Group and their management,
> to explain specific issues where these constitute a significant risk to the Group,
> to make recommendations on the further development of the RMS/ICS,
> to support the open approach to dealing with risks and promote an open risk culture.

Third line: Review by Group Internal Audit

Group Internal Audit helps the Board of Management to monitor the various divisions and corporate units within the Group. It regularly checks the risk early warning system and the structure and implementation of the RMS/ICS and compliance management system (CMS) as part of its independent audit procedures. The audit plan adopted by the Board of Management includes the first and second lines, i.e. the risk-mitigating functions in addition to the operational units.

RISK EARLY WARNING SYSTEM

The Company's risk situation is ascertained, assessed and documented in accordance with the legal requirements. The requirements for a risk early warning system are met by means of the RMS/ICS elements described above (first and second line). Independently of this, the external auditors check both the processes and procedures implemented in this respect and the adequacy of the documentation on an annual basis. The plausibility and adequacy of the risk reports are examined via spot checks in detailed interviews with the divisions and companies concerned together with the external auditors. The auditor examines the risk early warning system integrated in the risk management system with respect to its fundamental suitability of being able to identify risks that might jeopardize the Company's continued existence at an early stage and assesses the functionality of the risk early warning and monitoring systems in accordance with section 317(4) of the HGB.

In addition, scheduled examinations as part of the audit of the annual financial statements are conducted at companies in the Financial Services Division. As a credit institution, Volkswagen Bank GmbH, including its subsidiaries, is subject to supervision by the European Central Bank, while Volkswagen Leasing GmbH as a financial services institution and Volkswagen Versicherung AG as an insurance company are subject to supervision by the relevant division of the *Bundesanstalt für Finanzdienstleistungsaufsicht* (BaFin – the German Federal Financial Supervisory Authority). As part of the scheduled supervisory process and unscheduled audits, the competent supervisory authority assesses whether the requirements, strategies, processes and mechanisms ensure solid risk management and solid risk cover. Furthermore, the *Prüfungsverband deutscher Banken* (Auditing Association of German Banks) audits Volkswagen Bank GmbH from time to time.

Volkswagen Financial Services AG operates a risk early warning and management system. Its aim is to ensure that the locally applicable regulatory requirements are adhered to and at the same time to enable appropriate and effective risk management at Group level. Important components of it are regularly reviewed as part of the audit of the annual financial statements.

Monitoring the effectiveness of the risk management system and the internal control system

To ensure the effectiveness of the RMS/ICS, we regularly optimize it as part of our continuous monitoring and improvement processes. In the process, we give equal consideration to both internal and external requirements. External experts assist in the continuous enhancement of our RMS/ICS on a case-by-case basis. The results culminate in regular reporting to the Board of Management and Supervisory Board of Volkswagen AG.

THE RISK MANAGEMENT AND INTEGRATED INTERNAL CONTROL SYSTEM IN THE CONTEXT OF THE FINANCIAL REPORTING PROCESS

The accounting-related part of the RMS/ICS that is relevant for the financial statements of Volkswagen AG and the Volkswagen Group as well as its subsidiaries comprises measures intended to ensure that the information required for the preparation of the financial statements of Volkswagen AG, the consolidated financial statements and the combined management report of the Volkswagen Group and Volkswagen AG is complete, accurate and transmitted in a timely manner. These measures are designed to minimize the risk of material misstatement in the accounts and in external reporting.

Main features of the risk management and integrated internal control system in the context of the financial reporting process

The Volkswagen Group's accounting is essentially organized along decentralized lines. For the most part, accounting duties are performed by the consolidated companies themselves or entrusted to the Group's shared service centers. In principle, the financial statements of Volkswagen AG and its subsidiaries prepared in accordance with IFRSs and the Volkswagen IFRS Accounting Manual are transmitted to the Group in encrypted form. A standard market product is used for encryption.

The Volkswagen IFRS Accounting Manual, which has been prepared in line with external expert opinions in certain cases, is intended to ensure the application and assessment of uniform accounting policies based on the requirements applicable to the parent. In particular, it includes more detailed guidance on the application of legal requirements and industry-specific issues. Components of the reporting packages that are required to be prepared by the Group companies are also set out in detail there, and requirements have been established for the presentation and settlement of intragroup transactions and the balance reconciliation process that is based on these.

Control activities at Group level include analyzing and, if necessary, adjusting the data reported in the financial statements presented by the subsidiaries, taking into account the reports submitted by the auditors and the outcome of the meetings on the financial statements with representatives of the individual companies. These discussions address both the plausibility of the single-entity financial statements and specific significant issues at the subsidiaries. Alongside plausibility checks, other control mechanisms applied during the preparation of the single-entity and consolidated financial statements of Volkswagen AG include the clear delineation of areas of responsibility and the application of the "four eyes" principle.

The effectiveness of the internal control system in the context of the accounting process is systematically assessed in significant companies as part of the standardized ICS. This begins with a risk analysis and definition of controls with the aim of identifying significant risks for the financial reporting process. Regular tests based on samples are performed to evaluate the effectiveness of the controls. These form the basis for a self-evaluation of whether the controls are appropriately designed and effective.

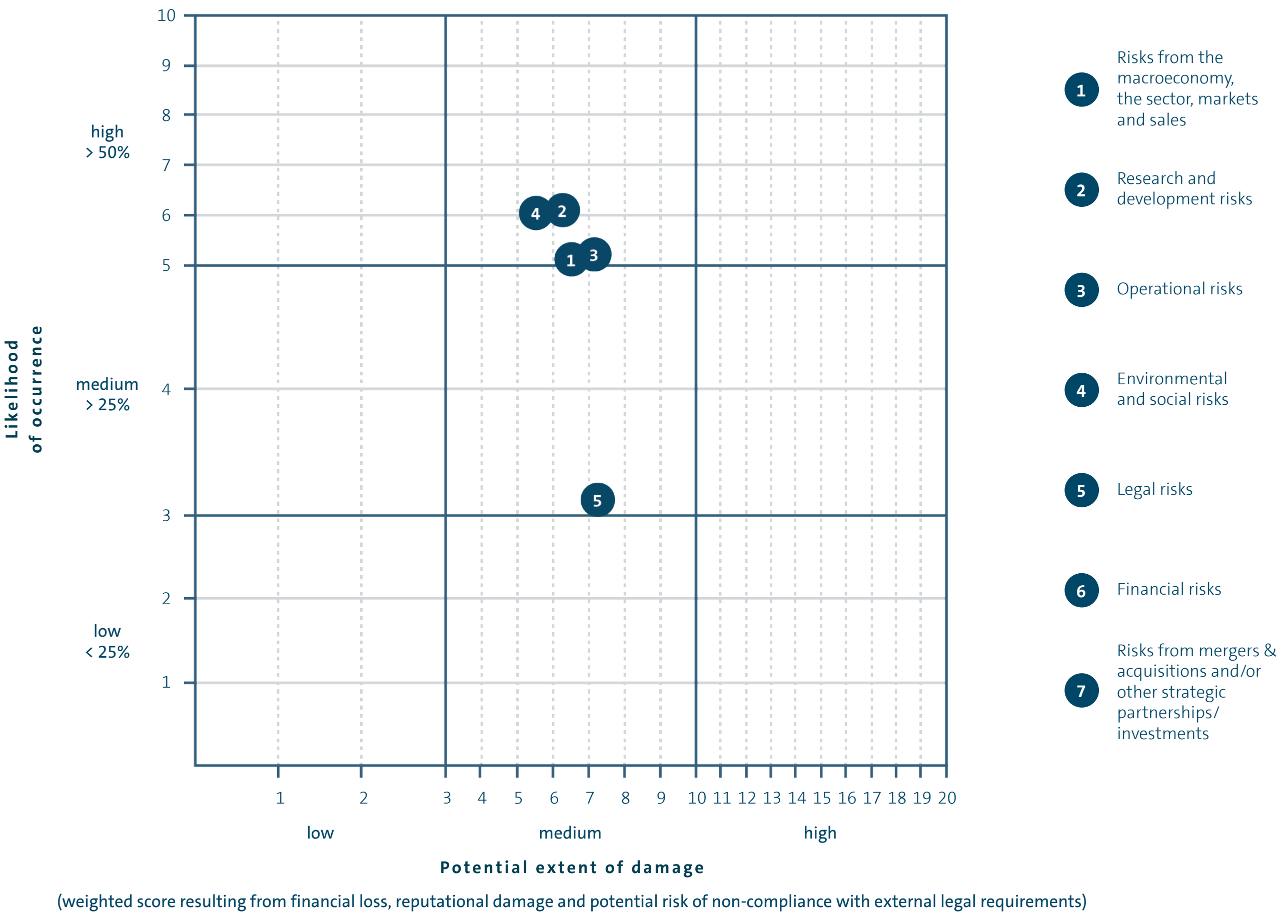
The combined management report of the Volkswagen Group and Volkswagen AG is prepared – in accordance with the applicable requirements and regulations – centrally but with the involvement of and in consultation with the Group units and companies.

In addition, the accounting-related internal control system is independently reviewed by Group Internal Audit in Germany and abroad.

Integrated consolidation and planning system

The Volkswagen consolidation and corporate management system (VoKUs) enables the Volkswagen Group to consolidate and analyze both Financial Reporting's backward-looking data and Controlling's forward-looking data. VoKUs offers centralized master data management, uniform reporting, an authorization concept and the required flexibility with regard to changes to the legal environment, providing a technical platform that benefits Group Financial Reporting and Group Controlling in equal measure. To verify data consistency, VoKUs has a multi-level validation system that primarily checks content plausibility between the balance sheet, the income statement and the notes.

AVERAGE SCORES OF THE RISK CATEGORIES



RISKS AND OPPORTUNITIES

In this section, we outline the main risks and opportunities arising in our business activities. In order to provide a better overview, we have grouped the risks and opportunities into categories. At the beginning of each risk category, we state the most significant risks in order of their importance as identified using the risk score from the QRP. We then describe the individual risks in no particular order. Unless explicitly mentioned, there were no material changes to the specific risks and opportunities compared with the previous year even though the weighting of individual risks has changed.

All risks reported to the Group Risk Management department with a risk score of 20 or more for the units included from the QRP are incorporated in the assessment of the Volkswagen Group's risk categories and the reporting to the Board of Management, amongst others. The risk categories are plotted based on the average scores. In the reporting year, no risks with such scores were reported for the "Financial risks" and "Risks from mergers & acquisitions and/or other strategic partnerships/investments" risk categories.

We use analyses of the competition and the competitive environment in addition to market studies to identify not only risks but also opportunities that have a positive impact on the design of our products, the efficiency with which they are produced, their success in the market and our cost structure. Where they can be assessed, risks and opportunities that we expect to occur are already reflected in our medium-term planning and our forecast. The following therefore reports on internal and external developments as risks and opportunities that, based on existing information, may result in a negative or positive deviation from our forecast or targets.

Risks and opportunities from the macroeconomy, the sector, markets and sales

For this risk category, the likelihood of occurrence is classified as high (previous year: high) and the potential extent of damage is classified as medium (previous year: medium).

The most significant risks from the QRP lie in restrictions on trade and increasingly protectionist tendencies resulting in a negative trend in markets and unit sales.

Macroeconomic risks and opportunities

We believe that risks to positive growth in global economic output arise primarily from a failure to contain the Covid-19 pandemic in a lasting way, turbulence in the financial and commodity markets, supply shortages in connection with imbalances between supply and demand, increasingly protectionist tendencies, and structural deficits, which pose a threat to the performance of individual advanced economies and emerging markets. In addition, there are increasing environmental challenges that affect individual countries and regions to varying degrees. The potential worldwide transition from an expansionary to a more restrictive monetary policy together with continuing inflationary tendencies also presents risks for the macroeconomic environment. High private- and public-sector debt in many countries is clouding the outlook for growth and may likewise cause markets to respond negatively. Demographic change may also inhibit growth. A decline in growth in key countries and regions often has an immediate impact on the state of the global economy and therefore poses a central risk. There are also risks from the still uncertain consequences of the United Kingdom's exit from the EU.

The economic development of some emerging economies is being hampered primarily by dependence on energy and commodity prices and capital inflows, but also by sociopolitical tensions. Corruption, inadequate government structures and a lack of legal certainty can also pose risks.

Geopolitical tensions and conflicts, along with signs of fragmentation in the global economy, are a further major risk factor to the performance of individual countries and regions. In light of the existing, strong global interdependence, local developments could also have adverse effects on the world economy. Any escalation of the conflicts in the Middle East or Africa, and especially the current conflict between Russia and Ukraine, for example, could cause upheaval on the global energy and commodity markets and exacerbate migration trends. An aggravation of the situation in East Asia could also put a strain on the global economy. The same applies to violent conflicts, terrorist activities, cyber attacks and the spread of infectious diseases, which may suddenly result in unexpected market reactions.

Overall, we expect a positive development of the global economy for 2022. However, due to the risk factors mentioned, as well as cyclical and structural aspects, another slump in the global economy or a period of below-average growth rates is also possible.

The macroeconomic environment may also give rise to opportunities for the Volkswagen Group if actual developments turn out to be more positive than expected.

Sector-specific risks and market opportunities/potential

Western Europe, especially Germany, and China are our main sales markets. A drop in demand in these regions due to the economic climate would have a particularly strong impact on the Company's earnings including financial services. We counter this risk with a clear, customer-oriented and innovative product and pricing policy.

Outside Western Europe and China, delivery volumes are spread widely across the key regions: Central and Eastern Europe, North America and South America. In addition, we either already have a strong presence in numerous existing and developing markets or are working systematically towards this goal. Particularly in smaller markets with growth potential, we are increasing our presence with the help of strategic partnerships in order to cater to local requirements.

The growth markets of Central and Eastern Europe, South America and Asia are particularly important to the Volkswagen Group. These markets harbor considerable potential; however, the underlying conditions in some countries in these regions make it difficult to increase unit sales figures there. Examples of these are customs regulations or minimum local content requirements for production. At the same time, wherever the economic and regulatory situation permits, there are opportunities above and beyond current projections. These arise from faster growth in the emerging markets where vehicle densities are currently still low.

Price pressure in established automotive markets for new and used vehicles as a result of high market saturation is a further risk for the Volkswagen Group as a supplier of volume and premium models. Competitive pressures are likely to remain high in the future. Individual manufacturers may respond by offering incentives in order to meet their sales targets, putting the entire sector under additional pressure.

There is a risk that excess capacity in global automotive production may lead to a rise in inventories and therefore an increase in tied-up capital. With a decline in demand for vehicles and genuine parts, automotive manufacturers may adjust their capacities or intensify measures to promote sales. This would lead to additional costs and greater price pressure.

Supply chain disruption may give rise to the risk of underutilization of capacity in global automobile production, meaning that existing demand can only be partially met.

The demand that built up in individual established markets in times of crisis could result in a marked recovery if the economic environment eases more quickly than expected.

In Europe, there is a risk that further municipalities and cities will impose a driving ban on vehicles with combustion engines in order to comply with emission limits. China imposed a so-called "new energy vehicle quota" in 2019, which means that battery-electric vehicles, plug-in hybrids and fuel cell vehicles will have to account for a certain proportion of a manufacturer's new passenger car fleet. To ensure compliance with emissions standards, we continuously tailor our range of vehicle models and engines to the conditions in the relevant markets. These requirements may lead to higher costs and consequently to price increases and declines in volumes.

Economic performance may vary from region to region. The resulting risks for our trading and sales companies, such as in relation to efficient inventory management and a profitable dealer network, are substantial and are being responded to with appropriate measures on their part. However, financing business activities through bank loans remains difficult. Our financial services companies offer dealers financing on attractive terms with the aim of strengthening their business models and reducing operational risk. We have installed a comprehensive liquidity risk management system so that we can promptly counteract any liquidity bottlenecks at the dealership end that could hinder smooth business operations.

We continue to approve loans for vehicle financing on the basis of the same cautious principles applied in the past, for example by taking into account the regulatory requirements of section 25a(1) of the *Kreditwesengesetz* (KWG – German Banking Act).

Volkswagen maintains a selective distribution system. Within the European Union, dealers and service partners are selected – where permissible – using qualitative and quantitative-qualitative criteria in accordance with the provisions of EU Regulations 330/2010 and 461/2010. Regulation 330/2010 is currently being revised by the European Commission. The new version is due to enter into force on June 1, 2022. The European Commission published a first draft in July 2021. This contains new requirements on the design of a selective distribution system, particularly with respect to dual distribution systems. A final evaluation of whether and to what extent the distribution system of Volkswagen AG will be specifically affected by the legal changes will only be possible once the new regulation has been adopted.

Volkswagen AG may be exposed to increased competition in aftermarkets. This is due to the provisions of the block exemption regulations, which have applied to after-sales services since June 2010, the provisions of EU Regulation 566/2011 dated June 8, 2011 and the room for interpretation concerning the amendments included in EU Regulation 858/2018 applicable from September 1, 2020, regarding independent market participants' access to technical information.

In Germany, legislation entered into force on December 2, 2020 to restrict or abolish design protection for repair parts through the introduction of a repair clause. In addition, the European Commission is evaluating the market with regard to existing design protection. A possible restriction or abolition of design protection for visible replacement parts could adversely affect the Volkswagen Group's genuine parts business.

The automotive industry is facing a process of transformation with far-reaching changes. Electric drives, connected vehicles and autonomous driving are associated with both opportunities and risks for our vehicle sales, our after-sales business and our dealerships. In particular, more rapidly evolving customer requirements, swift implementation of legislative initiatives, including in connection with the achievement of climate protection targets, and the market entry of new competitors from outside the industry will require changed products at a faster pace of innovation and adjustments to business models. There is uncertainty regarding the widespread use of electric vehicles and the availability of the necessary charging infrastructure.

There is also a risk of freight deliveries worldwide being shifted from trucks to other means of transport, and of demand for the Group's commercial vehicles falling as a result.

Below, we outline the regions and markets with the greatest growth potential for the Volkswagen Group.

> China
Demand for vehicles is expected to increase in the coming years due to the need for individual mobility. It is also expected that demand will shift from the coastal metropolises to the country's interior and that competitive pressure from local manufacturers will increase. In order to leverage the considerable opportunities offered by this market

– also with regard to e-mobility – and to defend our strong market position in China over the long term, we are continuously expanding our product range to include models that have been specially developed for this market. We are further extending our production capacity in this growing market.

> India
The Volkswagen Group has consolidated its activities in this strategically important future market and launched a model initiative with new models tailored to customers' needs: the Taigun from the Volkswagen Passenger Cars brand and the ŠKODA Kushaq.

> USA
In the USA, Volkswagen Group of America is steadfast in its pursuit to become a full-fledged volume supplier and expand its market share. The expansion of local production capacity – including production for electric vehicles from 2022 – will allow the Group to better serve the market in the North America region. We are also working intensively on offering additional products specifically tailored to the US market.

> Brazil
The growing number of automobile manufacturers with local production has resulted in a sharp increase in price pressure and competition. The Brazilian market plays a key role for the Volkswagen Group. To strengthen our competitive position here, we offer vehicles tailored specially for this market that are locally produced, such as the Gol and the Nivus.

> Middle East
Political and economic uncertainty in the region weigh on the passenger car markets. In spite of this instability, the Middle East region offers short-term and long-term growth potential. We aim to leverage the potential for growth with a range of vehicles that has been specifically tailored to this market, without having our own production facilities there.

Power Engineering

Global economic trends are likely to continue, such as digitalization and the increasing interest in emissions-reducing technologies associated with decarbonization. Growing global energy needs call for innovation in the industry and a growing willingness on the part of governments to invest in line with the global climate policy.

Despite an improved market level, the marine market continues to see the consequences of the Covid-19 pandemic and the ongoing uncertainty regarding future emissions regulations. There is a risk that investments will be postponed and that there will be a distinct slowdown in project business.

In turbomachinery, there is the risk that planned projects and orders will be scaled back or postponed due to negative developments in sales markets or individual applications.

We address these risks by constantly monitoring the markets, focusing on less strongly affected market segments, working closely with all business partners such as customers and licensees, and introducing new and improved technologies.

We are working systematically to leverage market opportunities at a global level, for example by positioning ourselves as a solution provider for reduced-CO_2 drive and energy-generation technologies as well as for storage technology. Moreover, significant potential can be leveraged in the medium term by enhancing our after-sales business through the introduction of new digital products and the expansion of our service network. The requirements for occupational safety, which will continue to increase in the future, the availability of the plants that are already in operation, the increase in environmental compatibility, and efficient operation, together with the large number of engines and plants, will provide the basis for growth. Digital service solutions, for instance for remote plant surveillance, offer growth potential despite the pandemic.

As part of the capital goods industry, the Power Engineering business is affected by fluctuations in the investment climate. Even minor changes in growth rates or growth forecasts, resulting from geopolitical uncertainties or volatile commodities and foreign exchange markets, for example, carry the risk of significant changes in demand or the cancellation of already existing orders.

The measures we use to counter the substantial economic and extraordinary risks include flexible production concepts and cost flexibility by means of temporary external personnel, working time accounts and *Kurzarbeit* (short-time working), and the necessary structural adjustments.

Sales risks

There is a risk that the Volkswagen Group could experience decreases in demand, possibly exacerbated by media reports or insufficient communication. Other potential consequences include lower margins in the new and used car businesses and a temporary increase in funds tied up in working capital.

The Volkswagen Group's multibrand strategy may weaken individual Group brands if there are overlaps in customer segments or the product portfolio. This effect may be reinforced by the Volkswagen Group's common-parts strategy, as this strategy means that, in some cases, the differences in product substance between the brands are small. As a result, there could be a risk of internal cannibalization between the Group brands, higher marketing costs, or repositioning expenses. By sharpening the brand identities as part of our Best Brand Equity instrument, we are working to minimize these risks.

The fleet customer business continues to be characterized by increasing concentration and internationalization, accompanied by the risk that the loss of individual fleet customers may result in relatively high volume losses. Viewed over an extended period, the fleet customer business is more stable than the business with retail customers. The Volkswagen Group is well positioned with its broad portfolio of products and drive systems, as well as its target-group-focused customer care, and counteracts a concentration of default risks at individual fleet customers or markets. The consistently high market share in Europe shows that fleet customers still have confidence in the Group.

Consumer demand is shaped not only by real factors such as disposable income, but also by psychological factors that cannot be planned for. A current example is that of the Covid-19 pandemic. Households' worries about the future economic situation, for example, may lead to unexpected buyer reluctance. This is particularly the case in saturated automotive markets such as Western Europe, where demand could drop as a result of owners holding on to their existing vehicles for longer. We are countering the risk of buyer reluctance with our attractive range of models and our strict policy of customer orientation.

A combination of buyer reluctance in some markets as a result of the crisis, and increases in some vehicle taxes based on CO_2 emissions – which have already been observed in many European countries – may shift demand towards smaller segments and engines, for example. We counter the risk that such a shift will negatively impact the Volkswagen Group's financial situation by constantly developing new, fuel-efficient vehicles and alternative drive technologies, based on our drivetrain, fuel and mobility strategies.

Automotive markets around the world are exposed to risks from government intervention such as tax increases, which curb private consumption, and from restrictions on trade and protectionist tendencies such as tariffs and sanctions. Furthermore, there are future risks from the sale of electrified vehicles if the minimum requirements for local content under free trade agreements cannot be achieved. Sales incentives may lead to shifts in the timing of demand.

Commercial vehicles are capital goods: even minor changes in growth rates or growth forecasts may significantly affect transport requirements and thus demand. The resulting risk of production fluctuations calls for a high degree of flexibility from the manufacturers. Although production volumes are significantly lower, the complexity of the trucks and buses range does in fact significantly exceed the already very high complexity of the passenger cars range. Key factors for commercial vehicle customers are total cost of ownership, vehicle reliability and the service provided. Furthermore, customers are increasingly interested in additional services such as freight optimization and fleet utilization, which we offer in the commercial vehicle segment through the digital brand RIO, for example.

Power Engineering's two-stroke engines are produced exclusively by licensees, particularly in South Korea, China and Japan. The global demand for ships is increasing due to the overall positive development in world trade; however, the volatility in new shipbuilding orders poses the risk of declining license revenues. Due to changes in the competitive environment, especially in China, there is also the risk of losing market share.

Russia-Ukraine conflict

At the time of preparing this report, there is a risk that the latest developments in the Russia-Ukraine conflict will have a negative impact on the Volkswagen Group's business. This may also result from bottlenecks in the supply chain. At the present time, it is not yet possible to conclusively assess the specific effects.

Nor is it possible at this stage to predict with sufficient certainty to what extent further escalation of the Russia-Ukraine conflict will impact the global economy and growth in the industry in fiscal year 2022.

The Volkswagen Group does not have any material subsidiaries and equity investments in Ukraine.

In Russia, the Volkswagen Group has in particular the production company at the Kaluga site, as well as sales units and financing companies. They could above all be adversely affected by the sanctions already resolved, but also by new sanctions and general developments in Russia.

In relation to the net assets, financial position and results of operations of the Volkswagen Group, the business activities of the Volkswagen Group in these two countries are insignificant.

There is a risk that a further escalation of the conflict could have a material adverse effect on the results of operations, financial position and net assets of the Volkswagen Group.

Other factors

In addition to the risks outlined in the individual risk categories, there are other factors that cannot be predicted and whose repercussions are therefore difficult to control. Should these transpire, they could have an adverse effect on the further development of the Volkswagen Group. In particular, such occurrences include natural disasters, pandemics – such as the current spread of the SARS-CoV-2 virus –, violent conflicts – such as the current conflict between Russia and Ukraine – and terrorist attacks.

There is a risk that the Covid-19 pandemic could intensify, due to reasons such as changes in the virus. All areas of the Volkswagen Group are affected by the pandemic. There are risks arising in particular from a fall in demand and an increasing intensity of competition. In production, there are risks especially with regard to stable supply chains and protecting the health of our staff. We have put in place increased hygiene and protective measures to ensure plants can operate.

Research and development risks

For this risk category, the likelihood of occurrence is classified as high (previous year: high) and the potential extent of damage is classified as medium (previous year: medium).

The most significant risks from the QRP result from the inability to develop products in line with demand and requirements, especially with regard to e-mobility and digitalization.

Risks arising from research and development

The automotive industry is undergoing a fundamental transformation process. For multinational corporations like Volkswagen, this means risks in the areas of customer/market, technological advancements and legislation. One risk posed is the implementation of ever more stringent emission and fuel consumption regulations, such as C6 in China or EU7 in Europe from 2025. New test procedures and test cycles (e.g. the Worldwide Harmonized Light-Duty Vehicles Test Procedure, WLTP) as well as compliance with approval processes (homologation) are becoming increasingly complex and time-consuming. The test specifications and homologation procedures also vary greatly from country to country.

On a national and international level, there are numerous legal requirements regarding the use, handling and storage of substances and mixtures (including restrictions concerning chemicals, heavy metals, biocides, persistent organic pollutants). There is therefore a risk of non-conformity in the manufacture, procurement and introduction of products such as automobiles or replacement parts.

The economic success and competitiveness of the Volkswagen Group depend on how swiftly we are able to tailor our portfolio of products and services to changing conditions. Given the intensity of competition and speed of technological development, for example in the fields of digitalization and automated driving, there is a risk of failing to identify relevant trends early enough to respond accordingly.

We use the latest findings from the world of physics and other areas of science to plot our course. In addition, we conduct research such as trend analyses and customer surveys and examine the relevance of the results for our customers. We counter the risk that it may not be possible to develop modules, vehicles, or services – especially in relation to e-mobility, digitalization and software – within the specified time frame, to the required quality standards, or in line with cost specifications, by continuously and systematically monitoring the progress of all projects; at present we are also taking account of the Covid-19 pandemic.

To reduce the risk of patent infringements, we conduct thorough analyses of third-party industrial property rights; increasingly also in relation to communication technologies.

We regularly compare the results of all these analyses with the respective project targets; in the event of any discrepancies, we introduce appropriate countermeasures in good time. Our end-to-end project organization fosters cooperation across all of the departments involved in the process, ensuring that specific requirements are incorporated into the development process as early as possible and that their implementation is planned in good time.

Risks and opportunities from the modular toolkit strategy

We are continuously expanding our modular toolkits, focusing on future customer requirements, legal requirements and infrastructural requirements.

However, with higher volumes there is a higher risk that supply chain disruption – for example due to a shortage of semiconductors – or quality problems may affect an increasing number of vehicles.

The Modular Transverse Toolkit (MQB) is an extremely flexible vehicle architecture that was created to allow conceptual dimensions – such as the wheelbase, track width, wheel size and seat position – to be harmonized throughout the Group and utilized flexibly. Other dimensions, for example the distance between the pedals and the middle of the front wheels, are always the same, ensuring a uniform system in the front of the car. Thanks to the resulting synergy effects, we are able to cut both development costs and the necessary one-time expenses as well as manufacturing times. The toolkits also allow us to produce different models from different brands in varying quantities, using the same equipment in a single plant. This means that our capacities can be used with greater flexibility throughout the entire Group, enabling us to achieve efficiency gains.

We have also transferred this principle of standardization with maximum flexibility to the Modular Electric Drive Toolkit (MEB) and Premium Platform Electric (PPE), concepts developed for all-electric drives. The synergy effects and efficiency gains offered by the modular toolkit strategy are enabling us to bring e-mobility into mass production worldwide with the introduction of the first MEB- and PPE-based vehicles. In future, we will reinforce these synergy effects by combining the MEB and PPE in the Scalable Systems Platform (SSP).

Operational risks and opportunities

For this risk category, the likelihood of occurrence is classified as high (previous year: high) and the potential extent of damage is classified as medium (previous year: medium).

The most significant risks from the QRP lie particularly in volatile procurement markets, here primarily in relation to the availability of semiconductors, as well as in cyber security and new regulatory requirements regarding IT, and in quality problems.

Risks from particular events in the Volkswagen Group's purchasing and production network

Particular events beyond our control such as natural disasters, pandemics – currently the spread of the SARS-CoV-2 virus – or other events such as violent confrontations – such as the current conflict between Russia and Ukraine – fires, explosions, or the leakage of substances hazardous to health and/or the environment, may result in supply risks in purchasing and significantly impair production. As a consequence, bottlenecks or even outages in production may occur, thus preventing the planned volume of production from being achieved.

Supply risks are generally identified in Purchasing through early warning systems and mitigated by applying corresponding measures to safeguard supply and avert future assembly line stoppages caused by suspensions of deliveries. Further methods of counteracting such risks include fire protection measures and hazardous goods management, and, where financially viable, ensuring that they are covered by insurance policies.

Due to the uncertainty arising from the further development of the Covid-19 pandemic and a significant shortage of semiconductor capacity throughout the automotive industry, there is a risk that looming supply breakdowns may not be recognized early enough and that countermeasures may not be initiated in time to maintain production.

Countermeasures to stabilize global production include, for example, observing the spread of infection and the measures taken to contain the pandemic, analyzing the impact on suppliers and supply and transport chains, finding alternatives where suppliers are unavailable and organizing special processes. Vehicle programs and production processes can be adjusted dynamically. As part of the Safe Production Initiative, we have defined hygiene measures to prevent possible chains of infection at essential points of contact between the people working in the network. These measures will be adjusted if necessary and include physical distancing, wearing of protective masks, cleaning and disinfecting, and reorganizing shift models and staggering break times.

Risks and opportunities from Purchasing and Technology

Current trends in the automotive industry such as e-mobility and automated driving are resulting in an increased need for financing among suppliers, presenting them with considerable challenges. These are being exacerbated by the current commodity price situation and the unavailability of semiconductors. The supplier risk management system in Purchasing at the Volkswagen Group evaluates suppliers before they are commissioned to carry out projects. Purchasing takes into account the recommendations of the risk management system.

There is a risk of bottlenecks or disruption in supply, as is currently being seen in the case of semiconductor components. Here, the rapid recovery in demand starting in the fourth quarter of 2020, following the pandemic-induced drop in production and sales volumes in the first half of 2020, and the insufficient market capacity of the semiconductor industry combined with high demand from the consumer, IT and telecommunications industries, led to bottlenecks in supply. We intend to safeguard supplies for our production plants by implementing short-term measures along with the use of our relationship management and monitoring across the entire supply chain.

There is also the risk that the latest developments in the Russia-Ukraine conflict will have a negative impact on the supply chain and lead to supply bottlenecks.

A global economic slowdown exacerbated by trade disputes and especially the consequences of the Covid-19 pandemic, including sharply increased commodity prices, is impacting the financial situation of many suppliers. This is also giving rise to risks of bottlenecks and disruption in supply.

Government support measures have stabilized the position of suppliers experiencing financial difficulties as a result of the pandemic. In Germany, for example, new rules on short-time working (*Kurzarbeit*) and loan support schemes, but also the suspension of the obligation to file for insolvency, have prevented companies from becoming insolvent. Specialists in Purchasing for restructuring and supply reliability monitor the financial situation of our suppliers continuously and globally, taking targeted measures to counter the risk of possible supply disruptions. Risks in battery cell production arise particularly from the rising demand for battery cells and the resulting reliance on suppliers, from technological change and from the service life of battery cells. Additional risks may arise from the long-term relation to cell manufacturers and the direct responsibility of Volkswagen in the supply chain. To counter these risks, the Volkswagen Group maintains multiple strategic supplier relationships while also increasing its own battery production within the value chain (raw material extraction, cell production).

Commodity risks can be partially mitigated through backward integration of the supply chain. For example, partnerships and long-term supply agreements with commodity suppliers can be used to ensure supply of the relevant material while also achieving competitive prices.

Demand for resources, possible speculations on the market and current trends in the automotive industry, such as the growing share of electrified vehicles, may affect the availability and prices of certain raw materials. Trends in raw materials and demand are continuously analyzed and assessed on an interdisciplinary basis to enable steps to be taken at an early stage in the event of potential bottlenecks.

Quality problems may necessitate technical intervention involving a substantial financial outlay where costs cannot be passed on to the supplier or can only be passed on to a limited extent. Assuring quality is of fundamental importance especially in the US, Brazilian, Russian, Indian and Chinese markets, for which we develop vehicles specific to the countries and where local manufacturers and suppliers have been established, particularly as it may be very difficult to predict the impact of regulations or official measures. We continuously analyze the conditions specific to each market and adapt quality requirements to their individual needs. We counter the local risks we identify by continuously developing measures and implementing them locally, thereby preventing quality defects in the supply chain from arising.

It is not possible at present to rule out the possibility of a further increase in recalls of various models produced by a variety of manufacturers in which certain airbags manufactured by Takata were installed. This could also affect Volkswagen Group models.

Specialists in Purchasing systematically investigate risks resulting from antitrust violations by suppliers and file claims for any losses that may arise.

Risks in the supply chain may also arise in relation to the non-fulfillment of human rights- and environment-related legal due diligence obligations, which may lead to supply shortages. Requirements are compared with existing processes with the help of gap analyses, and processes are developed and implemented to fill in any gaps. In 2021, we introduced a human rights due diligence management system to reduce human rights risks throughout our entire supply chain. An additional management system has been set up to effectively manage the environmental risks in the raw material supply chains.

Production risks

Volatile developments in the global automotive markets, accidents at suppliers and disruptions in the supply chain, such as the semiconductor shortages, may cause fluctuations in production volumes affecting both vehicle models and plants. In specific markets we are seeing a trend away from orders for conventional vehicles with combustion engines and towards increased orders for electric vehicles. We use established tools, such as flexible working time models, to address possible risks related to fluctuations in the mix of vehicle types. The international production network enables us to respond flexibly at the sites. “Turntable concepts” adjust capacity utilization between production facilities. At multi-brand sites, volatility can also be balanced across brands.

Sudden changes in customer demand for specific equipment features in our products, and the decreasing predictability of demand, may lead to supply bottlenecks. We minimize this risk, for example, by continuously comparing our available resources against future demand scenarios. If bottlenecks in the supply of materials are indicated, we can introduce countermeasures far enough in advance.

Production capacity is planned several years in advance based on long-term sales planning for all vehicle projects. This involves a degree of risk as it is subject to market momentum and changes in demand. If forecasts are too optimistic, there is a risk that capacity will not be fully utilized. However, forecasts that are too pessimistic pose a risk of undercapacity, as a result of which, it may not be possible to meet customer demand. In the event of short-notice fluctuations in demand beyond the technical capacity that has been installed, Volkswagen or its suppliers may be unable to meet demand that goes beyond the available technical flexibility. We counter such risks by matching demand and capacity at frequent intervals and issuing program scheduling guidelines where necessary.

The diversity of our models, the reduced product life cycles and the use of complex processes and technical systems are associated with a risk that the start of production of a vehicle may be delayed. We address this risk by drawing on experience of past production starts and identifying weaknesses at an early stage so as to ensure – to the highest degree possible – that production volumes and quality standards are met during the start of production of our vehicles throughout the Group.

Legal changes, for instance in the context of the changeover to the WLTP test procedure, may impact production. For one thing, a temporary reduction in the range causes demand to focus on the available variants. Moreover, gaps in production can occur if model variants have not been approved. These fluctuations necessitate measures to stabilize production, such as the temporary storage of vehicles until official approval.

Risks arising from long-term production

In the case of large projects within the Power Engineering Business Area, risks may arise that are often only identified over the course of the project. They may result in particular from contract design errors, inaccurate or incomplete information used in costing, post-contract changes in economic and technical conditions, weaknesses in project management, quality defects and unnoticed product malfunctions in product emergence, or poor performance by subcontractors. Most notably, omissions at the start of a project, overshooting of the development budget or timeframe, and legislative changes are usually difficult to correct or compensate for and often entail substantial additional expenses. The current disproportionate increases in commodity prices and limited availability of semiconductor products may have a detrimental impact on production costs and revenue recognition.

We endeavor to identify these risks at an early stage and to take appropriate measures to eliminate or minimize them by constantly optimizing the project control process across all project phases and by using a lessons-learned process and regular project reviews. We can thus reduce risks, particularly during the bidding and planning phase of large upcoming projects.

Quality risks

We strive to identify and rectify quality problems at an early stage during the development of our products to avoid, among other things, delays to the start of production. As we are using an increasing number of modular components as part of our modular toolkit strategy, it is particularly important when malfunctions do occur to identify the cause quickly and eliminate the faults. Nonconformity of internally or externally sourced parts, components or functions may necessitate time-consuming and cost-intensive measures and lead to recalls and therefore to damage to the Volkswagen Group's image. In addition, the resulting financial impacts may exceed provisions. To meet our customers' expectations and minimize warranty and ex gratia repair costs, we continuously optimize the processes at our brands with which we can prevent these defects. If quality management is ineffective, there is a risk of losing ISO 9001 and KBA certification. This would lead directly to a loss of type approval from one or more authorities. We counter this risk by continuously training the Group's system auditors and subjecting our quality management system and process quality to internal audits.

We also check the conformity of series products (conformity of production – CoP) in vehicle production plants as part of system audits with a CoP component. Further risks are associated with discrepancies identified in conformity of production (CoP) measurements and in-service-conformity (ISC) measurements. We have established an effective system for monitoring the conformity of CoP and ISC measurements for manufactured vehicles. To ensure that the results of the emissions CoP and ISC measurements are analyzed systematically, we have defined an IT system throughout the Group as the basis for reporting and implemented it across the organization. This is used for status reporting and documenting the results of the series of measurements.

Vehicle registration and operation criteria are defined and monitored by national and, in some cases, international authorities. Furthermore, several countries have special – and in some cases new – rules aimed at protecting customers in their dealings with vehicle manufacturers. We have established quality processes so that the Volkswagen Group brands and their products fulfill all respective applicable requirements and local authorities receive timely notification of all issues requiring reporting. By doing so, we reduce the risk of customer complaints or other negative consequences.

With the increasing technical complexity of vehicles due to their internal and external connectivity, and the toolkit systems in use across brands, the quality of the parts and software components supplied must be assured. This is lending ever greater importance to cyber security. To better monitor and manage the risk of cyber attacks on our vehicles in the future, we are establishing an Automotive Cyber Security Management System in all Group brands. Harmonized processes across the Group, such as the car security incident process, enable a fast reaction speed across the brands in the event of an attack so that any weaknesses in our products can be promptly eliminated. The Automotive Cyber Security Management System is an integral part of our quality management system and helps us to take advantage of synergies with already existing structures. This approach has been taken to meet the legal requirements of the UNECE regulation on cyber security, which will apply from mid-2022.

The *Ausschuss Produktsicherheit* (APS – Product Safety Committee) has been established to comprehensively evaluate and efficiently resolve product safety risks for customers as the product users. In the event of safety defects, doubts about compliance with legal requirements, or issues relating to the brand or corporate image, the APS examines the matter concerned and decides on how to respond. In this context, the APS is also responsible for managing related inquiries from authorities. The cross-divisional Car Security Board (CSB) provides support in relation to cyber security issues. We also created central units and established them within the organization; these are responsible for managing incoming information on APS- and CSB-related topics. In 2021, a universal, transparent management and tracking system was established to follow up on all such information across the Group without employee involvement, right through to the APS decision. In addition, numerous events and training courses were held to improve awareness of safety risks and products' legal conformity among all employees. These activities aim to avoid risks from a lack of timely, complete and correct reporting and preliminary analysis. The entire APS process is, moreover, subject to regular review in the form of internal and external audits, aimed at reducing to a minimum risks arising from delayed, lacking or erroneous decisions and measures on the part of the APS or CSB.

IT risks

At Volkswagen, a global, software-centric mobility provider, the information technology (IT) used in all business units Group-wide is assuming an ever more important role. IT risks exist in relation to the three protection goals of confidentiality, integrity and availability, and comprise in particular unauthorized access to, modification of and extraction of sensitive electronic corporate or customer data as well as limited systems availability as a consequence of downtime and disasters. Handling data with integrity is a key factor for the accuracy and completeness of data, and for the functionality of error-free systems.

The high standards we set for the quality of our products also apply to the way in which we handle our customers' and employees' data. There is a risk of cyber attacks, particularly on our digital services that make use of our mobility offerings. Legal regulations including the UNECE (United Nations Economic Commission for Europe) cyber security regulation (R155) define the requirements made of our vehicle and software development. These also have a large impact on our IT systems. We therefore work on an interdisciplinary basis to protect our connected vehicles and mobility services. Our guiding principles are data security, transparency and informational self-determination.

We address the risk of unauthorized access to, modification of, or extraction of corporate and customer data with the use of IT security technologies such as firewall and intrusion prevention systems and a multiple-authentication procedure. Additionally, we increase protection by restricting the allocation of access rights to systems and information and by keeping backup copies of critical data resources. Redundant IT infrastructures allow us to mitigate risks that occur in the event of a systems failure or disaster.

A newly established committee with members from Information Security, Data Protection, Group Security, Legal Affairs and other stakeholders handles interdisciplinary issues on information security and reports directly to the Group Board of Management. This allows faster and more efficient coordination in challenging situations, thus increasing the overall level of security. A wide range of awareness-raising measures and training courses for employees also helps create and deepen consciousness of information security.

We use commercially available technologies to protect our IT landscape, adhering to standards applicable throughout the Company. We future-proof our IT through continual standardization and updates. Continuously increasing automation enhances process reliability and the quality of processing.

The further development and Group-wide use of IT governance processes, particularly the further standardization of the IT risk management process, also help to identify weaknesses at an early stage and to reduce or avoid risks effectively.

Another focus is the continuous enhancement of Group-wide security measures with modern technologies and tools, such as the further expansion of the IT security command center for the early detection of and defense against cyber attacks.

Volkswagen complements these technical measures by systematically raising awareness and providing training for employees.

Risks from media impact

The image of the Volkswagen Group and its brands is one of the most important assets and forms the basis for long-term business success. Our policy and strategic orientation on issues such as integrity, ethics, sustainability and climate protection are in the public focus. One of the basic principles of running our business is therefore to pay particular attention to compliance with legal requirements and ethical principles. However, we are aware that misconduct or criminal acts by individuals and the resulting reputational damage can never be fully prevented. In addition, media reactions can have a negative effect on the image of the Volkswagen Group and its brands. This impact could be amplified through insufficient communication at times of crisis.

Environmental and social risks

For this risk category, the likelihood of occurrence is classified as high (previous year: medium) and the potential extent of damage is classified as medium (previous year: medium).

The most significant risks from the QRP arise from nonfulfillment of CO_2-related requirements.

Personnel risks

We use a range of instruments to counter economic risks as well as changes in the market and the competitive situation and shortages of supplier components. These help the Volkswagen Group to remain flexible in terms of staff deployment when faced with a fluctuating order situation – whether orders are in decline, or there is an increase in demand for our products. These instruments include time accounts to which hours are added when overtime is necessary and from which hours are deducted in quiet periods, enabling our factories to adjust their capacity to production volume with measures such as extra shifts, closure days, flexible shift models and legally regulated instruments such as *Kurzarbeit* (short-time working). The use of temporary workers also allows us to be more flexible in our planning. All of these measures help the Volkswagen Group to generally maintain a stable permanent workforce, even when orders fluctuate.

The technical expertise and individual commitment of employees are indispensable prerequisites for the success of the Volkswagen Group. We counter the risk of not being able to develop sufficient expertise in the Company's different vocational groups with our strategically oriented and holistic human resource development, which gives all employees attractive training and development opportunities. By boosting our training programs, particularly at our international locations, we are able to adequately address the challenges of technological change and the structural transformation of the automotive industry.

To counter the potential risk of a shortage of skilled specialists – especially in the areas of digitalization and IT – we continuously expand our recruitment tools. Our systematic talent relationship management, for example, enables us to make contact with talented candidates from strategically relevant target groups at an early stage and to build a long-term relationship between them and the Group. In addition to the standard dual vocational training, programs such as our integrated degree *Studium im Praxisverbund* and traineeship scheme, Faculty 73 and the Volkswagen-sponsored non-profit École 42 in Wolfsburg and Berlin, ensure a pipeline of highly qualified and motivated employees. By systematically increasing our attractiveness as an employer, we are able to gain talented people in areas that are crucial for the future, such as electrical engineering, chemistry or information technology. With tools such as these, we want to ensure that our demand for qualified new staff is covered, even amid a shortage of skilled labor.

We counter the risks associated with employee fluctuation and loss of knowledge as a result of retirement with intensive, department-specific succession planning and training. We have also established a base of senior experts in the Group. With this instrument, we use the valuable knowledge of our experienced specialists who have retired from Volkswagen.

The advancing digitalization of our human resources processes entails risks arising from the processing of personal data, but also system-based improvements so that Volkswagen can ensure compliance with data protection laws when processing personal data. Volkswagen is aware of its responsibility in the processing of this data. To make processing compliant with data protection requirements, we address risks as part of our data protection management system by implementing a wide range of measures. A challenge lies in the conflict between requests for information in the context of various US agreements entered into in connection with the diesel issue on the one hand and both German and international data protection requirements on the other. This is true particularly in view of the fact that these data protection requirements are open to a certain degree of interpretation and assessment. In the interest of precluding infringements of the law as far as possible, despite a partially unclear legal situation, Volkswagen is advised by external law firms on these issues.

The spread of the SARS-CoV-2 virus has had a negative impact on business development since fiscal year 2020. Any infectious diseases occurring in the future may also pose a risk of high infection rates among the workforce, resulting in process disruptions in production and non-production areas, for example production stoppages. In the event of the future spread of such diseases, emergency plans to tackle this risk for the purpose of business continuity management will be developed for critical processes, based on our experience to date, and incorporated into the risk management systems.

Environmental protection regulations

The specific emission targets for all new passenger car and light commercial vehicle fleets for brands and groups in the EU for 2020 and subsequent years are set out in Regulation (EU) No 2019/631. This regulation is a material component of the European climate protection policy and therefore forms the key regulatory framework for product design and marketing by all vehicle manufacturers selling in the European market.

Adopted and published by the EU in 2019, the regulation states that, from 2021 onward, the average emissions of European passenger car fleets must be no higher than 95 g CO_2/km. Up to and including 2020, European fleet legislation was complied with on the basis of the New European Driving Cycle (NEDC). From 2021 onward, the NEDC target value was replaced by a WLTP target value through a process defined by lawmakers; this change has not led to additional tightening of the target value. A similar approach applies to light commercial vehicles, where a target of 147 g CO_2/km applied to the entire fleet in 2021.

The targets will be tightened as from 2025: for new European passenger car fleets, a reduction of 15% in CO_2 emissions will therefore be required from 2025 and a reduction of 37.5% from 2030. For new light commercial vehicle fleets, the required reductions will be 15% from 2025 and 31% from 2030. In each case, the starting point is the WLTP fleet value in 2021. These targets can only be achieved through a high proportion of electric vehicles within the fleet.

If the respective fleet-wide target is not fulfilled, the Commission may impose an excess emissions premium, amounting to €95 per excess gram of CO_2 per newly registered vehicle.

At the same time, regulations governing fleet fuel consumption of new vehicles are also being developed or introduced outside the EU27 (plus Norway, Iceland), for example in Brazil, Canada, China, India, Japan, Mexico, Saudi Arabia, South Korea, Switzerland, Taiwan, the United Kingdom and the USA. Brazil has introduced a fleet efficiency target as part of a voluntary program which grants tax advantages. To receive a 30% tax advantage, manufacturers must, among other things, achieve a specified fleet efficiency. The fuel consumption regulations in China, which set an average fleet target of 5.0 liters/100 km (NEDC) for the period 2016 to 2020, were continued into the period 2021 to 2025 with a target of 4.6 liters/100 km (WLTP). In addition to this legislation on fleet fuel consumption, a new energy vehicle quota applies in China. This requires every manufacturer to increase the share of electric vehicles – which are included with different weightings – in its total sales. For 2021, this quota was 14% and had to be fulfilled through battery-electric vehicles, plug-in hybrids, or fuel cell vehicles. The minimum quota will increase by two percentage points annually until 2023. Targets for the period after 2023 have not yet been defined. In the USA, the annual CO_2 and efficiency targets to be fulfilled by the fleet for new passenger cars and light commercial vehicles are defined by the greenhouse gas legislation (since 2012) and Corporate Average Fuel Economy legislation (CAFE). A decision was reached in fiscal year 2020 to relax CO_2 fleet targets significantly starting in 2022. The Volkswagen Group decided to participate in the framework of the California Air Resources Board (CARB). This involves a voluntary commitment to the alternative CO_2 fleet targets set by the CARB, which are more ambitious than the national standards. In December 2021, the current administration published the new CO_2 fleet targets for the period from 2022 to 2026, thereby reversing the loosening of the targets by the previous administration. The form of the efficiency targets (CAFE) for this period is still under discussion.

The increased regulation of fleet-based CO_2 emissions and fuel consumption makes it necessary to use the latest mobility technologies in all key markets worldwide. At the same time, electrified and also purely electric drives are becoming increasingly common. The Volkswagen Group closely coordinates technology and product planning with its brands so as to avoid breaches of fleet values, for example. These would entail severe payment obligations. Whether the Group meets its fleet targets depends crucially on its technological and financial capabilities, which are reflected in, for example, our drivetrain and fuel strategy.

Alongside technical and portfolio electrification measures, it is also possible to use local statutory mechanisms such as the creation of emission pools in Europe or the trading of emission credits in the United States and China. Legislation provides further flexibility to aid target achievement, depending on the region, for example:

> Relief opportunities may be provided for additional innovative technologies in the vehicle that apply outside the test cycle (eco-innovations and off-cycle credits)
> Particularly efficient vehicles qualify for super-credits
> Special rules are in place for small-series producers and niche manufacturers

In the EU, a more time-consuming test procedure has applied to all new vehicles with WLTP since September 2018. Other challenges arise in connection with stricter processes and requirements regarding WLTP, such as from test criteria and homologation (achievement of vehicle type approvals).

The Real Driving Emissions (RDE) Regulation for passenger cars and light commercial vehicles is another of the main

European regulations. New, uniform limits for nitrogen oxide and particulate emissions in real road traffic have applied to new vehicle types across the EU since September 2017. This makes the RDE test procedure fundamentally different from the Euro 6 standard still in force, which stipulates that the limits on the chassis dynamometer are authoritative. The RDE regulation is intended primarily to improve air quality in urban areas and areas close to traffic, leading to stricter requirements for exhaust gas aftertreatment in passenger cars and light commercial vehicles. Stricter RDE processes and requirements have resulted in certain challenges, for example relating to test criteria and homologation. The debate on a successor regulation began at European level in 2020. A conclusion to this debate and thus new legislation is not expected before 2023. It is not anticipated that this successor regulation will enter force until the second half of the decade.

The other main EU regulations affecting the automotive industry include:

> The Car Labeling Directive 1999/94/EC
> The Fuel Quality Directive (FQD) 2009/30/EC updating the fuel quality specifications and introducing energy efficiency specifications for fuel production
> The Renewable Energy Directive (RED) (2009/28/EC) introducing sustainability criteria; the follow-up regulation (RED2) contains higher quotas for advanced biofuels
> The revised Energy Taxation Directive 2003/96/EC updating the minimum tax rates for all energy products and electricity

Commercial vehicles are increasingly subject to ever stricter environmental regulations all around the world, particularly to regulations relating to climate change and vehicle emissions. With Regulation (EU) 2019/1242 of June 20, 2019, which specifies CO_2 emission standards for new heavy trucks with a permitted gross weight of over 16 tonnes, the EU has set heavy commercial vehicle manufacturers very ambitious targets for reducing CO_2 emissions within the next decade. The CO_2 emissions from such vehicles must be reduced by 15% by 2025 and 30% by 2030 compared to a reference value for a monitoring period from July 2019 to June 2020. If emissions exceed these targets, vehicle manufacturers will be liable to substantial premiums, amounting to €4,250 per excess gram of CO_2/tonne-kilometer (tkm) per vehicle for the period from 2025 to 2029 and €6,800 per excess gram of CO_2/tkm per vehicle for the period from 2030 onward.

The review of the requirements on CO_2 emissions for heavy commercial vehicles planned in the EU for 2022 could additionally toughen these challenges. Meeting these EU targets requires reducing CO_2 emissions through new technologies. We are therefore making substantial investments in climate-friendly alternative drives – especially battery-electric commercial vehicles (trucks and buses).

As part of the European Green Deal, the European Commission has presented its 2030 Climate Target Plan, which sets out to reduce CO_2 emissions in the EU by at least 55% (previously 40%) compared to 1990 levels by 2030. Various of the above-mentioned regulations and directives are currently being revised within this framework to support the achievement of climate targets. This may lead to even more stringent requirements for CO_2 emissions (fleet limits) for the automotive industry.

The debate around driving bans for diesel vehicles in Germany has lost some of its heat given the strong improvements in air quality measurements. There was a significant reduction in the number of municipalities and cities that failed to comply with the air pollutant limits for nitrogen-dioxide (NO_2) immissions in 2021. In some cases, these issues have been, and continue to be, the subject of legal proceedings. Individual cities throughout Germany have already imposed zonal traffic bans for older vehicles such as Euro 4/IV diesel. It is argued that only driving bans for diesel vehicles can bring about the necessary short-term reduction in NO_2 immissions. The aforementioned debate could negatively affect sales of diesel vehicles and result in financial liabilities and possible official requirements.

Local bans on the use of diesel vehicles are already also in place in a number of other countries, though these mainly affect older vehicles with lower emissions standards. Regulations in Belgium that successively ban older vehicles from larger cities are one example. In addition to major cities such as Paris and London, countries like the United Kingdom are now discussing future bans on vehicles with internal combustion engines.

In the Power Engineering segment, the International Maritime Organization (IMO) has introduced the International Convention for the Prevention of Pollution from Ships (MARine POLlution – MARPOL), with which limits on emissions from marine engines will be lowered in phases. A reduction of the sulfur content in marine fuel was implemented globally with effect from January 1, 2020. In addition, the IMO has decided on a number of emission control areas in Europe and the USA/Canada that will be subject to particularly stringent environmental regulations. Expansion to further regions such as the Mediterranean or Japan is already being planned; other regions such as the Black Sea, Alaska, Australia or South Korea are also in discussion. Moreover, emission limits are in force under Regulation (EU) 2016/1628 and in accordance with the regulations of the US Environmental Protection Agency (EPA), for example. We are pushing for a maritime energy transition in specialist bodies and also promote this to the general public. In a first step, we are supporting the switch to liquefied natural gas (LNG) as a fuel for maritime applications, and offer dual fuel and gas-powered engines for new and retrofitted vessels. For the long-term and climate-neutral operation of seagoing vessels, we advocate power-to-X technology, in which excess sustainably generated electricity is converted into carbon-neutral gas or liquid fuel.

As regards stationary equipment, there are a number of national rules in place worldwide that limit permitted emissions. On December 18, 2008, the World Bank Group set limits for gas and diesel engines in its Environmental, Health, and Safety Guidelines for Thermal Power Plants, which are required to be applied in countries that have adopted no national requirements of their own, or requirements that are less strict than those of the World Bank Group. These guidelines are currently being revised. In addition, the United Nations adopted the Convention on Long-range Transboundary Air Pollution back in 1979, setting limits on total emissions as well as nitrogen oxide for the signatory states (including all EU states, other countries in Eastern Europe, the USA and Canada). Enhancements to the product portfolio in the Power Engineering segment focus on improving the efficiency of equipment and systems.

LEGAL RISKS

For this risk category, the likelihood of occurrence is classified as medium (previous year: medium) and the potential extent of damage is classified as medium (previous year: medium).

The most significant risks from the QRP are associated with the diesel issue.

Litigation

Volkswagen AG and the companies in which it is directly or indirectly invested are involved in a substantial number of legal disputes and governmental proceedings in Germany and abroad. Such legal disputes and other proceedings occur, among other things, in connection with products and services or in relation to employees, public authorities, dealers, investors, customers, suppliers, or other contracting parties. For the companies in question, these disputes and proceedings may result in payments such as fines or in other obligations or consequences. In particular, substantial compensatory or punitive damages may have to be paid and cost-intensive measures may have to be implemented. In this context, specific estimation of the objectively likely consequences is often possible only to a very limited extent, if at all.

Various legal proceedings are pending worldwide, particularly in the USA, in which customers are asserting purported product-related claims, either individually or in class actions. These claims are as a rule based on alleged vehicle defects, including defects alleged in vehicle parts supplied to the Volkswagen Group. Compliance with legal or regulatory requirements (such as the GDPR) is another area in which risks may arise. This is particularly true in gray areas where Volkswagen and the relevant public authorities may interpret the law differently.

In connection with their business activities, Volkswagen Group companies engage in constant dialogue with regulatory agencies, including the Kraftfahrt-Bundesamt (KBA – German Federal Motor Transport Authority). It is not possible to predict with assurance how government regulators will assess certain issues of fact and law in a particular situation. For this reason, the possibility that certain vehicle characteristics and/or type approval aspects may in particular ultimately be deemed deficient or impermissible cannot be ruled out. This is fundamentally a question of the regulatory agency's specific evaluation in a concrete situation.

Risks may also result from actions for infringement of intellectual property, including infringement of patents, brands, or other third-party rights, particularly in Germany and the USA. If Volkswagen is alleged or determined to have violated third-party intellectual property rights, it may for instance have to pay damages, modify manufacturing processes, or redesign products, and may be barred from selling certain products; this may result in delivery and production restrictions or interruptions.

Criminal acts by individuals, which even the best compliance management system can never completely prevent, are another potential source of legal risks.

Appropriate insurance has been taken out to cover these risks where they were sufficiently definite and such coverage was economically sensible. Where necessary based on the information currently available, identified and correspondingly measurable risks have been reflected by recognizing provisions in amounts considered appropriate or disclosing contingent liabilities, as the case may be. As some risks cannot be assessed or can only be assessed to a limited extent, the possibility of material loss or damage not covered by the insured amounts or by provisions cannot be ruled out. This is, for instance, the case with regard to the legal risks assessed in connection with the diesel issue.

Unless otherwise explicitly stated, the amounts disclosed for the litigation being reported on refer only to the respective principal claim. Ancillary claims, such as for interest and litigation expense, are generally not considered.

Diesel issue

On September 18, 2015, the US Environmental Protection Agency (EPA) publicly announced in a “Notice of Violation” that irregularities in relation to nitrogen oxide (NO_x) emissions had been discovered in emissions tests on certain Volkswagen Group vehicles with 2.0 l diesel engines in the USA. In this context, Volkswagen AG announced that noticeable discrepancies between the figures recorded in testing and those measured in actual road use had been identified in type EA 189 diesel engines and that this engine type had been installed in roughly eleven million vehicles worldwide. On November 2, 2015, the EPA issued a “Notice of Violation” alleging that irregularities had also been discovered in the software installed in US vehicles with type V6 3.0 l diesel engines.

The so-called diesel issue is rooted in a modification of parts of the software of the relevant engine control units – which, according to Volkswagen AG’s legal position, is only unlawful under US law – for the type EA 189 diesel engines that Volkswagen AG was developing at that time. This software function was developed and implemented from 2006 on without knowledge at the level of the Board of Management. Members of the Board of Management did not learn of the development and implementation of this software function until the summer of 2015.

There are furthermore no findings that, following the publication in May 2014 of the study by the International Council on Clean Transportation, an unlawful “defeat device” under US law was disclosed to the persons responsible for preparing the 2014 annual and consolidated financial statements as the cause of the high NO_x emissions in certain US vehicles with 2.0 l type EA 189 diesel engines. Rather, at the time the 2014 annual and consolidated financial statements were being prepared, the persons responsible for preparing these financial statements remained under the impression that the issue could be resolved with comparatively little expense. In the course of the summer of 2015, however, it became progressively apparent to individual members of Volkswagen AG’s Board of Management that the cause of the discrepancies in the USA was a modification of parts of the software of the engine control unit that was later identified as an unlawful “defeat device” as defined by US law. This culminated in Volkswagen's disclosure of a “defeat device” to the EPA and the California Air Resources Board, a department of the Environmental Protection Agency of the State of California, on September 3, 2015. According to the assessment at the time by the responsible persons dealing with the matter, the magnitude of the costs expected to result for the Volkswagen Group (recall costs, retrofitting costs, and financial penalties) was not fundamentally dissimilar to that in previous cases involving other vehicle manufacturers. It therefore appeared to be manageable overall considering the business activities of the Volkswagen Group. This assessment by Volkswagen AG was based, among other things, on the advice of a law firm engaged in the USA for regulatory approval issues, according to which similar cases had in the past been amicably resolved with the US authorities. The EPA's publication of the “Notice of Violation” on September 18, 2015, which the Board of Management had not expected, especially at that time, then presented the situation in an entirely different light.

The AUDI AG Board of Management members in office at the time in question have likewise stated that they had no knowledge of the use of “defeat device” software that was prohibited by US law in the type V6 3.0 l TDI engines until the EPA issued its November 2015 “Notice of Violation.”

Within the Volkswagen Group, Volkswagen AG has development responsibility for the four-cylinder diesel engines such as the type EA 189, and AUDI AG has development responsibility for the six- and eight-cylinder diesel engines such as the type V6 3.0 l and V8 4.2 l diesel engines.

As a consequence of the diesel issue, numerous judicial and regulatory proceedings were initiated in various countries. Volkswagen has in the interim succeeded in making substantial progress and ending many of these proceedings. In the USA Volkswagen AG and certain affiliates reached settlement agreements with various government authorities and private plaintiffs, the latter represented by a Plaintiffs' Steering Committee in a multidistrict litigation in the US state of California. The agreements in question include various partial consent decrees as well as a plea agreement that resolved certain civil claims as well as criminal charges under US federal law and the laws of certain US states in connection with the diesel issue. Although Volkswagen is firmly committed to fulfilling the obligations arising from these agreements, a breach of these obligations cannot be completely ruled out. In the event of a violation, significant penalties could be imposed as stipulated in the agreements, in addition to the possibility of further monetary fines, criminal sanctions and injunctive relief.

In agreement with the respective responsible authorities, the Volkswagen Group is making technical measures available worldwide for virtually all diesel vehicles with type EA 189 engines. For all clusters (groups of vehicles) within its jurisdiction, the Kraftfahrt-Bundesamt (KBA – German Federal Motor Transport Authority) determined that implementation of the technical measures would not result in any adverse changes in fuel consumption, CO_2 emissions, engine output, maximum torque, and noise emissions.

Following the studies carried out by AUDI AG to check all relevant diesel concepts for possible irregularities and retrofit potential, measures proposed by AUDI AG have been adopted and mandated by the KBA in various recall orders pertaining to vehicle models with V6 and V8 TDI engines. AUDI AG continues to anticipate that the total cost, including recall expenses, of the ongoing largely software-based retrofit program that began in July 2017 will be manageable and has recognized corresponding balance-sheet risk provisions. AUDI AG has in the meantime developed software updates for many of the affected powertrains and, after approval by the KBA, already installed these updates in the vehicles of a large number of affected customers. The few software updates still being developed are expected to be submitted to the KBA for approval early in the second quarter of 2022.

In connection with the diesel issue, potential consequences for Volkswagen's results of operations, financial position and net assets could emerge primarily in the following legal areas:

1. Criminal and administrative proceedings worldwide (excluding the USA/Canada)

Criminal investigations, regulatory offense proceedings, and/or administrative proceedings have been commenced in some countries. Criminal investigations into the core factual issues are being conducted by the Offices of the Public Prosecutor in Braunschweig and Munich.

In January 2021, the criminal proceedings regarding alleged market manipulation relating to capital market disclosure obligations in connection with the diesel issue were terminated by the Braunschweig Regional Court provisionally as regards the former Chair of the Board of Management and definitively as regards Volkswagen AG.

In September 2020, the Braunschweig Regional Court allowed the indictment of the same former Chair of the Board of Management of Volkswagen AG and others to proceed on charges that include fraud in connection with the diesel issue involving type EA 189 engines. The proceedings against this former Chair of the Board of Management of Volkswagen AG have since been severed from the other cases. The trial of the other defendants began in September 2021.

The Braunschweig Office of the Public Prosecutor is furthermore conducting investigations on suspicion of fraud in connection with type EA 288 engines.

In June 2020, the Munich II Regional Court accepted the substantially unchanged indictment of the Munich II Office of the Public Prosecutor, which also names a former Chair of the Board of Management of AUDI AG, and opened the main trial proceedings on charges of, among other things, fraud in connection with the diesel issue involving 3.0 l and 4.2 l TDI engines. Trial proceedings commenced in September 2020.

In August 2020, the Munich II Office of the Public Prosecutor issued a further indictment charging three former members of the Board of Management of AUDI AG and others with, among other things, fraud in connection with the diesel issue involving 3.0 l and 4.2 l TDI engines.

In connection with the diesel issue, the Stuttgart Office of the Public Prosecutor is conducting a criminal investigation on suspicion of fraud and illegal advertising; this investigation also involves a member of the Board of Management of Dr. Ing. h.c. F. Porsche AG.

As the type approval authority of proper jurisdiction, the KBA is moreover continuously testing Audi, Volkswagen, and Porsche brand vehicles for problematic functions. If certain functions are deemed impermissible by the KBA, the affected vehicles are recalled pursuant to a recall order or they are brought back into compliance by means of a voluntary service measure.

Moreover, additional administrative proceedings relating to the diesel issue are ongoing in other jurisdictions.

The companies of the Volkswagen Group are cooperating with the government authorities.

Risks may furthermore result from possible decisions by the European Court of Justice construing EU type approval provisions.

Whether the criminal and administrative proceedings will ultimately result in fines or other consequences for the Company, and if so what amounts these may entail, is currently subject to estimation risks. According to Volkswagen's estimates, the likelihood that a sanction will be imposed is 50% or less in the majority of these proceedings. Contingent liabilities have therefore been disclosed where the amount of such liabilities could be measured and the likelihood of a sanction being imposed was assessed at not less than 10%.

2. Product-related lawsuits worldwide (excluding the USA/Canada)

A general possibility exists that customers in the affected markets will file civil lawsuits or that importers and dealers will assert recourse claims against Volkswagen AG and other Volkswagen Group companies. Besides individual lawsuits, various forms of collective actions (i.e. assertion of individual claims by plaintiffs acting jointly or as representatives of a class) are available in various jurisdictions. Furthermore, in a number of markets it is possible for consumer and/or environmental organizations to bring suit to enforce alleged rights to injunctive relief, declaratory judgment, or damages.

Customer class action lawsuits and actions brought by consumer and/or environmental organizations are pending against Volkswagen AG and other Volkswagen Group companies in a number of countries including Belgium, Brazil, England and Wales, France, Germany, Italy, the Netherlands, Portugal, and South Africa. Alleged rights to damages and other relief are asserted in these actions. The pending actions include in particular the following:

In Australia, two civil suits filed against Volkswagen AG and other Group companies by the Australian Competition and Consumer Commission (ACCC) were settled for the sum of AUD 75 million in the second half of 2019. On appeal, the amount of the settlement was increased to AUD 125 million by final judicial ruling in the reporting year.

In Belgium, the Belgian consumer organization Test Aankoop VZW has filed a class action to which an opt-out mechanism has been held to apply. Given the opt-out rule, the class action potentially covers all vehicles with type EA 189 engines purchased by consumers on the Belgian market after September 1, 2014, unless the right to opt out is actively exercised. The asserted claims are based on purported violations of unfair competition and consumer protection law as well as on alleged breach of contract.

In Brazil, two consumer protection class actions are pending. The first of these class actions pertains to some 17 thousand Amarok vehicles and the second to roughly 67 thousand later generation Amaroks. In the first class action, an appeals judgment was rendered in May 2019 that only partially upheld the lower court's decision. This judgment initially reduced the damage liability of Volkswagen do Brasil considerably to around BRL 172 million. This amount can increase as a result of the adjudicated inflation rate and the assertion of individual claims alleging declines in the value of affected Amarok vehicles. The appeals judgment remains non-final since Volkswagen do Brasil has appealed it to a higher court. The second class action was dismissed as inadmissible in October 2021. The judgment is appealable.

The financialright GmbH filed consolidated actions before various German courts asserting claims assigned to it by customers in Germany, Slovenia, and Switzerland against Volkswagen Group companies. Following the withdrawal of numerous motions for relief, approximately 36 thousand claims are currently still pending. Some cases have in the meantime moved to the first or second appeals level. There is, however, as yet no high court ruling on the permissibility of the business model of financialright GmbH.

In England and Wales, suits filed in court by various law firms have been joined in a single collective action (group litigation). Because of the opt-in mechanism, not all vehicles with type EA 189 engines are automatically covered by the group litigation; potential claimants must instead take action in order to join. To date, some 91 thousand plaintiffs have registered claims under the group litigation, for which the opt-in period has expired. Further plaintiff law firms have registered roughly 105 thousand additional claims with the court. The question of liability on the part of Volkswagen was not among the preliminary issues that the High Court decided in April 2020 and will be dealt with at a later stage of the proceedings. The main trial proceedings are to begin in January 2023. In addition, in late 2021 a new lawsuit was filed in court against Volkswagen AG, Volkswagen Financial Services (UK) Limited, and other Volkswagen Group companies in connection with certain diesel vehicles leased or sold in England, Wales, and Northern Ireland since 2009 and various other diesel engine types.

In France, a class action is pending that was filed by the French consumer organization Confédération de la Consommation, du Logement et du Cadre de Vie (CLCV) against Volkswagen Group Automotive Retail France and Volkswagen AG for up to 1 million French owners and lessees of vehicles with type EA 189 engines. This is an opt-in class action.

In Italy, a trial level judgment in favor of the plaintiffs was rendered by the Venice Regional Court in July 2021 in the class action brought by the consumer association Altroconsumo on behalf of Italian customers; the judgment requires Volkswagen AG and Volkswagen Group Italia to pay damages to some 63 thousand consumers in an aggregate amount of roughly € 185 million. Volkswagen AG and Volkswagen Group Italia have appealed this decision.

In the Netherlands, an opt-out class action is pending that was brought by Stichting Volkswagen Car Claim seeking declaratory rulings for up to 165 thousand customers. A declaratory judgment partially granting the relief sought was issued in July 2021. In the opinion of the court, Volkswagen AG and the other defendant Group companies acted unlawfully with respect to the original engine management software. The court moreover held that consumers are entitled to a purchase price reduction from the defendant dealerships. No specific payment obligations result from the declaratory judgment. Any individual claims would then have to be established afterwards in separate proceedings. Volkswagen AG and the other defendant Group companies have appealed the decision. Furthermore, an opt-out class action lawsuit brought by the Diesel Emissions Justice Foundation seeking monetary damages on behalf of Dutch consumers is also pending. It currently remains unclear whether other consumers in addition to those in the Netherlands may join this class action. The class action relates to vehicles with type EA 189 engines, among others.

In Portugal, a Portuguese consumer organization has filed an opt-out class action. The class action potentially affects up to approximately 99 thousand vehicles with type EA 189 engines. The complaint seeks vehicle return and alleges damages as well.

In South Africa, an opt-out class action seeking damages is pending that pertains to some 8 thousand vehicles with V6 and V8 TDI engines in addition to approximately 72 thousand vehicles with type EA 189 engines.

Furthermore, individual lawsuits and similar proceedings are pending against Volkswagen AG and other Volkswagen Group companies in various countries; most of these lawsuits are seeking damages or rescission of the purchase contract.

In Germany, roughly 60 thousand individual lawsuits relating to various diesel engine types are currently pending against Volkswagen AG or other Group companies, with the plaintiffs suing for damages or rescission of the contract in most cases.

In 2020, the Bundesgerichtshof (BGH – Federal Court of Justice) issued a series of fundamental judgments deciding legal issues of major importance for the litigation still pending with regard to vehicles with type EA 189 engines. The BGH held that buyers who had purchased vehicles prior to public disclosure of the diesel issue had damage claims against Volkswagen AG. While buyers can require reimbursement of the purchase price paid, they must accept a deduction for the benefit derived from using the vehicle and must return it to Volkswagen AG. Buyers have no tort-based claim for damages if they purchased their vehicles after the ad hoc announcement of September 22, 2015 or if they raise claims based solely on a temperature-dependent emissions control feature (so-called thermal window) in the engine. In February 2022, the BGH issued further fundamental judgments concerning vehicles with EA 189 motors deciding that buyers of new vehicles of the Volkswagen brand were entitled to so-called residual damage claims against Volkswagen AG after the knowledge-based limitation period has expired. As a result, Volkswagen AG has to repay the purchase price of the vehicle or the price paid by the dealer. The BGH decided that the claims for residual damages do not extend beyond claims of ordinary damages. Buyers need to subtract the value of usage and can only demand payment of the residual damages if they in return relinquish the vehicle. Prior to this the BGH had decided that, in contrast, buyers of used vehicles are not entitled to residual damages.

Volkswagen estimates the likelihood that the plaintiffs will prevail to be 50% or less in the great majority of cases: customer class actions, complaints filed by consumer and/or environmental organizations, and individual lawsuits. Contingent liabilities are disclosed for these proceedings where the amount of such liabilities can be measured and the chance that the plaintiff will prevail was assessed as not remote. Given the early stage of the proceedings, it is in many cases not yet possible to quantify the realistic risk exposure. Furthermore, provisions were recognized to the extent necessary based on the current assessment.

At this time, it cannot be estimated how many customers will choose to file lawsuits in the future in addition to those already pending and what prospect of success such lawsuits might have.

3. Lawsuits filed by investors worldwide (excluding the USA/Canada)

Investors from Germany and abroad have filed claims for damages against Volkswagen AG – in some cases along with Porsche Automobil Holding SE (Porsche SE) as joint and several debtors – based on purported losses due to alleged misconduct in capital market communications in connection with the diesel issue.

The vast majority of these investor lawsuits are currently pending before the Braunschweig Regional Court. In August 2016, the Braunschweig Regional Court issued an order referring common questions of law and fact relevant to the investor lawsuits pending before it to the Higher Regional Court in Braunschweig for binding declaratory rulings pursuant to the *Kapitalanleger-Musterverfahrensgesetz* (KapMuG – German Capital Investor Model Declaratory Judgment Act). In this proceeding, common questions of law and fact relevant to these actions are to be adjudicated by the Braunschweig Higher Regional Court in a single consolidated proceeding (model case proceedings). The lawsuits filed with the Braunschweig Regional Court are stayed pending resolution of the common issues, unless the cases can be dismissed for reasons independent of the common issues that are to be adjudicated in the model case proceedings. The resolution in the model case proceedings of the common questions of law and fact will be binding for the pending cases that have been stayed as described. The model case plaintiff is Deka Investment GmbH. Oral argument in the model case proceedings before the Braunschweig Higher Regional Court began in September 2018 and is continuing at subsequent hearings. The latest indication from the court was that it may take evidence on certain points.

Further investor lawsuits have been filed with the Stuttgart Regional Court against Volkswagen AG, in some cases along with Porsche SE as joint and several debtor. A further investor action for model declaratory judgment is pending before the Stuttgart Higher Regional Court against Porsche SE; Volkswagen AG is involved in this action as a third party intervening in support of a party to the dispute. The Wolverhampton City Council, Administrating Authority for the West Midlands Metropolitan Authorities Pension Fund, has been appointed model case plaintiff. Oral argument in this case began in July 2021 and is to be continued.

In the Netherlands, an unquantified action filed by a shareholder association seeking a determination that Volkswagen AG had supposedly misled the capital markets was withdrawn in early July 2021 after the European Court of Justice held that the courts of the Netherlands lacked international jurisdiction in a similar case. Volkswagen AG consented to the withdrawal of the action. This terminated the litigation without precluding the filing of subsequent lawsuits.

Excluding the United States and Canada and following the withdrawal of various actions, claims in connection with the diesel issue totaling roughly €9.5 billion are currently pending worldwide against Volkswagen AG in the form of investor lawsuits, judicial applications for dunning and conciliation procedures, and claims under the KapMuG. Volkswagen AG remains of the opinion that it duly complied with its capital market obligations. Therefore, no provisions have been recognized for these investor lawsuits. Contingent liabilities have been disclosed where the chance of success was estimated to be not less than 10%.

4. Proceedings in the USA/Canada

In the USA and Canada, the matters described in the EPA's "Notices of Violation" are the subject of various types of lawsuits and requests for information that have been filed against Volkswagen AG and other Volkswagen Group companies, in particular by customers, investors, salespersons, and various government agencies in Canada and the United States, including the attorneys general of several US states.

The Texas attorney general and some municipalities continue to pursue actions in state and federal courts against Volkswagen AG, Volkswagen Group of America, Inc., and certain affiliates, alleging violations of environmental laws. In January 2022, the Texas Supreme Court granted the February 2021 petition of the State of Texas for review of the Texas appellate court decision that had dismissed the environmental claims of Texas against Volkswagen AG and AUDI AG for lack of personal jurisdiction.

In November 2021, the US Supreme Court denied petitions by Volkswagen requesting that it reviews both a decision by the US Court of Appeals for the Ninth Circuit declining to dismiss certain claims brought by Hillsborough County, Florida, and Salt Lake County, Utah, and a decision by the Ohio Supreme Court declining to dismiss certain claims brought by the State of Ohio.

In the reporting year and in early 2022, Volkswagen settled the environmental claims brought by Montana and New Hampshire (in September 2021), Illinois (in December 2021), and Ohio (in January 2022).

In March 2019, the US Securities and Exchange Commission (SEC) filed a lawsuit against, among others, Volkswagen AG, Volkswagen Group of America Finance, LLC, and VW Credit, Inc., asserting claims under US federal securities law based, among other things, on alleged misstatements and omissions in connection with the offer and sale of certain bonds and asset-backed securities. In August 2020, the US District Court for the Northern District of California granted in part and denied in part Volkswagen's motion to dismiss. The claims dismissed by the court included all claims against VW Credit, Inc. related to asset-backed securities. In September 2020, the SEC filed an amended complaint that, among other things, removed the dismissed claims.

As to private civil law matters, in an environmental class action lawsuit seeking punitive damages on behalf of the residents of the Province of Quebec, after authorizing the case to proceed as a class, a Quebec court ruled in October 2020 that issues raised as to the viability of plaintiffs' damages theory should be deferred until trial. On that basis, the court denied a motion to dismiss by Volkswagen. Subsequently, Volkswagen settled the case. The settlement is subject to court approval, which is currently pending.

In line with IAS 37.92, no statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to proceedings in the USA/Canada. This is so as to not compromise the results of the proceedings or the interests of the Company.

5. Special audit

In a November 2017 ruling, the Higher Regional Court of Celle ordered, upon the request of three US funds, the appointment of a special auditor for Volkswagen AG. The special auditor is to examine whether the members of the Board of Management and Supervisory Board of Volkswagen AG breached their duties in connection with the diesel issue from June 22, 2006 onwards and, if so, whether this resulted in damages for Volkswagen AG. The ruling by the Higher Regional Court of Celle is formally unappealable. However, Volkswagen AG has filed a constitutional complaint with the German Federal Constitutional Court alleging infringement of its constitutional rights. Following the formally unappealable ruling from the Higher Regional Court of Celle, the special auditor appointed by the court indicated that he was not available to conduct the special audit on grounds of age. In April 2020, the Celle Higher Regional Court issued a ruling appointing a different special auditor. Volkswagen AG has filed a constitutional complaint with the Federal Constitutional Court contesting this formally unappealable decision as well on grounds of infringement of its constitutional rights and has suggested joinder of this matter with its initial constitutional complaint against the decision to appoint the special auditor. It is currently unclear when the Federal Constitutional Court will rule on the two constitutional complaints. The constitutional complaints have no suspensory effect.

In addition, a second motion seeking appointment of a special auditor for Volkswagen AG to examine matters relating to the diesel issue has been filed with the Regional Court of Hanover. This proceeding has been stayed pending a decision by the Federal Constitutional Court in the initial special auditor litigation.

6. Damage settlements

At the end of March 2021, the Supervisory Board of Volkswagen AG announced the completion of the investigation initiated in October 2015 into the causes of and those responsible for the diesel issue. The Board resolved to claim damages from Prof. Dr. Martin Winterkorn, former Chair of the Board of Management of Volkswagen AG, and from Rupert Stadler, former member of the Board of Management of Volkswagen AG and former Chair of the Board of Management of AUDI AG, for breach of their duty of care under stock corporation law. The resolution was based on identified negligent breaches of duty. The investigation found no breaches of duty by other members of the Volkswagen AG Board of Management. The investigation covered all members of the Board of Management who were in office during the relevant period. In June 2021, agreements on damage payments were reached in this connection with the goal of achieving speedy, legally certain, and final resolution of the diesel issue as far as the civil liability of members of governing bodies is concerned. To this end, Volkswagen and Audi entered into damage settlements (liability settlements) with Prof. Dr. Winterkorn and Mr. Stadler respectively in connection with the diesel issue. Prof. Dr. Winterkorn's damage payment amounts to €11.2 million and that of Mr. Stadler to €4.1 million. Volkswagen has furthermore reached agreement with the relevant insurers under its directors and officers liability policies (D&O insurance) on payment of an aggregate sum of €270 million (coverage settlement).

In addition, agreement was reached on damage payments by a former member of Audi's Board of Management and by a former member of Porsche's Board of Management. One former member of Audi's Board of Management was unwilling to reach a settlement; legal action is being prepared against him. Claims were already asserted against a former member of the Volkswagen Passenger Cars brand Board of Management.

7. Risk assessment regarding the diesel issue

An amount of around €2.1 (1.9) billion has been included in the provisions for litigation and legal risks as of December 31, 2021 to account for the currently known legal risks related to the diesel issue based on the presently available information and the current assessments. Where adequately measurable at this stage, contingent liabilities relating to the diesel issue have been disclosed in the notes in an aggregate amount of €4.3 (4.2) billion, whereby roughly €3.6 (3.5) billion of this amount results from lawsuits filed by investors in Germany. The provisions recognized, the contingent liabilities disclosed, and the other latent legal risks in the context of the diesel issue are in part subject to substantial estimation risks given the complexity of the individual relevant factors, the ongoing coordination with the authorities, and the fact that the fact-finding efforts have not yet been concluded. Should these legal or estimation risks materialize, this could result in further substantial financial charges. In particular, adjustment of the provisions recognized in light of knowledge acquired or events occurring in the future cannot be ruled out.

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to the diesel issue. This is so as to not compromise the results of the proceedings or the interests of the Company.

Additional important legal cases

In 2011, ARFB Anlegerschutz UG (haftungsbeschränkt) filed a claim for damages against Volkswagen AG and Porsche SE for allegedly violating disclosure requirements under capital market law in connection with the acquisition of ordinary shares in Volkswagen AG by Porsche SE in 2008. The damages being sought based on allegedly assigned rights currently amount to approximately €2.26 billion plus interest. In April 2016, the Hanover Regional Court formulated numerous objects of declaratory judgment that the antitrust panel of the Higher Regional Court in Celle will decide on in model case proceedings under the KapMuG. At the first hearing in October 2017, the court already indicated that it currently sees no justification for claims against Volkswagen AG, both because the pleadings are not sufficiently specific and for substantive legal reasons. Volkswagen AG sees the court's statements as confirmation that the claims against the Company are absolutely baseless. The Higher Regional Court has yet to render a decision. Further hearings are scheduled for 2022.

In Brazil, the Brazilian tax authorities commenced tax proceedings against MAN Latin America; at issue in these proceedings are the tax consequences of the acquisition structure chosen for MAN Latin America in 2009. In December 2017, an adverse administrative appeal ruling was rendered against MAN Latin America. MAN Latin America challenged this ruling before the regular court in 2018. Estimation of the risk in the event the tax authorities prevail on all points is subject to uncertainty because of differences in the amount of penalties and interest that might then apply under Brazilian law. However, a positive outcome for MAN Latin America remains the expectation. Should this not occur, a risk of about BRL 3.2 billion could result for the contested period from 2009 onwards; this amount has been included in contingent liabilities in the notes.

In 2011, the European Commission conducted searches at European truck manufacturers for suspected unlawful exchange of information during the period from 1997 to 2011; in November 2014, the Commission issued a statement of objections to MAN, Scania, and the other truck manufacturers concerned. In its settlement decision of July 2016, the European Commission assessed fines against five European truck manufacturers. MAN’s fine was waived in full as the company had informed the European Commission about the irregularities as a key witness.

In September 2017, the European Commission fined Scania €0.88 billion. Scania appealed to the European Court of Justice in Luxembourg and mounted a comprehensive defense. In a judgment rendered in February 2022, the European General Court (Court of First Instance) rejected Scania's appeal in its entirety. Scania is currently analyzing the judgment and will in timely fashion decide whether to appeal it to the European Court of Justice. Scania had already recognized a provision of € 0.4 billion in 2016 and increased this provision to approximately €0.9 billion in the reporting year.

Furthermore, antitrust lawsuits seeking damages have been received from customers. As is the case in any antitrust proceedings, this may result in further lawsuits for damages. No provisions have been recognized or contingent liabilities disclosed for these cases as most of them are still in an early stage and currently cannot be assessed for this reason. In other cases, the chance of a decision by a court of last resort that awards damages against MAN or Scania currently appears remote.

In April 2019, the European Commission issued an initial statement of objections to Volkswagen AG, AUDI AG, and Dr. Ing. h.c. F. Porsche AG in connection with the Commission's antitrust investigation of the automobile industry. These objections stated the European Commission's preliminary evaluation of the matter and afforded the opportunity to comment. Following entry into a formal settlement procedure, in April 2021 the Commission issued a revised statement of objections raising charges that were considerably more narrow. On this basis, a settlement decision was issued on July 8, 2021 concluding the administrative action and assessing a total fine of roughly € 502 million against the three brands. The subject matter scope of the decision is limited to the cooperation of German automobile manufacturers on individual technical questions in connection with the development and introduction of SCR (selective catalytic reduction) systems for passenger cars that were sold in the European Economic Area. The manufacturers are not charged with any other misconduct such as price fixing or allocating markets and customers. Volkswagen accepted the decision, which was served on July 12, 2021, and filed no appeal, thus allowing the decision to become final.

The Korean competition authority KFTC is analyzing potential violations based on the facts of the EU case. The final report of the KFTC's appointed case handler was issued in November 2021. Volkswagen, Audi, and Porsche will reply to this report. The Turkish competition authorities, who investigated similar matters, issued a final decision in January 2022 in which they determined anticompetitive behavior to allegedly exist, but found that it had no effect on Turkey, for which reason they refrained from imposing fines on the German automakers. Volkswagen, Audi, and Porsche are currently considering whether to file an appeal. Based on comparable matters, the Chinese competition authority has instituted proceedings against Volkswagen, Audi, and Porsche, among others, and issued requests for information.

In October 2020, the US District Court for the Northern District of California dismissed two antitrust class action complaints. The plaintiffs in these actions had alleged that several automobile manufacturers including Volkswagen AG and other Group companies had conspired to unlawfully increase vehicle prices in violation of US antitrust and consumer protection law. The court held that the plaintiffs have not stated a claim for relief because the allegations in the complaints do not plausibly support that the alleged agreements unreasonably restrained competition in violation of US law. The plaintiffs appealed this ruling. In August 2021, the plaintiffs in one of the two class actions withdrew their appeal. In October 2021, the Ninth Circuit Court of Appeals affirmed the dismissal of the other class action by the US District Court for the Northern District of California. After receiving an extension until December 27, 2021, the plaintiffs in the latter class action filed a motion for rehearing, which the Ninth Circuit denied on January 25, 2022. On December 28, 2021, those plaintiffs also filed a motion seeking to set aside the District Court's October 2020 judgment and to be allowed to file a new amended complaint. Plaintiffs in Canada filed claims with similar allegations on behalf of putative classes of purchasers against several automobile manufacturers, including Volkswagen Group Canada Inc., Audi Canada Inc., and other Volkswagen Group companies. Neither provisions nor contingent liabilities are stated because the early stage of the proceedings makes an assessment of the realistic risk exposure currently impossible.

In addition, a few national and international authorities have initiated antitrust investigations. Volkswagen is cooperating closely with the responsible authorities in these investigations. An assessment of the underlying situation is not possible at this early stage.

Porsche AG has discovered potential regulatory issues relating to vehicles for various markets worldwide. There are questions as to the permissibility of specific hardware and software components used in type approval measurements. Differences compared with production versions may also have occurred in certain cases. Based on the information presently available, current production is not affected, however. The issues are unrelated to the defeat devices that were at the root of the diesel issue. Porsche AG is cooperating with the relevant authorities including the Stuttgart Office of the Public Prosecutor, which is investigating the matter in Germany. Based on the available information, no formal criminal investigation has been opened against the company, however. Porsche's own internal investigations are still in progress. In January 2021, a consolidated complaint was filed with the US District Court for the Northern District of California alleging that the affected vehicles used certain software and/or hardware that resulted in increased emissions and/or overstated fuel economy estimates as compared to the results of certification testing. The defendants (Volkswagen AG, Dr. Ing. h.c. F. Porsche AG, and Porsche Cars North America, Inc.) have moved for dismissal of the action.

In December 2021, Navistar entered into a final Profit Sharing Settlement Agreement to terminate with past, present, and future effect certain disputes most recently litigated before an arbitration tribunal concerning the calculation of profit sharing amounts for purposes of Navistar's corporate retiree healthcare commitments. At the same time and in the same context, an agreement to settle the class action lawsuits was also reached with class action members; this agreement is still subject to approval by the supervising court, which will hear the class action members before ruling. The final agreement provides for a payment by Navistar in an amount of €491 million (USD 556 million); in fulfillment of the agreement, Navistar has already made an initial payments totaling €88 million (USD 100 million). Navistar recognized provisions in this regard in prior periods.

In November 2021, three claimants accompanied by Greenpeace filed a lawsuit against Volkswagen AG before the Braunschweig Regional Court. The action seeks to compel Volkswagen to initially reduce in stages and by 2029 completely cease its production and placement into the stream of commerce of vehicles with internal combustion engines as well as to reduce greenhouse gas emissions from development, production, and marketing (including third party vehicle use). The lawsuit further seeks to compel Volkswagen to exercise influence over Group companies, subsidiaries, and joint ventures so as to cause them to fulfill these demands as well. In addition, another action with identical requests for relief and by and large the same rationale has been filed by an organic farmer with the support of Greenpeace before the Detmold Regional Court. Volkswagen is analyzing the lawsuits and will defend itself against them.

Provisions were recognized by Volkswagen Bank GmbH and Volkswagen Leasing GmbH for possible claims in connection with financial services provided to consumers. These relate to actions involving certain features of customer loan and leasing agreements that may toll the running of the statutory cancellation time periods.

The lawsuit filed by GT Gettaxi Ltd. alleging in particular large damage claims, which was served on Volkswagen AG and another defendant in February 2020, was dismissed by the Cypriot first instance court in August 2021 due to lack of jurisdiction of the Cypriot courts. GT Gettaxi Ltd. has appealed this decision to the Supreme Court (which is the court of final appeal in Cyprus).

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to additional important legal cases. This is so as to not compromise the results of the proceedings or the interests of the Company.

Tax risks

Volkswagen AG and its subsidiaries have operations worldwide and are audited by local tax authorities on an ongoing basis. Amendments to tax laws and changes in legal precedent and their interpretation by the tax authorities in the respective countries may lead to tax payments that differ from the estimates made in the financial statements.

Risks arise particularly from tax assessment of the cross-border supply of intragroup goods and services. Through organizational measures, such as the implementation of an advance pricing agreement, as well as the monitoring of transfer prices, Volkswagen constantly monitors the development of tax risks, as well as the impact thereof on the consolidated financial statements.

Tax provisions were recognized for potential future payments of taxes for former years, while other provisions were recognized for ancillary tax payments arising in this connection.

Financial risks

No risks with a score of 20 or more were reported for this risk category in the reporting year.

Strategies for hedging financial risks

In the course of our business activities, financial risks may arise from changes in interest rates, exchange rates, raw material prices, or share and fund prices – but also from unforeseeable events such as the Covid-19 pandemic. Management of these financial risks and of liquidity risks is the central responsibility of the Group Treasury department, which reduces these risks using nonderivative and derivative financial instruments. The Board of Management is informed of the current risk situation at regular intervals.

Interest rate risk refers to potential losses that could arise as a result of changes in market interest rates. It occurs because of interest rate mismatches between asset and liability items in a portfolio or on the balance sheet. We hedge interest rate risk – where appropriate in combination with currency risk – and risks arising from fluctuations in the value of financial instruments by means of interest rate swaps, cross-currency interest rate swaps and other interest rate contracts with generally matching amounts and maturities. The principle of matching amounts and maturities applies to financing arrangements within the Volkswagen Group in the Automotive Division. In the Financial Services Division, the risk of changes in the interest rate is managed on the basis of limits using interest rate derivatives as part of the defined risk strategy.

Foreign currency risk is reduced in particular through natural hedging, i.e. by adapting our production capacity at our locations around the world, establishing new production facilities in the most important currency regions and also procuring a large percentage of components locally. We hedge the residual exchange rate risk using hedging instruments. These mainly comprise currency forwards and currency options. We use these transactions to limit the exchange rate risk associated with forecasted cash flows from operating activities, intragroup financing and liquidity positions in currencies other than the respective functional currency, for example as a result of restrictions on capital movements. The currency forwards and currency options can have a term of up to ten years. We use these to hedge our principal foreign currency risks, mostly against the euro and primarily in Australian dollars, Brazilian real, Canadian dollars, Chinese renminbi, Czech koruna, Hong Kong dollars, Hungarian forints, Indian rupees, Japanese yen, Mexican pesos, Norwegian kroner, Polish zloty, pounds sterling, Russian rubles, Singapore dollars, South African rand, South Korean won, Swedish kronor, Swiss francs, Taiwan dollars and US dollars.

The hedging of commodity prices entails risks relating to the availability of raw materials and price trends. We continuously analyze potential risks arising from changes in commodity and energy prices in the market so that immediate action can be taken whenever these arise. We limit these risks particularly by entering into forward transactions and swaps. We have used appropriate contracts to hedge some of our requirements for commodities such as aluminum, coal, copper and lead over a period of up to six years, in the case of nickel for up to nine years. The precious metals platinum, palladium and rhodium have shorter hedging periods, generally amounting to a maximum of up to three years. For selected commodities, this may also involve increases in physical inventories. We have also entered into transactions in order to supplement and improve allocations of CO_2 emission certificates as part of the European Union Emissions Trading System (EU ETS).

Special funds in which we invest surplus liquidity may entail equity price risks and fund price risks. We reduce these risks through the diversified investment of funds and through minimum values set out in the respective investment guidelines. In addition, exchange rates are hedged when market conditions are appropriate.

In the notes to the consolidated financial statements we explain our hedging policy, the hedging rules and the default and liquidity risks, and quantify the hedging transactions mentioned. We also disclose information on market risk within the meaning of IFRS 7 in the same section.

Risks arising from financial instruments

Channeling excess liquidity into investments and entering into derivatives contracts gives rise to counterparty risk. Partial or complete failure by a counterparty to perform its obligation to pay interest and repay principal, for example, would have a negative impact on the Volkswagen Group's earnings and liquidity. We counter this risk through our counterparty risk management, which we describe in more detail in the section entitled "Principles and Goals of Financial Management" in the "Results of Operations, Financial Position and Net Assets" chapter. The financial instruments held for hedging purposes give rise to both counterparty risks and balance sheet risks, which we limit using hedge accounting.

By diversifying when selecting business partners, we work to limit the impact of a default and keep the Volkswagen Group solvent at all times, even in the event of a default by individual counterparties.

The use of financial instruments may result in losses if the hedging exchange rates are less favorable than the rates achievable on the market at the maturity of the financial instrument.

Risks arising from trade receivables and from financial services are explained in more detail in the notes to the consolidated financial statements.

Liquidity risk

Volkswagen is reliant on its ability to adequately cover its financing needs. There is a potential liquidity risk that we will be unable to cover existing capital requirements by raising funds or being unable to finance the Group on reasonable terms, which in turn can have a substantially negative impact on Volkswagen's business position, assets, financial position and earnings.

In principle, the Automotive Division and Financial Services Division refinance themselves independently of one another. However, they are subject to very similar refinancing risks. In the Automotive Division, the Company's solvency is primarily safeguarded through retained, non-distributed earnings, by drawing down on credit lines and by issuing financial instruments on the money and capital markets. The capital requirements of the financial services business are covered mainly by raising funds in the national and international financial markets, as well as through customer deposits from the direct banking business.

One of the ways in which Volkswagen finances its projects is with loans provided by national development banks such as *Kreditanstalt für Wiederaufbau* (KfW) or Banco Nacional de Desenvolvimento Econômico e Social (BNDES), or by supranational development banks.

In addition to confirmed credit lines, unconfirmed lines of credit from commercial banks supplement our broadly diversified refinancing structure.

Financing opportunities can be hindered by worsening financial and general market conditions – including as a result of the Covid-19 pandemic – a worsening credit profile and outlook or a downgrade or withdrawal of the credit rating. In such cases, there is a risk of a fall in demand from market participants for securities issued by Volkswagen, which may additionally have a detrimental effect on the interest rates payable and restrict access to the capital market.

Risks and opportunities in the financial services business

While carrying out our financial services activities, we are primarily exposed to residual value risks and credit risks.

A residual value risk arises when the expected fair value for the disposal of the lease or finance asset may be lower than the residual value set at contract conclusion. However, there is also a possibility that disposal of the asset will generate more income than calculated for the residual value.

Referring to the bearer of residual value risk, a distinction is made between direct and indirect residual value risks. A direct residual value risk means that our financial services companies directly bear this risk (as outlined in the contract). An indirect residual value risk occurs when, based on a residual value guarantee, the residual value risk has passed to a third party, such as a dealer. In such cases, there is an initial counterparty default risk associated with this third party (the residual value guarantor). If the guarantor defaults, the residual value risk passes to our financial services companies.

Management of the residual value risk is based on a defined control cycle, which ensures that risks are fully assessed, monitored, responded to and communicated. This process structure enables us to manage residual risks professionally and also to systematically improve and enhance the way we handle residual value risks.

As part of our risk management efforts, the appropriateness of the risk provision is assessed regularly, as is the residual value risk potential. In the process, we compare the contractually agreed residual values with the obtainable fair values. These are determined utilizing data from external service providers and our own marketing data. We do not take possible gains on residual market values into account when recognizing risk provisions. Based on the resulting potential residual value risk, a variety of measures are initiated in order to limit this risk. With regard to new business, the residual value recommendation must take into account current market circumstances and factors that might have an influence in future.

Credit risk describes the risk of losses due to defaults in customer transactions, specifically by the borrower or lessee. Default occurs when the borrower or lessee is unable or unwilling to make the payments due. This includes late or partial payment of interest and principal on the part of the contracting party.

Credit checks on borrowers are the primary basis for lending decisions. Rating and scoring systems are used to provide an objective decision-making basis for granting loans and leases and for recognizing risk provisions.

An opportunity may arise if the losses from the lending and leasing business are lower than the previously calculated expected losses and the risk provision recognized on this basis. Particularly in those countries in which we take a conservative approach to risk due to the uncertain economic situation, the realized losses may be lower than the expected losses if the economy stabilizes and borrowers' credit ratings improve as a result.

Risks are managed and monitored within the framework of corresponding processes relating to economic circumstances and collateral, adherence to limits, contractual obligations, and conditions stipulated both by outside parties and the company itself. As such, commitments are managed according to the degree of risk involved (standard, intensified and problem loan management).

More information on risks in the financial services business can be found in the 2021 annual reports of Volkswagen Financial Services AG and Volkswagen Bank GmbH.

Opportunities and risks from mergers & acquisitions and/or other strategic partnerships/investments

No risks with a score of 20 or more were reported for this risk category in the reporting year.

Opportunities and risks from partnerships

As part of our new strategy NEW AUTO, we are stepping up our efforts to forge partnerships, both for the transformation of our core business and for the establishment of the new mobility solutions business.

In the field of battery cells, possible risks could arise from potential disagreement with our partners, possible delays in battery cell development or delayed battery cell production.

Close interaction with partners in the field of e-mobility in the form of partnerships and joint ventures supports technological change. Examples include the development of a comprehensive charging infrastructure. This cooperation involves risks such as an increased coordination workload, more complex decision-making processes and the loss of expertise. At the same time, opportunities are presented by the pooling of specialist knowledge, by horizontal and vertical integration and by better use of resources. Volkswagen has therefore created various teams in Group Components to closely support all such partnerships.

The marketing of the Modular Electric Drive Toolkit to third parties, for example as part of the strategic alliance with Ford, could result in damage claims in the event of problems with procurement, production and quality.

By entering into partnerships at a local level, we aim to identify regional customer needs more precisely, establish competitive cost structures and thus develop and offer market-driven products. We are concentrating to a greater extent on partnerships, acquisitions and venture capital investments. In doing so, we are generating maximum value for the Group and its brands and are able to expand our expertise, particularly in new areas of business. Our innovative presence in the markets supports this process. At the same time, there is a risk that the interests of business partners differ from our own.

Volkswagen owns a large number of patents and other industrial property rights and copyrights. Patent and licensing infringements may also arise in partnerships and thus result in the unauthorized disclosure of company-specific expertise. Volkswagen monitors the sales markets and also protects its expertise with legal action.

Risks arising from the recoverability of goodwill or brand names and from equity investments

For the goodwill recognized in the financial statements and for brand names, as well as for equity investments, there is a risk that the carrying amount of goodwill may be higher than the recoverable amount and that an extraordinary impairment loss must therefore be recognized. Volkswagen tests at least once a year on the basis of underlying cash-generating units, whether the value of the goodwill or the brand names could have been impaired. We also regularly test the equity investments for impairment. The possible consequences of climate change and future regulatory requirements, especially where associated with the transformation of our business towards e-mobility, and the potential effects of these, are taken into account in our medium-term planning and thus in the calculation of future cash flows, including in impairment tests. If there are objective indications that the recoverable amount of the asset concerned is lower than the carrying amount, Volkswagen recognizes this as a non-cash impairment. An impairment can be caused, for example, by an increase in interest rates or deteriorating business prospects.

Risks from the disposal of equity investments

An unexpected need for funding may lead to a situation in which assets have to be sold for a lower amount not equivalent to their value.

OVERALL ASSESSMENT OF THE RISK AND OPPORTUNITY POSITION

The Volkswagen Group's overall risk and opportunity position results from the specific risks and opportunities shown above. We have put in place a comprehensive risk management system to ensure that these risks are controlled. The most significant risks to the Volkswagen Group across all risk categories arise from a negative trend in markets and unit sales, with regard to quality and cyber security, and from an inability to develop products in line with demand and requirements, especially in view of e-mobility and digitalization. Non-fulfillment of CO_2-related requirements also constitutes a risk. The Volkswagen Group continues to be exposed to risks from the diesel issue. In 2022, any flare-up of the Covid-19 pandemic, the supply situation, especially for semiconductors, and the Russia-Ukraine conflict may have an adverse effect. Taking into account all the information known to us at present, no risks exist which could pose a threat to the continued existence of significant Group companies or the Volkswagen Group.

Prospects for 2022

Our planning is based on the assumption that global economic output will continue to grow in 2022, albeit at a somewhat lower level overall, after the recovery observed in the past fiscal year – provided that the Covid-19 pandemic does not flare up again and that shortages of intermediates and commodities become less intense. We continue to believe that risks will arise from protectionist tendencies, turbulence in the financial markets and structural deficits in individual countries. In addition, growth prospects will be negatively impacted by ongoing geopolitical tensions and conflicts, with risks arising especially from the Russia-Ukraine conflict. We anticipate that both the advanced economies and the emerging markets will experience positive momentum.

We predict that trends in the markets for passenger cars in the individual regions will be mixed in 2022. Overall, the global volume of new vehicle sales is expected to be moderately up on the prior year without reaching the pre-pandemic level. This prediction assumes that the Covid-19 pandemic does not flare up again and that shortages of intermediates, especially semiconductors, and commodities become less intense. For 2022, we anticipate that the volume of new passenger car registrations in Western Europe will be distinctly above that recorded in the reporting period. In the German passenger car market, we expect the volume of new registrations in 2022 to also distinctly exceed the prior-year figure. Sales of passenger cars in 2022 are expected to moderately exceed the prior-year figures in markets in Central and Eastern Europe – subject to the further development of the Russia-Ukraine conflict. Sales volume in the markets for passenger cars and light commercial vehicles (up to 6.35 tonnes) in North America in 2022 is forecast to be slightly higher than the previous year's level. We anticipate a moderate increase overall in new registrations in the South American markets in 2022 compared with the previous year. The passenger car markets in the Asia-Pacific region are expected to be slightly up on the prior-year level in 2022.

Trends in the markets for light commercial vehicles in the individual regions will also be mixed; on the whole, we anticipate a slight increase in the sales volume for 2022. This assumes that the Covid-19 pandemic does not flare up again and that shortages of intermediates, especially semiconductors, and commodities become less intense.

For 2022, we expect a significantly positive development in new registrations for mid-sized and heavy trucks with a gross weight of more than six tonnes compared with the previous year, with variations from region to region, in the markets that are relevant for the Volkswagen Group. A pronounced increase in overall demand, with regional variations, is expected for 2022 in the bus markets relevant for the Volkswagen Group.

We anticipate that automotive financial services will continue to prove highly important to global vehicle sales in 2022.

We believe we are well prepared overall for the future challenges pertaining to automotive business activities and for the mixed development of the regional automotive markets. Our brand diversity, our presence in all major world markets, our broad and selectively expanded product range, and our technologies and services put us in a good competitive position worldwide. As part of the transformation of our core business, we are positioning our Group brands with an even stronger focus on their individual characteristics, and are optimizing our vehicle and drive portfolio. The focus is primarily on our vehicle fleet's carbon footprint and on the most attractive and fastest-growing market segments. In addition, we are working to leverage the advantages of our multibrand Group even more effectively with the ongoing development of new technologies and the enhancement of our toolkits.

We anticipate that, given the continuing challenging market conditions, deliveries to customers of the Volkswagen Group in 2022 will be 5% to 10% up on the previous year. This assumes that the Covid-19 pandemic will not flare up again and that shortages of intermediates and commodities will become less intense. The 2022 fiscal year will continue to be affected by shortfalls in supply due to the structural shortage of semiconductors. We anticipate that the supply of semiconductors will improve in the second half of the year, compared with the first half.

Challenges will arise particularly from the economic situation, the increasing intensity of competition, volatile commodity and foreign exchange markets, securing supply chains and more stringent emissions-related requirements.

We expect the sales revenue of the Volkswagen Group and of the Passenger Cars Business Area in 2022 to be 8% to 13% higher than the prior-year figure. In terms of operating result for the Group and the Passenger Cars Business Area, we forecast an operating return on sales in the range of 7.0% to 8.5% in 2022. For the Commercial Vehicles Business Area, we anticipate an operating return on sales of 5.0% to 7.0% amid a strong year-on-year increase in sales revenue, including Navistar. In the Power Engineering Business Area, we expect sales revenue to be moderately above the prior-year figure and operating result to be in the low triple-digit million euro range. For the Financial Services Division, we forecast that sales revenue will be noticeably higher than the prior-year figure and that the operating result will be around €4.5 billion.

Wolfsburg, March 1, 2022
The Board of Management

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CONSOLIDATED FINANCIAL STATEMENTS

FINANCIAL STATEMENTS AND NOTES

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NOTES

Income Statement

of the Volkswagen Group for the period January 1 to December 31, 2021

€ million	Note	2021	2020
Sales revenue	**1**	**250,200**	**222,884**
Cost of sales	2	−202,959	−183,937
Gross result		**47,241**	**38,947**
Distribution expenses	3	−19,228	−18,407
Administrative expenses	4	−10,420	−9,399
Other operating income	5	14,731	12,438
Other operating expenses	6	−13,049	−13,904
Operating result		**19,275**	**9,675**
Share of the result of equity-accounted investments	7	2,321	2,756
Interest income	8	810	793
Interest expenses	8	−1,818	−2,291
Other financial result	9	−463	733
Financial result		**851**	**1,991**
Earnings before tax		**20,126**	**11,667**
Income tax income/expense	10	−4,698	−2,843
Current		−4,612	−3,150
Deferred		−86	307
Earnings after tax		**15,428**	**8,824**
of which attributable to			
Noncontrolling interests		46	−43
Volkswagen AG hybrid capital investors		539	533
Volkswagen AG shareholders		14,843	8,334
Basic/diluted earnings per ordinary share in €	**11**	**29.59**	**16.60**
Basic/diluted earnings per preferred share in €	**11**	**29.65**	**16.66**

Statement of Comprehensive Income

Changes in comprehensive income for the period January 1 to December 31, 2021

€ million	Total	Equity attributable to Volkswagen AG shareholders	Equity attributable to Volkswagen AG hybrid capital investors	Equity attributable to noncontrolling interests
Earnings after tax	**15,428**	**14,843**	**539**	**46**
Pension plan remeasurements recognized in other comprehensive income				
Pension plan remeasurements recognized in other comprehensive income, before tax	5,603	5,556	–	47
Deferred taxes relating to pension plan remeasurements recognized in other comprehensive income	–1,423	–1,414	–	–9
Pension plan remeasurements recognized in other comprehensive income, net of tax	4,180	4,143	–	37
Fair value valuation of equity instruments that will not be reclassified to profit or loss, net of tax	–52	–39	–	–13
Share of other comprehensive income of equity-accounted investments that will not be reclassified to profit or loss, net of tax	1	–2	–	3
Items that will not be reclassified to profit or loss	**4,128**	**4,102**	**–**	**27**
Exchange differences on translating foreign operations				
Gains/losses on currency translation recognized in other comprehensive income	3,389	3,336	–	53
Transferred to profit or loss	0	0	–	–
Exchange differences on translating foreign operations, before tax	3,390	3,337	–	53
Deferred taxes relating to exchange differences on translating foreign operations	4	4	–	–
Exchange differences on translating foreign operations, net of tax	3,393	3,340	–	53
Hedging				
Fair value changes recognized in other comprehensive income (OCI I)	–2,711	–2,707	–	–5
Transferred to profit or loss (OCI I)	–70	–76	–	6
Cash flow hedges (OCI I), before tax	–2,782	–2,783	–	1
Deferred taxes relating to cash flow hedges (OCI I)	860	861	–	0
Cash flow hedges (OCI I), net of tax	–1,922	–1,922	–	0
Fair value changes recognized in other comprehensive income (OCI II)	–613	–612	–	–1
Transferred to profit or loss (OCI II)	1,114	1,114	–	0
Cash flow hedges (OCI II), before tax	502	503	–	–1
Deferred taxes relating to cash flow hedges (OCI II)	–161	–161	–	0
Cash flow hedges (OCI II), net of tax	341	342	–	–1
Fair value valuation of debt instruments that may be reclassified to profit or loss				
Fair value changes recognized in other comprehensive income	–61	–61	–	–
Transferred to profit or loss	0	0	–	–
Fair value valuation of debt instruments that may be reclassified to profit or loss, before tax	–61	–61	–	–
Deferred taxes relating to fair value valuation of debt instruments recognized in other comprehensive income	18	18	–	–
Fair value valuation of debt instruments that may be reclassified to profit or loss, net of tax	–43	–43	–	–
Share of other comprehensive income of equity-accounted investments that may be reclassified to profit or loss, net of tax	631	624	–	7
Items that may be reclassified to profit or loss	**2,401**	**2,341**	**–**	**60**
Other comprehensive income, before tax	7,231	7,134	–	96
Deferred taxes relating to other comprehensive income	–702	–692	–	–9
Other comprehensive income, net of tax	**6,529**	**6,442**	**–**	**87**
Total comprehensive income	**21,958**	**21,285**	**539**	**133**

Changes in comprehensive income for the period January 1 to December 31, 2020

€ million	Total	Equity attributable to Volkswagen AG shareholders	Equity attributable to Volkswagen AG hybrid capital investors	Equity attributable to noncontrolling interests
Earnings after tax	**8,824**	**8,334**	**533**	**–43**
Pension plan remeasurements recognized in other comprehensive income				
Pension plan remeasurements recognized in other comprehensive income, before tax	–2,871	–2,861	–	–9
Deferred taxes relating to pension plan remeasurements recognized in other comprehensive income	930	928	–	2
Pension plan remeasurements recognized in other comprehensive income, net of tax	–1,940	–1,933	–	–7
Fair value valuation of equity instruments that will not be reclassified to profit or loss, net of tax	–6	–6	–	1
Share of other comprehensive income of equity-accounted investments that will not be reclassified to profit or loss, net of tax	61	55	–	6
Items that will not be reclassified to profit or loss	**–1,885**	**–1,885**	**–**	**0**
Exchange differences on translating foreign operations				
Gains/losses on currency translation recognized in other comprehensive income	–2,883	–2,846	–	–37
Transferred to profit or loss	16	16	–	0
Exchange differences on translating foreign operations, before tax	–2,868	–2,830	–	–37
Deferred taxes relating to exchange differences on translating foreign operations	–6	–6	–	–
Exchange differences on translating foreign operations, net of tax	–2,874	–2,836	–	–37
Hedging				
Fair value changes recognized in other comprehensive income (OCI I)	2,866	2,872	–	–6
Transferred to profit or loss (OCI I)	–1,122	–1,126	–	4
Cash flow hedges (OCI I), before tax	1,744	1,746	–	–2
Deferred taxes relating to cash flow hedges (OCI I)	–553	–553	–	1
Cash flow hedges (OCI I), net of tax	1,191	1,192	–	–1
Fair value changes recognized in other comprehensive income (OCI II)	–799	–799	–	0
Transferred to profit or loss (OCI II)	1,178	1,178	–	0
Cash flow hedges (OCI II), before tax	378	379	–	0
Deferred taxes relating to cash flow hedges (OCI II)	–110	–110	–	0
Cash flow hedges (OCI II), net of tax	268	269	–	0
Fair value valuation of debt instruments that may be reclassified to profit or loss				
Fair value changes recognized in other comprehensive income	38	38	–	–
Transferred to profit or loss	1	1	–	–
Fair value valuation of debt instruments that may be reclassified to profit or loss, before tax	39	39	–	–
Deferred taxes relating to fair value valuation of debt instruments recognized in other comprehensive income	–12	–12	–	–
Fair value valuation of debt instruments that may be reclassified to profit or loss, net of tax	27	27	–	–
Share of other comprehensive income of equity-accounted investments that may be reclassified to profit or loss, net of tax	–304	–297	–	–6
Items that may be reclassified to profit or loss	**–1,690**	**–1,645**	**–**	**–45**
Other comprehensive income, before tax	–3,825	–3,777	–	–48
Deferred taxes relating to other comprehensive income	250	247	–	3
Other comprehensive income, net of tax	**–3,575**	**–3,530**	**–**	**–45**
Total comprehensive income	**5,249**	**4,804**	**533**	**–88**

Balance Sheet

of the Volkswagen Group as of December 31, 2021

€ million	Note	Dec. 31, 2021	Dec. 31, 2020
Assets			
Noncurrent assets			
Intangible assets	12	77,689	67,968
Property, plant and equipment	13, 33	63,695	63,884
Lease assets	14, 33	59,699	50,686
Investment property	14	615	558
Equity-accounted investments	15	12,531	10,080
Other equity investments	15	3,000	1,865
Financial services receivables	16	84,954	82,565
Other financial assets	17	9,156	7,834
Other receivables	18	2,895	2,867
Tax receivables	19	635	376
Deferred tax assets	19	13,393	13,486
		328,261	**302,170**
Current assets			
Inventories	20	43,725	43,823
Trade receivables	21	15,521	16,243
Financial services receivables	16	56,498	58,006
Other financial assets	17	12,584	13,234
Other receivables	18	7,473	7,381
Tax receivables	19	1,618	1,186
Marketable securities	22	22,532	21,162
Cash, cash equivalents and time deposits	23	39,723	33,909
Assets held for sale		674	–
		200,347	**194,944**
Total assets		**528,609**	**497,114**

€ million	Note	Dec. 31, 2021	Dec. 31, 2020
Equity and liabilities			
Equity	**24**		
Subscribed capital		1,283	1,283
Capital reserve		14,551	14,551
Retained earnings		117,342	100,772
Other reserves		−3,167	−5,270
Equity attributable to Volkswagen AG hybrid capital investors		14,439	15,713
Equity attributable to Volkswagen AG shareholders and hybrid capital investors		144,449	127,049
Noncontrolling interests		1,705	1,734
		146,154	**128,783**
Noncurrent liabilities			
Financial liabilities	25	131,618	114,809
Other financial liabilities	26	4,466	4,257
Other liabilities	27	8,430	7,905
Deferred tax liabilities	28	5,131	4,890
Provisions for pensions	29	41,550	45,081
Provisions for taxes	28	3,392	3,292
Other provisions	30	23,474	22,688
		218,062	**202,921**
Current liabilities			
Financial liabilities	25	78,584	88,648
Trade payables	31	23,624	22,677
Tax payables	28	614	340
Other financial liabilities	26	13,002	10,590
Other liabilities	27	19,890	17,979
Provisions for taxes	28	2,863	2,213
Other provisions	30	25,578	22,964
Liabilities associated with assets held for sale		238	–
		164,393	**165,410**
Total equity and liabilities		**528,609**	**497,114**

Statement of Changes in Equity

of the Volkswagen Group for the period January 1 to December 31, 2021

€ million	Subscribed capital	Capital reserve	Retained earnings	OTHER RESERVES Currency translation reserve
Balance at Jan. 1, 2020	**1,283**	**14,551**	**96,929**	**–2,824**
Earnings after tax	–	–	8,334	–
Other comprehensive income, net of tax	–	–	–1,933	–2,836
Total comprehensive income	**–**	**–**	**6,400**	**–2,836**
Disposal of equity instruments	–	–	5	–
Capital increases/Capital decreases	–	–	–	–
Dividends payment	–	–	–2,419	–
Capital transactions involving a change in ownership interest	–	–	–166	–
Other changes	–	–	22	1
Balance at Dec. 31, 2020	**1,283**	**14,551**	**100,772**	**–5,659**
Balance at Jan. 1, 2021	**1,283**	**14,551**	**100,772**	**–5,659**
Earnings after tax	–	–	14,843	–
Other comprehensive income, net of tax	–	–	4,143	3,340
Total comprehensive income	**–**	**–**	**18,986**	**3,340**
Disposal of equity instruments	–	–	54	–
Capital increases/Capital decreases[1]	–	–	–	–
Dividends payment	–	–	–2,419	–
Capital transactions involving a change in ownership interest[2]	–	–	–269	–32
Other changes	–	–	217	–
Balance at Dec. 31, 2021	**1,283**	**14,551**	**117,342**	**–2,351**

1 Redemption of hybrid note issued in fiscal year 2014.
2 For the change in capital transactions involving a change in ownership interest see the “Key events” section.

Explanatory notes on equity are presented in the note relating to equity.

HEDGING							
Cash flow hedges (OCI I)	Deferred costs of hedging (OCI II)	Equity and debt instruments	Equity-accounted investments	Equity attributable to Volkswagen AG hybrid capital investors	Equity attributable to Volkswagen AG shareholders and hybrid capital investors	Noncontrolling interests	**Total equity**
95	**−977**	**−235**	**295**	**12,663**	**121,781**	**1,870**	**123,651**
–	–	–	–	533	8,867	−43	8,824
1,192	269	21	−242	–	−3,530	−45	−3,575
1,192	**269**	**21**	**−242**	**533**	**5,337**	**−88**	**5,249**
–	–	−5	–	–	–	–	–
–	–	–	–	2,989	2,989	–	2,989
–	–	–	–	−472	−2,891	−61	−2,952
–	–	–	–	–	−166	−72	−238
–	–	–	−23	–	−1	85	84
1,287	**−708**	**−219**	**30**	**15,713**	**127,049**	**1,734**	**128,783**
1,287	**−708**	**−219**	**30**	**15,713**	**127,049**	**1,734**	**128,783**
–	–	–	–	539	15,383	46	15,428
−1,922	342	−82	621	–	6,442	87	6,529
−1,922	**342**	**−82**	**621**	**539**	**21,825**	**133**	**21,958**
–	–	−54	–	–	–	–	–
–	–	–	–	−1,237	−1,237	170	−1,068
–	–	–	–	−576	−2,994	−28	−3,022
−1	0	0	−1	–	−302	−288	−590
–	–	–	−109	–	108	−16	93
−635	**−367**	**−355**	**541**	**14,439**	**144,449**	**1,705**	**146,154**

Cash flow statement

of the Volkswagen Group for the period January 1 to December 31, 2021

€ million	2021	2020
Cash and cash equivalents at beginning of period	**33,432**	**24,329**
Earnings before tax	20,126	11,667
Income taxes paid	–4,216	–2,646
Depreciation and amortization of, and impairment losses on, intangible assets, property, plant and equipment, and investment property[1]	12,947	12,765
Amortization of and impairment losses on capitalized development costs[1]	5,050	4,637
Impairment losses on equity investments[1]	137	454
Depreciation of and impairment losses on lease assets[1]	9,339	9,214
Gain/loss on disposal of noncurrent assets and equity investments	180	–889
Share of the result of equity-accounted investments	787	536
Other noncash expense/income	–1,652	–1,572
Change in inventories	2,110	1,334
Change in receivables (excluding financial services)	1,888	712
Change in liabilities (excluding financial liabilities)	1,856	540
Change in provisions	1,943	803
Change in lease assets	–16,205	–12,914
Change in financial services receivables	4,345	260
Cash flows from operating activities	**38,633**	**24,901**
Investments in intangible assets (excluding development costs), property, plant and equipment, and investment property	–10,655	–11,273
Additions to capitalized development costs	–7,843	–6,473
Acquisition of subsidiaries	–3,158	26
Acquisition of other equity investments	–2,741	–1,660
Disposal of subsidiaries	–304	402
Disposal of other equity investments	52	195
Proceeds from disposal of intangible assets, property, plant and equipment, and investment property	469	411
Change in investments in securities	–1,281	–4,462
Change in loans and time deposits	–667	143
Cash flows from investing activities	**–26,128**	**–22,690**
Capital contributions/capital redemptions	–1,071	2,984
Dividends paid	–3,022	–2,952
Capital transactions with noncontrolling interest shareholders	–590	–238
Proceeds from issuance of bonds	32,659	25,181
Repayments of bonds	–30,557	–19,815
Changes in other financial liabilities	–3,928	3,577
Repayments of lease liabilities	–1,246	–1,100
Cash flows from financing activities	**–7,754**	**7,637**
Effect of exchange rate changes on cash and cash equivalents	942	–745
Change of loss allowance within cash and cash equivalents	–1	0
Net change in cash and cash equivalents	**5,691**	**9,103**
Cash and cash equivalents at end of period	**39,123**	**33,432**
Cash and cash equivalents at end of period	39,123	33,432
Securities, loans and time deposits	34,515	32,645
Gross liquidity	**73,637**	**66,078**
Total third-party borrowings	–210,213	–203,457
Net liquidity	**–136,576**	**–137,380**

1 Net of impairment reversals.

Explanatory notes on the cash flow statement are presented in the section relating to the cash flow statement.

Notes to the Consolidated Financial Statements

of the Volkswagen Group as of December 31, 2021

Basis of presentation

Volkswagen AG is domiciled in Wolfsburg, Germany, and entered in the commercial register at the Braunschweig Local Court under No. HRB 100484. The fiscal year corresponds to the calendar year.

In accordance with Regulation No. 1606/2002 of the European Parliament and of the Council, Volkswagen AG prepared its consolidated financial statements for 2021 in compliance with the International Financial Reporting Standards (IFRSs), as adopted by the European Union. All the IFRSs adopted by the EU and required to be applied have been complied with.

The accounting policies applied in the previous year were generally retained. The only changes required resulted from new or amended standards.

Moreover, all the provisions of German commercial law that Volkswagen is additionally required to apply, as well as the German Corporate Governance Code, have been complied with in the preparation of the consolidated financial statements. For information on notices and disclosures of changes regarding the ownership of voting rights in Volkswagen AG in accordance with the Wertpapierhandelsgesetz (WpHG – German Securities Trading Act), please refer to the annual financial statements of Volkswagen AG.

The consolidated financial statements were prepared in euros. Unless otherwise stated, all amounts are given in millions of euros (€ million).

All figures shown are rounded, so minor discrepancies may arise from addition of these amounts.

The income statement was prepared using the internationally accepted cost of sales method.

Preparation of the consolidated financial statements in accordance with the aforementioned standards requires management to make estimates that affect the reported amounts of certain items in the consolidated balance sheet and in the consolidated income statement, as well as the related disclosure of contingent assets and liabilities. The consolidated financial statements provide a true and fair view of the net assets, financial position and results of operations as well as the cash flows of the Volkswagen Group.

The Board of Management completed preparation of the consolidated financial statements on March 1, 2022. On that date, the period ended in which adjusting events after the reporting period are recognized.

Effects of new and amended IFRSs

Volkswagen AG has applied all accounting pronouncements adopted by the EU and effective for periods beginning in fiscal year 2021.

As from January 1, 2021, the application of amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (Interest Rate Benchmark Reform – Phase 2) became mandatory. The Phase 2 amendments address the accounting treatment arising from the actual replacement of an interest rate benchmark with an alternative benchmark rate. The amendments introduce practical expedients with regard to the modification of financial assets, financial liabilities, lease liabilities and hedging relationships. Changes to contractual cash flows as a result of replacing the existing benchmark interest rate on an economically equivalent basis as a direct consequence of the interest rate benchmark reform are accounted for by adjusting the effective interest rate without recognizing any direct modification gains or losses. A similar expedient will be introduced for the accounting treatment of lease liabilities as a result of amendments to IFRS 16. Moreover, under the amended standards, a hedging relationship is not discontinued as a result of switching to a new benchmark interest rate on an economically equivalent basis, but continues following an adjustment to the hedge documentation, if the hedging relationship still meets the other requirements for hedge accounting.

The Volkswagen Group is exposed to the interest rate benchmark reform regarding its variable IBOR-related transactions. To avoid any material risk arising from the transition to alternative benchmark rates (interest rate basis risk, liquidity risk, litigation risk, operational risk) risk management strategies and procedures have been implemented. The Volkswagen Group has closely monitored the market and the output from the various industry working groups managing the transition to new benchmark interest rates. This includes announcements made by the IBOR regulators.

Regarding financial instruments that reference discontinued benchmark rates, the Volkswagen Group aims to complete its transition process prior to their official cessation dates, i.e. any existing derivatives transactions ("legacy trades") have been or will be manually transitioned to alternative benchmark rates (active approach) rather than relying on incorporation of a contractual fallback language made available by the International Swaps and Derivatives Association (ISDA) via ISDA 2020 IBOR Fallbacks Protocol or respective bilateral agreements with the Group's counterparties (passive approach). For new derivatives transactions that reference discontinued rates (if any), respective fallback mechanisms have been incorporated into the relevant framework agreements with the Group's counterparties via ISDA 2020 IBOR Fallbacks Supplement to the 2006 ISDA Definitions, the 2021 ISDA Interest Rate Derivatives Definitions and/or the 2018 ISDA Benchmark Supplement.

The exposures of financial instruments that are still affected by the interest rate benchmark reform at the reporting date arise on derivative and non-derivative financial assets and liabilities. They are exposed to the following significant benchmark rates. In our view EURIBOR is not affected by a replacement so the regarding transactions are outside the scope of this disclosure.

Disclosures on exposures impacted by interest rate benchmark reform as at December 31, 2021:

€ million	Non-derivative financial assets Carrying amount	Non-derivative financial liabilities Carrying amount	Derivatives Nominal amount
USD LIBOR	965	10,622	13,212
STIBOR	0	2,406	3,121
EUR LIBOR	389	0	0
Total	**1,354**	**13,028**	**16,333**

The amendments referred to above do not materially affect the Volkswagen Group's net assets, financial position and results of operations.

New and amended IFRSs not applied

In its 2021 consolidated financial statements, Volkswagen AG did not apply the following accounting pronouncements that have been adopted by the IASB until December 31, 2021, but were not yet required to be applied for the fiscal year.

Standard/Interpretation		Published by the IASB	Application mandatory[1]	Adopted by the EU	Expected impact
IFRS 3	Updating a Reference to the Conceptual Framework	May 14, 2020	Jan. 1, 2022	Yes	No material impact
IFRS 17	Insurance Contracts	May 18, 2017	Jan. 1, 2023	Yes[2]	No material impact
IFRS 17	Insurance Contracts – several amendments	June 25, 2020	Jan. 1, 2023	Yes[2]	No material impact
IAS 1	Classification of liabilities as current or non-current	Jan. 23, 2020	Jan. 1, 2023	No	No material impact
IAS 1	Disclosure of Accounting Policies	Feb. 12, 2021	Jan. 1, 2023	No	Adjustments to the corresponding explanatory notes. Primarily choice not to present the legal requirements.
IAS 8	Definition of Accounting Estimates	Feb. 12, 2021	Jan. 1, 2023	No	No material impact
IAS 12	Deferred taxes on leases and decommissioning and restoration liabilities	May 7, 2021	Jan. 1, 2023	No	No material impact
IAS 16	Property, Plant and Equipment: Proceeds before intended use	May 14, 2020	Jan. 1, 2022	Yes	No material impact
IAS 37	Onerous contracts – cost of fulfilling a contract	May 14, 2020	Jan. 1, 2022	Yes	No material impact
	Annual Improvements 2018 – 2020[3]	May 14, 2020	Jan. 1, 2022	Yes	No material impact

1 Effective date from Volkswagen AG's perspective.
2 The EU's endorsement includes an option that exempts companies from applying a valuation requirement in certain cases.
3 Minor amendments to a number of IFRSs (IFRS 1, IFRS 9 and IAS 41).

Key events

Diesel issue

On September 18, 2015, the US Environmental Protection Agency (EPA) publicly announced in a “Notice of Violation” that irregularities in relation to nitrogen oxide (NO_x) emissions had been discovered in emissions tests on certain Volkswagen Group vehicles with 2.0 l diesel engines in the USA. In this context, Volkswagen AG announced that noticeable discrepancies between the figures recorded in testing and those measured in actual road use had been identified in type EA 189 diesel engines and that this engine type had been installed in roughly eleven million vehicles worldwide. On November 2, 2015, the EPA issued a “Notice of Violation” alleging that irregularities had also been discovered in the software installed in US vehicles with type V6 3.0 l diesel engines.

The so-called diesel issue is rooted in a modification of parts of the software of the relevant engine control units – which, according to Volkswagen AG’s legal position, is only unlawful under US law – for the type EA 189 diesel engines that Volkswagen AG was developing at that time. This software function was developed and implemented from 2006 on without knowledge at the level of the Board of Management. Members of the Board of Management did not learn of the development and implementation of this software function until the summer of 2015.

There are furthermore no findings that, following the publication in May 2014 of the study by the International Council on Clean Transportation, an unlawful “defeat device” under US law was disclosed to the persons responsible for preparing the 2014 annual and consolidated financial statements as the cause of the high NO_x emissions in certain US vehicles with 2.0 l type EA 189 diesel engines. Rather, at the time the 2014 annual and consolidated financial statements were being prepared, the persons responsible for preparing these financial statements remained under the impression that the issue could be resolved with comparatively little expense.

In the course of the summer of 2015, however, it became progressively apparent to individual members of Volkswagen AG’s Board of Management that the cause of the discrepancies in the USA was a modification of parts of the software of the engine control unit that was later identified as an unlawful “defeat device” as defined by US law. This culminated in Volkswagen's disclosure of a “defeat device” to the EPA and the California Air Resources Board, a department of the Environmental Protection Agency of the State of California, on September 3, 2015. According to the assessment at the time by the responsible persons dealing with the matter, the magnitude of the costs expected to result for the Volkswagen Group (recall costs, retrofitting costs, and financial penalties) was not fundamentally dissimilar to that in previous cases involving other vehicle manufacturers. It therefore appeared to be manageable overall considering the business activities of the Volkswagen Group. This assessment by Volkswagen AG was based, among other things, on the advice of a law firm engaged in the USA for regulatory approval issues, according to which similar cases had in the past been amicably resolved with the US authorities. The EPA's publication of the “Notice of Violation” on September 18, 2015, which the Board of Management had not expected, especially at that time, then presented the situation in an entirely different light.

In fiscal year 2021, special items in connection with the diesel issue amounted to €750.8 million; they were mainly recognized in the other operating result. These special items were attributable to additional expenses of €967.6 million primarily for legal risks. This was offset by income from damage settlements and income from the reversal of provisions for warranties that are no longer required. The income from damage settlements of €216.8 million was brought about by agreements with former members of the Board of Management entered into in June 2021 with the goal of achieving speedy, legally certain, and final resolution of the diesel issue as far as the civil liability of members of governing bodies was concerned. To this end, Volkswagen and Audi entered into damage settlements (liability settlements) with Prof. Dr. Winterkorn and Mr. Stadler respectively in connection with the diesel issue. Prof. Dr. Winterkorn's damage payment amounts to €11.2 million and that of Mr. Stadler to €4.1 million. In addition, provisions of €3.1 million were reversed in this context. Volkswagen has furthermore reached agreement with the relevant insurers under its directors and officers liability policies (D&O insurance) on payment of an aggregate sum of €270 million (coverage settlement), of which €195.9 million was recognized in profit or loss.

In addition, agreement was reached on damage payments by a former member of Audi's Board of Management and by a former member of Porsche's Board of Management. One former member of Audi's Board of Management was unwilling to reach a settlement; legal action is being prepared against him. Claims were already asserted against a former member of the Volkswagen Passenger Cars brand Board of Management. The Annual General Meeting of Volkswagen AG gave its approval to these agreements on July 22, 2021.

Further information on the litigation in connection with the diesel issue can be found in the "Litigation" section.

Antitrust investigations

In April 2019, the European Commission issued an initial statement of objections to Volkswagen AG, AUDI AG, and Dr. Ing. h.c. F. Porsche AG in connection with the Commission's antitrust investigation of the automobile industry. These objections stated the European Commission's preliminary evaluation of the matter and afforded the opportunity to comment. Following entry into a formal settlement procedure, in April 2021 the Commission issued a revised statement of objections raising charges that were considerably more narrow. On this basis, a settlement decision was issued on July 8, 2021 concluding the administrative action and assessing a total fine of roughly €502 million against the three brands. This amount has been recognized under other operating expenses. The subject matter scope of the decision is limited to the cooperation of German automobile manufacturers on individual technical questions in connection with the development and introduction of SCR (selective catalytic reduction) systems for passenger cars that were sold in the European Economic Area. The manufacturers are not charged with any other misconduct such as price fixing or allocating markets and customers.

Volkswagen accepted the decision, which was served on July 12, 2021, and filed no appeal, thus allowing the decision to become final.

In 2011, the European Commission conducted searches at European truck manufacturers for suspected unlawful exchange of information during the period from 1997 to 2011; in November 2014, the Commission issued a statement of objections to MAN, Scania, and the other truck manufacturers concerned. In its settlement decision of July 2016, the European Commission assessed fines against five European truck manufacturers. MAN's fine was waived in full as the company had informed the European Commission about the irregularities as a key witness.

In September 2017, the European Commission fined Scania €0.88 billion. Scania appealed to the European Court of Justice in Luxembourg and mounted a comprehensive defense. In a judgment rendered in February 2022, the European General Court (Court of First Instance) rejected Scania's appeal in its entirety. Scania is currently analyzing the judgment and will in timely fashion decide whether to appeal it to the European Court of Justice. Scania had already recognized a provision of €0.4 billion in 2016 and increased this provision to approximately €0.9 billion in the reporting year.

Effects of the Covid-19 pandemic / shortage of semiconductors

Many restrictive measures were eased in the course of 2021 for reasons that include the rising vaccination rate. In the consolidated financial statements as of December 31, 2021, no material impairment losses attributable to the Covid-19 pandemic had to be recognized.

The semiconductor shortage and the resulting supply bottlenecks had an increasingly negative impact across the entire industry. This also affected production in the Volkswagen Group. As a result, the Volkswagen Group recorded a reduction in inventories of finished goods and a simultaneous increase in raw materials and work in progress in the fiscal year (see also the information provided in the section entitled "Inventories").

Please also refer to the comments in the 2021 group management report, specifically in the chapters entitled Business Development, Results of Operations, Financial Position and Net Assets, Report on Expected Developments and Report on Risks and Opportunities.

Material Transactions

The merger of MAN SE with TRATON SE was adopted by resolution of the Annual General Meeting of MAN SE on June 29, 2021. The merger resolution also triggered the process to transfer the shares held by the noncontrolling interest shareholders of MAN SE to TRATON SE against payment of an appropriate cash settlement (merger squeeze-out). In this context, the present value of the put options granted, amounting to approximately €587 million, was recognized as a current liability directly in equity. The noncontrolling interests in the Volkswagen Group's equity, as well as the retained earnings and other reserves attributable to the shareholders of Volkswagen AG declined accordingly.

The merger of MAN SE with TRATON SE was entered in the commercial register for MAN SE and TRATON SE on August 31, 2021. The squeeze-out took legal effect on the date of this entry in the commercial register. This was followed on September 3, 2021 by the disbursement of the cash settlement of €70.68 per ordinary and preferred share to the noncontrolling interest shareholders of MAN SE, thus completing the MAN SE squeeze-out. Judicial award proceedings initiated by noncontrolling interest shareholders who had received a settlement as a result of the squeeze-out are underway to review whether the cash settlement is appropriate.

In mid-June 2021, Volkswagen and the Swedish battery cell producer Northvolt AB agreed to concentrate production of Volkswagen premium cells in Skellefteå, Sweden. In connection with this, Volkswagen participated in a financing round at Northvolt AB that was proportionate to its shareholding, investing a further USD 650 million in the company. Volkswagen also increased its existing convertible loan by a further €190 million and, at the same time, converted this part of the loan to preferred shares. This increased Volkswagen's ownership interest in Northvolt AB to 23.6%. Due to favorable terms and conditions on conversion, the measurement of the converted loan resulted in non-cash income of €62 million. As a result, the carrying amount of the equity investment in Northvolt AB rose by €796 million. A convertible loan of €240 million remains on issue.

The sale of MAN Truck & Bus Österreich GesmbH, Steyr/Austria (MTBÖ) as part of restructuring measures was completed with effect from August 31, 2021. The assets and liabilities of MTBÖ were presented as a disposal group in the financial statements of the Volkswagen Group until the date of sale. The sale led to the recognition of an expense, of which €160 million was mainly attributable to impairment losses on property, plant and equipment and €144 million to a loss on deconsolidation. The total expense of €304 million is presented in other operating expenses. The sale of the shares in MTBÖ resulted in a net cash outflow of €199 million, which is presented in cash flows from investing activities.

At the end of July 2021, the Volkswagen Supervisory Board approved an agreement with investment firm Attestor Limited and with Pon Holdings B.V. for the submission of a joint public takeover offer for the shares of Europcar Mobility Group S.A., Paris/France through a consortium company.

Following a successful review of the offer documents, the French regulator approved the takeover offer at the end of November 2021. The period during which Europcar shareholders can tender their shares started at the end of November 2021 and will end when antitrust approval is granted. Together with its two partners, Volkswagen is offering a price of €0.50 per Europcar share through the consortium company. If more than 90% of the shares are tendered, an additional one cent per share will be paid. As matters stand, the consortium will assume joint control of Europcar if the offer is accepted.

Volkswagen is the writer of put options held by the other members of the consortium, and the other members have granted Volkswagen call options on their shares in the consortium company. The measurement of the options led to a non-cash expense of €103 million in fiscal year 2021, which was recognized in the financial result.

In 2021, the Volkswagen Group and Rimac Automobili d.o.o., Sveta Nedelja/Croatia (Rimac), established Bugatti Rimac d.o.o., which has its headquarter in Sveta Nedelja. Volkswagen has contributed its consolidated subsidiaries Bugatti Automobiles S.A.S, Molsheim/France and an initial 51% of Bugatti International S.A., Strassen/Luxembourg. After proportional profit elimination, the contribution resulted in a non-cash gain of €124 million, which was recognized in the other operating result. Rimac holds 55% of the shares in the company and Volkswagen holds 45% through Dr. Ing. h.c. F. Porsche AG (Porsche). In addition, Porsche holds a direct interest of 22% in Rimac. In the consolidated financial statements, both equity investments are reported under equity-accounted investments.

Initially, Bugatti Rimac d.o.o. will produce two hypercar models, the Bugatti Chiron and the Rimac Nevera. It is envisaged that further in the future the activities of Bugatti Rimac d.o.o. will focus on a joint product portfolio under the Bugatti brand name with the aim of developing, producing and selling electric-powered, luxury hyper sports cars.

To expand its battery expertise, Volkswagen acquired an interest in Gotion High-Tech Co., Ltd., Hefei/China (Gotion) through Volkswagen (China) Investment Co. Ltd., and is now the largest shareholder of the Chinese battery supplier with an interest of 26%. The Group spent a total of €1.2 billion on this transaction. The investment is accounted for using the equity method.

Acquisition of Navistar

On July 1, 2021, a TRATON GROUP company acquired all of the outstanding shares in Navistar International Corporation (Navistar), a US manufacturer of commercial vehicles based in Lisle, Illinois/USA. The purchase price of €3,118 million (USD 3,700 million) was paid in cash. TRATON SE now indirectly holds 100% of the shares in Navistar International Corporation, which was previously accounted for using the equity method (interest of 16.7%). Trading in Navistar shares on the New York Stock exchange has been discontinued.

Due to the size of the transaction, initial recognition of the acquisition has not yet been finalized as the internal reviews of the information underlying the purchase price allocation have not yet been completed. This means that the amounts recognized as of December 31, 2021 are provisional.

The acquisition resulted in goodwill in the amount of €2,783 million to reflect the synergies arising from the operation with Navistar. These relate particularly to the growth in the share of the market, to procurement, production costs, modularization and the use of shared components, and to the area of research and development.

The fair value of the equity interest in Navistar that TRATON GROUP had held immediately prior to the acquisition date was determined on the basis of the share price of USD 44.50/share at the acquisition date; it amounts to €624 million. The remeasurement of this equity interest resulted in a gain of €219 million. Moreover, the derecognition of the equity accounted investment during the initial consolidation of Navistar resulted in income and expenses previously recognized directly in equity being reclassified to the income statement, which led to an expense of €37 million. This in turn resulted in a gain of €182 million, which is presented in the share of the result of equity-accounted investments.

The preliminary allocation of the purchase price to the assets acquired and liabilities assumed is as follows:

€ million	Preliminary fair values as of July 1, 2021
Consideration transferred	
Cash	3,118
Unwinding of pre-existing relationships	126
Exchange of share-based payment awards	22
Total	**3,266**

€ million	Preliminary fair values as of July 1, 2021
Net assets acquired	
Intangible assets	3,542
of which Customer relationships	2,163
of which Brand names	736
Property, plant and equipment	917
Lease assets	316
Other equity investments	621
Noncurrent receivables and financial assets	369
Inventories	1,045
Current receivables and financial assets	1,732
Cash funds	565
Deferred tax assets	600
Total assets	**9,709**
Noncurrent financial liabilities	509
Provisions for pensions and similar obligations	1,066
Deferred tax liabilities	114
Other noncurrent liabilities and provisions	695
Current financial liabilities	3,322
Other current liabilities and provisions	2,894
Total liabilities	**8,599**
Balance of net assets acquired	**1,109**

€ million	Preliminary goodwill calculation
Consideration transferred	3,266
Equity interests	3
Fair value of equity interests held previously	624
less	
Net assets acquired	1,109
Goodwill	**2,783**

The consideration transferred includes an amount of €126 million for winding down pre-existing relationships. This corresponds to the fair value of the Volkswagen Group's receivables from and liabilities to Navistar recognized as of the acquisition date. The fair value of an amount receivable by MAN Truck & Bus from Navistar arising from the termination of a development project exceeds the previously recognized carrying amount by €12 million. The difference was recognized through profit or loss in other operating income.

Receivables and financial assets include the following groups of receivables for which the gross amounts differ from the fair values:

€ million	Gross amount	Amount expected to be uncollectible
Financing business receivables	924	15
Lease receivables	201	36
Trade receivables	501	15
Other receivables	512	1

The transaction costs of €34 million incurred up to December 31, 2021 for implementing the business combination were recognized in administrative expenses.

As a result of the consolidation of Navistar as of July 1, 2021, the Volkswagen Group's sales revenue increased by €3,494 million as of December 31, 2021, while earnings after tax, including amortization on realized hidden reserves, decreased by €217 million.

If Navistar had been included in the consolidated financial statements of the Volkswagen Group as a fully consolidated subsidiary since January 1, 2021, consolidated sales revenue after consolidation reported as of December 31, 2021 would have amounted to €253,802 million, and profit after tax would have been €526 million lower, at €14,942 million.

Effects of climate change

Against the backdrop of climate change and the resulting stricter emissions regulations, the transformation of the automotive industry towards e-mobility and further digitalization continues to make progress. In its NEW AUTO strategy, the Volkswagen Group has again stepped up the pace of its transformation towards e-mobility.

In the preparation of the consolidated financial statements, the Board of Management took into account the potential effects of climate changes and future regulatory requirements, and especially the corresponding transformation towards e-mobility. Potential effects, especially on noncurrent assets, provisions for emissions levies and future cash flows were, as far as possible, incorporated as part of the significant estimates and assumptions included in the consolidated financial statements. The effects of the transformation towards e-mobility are taken into account in compiling the medium-term planning and therefore in the calculation of future cash flows for determining recoverable amounts in impairment tests of goodwill and intangible assets with indefinite useful lives, especially when planning future vehicle models and in the context of investments in development costs and production facilities. In addition, Volkswagen regularly assesses whether these developments give rise to the need for ad hoc impairment tests or for adjustments to the useful lives of other noncurrent non-financial assets. With reference to increasingly stringent emissions regulations, it is ensured that the various international regulations are taken into account and that any obligations are recognized appropriately. This did not result in any material effects on the consolidated financial statements. The increase in development costs in the areas of e-mobility and digitalization have, however, led to a corresponding increase in internally generated intangible assets. For more information, please refer to the “Accounting policies” section.

For a detailed presentation of how sustainability is taken into account within the Group strategy, in the management of the Group and in Group planning, please refer to the sections entitled “Goals and Strategies” and “Sustainable Value Enhancement” in the group management report.

Basis of consolidation

In addition to Volkswagen AG, the consolidated financial statements comprise all significant German and non-German subsidiaries, including structured entities that are controlled directly or indirectly by Volkswagen AG. This is the case if Volkswagen AG obtains power over the potential subsidiaries directly or indirectly from voting rights or similar rights, is exposed or has rights to, positive or negative variable returns from its involvement with the subsidiaries, and is able to influence those returns. In the case of the structured entities consolidated in the Volkswagen Group, Volkswagen is able to direct the material relevant activities remaining after the change in the structure even if it is not invested in the structured entity concerned and is thus able to influence the variable returns from its involvement. The structured entities are used primarily to enter into asset-backed securities transactions to refinance the financial services business and to invest surplus liquidity in special securities funds. Consolidation of subsidiaries begins at the first date on which control exists, and ends when such control no longer exists.

Subsidiaries whose business is dormant or insignificant, both individually and in the aggregate, for the fair presentation of the net assets, financial position and results of operations as well as the cash flows of the Volkswagen Group are not consolidated. They are carried in the consolidated financial statements at cost net of any impairment losses and reversals of impairment losses required to be recognized.

Significant companies where Volkswagen AG is able, directly or indirectly, to significantly influence financial and operating policy decisions (associates), or that are directly or indirectly jointly controlled (joint ventures), are accounted for using the equity method. Joint ventures also include companies in which the Volkswagen Group holds the majority of voting rights, but whose articles of association or partnership agreements stipulate that important decisions may only be resolved unanimously. Insignificant associates and joint ventures are carried at cost net of any impairment losses and reversals of impairment losses required to be recognized.

The composition of the Volkswagen Group is shown in the following table:

	2021	2020
Volkswagen AG and consolidated subsidiaries		
Germany	144	145
Abroad	803	736
Subsidiaries carried at cost		
Germany	80	78
Abroad	284	284
Associates, joint ventures and other equity investments		
Germany	83	80
Abroad	135	119
	1,529	**1,442**

The list of all shareholdings that forms part of the annual financial statements of Volkswagen AG can be downloaded from the electronic companies register at www.unternehmensregister.de and from www.volkswagenag.com/ir.

The following consolidated German subsidiaries with the legal form of a corporation or partnership have met the criteria set out in section 264(3) or section 264b of the Handelsgesetzbuch (HGB – German Commercial Code) and have as far as possible exercised the option not to publish annual financial statements:

> ARTEMIS GmbH, Wolfsburg
> AUDI AG, Ingolstadt
> Audi Berlin GmbH, Berlin
> Audi Frankfurt GmbH, Frankfurt am Main
> Audi Hamburg GmbH, Hamburg
> Audi Hannover GmbH, Hanover
> AUDI Immobilien GmbH & Co. KG, Ingolstadt
> Audi Leipzig GmbH, Leipzig
> Audi München GmbH, Munich
> Audi Sport GmbH, Neckarsulm
> Audi Stuttgart GmbH, Stuttgart
> Auto & Service PIA GmbH, Munich
> Autostadt GmbH, Wolfsburg
> Bugatti Engineering GmbH, Wolfsburg
> CARIAD SE, Wolfsburg
> Dr. Ing. h.c. F. Porsche AG, Stuttgart
> dx.one GmbH, Chemnitz
> GETAS Verwaltung GmbH & Co. Objekt Augsburg KG, Pullach i. Isartal
> GETAS Verwaltung GmbH & Co. Objekt Heinrich-von-Buz-Straße KG, Pullach i. Isartal
> HABAMO Verwaltung GmbH & Co. Objekt Sterkrade KG, Pullach i. Isartal
> Haberl Beteiligungs-GmbH, Munich
> MAHAG Automobilhandel und Service GmbH & Co. oHG, Munich
> MAHAG GmbH, Munich
> MAHAG Sportwagen Zentrum Albrechtstraße GmbH, Munich
> MAN Energy Solutions SE, Augsburg
> MOIA GmbH, Berlin
> MOIA Operations Germany GmbH, Hanover
> Porsche Consulting GmbH, Bietigheim-Bissingen
> Porsche Deutschland GmbH, Bietigheim-Bissingen
> Porsche Dienstleistungs GmbH, Stuttgart
> Porsche Digital GmbH, Stuttgart
> Porsche Engineering Group GmbH, Weissach
> Porsche Engineering Services GmbH, Bietigheim-Bissingen
> Porsche Erste Beteiligungsgesellschaft mbH, Stuttgart
> Porsche Financial Services GmbH & Co. KG, Bietigheim-Bissingen
> Porsche Financial Services GmbH, Bietigheim-Bissingen
> Porsche Holding Stuttgart GmbH, Stuttgart
> Porsche Immobilien GmbH & Co. KG, Stuttgart
> Porsche Investments GmbH, Stuttgart
> Porsche Leipzig GmbH, Leipzig
> Porsche Lizenz- und Handelsgesellschaft mbH & Co. KG, Ludwigsburg
> Porsche Logistik GmbH, Stuttgart
> Porsche Niederlassung Berlin GmbH, Berlin
> Porsche Niederlassung Berlin-Potsdam GmbH, Kleinmachnow
> Porsche Niederlassung Hamburg GmbH, Hamburg
> Porsche Niederlassung Leipzig GmbH, Leipzig
> Porsche Niederlassung Stuttgart GmbH, Stuttgart
> Porsche Nordamerika Holding GmbH, Ludwigsburg
> Porsche Siebte Vermögensverwaltung GmbH, Wolfsburg
> Porsche Smart Mobility GmbH, Stuttgart
> Porsche Zentrum Hoppegarten GmbH, Stuttgart
> Schwaba GmbH, Augsburg
> SEAT Deutschland Niederlassung GmbH, Frankfurt am Main
> SKODA AUTO Deutschland GmbH, Weiterstadt

- SZM Sportwagen Zentrum München GmbH, Munich
- VfL Wolfsburg-Fußball GmbH, Wolfsburg
- VGRB GmbH, Berlin
- VGRD GmbH, Wolfsburg
- VGRHH GmbH, Hamburg
- Volkswagen ADMT Hannover GmbH, Hanover
- Volkswagen AirService GmbH, Braunschweig
- Volkswagen Automobile Berlin GmbH, Berlin
- Volkswagen Automobile Chemnitz GmbH, Chemnitz
- Volkswagen Automobile Frankfurt GmbH, Frankfurt am Main
- Volkswagen Automobile Hamburg GmbH, Hamburg
- Volkswagen Automobile Hannover GmbH, Hanover
- VOLKSWAGEN Automobile Leipzig GmbH, Leipzig
- Volkswagen Automobile Region Hannover GmbH, Hanover
- Volkswagen Automobile Rhein-Neckar GmbH, Mannheim
- Volkswagen Automobile Stuttgart GmbH, Stuttgart
- Volkswagen Beteiligungsverwaltung GmbH, Wolfsburg
- Volkswagen Deutschland GmbH & Co. KG, Wolfsburg
- Volkswagen Deutschland Verwaltungs GmbH, Wolfsburg
- Volkswagen Dritte Leasingobjekt GmbH, Braunschweig
- Volkswagen Erste Leasingobjekt GmbH, Braunschweig
- Volkswagen Fünfte Leasingobjekt GmbH, Braunschweig
- Volkswagen Gebrauchtfahrzeughandels und Service GmbH, Langenhagen
- Volkswagen Group IT Services GmbH, Wolfsburg
- Volkswagen Group Real Estate GmbH & Co. KG, Wolfsburg
- Volkswagen Group Services GmbH, Wolfsburg
- Volkswagen Immobilien GmbH, Wolfsburg
- Volkswagen Konzernlogistik GmbH & Co. OHG, Wolfsburg
- Volkswagen Original Teile Logistik GmbH & Co. KG, Baunatal
- Volkswagen Osnabrück GmbH, Osnabrück
- Volkswagen Sachsen GmbH, Zwickau
- Volkswagen Sechste Leasingobjekt GmbH, Braunschweig
- Volkswagen Siebte Leasingobjekt GmbH, Braunschweig
- Volkswagen Software Asset Management GmbH, Wolfsburg
- Volkswagen Vermögensverwaltungs-GmbH, Wolfsburg
- Volkswagen Vierte Leasingobjekt GmbH, Braunschweig
- Volkswagen Zubehör GmbH, Dreieich
- Volkswagen Zweite Leasingobjekt GmbH, Braunschweig

CONSOLIDATED SUBSIDIARIES

The fiscal year's changes in the consolidated Group are shown in the following table:

Number	Germany	Abroad
Initially consolidated		
Subsidiaries previously carried at cost	5	74
Newly acquired subsidiaries	0	3
Newly formed subsidiaries	1	9
	6	**86**
Deconsolidated		
Mergers	5	8
Liquidations	1	3
Sales/other	1	8
	7	**19**

With the exception of the acquisition of Navistar, the initial consolidation or deconsolidation of these subsidiaries, either individually or collectively, did not have a significant effect on the presentation of the net assets, financial position and results of operations. The unconsolidated structured entities are immaterial from a Group perspective. In particular, they do not give rise to any significant risks to the Group.

INVESTMENTS IN ASSOCIATES

From a Group perspective, the associates Sinotruk (Hong Kong) Ltd., Hongkong, China (Sinotruk), Bertrandt AG, Ehningen, Germany (Bertrandt), and There Holding B.V., Rijswijk, the Netherlands (There Holding), were material at the reporting date.

Sinotruk

Sinotruk is one of the largest truck manufacturers in the Chinese market. There is an agreement in place between Group companies and Sinotruk regarding a long-term strategic partnership, under which the Group participates in the local market. Sinotruk's principal place of business is in Hongkong, China.

As of December 31, 2021, the quoted market price of the shares in Sinotruk amounted to €938 million (previous year: €1,436 million).

Bertrandt

Bertrandt is an engineering partner to companies in the automotive and aviation industry. Its portfolio of services ranges from developing individual components through complex modules to end-to-end solutions. Bertrandt's principal place of business is in Ehningen, Germany.

As of December 31, 2021, the quoted market price of the shares in Bertrandt amounted to €168 million (previous year: €116 million).

There Holding

Together with the BMW Group, Daimler AG and other companies, Volkswagen holds an equity investment in There Holding B.V., Rijswijk (the Netherlands), an investment company. In turn, There Holding B.V. held around 60% of the shares of HERE International B.V., Eindhoven (the Netherlands), as of the end of fiscal year 2021. HERE International B.V. is one of the world's largest producers of digital road maps for navigation systems. Since the interest held does not grant control in accordance with IFRS 10, HERE International B.V. is included in the financial statements of There Holding B.V. as an associate using the equity method.

In the previous year, a capital increase had been implemented at There Holding B.V., Rijswijk (the Netherlands).

Moreover, the acquisition of shares in HERE International B.V., Eindhoven (the Netherlands), by additional investors had resulted in a capital decrease at the level of There Holding B.V. in the previous year. No capital transactions were carried out in fiscal year 2021.

Volkswagen's ownership interest in There Holding B.V. continues to amount to 29.7%.

Navistar

On July 1, 2021, a TRATON GROUP company acquired all of the outstanding shares in Navistar International Corporation (Navistar), a US manufacturer of commercial vehicles. TRATON SE now indirectly holds 100% of the shares in Navistar International Corporation, which until then was accounted for using the equity method (interest of 16.7%). Trading in Navistar shares on the New York Stock Exchange has been discontinued (see "Key events" section for details). As of December 31, 2020, the quoted market price of the shares in Navistar amounted to €596 million.

SUMMARIZED FINANCIAL INFORMATION ON MATERIAL ASSOCIATES ON A 100 % BASIS

€ million	Sinotruk[1]	Bertrandt[2]	There Holding	Navistar[3]
2021				
Equity interest in %	25	29	30	–
Noncurrent assets	3,852	610	1,175	–
Current assets	12,346	476	2	–
Noncurrent liabilities	161	407	87	–
Current liabilities	10,499	155	0	–
Net assets	5,539	524	1,090	–
Sales revenue	15,273	846	–	–
Earnings after tax from continuing operations	1,057	–16	–108	–
Earnings after tax from discontinued operations	–	–	–	–
Other comprehensive income	–10	0	–17	–
Total comprehensive income	1,047	–16	–125	–
Dividends received[4]	75	0	–	–
2020				
Equity interest in %	25	29	30	17
Noncurrent assets	2,578	666	1,190	1,765
Current assets	8,755	481	24	3,921
Noncurrent liabilities	185	408	–	6,072
Current liabilities	7,180	197	0	2,888
Net assets	3,969	541	1,214	–3,274
Sales revenue	9,072	915	–	6,664
Earnings after tax from continuing operations	538	–19	206	–292
Earnings after tax from discontinued operations	–	–	–	–
Other comprehensive income	–1	–1	10	212
Total comprehensive income	537	–20	216	–80
Dividends received[4]	30	5	–	–

1 Balance sheet amounts refer to the June 30 reporting date and income statement amounts refer to the period from July 1 to June 30.
2 Balance sheet amounts refer to the September 30 reporting date and income statement amounts refer to the period from October 1 to September 30.
3 Balance sheet amounts of the previous year refer to the October 31 reporting date and income statement amounts of the previous year refer to the period from November 1 to October 31.
4 Proportionate dividends are shown net of withholding tax.

RECONCILIATION OF THE FINANCIAL INFORMATION TO THE CARRYING AMOUNT OF THE EQUITY-ACCOUNTED INVESTMENTS

€ million	Sinotruk	Bertrandt	There Holding	Navistar
2021				
Net assets at January 1	3,969	541	1,214	–
Profit or loss	1,057	–16	–108	–
Other comprehensive income	–10	0	–17	–
Changes in reserves	697	–	–	–
Foreign exchange differences	168	–	–	–
Dividends[1]	–342	–1	–	–
Net assets at December 31	5,539	524	1,090	–
Proportionate equity	1,385	152	324	–
Consolidation/Goodwill/Others	–553	14	–	–
Carrying amount of equity-accounted investments	832	166	324	–
2020				
Net assets at January 1	3,758	578	1,597	–3,339
Profit or loss	538	–19	206	–292
Other comprehensive income	–1	–1	10	212
Changes in reserves	–124	–	–599	7
Foreign exchange differences	–56	–	–	153
Dividends[1]	–146	–16	–	–15
Net assets at December 31	3,969	541	1,214	–3,274
Proportionate equity	992	157	361	–547
Consolidation/Goodwill/Others	–384	–36	–	923
Carrying amount of equity-accounted investments	608	120	361	376

1 Dividends are shown before withholding tax.

SUMMARIZED FINANCIAL INFORMATION ON INDIVIDUALLY IMMATERIAL ASSOCIATES ON THE BASIS OF THE VOLKSWAGEN GROUP'S PROPORTIONATE INTEREST

€ million	2021	2020
Earnings after tax from continuing operations	–191	–25
Earnings after tax from discontinued operations	–	–
Other comprehensive income	21	0
Total comprehensive income	–170	–26
Carrying amount of equity-accounted investments	4,304	1,663

The carrying amount includes shares in Gotion and Argo AI, among others.

There were unrecognized losses of €7 million (previous year: €7 million) relating to investments in associates. Furthermore, there were no contingent liabilities or financial guarantees relating to associates.

INTERESTS IN JOINT VENTURES

From a Group perspective, the joint ventures FAW-Volkswagen Automotive Company Ltd., Changchun, China, SAIC-Volkswagen Automotive Company Ltd., Shanghai, China, and SAIC-Volkswagen Sales Company Ltd., Shanghai, China, were material at the reporting date due to their size.

FAW-Volkswagen Automotive Company

FAW-Volkswagen Automotive Company develops, produces and sells passenger cars. There is an agreement in place between Group companies and the joint venture partner China FAW Corporation Limited regarding a long-term strategic partnership. The principal place of business is in Changchun, China.

SAIC-Volkswagen Automotive Company

SAIC-Volkswagen Automotive Company develops and produces passenger cars. There is an agreement in place between Group companies and the joint venture partner Shanghai Automotive Industry Corporation regarding a long-term strategic partnership. The principal place of business is in Shanghai, China.

SAIC-Volkswagen Sales Company

SAIC-Volkswagen Sales Company sells passenger cars for SAIC-Volkswagen Automotive Company. There is an agreement in place between Group companies and the joint venture partner Shanghai Automotive Industry Corporation regarding a long-term strategic partnership. The principal place of business is in Shanghai, China.

SUMMARIZED FINANCIAL INFORMATION ON THE MATERIAL JOINT VENTURES ON A 100% BASIS

€ million	FAW-Volkswagen Automotive Company	SAIC-Volkswagen Automotive Company[1]	SAIC-Volkswagen Sales Company
2021			
Equity interest in %	40	50	30
Noncurrent assets	12,154	10,253	973
Current assets	13,417	5,335	3,355
of which cash and cash equivalents	6,856	2,444	338
Noncurrent liabilities	1,312	593	135
of which financial liabilities[2]	12	18	35
Current liabilities	15,536	11,793	3,801
of which financial liabilities[2]	10	2,078	14
Net assets	8,724	3,202	392
Sales revenue	46,841	18,113	20,791
Depreciation and amortization	1,648	1,777	22
Interest income	162	49	5
Interest expenses	1	18	2
Earnings before tax from continuing operations	5,188	1,122	416
Income tax expense	1,352	215	104
Earnings after tax from continuing operations	3,837	907	312
Earnings after tax from discontinued operations	–	–	–
Other comprehensive income	–4	–8	–
Total comprehensive income	3,833	899	312
Dividends received[3]	1,309	938	106
2020			
Equity interest in %	40	50	30
Noncurrent assets	11,504	8,871	932
Current assets	9,844	6,509	3,889
of which cash and cash equivalents	3,525	2,711	123
Noncurrent liabilities	1,062	843	130
of which financial liabilities[2]	–	–	–
Current liabilities	12,759	10,601	4,291
of which financial liabilities[2]	–	–	–
Net assets	7,528	3,936	399
Sales revenue	46,282	20,350	23,446
Depreciation and amortization	1,785	1,776	25
Interest income	126	62	5
Interest expenses	6	38	–
Earnings before tax from continuing operations	4,937	2,187	465
Income tax expense	1,272	444	118
Earnings after tax from continuing operations	3,665	1,743	347
Earnings after tax from discontinued operations	–	–	–
Other comprehensive income	24	–9	–
Total comprehensive income	3,689	1,734	347
Dividends received[3]	1,308	1,230	149

1 SAIC-Volkswagen Sales Company sells passenger cars for SAIC-Volkswagen Automotive Company. Therefore, the sales revenue reported for SAIC-Volkswagen Automotive Company was mostly generated from its business with SAIC-Volkswagen Sales Company.
2 Excluding trade liabilities.
3 Proportionate dividends are shown net of withholding tax.

RECONCILIATION OF THE FINANCIAL INFORMATION TO THE CARRYING AMOUNT OF THE EQUITY-ACCOUNTED INVESTMENTS

€ million	FAW-Volkswagen Automotive Company	SAIC-Volkswagen Automotive Company	SAIC-Volkswagen Sales Company
2021			
Net assets at January 1	7,528	3,936	399
Profit or loss	3,837	907	312
Other comprehensive income	–4	–8	–
Changes in share capital	–	–	–
Changes in reserves	–	–	–
Foreign exchange differences	779	324	35
Dividends[1]	–3,416	–1,957	–353
Net assets at December 31	8,724	3,202	392
Proportionate equity	3,490	1,601	117
Consolidation/Goodwill/Others	–868	–867	–
Carrying amount of equity-accounted investments	2,622	734	117
2020			
Net assets at January 1	7,403	4,802	548
Profit or loss	3,665	1,743	347
Other comprehensive income	24	–9	–
Changes in share capital	–	–	–
Changes in reserves	–	–	–
Foreign exchange differences	–149	–33	0
Dividends[1]	–3,416	–2,567	–497
Net assets at December 31	7,528	3,936	399
Proportionate equity	3,011	1,968	120
Consolidation/Goodwill/Others	–792	–803	–
Carrying amount of equity-accounted investments	2,219	1,165	120

1 Dividends are shown before withholding tax.

SUMMARIZED FINANCIAL INFORMATION ON INDIVIDUALLY IMMATERIAL JOINT VENTURES ON THE BASIS OF THE VOLKSWAGEN GROUP'S PROPORTIONATE INTEREST

€ million	2021	2020
Earnings after tax from continuing operations	218	166
Earnings after tax from discontinued operations	–	–
Other comprehensive income	124	–186
Total comprehensive income	342	–20
Carrying amount of equity-accounted investments	3,431	3,447

There were unrecognized losses of €2 million (previous year: €26 million) relating to investments in joint ventures. Contingent liabilities to joint ventures amounted to €239 million (previous year: €248 million), while financial guarantees stood at €70 million (previous year: €70 million). Cash funds of joint ventures amounting to €185 million (previous year: €197 million) are deposited as collateral for asset-backed securities transactions and are therefore not freely available.

IFRS 5 – NONCURRENT ASSETS HELD FOR SALE

On March 26, 2021, Brose Fahrzeugteile SE & Co. Kommanditgesellschaft (Brose) and VW Finance Luxemburg S.A., a subsidiary of Volkswagen AG, entered into an agreement to establish a jointly operated company for the development and manufacture of complete seat units, seat structures and components, and solutions for the vehicle interior. As part of this arrangement, Brose has acquired half of the shares of the Volkswagen Group company SITECH Sp. Z o.o., Polkowice/Poland. Brose and Volkswagen each hold 50% of the jointly operated company, whereby Brose will take the industrial lead. Consequently, Brose will control the jointly operated company and Volkswagen, given its significant influence following the transaction, will account for it as an associate using the equity method. Once all closing conditions had been met, the transaction was completed on January 1, 2022.

In accordance with IFRS 5, SITECH Sp. Z o.o., Polkowice/Poland, and its consolidated subsidiaries SITECH Sitztechnik GmbH and SITECH Dongchang Automotive Seating Technology Limited, Shanghai/China, were classified as a disposal group held for sale as of December 31, 2021, which was recognized at its carrying amount.

There are also plans to sell property, plant and equipment in an amount of €21 million in fiscal year 2022. These items of property, plant and equipment were classified as held for sale in accordance with IFRS 5. The sale will not have any material effect on the Volkswagen Group's results of operations or net liquidity. The sale of the property, plant and equipment is expected to be completed in the first quarter of fiscal year 2022.

The assets and liabilities held for sale have been recognized at the lower of their carrying amount and fair value less expected costs of disposal and presented in separate balance sheet items. The main groups of assets and liabilities classified as held for sale are shown below.

€ million	Dec. 31, 2021
Intangible assets	191
Property, plant and equipment	238
Inventories	69
Cash and securities	85
Other assets	92
Assets held for sale	**674**
Financial liabilities	11
Provisions	40
Other liabilities	187
Liabilities associated with assets held for sale	**238**

The cumulative income and expenses in connection with the disposal groups held for sale are recognized in other comprehensive income; they amount to €14.7 million (of which €1.1 million is attributable to noncontrolling interests).

Consolidation methods

The assets and liabilities of the German and foreign companies included in the consolidated financial statements are recognized in accordance with the uniform accounting policies used within the Volkswagen Group. In the case of companies accounted for using the equity method, the same accounting policies are generally applied to determine the proportionate equity, based on the most recent audited annual financial statements of each company.

In the case of subsidiaries consolidated for the first time, assets and liabilities are generally measured at their fair value at the date of acquisition. Their carrying amounts are adjusted in subsequent years. Goodwill arises when the purchase price of the investment exceeds the fair value of identifiable net assets. Goodwill is tested for impairment at least once a year to determine whether its carrying amount is recoverable. If the carrying amount of goodwill is higher than the recoverable amount, an impairment loss is recognized. If this is not the case, there is no change in the carrying amount of goodwill compared with the previous year. If the purchase price of the investment is less than the identifiable net assets, the difference is recognized in the income statement in the year of acquisition. Goodwill is accounted for at the subsidiaries in the functional currency of those subsidiaries. Any difference that arises from the acquisition of additional shares of an already consolidated subsidiary is taken directly to equity. Unless otherwise stated, the proportionate equity directly attributable to noncontrolling interests is determined at the acquisition date as the share of the fair value of the assets (excluding goodwill) and liabilities attributable to them. Contingent consideration is measured at fair value at the acquisition date. Subsequent changes in the fair value of contingent consideration do not generally result in the adjustment of the acquisition-date measurement. Acquisition-related costs that are not equity transaction costs are not added to the purchase price; they are recognized as expenses in the period in which they are incurred.

The consolidation process involves adjusting the items in the separate financial statements of the parent and its subsidiaries and presenting them as if they were those of a single economic entity. Intragroup assets, liabilities, equity, income, expenses and cash flows are eliminated in full. Intercompany profits or losses are eliminated in Group inventories and noncurrent assets. Deferred taxes are recognized for consolidation adjustments, and deferred tax assets and liabilities are offset where taxes are levied by the same tax authority and have the same maturity.

Currency translation

Transactions in foreign currencies are translated in the single-entity financial statements of Volkswagen AG and its consolidated subsidiaries at the rates prevailing at the transaction date. Foreign currency monetary items are recorded in the balance sheet using the middle rate at the closing date. Foreign exchange gains and losses are recognized in the income statement. This does not apply to foreign exchange differences from loans receivable that represent part of a net investment in a foreign operation. The financial statements of foreign companies are translated into euros using the functional currency concept, under which asset and liability items are translated at the closing rate. With the exception of income and expenses recognized directly in equity, equity is translated at historical rates. The resulting foreign exchange differences are recognized in other comprehensive income until disposal of the subsidiary concerned, and are presented as a separate item in equity.

Income statement items are translated into euros at weighted average rates.

The rates applied are presented in the following table:

		BALANCE SHEET MIDDLE RATE ON DECEMBER 31		INCOME STATEMENT AVERAGE RATE	
	€1 =	2021	2020	2021	2020
Argentina	ARS	116.24508	103.28799	112.29685	80.73183
Australia	AUD	1.56120	1.58605	1.57478	1.65529
Brazil	BRL	6.30680	6.37555	6.38119	5.88850
Canada	CAD	1.44170	1.56275	1.48331	1.52944
Czech Republic	CZK	24.85900	26.23900	25.65394	26.45443
India	INR	84.16900	89.69000	87.46457	84.57106
Japan	JPY	130.32000	126.51000	129.86045	121.77307
Mexico	MXN	23.14175	24.41145	23.99548	24.51746
People's Republic of China	CNY	7.18700	8.02895	7.63330	7.87025
Poland	PLN	4.59425	4.55615	4.56535	4.44376
Republic of Korea	KRW	1,344.96500	1,336.21000	1,353.93832	1,345.14093
Russia	RUB	84.97785	91.77540	87.22880	82.63583
South Africa	ZAR	18.05315	18.01515	17.48226	18.76717
Sweden	SEK	10.25475	10.02470	10.14603	10.48882
United Kingdom	GBP	0.84000	0.89925	0.86000	0.88904
USA	USD	1.13200	1.22760	1.18341	1.14129

Accounting policies

MEASUREMENT PRINCIPLES

With certain exceptions, such as financial instruments measured at fair value and provisions for pensions and other post-employment benefits, items in the Volkswagen Group are accounted for under the historical cost convention. The methods used to measure the individual items are explained in more detail below.

INTANGIBLE ASSETS

Purchased intangible assets are recognized at cost and – if they have finite useful lives – amortized over their useful lives using the straight-line method. This relates in particular to software, which is normally amortized over three years.

In accordance with IAS 38, research costs are recognized as expenses when incurred.

Development costs for future series products and other internally generated intangible assets are capitalized at cost, provided the cash-generating unit to which the respective intangible asset is attributable is not impaired and the other criteria for recognition as assets are met. If at least one of the criteria for recognition as assets is not met, the expenses are recognized in the income statement in the year in which they are incurred.

Capitalized development costs include all direct and indirect costs that are directly attributable to the development process. The costs are amortized using the straight-line method from the start of use (e.g. start of production) over the expected life cycle of the models, powertrains or software developed – generally between three and nine years.

Amortization charges on intangible assets are allocated to the relevant functional areas in the income statement.

Brand names from business combinations usually have an indefinite useful life and are therefore not amortized. An indefinite useful life is usually the result of a brand's further use and maintenance.

Goodwill, intangible assets with indefinite useful lives and intangible assets that are not yet available for use are tested for impairment at least once a year. Assets in use and other intangible assets with finite useful lives are tested for impairment only if there are specific indications that they may be impaired. The Volkswagen Group generally applies the higher of value in use and fair value less costs to sell of the relevant cash-generating unit to determine the recoverable amount of goodwill and intangible assets with indefinite and finite useful lives. Normally, the respective brand is the cash-generating unit that is used as the testing level. Jointly used (corporate) assets are allocated to the cash-generating units using allocation formulas. Measurement of value in use is based on management's current medium-term planning (referred to as budget planning round). The planning period generally covers five years. This planning is based on expectations regarding future global economic trends and on assumptions derived from those trends about the markets for passenger cars and commercial vehicles, expected trends in the Volkswagen Group's market shares, the timing and cost of the development of vehicle models and the amount of investments in production facilities, as well as changes in price and cost structures, taking particular account of the transformation to e-mobility and an increase in regulatory requirements. The planning for the Financial Services segment is likewise prepared on the basis of these expectations, and also reflects the relevant market penetration rates of expected vehicle sales with finance or lease agreements and other services, as well as regulatory requirements. The planning for the Power Engineering segment reflects expectations about trends in the various individual markets. The planning includes reasonable assumptions about macroeconomic trends (exchange rate, interest rate and commodity price trends) and historical developments. The planning is based on the assumption that global economic output will continue to grow in 2022, albeit at a somewhat lower level overall, after the recovery observed in the past fiscal year – provided that the Covid-19 pandemic does not flare up again and that shortages of intermediates and commodities become less intense. We continue to believe that risks will arise from protectionist tendencies, turbulence in the financial markets and structural deficits in individual countries. In addition, growth prospects will be negatively impacted by ongoing geopolitical tensions and conflicts, with risks arising especially from the Russia-Ukraine conflict. We anticipate that both the advanced economies and the emerging markets will experience positive momentum. Furthermore, we anticipate that the global economy will also continue to grow in the period from 2023 to 2026. The Volkswagen Group's automotive market and volume planning reflects the above regional differentiation and takes account of the impact of the Covid-19 pandemic and of shortages of intermediates and commodities on the initial years of the planning period. The negative impact on earnings expected to arise from 2022 onward from more stringent emission and fuel consumption legislation and the sustained effects of the Covid-19 pandemic is to be offset by corresponding programs to increase efficiency. In addition, the planning is based on the assumption that the supply situation for intermediates and commodities will improve from fiscal year 2023 onward. The change in the operating return on sales assumed for fiscal year 2022 for the purpose of the impairment test is within the range forecast by Volkswagen.

The estimation of cash flows is generally based on the expected growth trends for the markets concerned. The estimates for the cash flows following the end of the planning period are generally based on a growth rate of up to 1% p.a. (previous year: up to 1% p.a.) in the Passenger Cars segment, and on a growth rate of up to 1% p.a. (previous year: up to 1% p.a.) in the Power Engineering and Commercial Vehicles segments.

Value in use is determined for the purpose of impairment testing of goodwill, indefinite-lived intangible assets and finite-lived intangible assets – mainly capitalized development costs – using the following pretax weighted average cost of capital (WACC) rates, which are adjusted if necessary for country-specific discount factors:

WACC	2021	2020
Passenger Cars segment	6.2%	6.8%
Commercial Vehicles segment	8.3%	8.7%
Power Engineering segment	9.2%	9.3%

The Passenger Cars segment includes the Porsche cash-generating unit, which is material to the Volkswagen Group.

The WACC rates are calculated based on the risk-free rate of interest, a market risk premium and the cost of debt. Additionally, specific peer group information on beta factors and leverage is taken into account. The composition of the peer groups used to determine beta factors and leverage is continuously reviewed and adjusted if necessary.

For information on the assumptions applied to the detailed planning period, please refer to the Report on Expected Developments, which is part of the Management Report. For subsequent years, plausible assumptions are made regarding future trends. The planning assumptions are adapted to reflect the current state of knowledge.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is carried at cost less depreciation and – where necessary – write-downs for impairment. Investment grants are generally deducted from cost. Cost is determined on the basis of the direct and indirect costs that are directly attributable. Special operational equipment is reported under other equipment, operating and office equipment. Property, plant and equipment is depreciated using the straight-line method over its estimated useful life. The useful lives of items of property, plant and equipment are reviewed on a regular basis and adjusted if required.

Depreciation is based mainly on the following useful lives:

	Useful life
Buildings	20 to 50 years
Site improvements	10 to 20 years
Technical equipment and machinery	6 to 12 years
Other equipment, operating and office equipment, including special tools	3 to 15 years

Impairment losses on property, plant and equipment are recognized in accordance with IAS 36 where the recoverable amount of the asset concerned has fallen below the carrying amount. The recoverable amount is the higher of value in use and fair value less costs to sell. Value in use is determined using the principles described for intangible assets. The discount rates for product-specific tools and other investments are the same as the discount rates for intangible assets given above for each segment. If the reasons for impairments recognized in previous years no longer apply, the impairment losses are reversed up to a maximum of the amount that would have been determined if no impairment loss had been recognized.

In accordance with the principle of substance over form, assets that have been formally transferred to third parties under a sale and leaseback transaction including a repurchase option also continue to be accounted for as separate assets.

LEASES

The Volkswagen Group accounts for leases in accordance with IFRS 16, which defines a lease as a contract or part of a contract in which a lessor transfers to a lessee the right to use an asset for an agreed period of time in exchange for consideration.

If the Volkswagen Group is the lessee, it generally recognizes in its balance sheet a right-of-use asset and a lease liability for each lease. In the Volkswagen Group the lease liability is measured on the basis of the present value of outstanding lease payments, while the right-of-use asset is generally measured at the amount of the lease liability plus any direct costs.

During the lease term, the right-of-use asset is always depreciated on a straight-line basis over the term of the lease. The lease liability is adjusted using the effective interest method and taking the lease payments into account.

The right-of-use assets are reported in the balance sheet under those items in which the assets underlying the lease would have been recognized if the Volkswagen Group had been their beneficial owner. For this reason, the right-of-use assets are presented under noncurrent assets, mostly in property, plant and equipment, as of the balance sheet date and included in impairment tests of property, plant and equipment conducted in accordance with IAS 36.

Practical expedients are allowed for short-term and low-value leases; the Volkswagen Group makes use of this option and therefore does not recognize right-of-use assets or liabilities for these types of leases. In this respect, the lease payments are recognized in the income statement. Leases are accounted for being as of low value if the value of the leased asset when new is no higher than €5,000. Furthermore, the accounting rules of IFRS 16 are not applied to leases of intangible assets.

A large number of leases contain extension and termination options. The determination of the lease terms considers all relevant facts and circumstances that create an economic incentive to exercise or not to exercise the option. Optional periods are taken into account in determining the lease term, if it is reasonably certain that the option will or will not be exercised.

LEASE ASSETS

The accounting treatment of lease assets is based on the classification into operating leases and finance leases. The classification is made on the basis of the distribution of risks and rewards incidental to ownership of the lease asset.

If the lease is an operating lease, the Volkswagen Group is exposed to the material risks and rewards. The lease asset is recognized at amortized cost in the Volkswagen Group's noncurrent assets and the lease installments collected in the period are recognized as income in the income statement.

Vehicles leased out under operating leases are recognized at cost and depreciated to their estimated residual value using the straight-line method over the term of the lease. Impairment losses identified as a result of an impairment test in accordance with IAS 36 are recognized. The forecast residual values are adjusted to include constantly updated internal and external information on residual values, depending on specific local factors and the experiences gained in the marketing of used cars. This requires management to make assumptions in particular about vehicle supply and demand in the future, as well as about vehicle price trends. Such assumptions are based either on qualified estimates or on data published by external experts. Qualified estimates are based on external data – if available – that reflects additional information that is available from within the company, such as historical experience and current sales data.

Under a finance lease, the material risks and rewards are transferred to the lessee. The lease asset is derecognized from the Volkswagen Group's noncurrent assets, and instead a receivable is recognized in the amount of the net investment in the lease.

INVESTMENT PROPERTY

Real estate and buildings held in order to obtain rental income (investment property) are carried at amortized cost; the useful lives applied to depreciation generally correspond to those of the property, plant and equipment used by the Company itself. The fair value of investment property is disclosed in the notes if it is carried at amortized cost. Fair value is generally estimated using an investment method based on internal calculations. This involves determining the income value for a specific building on the basis of gross income, taking into account additional factors such as land value, remaining useful life and a multiplier specific to property.

CAPITALIZATION OF BORROWING COSTS

Borrowing costs of qualifying assets are capitalized as part of the cost of these assets. A qualifying asset is an asset that necessarily takes at least a year to get ready for its intended use.

EQUITY-ACCOUNTED INVESTMENTS

The cost of equity-accounted investments is adjusted to reflect the share attributable to the Volkswagen Group of increases or reductions in equity at the associates and joint ventures after their acquisition, as well as any effects from purchase price allocation. Additionally, the investment is tested for impairment if there are indications of impairment and written down to the lower recoverable amount if necessary. The recoverable amount is determined using the principles described for indefinite-lived intangible assets. If the reason for impairment ceases to apply at a later date, the impairment loss is reversed to the carrying amount that would have been determined had no impairment loss been recognized.

FINANCIAL INSTRUMENTS

Financial instruments are contracts that give rise to a financial asset of one company and a financial liability or an equity instrument of another. Regular way purchases or sales of financial instruments are accounted for at the settlement date – that is, at the date on which the asset is delivered.

Financial assets are classified and measured on the basis of the entity's business model and the characteristics of the financial asset's cash flows.

IFRS 9 classifies financial assets into the following categories:

> financial assets at fair value through profit or loss;
> financial assets at fair value through other comprehensive income (debt instruments);
> financial assets at fair value through other comprehensive income (equity instruments); and
> financial assets at amortized cost.

Financial liabilities are classified into the following categories:

> financial liabilities at fair value through profit or loss; and
> financial liabilities measured at amortized cost.

In the Volkswagen Group, the categories presented above are allocated to the "at amortized cost" and "at fair value" classes.

FINANCIAL ASSETS AND LIABILITIES AT AMORTIZED COST

Financial assets measured at amortized cost are held under a business model that is aimed at collecting contractual cash flows ("hold" business model). The cash flows of these assets relate solely to payments of principal and interest on the principal amount outstanding. The amortized cost of a financial asset or liability is the amount:

> at which a financial asset or liability is measured at initial recognition;
> minus any principal repayments;
> taking account of any loss allowances, write-downs for impairment and uncollectibility relating to financial assets; and
> plus or minus the cumulative amortization of any difference between the original amount and the amount repayable at maturity (premium, discount), amortized using the effective interest method over the term of the financial asset or liability.

Financial liabilities measured at amortized cost using the effective interest method relate to liabilities to banks, bonds, commercial paper and notes, loans and other liabilities. Gains or losses resulting from changes in amortized cost, including the effects of changes in exchange rates, are recognized through profit or loss. For reasons of materiality, discounting or unwinding of discounting is not applied to current liabilities (due within one year).

To encourage lending to private households and companies affected by the Covid-19 pandemic, the ECB provided additional liquidity on favorable terms under the TLTRO III program. The Volkswagen Group is of the view that this support constitutes a government grant. The income from these government grants within the meaning of IAS 20 is recognized in the interest result.

Financial assets and liabilities measured at amortized cost are
- receivables from financing business;
- trade receivables and payables;
- other receivables and financial assets and liabilities;
- financial liabilities; and
- cash, cash equivalents and time deposits.

FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE

Changes in the carrying amount of financial assets measured at fair value are recognized either through OCI or through profit or loss.

The fair value through OCI (debt instruments) category comprises exclusively debt instruments. Changes in fair value are always recognized directly in equity, net of deferred taxes. Certain changes in the fair value of these debt instruments (impairment losses, foreign exchange gains and losses, interest calculated using the effective interest method) are recognized immediately in profit or loss.

Financial assets measured at fair value through other comprehensive income (debt instruments) are held under a business model aimed at both collecting contractual cash flows and selling financial assets ("hold and sell" business model).

Financial assets that are equity instruments are also measured at fair value. Here, Volkswagen exercises the option to recognize changes in fair value always through other comprehensive income, i.e. gains and losses from the measurement of equity investments are never recycled to the income statement but instead reclassified to revenue reserves on disposal (no reclassification).

Any financial assets not measured at either amortized cost or through other comprehensive income are allocated to the fair value through profit or loss category. Financial assets at fair value through profit or loss are aimed in particular at generating cash flows by selling financial instruments ("sell" business model).

At Volkswagen, this category primarily comprises
- hedging relationships to which hedge accounting is not applied and
- investment fund units.

All financial liabilities at fair value through profit or loss relate to derivatives to which hedge accounting is not applied.

Fair value generally corresponds to the market or quoted market price. If no active market exists, fair value is determined using other observable inputs as far as possible. If no observable inputs are available, fair value is determined using valuation techniques, such as by discounting the future cash flows at the market interest rate, or by using recognized option pricing models, and, as far as possible, verified by confirmations from the banks that handle the transactions.

In the case of current financial receivables and liabilities, amortized cost generally corresponds to the principal or repayment amount.

The fair value option for financial assets and financial liabilities is not used in the Volkswagen Group.

Financial assets and financial liabilities are generally presented at their gross amounts and only offset if the Volkswagen Group currently has a legally enforceable right to set off the amounts and intends to settle on a net basis.

Subsidiaries, associates and joint ventures that are not consolidated for reasons of materiality do not fall within the scope of IFRS 9 and IFRS 7.

DERIVATIVES AND HEDGE ACCOUNTING

Volkswagen Group companies use derivatives to hedge balance sheet items and future cash flows (hedged items). Appropriate derivatives such as swaps, forward transactions and options are used as hedging instruments. The criteria for the application of hedge accounting are that the hedging relationship between the hedged item and the hedging instrument is clearly documented and that the hedge is highly effective.

The accounting treatment of changes in the fair value of hedging instruments depends on the nature of the hedging relationship. In the case of hedges against the risk of change in the fair value of balance sheet items (fair value hedges), both the hedging instrument and the hedged risk portion of the hedged item are measured at fair value. Gains or losses from the measurement of hedging instruments and hedged items are recognized in profit or loss.

In the case of hedges of future cash flows (cash flow hedges), the hedging instruments are also measured at fair value. The designated effective portion of the hedging instrument is accounted for through OCI I and the non-designated portion through OCI II. They are only recognized in the income statement when the hedged item is recognized in profit or loss. The ineffective portion of cash flow hedges is recognized through profit or loss immediately.

Derivatives used by the Volkswagen Group for financial management purposes to hedge against interest rate, foreign currency, commodity price, equity price, or fund price risks, but that do not meet the strict hedge accounting criteria of IFRS 9, are classified as financial assets or liabilities at fair value through profit or loss (referred to below as derivatives to which hedge accounting is not applied). This also applies to options on shares. External hedging instruments of intragroup hedged items that are subsequently eliminated in the consolidated financial statements are also assigned to this category as a general rule. Assets and liabilities measured at fair value through profit or loss consist of derivatives or components of derivatives that are not included in hedge accounting. These relate for example to the non-designated currency forwards used to hedge sales revenue, interest rate hedges, commodity futures and currency forwards relating to commodity futures.

RECEIVABLES FROM FINANCE LEASES

Where a Group company is the lessor – generally of vehicles – a receivable in the amount of the net investment in the lease is recognized in the case of finance leases, in other words where substantially all the risks and rewards are transferred to the lessee.

IMPAIRMENT LOSSES ON FINANCIAL INSTRUMENTS

Financial assets are exposed to default risk, which is taken into account by recognizing loss allowances or, if losses have already been incurred, by recognizing impairment losses. Default risk on loans and receivables in the financial services segment is accounted for by recognizing specific loss allowances and general loss allowances.

In particular, a loss allowance is recognized on these financial assets in the amount of the expected loss in accordance with Group-wide standards. The actual specific loss allowances for the losses incurred are then charged to this loss allowance. A potential impairment is assumed not only for a number of situations such as delayed payment over a period of more than 90 days, the institution of enforcement measures, the threat of insolvency or overindebtedness, application for or the opening of bankruptcy proceedings, or the failure of reorganization measures, but also for receivables that are not past due.

Insignificant receivables and significant individual receivables for which there is no indication of impairment are grouped into homogeneous portfolios on the basis of comparable credit risk features and allocated by risk class. Average historical default probabilities in combination with forward-looking parameters for the respective portfolio are then used to calculate the amount of the impairment loss.

Credit risks must be considered for all financial assets measured at amortized cost or fair value through other comprehensive income (debt instruments), as well as for contract assets in accordance with IFRS 15 and lease receivables within the scope of IFRS 16. The rules on impairment also apply to risks from irrevocable credit commitments not recognized in the balance sheet and to the measurement of financial guarantees.

As a matter of principle, a simplified process, which takes historical default rates and forward-looking information into account, and specific loss allowances are used to account for impairment losses on receivables outside the Financial Services segment.

DEFERRED TAXES

Deferred tax assets are generally recognized for tax-deductible temporary differences between the tax base of assets and liabilities and their carrying amounts in the consolidated balance sheet, as well as on tax loss carryforwards and tax credits provided it is probable that they can be used in future periods. Deferred tax liabilities are generally recognized for all taxable temporary differences between the tax base of assets and liabilities and their carrying amounts in the consolidated balance sheet.

Deferred tax liabilities and assets are recognized in the amount of the expected tax liability or tax benefit, as appropriate, in subsequent fiscal years, based on the expected enacted tax rate at the time of realization. The tax consequences of dividend payments are generally not taken into account until the resolution on appropriation of earnings available for distribution has been adopted.

Deferred tax assets that are unlikely to be realized within a clearly predictable period are reduced by loss allowances.

Deferred tax assets for tax loss carryforwards are usually measured on the basis of future taxable income over a planning period of five fiscal years.

Deferred tax assets and deferred tax liabilities are offset where taxes are levied by the same taxation authority and relate to the same tax period.

INVENTORIES

Raw materials, consumables and supplies, merchandise, work in progress and self-produced finished goods reported in inventories are carried at the lower of cost or net realizable value. Cost is determined on the basis of the direct and indirect costs that are directly attributable. Borrowing costs are not capitalized. The measurement of same or similar inventories is generally based on the weighted average method.

NONCURRENT ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

Under IFRS 5, noncurrent assets or groups of assets and liabilities (disposal groups) are classified as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. Such assets are carried at the lower of their carrying amount and fair value less costs to sell, and are presented separately in current assets and liabilities in the balance sheet.

Discontinued operations are components of an entity that have either been disposed of or are classified as held for sale. The assets and liabilities of operations that are held for sale represent disposal groups that must be measured and reported using the same principles as noncurrent assets held for sale. The income and expenses from discontinued operations are presented in the income statement as profit or loss from discontinued operations below the profit or loss from continuing operations. Corresponding disposal gains or losses are contained in the profit or loss from discontinued operations. The prior-year figures in the income statement are adjusted accordingly.

PENSION PROVISIONS

The actuarial valuation of pension provisions is based on the projected unit credit method stipulated by IAS 19 for defined benefit plans. The valuation is not only based on pension payments and vested entitlements known at the balance sheet date, but also reflects future salary and pension trends, as well as experience-based staff turnover rates. Remeasurements are recognized in retained earnings in other comprehensive income, net of deferred taxes.

PROVISIONS FOR INCOME TAXES

Tax provisions contain obligations resulting from current income taxes. Deferred taxes are presented in separate items of the balance sheet and income statement. Provisions are recognized for potential tax risks on the basis of the best estimate of the liability.

SHARE-BASED PAYMENT

Share-based payment in the Volkswagen Group comprises variable cash-settled payment plans. The obligations are therefore accounted for as cash-settled plans in accordance with IFRS 2. Obligations under these payment plans are measured at fair value using a recognized option pricing model, until maturity. The total compensation cost to be recognized corresponds to the actual payment and is allocated over the vesting period.

OTHER PROVISIONS

In accordance with IAS 37, provisions are recognized where a present obligation exists to third parties as a result of a past event, where a future outflow of resources with economic benefits is probable and where a reliable estimate of that outflow can be made.

Provisions not resulting in an outflow of resources in the year immediately following are recognized at their settlement value discounted to the balance sheet date. Discounting is based on market interest rates. An average discount rate of – 0.04% (previous year: – 0.23%) was used in the Eurozone. The settlement value also reflects cost increases expected at the balance sheet date. Provisions are not offset against claims for reimbursement.

CONTINGENT LIABILITIES

If the criteria for recognizing a provision are not met, but the outflow of resources with economic benefits is not remote, such obligations are disclosed in the notes to the consolidated financial statements (see the “Contingent liabilities” section). Contingent liabilities are only recognized if the obligations are more certain, i.e. the outflow of resources with economic benefits has become probable and their amount can be reliably estimated.

LIABILITIES

Noncurrent liabilities are recorded at amortized cost in the balance sheet. Differences between historical cost and the repayment amount are amortized using the effective interest method.

Liabilities to members of partnerships from puttable shares are recognized in the income statement at the present value of the redemption amount at the balance sheet date.

Lease liabilities are carried at the present value of the lease payments.

Current liabilities are recognized at their repayment or settlement value.

REVENUE AND EXPENSE RECOGNITION

Sales revenue, interest and commission income from financial services and other operating income are recognized only when the relevant services have been rendered or the goods have been delivered, i.e. when the customer has obtained control of the goods or services. Where new and used vehicles and original parts are sold, the Company's performance invariably occurs upon delivery, because that is the point when control is transferred, and the inventory risk and, for deliveries to a dealer, invariably also the pricing decision pass to the customer. Revenue is reported net of sales allowances (discounts, customer bonuses, or rebates). The Volkswagen Group measures sales allowances and other variable consideration on the basis of experience and by taking account of current circumstances. Vehicles are normally sold on payment terms. A trade receivable is recognized for the period between vehicle delivery and receipt of payment. Any financing component included in the transaction is only recognized if the period between the transfer of the goods and the payment of consideration is longer than one year and the amount to be accrued is significant.

Sales revenue from financing and finance lease agreements is recognized using the effective interest method. If non-interest-bearing or low-interest vehicle financing arrangements are agreed, sales revenue is reduced by the interest benefits granted. Sales revenue from operate leases is recognized over the term of the contract on a straight line basis.

In contracts under which the goods or services are transferred over a period of time, revenue is recognized, depending on the type of goods or services provided, either according to the stage of completion or, to simplify, on a straight-line basis; the latter is only allowed if revenue recognition on a straight-line basis does not differ materially from recognition according to the stage of completion. As a rule, the stage of completion is determined as the proportion that contract costs incurred by the end of the reporting period bear to the estimated total contract costs (cost-to-cost method). Contract costs incurred invariably represent the best way to measure the stage of completion for the performance obligation. If the outcome of a performance obligation satisfied over time is not sufficiently certain, but the Company expects, as a minimum, to recover its costs, revenue is only recognized in the amount of contract costs incurred (zero profit margin method). If the expected costs exceed the expected revenue, the expected losses are recognized immediately in full as expenses by recognizing impairment losses on the associated contract assets recognized, and additionally by recognizing provisions for any amounts in excess of the impairment losses. Since long-term construction contracts invariably give rise to contingent receivables from customers for the period to completion or payment by the customer, contract assets are recognized for the corresponding amounts. A trade receivable is recognized as soon as the Company has transferred the goods or services in full.

If a contract comprises several separately identifiable components (multiple-element arrangements), these components are recognized separately in accordance with the principles outlined above.

If services are sold to the customer at the same time as the vehicle, and the customer pays for them in advance, the Group recognizes a corresponding contract liability until the services have been transferred. Examples of services that customers pay for in advance are servicing, maintenance and certain warranty contracts as well as mobile online services. For extended warranties granted to customers for a particular model, a provision is normally recognized in the same way as for statutory warranties. If the warranty is optional for the customer or includes an additional service component, the related sales revenue is deferred and recognized over the term of the warranty.

Income from the sale of assets for which a Group company has a buyback obligation is recognized only when the assets have definitively left the Group. If a fixed repurchase price was agreed when the contract was entered into, the difference between the selling price and the present value of the repurchase price is recognized ratably as income over the term of the contract. Prior to that time, the assets are carried as inventories in the case of short contract terms and as lease assets in the case of long contract terms.

Sales revenue is generally determined on the basis of the price stated in the contract. If variable consideration (e.g. volume-based bonus payments) has been agreed in a contract, the large number of contracts involved means that revenue has to be estimated using the expected value method. In exceptional cases, the most probable amount method may also be used. Once the expected sales revenue has been estimated, an additional check is carried out to determine whether there is any uncertainty that necessitates the reversal of the revenue initially recognized so that it can be virtually ruled out that sales revenue subsequently has to be adjusted downward. Provisions for reimbursements arise mainly from dealer bonuses.

In multiple element arrangements, the transaction price is allocated to the different performance obligations of the contract on the basis of relative standalone selling prices. In the Automotive Division, non-vehicle-related services are invariably measured at their standalone selling prices for reasons of materiality.

Cost of sales includes the costs incurred to generate the sales revenue and the cost of goods purchased for resale. This item also includes the costs of additions to warranty provisions. Research and development costs not eligible for capitalization in the period and amortization of development costs are likewise carried under cost of sales. Reflecting the presentation of interest and commission income in sales revenue, the interest and commission expenses attributable to the financial services business are presented in cost of sales.

Dividend income is recognized on the date when the dividend is legally approved.

GOVERNMENT GRANTS

Government grants related to assets are deducted when arriving at the carrying amount of the asset and are recognized in profit or loss over the life of the depreciable asset as a reduced depreciation expense. If the Group becomes entitled to a grant subsequently, the amount of the grant attributable to prior periods is recognized as profit or loss.

Government grants related to income, i.e. that compensate the Group for expenses incurred, are always recognized in profit or loss for the period and allocated to those items in which the expenses to be compensated by the grants are also recognized. Grants in the form of nonmonetary assets (e.g. the use of land free of charge or the transfer of resources free of charge) are disclosed as a memo item.

ESTIMATES AND ASSUMPTIONS BY MANAGEMENT

Preparation of the consolidated financial statements requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, and income and expenses, as well as the related disclosure of contingent assets and liabilities of the reporting period. The estimates and assumptions relate largely to the following matters:

The impairment testing of nonfinancial assets (especially goodwill, brand names, capitalized development costs and special operational equipment) and equity-accounted investments, or investments accounted at cost, and the measurement of options on shares in companies that are not traded in an active market require assumptions about the future cash flows during the planning period, and possibly beyond it, as well as about the discount rate to be applied. The estimates made in order to separate cash flows mainly relate to future market shares, the trend in the respective markets and the profitability of the Volkswagen Group's products. In addition, the recoverability of the Group's lease assets depends in particular on the residual value of the leased vehicles after expiration of the lease term, because this represents a significant portion of the expected cash flows. More detailed information on impairment tests and the measurement parameters used for those tests can be found in the explanations above regarding intangible assets.

If there are no observable market inputs, the fair values of assets acquired and liabilities assumed in a business combination are measured using recognized valuation techniques, such as the relief-from-royalty method or the residual method.

Impairment testing of financial assets requires estimates about the extent and probability of occurrence of future events. As far as possible, estimates are derived from experience taking into account current market data as well as rating categories and scoring information. The sections entitled "IFRS 7 (Financial Instruments)" and "Financial risk management and financial instruments" contain further details on how to determine loss allowances.

Accounting for provisions is also based on estimates of the extent and probability of occurrence of future events, as well as estimates of the discount rate. As far as possible, these are also based on experience or external opinions. The assumptions applied in the measurement of pension provisions are described in the "Provisions for pensions and other post-employment benefits" section. Actuarial gains or losses arising from changes in measurement inputs are recognized in other comprehensive income and do not affect profit or loss reported in the income statement. Any change in the estimates of the amount of other provisions is always recognized in profit or loss. The provisions are regularly adjusted to reflect new information obtained. The use of expected values invariably means that unused provisions are reversed or additional amounts have to be recognized for provisions. Similarly to expenses for the recognition of provisions, income from the reversal of provisions is allocated to the respective functions. Warranty claims from sales transactions are calculated on the basis of losses to date, estimated future losses and the policy on ex gratia arrangements. In addition, assumptions must be made about the nature and extent of future warranty and ex gratia claims.

For the provisions recognized in connection with the diesel issue, assumptions were made in particular about working hours, material costs and hourly wage rates, depending on the series, model year and country concerned. In addition, assumptions are made about future resale prices of repurchased vehicles. These assumptions are based on qualified estimates, which are based in turn on external data, and also reflect additional information available internally, such as values derived from experience. Further information on the legal proceedings and on the legal risks associated with the diesel issue can be found in the "Litigation" section.

Tax provisions were recognized for potential future retrospective tax payments, while other provisions were recognized for ancillary tax payments arising in this connection. Based on the decision of the Federal Constitutional Court, interest anticipated on retrospective tax payments in Germany has been calculated using an interest rate of 6% (until 2018) and an expected interest rate of 3% (from 2019 onward).

Volkswagen AG and its subsidiaries have operations worldwide and are audited by local tax authorities on an ongoing basis. Amendments to tax laws and changes in legal precedent and their interpretation by the tax authorities in the respective countries may lead to tax payments that differ from the estimates made in the financial statements.

The measurement of the tax provision is based on the most likely exposure resulting from this risk materializing. Volkswagen decides whether to account for multiple tax uncertainties separately or in groups on the merits of each individual case considered, depending on which type of presentation is better suited to predicting the extent to which the tax risk will materialize. The pricing of individual products and services is complex, especially in relation to contracts for the cross-border supply of intragroup goods and services, because it is in many cases not possible to observe market prices for internally generated products, or the use of market prices for similar products is subject to uncertainty because they are not comparable. In these cases, prices – including for tax purposes – are determined on the basis of standardized, generally accepted valuation techniques.

If actual developments differ from the assumptions made for recognizing the provisions, the figures actually recorded may differ compared to the estimates expected originally.

An overview of other provisions can be found in the “Noncurrent and current other provisions” section.

Government grants are recognized based on an assessment as to whether there is reasonable assurance that the Group companies will fulfill the conditions for awarding the grants and that the grants will in fact be awarded. This assessment is based on the nature of the legal entitlement and past experience.

Estimates of the useful life of finite-lived assets are based on experience and are reviewed regularly. Where estimates are modified the residual useful life is adjusted and an impairment loss is recognized, if necessary.

Estimates of lease terms under IFRS 16 are based on the non-cancelable period of a lease and an assessment of whether existing extension and termination options will be exercised. The determination of the lease term and the discount rates used impacts on the amounts to be recognized for right-of-use assets and lease liabilities.

Measuring deferred tax assets requires assumptions regarding future taxable income and the timing of the realization of deferred tax assets.

The estimates and assumptions are based on underlying assumptions that reflect the current state of available knowledge. Specifically, the expected future development of business was based on the circumstances known at the date of preparation of these consolidated financial statements and a realistic assessment of the future development of the global and sector-specific environment. Estimates and assumptions remain subject to a high degree of uncertainty because future business developments are subject to uncertainties that in part cannot be influenced by the Group. This applies in particular to short- and medium-term cash flow forecasts and to the discount rates used.

Developments in this environment that differ from the assumptions and that cannot be influenced by management could result in amounts that differ from the original estimates. If actual developments differ from the expected developments, the underlying assumptions and, if necessary, the carrying amounts of the assets and liabilities affected are adjusted.

The global economy recovered in 2021 due to the temporary relaxation of many restrictions and recorded positive growth of 5.6% (previous year: decrease of 3.4%).

The Volkswagen Group’s planning is based on the assumption that global economic output will continue to grow in 2022, albeit at a somewhat lower level overall, after the recovery observed in the past fiscal year – provided that the Covid-19 pandemic does not flare up again and that shortages of intermediates and commodities become less intense.

Estimates and assumptions by management were based in particular on assumptions relating to the development of the general economic environment, the automotive markets and the legal environment. These and further assumptions are explained in detail in the Report on Expected Developments, which is part of the group management report.

Segment reporting

Segments are identified on the basis of the Volkswagen Group's internal management and reporting. In line with the Group's multibrand strategy, each of its brands (operating segments) is managed by its own Board of Management. The Group targets and requirements laid down by the Board of Management of Volkswagen AG must be complied with. Segment reporting comprises four reportable segments: Passenger Cars and Light Commercial Vehicles, Commercial Vehicles, Power Engineering and Financial Services.

The activities of the Passenger Cars and Light Commercial Vehicles segment cover the development of vehicles, engines and vehicle software, the production and sale of passenger cars and light commercial vehicles, and the corresponding genuine parts business. In the Passenger Cars and Light Commercial Vehicles reporting segment, the individual brands are combined into a single reportable segment, in particular as a response to the high degree of technological and economic interlinking in the production network. Furthermore, there is collaboration within key areas such as procurement, research and development or treasury.

The Commercial Vehicles segment primarily comprises the development, production and sale of trucks and buses, the corresponding genuine parts business and related services. As in the case of the passenger car brands, there is collaboration within the areas procurement, development and sales. The aim is to create closer cooperation within the business areas. As from the second half of 2021, this segment also includes Navistar.

The Power Engineering segment combines the large-bore diesel engines, turbomachinery, and propulsion components businesses. Until October 2020, it also included the business of Renk.

The activities of the Financial Services segment comprise dealership and customer financing, leasing, banking and insurance activities, fleet management and mobility services. In this segment, activities are combined for reporting purposes taking into particular account the comparability of the type of services and of the regulatory environment.

Purchase price allocation for companies acquired is allocated directly to the corresponding segments.

At Volkswagen, segment profit or loss is measured on the basis of the operating result.

In segment reporting, the share of the result of joint ventures is contained in the result of equity-accounted investments in the corresponding segments.

The reconciliation contains activities and other operations that by definition do not constitute segments. It also includes the unallocated Group financing activities. Consolidation adjustments between the segments are also contained in the reconciliation.

Investments in intangible assets, property, plant and equipment, and investment property are reported net of investments in right-of-use assets from leases.

As a matter of principle, business relationships between the companies within the segments of the Volkswagen Group are transacted at arm's length prices.

REPORTING SEGMENTS 2021

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles	Power Engineering	Financial Services	Total segments	Reconciliation	Volkswagen Group
Sales revenue from external customers	176,492	29,046	3,277	41,006	249,821	379	250,200
Intersegment sales revenue	16,274	1,046	1	2,957	20,278	–20,278	–
Total sales revenue	192,767	30,092	3,278	43,963	270,099	–19,899	250,200
Depreciation and amortization	15,848	2,617	245	9,159	27,870	–588	27,282
Impairment losses	140	164	13	539	856	1	857
Reversal of impairment losses	125	50	1	614	790	–54	736
Segment result (operating result)	14,614	134	45	6,045	20,838	–1,563	19,275
Share of the result of equity-accounted investments	1,808	433	–9	89	2,321	–	2,321
Interest result and other financial result	3,804	–142	–4	–154	3,504	–4,974	–1,470
Equity-accounted investments	10,645	1,035	37	814	12,531	–	12,531
Investments in intangible assets, property, plant and equipment, and investment property	16,329	1,596	68	159	18,152	346	18,498

REPORTING SEGMENTS 2020

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles	Power Engineering	Financial Services	Total segments	Reconciliation	Volkswagen Group
Sales revenue from external customers	160,674	21,114	3,638	37,223	222,649	235	222,884
Intersegment sales revenue	15,310	1,042	2	3,555	19,908	–19,908	–
Total sales revenue	175,984	22,156	3,640	40,778	242,557	–19,673	222,884
Depreciation and amortization	15,428	2,309	379	8,647	26,763	–1,014	25,749
Impairment losses	370	179	64	742	1,355	–49	1,306
Reversal of impairment losses	32	1	–	204	237	–8	229
Segment result (operating result)	8,381	–79	–482	3,012	10,832	–1,157	9,675
Share of the result of equity-accounted investments	2,615	85	–3	60	2,756	–	2,756
Interest result and other financial result	–3	–170	–2	–296	–471	–294	–765
Equity-accounted investments	8,129	1,135	29	786	10,080	–	10,080
Investments in intangible assets, property, plant and equipment, and investment property	15,677	1,309	147	208	17,340	405	17,745

RECONCILIATION

€ million	2021	2020
Segment sales revenue	**270,099**	**242,557**
Unallocated activities	1,290	997
Group financing	27	27
Consolidation/Holding company function	–21,216	–20,698
Group sales revenue	**250,200**	**222,884**
Segment result (operating result)	**20,838**	**10,832**
Unallocated activities	–36	–28
Group financing	–18	–8
Consolidation/Holding company function	–1,509	–1,121
Operating result	**19,275**	**9,675**
Financial result	**851**	**1,991**
Consolidated result before tax	**20,126**	**11,667**

BY REGION 2021

€ million	Germany	Europe/Other markets[1]	North America	South America	Asia-Pacific	Hedges sales revenue	Total
Sales revenue from external customers	44,452	101,118	45,305	11,039	48,672	–386	250,200
Intangible assets, property, plant and equipment, lease assets and investment property	113,153	47,697	34,274	2,519	4,054	–	201,697

1 Excluding Germany.

BY REGION 2020

€ million	Germany	Europe/Other markets[1]	North America	South America	Asia-Pacific	Hedges sales revenue	Total
Sales revenue from external customers	42,847	90,652	36,810	8,632	44,288	–345	222,884
Intangible assets, property, plant and equipment, lease assets and investment property	105,630	47,680	23,852	2,323	3,611	–	183,096

1 Excluding Germany.

Allocation of sales revenue to the regions follows the destination principle.

The allocation of interregional intragroup transactions regarding the segment assets has been presented uniformly according to the economic ownership.

Income statement disclosures

1. Sales revenue

STRUCTURE OF GROUP SALES REVENUE 2021

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles	Power Engineering	Financial Services	Total Segments	Reconciliation	Volkswagen Group
Vehicles	143,473	19,029	–	–	162,502	–14,435	148,067
Genuine parts	13,353	4,800	–	–	18,153	–138	18,015
Used vehicles and third-party products	12,018	1,887	–	20,160	34,065	–3,201	30,864
Engines, powertrains and parts deliveries	12,188	723	–	–	12,911	–58	12,853
Power Engineering	–	–	3,278	–	3,278	–1	3,276
Motorcycles	732	–	–	–	732	–	732
Leasing business	785	1,686	0	15,171	17,642	–1,167	16,474
Interest and similar income	209	5	–	7,856	8,070	–349	7,721
Hedges sales revenue	–365	–42	–	0	–407	22	–386
Other sales revenue	10,375	2,004	–	775	13,154	–571	12,583
	192,767	**30,092**	**3,278**	**43,963**	**270,099**	**–19,899**	**250,200**

STRUCTURE OF GROUP SALES REVENUE 2020

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles	Power Engineering	Financial Services	Total Segments	Reconciliation	Volkswagen Group
Vehicles[1]	129,481	13,385	–	–	142,866	–13,703	129,164
Genuine parts	11,755	3,249	–	–	15,004	–118	14,886
Used vehicles and third-party products[1]	11,421	1,525	–	17,699	30,645	–3,297	27,348
Engines, powertrains and parts deliveries	12,625	669	–	–	13,294	–41	13,253
Power Engineering	–	–	3,640	–	3,640	–2	3,638
Motorcycles	567	–	–	–	567	–	567
Leasing business[1]	767	1,628	0	14,668	17,063	–1,768	15,295
Interest and similar income	192	8	–	7,707	7,907	–261	7,646
Hedges sales revenue	–357	–18	–	0	–375	30	–345
Other sales revenue[1]	9,533	1,709	–	704	11,946	–514	11,433
	175,984	**22,156**	**3,640**	**40,778**	**242,557**	**–19,673**	**222,884**

1 Beginning in fiscal year 2021, all sales of used vehicles that were presented in the vehicles, leasing business and other sales revenue line items in the previous year were allocated to the used vehicles and third-party products line item. Previously, for example, the transfer of a leased vehicle from the lessee had been reported in the leasing business line item. Prior-year figures were adjusted accordingly.

For segment reporting purposes, the sales revenue of the Group is presented by segment and market.

Other sales revenue comprises revenue from workshop services and license revenue, among other things.

Of the sales revenue recognized in the period under review, an amount of €6,877 million (previous year: €6,815 million) was included in contract liabilities as of January 1, 2021.

€575 million (previous year: €345 million) of the sales revenue recognized in the period under review is attributable to performance obligations satisfied in a prior period.

In addition to existing performance obligations of €3,260 million (previous year: €3,676 million) in the Power Engineering segment, most of which are expected to be satisfied or for which sales revenue is expected to be recognized by December 31, 2022, the vast majority of the Volkswagen Group's performance obligations that were unsatisfied as of the reporting date relate to vehicle deliveries. Most of these deliveries had already been made at the time this report was prepared, or will be made in the first quarter of 2022. The calculation of the amounts for the Power Engineering Business Area took account of both contracts with a term of up to one year and service contracts under which the Volkswagen Group realizes sales revenue in exactly the same amount as the customer benefits from the services rendered by the Company. In the case of variable consideration, sales revenue is only recognized to the extent that there is reasonable assurance that this sales revenue will not subsequently have to be reversed or adjusted downward.

2. Cost of sales

Cost of sales includes interest expenses of €1,984 million (previous year: €2,303 million) attributable to the financial services business.

This item also includes impairment losses on intangible assets (primarily development costs), property, plant and equipment (primarily other equipment, operating and office equipment), and lease assets in the amount of €805 million (previous year: €1,180 million). The impairment losses totaling €344 million (previous year: €356 million) recognized during the reporting period on intangible assets and items of property, plant and equipment result primarily from lower values in use of various products in the Passenger Cars segment, due to market and exchange rate risks, and in particular from expected declines in volumes. The impairment losses on lease assets in the amount of €461 million (previous year: €824 million) are predominantly attributable to the Financial Services segment. They are based on constantly updated internal and external information that is factored into the forecast residual values of the vehicles. €27 million (previous year: €60 million) of this figure is reported in current lease assets.

Government grants related to income amounted to €985 million in the fiscal year (previous year: €1,001 million) and were generally allocated to the functional areas.

3. Distribution expenses

Distribution expenses amounting to €19.2 billion (previous year: €18.4 billion) include nonstaff overheads and personnel costs, and depreciation and amortization applicable to the distribution function, as well as the costs of shipping, advertising and sales promotions.

4. Administrative expenses

Administrative expenses of €10.4 billion (previous year: €9.4 billion) mainly include nonstaff overheads and personnel costs, as well as depreciation and amortization charges applicable to the administrative function.

5. Other operating income

€ million	2021	2020
Income from reversal of loss allowances on receivables and other assets	1,754	1,334
Income from reversal of provisions and accruals	1,236	1,086
Income from foreign currency hedging derivatives within hedge accounting	910	1,185
Income from other hedges	3,547	1,709
Income from foreign exchange gains	2,610	2,588
Income from sale of promotional material	398	312
Income from cost allocations	1,040	1,039
Income from investment property	10	10
Gains on asset disposals and the reversal of impairment losses on noncurrent assets	771	299
Miscellaneous other operating income	2,455	2,876
	14,731	**12,438**

Foreign exchange gains mainly comprise gains from changes in exchange rates between the dates of recognition and payment of receivables and liabilities denominated in foreign currencies, as well as exchange rate gains resulting from measurement at the closing rate. Foreign exchange losses from these items are included in other operating expenses.

Income from other hedges includes primarily foreign exchange gains from the fair value measurement of financial instruments used to hedge exchange rates and commodity prices and that are not designated in a hedging relationship. Foreign exchange losses are included in other operating expenses.

In the previous year, the contribution of AID to Argo AI at fair value resulted, after proportional profit elimination, in a non-cash gain of €0.8 billion, which was recognized in the other operating result.

6. Other operating expenses

€ million	2021	2020
Loss allowances on trade receivables	294	316
Loss allowances on other receivables and other assets	1,632	2,302
Losses from foreign currency hedging derivatives within hedge accounting	1,273	1,034
Expenses from other hedges	1,091	1,806
Foreign exchange losses	1,909	3,123
Expenses from cost allocations	653	743
Expenses for termination agreements	333	391
Losses on disposal of noncurrent assets	253	212
Miscellaneous other operating expenses	5,611	3,979
	13,049	**13,904**

Allowances on other receivables and other assets include allowances on receivables from long-term construction contracts amounting to €1.2 million (previous year: €1.2 million).

Expenses from other hedges include primarily foreign exchange losses from the fair value measurement of financial instruments used to hedge exchange rates and commodity prices and that are not designated in a hedging relationship.

Miscellaneous other operating expenses consist, among other items, of expenses in connection with the diesel issue (see the “Key events” section for more information).

7. Share of the result of equity-accounted investments

€ million	2021	2020
Share of profits of equity-accounted investments	2,669	3,159
of which from joint ventures	2,364	2,916
of which from associates	306	243
Share of losses of equity-accounted investments	349	403
of which from joint ventures	236	269
of which from associates	113	134
	2,321	**2,756**

8. Interest result

€ million	2021	2020
Interest income	**810**	**793**
Other interest and similar income	810	788
Income from valuation of interest derivatives	0	5
Interest expenses	**–1,818**	**–2,291**
Other interest and similar expenses	–1,449	–1,499
Expenses from valuation of interest derivatives	–27	–23
Interest expenses included in lease payments	–168	–206
Interest result from discounting other noncurrent liabilities	180	–104
Net interest on the net defined benefit liability	–354	–459
Interest result	**–1,007**	**–1,498**

9. Other financial result

€ million	2021	2020
Income from profit and loss transfer agreements	43	23
Cost of loss absorption	–81	–103
Other income from equity investments	315	91
Other expenses from equity investments	–210	–433
Income from marketable securities and loans	164	–230
Realized income of loan receivables and payables in foreign currency	753	1,097
Realized expenses of loan receivables and payables in foreign currency	–928	–1,620
Gains and losses from remeasurement and impairment of financial instruments	94	–61
Gains and losses from fair value changes of hedging instruments/derivatives not included in hedge accounting	–648	1,950
Gains and losses from fair value changes of hedging instruments/derivatives included in hedge accounting	36	20
Other financial result	**–463**	**733**

Gains and losses from fair value changes of hedging instruments/derivatives not included in hedge accounting include primarily losses on the measurement and realization of forward purchase agreements for new shares in QuantumScape Corporation in an amount of €0.6 billion (previous year: gains of €1.4 billion).

10. Income tax income/expense

COMPONENTS OF TAX INCOME AND EXPENSE

€ million	2021	2020
Current tax expense, Germany	1,230	940
Current tax expense, abroad	3,382	2,210
Current income tax expense	**4,612**	**3,150**
of which prior-period income (–)/expense (+)	310	299
Deferred tax income (–)/expense (+), Germany	1,072	–1,026
Deferred tax income (–)/expense (+), abroad	–986	719
Deferred tax income (–)/expense (+)	**86**	**–307**
Income tax income/expense	**4,698**	**2,843**

The statutory corporation tax rate in Germany for the 2021 assessment period was 15%. Including trade tax and the solidarity surcharge, this resulted in an aggregate tax rate of 30.0% (previous year: 30.0%).

A tax rate of 30.0% (previous year: 30.0%) was used to measure deferred taxes in the German consolidated tax group.

The local income tax rates applied to companies outside Germany vary between 0% and 50% (previous year: 0% and 45%). In the case of split tax rates, the tax rate applicable to undistributed profits is applied.

The realization of tax benefits from tax loss carryforwards from previous years resulted in a reduction in current income taxes in 2021 of €700 million (previous year: €392 million).

The tax loss carryforwards and the expiry of loss carryforwards that could not be used changed as follows:

€ million	PREVIOUSLY UNUSED TAX LOSS CARRYFORWARDS		THEREOF UNUSABLE TAX LOSS CARRYFORWARDS	
	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Non-expiring tax loss carryforwards	16,934	15,024	4,374	4,584
Expiry within 10 years	2,747	3,215	1,595	2,180
Expiry over 10 years	11,760	4,849	7,057	2,175
Total	**31,441**	**23,088**	**13,026**	**8,939**

The benefit arising from previously unrecognized tax losses or tax credits of a prior period that is used to reduce current tax expense in the current fiscal year amounts to €32 million (previous year: €55 million). Deferred tax expense was reduced by €305 million (previous year: €134 million) because of a benefit arising from previously unrecognized tax losses and tax credits of a prior period. Deferred tax expense resulting from the write-down of a deferred tax asset amounts to €24 million (previous year: €470 million). Deferred tax income resulting from the reversal of a write-down of deferred tax assets amounts to €381 million (previous year: €36 million).

Tax credits granted by various countries amounted to €578 million (previous year: €376 million).

No deferred tax assets were recognized for deductible temporary differences of €2,157 million (previous year: €899 million) and for tax credits of €208 million (previous year: €105 million) that would expire in the next 20 years. The increase in unrecognized deferred tax assets for deductible temporary differences is due to a change in tax laws in Italy.

In accordance with IAS 12.39, deferred tax liabilities of €200 million (previous year: €166 million) for temporary differences and undistributed profits of Volkswagen AG subsidiaries were not recognized because control exists.

Deferred tax expense resulting from changes in tax rates amounted to €42 million at Group level (previous year: €54 million).

Deferred tax assets of €12,044 million (previous year: €12,591 million) were recognized without being offset by deferred tax liabilities in the same amount. In fiscal year 2021, the deferred tax assets of companies within the German tax group recognized due to positive results in the past were included in this analysis. The companies concerned are expecting positive tax income in the future, following losses in the reporting period or the previous year.

€7,281 million (previous year: €7,997 million) of the deferred taxes recognized in the balance sheet was credited to equity and relates to other comprehensive income. €27 million (previous year: €53 million) of this figure is attributable to noncontrolling interests. In fiscal year 2021, deferred tax income of €10 million (previous year: €73 million) from the remeasurement of pension plans directly through equity was reclassified within equity. In the fiscal year under review, there were effects from capital transactions with noncontrolling interests. The classification of changes in deferred taxes is presented in the statement of comprehensive income.

In fiscal year 2021, tax effects of €5 million resulting from equity transaction costs were debited to equity (previous year: credit of €5 million).

DEFERRED TAXES CLASSIFIED BY BALANCE SHEET ITEM

The following recognized deferred tax assets and liabilities were attributable to recognition and measurement differences in the individual balance sheet items and to tax loss carryforwards:

	DEFERRED TAX ASSETS		DEFERRED TAX LIABILITIES	
€ million	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Intangible assets	1,113	655	12,477	10,811
Property, plant and equipment, and lease assets	5,216	5,599	8,729	8,150
Noncurrent financial assets	135	17	301	97
Inventories	2,106	2,317	801	893
Receivables and other assets (including Financial Services Division)	1,775	1,858	9,516	10,236
Other current assets	4,455	4,480	24	242
Pension provisions	9,350	10,285	29	27
Liabilities and other provisions	14,269	13,284	5,298	5,156
Loss allowances on deferred tax assets from temporary differences	–203	–499	–	–
Temporary differences, net of loss allowances	38,215	37,997	37,175	35,611
Tax loss carryforwards, net of loss allowances	4,783	3,465	–	–
Tax credits, net of loss allowances	374	271	–	–
Value before consolidation and offset	**43,372**	**41,733**	**37,175**	**35,611**
of which attributable to noncurrent assets and liabilities	29,284	27,924	29,556	28,085
Offset	32,649	31,172	32,649	31,172
Consolidation	2,670	2,925	605	451
Amount recognized	**13,393**	**13,486**	**5,131**	**4,890**

In accordance with IAS 12, deferred tax assets and liabilities are offset if, and only if, they relate to income taxes levied by the same taxation authority and relate to the same tax period.

The tax expense reported for 2021 of €4,698 million (previous year: €2,843 million) was €1,340 million lower (previous year: €657 million) than the expected tax expense of €6,038 million that would have resulted from application of a tax rate for the Group of 30.0% (previous year: 30.0%) to the earnings before tax of the Group.

RECONCILIATION OF EXPECTED TO EFFECTIVE INCOME TAX

€ million	2021	2020
Profit before tax	20,126	11,667
Expected income tax income (–)/expense (+) (tax rate 30.0%; previous year: 30.0%)	**6,038**	**3,500**
Reconciliation:		
Effect of different tax rates outside Germany	–1,002	–364
Proportion of taxation relating to:		
tax-exempt income	–1,078	–1,501
expenses not deductible for tax purposes	1,041	540
effects of loss carryforwards	–221	520
permanent differences	–326	65
Tax credits	–133	–117
Prior-period tax expense	262	–211
Effect of tax rate changes	42	54
Nondeductible withholding tax	285	419
Other taxation changes	–210	–62
Effective income tax expense	**4,698**	**2,843**
Effective tax rate in %	23.3	24.4

11. Earnings per share

Basic earnings per share are calculated by dividing earnings attributable to Volkswagen AG shareholders by the weighted average number of ordinary and preferred shares outstanding during the reporting period. Since there were no transactions in 2021 and 2020 that had a dilutive effect on the number of shares, diluted earnings per share are equivalent to basic earnings per share.

In accordance with Article 27(2) No. 3 of the Articles of Association of Volkswagen AG, preferred shares are entitled to a €0.06 higher dividend than ordinary shares.

		2021	2020
Weighted average number of:			
Ordinary shares – basic/diluted	Shares	295,089,818	295,089,818
Preferred shares – basic/diluted	Shares	206,205,445	206,205,445
Earnings after tax	€ million	15,428	8,824
Earnings attributable to noncontrolling interests	€ million	46	–43
Earnings attributable to Volkswagen AG hybrid capital investors	€ million	539	533
Earnings attributable to Volkswagen AG shareholders	€ million	14,843	8,334
of which basic/diluted earnings attributable to ordinary shares	€ million	8,730	4,898
of which basic/diluted earnings attributable to preferred shares	€ million	6,113	3,435
Earnings per ordinary share – basic/diluted	€	29.59	16.60
Earnings per preferred share – basic/diluted	€	29.65	16.66

Balance sheet disclosures

12. Intangible assets

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2021

€ million	Brand names	Goodwill	Capitalized development costs for products under development	Capitalized development costs for products currently in use	Other intangible assets	Total
Cost						
Balance at Jan. 1, 2021	**16,911**	**23,318**	**6,438**	**41,316**	**10,334**	**98,317**
Foreign exchange differences	14	82	35	312	194	636
Changes in consolidated Group	736	2,835	215	235	2,380	6,402
Additions	–	–	6,513	1,323	1,223	9,059
Transfers	–	–	–2,904	2,904	35	35
Classified as held for sale	–	22	1	146	18	188
Disposals	–	11	10	1,138	358	1,517
Balance at Dec. 31, 2021	**17,661**	**26,203**	**10,287**	**44,806**	**13,789**	**112,745**
Amortization and impairment						
Balance at Jan. 1, 2021	**83**	**–**	**87**	**22,133**	**8,046**	**30,349**
Foreign exchange differences	0	0	0	185	53	238
Changes in consolidated Group	–	–	–	–63	–14	–77
Additions to cumulative amortization	0	–	–	4,987	842	5,829
Additions to cumulative impairment losses	6	39	8	56	25	133
Transfers	–	–	–	0	–2	–1
Classified as held for sale	–	–	–	110	16	127
Disposals	–	11	7	1,068	204	1,289
Reversal of impairment losses	–	–	–	0	–	0
Balance at Dec. 31, 2021	**89**	**29**	**88**	**26,120**	**8,731**	**35,056**
Carrying amount at Dec. 31, 2021	**17,572**	**26,174**	**10,199**	**18,685**	**5,058**	**77,689**

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2020

€ million	Brand names	Goodwill	Capitalized development costs for products under development	Capitalized development costs for products currently in use	Other intangible assets	Total
Cost						
Balance at Jan. 1, 2020	**16,878**	**23,247**	**6,188**	**36,895**	**9,889**	**93,098**
Foreign exchange differences	33	77	–77	–299	–281	–548
Changes in consolidated Group	–	31	8	15	56	111
Additions	–	–	4,576	1,897	1,038	7,511
Transfers	–	–	–4,150	4,150	–58	–58
Disposals	–	37	107	1,341	310	1,795
Balance at Dec. 31, 2020	**16,911**	**23,318**	**6,438**	**41,316**	**10,334**	**98,317**
Amortization and impairment						
Balance at Jan. 1, 2020	**86**	**–**	**45**	**19,053**	**7,700**	**26,884**
Foreign exchange differences	–5	–	0	–172	–232	–409
Changes in consolidated Group	–	–	–	–	9	9
Additions to cumulative amortization	3	–	–	4,514	733	5,249
Additions to cumulative impairment losses	–	37	55	75	62	229
Transfers	–	–	–6	7	0	1
Disposals	–	37	–	1,344	226	1,606
Reversal of impairment losses	–	–	7	–	0	7
Balance at Dec. 31, 2020	**83**	**–**	**87**	**22,133**	**8,046**	**30,349**
Carrying amount at Dec. 31, 2020	**16,828**	**23,318**	**6,351**	**19,183**	**2,288**	**67,968**

Other intangible assets comprise in particular concessions, purchased customer lists and dealer relationships, industrial and similar rights, and licenses in such rights and assets.

The allocation of the brand names and goodwill to the operating segments is shown in the following table:

€ million	2021	2020
Brand names by operating segment		
Porsche	13,823	13,823
Scania Vehicles and Services	949	971
MAN Truck & Bus	1,127	1,127
MAN Energy Solutions	415	415
Navistar	771	–
Ducati	404	404
Other	84	89
	17,572	**16,828**
Goodwill by operating segment		
Porsche	18,825	18,825
Scania Vehicles and Services	2,749	2,808
MAN Truck & Bus	587	587
MAN Energy Solutions	264	263
Navistar	2,917	–
Ducati	290	290
ŠKODA	163	155
Porsche Holding Salzburg	127	130
Other	252	260
	26,174	**23,318**

The impairment test for recognized goodwill and brand names is based on value in use, which has been determined at the level of the respective brand. In this process, the WACC rates, based on the risk-free rate of interest, a market risk premium and the cost of debt, are applied. For more information on the general approach and key assumptions, please refer to the details provided on intangible assets in the “Accounting policies” section.

Moreover, the following aspects were of significance for the brands with material recognized brand names and goodwill:

The planning of the Porsche cash-generating unit is based on the future product strategy and other core elements of the 2030 strategy, which covers in particular increasing electrification of the model range, faster decarbonization and expanded digitalization.

For the Commercial Vehicles reporting segment, the planning reflects an expansion of e-mobility in all segments. At MAN Truck & Bus, the plan reflects positive effects in the planning period from the realignment program initiated in 2021. Moreover, Navistar is to be taken to new levels of strength. The measures applied to this end range from using the powerful component and technology organization within the TRATON GROUP through expanding the financial services business down to making even more effective use of the largest dealer and service network in the North American market that Navistar has already established.

For all cash-generating units, recoverability is not affected by a variation in the growth forecast with respect to the perpetual annuity or in the discount rate of +/–0.5 percentage points.

Research and development costs developed as follows:

€ million	2021	2020	%
Total research and development costs	15,583	13,885	12.2
of which: capitalized development costs	7,843	6,473	21.2
Capitalization ratio in %	50.3	46.6	
Amortization of capitalized development costs	5,050	4,644	8.8
Research and development costs recognized in profit or loss	**12,790**	**12,056**	**6.1**

13. Property, plant and equipment

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2021

€ million	Land, land rights and buildings, including buildings on third-party land	Technical equipment and machinery	Other equipment, operating and office equipment	Payments on account and assets under construction	Total
Cost					
Balance at Jan. 1, 2021	**45,151**	**49,822**	**84,389**	**7,766**	**187,129**
Foreign exchange differences	674	857	1,124	128	2,783
Changes in consolidated Group	271	80	8	212	571
Additions	1,874	1,159	3,454	4,246	10,733
Transfers	1,144	1,745	1,694	–4,623	–39
Classified as held for sale	78	226	139	26	469
Disposals	756	1,293	2,420	58	4,527
Balance at Dec. 31, 2021	**48,281**	**52,144**	**88,111**	**7,645**	**196,181**
Amortization and impairment					
Balance at Jan. 1, 2021	**19,142**	**37,665**	**66,408**	**30**	**123,245**
Foreign exchange differences	252	634	912	4	1,802
Changes in consolidated Group	–200	–129	–116	–1	–447
Additions to cumulative amortization	2,164	3,242	6,464	–	11,870
Additions to cumulative impairment losses	102	85	19	5	211
Transfers	56	–21	1	–31	5
Classified as held for sale	38	138	97	–	273
Disposals	382	1,231	2,288	2	3,903
Reversal of impairment losses	13	4	7	2	26
Balance at Dec. 31, 2021	**21,083**	**40,103**	**71,296**	**4**	**132,486**
Carrying amount at Dec. 31, 2021	**27,199**	**12,041**	**16,814**	**7,641**	**63,695**

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2020

€ million	Land, land rights and buildings, including buildings on third-party land	Technical equipment and machinery	Other equipment, operating and office equipment	Payments on account and assets under construction	Total
Cost					
Balance at Jan. 1, 2020	**43,531**	**50,090**	**81,997**	**7,526**	**183,143**
Foreign exchange differences	–907	–1,343	–1,765	–200	–4,214
Changes in consolidated Group	153	0	47	–32	168
Additions	1,914	1,281	3,935	4,410	11,540
Transfers	852	1,040	2,096	–3,883	105
Disposals	392	1,246	1,920	56	3,613
Balance at Dec. 31, 2020	**45,151**	**49,822**	**84,389**	**7,766**	**187,129**
Amortization and impairment					
Balance at Jan. 1, 2020	**17,389**	**36,498**	**62,862**	**242**	**116,991**
Foreign exchange differences	–326	–973	–1,393	–9	–2,701
Changes in consolidated Group	34	9	28	–	71
Additions to cumulative amortization	2,050	3,226	6,561	–	11,838
Additions to cumulative impairment losses	58	46	18	6	127
Transfers	115	–19	98	–193	2
Disposals	177	1,116	1,760	13	3,066
Reversal of impairment losses	0	6	7	3	16
Balance at Dec. 31, 2020	**19,142**	**37,665**	**66,408**	**30**	**123,245**
Carrying amount at Dec. 31, 2020	**26,009**	**12,158**	**17,981**	**7,736**	**63,884**

Government grants of €328 million (previous year: €156 million) were deducted from the cost of property, plant and equipment.

In connection with land and buildings, real property liens of €1,528 million (previous year adjusted: €1,462 million) are pledged as collateral for partial retirement obligations, financial liabilities and other liabilities.

14. Lease assets and investment property

CHANGES IN LEASE ASSETS AND INVESTMENT PROPERTY IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2021

€ million	Lease assets	Investment property	Total
Cost			
Balance at Jan. 1, 2021	**67,127**	**869**	**67,996**
Foreign exchange differences	2,791	21	2,812
Changes in consolidated Group	283	48	331
Additions	29,108	9	29,117
Transfers	–26	2	–24
Disposals	20,136	3	20,139
Balance at Dec. 31, 2021	**79,146**	**947**	**80,092**
Amortization and impairment			
Balance at Jan. 1, 2021	**16,441**	**311**	**16,752**
Foreign exchange differences	894	4	898
Changes in consolidated Group	10	0	10
Additions to cumulative amortization	9,564	18	9,582
Additions to cumulative impairment losses	434	–	434
Transfers	–4	0	–4
Disposals	7,234	1	7,234
Reversal of impairment losses	659	0	660
Balance at Dec. 31, 2021	**19,447**	**332**	**19,779**
Carrying amount at Dec. 31, 2021	**59,699**	**615**	**60,313**

CHANGES IN LEASE ASSETS AND INVESTMENT PROPERTY IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2020

€ million	Lease assets	Investment property	Total
Cost			
Balance at Jan. 1, 2020	**64,384**	**845**	**65,229**
Foreign exchange differences	−2,972	−23	−2,995
Changes in consolidated Group	15	–	15
Additions	24,772	27	24,799
Transfers	67	39	106
Disposals	19,139	19	19,159
Balance at Dec. 31, 2020	**67,127**	**869**	**67,996**
Amortization and impairment			
Balance at Jan. 1, 2020	**15,446**	**307**	**15,753**
Foreign exchange differences	−975	−4	−979
Changes in consolidated Group	3	–	3
Additions to cumulative amortization	8,645	17	8,662
Additions to cumulative impairment losses	764	1	765
Transfers	35	1	36
Disposals	7,282	11	7,293
Reversal of impairment losses	195	0	195
Balance at Dec. 31, 2020	**16,441**	**311**	**16,752**
Carrying amount at Dec. 31, 2020	**50,686**	**558**	**51,244**

Lease assets include assets leased out under the terms of operating leases and assets covered by long-term buyback agreements.

Investment property includes apartments rented out and leased dealerships with a fair value of €1,436 million (previous year: €1,199 million). Fair value is estimated using an investment method based on internal calculations (Level 3 of the fair value hierarchy). Operating expenses of €64 million (previous year: €55 million) were incurred for the maintenance of investment property in use. Expenses of €1.0 million (previous year: €0.4 million) were incurred for unused investment property.

Rental income from investment property amounted to €58 million in the fiscal year (previous year: €58 million).

15. Equity-accounted investments and other equity investments

CHANGES IN EQUITY-ACCOUNTED INVESTMENTS AND OTHER EQUITY INVESTMENTS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2021

€ million	Equity-accounted investments	Other equity investments	Total
Gross carrying amount			
Balance at Jan. 1, 2021	**10,610**	**2,833**	**13,443**
Foreign exchange differences	300	56	355
Changes in consolidated Group	–360	285	–75
Additions	2,875	1,066	3,941
Transfers	–	–	–
Classified as held for sale	–	4	4
Disposals	35	134	169
Changes recognized in profit or loss	2,172	42	2,214
Dividends[1]	–3,068	–	–3,068
Other changes recognized in other comprehensive income	608	–110	497
Balance at Dec. 31, 2021	**13,102**	**4,033**	**17,135**
Impairment losses			
Balance at Jan. 1, 2021	**531**	**968**	**1,499**
Foreign exchange differences	12	20	32
Changes in consolidated Group	–	19	19
Additions	79	118	197
Transfers	–	–	–
Disposals	–	43	43
Reversal of impairment losses	51	48	99
Balance at Dec. 31, 2021	**571**	**1,033**	**1,604**
Carrying amount at Dec. 31, 2021	**12,531**	**3,000**	**15,531**

1 Dividends are shown before withholding tax.

CHANGES IN EQUITY-ACCOUNTED INVESTMENTS AND OTHER EQUITY INVESTMENTS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2020

€ million	Equity-accounted investments	Other equity investments	Total
Gross carrying amount			
Balance at Jan. 1, 2020	**8,639**	**2,616**	**11,255**
Foreign exchange differences	–49	–24	–73
Changes in consolidated Group	–756	–186	–943
Additions	3,756	488	4,244
Transfers	–	0	0
Disposals	196	50	246
Changes recognized in profit or loss	2,693	–3	2,690
Dividends[1]	–3,195	–	–3,195
Other changes recognized in other comprehensive income	–280	–8	–288
Balance at Dec. 31, 2020	**10,610**	**2,833**	**13,443**
Impairment losses			
Balance at Jan. 1, 2020	**470**	**714**	**1,183**
Foreign exchange differences	–5	–5	–10
Changes in consolidated Group	–108	57	–52
Additions	185	245	429
Transfers	–	–	–
Disposals	–	41	41
Reversal of impairment losses	11	1	12
Balance at Dec. 31, 2020	**531**	**968**	**1,499**
Carrying amount at Dec. 31, 2020	**10,080**	**1,865**	**11,945**

1 Dividends are shown before withholding tax.

Equity-accounted investments include joint ventures in the amount of €6,905 million (previous year: €6,951 million) and associates in the amount of €5,627 million (previous year: €3,129 million).

Additions to equity-accounted investments in the fiscal year relate primarily to the acquisition of additional shares in Gotion High-Tech Company in an amount of €1.1 billion, the acquisition of additional shares in Northvolt AB in an amount of €0.8 billion, and the capital increase at QuantumScape Battery and the realization of a forward purchase transaction in this context in an amount of €0.5 billion. Additional disclosures on Gotion High-Tech Company and Northvolt AB can be found in the “Key events” section.

The changes in the consolidated Group affecting equity-accounted investments in the fiscal year relate mainly to the reclassification of shares in Navistar in an amount of €– 0.6 billion following its first-time consolidation. The gain of €0.2 billion on remeasuring shares already held resulting from ending the use of the equity method was reported under additions. Additional disclosures on Navistar can be found in the “Key events” section.

In the previous year, additions to equity-accounted investments included an amount of €1.7 billion related to the acquisition of shares in Argo AI, a total of €1.0 billion related to the acquisition of additional shares in Volkswagen (Anhui) Automotive Company (formerly: JAC Volkswagen Automotive Company) and shares in Anhui Jianghuai Automobile Group Holdings, and an amount of €0.5 billion related to the capital increase at QuantumScape Corporation and the realization of a forward purchase transaction in this context.

In the previous year, the main changes in the consolidated Group affecting equity-accounted investments in an amount of €– 0.8 billion related to the reclassification of shares in Volkswagen (Anhui) Automotive Company following its first-time consolidation.

Of the other changes recognized in other comprehensive income, €481 million (previous year: €– 239 million) is attributable to joint ventures and €127 million (previous year: €– 41 million) to associates. They are mainly the result of foreign exchange differences in the amount of €521 million (previous year: €– 319 million), pension plan remeasurements in the amount of €17 million (previous year: €103 million) and fair value measurement of cash flow hedges in the amount of €– 16 million (previous year: €16 million).

16. Noncurrent and current financial services receivables

€ million	Carrying amount			Fair value	Carrying amount			Fair value
	Current	Noncurrent	Dec. 31, 2021	Dec. 31, 2021	Current	Noncurrent	Dec. 31, 2020	Dec. 31, 2020
Receivables from financing business								
Customer financing	27,272	48,639	75,911	77,103	26,758	46,157	72,916	75,296
Dealer financing	9,647	1,785	11,432	11,420	12,435	1,994	14,428	14,400
Direct banking	311	12	322	323	307	7	314	315
	37,230	**50,435**	**87,665**	**88,846**	**39,500**	**48,157**	**87,658**	**90,010**
Receivables from operating leases	325	–	325	325	379	–	379	379
Receivables from finance leases	18,943	34,519	53,462	54,481	18,127	34,408	52,534	53,689[1]
	56,498	**84,954**	**141,452**	**143,651**	**58,006**	**82,565**	**140,571**	**144,078**

1 Prior-year figures adjusted.

The receivables from customer and dealer financing are secured by vehicles or real property liens. Of the receivables, €65 million (previous year: €33 million) was furnished as collateral for financial liabilities and contingent liabilities.

The receivables from dealer financing include €25 million (previous year: €35 million) receivable from unconsolidated affiliated companies.

17. Noncurrent and current other financial assets

€ million	Carrying amount Current	Carrying amount Noncurrent	Dec. 31, 2021	Carrying amount Current	Carrying amount Noncurrent	Dec. 31, 2020
Positive fair values of derivative financial instruments	1,787	3,532	5,319	2,616	3,435	6,051
Receivables from loans, bonds, profit participation rights (excluding interest)	6,174	4,539	10,713	6,421	3,568	9,988
Miscellaneous financial assets	4,623	1,086	5,709	4,197	832	5,029
	12,584	**9,156**	**21,741**	**13,234**	**7,834**	**21,068**

Other financial assets include receivables from related parties of €10.1 billion (previous year: €9.7 billion). Other financial assets amounting to €161 million (previous year: €124 million) were furnished as collateral for financial liabilities and contingent liabilities. There is no original right of disposal or pledge for the furnished collateral on the part of the collateral taker.

In addition, miscellaneous financial assets include receivables from restricted deposits that serve as collateral (mainly under asset-backed securities transactions).

The positive fair values of derivatives relate to the following items:

€ million	Dec. 31, 2021	Dec. 31, 2020
Transactions for hedging		
foreign currency risk from assets using fair value hedges	0	44
foreign currency risk from liabilities using fair value hedges	66	14
interest rate risk using fair value hedges	380	819
interest rate risk using cash flow hedges	82	11
foreign currency and price risk from future cash flows (cash flow hedges)	1,391	2,247
Hedging transactions Total	**1,920**	**3,134**
Assets related to derivatives not included in hedging relationships	3,399	2,917
Total	**5,319**	**6,051**

Further details on derivative financial instruments as a whole are given in the section entitled “Financial risk management and financial instruments”.

18. Noncurrent and current other receivables

€ million	CARRYING AMOUNT			CARRYING AMOUNT		
	Current	Noncurrent	Dec. 31, 2021	Current	Noncurrent	Dec. 31, 2020
Other recoverable income taxes	4,381	964	5,345	4,063	1,058	5,121
Miscellaneous receivables	3,092	1,931	5,023	3,318	1,810	5,128
	7,473	**2,895**	**10,368**	**7,381**	**2,867**	**10,248**

Miscellaneous receivables include assets to fund post-employment benefits in the amount of €175 million (previous year: €41 million). This item also includes the share of the technical provisions attributable to reinsurers amounting to €57 million (previous year: €46 million).

Current other receivables are predominantly non-interest-bearing.

Other receivables include contingent receivables from long-term construction contracts recognized in accordance with project progress. They correspond to the contract assets recognized under contracts with customers and changed as follows:

€ million	2021	2020
Contingent construction contract receivables at Jan. 1	**389**	**314**
Additions and disposals	–90	64
Change in valuation allowances	5	10
Foreign exchange differences	2	0
Contingent construction contract receivables at Dec. 31	**306**	**389**

The Volkswagen Group capitalizes costs to obtain a contract and amortizes them on a straight-line basis over the life of the contract only if they are material, the underlying contract has a term of at least one year, and these costs would not have been incurred, if the corresponding contract had not been entered into. On December 31, 2021, costs to obtain contracts amounting to €76 million (previous year: €63 million) were recognized as assets. In 2021, amortization charges on capitalized costs to obtain contracts amounted to €38 million (previous year: €23 million). No impairment losses were recognized on capitalized costs to obtain contracts in 2021 and 2020.

19. Tax assets

€ million	Carrying amount			Carrying amount		
	Current	Noncurrent	Dec. 31, 2021	Current	Noncurrent	Dec. 31, 2020
Deferred tax assets	–	13,393	13,393	–	13,486	13,486
Tax receivables	1,618	635	2,252	1,186	376	1,563
	1,618	**14,027**	**15,645**	**1,186**	**13,862**	**15,049**

Deferred tax assets include an amount of €7,473 million (previous year: €7,405 million) arising from recognition and measurement differences between IFRS carrying amounts and the tax base, which will reverse within one year.

20. Inventories

€ million	Dec. 31, 2021	Dec. 31, 2020
Raw materials, consumables and supplies	9,331	6,966
Work in progress	6,559	4,022
Finished goods and purchased merchandise	22,201	27,204
Current lease assets	5,291	5,337
Prepayments	344	288
Hedges on inventories	–2	6
	43,725	**43,823**

At the same time as the relevant revenue was recognized, inventories in the amount of €181 billion (previous year adjusted: €165 billion) were included in cost of sales. Loss allowances (excluding lease assets) recognized as expenses in the reporting period amounted to €594 million (previous year: €697 million). Vehicles with a value amounting to €345 million (previous year: €320 million) were assigned as collateral for partial retirement obligations.

The entire industry is currently experiencing supply shortages of semiconductor components. This fact had an effect on the structure of inventories as of December 31, 2021, causing a reduction in finished goods compared with December 31, 2020, set against an increase in inventories of work in progress and raw materials.

21. Trade receivables

€ million	Dec. 31, 2021	Dec. 31, 2020
Trade receivables from		
third parties	11,897	12,706
unconsolidated subsidiaries	334	181
joint ventures	3,246	3,305
associates	42	50
other investees and investors	1	2
	15,521	**16,243**

The fair values of the trade receivables correspond to the carrying amounts.

22. Marketable securities

The marketable securities serve to safeguard liquidity. They are mainly short-term fixed-income securities and shares. Most securities are measured at fair value. Current securities amounting to €485 million (previous year: €661 million) were furnished as collateral for financial liabilities and contingent liabilities. There is no original right of disposal or pledge for the furnished collateral on the part of the collateral taker.

23. Cash, cash equivalents and time deposits

€ million	Dec. 31, 2021	Dec. 31, 2020
Bank balances	39,363	33,403
Checks, cash-in-hand, bills and call deposits	361	507
	39,723	**33,909**

Bank balances are held at various banks in different currencies and include time deposits, for example.

24. Equity

The subscribed capital of Volkswagen AG is composed of no-par value bearer shares with a notional value of €2.56. As well as ordinary shares, there are preferred shares that entitle the bearer to a €0.06 higher dividend than ordinary shares, but do not carry voting rights.

The Annual General Meeting on May 14, 2019 resolved to create authorized capital of up to €179 million, expiring on May 13, 2024, to issue new preferred bearer shares.

The subscribed capital is composed of 295,089,818 no-par value ordinary shares (previous year: 295,089,818) and 206,205,445 no-par value preferred shares (previous year: 206,205,445), and amounts to €1,283,315,873 (previous year: €1,283,315,873).

The capital reserves comprise the share premium totaling €14,225 million (previous year: €14,225 million) from capital increases, the share premium of €219 million from the issuance of bonds with warrants and an amount of €107 million appropriated on the basis of the capital reduction implemented in 2006. No amounts were withdrawn from the capital reserves.

DIVIDEND PROPOSAL

In accordance with section 58(2) of the Aktiengesetz (AktG – German Stock Corporation Act), the dividend payment by Volkswagen AG is based on the net retained profits reported in the annual financial statements of Volkswagen AG prepared in accordance with the German Commercial Code. Based on these annual financial statements of Volkswagen AG, following the transfer of €13,450 million from revenue reserves, net retained profits of €19,101 million are eligible for distribution, from which a dividend could be distributed in connection with a possible IPO of Dr. Ing. h. c. F. Porsche AG (for more information, see disclosure in “Events after the balance sheet date”). The Board of Management and Supervisory Board will propose to the Annual General Meeting that a total dividend of €3,772 million, i.e. €7.50 per ordinary share and €7.56 per preferred share, be paid from the net retained profits. Shareholders are not entitled to a dividend payment until it has been resolved by the Annual General Meeting.

A dividend of €4.80 per ordinary share and €4.86 per preferred share was distributed in fiscal year 2021.

HYBRID CAPITAL

In January 2021, Volkswagen AG called a hybrid note (maturity: 7 years) with a principal amount of €1.25 billion, which had been placed in 2014 via Volkswagen International Finance N.V., Amsterdam, the Netherlands (issuer). Once called, the note had to be classified as debt in accordance with IAS 32, thus reducing the equity and net liquidity of the Volkswagen Group. The hybrid note was redeemed in March 2021.

Interest may be accumulated depending on whether a dividend is paid to Volkswagen AG shareholders. Under IAS 32, these hybrid notes must be classified in their entirety as equity. The capital raised was recognized in equity, less a discount and transaction costs and net of deferred taxes. The interest payments payable to the noteholders will be recognized directly in equity. IAS 32 only allows these hybrid notes to be classified as debt once the respective hybrid note is called.

NONCONTROLLING INTERESTS

As of December 31, 2021, noncontrolling interests amounted to €1,705 million (previous year: €1,734 million). Most of the noncontrolling interests in equity arose as a result of the IPO of the TRATON GROUP in fiscal year 2019.

On February 28, 2020, Volkswagen AG announced that it was planning to increase its interest in AUDI AG from approximately 99.64% to 100%. On July 31, 2020, the Annual General Meeting of AUDI AG resolved to implement a squeeze-out under stock corporation law. The transaction reduced equity by €0.2 billion in the previous year.

The merger of MAN SE with TRATON SE was adopted by resolution of the Annual General Meeting of MAN SE on June 29, 2021. The shares held by the noncontrolling interest shareholders of MAN SE were also transferred to TRATON SE against payment of an appropriate cash settlement in the context of this merger (merger squeeze-out). The squeeze-out took legal effect upon entry in the commercial register for TRATON SE and MAN SE on August 31, 2021. As a result, the interest held by TRATON SE in MAN SE increased from 94.36% to 100% (see “Key events” section for details).

The table below shows summarized financial information of the TRATON GROUP, including amortized goodwill and fair value adjustments, which were determined at the acquisition date:

€ million	2021	2020
Equity interest in %[1]	10.28	10.28
Equity interest	1,270	1,495
Noncurrent assets	40,099	29,599
Current assets	16,232	14,401
Noncurrent liabilities	22,272	14,582
Current liabilities	19,829	15,459
Sales revenue	30,620	22,580
Earnings after tax	466	–161
Other comprehensive income, net of tax	469	–288
Dividend paid to noncontrolling interest shareholders	23	1
Gross cash flow	2,704	1,970
Change in working capital	–1,170	17
Cash flows from operating activities	1,534	1,987
Cash flows from investing activities	–4,406	–1,293
Net cash flow	–2,873	694

1 The percentage only includes direct noncontrolling interests.

25. Noncurrent and current financial liabilities

€ million	Carrying amount			Carrying amount		
	Current	Noncurrent	Dec. 31, 2021	Current	Noncurrent	Dec. 31, 2020
Bonds	21,722	76,317	98,038	25,909	66,717	92,626
Commercial paper and notes	16,781	20,796	37,578	16,146	21,380	37,526
Liabilities to banks	12,786	25,904	38,691	18,060	17,273	35,333
Deposits business	24,243	2,588	26,831	26,735	2,411	29,145
Loans and miscellaneous liabilities	1,944	875	2,819	794	1,909	2,702
Lease liabilities	1,108	5,137	6,245	1,005	5,119	6,124
	78,584	**131,618**	**210,202**	**88,648**	**114,809**	**203,457**

26. Noncurrent and current other financial liabilities

€ million	Carrying amount			Carrying amount		
	Current	Noncurrent	Dec. 31, 2021	Current	Noncurrent	Dec. 31, 2020
Negative fair values of derivative financial instruments	2,375	2,047	4,422	1,474	1,935	3,409
Interest payable	638	108	746	604	97	702
Miscellaneous financial liabilities	9,989	2,311	12,300	8,512	2,224	10,737
	13,002	**4,466**	**17,468**	**10,590**	**4,257**	**14,847**

The negative fair values of derivatives relate to the following items:

€ million	Dec. 31, 2021	Dec. 31, 2020
Transactions for hedging		
foreign currency risk from assets using fair value hedges	75	39
foreign currency risk from liabilities using fair value hedges	17	39
interest rate risk using fair value hedges	244	14[1]
interest rate risk using cash flow hedges	42	100
foreign currency and price risk from future cash flows (cash flow hedges)	2,822	1,284
Hedging transactions Total	**3,200**	**1,477**[1]
Liabilities related to derivatives not included in hedging relationships	1,222	1,932[1]
Total	**4,422**	**3,409**

1 Prior-year figures adjusted.

Further details on derivative financial instruments as a whole are given in the section entitled “Financial risk management and financial instruments”.

27. Noncurrent and current other liabilities

€ million	Current	Noncurrent	Dec. 31, 2021	Current	Noncurrent	Dec. 31, 2020
	CARRYING AMOUNT			CARRYING AMOUNT		
Payments received on account of orders	8,653	5,792	14,445	7,484	5,541	13,024
Liabilities relating to						
other taxes	2,958	122	3,080	3,294	110	3,404
social security	674	126	801	616	112	727
wages and salaries	5,371	815	6,186	4,501	960	5,462
Miscellaneous liabilities	2,233	1,576	3,809	2,085	1,183	3,267
	19,890	**8,430**	**28,320**	**17,979**	**7,905**	**25,884**

The liabilities from payments on account received under contracts with customers correspond to the contract liabilities under contracts with customers; they are part of the payments received on account of orders. They changed as follows:

€ million	2021	2020
Liabilities from advance payments received under contracts with customers at Jan. 1	**11,398**	**10,907**
Additions and disposals	975	847
Changes in consolidated Group	14	13
Foreign exchange differences	375	−369
Liabilities from advance payments received under contracts with customers at Dec. 31	**12,762**	**11,398**

28. Tax liabilities

€ million	Current	Noncurrent	Dec. 31, 2021	Current	Noncurrent	Dec. 31, 2020
	CARRYING AMOUNT			CARRYING AMOUNT		
Deferred tax liabilities	–	5,131	5,131	–	4,890	4,890
Provisions for taxes	2,863	3,392	6,256	2,213	3,292	5,505
Tax payables	614	–	614	340	–	340
	3,478	**8,523**	**12,001**	**2,552**	**8,181**	**10,734**

Deferred tax liabilities include an amount of €503 million (previous year: €502 million) arising from recognition and measurement differences between IFRS carrying amounts and the tax base, which will reverse within one year.

29. Provisions for pensions and other post-employment benefits

Provisions for pensions are recognized for commitments in the form of retirement, invalidity and dependents' benefits payable under pension plans. The benefits provided by the Group vary according to the legal, tax and economic circumstances of the country concerned, and usually depend on the length of service and remuneration of the employees.

Volkswagen Group companies provide occupational pensions under both defined contribution and defined benefit plans. In the case of defined contribution plans, the Company makes contributions to state or private pension schemes based on legal or contractual requirements, or on a voluntary basis. Once the contributions have been paid, there are no further obligations for the Volkswagen Group. Current contributions are recognized as pension expenses of the period concerned. In 2021, they amounted to a total of €2,660 million (previous year: €2,622 million) in the Volkswagen Group. Of this figure, contributions to the compulsory state pension system in Germany amounted to €1,825 million (previous year: €1,826 million).

In the case of defined benefit plans, a distinction is made between pensions funded by provisions and externally funded plans.

The pension provisions for defined benefits are measured by independent actuaries using the internationally accepted projected unit credit method in accordance with IAS 19, under which the future obligations are measured on the basis of the ratable benefit entitlements earned as of the balance sheet date. Measurement reflects actuarial assumptions as to discount rates, salary and pension trends, employee turnover rates, longevity and increases in healthcare costs, which were determined for each Group company depending on the economic environment. Remeasurements arise from differences between what has actually occurred and the prior-year assumptions, from changes in assumptions, as well as from gains or losses on plan assets, excluding amounts included in net interest income or expenses. They are recognized in other comprehensive income, net of deferred taxes, in the period in which they arise.

Multi-employer pension plans exist in the Volkswagen Group in the United Kingdom, Switzerland, Sweden and the Netherlands. These plans are defined benefit plans. A small proportion of them are accounted for as defined contribution plans, as the Volkswagen Group is not authorized to receive the information required in order to account for them as defined benefit plans. Under the terms of the multi-employer plans, the Volkswagen Group is not liable for the obligations of the other employers. In the event of its withdrawal from the plans or their winding-up, the proportionate share of the surplus of assets attributable to the Volkswagen Group will be credited or the proportionate share of the deficit attributable to the Volkswagen Group will have to be funded. In the case of the defined benefit plans accounted for as defined contribution plans, the Volkswagen Group's share of the obligations represents a small proportion of the total obligations. No probable significant risks arising from multi-employer defined benefit pension plans that are accounted for as defined contribution plans have been identified. The expected contributions to those plans will amount to €27 million for fiscal year 2022.

Owing to their benefit character, the obligations of the US Group companies in respect of post-employment medical care in particular are also carried under provisions for pensions and other post-employment benefits. These post-employment benefit provisions take into account the expected long-term rise in the cost of healthcare. In fiscal year 2021, €20 million (previous year: €15 million) was recognized as an expense for healthcare costs. The related carrying amount as of December 31, 2021 was €800 million (previous year: €228 million).

The following amounts were recognized in the balance sheet for defined benefit plans:

€ million	Dec. 31, 2021	Dec. 31, 2020
Present value of funded obligations	26,449	24,101
Fair value of plan assets	17,285	13,264
Funded status (net)	9,165	10,838
Present value of unfunded obligations	32,105	34,200
Amount not recognized as an asset because of the ceiling in IAS 19	106	2
Net liability recognized in the balance sheet	**41,376**	**45,040**
of which provisions for pensions	41,550	45,081
of which other assets	175	41

SIGNIFICANT PENSION ARRANGEMENTS IN THE VOLKSWAGEN GROUP

For the period after their active working life, the Volkswagen Group offers its employees benefits under attractive, modern occupational pension arrangements. Most of the arrangements in the Volkswagen Group are pension plans for employees in Germany classified as defined benefit plans under IAS 19. The majority of these obligations are funded solely by recognized provisions. These plans are now largely closed to new members. To reduce the risks associated with defined benefit plans, in particular longevity, salary increases and inflation, the Volkswagen Group has introduced new defined benefit plans in recent years whose benefits are funded by appropriate external plan assets. The aforementioned risks have been largely reduced in these pension plans. The proportion of the total defined benefit obligation attributable to pension obligations funded by plan assets will continue to rise in the future. The significant pension plans are described in the following.

German pension plans funded solely by recognized provisions

The pension plans funded solely by recognized provisions comprise both contribution-based plans with guarantees and final salary plans. For contribution-based plans, an annual pension expense dependent on income and status is converted into a lifelong pension entitlement using annuity factors (guaranteed modular pension entitlements). The annuity factors include a guaranteed rate of interest. At retirement, the modular pension entitlements earned annually are added together. For final salary plans, the underlying salary is multiplied at retirement by a percentage that depends on the years of service up until the retirement date.

The present value of the guaranteed obligation rises as interest rates fall and is therefore exposed to interest rate risk.

The pension system provides for lifelong pension payments. The companies bear the longevity risk in this respect. This is accounted for by calculating the annuity factors and the present value of the guaranteed obligation using the latest generational mortality tables – the “Heubeck 2018 G” mortality tables – which already reflect future increases in life expectancy.

To reduce the inflation risk from adjusting the regular pension payments by the rate of inflation, a pension adjustment that is not indexed to inflation was introduced for pension plans where this is permitted by law.

German pension plans funded by external plan assets

The pension plans funded by external plan assets are contribution-based plans with guarantees. In this case, an annual pension expense dependent on income and status is either converted into a lifelong pension entitlement using annuity factors (guaranteed modular pension entitlement) or paid out in a single lump sum or in installments. In some cases, employees also have the opportunity to provide for their own retirement through deferred compensation. The annuity factors include a guaranteed rate of interest. At retirement, the modular pension entitlements earned annually are added together. The pension expense is contributed on an ongoing basis to a separate pool of assets that is administered independently of the Company in trust and invested in the capital markets. If the plan assets exceed the present value of the obligations calculated using the guaranteed rate of interest, surpluses are allocated (modular pension bonuses).

Since the assets administered in trust meet the IAS 19 criteria for classification as plan assets, they are deducted from the obligations.

The amount of the pension assets is exposed to general market risk. The investment strategy and its implementation are therefore continuously monitored by the trusts' governing bodies, on which the companies are also represented. For example, investment policies are stipulated in investment guidelines with the aim of limiting market risk and its impact on plan assets. In addition, asset-liability management studies are conducted if required so as to ensure that investments are in line with the obligations that need to be covered. The pension assets are currently invested primarily in fixed-income or equity funds. The main risks are therefore interest rate and equity price risk. To mitigate market risk, the pension system also provides for cash funds to be set aside in an equalization reserve before any surplus is allocated.

The present value of the obligation is the present value of the guaranteed obligation after deducting the plan assets. If the plan assets fall below the present value of the guaranteed obligation, a provision must be recognized in that amount. The present value of the guaranteed obligation rises as interest rates fall and is therefore exposed to interest rate risk.

In the case of lifelong pension payments, the Volkswagen Group bears the longevity risk. This is accounted for by calculating the annuity factors and the present value of the guaranteed obligation using the latest generational mortality tables – the "Heubeck 2018 G" mortality tables – which already reflect future increases in life expectancy. In addition, the independent actuaries carry out annual risk monitoring as part of the review of the assets administered by the trusts.

To reduce the inflation risk from adjusting the regular pension payments by the rate of inflation, a pension adjustment that is not indexed to inflation was introduced for pension plans where this is permitted by law.

Calculation of the pension provisions was based on the following actuarial assumptions:

	GERMANY		ABROAD	
%	2021	2020	2021	2020
Discount rate at December 31	1.21	0.70	2.42	1.70
Payroll trend	3.25	3.31	3.33	2.74
Pension trend	1.69	1.49	3.03	2.50
Employee turnover rate	1.18	1.16	3.85	4.36
Annual increase in healthcare costs	–	–	6.03	5.30

These assumptions are averages that were weighted using the present value of the defined benefit obligation.

With regard to life expectancy, consideration is given to the latest mortality tables in each country. The discount rates are generally defined to reflect the yields on prime-rated corporate bonds with matching maturities and currencies. The iBoxx AA Corporate Bond index was taken as the basis for the obligations of German Group companies. Similar indices were used for foreign pension obligations.

The payroll trends cover expected wage and salary trends, which also include increases attributable to career development.

The pension trends either reflect the contractually guaranteed pension adjustments or are based on the rules on pension adjustments in force in each country.

The employee turnover rates are based on past experience and future expectations.

The following table shows changes in the net defined benefit liability recognized in the balance sheet:

€ million	2021	2020
Net liability recognized in the balance sheet at January 1	**45,040**	**41,324**
Current service cost	2,419	2,215
Net interest expense	352	459
Actuarial gains (–)/losses (+) arising from changes in demographic assumptions	0	–420
Actuarial gains (–)/losses (+) arising from changes in financial assumptions	–4,879	4,393
Actuarial gains (–)/losses (+) arising from experience adjustments	–75	–394
Income/expenses from plan assets not included in interest income	719	677
Change in amount not recognized as an asset because of the ceiling in IAS 19	12	0
Employer contributions to plan assets	1,003	929
Employee contributions to plan assets	–14	–8
Pension payments from company assets	933	885
Past service cost (including plan curtailments)	–2	–99
Gains (–) or losses (+) arising from plan settlements	–1	7
Changes in consolidated Group	972	11
Classified as held for sale	18	–
Other changes	145	25
Foreign exchange differences from foreign plans	51	–1
Net liability recognized in the balance sheet at December 31	**41,376**	**45,040**

The change in the amount not recognized as an asset because of the ceiling in IAS 19 contains an interest component, part of which was recognized in the financial result in profit or loss, and part of which was recognized outside profit or loss directly in equity.

The change in the present value of the defined benefit obligation is attributable to the following factors:

€ million	2021	2020
Present value of obligations at January 1	**58,301**	**53,800**
Current service cost	2,419	2,215
Interest cost	504	631
Actuarial gains(–)/losses (+) arising from changes in demographic assumptions	0	–420
Actuarial gains(–)/losses (+) arising from changes in financial assumptions	–4,879	4,393
Actuarial gains(–)/losses (+) arising from experience adjustments	–75	–394
Employee contributions to plan assets	22	17
Pension payments from company assets	933	885
Pension payments from plan assets	370	292
Past service cost (including plan curtailments)	–2	–99
Gains (–) or losses (+) arising from plan settlements	–1	7
Changes in consolidated Group	3,078	16
Classified as held for sale	32	–
Other changes	180	–471
Foreign exchange differences from foreign plans	341	–219
Present value of obligations at December 31	**58,555**	**58,301**

In the previous year, a pension plan in the USA funded by external plan assets was settled. The resulting decrease in the present value of the defined benefit obligation in the amount of €520 million is shown under other changes. The plan settlement led to a loss of €7 million.

Changes in the relevant actuarial assumptions would have had the following effects on the defined benefit obligation:

Present value of defined benefit obligation if		DEC. 31, 2021		DEC. 31, 2020	
		€ million	Change in percent	€ million	Change in percent
Discount rate	is 0.5 percentage points higher	52,999	–9.49	52,604	–9.77
	is 0.5 percentage points lower	64,766	10.61	64,981	11.46
Pension trend	is 0.5 percentage points higher	61,402	4.86	61,360	5.25
	is 0.5 percentage points lower	55,994	–4.37	55,552	–4.71
Payroll trend	is 0.5 percentage points higher	58,969	0.71	58,808	0.87
	is 0.5 percentage points lower	57,942	–1.05	57,843	–0.79
Longevity	increases by one year	60,641	3.56	60,385	3.57

The sensitivity analysis shown above considers the change in one assumption at a time, leaving the other assumptions unchanged versus the original calculation, i.e. any correlation effects between the individual assumptions are ignored.

To examine the sensitivity of the defined benefit obligation to a change in assumed longevity, the estimates of mortality were reduced as part of a comparative calculation to the extent that doing so increases life expectancy by approximately one year.

The average duration of the defined benefit obligation weighted by the present value of the defined benefit obligation (Macaulay duration) is 20 years (previous year: 21 years).

The present value of the defined benefit obligation is attributable as follows to the members of the plan:

€ million	2021	2020
Active members with pension entitlements	33,394	36,124
Members with vested entitlements who have left the Company	3,788	3,642
Pensioners	21,372	18,535
	58,555	**58,301**

The maturity profile of payments attributable to the defined benefit obligation is presented in the following table, which classifies the present value of the obligation by the maturity of the underlying payments:

€ million	2021	2020
Payments due within the next fiscal year	1,513	1,162
Payments due between two and five years	6,535	5,334
Payments due in more than five years	50,506	51,806
	58,555	**58,301**

Changes in plan assets are shown in the following table:

€ million	2021	2020
Fair value of plan assets at January 1	**13,264**	**12,478**
Interest income on plan assets determined using the discount rate	152	172
Income/expenses from plan assets not included in interest income	808	677
Employer contributions to plan assets	1,003	929
Employee contributions to plan assets	8	9
Pension payments from plan assets	371	291
Gains (+) or losses (–) arising from plan settlements	–	–
Changes in consolidated Group	2,107	5
Classified as held for sale	15	–
Other changes	36	–496
Foreign exchange differences from foreign plans	291	–219
Fair value of plan assets at December 31	**17,285**	**13,264**

Other changes in the previous year resulted primarily from the derecognition of plan assets in the context of the settlement of a pension plan in the USA funded by external plan assets.

The investment of the plan assets to cover future pension obligations resulted in income of €960 million (previous year: income of €849 million).

Employer contributions to plan assets are expected to amount to €838 million (previous year: €851 million) in the next fiscal year.

Plan assets are invested in the following asset classes:

€ million	DEC. 31, 2021			DEC. 31, 2020		
	Quoted prices in active markets	No quoted prices in active markets	Total	Quoted prices in active markets	No quoted prices in active markets	Total
Cash and cash equivalents	791	–	791	628	–	628
Equity instruments	279	–	279	264	–	264
Debt instruments	611	5	615	496	–	496
Direct investments in real estate	–	170	170	–	121	121
Derivatives	2	–27	–26	20	–6	14
Equity funds	5,547	15	5,563	3,640	15	3,655
Bond funds	6,494	168	6,663	6,011	133	6,144
Real estate funds	510	23	532	190	–	190
Other funds	1,922	183	2,105	1,315	28	1,344
Other instruments	85	507	592	48	360	408

Plan assets include €6 million (previous year: €12 million) invested in Volkswagen Group assets and €5 million (previous year: €5 million) in Volkswagen Group debt instruments.

The following amounts were recognized in the income statement:

€ million	2021	2020
Current service cost	2,419	2,215
Net interest on the net defined benefit liability	352	459
Past service cost (including plan curtailments)	–2	–99
Gains (–) or losses (+) arising from plan settlements	0	7
Net income (–) and expenses (+) recognized in profit or loss	**2,770**	**2,583**

The above amounts are generally included in the personnel costs of the functional areas in the income statement. Net interest on the net defined benefit liability is reported in interest expenses.

30. Noncurrent and current other provisions

€ million	Obligations arising from sales	Employee expenses	Litigation and legal risks	Miscellaneous provisions	Total
Balance at Jan. 1, 2020	**26,988**	**5,993**	**5,260**	**7,976**	**46,217**
Foreign exchange differences	–653	–56	–170	–222	–1,101
Changes in consolidated Group	18	16	0	522	556
Utilization	9,625	2,275	2,347	2,086	16,333
Additions/New provisions	10,890	2,707	1,781	4,393	19,771
Unwinding of discount/effect of change in discount rate	17	108	–20	0	105
Reversals	1,637	223	586	1,117	3,564
Balance at Dec. 31, 2020	**25,998**	**6,270**	**3,918**	**9,465**	**45,652**
of which current	12,394	2,174	2,037	6,359	22,964
of which noncurrent	13,604	4,096	1,881	3,107	22,688
Balance at Jan. 1, 2021	**25,998**	**6,270**	**3,918**	**9,465**	**45,652**
Foreign exchange differences	526	54	60	211	851
Changes in consolidated Group	408	38	972	174	1,592
Classified as held for sale	2	26	–	0	28
Utilization	9,274	1,870	1,259	2,606	15,009
Additions/New provisions	10,997	2,783	2,120	4,503	20,403
Unwinding of discount/effect of change in discount rate	–71	–133	7	16	–181
Reversals	2,272	278	599	1,078	4,227
Balance at Dec. 31, 2021	**26,310**	**6,837**	**5,220**	**10,685**	**49,052**
of which current	11,754	2,784	3,389	7,651	25,578
of which noncurrent	14,555	4,053	1,831	3,035	23,474

The obligations arising from sales contain provisions covering all risks relating to the sale of vehicles, components and genuine parts through to the disposal of end-of-life vehicles. They primarily comprise warranty obligations, calculated on the basis of losses to date and estimated future losses. They also include provisions for discounts, bonuses and similar allowances which are incurred after the balance sheet date, but for which there is a legal or constructive obligation attributable to sales revenue before the balance sheet date.

Provisions for employee expenses are recognized for long-service awards, time credits, partial retirement arrangements, severance payments and similar obligations, among other things.

In addition to residual provisions relating to the diesel issue, the provisions for litigation and legal risks contain amounts related to a large number of legal disputes and official proceedings in which Volkswagen Group companies become involved in Germany and internationally in the course of their operating activities. In particular, such legal disputes and other proceedings may occur in relation to suppliers, dealers, customers, employees, or investors. Please refer to the "Litigation" section for a discussion of the legal risks.

Miscellaneous provisions relate to a wide range of identifiable specific risks, price risks and uncertain obligations, which are measured in the amount of the expected settlement value. Depending the jurisdiction concerned, they also include risk provisions for any non-compliance with legal emissions limits. Their measurement takes into account, among other things, the respective sales volume and the legally defined fee or the cost of acquiring emission rights from other manufacturers. Advantage has been taken of synergies between individual brands of the Volkswagen Group by establishing emission pools where possible.

Miscellaneous provisions additionally include provisions amounting to €1,527 million (previous year: €1,265 million) relating to the insurance business.

31. Trade payables

€ million	Dec. 31, 2021	Dec. 31, 2020
Trade payables to		
third parties	22,964	22,163
unconsolidated subsidiaries	233	186
joint ventures	186	156
associates	239	167
other investees and investors	2	3
	23,624	**22,677**

Other disclosures

32. IAS 23 (Borrowing Costs)

Capitalized borrowing costs amounted to €77 million (previous year: €65 million) and related mainly to capitalized development costs. An average cost of debt of 1.3% (previous year: 1.5%) was used as a basis for capitalization in the Volkswagen Group.

33. IFRS 16 (Leases)

1. LESSEE ACCOUNTING

The Volkswagen Group is a lessee, mainly as a result of leasing office equipment, real estate and other means of production. The leases are negotiated individually and include a large number of contract terms and conditions. The following amounts for right-of-use assets resulting from leases are included in the balance sheet items:

PRESENTATION OF AND CHANGES IN RIGHT-OF-USE ASSETS FROM LEASES FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2021

€ million	Right of use on land, land rights and buildings incl. buildings on third party land	Right of use on technical equipment and machinery	Right of use on other equipment, operational and office equipment	Total
Cost				
Balance at Jan. 1, 2021	**7,009**	**56**	**744**	**7,809**
Foreign exchange differences	196	2	6	203
Changes in consolidated group	129	0	10	139
Additions	1,224	10	155	1,390
Transfers	–16	–2	–8	–26
Classified as held for sale	31	–	1	32
Disposals	549	3	89	641
Balance at Dec. 31, 2021	**7,962**	**63**	**816**	**8,841**
Depreciation and impairment				
Balance at Jan. 1, 2021	**1,608**	**28**	**204**	**1,840**
Foreign exchange differences	49	2	3	54
Changes in consolidated group	7	0	–3	4
Additions to cumulative depreciation	945	7	156	1,108
Additions to cumulative impairment losses	9	–	1	10
Transfers	–6	0	–1	–7
Classified as held for sale	12	–	1	13
Disposals	255	3	70	328
Reversal of impairment losses	13	–	–	13
Balance at Dec. 31, 2021	**2,358**	**34**	**289**	**2,681**
Carrying amount at Dec. 31, 2021	**5,604**	**29**	**527**	**6,159**

PRESENTATION OF AND CHANGES IN RIGHT-OF-USE ASSETS FROM LEASES FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2020

€ million	Right of use on land, land rights and buildings incl. buildings on third party land	Right of use on technical equipment and machinery	Right of use on other equipment, operational and office equipment	Total
Cost				
Balance at Jan. 1, 2020	**6,253**	**44**	**738**	**7,034**
Foreign exchange differences	–210	–3	–8	–221
Changes in consolidated group	47	–	7	54
Additions	1,240	16	102	1,358
Transfers	–24	–1	2	–23
Disposals	297	1	97	394
Balance at Dec. 31, 2020	**7,009**	**56**	**744**	**7,809**
Depreciation and impairment				
Balance at Jan. 1, 2020	**848**	**23**	**126**	**998**
Foreign exchange differences	–37	–2	–3	–43
Changes in consolidated group	5	–	1	6
Additions to cumulative depreciation	896	8	158	1,062
Additions to cumulative impairment losses	27	–	1	27
Transfers	0	0	–1	–1
Disposals	130	0	78	209
Reversal of impairment losses	0	0	0	0
Balance at Dec. 31, 2020	**1,608**	**28**	**204**	**1,840**
Carrying amount at Dec. 31, 2020	**5,401**	**27**	**540**	**5,969**

Subleases of right-of-use assets generated income of €19 million (previous year: €16 million) in the fiscal year.

The measurement of right-of-use assets from leases and the associated lease liabilities is based on a best estimate regarding the exercise of extension and termination options. If there are material changes in circumstances or in the contract, this estimate is updated.

The tables below show how the lease liabilities are assigned in the balance sheet and give an overview of their contractual maturities:

ASSIGNMENT OF LEASE LIABILITIES TO THE RESPECTIVE BALANCE SHEET ITEMS

€ million	Dec. 31, 2021	Dec. 31, 2020
Financial liabilities – Noncurrent	5,137	5,119
Financial liabilities – Current	1,108	1,005
Lease liabilities – Total	**6,245**	**6,124**

MATURITY ANALYSIS OF UNDISCOUNTED LEASE LIABILITIES

	REMAINING CONTRACTUAL MATURITIES			
€ million	under one year	within one to five years	over five years	Total
Lease liabilities at Dec. 31, 2021	1,266	3,312	2,803	**7,381**
Lease liabilities at Dec. 31, 2020	1,187	3,112	3,138	**7,437**

Interest expenses of €177 million (previous year: €216 million) were incurred for lease liabilities in the fiscal year.

No right-of-use assets are recognized for low-value or short-term leases. Expenses for leasing low-value assets totaled €233 million (previous year: €285 million) in the fiscal year. This figure does not include any expenses for short-term leases, which totaled €276 million (previous year: €268 million) in the fiscal year. Variable lease expenses not included in the measurement of lease liabilities accounted for €6 million (previous year: €1 million) in the fiscal year.

Leases gave rise to cash outflows totaling €1,952 million (previous year: €1,865 million) in the fiscal year.

The table below shows a summary of potential future cash outflows, that have not been included in the measurement of the lease liabilities:

€ million	2021	2020
Future cash outflows to which the lessee is potentially exposed		
Extension options	3,594	3,350
Termination options	2	8
Obligations under leases not yet commenced	270	270
	3,867	**3,628**

No material cash outflows attributable to variable lease payments and residual value guarantees are expected.

2. LESSOR ACCOUNTING

The Volkswagen Group is a lessor in both the finance lease business and the operating lease business. The subject of these transactions is primarily motor vehicles and, to a small extent, land and buildings and items of equipment for dealerships.

The Volkswagen Group fully accounts for the default risk on lease receivables by recognizing loss allowances, which are recognized in accordance with the requirements of IFRS 9. As lessor, the Volkswagen Group covers risks arising from the assets underlying the leases by, among other measures, taking account of residual value guarantees received for parts of the lease portfolio and by taking account of forward-looking residual values forecast on the basis of internal and external information as part of residual value management. The forecast residual values are regularly reviewed.

2.1 OPERATING LEASES

Assets leased under long-term operating leases amounted to €60,313 million at the end of the fiscal year (previous year: €51,244 million). While €615 million (previous year: €558 million) is attributable to investment property, assets separately reported as lease assets in the balance sheet amount to €59,699 million (previous year: €50,686 million). They relate primarily to vehicles in an amount of €59,622 million (previous year: €50,605 million) as well as land, land rights and buildings, including buildings on third-party land, in an amount of €68 million (previous year: €79 million). The remaining assets relate to technical equipment and machinery as well as other equipment, operating and office equipment. More information on changes in value of investment property and lease assets can be found in the section entitled “Lease assets and investment property”.

The following cash inflows from expected outstanding, non-discounted operating lease payments are expected over the coming years:

DISCLOSURE AS OF DECEMBER 31, 2021

€ million	2022	2023	2024	2025	2026	from 2027	Total
Lease payments	8,840	6,198	3,761	1,243	398	329	**20,769**

DISCLOSURE AS OF DECEMBER 31, 2020

€ million	2021	2022	2023	2024	2025	from 2026	Total
Lease payments	7,893	5,636	3,178	1,220	452	362	**18,741**

BREAKDOWN OF INCOME FROM OPERATING LEASES

€ million	2021	2020
Lease income	13,560	12,429
Income from variable lease payments	5	7
Total	**13,566**	**12,436**

2.2 FINANCE LEASES

Interest income from the net investment in the leases amounted to €2.3 billion (previous year: €2.4 billion) in the fiscal year. Furthermore, a selling profit from the finance leases in the amount of €1.1 billion (previous year: €0.8 billion) was recognized.

The following table shows the reconciliation of outstanding lease payments under finance leases to the net investment:

€ million	Dec. 31, 2021	Dec. 31, 2020
Non-discounted lease payments	**54,985**	**53,162**
Non-guaranteed residual value	3,393	4,255
Unearned interest income	–3,710	–3,468
Loss allowance on lease receivables	–1,207	–1,414
Net investment	**53,462**	**52,534**

The following cash inflows from expected outstanding, non-discounted finance lease payments are expected over the coming years:

DISCLOSURE AS OF DECEMBER 31, 2021

€ million	2022	2023	2024	2025	2026	from 2027	Total
Lease payments	20,220	15,512	11,802	6,273	725	454	**54,985**

DISCLOSURE AS OF DECEMBER 31, 2020

€ million	2021	2022	2023	2024	2025	from 2026	Total
Lease payments	19,059	15,299	12,051	5,684	612	456	**53,162**

34. IFRS 7 (Financial Instruments)

The table below shows the carrying amounts of financial instruments by measurement category:

CARRYING AMOUNT OF FINANCIAL INSTRUMENTS BY IFRS 9 MEASUREMENT CATEGORY

€ million	Dec. 31, 2021	Dec. 31, 2020
Financial assets at fair value through profit or loss	22,998	21,898
Financial assets at fair value through other comprehensive income (debt instruments)	4,719	3,545
Financial assets at fair value through other comprehensive income (equity instruments)	687	152
Financial assets measured at amortized cost	157,770	151,497
of which classified as held for sale	142	–
Financial liabilities at fair value through profit or loss	1,737	2,504[1]
Financial liabilities measured at amortized cost	240,268	230,904
of which classified as held for sale	142	–

1 Prior-year figures adjusted.

CLASSES OF FINANCIAL INSTRUMENTS

Financial instruments are divided into the following classes at the Volkswagen Group:
> financial instruments measured at fair value;
> financial instruments measured at amortized cost;
> derivative financial instruments within hedge accounting;
> not allocated to any measurement category; and
> credit commitments and financial guarantees (off-balance sheet).

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS

The following table shows the reconciliation of the balance sheet items to the relevant classes of financial instruments, broken down by the carrying amount and fair value of the financial instruments.

The fair value of financial instruments measured at amortized cost, such as receivables and liabilities, is calculated by discounting the carrying amount using a market rate of interest for a similar risk and matching maturity. For reasons of materiality, the fair value of current balance sheet items is generally deemed to be their carrying amount.

For reconciliation to the carrying amounts, the “Not allocated to a measurement category” column in the table also includes items other than financial instruments.

The risk variables governing the fair value of the receivables are risk-adjusted interest rates.

“Financial instruments measured at fair value” also include shares in partnerships and corporations.

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2021

	MEASURED AT FAIR VALUE	MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT ALLOCATED TO A MEASUREMENT CATEGORY	BALANCE SHEET ITEM AT DEC. 31, 2021
€ million	Carrying amount	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets						
Equity-accounted investments	–	–	–	–	12,531	12,531
Other equity investments	760	–	–	–	2,240	3,000
Financial services receivables	290	50,146	51,326	–	34,519	84,954
Other financial assets	2,830	4,950	5,031	1,377	–	9,156
Tax receivables	–	–	–	–	635	635
Current assets						
Trade receivables	8	15,513	15,513	–	–	15,521
Financial services receivables	26	37,204	37,204	–	19,268	56,498
Other financial assets	1,996	10,046	10,046	543	–	12,584
Tax receivables	–	9	9	–	1,608	1,618
Marketable securities	22,495	37	37	–	–	22,532
Cash, cash equivalents and time deposits	–	39,723	39,723	–	–	39,723
Assets held for sale	–	142	142	–	532	674
Noncurrent liabilities						
Financial liabilities	–	126,481	131,359	–	5,137	131,618
Other financial liabilities	728	2,419	2,437	1,320	–	4,466
Current liabilities						
Financial liabilities	–	77,476	77,476	–	1,108	78,584
Trade payables	–	23,624	23,624	–	–	23,624
Other financial liabilities	1,009	10,112	10,112	1,880	–	13,002
Tax payables	–	27	27	–	588	614
Liabilities associated with assets held for sale	–	142	142	–	96	238

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2020

	MEASURED AT FAIR VALUE	MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT ALLOCATED TO A MEASUREMENT CATEGORY	BALANCE SHEET ITEM AT DEC. 31, 2020
€ million	Carrying amount	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets						
Equity-accounted investments	–	–	–	–	10,080	10,080
Other equity investments	177	–	–	–	1,688	1,865
Financial services receivables	279	47,879	50,231	–	34,408	82,565
Other financial assets	1,512	4,105	4,220	2,217	–	7,834
Tax receivables	–	–	–	–	376	376
Current assets						
Trade receivables	52	16,191	16,191	–	–	16,243
Financial services receivables	26	39,474	39,474	–	18,506	58,006
Other financial assets	2,402	9,915	9,915	917	–	13,234
Tax receivables	–	9	9	–	1,177	1,186
Marketable securities	21,146	15	15	–	–	21,162
Cash, cash equivalents and time deposits	–	33,909	33,909	–	–	33,909
Noncurrent liabilities						
Financial liabilities	–	109,690	115,282	–	5,119	114,809
Other financial liabilities	1,271[1]	2,322	2,317	665[1]	–	4,257
Current liabilities						
Financial liabilities	–	87,643	87,643	–	1,005	88,648
Trade payables	–	22,677	22,677	–	–	22,677
Other financial liabilities	1,233[1]	8,545	8,545	812[1]	–	10,590
Tax payables	–	38	38	–	301	340

1 Prior-year figures adjusted.

The carrying amount of lease receivables was €53.8 billion (previous year: €52.9 billion) and their fair value (fair value hierarchy level 3) was €54.8 billion (previous year adjusted: €54.1 billion).

Uniform valuation techniques and inputs are used to measure fair value. The fair value of Level 2 and 3 financial instruments is measured in the individual divisions on the basis of Group-wide specifications. The measurement techniques used are explained in the section entitled "Accounting policies". The fair value of Level 3 receivables was measured by reference to individual expectations of losses; these are based to a significant extent on the Company's assumptions about counterparty credit quality. The inputs used are not observable in an active market.

The following tables contain an overview of the financial assets and liabilities measured at fair value by level:

FINANCIAL ASSETS AND LIABILITIES MEASURED AT FAIR VALUE BY LEVEL

€ million	Dec. 31, 2021	Level 1	Level 2	Level 3
Noncurrent assets				
Other equity investments	760	579	0	181
Financial services receivables	290	–	–	290
Other financial assets	2,830	–	1,477	1,353
Current assets				
Trade receivables	8	–	–	8
Financial services receivables	26	–	–	26
Other financial assets	1,996	–	1,733	263
Marketable securities	22,495	22,406	89	–
Noncurrent liabilities				
Other financial liabilities	728	–	529	199
Current liabilities				
Other financial liabilities	1,009	–	905	104

€ million	Dec. 31, 2020	Level 1	Level 2	Level 3
Noncurrent assets				
Other equity investments	177	40	0	137
Financial services receivables	279	–	–	279
Other financial assets	1,512	–	784	729
Current assets				
Trade receivables	52	–	–	52
Financial services receivables	26	–	–	26
Other financial assets	2,402	–	2,242	160
Marketable securities	21,146	21,060	86	–
Noncurrent liabilities				
Other financial liabilities	1,271[1]	–	727[1]	543
Current liabilities				
Other financial liabilities	1,233[1]	–	869[1]	364

1 Prior-year figures adjusted.

FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES MEASURED AT AMORTIZED COST BY LEVEL

€ million	Dec. 31, 2021	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	88,530	–	–	88,530
Trade receivables	15,513	–	15,513	–
Other financial assets	15,077	996	5,126	8,955
Tax receivables	9	–	9	–
Marketable securities	37	37	–	–
Cash, cash equivalents and time deposits	39,723	39,043	680	–
Assets held for sale	142	85	57	–
Fair value of financial assets measured at amortized cost	**159,032**	**40,162**	**21,385**	**97,485**
Fair value of financial liabilities measured at amortized cost				
Trade payables	23,624	–	23,624	–
Financial liabilities	208,835	51,759	155,499	1,577
Other financial liabilities	12,549	858	11,375	316
Tax payables	27	–	27	–
Liabilities associated with assets held for sale	142	–	142	–
Fair value of financial liabilities measured at amortized cost	**245,177**	**52,617**	**190,666**	**1,893**

€ million	Dec. 31, 2020	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	89,705	–	–	89,705
Trade receivables	16,191	–	16,191	–
Other financial assets	14,135	466	4,834	8,834
Tax receivables	9	–	9	–
Marketable securities	15	15	–	–
Cash, cash equivalents and time deposits	33,909	33,721	188	–
Fair value of financial assets measured at amortized cost	**153,965**	**34,203**	**21,223**	**98,540**
Fair value of financial liabilities measured at amortized cost				
Trade payables	22,677	–	22,677	–
Financial liabilities	202,925	41,909	161,016	–
Other financial liabilities	10,862	691	9,851	320
Tax payables	38	–	38	–
Fair value of financial liabilities measured at amortized cost	**236,502**	**42,600**	**193,582**	**320**

DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING BY LEVEL

€ million	Dec. 31, 2021	Level 1	Level 2	Level 3
Noncurrent assets				
Other financial assets	1,377	–	1,377	–
Current assets				
Other financial assets	543	–	543	–
Noncurrent liabilities				
Other financial liabilities	1,320	–	1,320	–
Current liabilities				
Other financial liabilities	1,880	–	1,880	–

€ million	Dec. 31, 2020	Level 1	Level 2	Level 3
Noncurrent assets				
Other financial assets	2,217	–	2,217	–
Current assets				
Other financial assets	917	–	917	–
Noncurrent liabilities				
Other financial liabilities[1]	665	–	665	–
Current liabilities				
Other financial liabilities[1]	812	–	710	102

1 Prior-year figures adjusted.

The allocation of fair values to the three levels in the fair value hierarchy is based on the availability of observable market prices. Level 1 is used to report the fair value of financial instruments for which a price is directly available in an active market. Examples include marketable securities and other equity investments measured at fair value that are listed and traded on a public market. Fair values in Level 2, for example of derivatives, are measured on the basis of market inputs using market-based valuation techniques. In particular, the inputs used include exchange rates, yield curves and commodity prices that are observable in the relevant markets and obtained through pricing services. Fair Values in Level 3 are calculated using valuation techniques that incorporate inputs that are not directly observable in active markets. In the Volkswagen Group, long-term commodity futures are allocated to Level 3 because the prices available on the market must be extrapolated for measurement purposes. This is done on the basis of observable inputs obtained for the different commodities through pricing services. Options on equity instruments, residual value protection models, customer financing receivables and receivables from vehicle financing programs and other equity investments are also reported in Level 3. Equity instruments are measured primarily using the relevant business plans and entity-specific discount rates. The significant inputs used to measure fair value for the residual value protection models include forecasts and estimates of used vehicle residual values for the appropriate models. The measurement of vehicle financing programs requires in particular the use of the corresponding vehicle price.

The table below provides a summary of changes in level 3 balance sheet items measured at fair value:

CHANGES IN BALANCE SHEET ITEMS MEASURED AT FAIR VALUE BASED ON LEVEL 3

€ million	Financial assets measured at fair value	Financial liabilities measured at fair value
Balance at Jan. 1, 2021	**1,383**	**908**
Foreign exchange differences	48	12
Changes in consolidated Group	–297	–
Total comprehensive income	1,114	–367
recognized in profit loss	802	–268
recognized in other comprehensive income	312	–99
Additions (purchases)	616	–
Sales and settlements	–157	–227
Transfers into Level 1	–333	–
Transfers into Level 2	–255	–23
Balance at Dec. 31, 2021	**2,119**	**303**
Total gains or losses recognized in profit or loss	**802**	**268**
Net other operating expense/income	753	268
of which attributable to assets/liabilities held at the reporting date	296	290
Financial result	49	–
of which attributable to assets/liabilities held at the reporting date	–6	–

€ million	Financial assets measured at fair value	Financial liabilities measured at fair value
Balance at Jan. 1, 2020	**913**	**765**
Foreign exchange differences	–39	–9
Changes in consolidated Group	66	–
Total comprehensive income	433	551
recognized in profit loss	425	452
recognized in other comprehensive income	8	99
Additions (purchases)	312	–
Sales and settlements	–203	–323
Transfers into Level 2	–100	–77
Balance at Dec. 31, 2020	**1,383**	**908**
Total gains or losses recognized in profit or loss	**425**	**–452**
Net other operating expense/income	407	–452
of which attributable to assets/liabilities held at the reporting date	313	–370
Financial result	18	0
of which attributable to assets/liabilities held at the reporting date	7	0

The transfers between the levels of the fair value hierarchy are reported at the respective reporting dates. The transfers out of Level 3 into Level 2 comprise commodity futures for which observable quoted prices are now available for measurement purposes due to the decline in their remaining maturities; consequently, no further extrapolation is required. The transfer out of Level 3 into Level 1 relates to the equity investment in TuSimple Holdings Inc., San Diego, California/USA, for which quoted prices are now available following its IPO. In addition, the “financial liabilities” item contains liabilities from notes measured at amortized cost in an amount of €1,915 million, which were transferred out of Level 2 into Level 1 because the market can be considered active due to increased liquidity.

Commodity prices are the key risk variable for the fair value of commodity futures. Sensitivity analyses are used to present the effect of changes in commodity prices on earnings after tax and equity.

If commodity prices for commodity futures classified as Level 3 had been 10% higher (lower) as of December 31, 2021, earnings after tax would have been €237 million (previous year: €263 million) higher (lower). The equity is not affected.

The key risk variable for measuring options on equity instruments held by the Company is the relevant enterprise value. Sensitivity analyses are used to present the effect of changes in risk variables on earnings after tax.

If the assumed enterprise values at December 31, 2021 had been 10% higher, earnings after tax would have been €6 million (previous year: €4 million) higher. If the assumed enterprise values as of December 31, 2021 had been 10% lower, earnings after tax would have been €6 million (previous year: €4 million) lower.

Residual value risks result from hedging agreements with dealerships under which earnings effects caused by market-related fluctuations in residual values that arise from buy-back obligations under leases are borne in part by the Volkswagen Group.

The key risk variable influencing the fair value of the options relating to residual value risks is used car prices. Sensitivity analyses are used to quantify the effects of changes in used car prices on earnings after tax.

If the prices of the used cars covered by the residual value protection model had been 10% higher as of December 31, 2021, earnings after tax would have been €416 million (previous year: €382 million) higher. If the prices of the used cars covered by the residual value protection model had been 10% lower as of December 31, 2021, earnings after tax would have been €468 million (previous year: €419 million) lower.

If the risk-adjusted interest rates applied to receivables measured at fair value had been 100 basis points higher as of December 31, 2021, earnings after tax would have been €3 million (previous year: €2 million) lower. If the risk-adjusted interest rates as of December 31, 2021 had been 100 basis points lower, earnings after tax would have been €3 million (previous year: €2 million) higher.

If the corresponding vehicle price used in the vehicle financing programs had been 10% higher as of December 31, 2021, earnings after tax would have been €8 million (previous year: €2 million) higher. If the corresponding vehicle prices used in the vehicle financing programs had been 10% lower as of December 31, 2021, earnings after tax would have been €8 million (previous year: €2 million) lower.

If the result of operations of equity investments measured at fair value had been 10% better as of December 31, 2021, equity would have been €6.2 million (previous year: €5.8 million) higher, and earnings after tax would have been €8.7 million (previous year: €2.1 million) higher. If the result of operations of equity investments measured at fair value had been 10% worse, equity would have been €6.2 million (previous year: €5.8 million) lower, and earnings after tax would have been €8.7 million (previous year: €2.1 million) lower.

OFFSETTING OF FINANCIAL ASSETS AND LIABILITIES

The following tables contain information about the effects of offsetting in the balance sheet and the potential financial effects of offsetting in the case of instruments that are subject to a legally enforceable master netting arrangement or a similar agreement.

€ million	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Amounts that are not set off in the balance sheet: Financial instruments	Amounts that are not set off in the balance sheet: Collateral received	Net amount at Dec. 31, 2021
Derivatives	5,408	–89	5,319	–3,195	–7	2,117
Financial services receivables	142,057	–605	141,452	–	–102	141,350
Trade receivables	15,552	–31	15,521	0	–	15,521
Marketable securities	22,532	–	22,532	–	–	22,532
Cash, cash equivalents and time deposits	39,723	–	39,723	–	–	39,723
Other financial assets	17,191	–	17,191	0	–	17,191

€ million	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Amounts that are not set off in the balance sheet: Financial instruments	Amounts that are not set off in the balance sheet: Collateral received	Net amount at Dec. 31, 2020
Derivatives	6,216	–165	6,051	–1,770	–35	4,246
Financial services receivables	141,185	–614	140,571	–	–98	140,473
Trade receivables	16,253	–10	16,243	0	–	16,243
Marketable securities	21,162	–	21,162	–	–	21,162
Cash, cash equivalents and time deposits	33,909	–	33,909	–	–	33,909
Other financial assets	15,203	–	15,203	0	–	15,203

Other financial assets include receivables from tax allocations of €9 million (previous year: €9 million).

€ million	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		Net amount at Dec. 31, 2021
				Financial instruments	Collateral pledged	
Derivatives	4,425	−3	4,422	−3,195	−19	1,208
Financial liabilities	210,202	–	210,202	–	−1,756	208,446
Trade payables	23,654	−31	23,623	0	–	23,623
Other financial liabilities	13,765	−692	13,073	–	–	13,073

€ million	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		Net amount at Dec. 31, 2020
				Financial instruments	Collateral pledged	
Derivatives	3,417	−8	3,409	−1,769	−2	1,638
Financial liabilities	203,457	–	203,457	–	−1,955	201,502
Trade payables	22,687	−10	22,677	0	–	22,677
Other financial liabilities	12,247	−771	11,476	–	–	11,476

The “Financial instruments” column shows the amounts that are subject to a master netting arrangement but were not set off because they do not meet the criteria for offsetting in the balance sheet. The “Collateral received” and “Collateral pledged” columns show the amounts of cash collateral and collateral in the form of financial instruments received and pledged for the total assets and liabilities that do not meet the criteria for offsetting in the balance sheet.

Other financial liabilities include liabilities from tax allocations of €27 million (previous year: €38 million).

ASSET-BACKED SECURITIES TRANSACTIONS

Asset-backed securities transactions with financial assets amounting to €33.0 billion (previous year: €30.6 billion) entered into to refinance the financial services business are included in bonds, commercial paper and notes, and liabilities from loans. The corresponding carrying amount of the receivables from the customer and dealer financing and the finance lease business amounted to €38.2 billion (previous year: €34.5 billion). Collateral of €55.8 billion (previous year: €48.9 billion) in total was furnished as part of asset-backed securities transactions. The expected payments were assigned to structured entities and the equitable liens in the financed vehicles were transferred. These asset-backed securities transactions did not result in the receivables from financial services business being derecognized, as the Group retains nonpayment and late payment risks. The difference between the assigned receivables and the related liabilities is the result of different terms and conditions and the share of the securitized paper and notes held by the Volkswagen Group itself.

Most of the public and private asset-backed securities transactions of the Volkswagen Group can be repaid in advance (clean-up call) if less than 10% of the original transaction volume is outstanding. The assigned receivables cannot be assigned again or pledged elsewhere as collateral. The claims of the holders of commercial paper and notes are limited to the assigned receivables and the receipts from those receivables are earmarked for the repayment of the corresponding liability.

As of December 31, 2021, the fair value of the assigned receivables still recognized in the balance sheet was €38.5 billion (previous year: €35.4 billion). The fair value of the related liabilities was €32.6 billion (previous year: €30.6 billion) at that reporting date.

The Volkswagen Bank GmbH Group is contractually obliged, under certain conditions, to transfer funds to the structured entities that are included in its financial statements. Since the receivables are transferred to the special purpose entity by way of undisclosed assignment, the situation may occur in which the receivable has already been reduced in a legally binding manner at the originator, for example if the obligor effectively offsets it against receivables owed to it by a company belonging to the Volkswagen Group. In this case, collateral must be furnished for the resulting compensation claims against the special purpose entity, for example if the rating of the Group company concerned declines to a contractually agreed reference value.

ADDITIONAL INCOME STATEMENT DISCLOSURES IN ACCORDANCE WITH IFRS 7 (FINANCIAL INSTRUMENTS)

The table below shows net gains and losses on financial assets and financial liabilities by measurement category, followed by a detailed explanation of key aspects:

NET GAINS OR LOSSES FROM FINANCIAL INSTRUMENTS BY IFRS 9 MEASUREMENT CATEGORY

€ million	2021	2020
Financial instruments at fair value through profit or loss	3,097	2,309
Financial assets measured at amortized cost	5,889	2,899
Financial assets at fair value through other comprehensive income (debt instruments)	1	4
Financial liabilities measured at amortized cost	–3,247	–3,242
	5,740	**1,970**

Net gains and losses in the category "financial instruments at fair value through profit or loss" are mainly composed of the fair value measurement gains and losses on derivatives, including interest and gains and losses on currency translation.

Net gains and losses from financial assets measured at fair value through other comprehensive income (debt instruments) relate to interest income from fixed-income securities.

Net gains and losses from financial assets and liabilities measured at amortized cost mainly comprise interest income and expenses calculated according to the effective interest method pursuant to IFRS 9, currency translation effects, and the recognition of loss allowances. Interest also includes interest income and expenses from the lending business of the Financial Services Division.

The table below presents total interest income and expenses from financial assets and liabilities measured at amortized cost, separately from financial assets measured at fair value through other comprehensive income:

TOTAL INTEREST INCOME AND EXPENSES ATTRIBUTABLE TO FINANCIAL INSTRUMENTS NOT MEASURED AT FAIR VALUE THROUGH PROFIT OR LOSS

€ million	2021	2020
Financial assets and liabilities measured at amortized cost		
Interest income	7,099	6,982
Interest expenses	3,540	3,707
Financial assets (debt instruments) and liabilities measured at fair value through other comprehensive income		
Interest income	5	4
Interest expenses	0	–

GAINS AND LOSSES ON THE DISPOSAL OF FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	2021	2020
Gains arising from the derecognition of financial assets measured at amortized cost	583	810
Losses arising from the derecognition of financial assets measured at amortized cost	–1,003	–1,527
	–420	**–717**

In the fiscal year, €1 million (previous year: €2 million) was recognized as an expense and €27 million (previous year: €29 million) as income from fees and commissions for trust activities and from financial assets and liabilities not measured at fair value that are not accounted for using the effective interest method.

35. Cash flow statement

Cash flows are presented in the cash flow statement classified into cash flows from operating activities, investing activities and financing activities, irrespective of the balance sheet classification.

Cash flows from operating activities are derived indirectly from earnings before tax. Earnings before tax are adjusted to eliminate noncash expenditures (mainly depreciation, amortization and impairment losses) and income. Other noncash income and expense results mainly from measurement effects in connection with financial instruments and to fair value changes relating to hedging transactions. This results in cash flows from operating activities after accounting for changes in working capital, which also include changes in lease assets and in financial services receivables.

Investing activities include additions to property, plant and equipment and equity investments, additions to capitalized development costs and investments in securities, loans and time deposits.

Financing activities include outflows of funds from dividend payments and the redemption of bonds, inflows from capital increases and the issuance of bonds, and changes in other financial liabilities. Please refer to the "Equity" section for information on the in-/outflows from the issuance/repayment of hybrid capital contained in the capital contributions.

The changes in balance sheet items that are presented in the cash flow statement cannot be derived directly from the balance sheet, as the effects of currency translation and changes in the consolidated Group are noncash transactions and are therefore eliminated.

In the fiscal year, cash flows from operating activities include interest received amounting to €7,188 million (previous year: €7,192 million) and interest paid amounting to €2,471 million (previous year: €2,677 million). Cash flows from operating activities also include dividend payments (net of withholding tax) received from joint ventures and associates of €2,960 million (previous year: €3,098 million).

Dividends amounting to €2,419 million (previous year: €2,419 million) were paid to Volkswagen AG shareholders.

€ million	Dec. 31, 2021	Dec. 31, 2020
Cash, cash equivalents and time deposits as reported in the balance sheet	39,723	33,909
Cash and cash equivalents held for sale	85	–
Time deposits	–686	–477
Cash and cash equivalents as reported in the cash flow statement	**39,123**	**33,432**

Time deposits are not classified as cash equivalents. Time deposits have a contractual maturity of more than three months. The maximum default risk corresponds to its carrying amount.

The following table shows the classification of changes in financial liabilities into cash and non-cash transactions:

€ million	Jan. 1, 2021	Cash-effective changes	NON - CASH CHANGES				Dec. 31, 2021
			Foreign exchange differences	Changes in consolidated Group	Classified as held for sale	Other changes	
Bonds	92,626	2,102	1,239	1,942	–	129	98,038
Other total third-party borrowings	104,707	–3,954	3,074	1,784	–11	306	105,929
Finance lease liabilities[1]	6,124	–1,246	162	132	13	1,087	6,245
Total third-party borrowings	**203,457**	**–3,097**	**4,475**	**3,859**	**2**	**1,522**	**210,213**
Other financial assets and liabilities	21	26	0	–	–	–69	–21
Financial assets and liabilities in financing activities	**203,478**	**–3,071**	**4,476**	**3,859**	**2**	**1,453**	**210,192**

1 Other changes in lease liabilities largely contain non-cash additions of lease liabilities.

€ million	Jan. 1, 2020	Cash-effective changes	NON - CASH CHANGES			Dec. 31, 2020
			Foreign exchange differences	Changes in consolidated Group	Other changes	
Bonds	88,629	5,366	–979	–	–389	92,626
Other total third-party borrowings	106,630	3,404	–5,638	267	44	104,707
Finance lease liabilities[1]	6,210	–1,100	–195	39	1,170	6,124
Total third-party borrowings	**201,468**	**7,670**	**–6,812**	**306**	**825**	**203,457**
Other financial assets and liabilities	–81	172	132	–	–202	21
Financial assets and liabilities in financing activities	**201,387**	**7,843**	**–6,680**	**306**	**622**	**203,478**

1 Other changes in lease liabilities largely contain non-cash additions of lease liabilities.

36. Financial risk management and financial instruments

1. HEDGING GUIDELINES AND FINANCIAL RISK MANAGEMENT PRINCIPLES

The principles and responsibilities for managing and controlling the risks that could arise from financial instruments are defined by the Board of Management and monitored by the Supervisory Board. General rules apply to the Group-wide risk policy; these are oriented on the statutory requirements and the “Minimum Requirements for Risk Management by Credit Institutions”.

Group Treasury is responsible for operational risk management and the control of risks from financial instruments. The Group Board of Management Committee for Risk Management is regularly informed about current financial risks. In addition, the Group Board of Management and the Supervisory Board are regularly updated on the current risk situation. Some functions of the MAN Energy Solutions, Porsche Holding Salzburg and TRATON GROUP subgroups and of the Financial Services Division are included in Group Treasury’s operational risk management and control for risks relating to financial instruments and have their own risk management structures.

For more information, see the section on financial risks in the Report on Risks and Opportunities of the group management report.

2. CREDIT AND DEFAULT RISK

The credit and default risk arising from financial assets involves the risk of default by counterparties, and therefore comprises at a maximum the amount of the claims under carrying amounts receivable from them and the irrevocable credit commitments. The maximum potential credit and default risk is reduced by collateral held and other credit enhancements. Collateral is held predominantly for financial assets in the “at amortized cost” category. It relates primarily to collateral for financial services receivables and trade receivables. Collateral comprises vehicles and assets transferred as security, as well as guarantees and real property liens. Cash collateral is also used in hedging transactions.

For level 3 and level 4 financial assets with objective indications of impairment as of the reporting date, the collateral provided led to a reduction in risk by €1.1 billion (previous year: €1.2 billion). Collateral of €203 million (previous year: €237 million) has been accepted for assets measured at fair value through profit or loss.

Significant cash and capital investments, as well as derivatives, are only entered into with national and international banks. Risk is additionally limited by a limit system based primarily on the equity base of the counterparties concerned and on credit assessments by international rating agencies. Financial guarantees issued also give rise to credit and default risk. The maximum default risk is determined by the guarantee amount. The corresponding amounts are presented in the Liquidity risk section.

There were no material concentrations of risk at individual counterparties or counterparty groups in the past fiscal year due to the global allocation of the Group’s business activities and the resulting diversification. There was a slight change in the concentration of credit and default risk exposures to the German public banking sector as a whole that has arisen from Group-wide cash and capital investments as well as derivatives: the portion attributable to this sector was 6.9% at the end of 2021 compared with 6.6% at the end of 2020. Any existing concentration of risk is assessed and monitored both at the level of individual counterparties or counterparty groups and with regard to the countries in which these are based, in each case using the share of all credit and default risk exposures accounted for by the risk exposure concerned. This analysis excludes the items of Chinese companies in which Volkswagen holds an interest of 50% or less.

For China, credit and default risk exposures accounted for 17.0% at the end of 2021, as against 19.7% at the end of 2020. There were no other concentrations of credit and default risk exposures in individual countries.

LOSS ALLOWANCE

The Volkswagen Group consistently uses the expected credit loss model of IFRS 9 for all financial assets and other risk exposures.

The expected credit loss model under IFRS 9 takes in both loss allowances for financial assets for which there are no objective indications of impairment and loss allowances for financial assets that are already impaired. For the calculation of impairment losses, IFRS 9 distinguishes between the general approach and the simplified approach.

Under the general approach, financial assets are allocated to one of three stages, plus an additional stage for financial assets that are already impaired when acquired (stage 4). Stage 1 comprises financial assets that are recognized for the first time or for which the probability of default has not increased significantly. The expected credit losses for the next twelve months are calculated at this stage. Stage 2 comprises financial assets with a significantly increased probability of default, while financial assets with objective indications of default are allocated to stage 3. The lifetime expected credit losses are calculated at these stages. Stage 4 financial assets, which are already impaired when acquired, are subsequently measured by recognizing a loss allowance on the basis of the accumulated lifetime expected losses. Financial assets classified as impaired on acquisition remain in this category until they are derecognized.

The Volkswagen Group applies the simplified approach to trade receivables and contract assets with a significant financing component in accordance with IFRS 15. The same applies to receivables under operating or finance leases accounted for under IFRS 16. Under the simplified approach, the expected losses are consistently determined for the entire life of the asset.

The tables below show the reconciliation of the loss allowance for various financial assets and financial guarantees and credit commitments:

CHANGES IN GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2021	**113,665**	**22,253**	**1,600**	**16,935**	**458**	**154,912**
Foreign exchange differences	3,685	359	28	342	1	4,415
Changes in consolidated group	1,302	7	0	1,313	10	2,631
Changes	1,347	758	–1,041	–1,657	–64	–657
Modifications	–3,155	1	369	2,788	0	2
Transfers to						
Stage 1	3,365	–3,348	–17	–	–	0
Stage 2	–4,461	4,528	–67	–	–	0
Stage 3	–467	–638	1,105	–	–	0
Classified as held for sale	–31	–	–	–95	–	–126
Carrying amount at Dec. 31, 2021	**115,250**	**23,918**	**1,978**	**19,627**	**404**	**161,177**

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2021	**929**	**786**	**825**	**814**	**87**	**3,440**
Foreign exchange differences	22	19	20	4	0	66
Changes in consolidated group	1	–	0	0	–	0
Newly extended/purchased financial assets (additions)	425	–	–	183	0	608
Other changes within a stage	–107	–34	488	–311	–13	23
Transfers to						
Stage 1	22	–100	–7	–	–	–85
Stage 2	–102	250	–20	–	–	128
Stage 3	–139	–69	476	–	–	268
Financial instruments derecognized during the period (disposals)	–201	–176	–267	–178	–18	–840
Utilization	–	–	–280	–18	–9	–306
Changes to models or risk parameters	–21	–1	–23	0	2	–43
Classified as held for sale	0	–	–	–1	–	–1
Carrying amount at Dec. 31, 2021	**828**	**675**	**1,212**	**492**	**49**	**3,257**

CHANGES IN GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2020	**121,425**	**11,728**	**1,561**	**18,208**	**490**	**153,411**
Foreign exchange differences	–4,123	–677	–90	–667	–9	–5,566
Changes in consolidated group	2,514	3	7	72	–	2,596
Changes	–758	6,640	–709	–677	–24	4,471
Modifications	1	1	–3	–	0	–1
Transfers to						
Stage 1	2,302	–2,286	–16	–	–	0
Stage 2	–7,115	7,261	–146	–	–	0
Stage 3	–580	–417	997	–	–	0
Carrying amount at Dec. 31, 2020	**113,665**	**22,253**	**1,600**	**16,935**	**458**	**154,912**

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2020	**913**	**677**	**893**	**760**	**94**	**3,336**
Foreign exchange differences	–33	–32	–89	–29	–5	–189
Changes in consolidated group	13	–2	24	2	–	37
Newly extended/purchased financial assets (additions)	415	–	–	252	18	685
Other changes within a stage	79	69	–35	16	5	134
Transfers to						
Stage 1	22	–61	–14	–	–	–53
Stage 2	–126	320	–42	–	–	152
Stage 3	–167	–88	513	–	–	258
Financial instruments derecognized during the period (disposals)	–197	–121	–170	–154	–6	–647
Utilization	–	–	–257	–33	–21	–311
Changes to models or risk parameters	9	23	1	1	2	36
Carrying amount at Dec. 31, 2020	**929**	**786**	**825**	**814**	**87**	**3,440**

CHANGES IN DEFAULT RISK POSITIONS OF FINANCIAL GUARANTEES AND CREDIT COMMITMENTS

€ million	Stage 1	Stage 2	Stage 3	Stage 4	Total
Carrying amount at Jan. 1, 2021	**9,016**	**2,648**	**281**	**174**	**12,119**
Foreign exchange differences	75	23	0	0	99
Changes in consolidated group	1,087	1	–	12	1,100
Changes	7,383	3,526	298	213	11,420
Modifications	–	–	–	–	–
Transfers to					
Stage 1	115	–115	0	–	0
Stage 2	–143	143	0	–	0
Stage 3	–1	–3	4	–	0
Carrying amount at Dec. 31, 2021	**17,533**	**6,223**	**582**	**400**	**24,738**

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS

€ million	Stage 1	Stage 2	Stage 3	Stage 4	Total
Carrying amount at Jan. 1, 2021	**19**	**3**	**0**	**0**	**22**
Foreign exchange differences	0	0	0	0	0
Changes in consolidated group	6	0	–	4	10
Newly extended/purchased financial assets (additions)	65	–	–	0	65
Other changes within a stage	–38	18	19	3	2
Transfers to					
Stage 1	0	0	–	–	0
Stage 2	–1	1	0	–	0
Stage 3	–1	0	2	–	1
Financial instruments derecognized during the period (disposals)	–6	–1	0	0	–8
Utilization	–	–	–1	–1	–2
Changes to models or risk parameters	0	0	0	0	0
Carrying amount at Dec. 31, 2021	**43**	**20**	**20**	**7**	**90**

CHANGES IN DEFAULT RISK POSITIONS OF FINANCIAL GUARANTEES AND CREDIT COMMITMENTS

€ million	Stage 1	Stage 2	Stage 3	Stage 4	Total
Carrying amount at Jan. 1, 2020	**9,529**	**1,728**	**160**	**108**	**11,525**
Foreign exchange differences	–78	–2	0	0	–80
Changes in consolidated group	93	–	–	–	93
Changes	–455	855	116	66	582
Modifications	–	–	–	–	–
Transfers to					
Stage 1	30	–30	0	–	0
Stage 2	–98	98	0	–	0
Stage 3	–5	–1	6	–	0
Carrying amount at Dec. 31, 2020	**9,016**	**2,648**	**281**	**174**	**12,119**

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS

€ million	Stage 1	Stage 2	Stage 3	Stage 4	Total
Carrying amount at Jan. 1, 2020	**17**	**2**	**0**	**0**	**18**
Foreign exchange differences	–1	0	0	0	–1
Changes in consolidated group	0	–	–	–	0
Newly extended/purchased financial assets (additions)	8	0	0	0	8
Other changes within a stage	1	1	0	0	2
Transfers to					
Stage 1	0	0	–	–	0
Stage 2	0	1	–	–	1
Stage 3	0	0	0	–	0
Financial instruments derecognized during the period (disposals)	–4	–1	–	0	–5
Utilization	–	–	–1	–	–1
Changes to models or risk parameters	0	0	–	–	0
Carrying amount at Dec. 31, 2020	**19**	**3**	**0**	**0**	**22**

CHANGES IN GROSS CARRYING AMOUNTS OF LEASE RECEIVABLES AND CONTRACT ASSETS

	SIMPLIFIED APPROACH	
€ million	2021	2020
Carrying amount at Jan. 1	**54,817**	**55,566**
Foreign exchange differences	1,170	–1,397
Changes in consolidated group	162	2
Changes	–633	650
Modifications	–2	–4
Carrying amount at Dec. 31	**55,515**	**54,817**

CHANGES IN LOSS ALLOWANCE FOR LEASE RECEIVABLES AND CONTRACT ASSETS

	SIMPLIFIED APPROACH	
€ million	2021	2020
Carrying amount at Jan. 1	**1,516**	**1,312**
Foreign exchange differences	17	–29
Changes in consolidated group	–	0
Newly extended/purchased financial assets (additions)	386	377
Other changes	6	225
Financial instruments derecognized during the period (disposals)	–511	–314
Utilization	–105	–107
Changes to models or risk parameters	–11	51
Carrying amount at Dec. 31	**1,297**	**1,516**

CHANGES IN GROSS CARRYING AMOUNTS OF ASSETS MEASURED AT FAIR VALUE

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	No loss allowance	Total
Carrying amount at Jan. 1, 2021	**2,763**	**785**	**–**	**–**	**–**	**22,038**	**25,585**
Foreign exchange differences	13	–	–	–	–	128	141
Changes in consolidated group	–	–	–	–	–	545	545
Changes	1,105	60	–	–	–	958	2,123
Modifications	–	–	–	–	–	–	–
Transfers to							
Stage 1	290	–290	–	–	–	–	0
Stage 2	–1,376	1,376	–	–	–	–	0
Stage 3	–	–	–	–	–	–	–
Carrying amount at Dec. 31, 2021	**2,795**	**1,931**	**–**	**–**	**–**	**23,668**	**28,394**

CHANGES IN GROSS CARRYING AMOUNTS OF ASSETS MEASURED AT FAIR VALUE

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	No loss allowance	Total
Carrying amount at Jan. 1, 2020	**1,577**	**1,565**	**–**	**–**	**–**	**16,762**	**19,904**
Foreign exchange differences	–	–	–	–	–	–135	–135
Changes in consolidated group	–	–	–	–	–	104	104
Changes	1,261	–855	–	–	–	5,307	5,713
Modifications	–	–	–	–	–	–	–
Transfers to							
Stage 1	366	–366	–	–	–	–	0
Stage 2	–442	442	–	–	–	–	0
Stage 3	–	–	–	–	–	–	–
Carrying amount at Dec. 31, 2020	**2,763**	**785**	**–**	**–**	**–**	**22,038**	**25,585**

The loss allowance on assets measured at fair value in Stage 1 rose by €2 million (previous year: €0 million) in fiscal year 2021 and those in Stage 2 by €2 million (previous year: €0 million), resulting in a closing balance of €7 million (previous year: €3 million). Of this amount, €4 million is attributable to Stage 1 (previous year: €2 million) and €3 million to Stage 2 (previous year €1 million).

The amount contractually outstanding for financial assets that have been derecognized in the current year and are still subject to enforcement proceedings is €229 million (previous year: €221 million).

MODIFICATIONS

There were contract modifications to financial assets in the reporting period that did not lead to the derecognition of the asset. These were primarily attributable to credit ratings and relate to financial assets for which loss allowances were measured in the amount of the expected lifetime credit losses. For trade and lease receivables, the treatment is simplified by considering the credit rating-based modifications where the receivables are more than 30 days past due. Before the modification, amortized cost amounted to €225 million (previous year: €493 million). In the reporting period, contract modifications resulted in net income/net expenses of €3.0 million (previous year: €6.4 million).

As of the reporting date, the gross carrying amounts of financial assets that have been modified since initial recognition and were simultaneously reclassified from stage 2 or 3 to stage 1 in the reporting period amounted to €31 million (previous year: €81 million). As a result, the measurement of the loss allowance for these financial assets was changed from lifetime expected credit losses to 12-month expected credit losses.

MAXIMUM CREDIT RISK

The table below shows the maximum credit risk to which the Volkswagen Group was exposed as of the reporting date, broken down by class to which the impairment model is applied:

MAXIMUM CREDIT RISK BY CLASS

€ million	Dec. 31, 2021	Dec. 31, 2020
Financial assets measured at fair value	4,719	3,545
Financial assets measured at amortized cost	157,628	151,497
Financial guarantees and credit commitments	24,648	12,097[1]
Not allocated to a measurement category	53,787	52,914
Total	**240,781**	**220,053**

1 Prior-year figures adjusted.

In the fiscal year under review, contractually revocable credit commitments were reclassified as they must, in substance, be considered irrevocable credit commitments. An adjustment of €8.3 billion was made to the prior-year figures.

RATING CATEGORIES

The Volkswagen Group performs a credit assessment of borrowers in all loan and lease agreements, using scoring systems for the high-volume business and rating systems for corporate customers as well as receivables from dealer financing. Receivables rated as good are contained in risk class 1. Receivables from customers whose credit rating is not good but have not yet defaulted are contained in risk class 2. Risk class 3 comprises all defaulted receivables.

The table below presents the gross carrying amounts of financial assets by rating category:

GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS BY RATING CATEGORY AS OF DECEMBER 31, 2021

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	117,687	21,300	–	70,337	105
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	2,005	4,549	–	2,121	47
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	2,009	1,024	232
Total	**119,692**	**25,849**	**2,009**	**73,483**	**384**

GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS BY RATING CATEGORY AS OF DECEMBER 31, 2020

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	112,446	10,109	–	65,040	106
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	5,278	12,926	–	2,877	64
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	2,709	1,157	288
Total	**117,725**	**23,035**	**2,709**	**69,074**	**458**

Furthermore, the default risk exposure for financial guarantees and credit commitments is presented below:

DEFAULT RISK FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS AS OF DECEMBER 31, 2021

€ million	Stage 1	Stage 2	Stage 3	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	17,337	4,923	–	247
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	196	1,301	–	23
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	582	129
Total	**17,533**	**6,223**	**582**	**400**

DEFAULT RISK FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS AS OF DECEMBER 31, 2020[1]

€ million	Stage 1	Stage 2	Stage 3	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	8,830	2,091	–	118
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	105	557	–	10
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	281	45
Total	**8,935**	**2,648**	**281**	**174**

1 Prior-year figures adjusted.

Collateral that was accepted for financial assets in the current fiscal year was recognized in the balance sheet in the amount of €120 million (previous year: €159 million). This mainly relates to vehicles.

3. LIQUIDITY RISK

The solvency and liquidity of the Volkswagen Group are ensured at all times by rolling liquidity planning, a liquidity reserve in the form of cash, confirmed credit lines and the issuance of securities on the international money and capital markets. The volume of confirmed bilateral and syndicated credit lines stood at €28.4 billion as of December 31, 2021 (previous year: €27.9 billion), of which €1.6 billion (previous year: €2.3 billion) was drawn down.

Local cash funds in certain countries (e.g. China, Brazil, Argentina, South Africa and India) are only available to the Group for cross-border transactions subject to exchange controls. There are no significant restrictions over and above these.

The following overview shows the contractual undiscounted cash flows from financial instruments:

MATURITY ANALYSIS OF UNDISCOUNTED CASH FLOWS FROM FINANCIAL INSTRUMENTS

	REMAINING CONTRACTUAL MATURITIES				REMAINING CONTRACTUAL MATURITIES			
€ million	up to one year	within one to five years	more than five years	2021	up to one year	within one to five years	more than five years	2020
Financial liabilities	81,006	112,095	26,797	219,898	89,371	98,159	25,106	212,636
Trade payables	23,610	14	–	23,624	22,675	1	–	22,677
Other financial liabilities	10,651	2,240	170	13,061	9,151	2,156	152	11,460
Derivatives	74,236	72,283	8,425	154,944	73,927	56,294	6,736	136,958
	189,503	**186,631**	**35,392**	**411,527**	**195,125**	**156,611**	**31,995**	**383,731**

The cash outflows on other financial liabilities include outflows on liabilities for tax allocations amounting to €27 million (previous year: €38 million).

Derivatives comprise both cash flows from derivative financial instruments with negative fair values and cash flows from derivatives with positive fair values for which gross settlement has been agreed. Derivatives entered into through offsetting transactions are also accounted for as cash outflows. The cash outflows from derivatives for which gross settlement has been agreed are matched in part by cash inflows. These cash inflows are not reported in the maturity analysis. If these cash inflows were also recognized, the cash outflows presented would be substantially lower. This also particularly applies if hedges have been closed with offsetting transactions.

The cash outflows from obligations from loan commitments and irrevocable credit commitments are presented in the section entitled "Other financial obligations", classified by contractual maturities.

As of December 31, 2021, the maximum potential liability under financial guarantees amounted to €1,391 million (previous year: €447 million). Financial guarantees are assumed to be due immediately in all cases.

4. MARKET RISK

4.1 Hedging policy and financial derivatives

During the course of its general business activities, the Volkswagen Group is exposed to foreign currency, interest rate, commodity price, equity price and fund price risk. Corporate policy is to limit such risk by means of hedging. Generally, all necessary hedging transactions are executed or coordinated centrally by Group Treasury; exceptions include the MAN Energy Solutions, Porsche Holding Salzburg and TRATON GROUP subgroups and the Financial Services Division, as well as some regions such as South America.

DISCLOSURES ON GAINS AND LOSSES FROM FAIR VALUE HEDGES

Fair value hedges involve hedging against the risk of changes in the carrying amount of balance sheet items. As of the reporting date, both hedging instruments and hedged items are measured at fair value in relation to the hedged risk, and the resulting changes in value are recognized on a net basis in the corresponding income statement item.

The following table shows the gains and losses from fair value hedges by risk type:

DISCLOSURES ON GAINS AND LOSSES FROM FAIR VALUE HEDGES

€ million	Dec. 31, 2021	Dec. 31, 2020
Hedging interest rate risk		
Other operating result	1	–43
Hedging currency risk		
Other operating result	–42	–12
Combined interest rate and currency risk hedging		
Other operating result	0	0

DISCLOSURES ON GAINS AND LOSSES FROM CASH FLOW HEDGES

Cash flow hedges are used to hedge against risks of fluctuations in future cash flows. These cash flows may arise from a recognized asset or liability, or from a highly probable forecast transaction. The following table shows the gains and losses from cash flow hedges by risk type:

DISCLOSURES ON GAINS AND LOSSES FROM CASH FLOW HEDGES

€ million	2021	2020
Hedging interest rate risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	94	–46
Recognized in profit or loss	3	0
Reclassification from the cash flow hedge reserve to profit or loss		
Due to early discontinuation of the hedging relationships	–	–
Due to realization of the hedged item	4	–1
Hedging currency risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	–2,365	1,434
Recognized in profit or loss	–3	–5
Reclassification from the cash flow hedge reserve to profit or loss		
Due to early discontinuation of the hedging relationships	–5	–15
Due to realization of the hedged item	692	69
Combined interest rate and currency risk hedging		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	–39	38
Recognized in profit or loss	5	–6
Reclassification from the cash flow hedge reserve to profit or loss		
Due to early discontinuation of the hedging relationships	–	–
Due to realization of the hedged item	39	–19
Hedging commodities price risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	0	0
Recognized in profit or loss	–	–
Reclassification from the cash flow hedge reserve to profit or loss		
Due to early discontinuation of the hedging relationships	–	–
Due to realization of the hedged item	0	–1

The table presents effects taken to equity, reduced by deferred taxes.

The gain or loss from changes in the fair value of hedging instruments used in hedge accounting corresponds to the basis for determining hedge ineffectiveness. The ineffective portion of a cash flow hedge is the income or expense resulting from changes in the fair value of the hedging instrument that exceed the changes in the fair value of the hedged item. This hedge ineffectiveness is attributable to differences in the parameters for the hedging instrument and the hedged item. Such income and expenses are recognized in other operating income/expenses or in the financial result.

The Volkswagen Group uses two different methods to present market risk from nonderivative and derivative financial instruments in accordance with IFRS 7. For quantitative risk measurement, interest rate and foreign currency risk in the Volkswagen Financial Services subgroup is measured using a value-at-risk (VaR) model on the basis of a historical simulation, while market risk in the other Group companies is determined using a sensitivity analysis. The value-at-risk calculation indicates the size of the maximum potential loss on the portfolio as a whole within a time horizon of 40 days, measured at a confidence level of 99%. To provide the basis for this calculation, all cash flows from nonderivative and derivative financial instruments are aggregated into an interest rate gap analysis. The historical market data used in calculating value at risk covers a period of 1,000 trading days. The sensitivity analysis calculates the effect on equity and profit or loss by modifying risk variables within the respective market risks.

DISCLOSURES ON HEDGING INSTRUMENTS IN HEDGE ACCOUNTING

The Volkswagen Group regularly enters into hedging instruments to hedge against changes in the carrying amount of balance sheet items. The summary below shows the notional amounts, fair values and base variables for determining the ineffectiveness of hedging instruments entered into to hedge against the risk of changes in carrying amounts in fair value hedges:

DISCLOSURES ON HEDGING TRANSACTIONS IN FAIR VALUE HEDGES IN 2021

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	37,589	380	244	26
Hedging currency risk				
Currency forwards, currency options, cross-currency swaps	5,536	67	92	–112
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	–	–	–	–

DISCLOSURES ON HEDGING TRANSACTIONS IN FAIR VALUE HEDGES IN 2020

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	34,248[1]	819	14[1]	713[1]
Hedging currency risk				
Currency forwards, currency options, cross-currency swaps	6,433	56	79	1
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	48	2	–	2

1 Prior-year figures adjusted.

In addition, hedging instruments are entered into to hedge against the risk of fluctuations in future cash flows. The table below shows the notional amounts, fair values and base variables for determining the ineffectiveness of hedging instruments designated as cash flow hedges:

DISCLOSURES ON HEDGING TRANSACTIONS IN CASH FLOW HEDGES IN 2021

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	17,009	82	39	50
Hedging currency risk				
Currency forwards and cross-currency swaps	107,677	1,277	2,609	–925
Currency options	23,852	109	183	–31
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	1,289	4	34	–28

DISCLOSURES ON HEDGING TRANSACTIONS IN CASH FLOW HEDGES IN 2020

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	13,461	1	96	–93
Hedging currency risk				
Currency forwards and cross-currency swaps	84,862	1,866	1,174	1,824
Currency options	19,021	347	74	132
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	1,607	43	40	2

The change in the fair value to determine ineffectiveness corresponds to the change in fair value of the designated component.

DISCLOSURES ON HEDGED ITEMS IN HEDGE ACCOUNTING

In addition to disclosures on hedging instruments, disclosures are also required on the hedged items, broken down by risk category and type of designation for hedge accounting. Below follows a list of hedged items designated in fair value hedges, separately from those designated in cash flow hedges:

DISCLOSURES ON HEDGED ITEMS IN FAIR VALUE HEDGES IN 2021

€ million	Carrying amount	Cumulative hedge adjustments	Hedge adjustments current period/ fiscal year	Cumulative hedge adjustments from discontinued hedging relationships
Hedging interest rate risk				
Financial services receivables	–	–	–	–
Other financial assets	–	–	–	–
Financial liabilities	39,751	281	–668	–
Hedging currency risk				
Financial services receivables	–	–	–	–
Other financial assets	593	11	11	–
Financial liabilities	955	14	–20	–
Combined interest rate and currency risk hedging				
Financial services receivables	–	–	–	–
Other financial assets	–	–	–	–
Financial liabilities	–	–	–	–

DISCLOSURES ON HEDGED ITEMS IN FAIR VALUE HEDGES IN 2020

€ million	Carrying amount	Cumulative hedge adjustments	Hedge adjustments current period/ fiscal year	Cumulative hedge adjustments from discontinued hedging relationships
Hedging interest rate risk				
Financial services receivables[1]	–	–	–	–
Other financial assets	150	7	–17	–
Financial liabilities	35,924	873	423	–
Hedging currency risk				
Financial services receivables	–	–	–	–
Other financial assets	602	18	8	–
Financial liabilities	951	30	–2	–
Combined interest rate and currency risk hedging				
Financial services receivables	–	–	–	–
Other financial assets	–	–	–	–
Financial liabilities	50	5	5	–

1 Prior-year figures adjusted.

DISCLOSURES ON HEDGED ITEMS IN CASH FLOW HEDGES IN 2021

		RESERVE FOR	
€ million	Changes in fair value to determine hedge ineffectiveness	Active cash flow hedges	Discontinued cash flow hedges
Hedging interest rate risk			
Designated components	49	47	–1
Non-designated components	–	–	–
Deferred taxes	–	–18	0
Total hedging interest rate risk	49	29	–1
Hedging currency risk			
Designated components	–998	–969	8
Non-designated components	–	–500	–6
Deferred taxes	–	436	0
Total hedging currency risk	–998	–1,033	1
Combined interest rate and currency risk hedging			
Designated components	–29	–1	–
Non-designated components	–	–	–
Deferred taxes	–	0	–
Total hedging combined interest rate and currency risk	–29	–1	–
Hedging commodity price risk			
Designated components	–	–	–
Non-designated components	–	–	–
Deferred taxes	–	–	–
Total hedging commodity price risk	–	–	–

DISCLOSURES ON HEDGED ITEMS IN CASH FLOW HEDGES IN 2020

€ million	Changes in fair value to determine hedge ineffectiveness	RESERVE FOR Active cash flow hedges	RESERVE FOR Discontinued cash flow hedges
Hedging interest rate risk			
Designated components	–90	–90	1
Non-designated components	–	–	–
Deferred taxes	–	19	0
Total hedging interest rate risk	–90	–71	1
Hedging currency risk			
Designated components	1,956	1,952	4
Non-designated components	–	–1,008	0
Deferred taxes	–	–299	–1
Total hedging currency risk	1,956	644	3
Combined interest rate and currency risk hedging			
Designated components	0	–1	–
Non-designated components	–	–	–
Deferred taxes	–	0	–
Total hedging combined interest rate and currency risk	0	–1	–
Hedging commodity price risk			
Designated components	–	–	0
Non-designated components	–	–	–
Deferred taxes	–	–	0
Total hedging commodity price risk	–	–	0

CHANGES IN THE RESERVE

When accounting for cash flow hedges, the designated effective portions of a hedging relationship are recognized in OCI I. Any changes in excess of the fair value of the designated component are recognized as ineffectiveness through profit or loss.

The tables below show a reconciliation to the reserve:

CHANGES IN THE RESERVE FOR CASH FLOW HEDGES (OCI I)

€ million	Interest rate risk	Currency risk	Interest rate/ currency risk	Commodity price risk	Total
Balance at Jan. 1, 2021	**–70**	**1,355**	**–1**	**0**	**1,284**
Gains or losses from effective hedging relationships	94	–1,932	–39	0	–1,877
Reclassifications due to changes in whether the hedged item is expected to occur	–	–5	–	–	–5
Reclassifications due to realization of the hedged item	4	–83	39	0	–40
Balance at Dec. 31, 2021	**28**	**–665**	**–1**	**–**	**–637**

CHANGES IN THE RESERVE FOR CASH FLOW HEDGES (OCI I)

€ million	Interest rate risk	Currency risk	Interest rate/ currency risk	Commodity price risk	Total
Balance at Jan. 1, 2020	**–23**	**135**	**–20**	**1**	**93**
Gains or losses from effective hedging relationships	–46	1,984	38	0	1,976
Reclassifications due to changes in whether the hedged item is expected to occur	–	–41	–	–	–41
Reclassifications due to realization of the hedged item	–1	–724	–19	–1	–744
Balance at Dec. 31, 2020	**–70**	**1,355**	**–1**	**0**	**1,284**

If expectations about the occurrence of the hedged item change, the arrangement is reclassified by terminating the hedging relationship prematurely. Changed expectations are primarily caused by a change in projections for hedging sales revenue.

Changes in the fair values of non-designated components of a derivative are likewise generally recognized immediately through profit or loss. An exception from this principle is any change in the fair value attributable to non-designated time values of options, to the extent that they relate to the hedged item. Moreover, the Volkswagen Group initially recognizes in equity (hedging costs) changes in the fair values of non-designated forward components in currency forwards and currency hedges attributed to cash flow hedges. This means that the Volkswagen Group recognizes changes in the fair value of the non-designated component or parts thereof immediately through profit or loss only if there is ineffectiveness.

The tables below show a summary of changes in the reserve for hedging costs resulting from the non-designated portions of options and currency hedges:

CHANGES IN THE RESERVE FOR HEDGING COSTS – NON-DESIGNATED TIME VALUES OF OPTIONS

	CURRENCY RISK	
€ million	2021	2020
Balance at Jan. 1	**59**	**–35**
Gains and losses from non-designated time value of options		
Hedged item is recognized at a point in time	–171	50
Reclassifications due to changes in whether the hedged item is expected to occur		
Hedged item is recognized at a point in time	0	0
Reclassification due to realization of the hedged item		
Hedged item is recognized at a point in time	32	43
Balance at Dec. 31	**–80**	**59**

CHANGES IN THE RESERVE FOR HEDGING COSTS – NON-DESIGNATED FORWARD COMPONENT AND CROSS CURRENCY BASIS SPREAD (CCBS)

	CURRENCY RISK	
€ million	2021	2020
Balance at Jan. 1	**–766**	**–942**
Gains and losses from non-designated forward elements and CCBS		
Hedged item is recognized at a point in time	–263	–600
Reclassification due to changes in whether the hedged item is expected to occur		
Hedged item is recognized at a point in time	0	26
Reclassifications due to realization of the hedged item		
Hedged item is recognized at a point in time	742	749
Balance at Dec. 31	**–287**	**–766**

4.2 Market risk in the Volkswagen Group (excluding Volkswagen Financial Services subgroup)

4.2.1 Foreign currency risk

Foreign currency risk in the Volkswagen Group (excluding Volkswagen Financial Services subgroup) is attributable to investments, financing measures and operating activities. Currency forwards, currency options, currency swaps and cross-currency interest rate swaps are used to limit foreign currency risk. These transactions relate to the exchange rate hedging of material payments covering general business activities that are not made in the functional currency of the respective Group companies. The principle of matching currencies applies to the Group's financing activities.

Hedging transactions entered into in 2021 as part of foreign currency risk management were amongst others in Australian dollars, Brazilian real, British pound sterling, Chinese renminbi, Hong Kong dollars, Indian rupees, Japanese yen, Canadian dollars, Mexican pesos, Norwegian kroner, Polish zloty, Russian rubles, Swedish kronor, Swiss francs, Singapore dollars, South African rand, South Korean won, Taiwan dollars, Czech koruna, Hungarian forints and US dollars.

All nonfunctional currencies in which the Volkswagen Group enters into financial instruments are included as relevant risk variables in the sensitivity analysis in accordance with IFRS 7.

If the functional currencies concerned had appreciated or depreciated by 10% against the other currencies, the exchange rates shown below would have resulted in the following effects on the hedging reserve in equity and on earnings after tax. It is not appropriate to add together the individual figures, since the results of the various functional currencies concerned are based on different scenarios.

The following table shows the sensitivities of the main currencies in the portfolio as of December 31, 2021:

€ million	DEC. 31, 2021 +10%	DEC. 31, 2021 -10%	DEC. 31, 2020 +10%	DEC. 31, 2020 -10%
Exchange rate				
EUR / GBP				
Hedging reserve	1,737	–1,745	951	–947
Earnings after tax	–78	80	–59	59
EUR / CNY				
Hedging reserve	1,029	–1,128	520	–477
Earnings after tax	–157	157	–114	114
EUR / USD				
Hedging reserve	233	–224	168	–75
Earnings after tax	–672	666	–527	527
EUR / CHF				
Hedging reserve	574	–592	454	–442
Earnings after tax	17	–19	–4	4
EUR / SEK				
Hedging reserve	311	–312	287	–287
Earnings after tax	–82	81	–78	78
EUR / AUD				
Hedging reserve	284	–283	172	–172
Earnings after tax	–13	13	–22	22
EUR / CAD				
Hedging reserve	209	–211	123	–117
Earnings after tax	–24	24	–11	11
EUR / JPY				
Hedging reserve	200	–193	280	–274
Earnings after tax	–27	27	–32	32
EUR / TWD				
Hedging reserve	136	–136	75	–75
Earnings after tax	–6	6	–10	10
EUR / KRW				
Hedging reserve	124	–124	114	–114
Earnings after tax	–18	18	–55	55
EUR / PLN				
Hedging reserve	–93	93	–20	20
Earnings after tax	–49	49	–37	37
EUR / CZK				
Hedging reserve	89	–89	50	–50
Earnings after tax	–39	40	–31	31
CAD / USD				
Hedging reserve	–102	102	–55	55
Earnings after tax	–6	6	–4	4
EUR / BRL				
Hedging reserve	9	–9	3	–3
Earnings after tax	–96	96	–64	64
CZK / GBP				
Hedging reserve	60	–60	109	–109
Earnings after tax	–	–	–1	1

4.2.2 Interest rate risk

Interest rate risk in the Volkswagen Group (excluding Volkswagen Financial Services subgroup) results from changes in market interest rates, primarily for medium- and long-term variable interest receivables and liabilities. Interest rate swaps and cross-currency interest rate swaps are sometimes entered into to hedge against this risk primarily under fair value or cash flow hedges, and depending on market conditions. Intragroup financing arrangements are mainly structured to match the maturities of their refinancing. Departures from the Group standard are subject to centrally defined limits and monitored on an ongoing basis.

Interest rate risk within the meaning of IFRS 7 is calculated for these companies using sensitivity analyses. The effects of the risk-variable market rates of interest on the financial result and on equity are presented, net of tax.

If market interest rates had been 100 bps higher as of December 31, 2021, equity would have been €43 million (previous year adjusted: €29 million) higher. If market interest rates had been 100 bps lower as of December 31, 2021, equity would have been €42 million (previous year adjusted: €29 million) lower.

If market interest rates had been 100 bps higher as of December 31, 2021, earnings after tax would have been €321 million (previous year adjusted: €266 million) lower. If market interest rates had been 100 bps lower as of December 31, 2021, earnings after tax would have been €343 million (previous year adjusted: €298 million) higher.

4.2.3 Commodity price risk

Commodity price risk in the Volkswagen Group (excluding Volkswagen Financial Services subgroup) primarily results from price fluctuations and the availability of ferrous and non-ferrous metals, precious metals, commodities required in connection with the Group's digitalization and electrification strategy, as well as of coal, CO_2 certificates and rubber.

Commodity price risk is limited by entering into forward transactions and swaps.

However, not all commodities are suitable for these types of hedges, e.g. because of low market liquidity or a lack of correlation between hedged item and hedging instrument. Likewise, selected commodities were purchased on the spot market, which led to a corresponding increase in inventories. Commodity price risk within the meaning of IFRS 7 is presented using sensitivity analyses. These show the effect on earnings after tax of changes in the risk variable commodity prices.

If the commodity prices of the hedged nonferrous metals, coal and rubber had been 10% higher (lower) as of December 31, 2021, earnings after tax would have been €679 million (previous year: €559 million) higher (lower).

4.2.4 Equity and bond price risk

The special funds launched using surplus liquidity and the equity interests measured at fair value are subject in particular to equity price and bond price risk, which can arise from fluctuations in quoted market prices, stock exchange indices and market rates of interest. The changes in bond prices resulting from variations in the market rates of interest are quantified in sections 4.2.1 and 4.2.2, as are the measurement of foreign currency and other interest rate risks arising from the special funds and the equity interests measured at fair value. As a rule, risks arising from the special funds are countered by ensuring a broad diversification of products, issuers and regional markets when investing funds, as stipulated by the Investment Guidelines of the Group. In addition, the Investment Guidelines define fixed minimum values, which are to be met by taking suitable risk management measures. In addition, exchange rates are hedged when market conditions are appropriate.

As part of the presentation of market risk, IFRS 7 requires disclosures on how hypothetical changes in risk variables affect the price of financial instruments. Potential risk variables here are in particular quoted market prices or indices, as well as interest rate changes as bond price parameters.

If share prices had been 10% higher as of December 31, 2021, earnings after tax would have been €228 million (previous year: €160 million) higher and equity would have been €5 million (previous year: €2 million) higher. If share prices had been 10% lower as of December 31, 2021, earnings after tax would have been €246 million (previous year: €179 million) lower and equity would have been €5 million (previous year: €2 million) lower.

4.3 Market risk at Volkswagen Financial Services subgroup

Exchange rate risk in the Volkswagen Financial Services subgroup is mainly attributable to assets that are not denominated in the functional currency and from refinancing within operating activities. Interest rate risk relates to refinancing without matching maturities and the varying interest rate elasticity of individual asset and liability items. The risks are limited by the use of currency and interest rate hedges.

Microhedges are used for interest rate hedging. Fixed-rate assets and liabilities included in the hedging strategy are recognized at fair value, as opposed to their original subsequent measurement at amortized cost. The resulting effects in the income statement are offset by the corresponding gains and losses on the interest rate hedging instruments (swaps). Currency hedges (currency forwards and cross-currency interest rate swaps) are used to mitigate foreign currency risk. All cash flows in foreign currency are hedged.

As of December 31, 2021, the value at risk was €233 million (previous year: €213 million) for interest rate risk and €164 million (previous year: €148 million) for foreign currency risk.

The entire value at risk for interest rate and foreign currency risk at the Volkswagen Financial Services subgroup was €172 million (previous year: €170 million).

5. METHODS FOR MONITORING HEDGE EFFECTIVENESS

Since the implementation of IFRS 9, the Volkswagen Group determines hedge effectiveness mainly on a prospective basis using the critical terms match method. Retrospective analysis of effectiveness uses effectiveness tests in the form of the dollar offset method. Under the dollar offset method, the changes in value of the hedged item expressed in monetary units are compared with the changes in value of the hedging instrument expressed in monetary units.

To this end, the accumulated changes in the fair value of the designated spot component of the hedging instrument and hedged item are compared. If the critical terms do not match, the same procedure is applied to the non-designated component.

For hedges involving interest rate or cross-currency swaps, the Volkswagen Group is exposed to uncertainty resulting from the IBOR reform, which may affect the timing, the amount of the IBOR-based cash flows, or the hedged risk of the hedged item or the hedging instrument. The Volkswagen Group applies the practical expedients allowed in connection with the amendments to the standard, irrespective of the remaining maturity of the hedged items and hedging instruments included in the hedges, to all hedges affected by the aforementioned uncertainty arising from the IBOR reform.

The uncertainty relates mainly to the following interest rate benchmarks: USD LIBOR and CAD CDOR. In the case of fair value hedges, the uncertainty relates to the identifiability of the risk component which results from the change in the fair value used to hedge against risks of changes in the carrying amounts of financial assets and financial liabilities. In cash flow hedges used to hedge against risks arising from changes in future cash flows, the uncertainty relates to the highly probable requirement for hedged future variable cash flows. The expected impact of the IBOR reform is being assessed on an ongoing basis. Any replacement measures required have already been initiated for the interest rate benchmarks specified. By adapting systems and processes, these measures will ensure that new interest rate benchmarks can be rolled out to replace the interest rate benchmarks discontinued as a result of the IBOR reform in a timely manner.

NOTIONAL AMOUNT OF DERIVATIVES

The notional amounts of hedging instruments exposed to the uncertainty from the IBOR reform described above are €18,436 million (previous year: €25,466 million) in total. In the fiscal year, €13,876 million of this total was attributable to the USD LIBOR (previous year: €12,617 million), and €4,560 million to the CAD CDOR (previous year: €3,620 million). Compared with the previous year, we believe that the notional amounts of GBP LIBOR (previous year: €9,147 million) and JPY LIBOR (previous year: €82 million) hedging instruments are no longer exposed to any uncertainty from the IBOR reform. The JPY LIBOR hedging instruments have expired or have been switched to TONAR. For hedges in existence as of the reporting date, the GBP LIBOR was replaced by the SONIA interest rate benchmark in fiscal year 2021, and new transactions were entered into on the basis of SONIA. For GBP LIBOR-based derivatives maturing in the first quarter of 2022 that have no date for adjusting the interest rate after the reporting date, there was no need to change the interest rate benchmark.

The summary below presents the remaining maturities profile of the notional amounts of the hedging instruments, which are accounted for under the Volkswagen Group's hedge accounting rules, and of derivatives to which hedge accounting is not applied:

NOTIONAL AMOUNT OF DERIVATIVES

€ million	REMAINING TERM up to one year	within one to five years	more than five years	TOTAL NOTIONAL AMOUNT Dec. 31, 2021	TOTAL NOTIONAL AMOUNT Dec. 31, 2020
Notional amount of hedging instruments within hedge accounting					
Hedging interest rate risk					
Interest rate swap	9,413	38,214	6,971	54,598	47,710[1]
Hedging currency risk					
Currency forwards/Cross-currency swaps					
Currency forwards/Cross-currency swaps in CNY	9,337	4,594	123	14,054	6,268
Currency forwards/Cross-currency swaps in GBP	12,776	15,163	–	27,939	17,182
Currency forwards/Cross-currency swaps in USD	9,895	17,175	3,147	30,218	32,316
Currency forwards/Cross-currency swaps in other currencies	20,048	20,900	55	41,003	35,529
Currency options					
Currency options in USD	3,701	3,825	–	7,527	8,749
Currency options in CNY	6,122	4,174	–	10,296	3,986
Currency options in other currencies	2,212	3,817	–	6,029	6,287
Combined interest rate and currency risk hedging					
Cross-currency interest rate swaps	628	661	–	1,289	1,655
Notional amount of other derivatives					
Hedging Interest rate risk					
Interest rate swap	25,689	45,653	20,892	92,233	88,600[1]
Hedging Currency risk					
Currency forwards/Cross-currency swaps					
Currency forwards/Cross-currency swaps in USD	6,154	4,916	390	11,461	11,722
Currency forwards/Cross-currency swaps in other currencies	13,123	1,468	0	14,591	14,977
Currency options					
Currency options in USD	532	636	–	1,168	82
Currency options in other currencies	3	–	–	3	41
Combined interest rate and currency risk hedging					
Cross-currency interest rate swaps	4,450	9,111	3,363	16,925	14,501
Hedging Commodity price risk					
Forward commodity contracts (aluminum)	934	1,535	–	2,470	3,099
Forward commodity contracts (copper)	300	370	–	670	938
Forward commodity contracts (nickel)	457	2,146	390	2,992	2,326
Forward commodity contracts (other)	110	8	–	117	143

1 Prior-year figures adjusted.

Both derivatives closed with offsetting transactions and the offsetting transactions themselves are included in the respective notional amount. The offsetting transactions cancel out the effects of the original hedging transactions. If the offsetting transactions were not included, the respective notional amount would be lower. In addition to the derivatives used for hedging foreign currency, interest rate and price risk, the Group held options and other derivatives on equity instruments at the reporting date, mainly in connection with fund investments. The notional volume with a remaining maturity of less than one year was €16.8 billion (previous year: €10.4 billion), and the notional volume with a remaining maturity of more than one year amounted to €1.8 billion (previous year: €0.2 billion).

Also in connection with fund investments, the Group held credit default swaps with a notional amount of €21.4 billion (previous year: €36.6 billion).

Existing cash flow hedges in the notional amount of €0.6 billion (previous year: €2.1 billion) were discontinued because of a reduction in the projections. In addition, hedges were to be terminated due to internal risk regulations.

Items hedged under cash flow hedges are expected to be realized in accordance with the maturity buckets of the hedges reported in the table. For cash flow hedges, the Volkswagen Group achieved an average hedging interest rate of 0.62% for hedging interest rate risk. In addition, currency risk was hedged at the following hedging exchange rates for the major currency pairs: EUR/USD at 1.20; EUR/GBP at 0.88; EUR/CNY at 7.83.

The fair values of the derivatives are estimated using market data at the balance sheet date as well as by appropriate valuation techniques. The following term structures were used for the calculation:

in %	EUR	AUD	CAD	CHF	CNY	CZK	GBP	JPY	SEK	USD
Interest rate for six months	–0.5757	0.1232	0.6290	–0.7100	2.4828	3.7865	0.4944	–0.0375	–0.0219	0.1940
Interest rate for one year	–0.5103	0.3845	1.0454	–0.6700	2.4930	3.9020	0.7582	–0.0375	0.0455	0.3900
Interest rate for five years	0.0160	1.6550	1.8370	–0.2255	3.0600	3.8450	1.0514	–0.0125	0.7100	1.1150
Interest rate for ten years	0.3030	1.9800	1.9870	0.0955	4.0700	3.2550	0.9541	0.0775	0.9680	1.3100

37. Capital management

The Group's capital management ensures that its goals and strategies can be achieved in the interests of shareholders, employees and other stakeholders. In particular, management focuses on generating the minimum return on invested assets in the Automotive Division that is required by the capital markets, and on increasing the return on equity in the Financial Services Division. In the process, it aims overall to achieve the highest possible growth in the value of the Group and its divisions for the benefit of all the Company's stakeholder groups.

In order to ensure that resources are used as efficiently as possible in the Automotive Division and to measure the success of this, we have for a number of years been using a value-based management system, with value contribution as an absolute performance measure and return on investment (ROI) as a relative indicator.

Value contribution is defined as the difference between operating profit after tax and the opportunity cost of invested capital. The opportunity cost of capital is calculated by multiplying the market cost of capital by average invested capital. Invested capital is calculated by taking the operating assets reported in the balance sheet (property, plant and equipment, intangible assets, lease assets, inventories and receivables) and deducting non-interest-bearing liabilities (trade payables and payments on account received). Average invested capital is derived from the balance at the beginning and the end of the reporting period.

The return on investment is defined as the return on invested capital for a particular period based on the operating result after tax. If the return on investment exceeds the market cost of capital, there is an increase in the value of the invested capital and a positive value contribution. In the Group, a minimum required rate of return on invested capital of 9.0% is defined, which applies to both the business units and the individual products and product lines. The goal of generating a sustained return on investment of over 15.0% is anchored in Strategy 2025. The return on investment therefore serves as a consistent target in operational and strategic management and is used to measure target attainment for the Automotive Division, the individual business units, and projects and products. The return on investment achieved for the Automotive Division was 10.4% in the reporting period, which is above the minimum rate of return on invested capital of 9.0%. Given the current cost of capital of 6.2%, this results in a positive value contribution of €4,756 million.

Due to the specific features of the Financial Services Division, its management focuses on return on equity, a special target linked to invested capital. This measure is calculated as the ratio of earnings before tax to average equity. Average equity is calculated from the balance at the beginning and the end of the reporting period. In addition, the goals of the Financial Services Division are to meet the banking supervisory authorities' regulatory capital requirements, to procure equity for the growth planned in the coming fiscal years and to support its external rating by ensuring capital adequacy. To ensure compliance with prudential requirements at all times, a planning procedure integrated into internal reporting has been put in place at the Volkswagen Bank, allowing the required equity to be continuously determined on the basis of actual and expected business performance. In the reporting period, this again ensured that regulatory minimum capital requirements were always met both at Group level and at the level of subordinate companies' individual, specific capital requirements.

The return on investment and value contribution in the Automotive Division as well as the return on equity and the equity ratio in the Financial Services Division are shown in the following table:

€ million	2021	2020
Automotive Division[1]		
Operating result after tax	11,740	7,450
Invested capital (average)	113,386	114,907
Return on investment (ROI) in %	**10.4**	**6.5**
Cost of capital in %	6.2	6.5
Opportunity cost of invested capital	6,984	7,504
Value contribution[2]	**4,756**	**–54**
Financial Services Division		
Earnings before tax	5,981	2,776
Average equity	34,591	31,463
Return on equity before tax in %	**17.3**	**8.8**
Equity ratio in %	**14.5**	**13.2**

1 Including proportionate inclusion of the Chinese joint ventures and allocation of consolidation adjustments between the Automotive and Financial Services Divisions; excluding effects on earnings and assets from purchase price allocation.
2 The value contribution corresponds to the Economic Value Added (EVA®). EVA® is a registered trademark of Stern Stewart & Co

38. Contingent liabilities

€ million	Dec. 31, 2021	Dec. 31, 2020
Liabilities under guarantees	504	525
Liabilities under warranty contracts	71	165
Assets pledged as security for third-party liabilities	15	19
Other contingent liabilities	9,111	7,912
	9,700	**8,621**

In the case of liabilities from guarantees, the Group is required to make specific payments if the debtors fail to meet their obligations.

The other contingent liabilities primarily comprise potential liabilities arising from matters relating to taxes and customs duties, as well as litigation and proceedings relating to suppliers, dealers, customers, employees and investors. The contingent liabilities recognized in connection with the diesel issue totaled €4.3 billion (previous year: €4.2 billion), of which €3.6 billion (previous year: €3.5 billion) was attributable to investor lawsuits. Also included are certain elements of the class action lawsuits and proceedings/misdemeanor proceedings relating to the diesel issue as far as these can be quantified. As some of these proceedings are still at a very early stage, the plaintiffs have in a number of cases so far not specified the basis of their claims and/or there is insufficient certainty about the number of plaintiffs or the amounts being claimed. Where these lawsuits meet the definition of a contingent liability, no disclosure was normally required because it had not been possible to measure the amount involved.

In addition, other contingent liabilities include an amount of €0.5 billion for potential liabilities resulting from the risk of tax proceedings instituted by the Brazilian tax authorities against MAN Latin America.

Since 2016, the U.S. National Highway Traffic Safety Administration (NHTSA) has announced further extensions of the recalls of various models from a variety of manufacturers containing certain airbags produced by the Takata company. Recalls were also demanded by the local authorities in individual countries. The recalls also included models manufactured by the Volkswagen Group. Appropriate provisions have been recognized. Currently, the possibility of further extensions to the recalls that could also affect Volkswagen Group models cannot be ruled out. It is not possible at the moment to provide further disclosures in accordance with IAS 37.86 in relation to this matter because the technical investigations and consultations with the authorities are still ongoing.

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to additional important legal cases. This is so as to not compromise the results of the proceedings or the interests of the Company. Further information can be found under the section entitled “Litigation”.

39. Litigation

Volkswagen AG and the companies in which it is directly or indirectly invested are involved in a substantial number of legal disputes and governmental proceedings in Germany and abroad. Such legal disputes and other proceedings occur, among other things, in connection with products and services or in relation to employees, public authorities, dealers, investors, customers, suppliers, or other contracting parties. For the companies in question, these disputes and proceedings may result in payments such as fines or in other obligations or consequences. In particular, substantial compensatory or punitive damages may have to be paid and cost-intensive measures may have to be implemented. In this context, specific estimation of the objectively likely consequences is often possible only to a very limited extent, if at all.

Various legal proceedings are pending worldwide, particularly in the USA, in which customers are asserting purported product-related claims, either individually or in class actions. These claims are as a rule based on alleged vehicle defects, including defects alleged in vehicle parts supplied to the Volkswagen Group. Compliance with legal or regulatory requirements (such as the GDPR) is another area in which risks may arise. This is particularly true in gray areas where Volkswagen and the relevant public authorities may interpret the law differently.

In connection with their business activities, Volkswagen Group companies engage in constant dialogue with regulatory agencies, including the Kraftfahrt-Bundesamt (KBA – German Federal Motor Transport Authority). It is not possible to predict with assurance how government regulators will assess certain issues of fact and law in a particular situation. For this reason, the possibility that certain vehicle characteristics and/or type approval aspects may in particular ultimately be deemed deficient or impermissible cannot be ruled out. This is fundamentally a question of the regulatory agency's specific evaluation in a concrete situation.

Risks may also result from actions for infringement of intellectual property, including infringement of patents, brands, or other third-party rights, particularly in Germany and the USA. If Volkswagen is alleged or determined to have violated third-party intellectual property rights, it may for instance have to pay damages, modify manufacturing processes, or redesign products, and may be barred from selling certain products; this may result in delivery and production restrictions or interruptions.

Criminal acts by individuals, which even the best compliance management system can never completely prevent, are another potential source of legal risks.

Appropriate insurance has been taken out to cover these risks where they were sufficiently definite and such coverage was economically sensible. Where necessary based on the information currently available, identified and correspondingly measurable risks have been reflected by recognizing provisions in amounts considered appropriate or disclosing contingent liabilities, as the case may be. As some risks cannot be assessed or can only be assessed to a limited extent, the possibility of material loss or damage not covered by the insured amounts or by provisions cannot be ruled out. This is, for instance, the case with regard to the legal risks assessed in connection with the diesel issue.

Unless otherwise explicitly stated, the amounts disclosed for the litigation being reported on refer only to the respective principal claim. Ancillary claims, such as for interest and litigation expense, are generally not considered.

Diesel issue

On September 18, 2015, the US Environmental Protection Agency (EPA) publicly announced in a “Notice of Violation” that irregularities in relation to nitrogen oxide (NO_x) emissions had been discovered in emissions tests on certain Volkswagen Group vehicles with 2.0 l diesel engines in the USA. In this context, Volkswagen AG announced that noticeable discrepancies between the figures recorded in testing and those measured in actual road use had been identified in type EA 189 diesel engines and that this engine type had been installed in roughly eleven million vehicles worldwide. On November 2, 2015, the EPA issued a “Notice of Violation” alleging that irregularities had also been discovered in the software installed in US vehicles with type V6 3.0 l diesel engines.

The so-called diesel issue is rooted in a modification of parts of the software of the relevant engine control units – which, according to Volkswagen AG’s legal position, is only unlawful under US law – for the type EA 189 diesel engines that Volkswagen AG was developing at that time. This software function was developed and implemented from 2006 on without knowledge at the level of the Board of Management. Members of the Board of Management did not learn of the development and implementation of this software function until the summer of 2015.

There are furthermore no findings that, following the publication in May 2014 of the study by the International Council on Clean Transportation, an unlawful “defeat device” under US law was disclosed to the persons responsible for preparing the 2014 annual and consolidated financial statements as the cause of the high NO_x emissions in certain US vehicles with 2.0 l type EA 189 diesel engines. Rather, at the time the 2014 annual and consolidated financial statements were being prepared, the persons responsible for preparing these financial statements remained under the impression that the issue could be resolved with comparatively little expense. In the course of the summer of 2015, however, it became progressively apparent to individual members of Volkswagen AG’s Board of Management that the cause of the discrepancies in the USA was a modification of parts of the software of the engine control unit that was later identified as an unlawful “defeat device” as defined by US law. This culminated in Volkswagen's disclosure of a “defeat device” to the EPA and the California Air Resources Board, a department of the Environmental Protection Agency of the State of California, on September 3, 2015. According to the assessment at the time by the responsible persons dealing with the matter, the magnitude of the costs expected to result for the Volkswagen Group (recall costs, retrofitting costs, and financial penalties) was not fundamentally dissimilar to that in previous cases involving other vehicle manufacturers. It therefore appeared to be manageable overall considering the business activities of the Volkswagen Group. This assessment by Volkswagen AG was based, among other things, on the advice of a law firm engaged in the USA for regulatory approval issues, according to which similar cases had in the past been amicably resolved with the US authorities. The EPA's publication of the “Notice of Violation” on September 18, 2015, which the Board of Management had not expected, especially at that time, then presented the situation in an entirely different light.

The AUDI AG Board of Management members in office at the time in question have likewise stated that they had no knowledge of the use of “defeat device” software that was prohibited by US law in the type V6 3.0 l TDI engines until the EPA issued its November 2015 “Notice of Violation.”

Within the Volkswagen Group, Volkswagen AG has development responsibility for the four-cylinder diesel engines such as the type EA 189, and AUDI AG has development responsibility for the six- and eight-cylinder diesel engines such as the type V6 3.0 l and V8 4.2 l diesel engines.

As a consequence of the diesel issue, numerous judicial and regulatory proceedings were initiated in various countries. Volkswagen has in the interim succeeded in making substantial progress and ending many of these proceedings. In the USA Volkswagen AG and certain affiliates reached settlement agreements with various government authorities and private plaintiffs, the latter represented by a Plaintiffs' Steering Committee in a multidistrict litigation in the US state of California. The agreements in question include various partial consent decrees as well as a plea agreement that resolved certain civil claims as well as criminal charges under US federal law and the laws of certain US states in connection with the diesel issue. Although Volkswagen is firmly committed to fulfilling the obligations arising from these agreements, a breach of these obligations cannot be completely ruled out. In the event of a violation, significant penalties could be imposed as stipulated in the agreements, in addition to the possibility of further monetary fines, criminal sanctions and injunctive relief.

In agreement with the respective responsible authorities, the Volkswagen Group is making technical measures available worldwide for virtually all diesel vehicles with type EA 189 engines. For all clusters (groups of vehicles) within its jurisdiction, the Kraftfahrt-Bundesamt (KBA – German Federal Motor Transport Authority) determined that implementation of the technical measures would not result in any adverse changes in fuel consumption, CO_2 emissions, engine output, maximum torque, and noise emissions.

Following the studies carried out by AUDI AG to check all relevant diesel concepts for possible irregularities and retrofit potential, measures proposed by AUDI AG have been adopted and mandated by the KBA in various recall orders pertaining to vehicle models with V6 and V8 TDI engines. AUDI AG continues to anticipate that the total cost, including recall expenses, of the ongoing largely software-based retrofit program that began in July 2017 will be manageable and has recognized corresponding balance-sheet risk provisions. AUDI AG has in the meantime developed software updates for many of the affected powertrains and, after approval by the KBA, already installed these updates in the vehicles of a large number of affected customers. The few software updates still being developed are expected to be submitted to the KBA for approval early in the second quarter of 2022.

In connection with the diesel issue, potential consequences for Volkswagen's results of operations, financial position and net assets could emerge primarily in the following legal areas:

1. Criminal and administrative proceedings worldwide (excluding the USA/Canada)

Criminal investigations, regulatory offense proceedings, and/or administrative proceedings have been commenced in some countries. Criminal investigations into the core factual issues are being conducted by the Offices of the Public Prosecutor in Braunschweig and Munich.

In January 2021, the criminal proceedings regarding alleged market manipulation relating to capital market disclosure obligations in connection with the diesel issue were terminated by the Braunschweig Regional Court provisionally as regards the former Chair of the Board of Management and definitively as regards Volkswagen AG.

In September 2020, the Braunschweig Regional Court allowed the indictment of the same former Chair of the Board of Management of Volkswagen AG and others to proceed on charges that include fraud in connection with the diesel issue involving type EA 189 engines. The proceedings against this former Chair of the Board of Management of Volkswagen AG have since been severed from the other cases. The trial of the other defendants began in September 2021.

The Braunschweig Office of the Public Prosecutor is furthermore conducting investigations on suspicion of fraud in connection with type EA 288 engines.

In June 2020, the Munich II Regional Court accepted the substantially unchanged indictment of the Munich II Office of the Public Prosecutor, which also names a former Chair of the Board of Management of AUDI AG, and opened the main trial proceedings on charges of, among other things, fraud in connection with the diesel issue involving 3.0 l and 4.2 l TDI engines. Trial proceedings commenced in September 2020.

In August 2020, the Munich II Office of the Public Prosecutor issued a further indictment charging three former members of the Board of Management of AUDI AG and others with, among other things, fraud in connection with the diesel issue involving 3.0 l and 4.2 l TDI engines.

In connection with the diesel issue, the Stuttgart Office of the Public Prosecutor is conducting a criminal investigation on suspicion of fraud and illegal advertising; this investigation also involves a member of the Board of Management of Dr. Ing. h.c. F. Porsche AG.

As the type approval authority of proper jurisdiction, the KBA is moreover continuously testing Audi, Volkswagen, and Porsche brand vehicles for problematic functions. If certain functions are deemed impermissible by the KBA, the affected vehicles are recalled pursuant to a recall order or they are brought back into compliance by means of a voluntary service measure.

Moreover, additional administrative proceedings relating to the diesel issue are ongoing in other jurisdictions.

The companies of the Volkswagen Group are cooperating with the government authorities.

Risks may furthermore result from possible decisions by the European Court of Justice construing EU type approval provisions.

Whether the criminal and administrative proceedings will ultimately result in fines or other consequences for the Company, and if so what amounts these may entail, is currently subject to estimation risks. According to Volkswagen’s estimates, the likelihood that a sanction will be imposed is 50 % or less in the majority of these proceedings. Contingent liabilities have therefore been disclosed where the amount of such liabilities could be measured and the likelihood of a sanction being imposed was assessed at not less than 10 %.

2. Product-related lawsuits worldwide (excluding the USA/Canada)

A general possibility exists that customers in the affected markets will file civil lawsuits or that importers and dealers will assert recourse claims against Volkswagen AG and other Volkswagen Group companies. Besides individual lawsuits, various forms of collective actions (i.e. assertion of individual claims by plaintiffs acting jointly or as representatives of a class) are available in various jurisdictions. Furthermore, in a number of markets it is possible for consumer and/or environmental organizations to bring suit to enforce alleged rights to injunctive relief, declaratory judgment, or damages.

Customer class action lawsuits and actions brought by consumer and/or environmental organizations are pending against Volkswagen AG and other Volkswagen Group companies in a number of countries including Belgium, Brazil, England and Wales, France, Germany, Italy, the Netherlands, Portugal, and South Africa. Alleged rights to damages and other relief are asserted in these actions. The pending actions include in particular the following:

In Australia, two civil suits filed against Volkswagen AG and other Group companies by the Australian Competition and Consumer Commission (ACCC) were settled for the sum of AUD 75 million in the second half of 2019. On appeal, the amount of the settlement was increased to AUD 125 million by final judicial ruling in the reporting year.

In Belgium, the Belgian consumer organization Test Aankoop VZW has filed a class action to which an opt-out mechanism has been held to apply. Given the opt-out rule, the class action potentially covers all vehicles with type EA 189 engines purchased by consumers on the Belgian market after September 1, 2014, unless the right to opt out is actively exercised. The asserted claims are based on purported violations of unfair competition and consumer protection law as well as on alleged breach of contract.

In Brazil, two consumer protection class actions are pending. The first of these class actions pertains to some 17 thousand Amarok vehicles and the second to roughly 67 thousand later generation Amaroks. In the first class action, an appeals judgment was rendered in May 2019 that only partially upheld the lower court's decision. This judgment initially reduced the damage liability of Volkswagen do Brasil considerably to around BRL 172 million. This amount can increase as a result of the adjudicated inflation rate and the assertion of individual claims alleging declines in the value of affected Amarok vehicles. The appeals judgment remains non-final since Volkswagen do Brasil has appealed it to a higher court. The second class action was dismissed as inadmissible in October 2021. The judgment is appealable.

The financialright GmbH filed consolidated actions before various German courts asserting claims assigned to it by customers in Germany, Slovenia, and Switzerland against Volkswagen Group companies. Following the withdrawal of numerous motions for relief, approximately 36 thousand claims are currently still pending. Some cases have in the meantime moved to the first or second appeals level. There is, however, as yet no high court ruling on the permissibility of the business model of financialright GmbH.

In England and Wales, suits filed in court by various law firms have been joined in a single collective action (group litigation). Because of the opt-in mechanism, not all vehicles with type EA 189 engines are automatically covered by the group litigation; potential claimants must instead take action in order to join. To date, some 91 thousand plaintiffs have registered claims under the group litigation, for which the opt-in period has expired. Further plaintiff law firms have registered roughly 105 thousand additional claims with the court. The question of liability on the part of Volkswagen was not among the preliminary issues that the High Court decided in April 2020 and will be dealt with at a later stage of the proceedings. The main trial proceedings are to begin in January 2023. In addition, in late 2021 a new lawsuit was filed in court against Volkswagen AG, Volkswagen Financial Services (UK) Limited, and other Volkswagen Group companies in connection with certain diesel vehicles leased or sold in England, Wales, and Northern Ireland since 2009 and various other diesel engine types.

In France, a class action is pending that was filed by the French consumer organization Confédération de la Consommation, du Logement et du Cadre de Vie (CLCV) against Volkswagen Group Automotive Retail France and Volkswagen AG for up to 1 million French owners and lessees of vehicles with type EA 189 engines. This is an opt-in class action.

In Italy, a trial level judgment in favor of the plaintiffs was rendered by the Venice Regional Court in July 2021 in the class action brought by the consumer association Altroconsumo on behalf of Italian customers; the judgment requires Volkswagen AG and Volkswagen Group Italia to pay damages to some 63 thousand consumers in an aggregate amount of roughly €185 million. Volkswagen AG and Volkswagen Group Italia have appealed this decision.

In the Netherlands, an opt-out class action is pending that was brought by Stichting Volkswagen Car Claim seeking declaratory rulings for up to 165 thousand customers. A declaratory judgment partially granting the relief sought was issued in July 2021. In the opinion of the court, Volkswagen AG and the other defendant Group companies acted unlawfully with respect to the original engine management software. The court moreover held that consumers are entitled to a purchase price reduction from the defendant dealerships. No specific payment obligations result from the declaratory judgment. Any individual claims would then have to be established afterwards in separate proceedings. Volkswagen AG and the other defendant Group companies have appealed the decision. Furthermore, an opt-out class action lawsuit brought by the Diesel Emissions Justice Foundation seeking monetary damages on behalf of Dutch consumers is also pending. It currently remains unclear whether other consumers in addition to those in the Netherlands may join this class action. The class action relates to vehicles with type EA 189 engines, among others.

In Portugal, a Portuguese consumer organization has filed an opt-out class action. The class action potentially affects up to approximately 99 thousand vehicles with type EA 189 engines. The complaint seeks vehicle return and alleges damages as well.

In South Africa, an opt-out class action seeking damages is pending that pertains to some 8 thousand vehicles with V6 and V8 TDI engines in addition to approximately 72 thousand vehicles with type EA 189 engines.

Furthermore, individual lawsuits and similar proceedings are pending against Volkswagen AG and other Volkswagen Group companies in various countries; most of these lawsuits are seeking damages or rescission of the purchase contract.

In Germany, roughly 60 thousand individual lawsuits relating to various diesel engine types are currently pending against Volkswagen AG or other Group companies, with the plaintiffs suing for damages or rescission of the contract in most cases.

In 2020, the Bundesgerichtshof (BGH – Federal Court of Justice) issued a series of fundamental judgments deciding legal issues of major importance for the litigation still pending with regard to vehicles with type EA 189 engines. The BGH held that buyers who had purchased vehicles prior to public disclosure of the diesel issue had damage claims against Volkswagen AG. While buyers can require reimbursement of the purchase price paid, they must accept a deduction for the benefit derived from using the vehicle and must return it to Volkswagen AG. Buyers have no tort-based claim for damages if they purchased their vehicles after the ad hoc announcement of September 22, 2015 or if they raise claims based solely on a temperature-dependent emissions control feature (so-called thermal window) in the engine. In February 2022, the BGH issued further fundamental judgments concerning vehicles with EA 189 motors deciding that buyers of new vehicles of the Volkswagen brand were entitled to so-called residual damage claims against Volkswagen AG after the knowledge-based limitation period has expired. As a result, Volkswagen AG has to repay the purchase price of the vehicle or the price paid by the dealer. The BGH decided that the claims for residual damages do not extend beyond claims of ordinary damages. Buyers need to subtract the value of usage and can only demand payment of the residual damages if they in return relinquish the vehicle. Prior to this the BGH had decided that, in contrast, buyers of used vehicles are not entitled to residual damages.

Volkswagen estimates the likelihood that the plaintiffs will prevail to be 50 % or less in the great majority of cases: customer class actions, complaints filed by consumer and/or environmental organizations, and individual lawsuits. Contingent liabilities are disclosed for these proceedings where the amount of such liabilities can be measured and the chance that the plaintiff will prevail was assessed as not remote. Given the early stage of the proceedings, it is in many cases not yet possible to quantify the realistic risk exposure. Furthermore, provisions were recognized to the extent necessary based on the current assessment.

At this time, it cannot be estimated how many customers will choose to file lawsuits in the future in addition to those already pending and what prospect of success such lawsuits might have.

3. Lawsuits filed by investors worldwide (excluding the USA/Canada)

Investors from Germany and abroad have filed claims for damages against Volkswagen AG – in some cases along with Porsche Automobil Holding SE (Porsche SE) as joint and several debtors – based on purported losses due to alleged misconduct in capital market communications in connection with the diesel issue.

The vast majority of these investor lawsuits are currently pending before the Braunschweig Regional Court. In August 2016, the Braunschweig Regional Court issued an order referring common questions of law and fact relevant to the investor lawsuits pending before it to the Higher Regional Court in Braunschweig for binding declaratory rulings pursuant to the Kapitalanleger-Musterverfahrensgesetz (KapMuG – German Capital Investor Model Declaratory Judgment Act). In this proceeding, common questions of law and fact relevant to these actions are to be adjudicated by the Braunschweig Higher Regional Court in a single consolidated proceeding (model case proceedings). The lawsuits filed with the Braunschweig Regional Court are stayed pending resolution of the common issues, unless the cases can be dismissed for reasons independent of the common issues that are to be adjudicated in the model case proceedings. The resolution in the model case proceedings of the common questions of law and fact will be binding for the pending cases that have been stayed as described. The model case plaintiff is Deka Investment GmbH. Oral argument in the model case proceedings before the Braunschweig Higher Regional Court began in September 2018 and is continuing at subsequent hearings. The latest indication from the court was that it may take evidence on certain points.

Further investor lawsuits have been filed with the Stuttgart Regional Court against Volkswagen AG, in some cases along with Porsche SE as joint and several debtor. A further investor action for model declaratory judgment is pending before the Stuttgart Higher Regional Court against Porsche SE; Volkswagen AG is involved in this action as a third party intervening in support of a party to the dispute. The Wolverhampton City Council, Administrating Authority for the West Midlands Metropolitan Authorities Pension Fund, has been appointed model case plaintiff. Oral argument in this case began in July 2021 and is to be continued.

In the Netherlands, an unquantified action filed by a shareholder association seeking a determination that Volkswagen AG had supposedly misled the capital markets was withdrawn in early July 2021 after the European Court of Justice held that the courts of the Netherlands lacked international jurisdiction in a similar case. Volkswagen AG consented to the withdrawal of the action. This terminated the litigation without precluding the filing of subsequent lawsuits.

Excluding the United States and Canada and following the withdrawal of various actions, claims in connection with the diesel issue totaling roughly €9.5 billion are currently pending worldwide against Volkswagen AG in the form of investor lawsuits, judicial applications for dunning and conciliation procedures, and claims under the KapMuG. Volkswagen AG remains of the opinion that it duly complied with its capital market obligations. Therefore, no provisions have been recognized for these investor lawsuits. Contingent liabilities have been disclosed where the chance of success was estimated to be not less than 10 %.

4. Proceedings in the USA/Canada

In the USA and Canada, the matters described in the EPA's "Notices of Violation" are the subject of various types of lawsuits and requests for information that have been filed against Volkswagen AG and other Volkswagen Group companies, in particular by customers, investors, salespersons, and various government agencies in Canada and the United States, including the attorneys general of several US states.

The Texas attorney general and some municipalities continue to pursue actions in state and federal courts against Volkswagen AG, Volkswagen Group of America, Inc., and certain affiliates, alleging violations of environmental laws. In January 2022, the Texas Supreme Court granted the February 2021 petition of the State of Texas for review of the Texas appellate court decision that had dismissed the environmental claims of Texas against Volkswagen AG and AUDI AG for lack of personal jurisdiction.

In November 2021, the US Supreme Court denied petitions by Volkswagen requesting that it reviews both a decision by the US Court of Appeals for the Ninth Circuit declining to dismiss certain claims brought by Hillsborough County, Florida, and Salt Lake County, Utah, and a decision by the Ohio Supreme Court declining to dismiss certain claims brought by the State of Ohio.

In the reporting year and in early 2022, Volkswagen settled the environmental claims brought by Montana and New Hampshire (in September 2021), Illinois (in December 2021), and Ohio (in January 2022).

In March 2019, the US Securities and Exchange Commission (SEC) filed a lawsuit against, among others, Volkswagen AG, Volkswagen Group of America Finance, LLC, and VW Credit, Inc., asserting claims under US federal securities law based, among other things, on alleged misstatements and omissions in connection with the offer and sale of certain bonds and asset-backed securities. In August 2020, the US District Court for the Northern District of California granted in part and denied in part Volkswagen's motion to dismiss. The claims dismissed by the court included all claims against VW Credit, Inc. related to asset-backed securities. In September 2020, the SEC filed an amended complaint that, among other things, removed the dismissed claims.

As to private civil law matters, in an environmental class action lawsuit seeking punitive damages on behalf of the residents of the Province of Quebec, after authorizing the case to proceed as a class, a Quebec court ruled in October 2020 that issues raised as to the viability of plaintiffs' damages theory should be deferred until trial. On that basis, the court denied a motion to dismiss by Volkswagen. Subsequently, Volkswagen settled the case. The settlement is subject to court approval, which is currently pending.

In line with IAS 37.92, no statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to proceedings in the USA/Canada. This is so as to not compromise the results of the proceedings or the interests of the Company.

5. Special audit

In a November 2017 ruling, the Higher Regional Court of Celle ordered, upon the request of three US funds, the appointment of a special auditor for Volkswagen AG. The special auditor is to examine whether the members of the Board of Management and Supervisory Board of Volkswagen AG breached their duties in connection with the diesel issue from June 22, 2006 onwards and, if so, whether this resulted in damages for Volkswagen AG. The ruling by the Higher Regional Court of Celle is formally unappealable. However, Volkswagen AG has filed a constitutional complaint with the German Federal Constitutional Court alleging infringement of its constitutional rights. Following the formally unappealable ruling from the Higher Regional Court of Celle, the special auditor appointed by the court indicated that he was not available to conduct the special audit on grounds of age. In April 2020, the Celle Higher Regional Court issued a ruling appointing a different special auditor. Volkswagen AG has filed a constitutional complaint with the Federal Constitutional Court contesting this formally unappealable decision as well on grounds of infringement of its constitutional rights and has suggested joinder of this matter with its initial constitutional complaint against the decision to appoint the special auditor. It is currently unclear when the Federal Constitutional Court will rule on the two constitutional complaints. The constitutional complaints have no suspensory effect.

In addition, a second motion seeking appointment of a special auditor for Volkswagen AG to examine matters relating to the diesel issue has been filed with the Regional Court of Hanover. This proceeding has been stayed pending a decision by the Federal Constitutional Court in the initial special auditor litigation.

6. Damage settlements

At the end of March 2021, the Supervisory Board of Volkswagen AG announced the completion of the investigation initiated in October 2015 into the causes of and those responsible for the diesel issue. The Board resolved to claim damages from Prof. Dr. Martin Winterkorn, former Chair of the Board of Management of Volkswagen AG, and from Rupert Stadler, former member of the Board of Management of Volkswagen AG and former Chair of the Board of Management of AUDI AG, for breach of their duty of care under stock corporation law. The resolution was based on identified negligent breaches of duty. The investigation found no breaches of duty by other members of the Volkswagen AG Board of Management. The investigation covered all members of the Board of Management who were in office during the relevant period. In June 2021, agreements on damage payments were reached in this connection with the goal of achieving speedy, legally certain, and final resolution of the diesel issue as far as the civil liability of members of governing bodies is concerned. To this end, Volkswagen and Audi entered into damage settlements (liability settlements) with Prof. Dr. Winterkorn and Mr. Stadler respectively in connection with the diesel issue. Prof. Dr. Winterkorn's damage payment amounts to €11.2 million and that of Mr. Stadler to €4.1 million. Volkswagen has furthermore reached agreement with the relevant insurers under its directors and officers liability policies (D&O insurance) on payment of an aggregate sum of €270 million (coverage settlement).

In addition, agreement was reached on damage payments by a former member of Audi's Board of Management and by a former member of Porsche's Board of Management. One former member of Audi's Board of Management was unwilling to reach a settlement; legal action is being prepared against him. Claims were already asserted against a former member of the Volkswagen Passenger Cars brand Board of Management.

7. Risk assessment regarding the diesel issue
An amount of around €2.1 billion (previous year: €1.9 billion) has been included in the provisions for litigation and legal risks as of December 31, 2021 to account for the currently known legal risks related to the diesel issue based on the presently available information and the current assessments. Where adequately measurable at this stage, contingent liabilities relating to the diesel issue have been disclosed in the notes in an aggregate amount of €4.3 billion (previous year: €4.2 billion), whereby roughly €3.6 billion (previous year: €3.5 billion) of this amount results from lawsuits filed by investors in Germany. The provisions recognized, the contingent liabilities disclosed, and the other latent legal risks in the context of the diesel issue are in part subject to substantial estimation risks given the complexity of the individual relevant factors, the ongoing coordination with the authorities, and the fact that the fact-finding efforts have not yet been concluded. Should these legal or estimation risks materialize, this could result in further substantial financial charges. In particular, adjustment of the provisions recognized in light of knowledge acquired or events occurring in the future cannot be ruled out.

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to the diesel issue. This is so as to not compromise the results of the proceedings or the interests of the Company.

Additional important legal cases

In 2011, ARFB Anlegerschutz UG (haftungsbeschränkt) filed a claim for damages against Volkswagen AG and Porsche SE for allegedly violating disclosure requirements under capital market law in connection with the acquisition of ordinary shares in Volkswagen AG by Porsche SE in 2008. The damages being sought based on allegedly assigned rights currently amount to approximately €2.26 billion plus interest. In April 2016, the Hanover Regional Court formulated numerous objects of declaratory judgment that the antitrust panel of the Higher Regional Court in Celle will decide on in model case proceedings under the KapMuG. At the first hearing in October 2017, the court already indicated that it currently sees no justification for claims against Volkswagen AG, both because the pleadings are not sufficiently specific and for substantive legal reasons. Volkswagen AG sees the court's statements as confirmation that the claims against the Company are absolutely baseless. The Higher Regional Court has yet to render a decision. Further hearings are scheduled for 2022.

In Brazil, the Brazilian tax authorities commenced tax proceedings against MAN Latin America; at issue in these proceedings are the tax consequences of the acquisition structure chosen for MAN Latin America in 2009. In December 2017, an adverse administrative appeal ruling was rendered against MAN Latin America. MAN Latin America challenged this ruling before the regular court in 2018. Estimation of the risk in the event the tax authorities prevail on all points is subject to uncertainty because of differences in the amount of penalties and interest that might then apply under Brazilian law. However, a positive outcome for MAN Latin America remains the expectation. Should this not occur, a risk of about BRL 3.2 billion could result for the contested period from 2009 onwards; this amount has been included in contingent liabilities in the notes.

In 2011, the European Commission conducted searches at European truck manufacturers for suspected unlawful exchange of information during the period from 1997 to 2011; in November 2014, the Commission issued a statement of objections to MAN, Scania, and the other truck manufacturers concerned. In its settlement decision of July 2016, the European Commission assessed fines against five European truck manufacturers. MAN's fine was waived in full as the company had informed the European Commission about the irregularities as a key witness.

In September 2017, the European Commission fined Scania €0.88 billion. Scania appealed to the European Court of Justice in Luxembourg and mounted a comprehensive defense.

In a judgment rendered in February 2022, the European General Court (Court of First Instance) rejected Scania's appeal in its entirety. Scania is currently analyzing the judgment and will in timely fashion decide whether to appeal it to the European Court of Justice. Scania had already recognized a provision of €0.4 billion in 2016 and increased this provision to approximately €0.9 billion in the reporting year.

Furthermore, antitrust lawsuits seeking damages have been received from customers. As is the case in any antitrust proceedings, this may result in further lawsuits for damages. No provisions have been recognized or contingent liabilities disclosed for these cases as most of them are still in an early stage and currently cannot be assessed for this reason. In other cases, the chance of a decision by a court of last resort that awards damages against MAN or Scania currently appears remote.

In April 2019, the European Commission issued an initial statement of objections to Volkswagen AG, AUDI AG, and Dr. Ing. h.c. F. Porsche AG in connection with the Commission's antitrust investigation of the automobile industry. These objections stated the European Commission's preliminary evaluation of the matter and afforded the opportunity to comment. Following entry into a formal settlement procedure, in April 2021 the Commission issued a revised statement of objections raising charges that were considerably more narrow. On this basis, a settlement decision was issued on July 8, 2021 concluding the administrative action and assessing a total fine of roughly €502 million against the three brands. The subject matter scope of the decision is limited to the cooperation of German automobile manufacturers on individual technical questions in connection with the development and introduction of SCR (selective catalytic reduction) systems for passenger cars that were sold in the European Economic Area. The manufacturers are not charged with any other misconduct such as price fixing or allocating markets and customers. Volkswagen accepted the decision, which was served on July 12, 2021, and filed no appeal, thus allowing the decision to become final.

The Korean competition authority KFTC is analyzing potential violations based on the facts of the EU case. The final report of the KFTC's appointed case handler was issued in November 2021. Volkswagen, Audi, and Porsche will reply to this report. The Turkish competition authorities, who investigated similar matters, issued a final decision in January 2022 in which they determined anticompetitive behavior to allegedly exist, but found that it had no effect on Turkey, for which reason they refrained from imposing fines on the German automakers. Volkswagen, Audi, and Porsche are currently considering whether to file an appeal. Based on comparable matters, the Chinese competition authority has instituted proceedings against Volkswagen, Audi, and Porsche, among others, and issued requests for information.

In October 2020, the US District Court for the Northern District of California dismissed two antitrust class action complaints. The plaintiffs in these actions had alleged that several automobile manufacturers including Volkswagen AG and other Group companies had conspired to unlawfully increase vehicle prices in violation of US antitrust and consumer protection law. The court held that the plaintiffs have not stated a claim for relief because the allegations in the complaints do not plausibly support that the alleged agreements unreasonably restrained competition in violation of US law. The plaintiffs appealed this ruling. In August 2021, the plaintiffs in one of the two class actions withdrew their appeal. In October 2021, the Ninth Circuit Court of Appeals affirmed the dismissal of the other class action by the US District Court for the Northern District of California. After receiving an extension until December 27, 2021, the plaintiffs in the latter class action filed a motion for rehearing, which the Ninth Circuit denied on January 25, 2022. On December 28, 2021, those plaintiffs also filed a motion seeking to set aside the District Court's October 2020 judgment and to be allowed to file a new amended complaint. Plaintiffs in Canada filed claims with similar allegations on behalf of putative classes of purchasers against several automobile manufacturers, including Volkswagen Group Canada Inc., Audi Canada Inc., and other Volkswagen Group companies. Neither provisions nor contingent liabilities are stated because the early stage of the proceedings makes an assessment of the realistic risk exposure currently impossible.

In addition, a few national and international authorities have initiated antitrust investigations. Volkswagen is cooperating closely with the responsible authorities in these investigations. An assessment of the underlying situation is not possible at this early stage.

Porsche AG has discovered potential regulatory issues relating to vehicles for various markets worldwide. There are questions as to the permissibility of specific hardware and software components used in type approval measurements. Differences compared with production versions may also have occurred in certain cases. Based on the information presently available, current production is not affected, however. The issues are unrelated to the defeat devices that were at the root of the diesel issue. Porsche AG is cooperating with the relevant authorities including the Stuttgart Office of the Public Prosecutor, which is investigating the matter in Germany. Based on the available information, no formal criminal investigation has been opened against the company, however. Porsche's own internal investigations are still in progress.

In January 2021, a consolidated complaint was filed with the US District Court for the Northern District of California alleging that the affected vehicles used certain software and/or hardware that resulted in increased emissions and/or overstated fuel economy estimates as compared to the results of certification testing. The defendants (Volkswagen AG, Dr. Ing. h.c. F. Porsche AG, and Porsche Cars North America, Inc.) have moved for dismissal of the action.

In December 2021, Navistar entered into a final Profit Sharing Settlement Agreement to terminate with past, present, and future effect certain disputes most recently litigated before an arbitration tribunal concerning the calculation of profit sharing amounts for purposes of Navistar's corporate retiree healthcare commitments. At the same time and in the same context, an agreement to settle the class action lawsuits was also reached with class action members; this agreement is still subject to approval by the supervising court, which will hear the class action members before ruling. The final agreement provides for a payment by Navistar in an amount of €491 million (USD 556 million); in fulfillment of the agreement, Navistar has already made an initial payments totaling €88 million (USD 100 million). Navistar recognized provisions in this regard in prior periods.

In November 2021, three claimants accompanied by Greenpeace filed a lawsuit against Volkswagen AG before the Braunschweig Regional Court. The action seeks to compel Volkswagen to initially reduce in stages and by 2029 completely cease its production and placement into the stream of commerce of vehicles with internal combustion engines as well as to reduce greenhouse gas emissions from development, production, and marketing (including third party vehicle use). The lawsuit further seeks to compel Volkswagen to exercise influence over Group companies, subsidiaries, and joint ventures so as to cause them to fulfill these demands as well. In addition, another action with identical requests for relief and by and large the same rationale has been filed by an organic farmer with the support of Greenpeace before the Detmold Regional Court. Volkswagen is analyzing the lawsuits and will defend itself against them.

Provisions were recognized by Volkswagen Bank GmbH and Volkswagen Leasing GmbH for possible claims in connection with financial services provided to consumers. These relate to actions involving certain features of customer loan and leasing agreements that may toll the running of the statutory cancellation time periods.

The lawsuit filed by GT Gettaxi Ltd. alleging in particular large damage claims, which was served on Volkswagen AG and another defendant in February 2020, was dismissed by the Cypriot first instance court in August 2021 due to lack of jurisdiction of the Cypriot courts. GT Gettaxi Ltd. has appealed this decision to the Supreme Court (which is the court of final appeal in Cyprus).

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to additional important legal cases. This is so as to not compromise the results of the proceedings or the interests of the Company.

40. Other financial obligations

€ million	PAYABLE 2022	PAYABLE 2023 - 2026	PAYABLE from 2027	TOTAL Dec. 31, 2021
Purchase commitments in respect of				
property, plant and equipment	6,146	1,220	2	7,368
intangible assets	1,823	501	–	2,324
investment property	15	–	–	15
Obligations from loan commitments and irrevocable credit commitments	14,560	127	47	14,734
Obligations from leasing and rental contracts	324	271	178	774
Miscellaneous other financial obligations	3,976	3,553	1,956	9,485
	26,844	**5,673**	**2,183**	**34,700**

€ million	PAYABLE 2021	PAYABLE 2022 - 2025	PAYABLE from 2026	TOTAL Dec. 31, 2020
Purchase commitments in respect of				
property, plant and equipment	6,402	1,037	–	7,438
intangible assets	1,225	107	–	1,332
investment property	6	–	–	6
Obligations from loan commitments and irrevocable credit commitments[1]	11,660	72	6	11,739
Obligations from leasing and rental contracts	313	265	167	746
Miscellaneous other financial obligations	6,291	2,160	575	9,026
	25,897	**3,641**	**748**	**30,286**

1 Prior-year figures adjusted.

Other financial obligations include an amount of €0.7 billion for investments to which the Group has committed itself, both in the infrastructure for zero-emission vehicles and in initiatives to promote access to and awareness of these technologies. These commitments were made as part of the settlement agreements in the USA in connection with the diesel issue.

In the previous year, this item reflected the payment of the purchase price for the acquisition of all of Navistar's outstanding shares totaling around USD 3.7 billion.

The rise in the remaining other financial obligations is mainly attributable to obligations under development and supply contracts.

In addition to the other financial obligations shown in the table, purchase commitments exist for inventories with a short turnover period, which arise primarily from the Master Collaboration Agreement with Ford Motor Company for the joint development of vans and mid-sized pickups for the global market.

41. Total fee of the Group auditor

Under the provisions of the Handelsgesetzbuch (HGB – German Commercial Code), Volkswagen AG is obliged to disclose the total fee charged for the fiscal year by the Group auditor, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft.

€ million	2021	2020
Financial statement audit services	22	19
Other assurance services	3	5
Tax advisory services	7	21
Other services	4	7
	36	**53**

The financial statement audit services related to the audit of the consolidated financial statements of Volkswagen AG and to the annual financial statements of German Group companies, as well as to reviews of the interim consolidated financial statements of Volkswagen AG and of the interim financial statements of German Group companies. Other assurance services mainly related to statutory and non-statutory audits as well as non-statutory assurance services for capital market transactions. The tax advisory services provided by the auditors in the reporting period related primarily to assistance in the preparation of tax returns for employees on delegations abroad. Other services provided by the auditors related primarily to advisory services in connection with transformation processes and in the area of human resources development.

42. Personnel expenses

€ million	2021	2020
Wages and salaries	34,644	32,103
Social security, post-employment and other employee benefit costs	9,033	8,413
	43,677	**40,516**

43. Average number of employees during the year

	2021	2020
Performance-related wage-earners	263,193	261,165
Salaried staff	313,010	307,342
	576,203	**568,508**
of which in the passive phase of partial retirement	12,171	10,762
Vocational trainees	16,404	17,678
	592,607	**586,185**
Employees of Chinese joint ventures	75,040	79,260
	667,647	**665,445**

44. Events after the balance sheet date

Calling of hybrid note

In February 2022, Volkswagen AG called a hybrid note with a principal amount of €1.1 billion, which had been placed in 2015 via Volkswagen International Finance N.V., Amsterdam, the Netherlands (issuer). Once called, the note has to be classified as debt in accordance with IAS 32, thus reducing the equity and net liquidity of the Volkswagen Group. The note, including all unpaid interest accrued up to that point, will be repaid in March 2022.

Possible IPO of Dr. Ing. h. c. F. Porsche AG

The Board of Management of Volkswagen AG announced on February 24, 2022 that, with the consent of the Supervisory Board, it had entered into a heads of agreement with Porsche Automobil Holding SE, on the basis of which the feasibility of a possible IPO for Dr. Ing. h. c. F. Porsche AG (Porsche AG) would be investigated. The actual feasibility of an IPO will depend on a large number of different parameters and the general market conditions. No final decisions have been made at this stage.

If the IPO is to go ahead, Porsche AG's share capital is to be divided into 50% preferred shares and 50% ordinary shares, and as part of a possible IPO up to 25% of the preferred shares are to be placed on the capital market. In connection with the possible IPO, Porsche Automobil Holding SE would acquire 25% plus one share of the ordinary shares of Porsche AG from Volkswagen AG at the placement price plus a premium of 7.5%.

Volkswagen AG would continue to hold a majority interest in Porsche AG and consolidate the company in its consolidated financial statements. The industrial cooperation between Volkswagen AG and Porsche AG would be continued after any IPO.

Volkswagen AG would use the gains from a possible IPO of Porsche AG to accelerate the industrial and technological transformation of the Volkswagen Group. This includes investments in the transformation of global production capacities for electric vehicles and the financing of additional growth. If there is a successful IPO, Volkswagen AG will also propose to shareholders that a special dividend be distributed in the amount of 49% of the total gross proceeds from the placement of the preferred shares and the sale of the ordinary shares.

Russia-Ukraine conflict

At the time of preparing this report, there is a risk that the latest developments in the Russia-Ukraine conflict will have a negative impact on the Volkswagen Group's business. This may also result from bottlenecks in the supply chain. At the present time, it is not yet possible to conclusively assess the specific effects.

Nor is it possible at this stage to predict with sufficient certainty to what extent further escalation of the Russia-Ukraine conflict will impact on the global economy and growth in the industry in fiscal year 2022.

The Volkswagen Group does not have any material subsidiaries and equity investments in Ukraine.

In Russia, the Volkswagen Group has in particular the production company at the Kaluga site, as well as sales units and financing companies. They could above all be adversely affected by the sanctions already resolved, but also by new sanctions and general developments in Russia.

In relation to the net assets, financial position and results of operations of the Volkswagen Group, the business activities of the Volkswagen Group in these two countries are insignificant.

There is a risk that a further escalation of the conflict could have a material adverse effect on the results of operations, financial position and net assets of the Volkswagen Group.

45. Remuneration based on performance shares

The remuneration of the Board of Management is based on the remuneration system updated by the Supervisory Board on December 14, 2020 with effect from January 1, 2021. The remuneration system implements the requirements of the AktG as amended by ARUG II and takes into account the recommendations of the German Corporate Governance Code (the Code) in the version dated December 19, 2019 (which entered into force on March 20, 2020). The Annual General Meeting approved the remuneration system on July 22, 2021 with 99.61% of the votes cast.

The new remuneration system has applied from January 1, 2021 to all Board of Management members with employment contracts newly concluded or renewed after the Supervisory Board resolution of December 14, 2020. For the Board of Management members already appointed at the time of the resolution by the Supervisory Board on December 14, 2020, the new remuneration system also applies in principle from January 1, 2021. Until such time as their contracts are renewed, however, the following exceptions apply: the performance share plan of the Board of Management members already appointed continues to have only a three-year performance period but otherwise corresponds to the performance share plan described in this system. Penalty and clawback rules and a four-year performance period (previously: three years) will only apply to Board of Management members already appointed on renewal of their contracts.

The group of beneficiaries of the performance share plan was expanded at the end of 2018 by including members of top management and at the end of 2019 by adding all other members of management and selected participants below management level. Performance shares were first granted to members of top management at the beginning of 2019. All other beneficiaries were allocated benefits on the basis of performance shares for the first time at the beginning of 2020. The function of the performance share plan for top management and other beneficiaries is largely identical to the performance share plan that was granted to the members of the Board of Management. The performance period for beneficiaries below Board of Management level is 3 years. When the performance share plan was launched, members of top management were guaranteed a minimum bonus amount for the first three years on the basis of the remuneration for 2018, while all other beneficiaries were given a guarantee for the first three years on the basis of the remuneration for 2019.

PERFORMANCE SHARES

Each performance period of the performance share plan has a term of three or four years. For members of the Board of Management and of top management, the annual target amount under the LTI is converted at the time of granting into performance shares on the basis of the initial reference price of Volkswagen's preferred shares. This annual target amount is allocated to the respective beneficiaries as a pure calculation position. Based on the degree of target achievement for the annual earnings per Volkswagen preferred share, the number of performance shares is definitively determined on the basis of a three- or four-year, forward-looking performance period. After the end of the performance period, a cash settlement is made. The payment amount corresponds to the number of determined performance shares, multiplied by the closing reference price at the end of the period plus a dividend equivalent.

For all other beneficiaries, the payment amount is determined by multiplying the target amount by the degree of target achievement for the annual earnings per Volkswagen preferred share and the ratio of the closing reference price at the end of the period, plus a dividend equivalent, to the initial reference price. Target achievement is determined on the basis of a three-year performance period with a forward-looking horizon of one year. As a departure from this, target achievement in 2020 will initially be determined on the basis of a one-year forward-looking performance period, and in 2021 on the basis of a two-year performance period with a forward-looking horizon of one year. For all beneficiaries, the payment amount under the performance share plan is limited to 200% of the target amount; the payment amount is reduced by 20% if the average ratio of capex to sales revenue or the R&D ratio in the Automotive Division is smaller than 5% during the performance period.

BOARD OF MANAGEMENT

		Dec. 31, 2021	Dec. 31, 2020
Total expense of the reporting period	€ million	34	2
Carrying amount of the obligation	€ million	65	39
Intrinsic value of the obligation	€ million	41	30
Fair value on granting date	€ million	18	16
Granted performance shares	Shares	379,819	389,524
of which granted during the reporting period	Shares	125,251	99,150

The disclosure relates to current and former members of the Board of Management.

MEMBERS OF TOP MANAGEMENT

		Dec. 31, 2021	Dec. 31, 2020
Total expense of the reporting period	€ million	118	133
Carrying amount of the obligation	€ million	124	132
Intrinsic value of the obligation	€ million	86	130
Fair value at grant date	€ million	92	84
Granted performance shares	Shares	1,684,516	1,040,271
of which granted during the reporting period	Shares	644,245	509,181

MEMBERS OF MANAGEMENT AND SELECTED PARTICIPANTS BELOW MANAGEMENT LEVEL

In the fiscal year, beneficiary members of management and selected participants below management level were allocated a target amount of €665 million (previous year: €629 million) on which target achievement of 100% is based. As of December 31, 2021, the total carrying amount of the obligation, which corresponded to the intrinsic value of the liabilities, was €836 million (previous year: €609 million). A total expense of €857 million (previous year: €613 million) was recognized for this commitment in the reporting period.

46. Related party disclosures in accordance with IAS 24

Related parties as defined by IAS 24 are natural persons and entities that Volkswagen AG has the ability to control or on which it can exercise significant influence, or natural persons and entities that have the ability to control or exercise significant influence on Volkswagen AG, or that are influenced by another related party of Volkswagen AG.

All transactions with related parties are regularly conducted on an arm's length basis.

Porsche SE held the majority of the voting rights in Volkswagen AG as of the reporting date. The creation of rights of appointment for the State of Lower Saxony was resolved at the Extraordinary General Meeting of Volkswagen AG on December 3, 2009. This means that Porsche SE cannot elect all shareholder representatives to the Supervisory Board of Volkswagen AG for as long as the State of Lower Saxony holds at least 15% of Volkswagen AG's ordinary shares. However, Porsche SE has the power to participate in the operating policy decisions of the Volkswagen Group and is therefore classified as a related party as defined by IAS 24.

The contribution of Porsche SE's holding company operating business to Volkswagen AG on August 1, 2012 has the following effects on the agreements between Porsche SE, Volkswagen AG and companies of the Porsche Holding Stuttgart Group that existed prior to the contribution and were entered into on the basis of the Comprehensive Agreement and its related implementation agreements:

> As part of the contribution of Porsche SE's holding company operating business to Volkswagen AG, Volkswagen AG undertook to assume standard market liability compensation effective August 1, 2012 for guarantees issued to external creditors, whereby it is indemnified internally.

> Volkswagen AG continues to indemnify Porsche SE internally against claims by the Einlagensicherungsfonds (German deposit protection fund) after Porsche SE submitted an indemnification agreement required by the Bundesverband Deutscher Banken (Association of German Banks) to the Einlagensicherungsfonds in August 2009. Volkswagen AG has also undertaken to indemnify the Einlagensicherungsfonds against any losses caused by measures taken by the latter in favor of a bank in which Volkswagen AG holds a majority interest.

> Under certain conditions, Porsche SE continues to indemnify Porsche Holding Stuttgart, Porsche AG and their legal predecessors against tax disadvantages that exceed the obligations recognized in the financial statements of those companies relating to periods up to and including July 31, 2009. In return, Volkswagen AG has undertaken to reimburse Porsche SE for any tax advantages of Porsche Holding Stuttgart, Porsche AG and their legal predecessors and subsidiaries relating to tax assessment periods up to July 31, 2009. Based on the results of the external tax audit for the assessment periods 2006 to 2008, which has now been completed, and based on information for the 2009 assessment period available at the date of preparing these consolidated financial statements, a compensation obligation estimated in the low triple-digit million euro range will arise for Volkswagen AG. New information emerging in the future could result in an increase or decrease in the potential compensation obligation.

Under the terms of the Comprehensive Agreement, Porsche SE and Volkswagen AG had granted each other put and call options with regard to the remaining 50.1% interest in Porsche Holding Stuttgart held by Porsche SE until the contribution of its holding company operating business to Volkswagen AG. Both Volkswagen AG (if it had exercised its call option) and Porsche SE (if it had exercised its put option) had undertaken to bear the tax burden resulting from the exercise of the options and any subsequent activities in relation to the equity investment in Porsche Holding Stuttgart (e.g. from recapture taxation on the spin-off in 2007 and/or 2009). If tax benefits had accrued to Volkswagen AG, Porsche Holding Stuttgart, Porsche AG, or their respective subsidiaries as a result of recapture taxation on the spin-off in 2007 and/or 2009, the purchase price to be paid by Volkswagen AG for the transfer of the outstanding 50.1% equity investment in Porsche Holding Stuttgart if the put option had been exercised by Porsche SE would have been increased by the present value of the tax benefit. This arrangement was taken over under the terms of the contribution agreement to the effect that Porsche SE has a claim against Volkswagen AG for payment in the amount of the present value of the realizable tax benefits from any recapture taxation of the spin-off in 2007 as a result of the contribution. It was also agreed under the terms of the contribution that Porsche SE will indemnify Volkswagen AG, Porsche Holding Stuttgart and their subsidiaries against taxes if measures taken by or not taken by Porsche SE result in recapture taxation for 2012 at these companies in the course of or following implementation of the contribution. In this case, too, Porsche SE is entitled to assert a claim for payment against Volkswagen AG in the amount of the present value of the realizable tax benefits that arise at the level of Volkswagen AG or one of its subsidiaries as a result of such a transaction.

Further agreements were entered into and declarations were issued in connection with the contribution of Porsche SE's holding company operating business to Volkswagen AG, in particular:

- Porsche SE indemnifies its contributed subsidiaries, Porsche Holding Stuttgart, Porsche AG and their subsidiaries against certain liabilities to Porsche SE that relate to the period up to and including December 31, 2011 and that exceed the obligations recognized in the financial statements of those companies for that period.
- Moreover, Porsche SE indemnifies Volkswagen AG, Porsche Holding Stuttgart, Porsche AG and their subsidiaries against half of the taxes (other than taxes on income) arising at those companies in conjunction with the contribution that would not have been incurred in the event of the exercise of the call option on the shares of Porsche Holding Stuttgart that continued to be held by Porsche SE until the contribution. Volkswagen AG therefore indemnifies Porsche SE against half of such taxes that it incurs.
- Additionally, Porsche SE and Porsche AG agreed to allocate any subsequent VAT receivables or liabilities from transactions in the period up to December 31, 2009 to the company entitled to the receivable or incurring the liability.
- A range of information, conduct and cooperation obligations were agreed by Porsche SE and the Volkswagen Group in the contribution agreement.

According to a notification dated January 3, 2022, the State of Lower Saxony and Hannoversche Beteiligungsgesellschaft Niedersachsen mbH, Hanover, held 20.00% of the voting rights of Volkswagen AG on December 31, 2021. As mentioned above, the General Meeting of Volkswagen AG on December 3, 2009 also resolved that the State of Lower Saxony may appoint two members of the Supervisory Board (right of appointment).

The following tables present the amounts of supplies and services transacted, as well as outstanding receivables and liabilities, between consolidated companies of the Volkswagen Group and related parties:

RELATED PARTIES

€ million	SUPPLIES AND SERVICES RENDERED 2021	SUPPLIES AND SERVICES RENDERED 2020	SUPPLIES AND SERVICES RECEIVED 2021	SUPPLIES AND SERVICES RECEIVED 2020
Porsche SE and its majority interests	6	5	4	0
Supervisory Board members	2	4	1	1
Board of Management members	0	0	0	0
Unconsolidated subsidiaries	1,139	872	1,380	1,160
Joint ventures and their majority interests	17,474	17,660	815	632
Associates and their majority interests	349	230	1,539	1,332
Pension plans	1	1	4	1
Other related parties	0	0	1	1
State of Lower Saxony, its majority interests and joint ventures	11	11	7	4

€ million	RECEIVABLES FROM Dec. 31, 2021	RECEIVABLES FROM Dec. 31, 2020	LIABILITIES (INCLUDING OBLIGATIONS) TO Dec. 31, 2021	LIABILITIES (INCLUDING OBLIGATIONS) TO Dec. 31, 2020
Porsche SE and its majority interests	2	4	1	0
Supervisory Board members	0	0	252	167
Board of Management members	0	0	90	68
Unconsolidated subsidiaries	1,442	1,164	1,715	1,477
Joint ventures and their majority interests	12,303	12,207	2,029	2,312[1]
Associates and their majority interests	533	397	965	951
Pension plans	1	1	–	–
Other related parties	0	0	49	198
State of Lower Saxony, its majority interests and joint ventures	232	227[1]	2	2

1 Prior-year figures adjusted.

The tables above do not contain the dividend payments (net of withholding tax) of €2,960 million (previous year: €3,098 million) received from joint ventures and associates and dividends of €756 million (previous year: €756 million) paid to Porsche SE.

Receivables from joint ventures are primarily attributable to loans granted in an amount of €8,756 million (previous year: €8,534 million) as well as trade receivables in an amount of €3,289 million (previous year: €3,349 million). Receivables from non-consolidated subsidiaries also result primarily from loans granted in an amount of €737 million (previous year: €642 million) as well as trade receivables in an amount of €344 million (previous year: €190 million).

Impairment losses of €17 million (previous year: €24 million) were recognized on the outstanding related party receivables. In the fiscal year, expenses of €1 million (previous year: €14 million) were incurred in this context.

In addition, the Volkswagen Group has furnished guarantees to external banks on behalf of related parties in the amount of €391 million (previous year: €354 million).

In the reporting period, the Volkswagen Group made capital contributions of €1,323 million (previous year: €505 million) to related parties.

As in the previous year, obligations to members of the Supervisory Board and other related parties relate primarily to interest-bearing bank balances of Supervisory Board members and other related parties that were invested at standard market terms and conditions at Volkswagen Group companies.

Obligations to the Board of Management comprise outstanding balances for the annual bonus, the fair values of the performance shares granted to Board of Management members, and pension provisions of €81.2 million (previous year: €60.9 million).

In addition to the amounts shown above, the following expenses were recognized for benefits and remuneration granted to members of the Board of Management and Supervisory Board of the Volkswagen Group in the course of their activities as members of these bodies:

€	2021	2020
Short-term benefits	40,369,641	30,682,893
Benefits based on performance shares and virtual shares	24,108,076	6,570,097
Post-employment benefits (service cost only)	9,772,143	7,248,486
Termination benefits	1,655,497	11,577,039
	75,905,357	**56,078,514**

The post-employment benefits relate to additions to pension provisions for current members of the Board of Management. The termination benefits relate to the payments made to Mr. Witter in connection with his departure from the Board of Management on March 31, 2021 (previous year: departure of Mr. Renschler and Mr. Sommer).

47. German Corporate Governance Code

On December 9, 2021, the Board of Management and Supervisory Board of Volkswagen AG issued their declaration of conformity with the German Corporate Governance Code as required by section 161 of the Aktiengesetz (AktG – German Stock Corporation Act) and made it permanently available to the shareholders of Volkswagen AG on the Company's website at www.volkswagenag.com/en/InvestorRelations/corporate-governance/declaration-of-conformity.html.

In December 2021, the Executive Board and Supervisory Board of Traton SE likewise issued their declaration of conformity with the German Corporate Governance Code and made it permanently available to the shareholders at https://ir.traton.com/websites/traton/English/5000/corporate-governance.html.

48. Remuneration of the Board of Management and the Supervisory Board

Total remuneration granted to the members of the Board of Management amounted to €51.5 million (previous year: €38.2 million).

Under the performance share plan, current members of the Board of Management were granted a total of 110,165 performance shares for fiscal year 2021 (previous year: 77,800), whose value at the grant date amounted to €16.3 million (previous year: €12.7 million).

Advances granted to members of the Board of Management under the performance share plan amounted to €1.4 million as of December 31, 2021 (previous year: €6.5 million). In the fiscal year, a total of €5.1 million (previous year: €4.3 million) of the advances paid to members of the Board of Management were deducted from the payment amount under the performance share plan.

Total remuneration granted to the members of the Supervisory Board amounted to €5.2 million (previous year: €5.3 million).

PENSION ENTITLEMENTS AND BENEFITS TO RETIRED MEMBERS OF THE BOARD OF MANAGEMENT

For former members of the Board of Management and their surviving dependents €17.5 million (previous year: €35.9 million) were granted. Pension provisions in accordance with IFRSs for this group of individuals amounted to €371.9 million (previous year: €396.3 million).

The individual remuneration of the members of the Board of Management and the Supervisory Board is explained in the remuneration report. A comprehensive assessment of the individual remuneration components can also be found there.

Wolfsburg, March 1, 2022

Volkswagen Aktiengesellschaft
The Board of Management

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group.

Wolfsburg, March 1, 2022

Volkswagen Aktiengesellschaft
The Board of Management

Herbert Diess	Murat Aksel	Arno Antlitz
Oliver Blume	Ralf Brandstätter	Manfred Döss
Markus Duesmann	Gunnar Kilian	Thomas Schmall-von Westerholt
Hauke Stars	Hildegard Wortmann	

Independent auditor's report

To VOLKSWAGEN AKTIENGESELLSCHAFT

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

OPINIONS

We have audited the consolidated financial statements of VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, and its subsidiaries (the Group), which comprise the consolidated income statement and consolidated statement of comprehensive income for the fiscal year from 1 January to 31 December 2021, and the consolidated balance sheet as at 31 December 2021, consolidated statement of changes in equity and consolidated cash flow statement for the fiscal year from 1 January to 31 December 2021, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of VOLKSWAGEN AKTIENGESELLSCHAFT, which is combined with the Company's management report, for the fiscal year from 1 January to 31 December 2021. In accordance with German legal requirements, we have not audited the content of the parts of the group management report specified in the appendix to the auditor's report and the company information stated therein that is provided outside of the annual report and is referenced in the group management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB ["Handelsgesetzbuch": German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2021 and of its financial performance for the fiscal year from 1 January to 31 December 2021, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the content of the parts of the group management report listed in the appendix to the auditor's report.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

BASIS FOR THE OPINIONS

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

KEY AUDIT MATTERS IN THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from 1 January to 31 December 2021. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

1. Accounting treatment of the risk provisions for the diesel issue

Reasons why the matter was determined to be a key audit matter

Due to indications of irregularities in connection with exhaust gas emissions from diesel engines in certain vehicles of the VW Group, regulatory authorities in numerous countries (particularly in Europe, the USA and Canada) commenced investigations in the past few years, some of which are still ongoing.

On the basis of its own findings and those of the authorities, the VW Group implemented various measures, which differed according to the country in some cases and included hardware and software measures, vehicle buybacks and early termination of leases as well as compensation payments to vehicle owners in some instances. The hardware and software measures had largely been completed as of the reporting date. The risk provisions for the diesel issue mainly include provisions for criminal, administrative and civil proceedings. Furthermore, there are legal risks from other criminal and administrative proceedings as well as civil actions, particularly by customers and holders of securities.

The provisions recognized as of 31 December 2021 and the contingent liabilities disclosed in the notes to the consolidated financial statements are subject to a significant estimation risk in view of the extensive ongoing criminal and administrative investigations and proceedings, the complexity of the different issues, developments in court rulings and market conditions for used diesel vehicles. Whether provisions need to be recognized or contingent liabilities disclosed for the legal risks from the diesel issue, and in what amount, depends to a large extent on the assessments and assumptions made by the executive directors. As described in the notes to the consolidated financial statements, the executive directors considered in their assessments in particular the fact that, based on the various measures taken and meanwhile largely concluded to resolve the diesel issue, there is still no confirmation that members of the Board of Management were aware of any deliberate manipulation of the engine control unit software prior to the summer of 2015.

In light of the significance of the risk provisions and the extent of the assumptions and scope for judgment by the executive directors, this matter was a key audit matter.

Auditor's response

To assess the recognition and measurement of the provisions for legal risks and the disclosure of contingent liabilities arising from the diesel issue, we considered, in particular, work and opinions by experts engaged by the executive directors of the VW Group in addition to available official notices and court judgments as part of a risk-based selection of significant transactions. Moreover, with the involvement of our own legal and forensic specialists, we held regular meetings with the Legal department and the external lawyers engaged by the executive directors of the VW Group to obtain oral explanations about the current developments and reasons leading to the assessments of the ongoing proceedings. We compared confirmations received from external lawyers with the risk assessment by the executive directors. We also regularly reviewed publicly available information, such as media reports, to assess the completeness of the provisions and contingent liabilities.

In addition, we reviewed on a sample basis the input factors (quantity and value) of the provisions and contingent liabilities for individual matters using statements of claims received, settlement agreements and court judgments. With regard to the valuation, we also compared the current assessments by the executive directors with past experience, where observable. For significant additions to provisions, we examined whether they were due to new matters or to changes in the estimation inputs and obtained corresponding evidence. To analyze significant utilizations of the provisions, we obtained an understanding of the procedural controls implemented and examined a sample to determine whether they were based on settlement agreements or court judgments and whether corresponding payments were made.

Furthermore, external reports and investigation results were inspected and inquiries were made of the external law firm engaged to carry out the investigation, with the assistance of our own forensic specialists, in order to understand and assess the special investigation completed in fiscal year 2021 in terms of when former and current members of the Board of Management became aware of the diesel issue.

Our audit procedures did not lead to any reservations relating to the accounting treatment of the risk provisions for the diesel issue.

Reference to related disclosures

The information presented and the statements made in connection with the diesel issue, including the comments on the underlying causes, on when the members of the Board of Management became aware of the issue and on the effects on the accompanying financial statements are contained in the "Key events" and "Accounting policies" sections, on management's estimates and assessments in the "Balance sheet disclosures" section, note 30, "Noncurrent and current provisions," note 38, "Contingent liabilities" and note 39, "Litigation" of the notes to the consolidated financial statements and in the "Report on Risks and Opportunities" chapter of the group management report, "Legal risks" section, subsection "Diesel issue."

2. Recoverability of goodwill and the acquired brand names

Reasons why the matter was determined to be a key audit matter

The result of the impairment testing of goodwill and the acquired brand names is highly dependent on the executive directors' estimate of future cash flows and which discount rates they use. The recoverable amount of the cash-generating units is calculated on the basis of their value in use, applying discounted cash flow models.

In addition to the Covid-19 pandemic, temporary production stops due to semiconductor supply shortages in particular had a negative effect on the cash inflows of the VW Group and its brands in fiscal year 2021. The executive directors of the VW Group expect cash inflows to continue to be affected in fiscal year 2022.

In addition, the acquisition of the Navistar Group in fiscal year 2021 increased the carrying amount of goodwill and the acquired brand names.

The ongoing transformation of the core business toward electromobility and digitalization, the transition to autonomous vehicles and growing environmental regulation lead to uncertainties in the estimation of market shares and margins for electric vehicles and the long-term growth rates. These estimates by the executive directors are subject to risk and may be revised in response to changes in environmental regulation and market conditions.

In addition, the executive directors have scope for judgment in determining the cash-generating units for impairment testing, in determining the discount rates used and the long-term growth rates assumed.

In view of the foregoing, the materiality of goodwill and the acquired brand names in relation to total assets, the complexity of the valuation and the judgment exercised during valuation, the impairment testing of goodwill and the acquired brands was a key audit matter.

Auditor's response

During our audit, we involved valuation specialists to assess among other things the methodology used to perform the impairment tests in light of the provisions of IAS 36. We also checked the arithmetical accuracy of the valuation models used.

On the basis of the VW Group's internal reporting, we assessed for the acquired brands whether the brands represent the lowest level within the VW Group at which independent cash inflows are generated and whether goodwill is monitored at brand level for internal management purposes.

We analyzed the planning process established in the VW Group and tested the operating effectiveness of the controls implemented in the planning process. As a starting point, we compared the VW Group's five-year operational plan prepared by the executive directors and acknowledged by the Supervisory Board with the forecast figures in the underlying impairment tests. We discussed the key planning assumptions for selected brands to which significant goodwill and acquired brand names are allocated with the executive directors and compared them with past earnings and cash inflows to assess the planning accuracy. We based plausibility testing of the inputs for the impairment tests among other things on a comparison with general and industry-specific market expectations underlying the expected cash inflows. We discussed with the executive directors the effects of the Covid-19 pandemic and the semiconductor supply shortages on the development of cash inflows in the individual cash-generating units and compared them with current market expectations. We also investigated the expectations regarding the development of market shares for battery electric vehicles and the effects on the planned investments and their indirect effects on the long-term cash inflows expected by the executive directors.

With respect to the rollforward from the medium-term plan to the long-term forecast, we assessed the plausibility of the assumed growth rates by comparing them with observable data. To assess the discount rates and growth rates applied, we analyzed the inputs used to determine them on the basis of publicly available information and obtained an understanding of the methods used with regard to the relevant requirements of IAS 36.

We also assessed the sensitivity analyses performed by the executive directors in order to estimate any potential impairment risk associated with a reasonably possible change in one of the significant assumptions used in the valuation.

Our procedures did not lead to any reservations relating to the recoverability of goodwill and the acquired brand names.

Reference to related disclosures

With regard to the recognition and measurement policies applied for goodwill and the acquired brand names, refer to the disclosure on intangible assets in the "Accounting policies" section of the notes to the consolidated financial statements. For the related disclosures on judgments by the executive directors and sources of estimation uncertainty as well as the disclosures on goodwill and the acquired brand names, refer to the disclosure in the "Accounting policies" section on estimates and assumptions by management and note 12, "Intangible assets" in the "Balance Sheet disclosures" section of the notes to the consolidated financial statements. In the group management report, refer to the "Report on Risks and Opportunities" chapter, "Risks and opportunities" section, subsection "Risks arising from the recoverability of goodwill or brand names and from equity investments."

3. Capitalization and recoverability of development costs

Reasons why the matter was determined to be a key audit matter

Key criteria for capitalizing development costs are the ability to implement the development projects (including their technical feasibility, the intention to complete them and the ability to use them) as well as the realization of an expected future economic benefit. The complexity of research and development projects is mounting in view of the technological transformation of the VW Group and the resulting new development areas (including high investments in electromobility, software and autonomous driving). Assessments of project feasibility are playing an ever greater role in this connection and entail the use of considerable judgment.

Where capitalized development costs are not yet subject to amortization, they must be tested for impairment as part of the related cash-generating unit at least annually at the level of the brands defined as cash-generating units. The assumption of realizing future economic benefits and the result of testing the recoverability of capitalized development costs during the analyses and impairment tests performed are highly dependent on the executive directors’ estimate of future cash flows and which discount rates they use. The recoverable amount of the cash-generating units is calculated on the basis of their value in use, applying discounted cash flow models.

In addition to the Covid-19 pandemic, temporary production stops due to semiconductor supply shortages in particular had a negative effect on the cash inflows of the VW Group and its brands in fiscal year 2021. The executive directors of the VW Group expect cash inflows to continue to be affected in fiscal year 2022.

The ongoing transformation of the core business toward electromobility and digitalization, the transition to autonomous vehicles and growing environmental regulation lead to uncertainties in the estimation of market shares and margins for electric vehicles and the long-term growth rates. Growth expectations of the executive directors are subject to risk and may be revised in response to changes in environmental regulation and market conditions.

In addition, the executive directors have scope for judgment in determining the cash-generating units for impairment testing, in determining the discount rates used and the long-term growth rates assumed.

In light of the foregoing, the materiality of the capitalized development costs in relation to total assets, the total amount of research and development costs and the judgment exercised during valuation, the capitalization of development costs and the impairment test were a key audit matter.

Auditor's response

During our audit, we examined the process for identifying the research and development costs, particularly with reference to the criteria for capitalization. In this connection, we carried out analytical audit procedures such as comparisons of project budgets and capitalization rates, inspected documentation on project feasibility and tested process-related controls in some areas. We also assessed the future economic benefit criterion for capitalization based on the assumptions regarding the cash inflows of the cash-generating unit to which the capitalized development work is allocated.

Moreover, we involved valuation specialists to assess among other things the methodology used to determine the relevant cash-generating units and perform the impairment tests in light of the provisions of IAS 36. We also checked the arithmetical accuracy of the valuation models used.

We analyzed the planning process established in the VW Group and tested the operating effectiveness of the controls implemented in the planning process. As a starting point, we compared the VW Group's five-year operational plan prepared by the executive directors and acknowledged by the Supervisory Board with the forecast figures in the underlying impairment tests. We discussed with the executive directors the key planning assumptions for a sample we selected of brands with significant capitalized development costs and compared them with past earnings and cash inflows to assess the planning accuracy. We based plausibility testing of the inputs for the impairment tests among other things on a comparison with general and industry-specific market expectations underlying the expected cash inflows. We discussed with the executive directors the effects of the Covid-19 pandemic and the semiconductor supply shortages on the development of cash inflows in the individual cash-generating units and compared them with current market expectations. We also investigated the expectations regarding the development of market shares for battery electric vehicles and the effects on the planned investments and their indirect effects on the long-term cash inflows expected by the executive directors.

With respect to the rollforward from the medium-term plan to the long-term forecast, we assessed the plausibility of the assumed growth rates by comparing them with observable data. To assess the discount rates and growth rates applied, we analyzed the inputs used to determine them on the basis of publicly available information and obtained an understanding of the methods used with regard to the relevant requirements of IAS 36.

We also assessed the sensitivity analyses performed by the executive directors in order to estimate any potential impairment risk associated with a reasonably possible change in one of the significant assumptions used in the valuation.

Our procedures did not lead to any reservations relating to the recognition and recoverability of the capitalized development costs.

Reference to related disclosures

With regard to the recognition and measurement policies applied for capitalized development costs, refer to the disclosure on intangible assets in the "Accounting policies" section of the notes to the consolidated financial statements. For the related disclosures on judgments by the executive directors and sources of estimation uncertainty as well as the disclosures on capitalized development costs, refer to the disclosures in the "Accounting policies" section on estimates and assumptions by management and note 12, "Intangible assets" in the "Balance Sheet disclosures" section of the notes to the consolidated financial statements.

4. Completeness and measurement of provisions for warranty obligations

Reasons why the matter was determined to be a key audit matter

Obligations for warranty claims are calculated on the basis of estimated warranty costs and ex gratia arrangements. Where unusual individual technical risks are anticipated, an individual assessment is made whether and, if so, to what extent measures are required to remediate them and provisions need to be recognized.

The amount of provisions for warranty claims is significant overall. Besides the general use of judgment in selecting the valuation methods and assessing the obligations, increasing estimation uncertainty stems from the growing proportion of hybrid and battery electric vehicles entering the market and a lack of experience of their susceptibility to faults. In light of the amount of the provisions and the judgment exercised during valuation, the completeness and measurement of provisions for warranty obligations was a key audit matter.

Auditor’s response

With regard to the accounting for the provisions for warranty obligations, we examined the underlying processes for recording previous claims, calculating and valuing the estimated future warranty costs and recognizing the provisions, and tested controls in some areas.

In light of the uncertainty in relation to the estimated future warranty costs, we assessed the underlying valuation assumptions, especially the expected claim rate per vehicle and the cost thereof, using analyses of historical data. Where there was a lack of past experience, we obtained an understanding of the assumptions made by the executive directors and tested their plausibility using historical data for comparable items. Using the calculation bases derived from these historical data, we checked the estimated costs for expected claims per vehicle. To assess the completeness of the provisions, we also reconciled the number of sold vehicles used to recognize the provision with the sales volumes. We obtained an understanding of the method used for calculating the provisions, including the discounting, and reperformed the calculations.

For significant individual technical risks, we assessed the expected incidence of technical faults and the calculation of expected costs per claim/vehicle using documentation on previous claims, inspecting resolutions passed by technical committees and holding discussions with the departments responsible.

Our audit procedures did not lead to any reservations relating to the completeness and valuation of provisions for warranty obligations.

Reference to related disclosures

With regard to the recognition and measurement policies applied in accounting for provisions for warranty obligations, refer to the disclosures in the “Accounting policies” section on estimates and assessments by management and note 30, “Noncurrent and current other provisions” in the “Balance Sheet disclosures” section of the notes to the consolidated financial statements.

5. Calculation of the expected residual values of lease assets during impairment testing

Reasons why the matter was determined to be a key audit matter

The lease assets balance sheet item comprises vehicles under current leases. There is an impairment risk for these vehicles which is primarily dependent on the residual value expected at the end of the lease.

Internal and external marketing results as well as estimates of future market price development are used to review the expected residual value in a quarterly impairment test.

As it is not possible to make a conclusive assessment of the impact of the ongoing global Covid-19 pandemic and given the semiconductor supply shortages, the estimation uncertainty in relation to the calculation of the expected residual values remains significantly heightened in fiscal year 2021.

In light of the judgment exercised in calculating the residual values, the existing estimation uncertainty in impairment testing and the significance of the amount of lease assets, the calculation of expected residual values was a key audit matter.

Auditor’s response

During our audit, we analyzed the process implemented for calculating and monitoring the residual values to identify any risks of material misstatement and obtained an understanding of the process steps and controls. On this basis, we tested at significant components the operating effectiveness of the implemented controls over the calculation and monitoring of the expected residual values. To assess the forecasting models used to calculate the residual values, we assessed the validation plans on the basis of the respective model designs to determine whether the validation procedures described in the plans allow an assessment of the models’ forecast quality. We investigated whether the validation procedures performed according to the validation plans and the backtesting performed led to any indications of model weaknesses or any need to adjust the models. Furthermore, we assessed whether the assumptions underlying the forecasting model and the inputs used for calculating the expected residual values were clearly documented. To this end, we obtained evidence for the main inputs and assumptions used for mileage, age and lifecycle phase of the vehicles to calculate the residual values and examined them for currentness and transparency. We assessed whether the marketing assumptions used reflect industry-specific and general market expectations as well as, in particular, current marketing results.

Our audit procedures did not lead to any reservations relating to the calculation of the expected residual values of the lease assets during impairment testing.

Reference to related disclosures

With regard to the recognition and measurement policies applied for lease assets, refer to the disclosure on intangible assets in the “Accounting policies” section of the notes to the consolidated financial statements. For the related disclosures on judgments by the executive directors and sources of estimation uncertainty, refer to the disclosures in the “Accounting policies” section on estimates and assumptions by management” and note 14, “Lease assets and investment property” in the “Balance Sheet disclosures” section of the notes to the consolidated financial statements.

EMPHASIS OF MATTER PARAGRAPH – IMMANENT RISK DUE TO UNCERTAINTIES REGARDING THE LEGAL CONFORMITY OF THE INTERPRETATION OF THE EU TAXONOMY REGULATION

We draw attention to the executive directors' comments on the EU Taxonomy disclosures in the "EU Taxonomy" section of the group management report, where it is stated that the EU Taxonomy Regulation and the Delegated Acts adopted thereunder contain wording and terms that are still subject to interpretation uncertainties and for which clarifications have not yet been published in every case. The executive directors describe how they interpreted the EU Taxonomy Regulation and the Delegated Acts adopted thereunder. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties. Our opinion on the group management report is not modified in this respect.

OTHER INFORMATION

The Supervisory Board is responsible for the Report of the Supervisory Board. The executive directors and the Supervisory Board are responsible for the declaration pursuant to Sec. 161 AktG ["Aktiengesetz": German Stock Corporation Act] on the German Corporate Governance Code, which is part of the group corporate governance declaration, and for the remuneration report pursuant to Sec. 162 AktG. In all other respects, the executive directors are responsible for the other information. The other information comprises the parts of the annual report listed in the appendix to the auditor's report.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the executive directors and the Supervisory Board for the consolidated financial statements and the group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Report on the assurance on the electronic rendering of the consolidated financial statements and the group management report prepared for publication purposes in accordance with Sec. 317 (3a) HGB

Opinion

We have performed assurance work in accordance with Sec. 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in VWAG_JFB_Konzern_2021-12-31 (SHA-256 checksum: 8d5619f3161fad9 deca8a14e45fe91403e85622d03959c410c8926dc1d7a905a) and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained within these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the file identified above and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinions on the accompanying consolidated financial statements and the accompanying group management report for the fiscal year from 1 January to 31 December 2021 contained in the "Report on the audit of the consolidated financial statements and of the group management report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

Basis for the opinion

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the file identified above in accordance with Sec. 317 (3a) HGB and the IDW Assurance Standard: Assurance on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Sec. 317 (3a) HGB (IDW AsS 410) (10.2021). Our responsibility in accordance therewith is further described in the "Group auditor's responsibilities for the assurance work on the ESEF documents" section. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the executive directors and the Supervisory Board for the ESEF documents

The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the group management report in accordance with Sec. 328 (1) Sentence 4 No. 1 HGB and for the tagging of the consolidated financial statements in accordance with Sec. 328 (1) Sentence 4 No. 2 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have determined necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB for the electronic reporting format.

The Supervisory Board is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group auditor's responsibilities for the assurance work on the ESEF documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also:

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e., whether the file containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, on the technical specification for this file.
- Evaluate whether the ESEF documents enable an XHTML rendering with content equivalent to the audited consolidated financial statements and to the audited group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Arts. 4 and 6 of Commission Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as group auditor by the Annual General Meeting on 22 July 2021. We were engaged by the Supervisory Board on 1 September 2021. We have been the group auditor of VOLKSWAGEN AKTIENGESELLSCHAFT since fiscal year 2020.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Art. 11 of the EU Audit Regulation (long-form audit report).

Other matter – Use of the auditor's report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited group management report as well as the assured ESEF documents. The consolidated financial statements and the group management report converted to the ESEF format – including the versions to be published in the *Bundesanzeiger* [German Federal Gazette] – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the assured ESEF documents made available in electronic form.

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Martin Matischiok.

APPENDIX TO THE AUDITOR'S REPORT:

1. Parts of the group management report whose content is unaudited

We have not audited the content of the following part of the group management report:

- The group corporate governance declaration which is published on the website stated in the group management report and is part of the group management report.

2. Further other information

The other information comprises the following parts of the annual report, of which we obtained a copy prior to issuing this auditor's report:

- The Group Non-Financial Report

The other information also comprises other parts to be included in the annual report, of which we obtained a copy prior to issuing this auditor's report, in particular the sections:

- To our Shareholders
- Divisions
- Group Corporate Governance Declaration
- Remuneration Report
- Responsibility Statement; and
- Additional Information

but not the consolidated financial statements, not the group management report disclosures whose content is audited and not our auditor's report thereon.

3. Company information outside of the annual report referenced in the group management report

The group management report contains other cross-references to webpages of the Group. We have not audited the content of the information to which these cross-references refer.

Hanover, 11 March 2022

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Meyer	Matischiok
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

Independent auditor's report on the remuneration report

To VOLKSWAGEN AKTIENGESELLSCHAFT

We have audited the attached remuneration report of VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, prepared to comply with Sec. 162 AktG ["Aktiengesetz": German Stock Corporation Act] for the fiscal year from 1 January to 31 December 2021 and the related disclosures.

Responsibilities of the executive directors and the Supervisory Board

The executive directors and the Supervisory Board of VOLKSWAGEN AKTIENGESELLSCHAFT are responsible for the preparation of the remuneration report and the related disclosures in compliance with the requirements of Sec. 162 AktG. In addition, the executive directors and the Supervisory Board are responsible for such internal control as they determine is necessary to enable the preparation of a remuneration report and the related disclosures that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on this remuneration report and the related disclosures based on our audit. We conducted our audit in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report and the related disclosures are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts in the remuneration report and the related disclosures. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the remuneration report and the related disclosures, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the preparation of the remuneration report and the related disclosures in order to plan and perform audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the accounting policies used and the reasonableness of accounting estimates made by the executive directors and the Supervisory Board, as well as evaluating the overall presentation of the remuneration report and the related disclosures.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, on the basis of the knowledge obtained in the audit, the remuneration report for the fiscal year from 1 January to 31 December 2021 and the related disclosures comply, in all material respects, with the financial reporting provisions of Sec. 162 AktG.

Other matter – formal audit of the remuneration report

The audit of the content of the remuneration report described in this auditor's report comprises the formal audit of the remuneration report required by Sec. 162 (3) AktG and the issue of a report on this audit. As we are issuing an unqualified opinion on the audit of the content of the remuneration report, this also includes the opinion that the disclosures pursuant to Sec. 162 (1) and (2) AktG are made in the remuneration report in all material respects.

Limitation of liability

The "General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]" as issued by the IDW on 1 January 2017 are applicable to this engagement and also govern our responsibility and liability to third parties in the context of this engagement (www.de.ey.com/general-engagement-terms).

Hanover, 11 March 2022

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Matischiok
Wirtschaftsprüfer
[German Public Auditor]

Hantke
Wirtschaftsprüfer
[German Public Auditor]

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ADDITIONAL INFORMATION

Five-Year Review

	2021	2020	2019	2018	2017[1]
Volume Data (thousands)					
Vehicle sales (units)	**8,576**	**9,157**	**10,956**	**10,900**	**10,777**
Germany	973	1,108	1,347	1,236	1,264
Abroad	7,603	8,049	9,609	9,664	9,513
Production (units)	**8,283**	**8,900**	**10,823**	**11,018**	**10,875**
Germany	1,483	1,633	2,112	2,303	2,579
Abroad	6,800	7,267	8,712	8,715	8,296
Employees (yearly average)	**668**	**665**	**668**	**656**	**634**
Germany	294	295	295	291	285
Abroad	373	370	373	365	350
Financial Data (in € million)					
Income Statement					
Sales revenue	**250,200**	**222,884**	**252,632**	**235,849**	**229,550**
Cost of sales	−202,959	−183,937	−203,490	−189,500	−186,001
Gross profit	**47,241**	**38,947**	**49,142**	**46,350**	**43,549**
Distribution expenses	−19,228	−18,407	−20,978	−20,510	−20,859
Administrative expenses	−10,420	−9,399	−9,767	−8,819	−8,126
Net other operating result	1,682	−1,466	−1,437	−3,100	−745
Operating result	**19,275**	**9,675**	**16,960**	**13,920**	**13,818**
Financial result	851	1,991	1,396	1,723	−146
Earnings before tax	**20,126**	**11,667**	**18,356**	**15,643**	**13,673**
Income tax expense	−4,698	−2,843	−4,326	−3,489	−2,210
Earnings after tax	**15,428**	**8,824**	**14,029**	**12,153**	**11,463**
Personnel expenses	**43,677**	**40,516**	**42,913**	**41,158**	**38,950**
Balance Sheet (at December 31)					
Noncurrent assets	328,261	302,170	300,608	274,620	262,081
Current assets	200,347	194,944	187,463	183,536	160,112
Total assets	**528,609**	**497,114**	**488,071**	**458,156**	**422,193**
Equity	146,154	128,783	123,651	117,342	109,077
of which: noncontrolling interests	1,705	1,734	1,870	225	229
Noncurrent liabilities	218,062	202,921	196,497	172,846	152,726
Current liabilities	164,393	165,410	167,924	167,968	160,389
Total equity and liabilities	**528,609**	**497,114**	**488,071**	**458,156**	**422,193**
Cash flows from operating activities	**38,633**	**24,901**	**17,983**	**7,272**	**−1,185**
Cash flows from investing activities attributable to operating activities	**24,181**	**18,372**	**20,076**	**19,386**	**18,218**
Cash flows from financing activities	**−7,754**	**7,637**	**−865**	**24,566**	**17,625**

1 Adjusted

Financial Key Performance Indicators

%	2021	2020	2019	2018	2017[1]
Volkswagen Group					
Gross margin	18.9	17.5	19.5	19.7	19.0
Personnel expense ratio	17.5	18.2	17.0	17.5	17.0
Operating return on sales	7.7	4.3	6.7	5.9	6.0
Return on sales before tax	8.0	5.2	7.3	6.6	6.0
Return on sales after tax	6.2	4.0	5.6	5.2	5.0
Equity ratio	27.6	25.9	25.3	25.6	25.8
Automotive Division[2]					
Change in unit sales year-on-year[3]	- 6.3	– 16.4	+ 0.5	+ 1.1	+ 3.7
Change in sales revenue year-on-year	+ 13.3	– 14.3	+ 5.7	+ 2.7	+ 5.3
Research and development costs as a percentage of sales revenue	7.6	7.6	6.7	6.8	6.7
Operating return on sales	6.4	3.7	6.5	5.5	5.7
EBITDA (in € million)[4]	31,609	24,462	29,706	26,707	26,094
Return on investment (ROI)[5]	10.4	6.5	11.2	11.0	12.1
Cash flows from operating activities as a percentage of sales revenue	15.7	13.6	14.5	9.2	6.0
Cash flows from investing activities attributable to operating activities as a percentage of sales revenue	11.5	10.1	9.4	9.4	9.0
Capex as a percentage of sales revenue	5.1	6.1	6.6	6.6	6.5
Net liquidity as a percentage of sales revenue	10.7	12.0	8.4	8.2	9.7
Ratio of noncurrent assets to total assets[6]	23.1	24.7	26.4	23.3	23.7
Ratio of current assets to total assets[7]	14.8	15.4	17.0	17.6	16.3
Inventory turnover[8]	5.0	4.4	4.8	5.0	5.1
Equity ratio	40.1	38.1	37.6	37.9	36.9
Financial Services Division					
Increase in total assets	5.6	0.7	7.9	11.2	6.0
Return on equity before tax[9]	17.3	8.8	10.8	9.9	9.8
Equity ratio	14.5	13.2	12.8	12.7	13.7

1 Adjusted.
2 Including allocation of consolidation adjustments between the Automotive and Financial Services divisions.
3 Including the Chinese joint ventures. These companies are accounted for using the equity method.
4 Operating result plus net depreciation/amortization and impairment losses/reversals of impairment losses on property, plant and equipment, capitalized development costs, lease assets, goodwill and financial assets as reported in the cash flow statement.
5 For details, see the section entitled “Return on investment (ROI) and value contribution in the reporting period” in the chapter entitled “Results of Operations, Financial Position and Net Assets”.
6 Ratio of property, plant and equipment to total assets.
7 Ratio of inventories to total assets at the balance sheet date.
8 Ratio of sales revenue to average monthly inventories.
9 Earnings before tax as a percentage of average equity.

Glossary

Selected terms at a glance

Vocational groups
For example, electronics, logistics, marketing, or finance. A new teaching and learning culture is gradually being established by promoting training in the vocational groups. The specialists are actively involved in the teaching process by passing on their skills and knowledge to their colleagues.

Big Data
Big data is a term used to describe new ways of analyzing and evaluating data volumes that are too vast and too complex to be processed using manual or conventional methods.

Net carbon neutrality
Net carbon neutrality will be achieved if anthropogenic CO_2 (carbon dioxide) emissions are offset globally through avoidance, reduction and compensation over a specified period of time. This encompasses all other relevant greenhouse gases as well. Avoidance and reduction of such gases is a priority for the Volkswagen Group.

Turntable concept
Concept of flexible manufacturing enabling the production of different models in variable daily volumes within a single plant, as well as offering the facility to vary daily production volumes of one model between two or more plants.

End-to-end electronics architecture
A scalable platform developed by CARIAD for secure, rapid processing of data in the digitally connected vehicle. This platform improves communication between the vehicle and the cloud, thereby enhancing vehicle performance.

Hybrid notes
Hybrid notes issued by Volkswagen are classified in their entirety as equity. The issuer has call options at defined dates during their perpetual maturities. They pay a fixed coupon until the first possible call date, followed by a variable rate depending on their terms and conditions.

Hybrid drive
Drive combining two different types of engine and energy storage systems (usually an internal combustion engine and an electric motor).

Industry 4.0
Describes the fourth industrial revolution and the systematic development of real-time and intelligent networks between people, objects and systems, exploiting all of the opportunities of information technology along the entire value added chain. Intelligent machines, inventory systems and operating equipment that independently exchange information, trigger actions and control each other will be integrated into production and logistics at a technical level. This offers tremendous versatility, efficient resource utilization, ergonomics and the integration of customers and business partners in operational processes throughout the entire value chain.

Liquefied Natural Gas (LNG)
LNG is needed so that natural gas engines can be used in long-distance trucks and buses, since this is the only way of achieving the required energy density.

Modular Electric Drive Toolkit (MEB)
The modular system is for the manufacturing of electric vehicles. The MEB establishes parameters for axles, drive systems, high-voltage batteries, wheelbases and weight ratios to ensure a vehicle optimally fulfills the requirements of e-mobility. The production of the first vehicles based on the MEB started into series production in 2020.

Modular Transverse Toolkit (MQB)
As an extension of the modular strategy, this platform can be deployed in vehicles whose architecture permits a transverse arrangement of the engine components. The modular perspective enables high synergies to be achieved between the vehicles in the Volkswagen Passenger Cars, Volkswagen Commercial Vehicles, Audi, SEAT and ŠKODA brands.

Zero-Emissions Vehicle (ZEV)
Vehicles that operate without exhibiting any harmful emissions from combustion gases. Examples of zero-emissions vehicles include purely battery-powered electric vehicles (BEV) or fuel cell vehicles.

Plug-in hybrid
Performance levels of hybrid vehicles. Plug-in hybrid electric vehicles (PHEVs) have a larger battery with a correspondingly higher capacity that can be charged via the combustion engine, the brake system, or an electrical outlet. This increases the range of the vehicle.

Premium Platform Electric (PPE)
A new vehicle platform for all-electric premium, sport and luxury class vehicles. The components and functions of this platform are especially tailored to meet the high demands of this segment. This platform enables high synergies to be achieved particularly between the Audi, Porsche and Bentley brands.

Rating
Systematic assessment of companies in terms of their credit quality. Ratings are expressed by means of rating classes, which are defined differently by the individual rating agencies.

Test procedure
Levels of fuel consumption and exhaust gas emissions for vehicles registered in Europe were previously measured on a chassis dynamometer with the help of the “New European Driving Cycle (NEDC)”. Since fall 2017, the existing test procedure for emissions and fuel consumption used in the EU is being gradually replaced by the Worldwide Harmonized Light-Duty Vehicles Test Procedure (WLTP). This has been in place for new vehicle types since fall 2017 and for all new vehicles since fall 2018. The aim of this new test cycle is to state CO_2 emissions and fuel consumption in a more practice-oriented manner. A further important European regulation is the Real Driving Emissions (RDE) for passenger cars and light commercial vehicles, which also monitors emissions using portable emission measuring technology in real road traffic.

Capitalization ratio

The capitalization ratio is defined as the ratio of capitalized development costs to total research and development costs in the Automotive Division. It shows the proportion of primary research and development costs subject to capitalization.

Distribution ratio

The distribution ratio is the ratio of total dividends attributable to ordinary and preferred shares to earnings after tax attributable to the shareholders of Volkswagen AG. The distribution ratio provides information on how earnings are distributed.

Gross margin

Gross margin is the percentage of sales revenue attributable to gross profit in a period. Gross margin provides information on profitability net of cost of sales.

Dividend yield

The dividend yield is the ratio of the dividend for the reporting year to the closing price per share class on the last trading day of the reporting year; it represents the interest rate earned per share. The dividend yield is used in particular for measuring and comparing shares.

Equity ratio

The equity ratio measures the percentage of total assets attributable to shareholders' equity as of a reporting date. This ratio indicates the stability and financial strength of the company and shows the degree of financial independence.

Return on equity before tax

The return on equity shows the ratio of profit before tax to average shareholders' equity of a period, expressed as a percentage. It reflects the company's profitability per share and indicates the interest rate earned on equity.

Price-earnings ratio

The price-earnings ratio is calculated by dividing the share price per share class at the end of the year by the earnings per share. It reflects a company's profitability per share; a comparison over several years shows how its performance has developed over time.

Tax rate

The tax rate is the ratio of income tax expense to profit before tax, expressed in percent. It shows what percentage of the profit generated has to be paid over as tax.

Return on sales before tax

The return on sales is the ratio of profit before tax to sales revenue in a period, expressed as a percentage. It shows the level of profit generated for each unit of sales revenue. The return on sales provides information on the profitability of all business activities before deducting income tax expense.

SCHEDULED DATES 2022

MARCH 15

Volkswagen AG Annual Media Conference
and Investor Conference

MAY 4

Interim Report January – March 2022

MAY 12

Volkswagen AG Annual General Meeting

JULY 28

Half-Yearly Financial Report 2022

OCTOBER 27

Interim Report January – September 2022

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