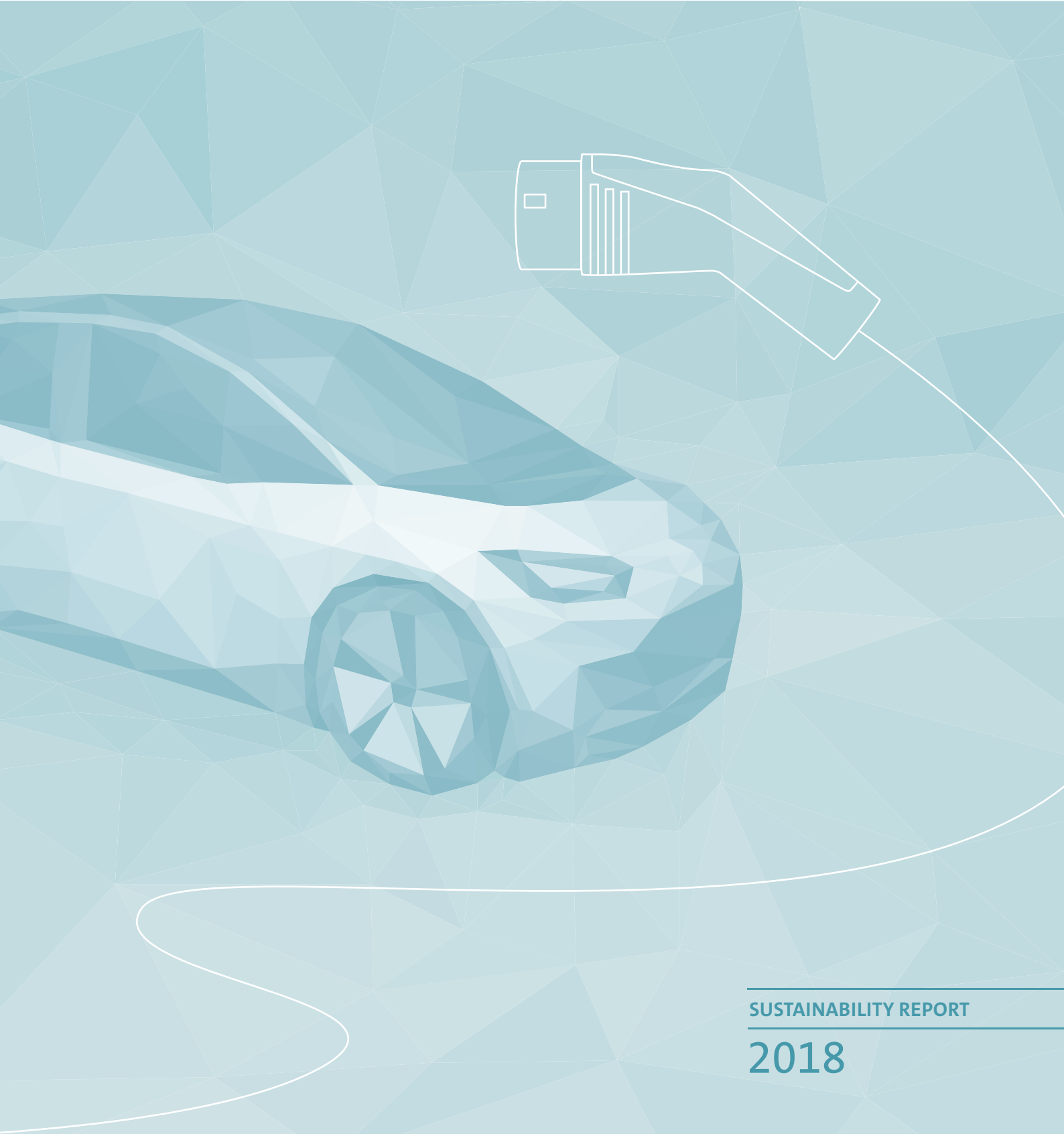


# VOLKSWAGEN

AKTIENGESELLSCHAFT



---

SUSTAINABILITY REPORT

---

2018

“ON DECEMBER 12, 2015, THE PARIS CLIMATE AGREEMENT WAS APPROVED, IN WHICH 196 COUNTRIES HAVE UNDERTAKEN TO KEEP GLOBAL WARMING TO BELOW TWO DEGREES C. THE VOLKSWAGEN GROUP FEELS COMMITTED TO SHARING THIS JOINT RESPONSIBILITY FOR OUR PLANET. ENVIRONMENTAL AND CLIMATE PROTECTION ARE GUIDING PRINCIPLES OF OUR ACTIONS.”

Dr. Herbert Diess

Chairman of the Board of Management of Volkswagen AG

# CONTENTS

## FOREWORD

- 4 Foreword
- 6 The Board of Management
- 8 The Volkswagen Group
- 11 Goals and Strategies





## APPENDIX

- 74 About this Report
- 76 About the Nonfinancial Report (NFR)
- 78 Additional KPIs and Diagrams
- 88 GRI Content Index
- 104 Independent Assurance Report
- 106 Contact Information

A detailed description of the sustainability activities of our brands and regions and of the Volkswagen Group's CSR projects is available at:

 > [www.volkswagenag.com](http://www.volkswagenag.com) > Sustainability > Reporting

## NAVIGATION

-  > References to sections in the sustainability report
-  > References to websites
-  > References to the Annual Report
-  > References to the nonfinancial report (highlighted in chapter color, see "About this Report")

## 01 STRENGTHENING INTEGRITY AND COMPLIANCE

- 16 Strategic Approach and Management
- 16 Integrity: the Foundation of Our Actions
- 19 Compliant Behavior

## 02 STRENGTHENING SUSTAINABILITY THROUGHOUT THE GROUP

- 24 Strategic Approach and Management
- 26 Efficient Control thanks to Sustainability Management
- 27 Checking the Materiality Analysis
- 28 Strategic Stakeholder Management
- 31 Ratings and Indices
- 31 Worldwide Social Engagement
- 32 Active Protection of Human Rights
- 33 Responsible Supply Chain
- 36 Effective Controls through Risk Management

## 03 SHAPING MOBILITY WITH A VIEW TO THE FUTURE

- 42 Strategic Approach and Management
- 44 Innovative and Environmentally Friendly Vehicle Technologies
- 46 Mobility Concepts for a Transport Revolution
- 48 High Customer Satisfaction in All Business Areas
- 50 Responsibility for Quality and Safety

## 04 CREATING TRUST IN ENVIRONMENTAL PROTECTION

- 54 Strategic Approach and Management
- 56 Climate Protection through Decarbonization
- 59 Resource Efficiency in Value Creation
- 61 Biodiversity and Conservation

## 05 BEING AN EXCELLENT EMPLOYER

- 64 Strategic Approach and Management
- 66 Employer of Choice
- 67 Co-determination and Employee Participation
- 68 Qualification in Each Professional Phase
- 69 Encouraging Diversity and Equal Opportunities
- 71 Healthy and Safe Working Environment

## FOREWORD

Ladies and gentlemen,

On December 12, 2015, the Paris Climate Agreement was approved, in which 196 countries have undertaken to keep global warming to below two degrees C. The Volkswagen Group feels committed to sharing this joint responsibility for our planet. Environmental and climate protection are guiding principles of our actions.

On the road to emission-free mobility, we are putting all our weight behind the electric car. From today's perspective, this is the best and, compared to other drive technologies, most efficient choice for reducing CO<sub>2</sub> in transport. By 2025, we will put 50 new electric models on the road. Every fourth car in our range will then be an electric car. For this alone, we will invest around €30 billion over the next four years.

Our striving for clean mobility will change the face of our factories. Zwickau, Emden and Hanover will be turned into pure-play electric car plants. Together, they will form Europe's largest e-production network. In China, too, the conversion of the Anting and Foshan plants is in full swing. Production of electric cars will start in North America in 2022.

The Volkswagen I.D., which will be launched soon, will be the first vehicle with a CO<sub>2</sub>-neutral supply chain and production. It will be the foundation of our electric offensive, in the first step involving around 15 million cars on the basis of our new MEB electric platform. In addition, we are discussing a Group-internal CO<sub>2</sub> levy on power, heating energy and fuel. In this way, we would not only provide incentives for an improved ecological footprint, but also free up funds for important energy initiatives and projects.

This type of ecology-based corporate governance is uncharted territory for us. Yet it underscores how seriously we take our responsibility for people and the natural environment. It is, however, equally true that, to ensure the success of the electric car and to cut CO<sub>2</sub> emissions permanently, there has to be a clear political roadmap – especially for expanding the charging infrastructure and for dealing with regulation.

In its first interim report, Volkswagen's Sustainability Council appreciated the results of our work achieved to date and made suggestions on the development of the Group. Experts providing input from the outside – this also reflects the new self-image of Volkswagen. Through our "Together4Integrity" change program, we want to continue to drive cultural change and elevate our culture, integrity, compliance and risk management initiatives to an equal level with product quality and financial success.

We have taken on a considerable challenge – there is no doubt about it. This Sustainability Report 2018 will provide insights into our endeavors. It follows the guidelines of the Global Reporting Initiative, with reference to the Sustainable Development Goals of the United Nations. It also represents our Communication on Progress under the United Nations Global Compact and serves as our Nonfinancial Declaration under the German CSR Directive Implementation Act.

We look forward to receiving your suggestions and feedback!

Dr. Herbert Diess

# THE BOARD OF MANAGEMENT

OF THE VOLKSWAGEN GROUP



Dr.-Ing. Herbert Diess  
Chairman of the Board of Management of Volkswagen AG and Chairman of  
the Brand Board of Management of Volkswagen Passenger Cars,  
Volume brand group, China

Hiltrud Dorothea Werner  
Integrity and Legal Affairs



Andreas Renschler  
Truck & Bus

Gunnar Kilian  
Human Resources



Dr. Oliver Blume  
Chairman of the Board of Management  
of Dr. Ing. h.c. F. Porsche AG,  
Sport & Luxury brand group



Dr. Stefan Sommer  
Components & Procurement



Frank Witter  
Finance & IT



Bram Schot  
Chairman of the Board of Management of AUDI AG,  
Premium brand group

# THE VOLKSWAGEN GROUP

With 12 brands, the Volkswagen Group – based in Wolfsburg, Germany – is one of the world’s leading automobile manufacturers and the largest in Europe. In 2018, the Group – including Chinese joint ventures – delivered a total of 10,834,012 cars and commercial vehicles to customers.

## 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’s brands, but also produces and sells vehicles – in particular passenger cars and light commercial vehicles – under the Volkswagen Passenger Cars and Volkswagen Commercial Vehicles brands. In its function 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, Scania AB, MAN 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

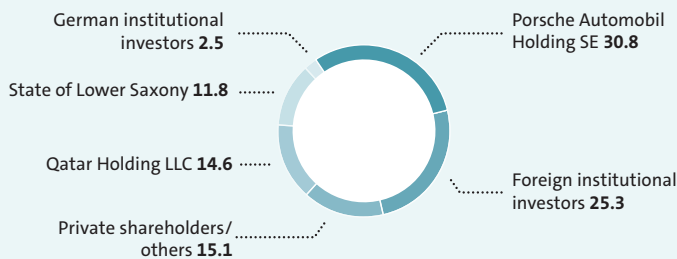
shareholdings in accordance with sections 285 and 313 of the Handelsgesetzbuch (HGB – German Commercial Code), which can be accessed at [www.volkswagenag.com/ir](http://www.volkswagenag.com/ir) and is part of the annual financial statements.

Volkswagen AG is a vertically integrated energy company within the meaning of section 3 para. 38 of the Energiewirtschaftsgesetz (EnWG – German Energy Industry Act) and is consequently subject to the provisions of the EnWG. In the electricity sector, Volkswagen AG is involved in electricity generation, sales and distribution, together with a subsidiary.

Volkswagen AG’s Board of Management is the body ultimately responsible for managing the Group. The Supervisory Board appoints, monitors and advises the Board of Management, and is directly consulted on decisions of fundamental significance for the Company.

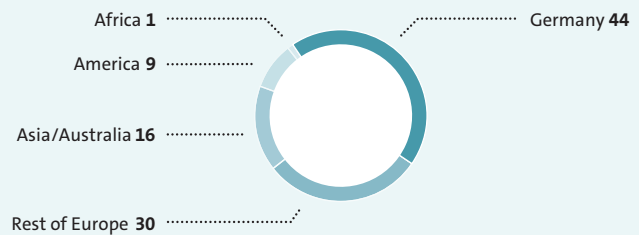
## SHAREHOLDER STRUCTURE

as of December 31, 2018, in % of voting capital



## EMPLOYEES BY CONTINENT

as of December 31, 2018, in %



## 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 in 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, Commercial Vehicles and Power Engineering Business Areas. The Volkswagen Group’s passenger car brands are mostly consolidated in the Passenger Cars Business Area. Activities focus on the development of vehicles and engines, the production and sale of passenger cars, and the genuine parts business. The product portfolio extends from fuel-efficient small cars through to luxury vehicles in the premium segment, and also includes motorcycles, and will successively be supplemented by mobility services.

The Commercial Vehicles Business Area focuses above all on the development, production and sale of light commercial vehicles, trucks and buses under the Volkswagen Commercial Vehicles, Scania and MAN brands, supported by our original parts business and

related services. The collaboration between the MAN and Scania commercial vehicle brands is coordinated within the TRATON GROUP. The commercial vehicles portfolio ranges from pick-ups to heavy trucks and buses.

The Power Engineering Business Area manages business activities involving large-bore diesel engines, turbomachinery, special gear units, propulsion components and testing systems.

The activities of the Financial Services Division comprise dealer and customer financing, vehicle leasing, banking and insurance activities as well as fleet management and mobility offerings.


With its brands, the Volkswagen Group has a presence in all relevant markets around the world, with Western Europe, China, the USA, Brazil and Mexico currently representing its key sales markets.

Volkswagen AG and the Volkswagen Group are managed by the Volkswagen AG’s 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.



To further enhance the Group's leadership and management model, the Volkswagen Group introduced an additional internal operational structure in spring 2018. Volkswagen is confident that this will allow better use of existing expertise and economies of scale, boost synergy effects more systematically and accelerate decision making.

In addition to the Finance & IT, Human Resources and Integrity and Legal Affairs divisions, the Volkswagen Group collaborates across six operational units and the China region. The six operational units are the "Volume" brand group, the "Premium" brand group, the "Sport & Luxury" brand group, the "Truck & Bus" brand group, the Components & Procurement business and the Financial Services business. The "Volume" brand group comprises the Volkswagen Passenger Cars, SEAT, ŠKODA and Volkswagen Commercial Vehicles brands. The "Premium" brand group includes the Audi, Lamborghini and Ducati brands. The "Sport & Luxury" brand group comprises the Porsche, Bentley and Bugatti brands. The "Truck & Bus" brand group is the umbrella for the Scania and MAN brands. The Components & Procurement business intends to act as one central unit, which spans across brands and supports them. The Financial Services business has been combined into a single unit.

 > Annual Report > Management Report, Structure and Business Activities

## SITES AND PRODUCTION

The Volkswagen Group's production network is comprised of 123 locations in which passenger cars, commercial vehicles and motorcycles as well as powertrains and components are manufactured.

With 71 locations, Europe remains our most important production region for vehicles and components. There are 28 sites in Germany alone. The Asia-Pacific region has 34 locations. We have five locations in North America and nine in South America. The Group operates four locations in Africa.

Despite difficult economic conditions, the Group – including our Chinese joint ventures – delivered a total of 10,834,012 cars and commercial vehicles in 2018. The Group was able to maintain its strong competitive position in the reporting period thanks to a wide range of attractive and environmentally friendly vehicles.

Further details of the Group's development, holdings and changes affecting production locations or activities can be found in our 2018 Annual Report.

## GROUP KEY FIGURES AT A GLANCE

Volume data	2018	2017
Vehicle sales (units) in thousand vehicles	10,900	10,777
Vehicle production (units) in thousand vehicles	11,018	10,875
Research and development costs in € billion	13.6	13.1
Employees at Dec. 31	664,496	642,292
Proportion of female employees in %	16.5	16.3
Proportion of apprentices in % <sup>1</sup>	4.6	4.6
CO <sub>2</sub> emissions European new car fleet in g/km <sup>2,3</sup>	123	122
CO <sub>2</sub> emissions in kg/vehicle <sup>4</sup>	720	808
Energy consumption in kWh/vehicle <sup>4</sup>	2,037	2,068
Financial data (IFRS), € million	2018	2017
Sales revenue	235,849	229,550
Operating result after special items	13,920	13,818
Profit before tax	15,643	13,673
Profit after tax	12,205	11,463

<sup>1</sup> Within the Group in Germany.

<sup>2</sup> Subject to official publication by the European Commission in the annual CO<sub>2</sub> fleet monitoring report.

<sup>3</sup> Up to and including 2020, European fleet legislation will be complied with on the basis of the New European Driving Cycle (NEDC). After 2021, the NEDC target value will be changed into a WLTP target value through a process defined by lawmakers; the changing of the target value is not expected to put additional strain on the target value.

<sup>4</sup> Production of cars and light commercial vehicles. Prior-year figures were adjusted.

## THE VOLKSWAGEN VALUE CHAIN

### RESEARCH & DEVELOPMENT

Year for year, the Volkswagen Group invests more in research and development than any other automotive company in the world, laying the foundations for new models and innovative concepts with which to master the challenges of the future: digitalization, networking and electric mobility (e-mobility).

### PROCUREMENT

Every year, the Volkswagen Group purchases a wide range of raw materials, components and other goods. A sustainable supply chain and environmentally compatible transportation play key roles in our responsible and comprehensive championing of human rights, environmental protection and the battle against corruption.

### PRODUCTION

Every working day, the Volkswagen Group manufactures an average of 44,000 vehicles globally. Efficient production ranks alongside employee health and safety as one of our core goals. New concepts combine training with work experience, thus preparing employees for the future.

### MARKETING & SALES

The Volkswagen Group markets its vehicles in 153 countries. Around the world, comfort and safety are considered the key customer requirements. We continuously reduce our models' fuel consumption and offer alternative mobility services.

### AFTER-SALES & FINANCIAL SERVICES

Our service provision includes supporting dealerships to ensure they can provide quality advice and maintenance, managing our original parts business, and providing innovative vehicle-related financial services. Driver training courses in fuel-efficient driving play an effective part in cutting fuel consumption and thus CO<sub>2</sub> emissions.

### RECYCLING

Recycling makes a key contribution to reducing our products' impact on the environment and conserving resources. This is not just about recycling vehicles at the end of their useful life; recycling starts at the new-vehicle development stage, during which we pay close attention to the recyclability of the required materials, the use of high-quality recycled materials, and the avoidance of pollutants. At the same time, we factor in aspects of the use phase, for instance the treatment and disposal of service fluids and high-wear components.

# GOALS AND STRATEGIES

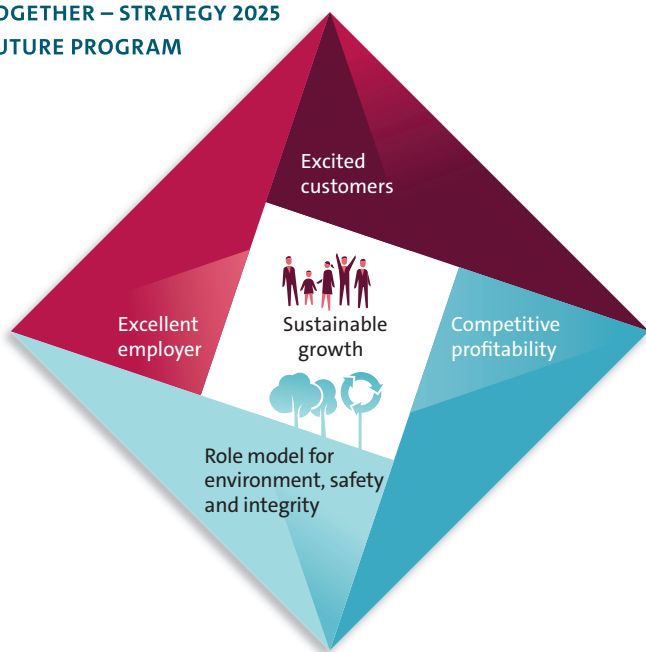
We aim to achieve lasting success in tomorrow's world of mobility by evolving into a global leader in the provision of sustainable mobility. This is the reason we have anchored the future program TOGETHER – Strategy 2025 in the Group.

With the TOGETHER – Strategy 2025 future program, which was announced in 2016, we are aiming to make the Volkswagen Group more focused, efficient, innovative, customer-oriented and sustainable, and more systematically geared to generating profitable growth. The program creates the framework and lays the cornerstones for us to achieve our vision of being one of the world's leading providers of sustainable mobility.

Setting our sights on 2025 shows that we are willing to think and act long-term, looking forward to the future. The term "TOGETHER" describes the collective mindset within the Volkswagen Group, which will be even more important for our sustainable success going forward. Our intention with the new Group strategy is for everyone in the Volkswagen Group to join us in producing exciting vehicles and forward-looking, tailor-made mobility solutions that will continue to inspire our customers, meeting their diverse needs with a portfolio of strong brands. Every day, we actively assume and exercise responsibility in relation to the environment, society and safety, and we wish to be a role model in these areas. Integrity, reliability, quality and passion thus form the basis for our work. In this way, we will aim for technological leadership in the industry, ensure our competitive profitability and want to be an excellent, reliable and secure employer at the same time.

The Code of Collaboration formulated as part of the future program is the foundation on which the Group strategy rests. 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".

## TOGETHER – STRATEGY 2025 FUTURE PROGRAM



## THE FOUR BUILDING BLOCKS OF OUR PROGRAM FOR THE FUTURE: TOGETHER – STRATEGY 2025

Our Group strategy comprises a raft of far-reaching strategic decisions and specific initiatives essentially aimed at safeguarding the Group's long-term future and generating profitable growth. It is composed of four building blocks which cover strategic Group initiatives. We regularly review the progress of these initiatives so as to analyze the significance, suitability and target achievement of the measures defined. This enables us to adjust the Group initiatives in a targeted way to the dynamic transformation within our Company.

The first of these building blocks is the transformation of the core automotive business. Developing, building and selling vehicles will remain essential for the Volkswagen Group going forward. However, there will be far-reaching and lasting changes to this business in the future. That is the reason why we are comprehensively restructuring our core business to face this new era of mobility.

The second key building block in our Group strategy is establishing a new mobility solutions business. In this business, we are developing innovative and efficient, attractive yet profitable mobility services that are tailored to customer requirements with the goal of being one of the leading providers in this growth market in the future.

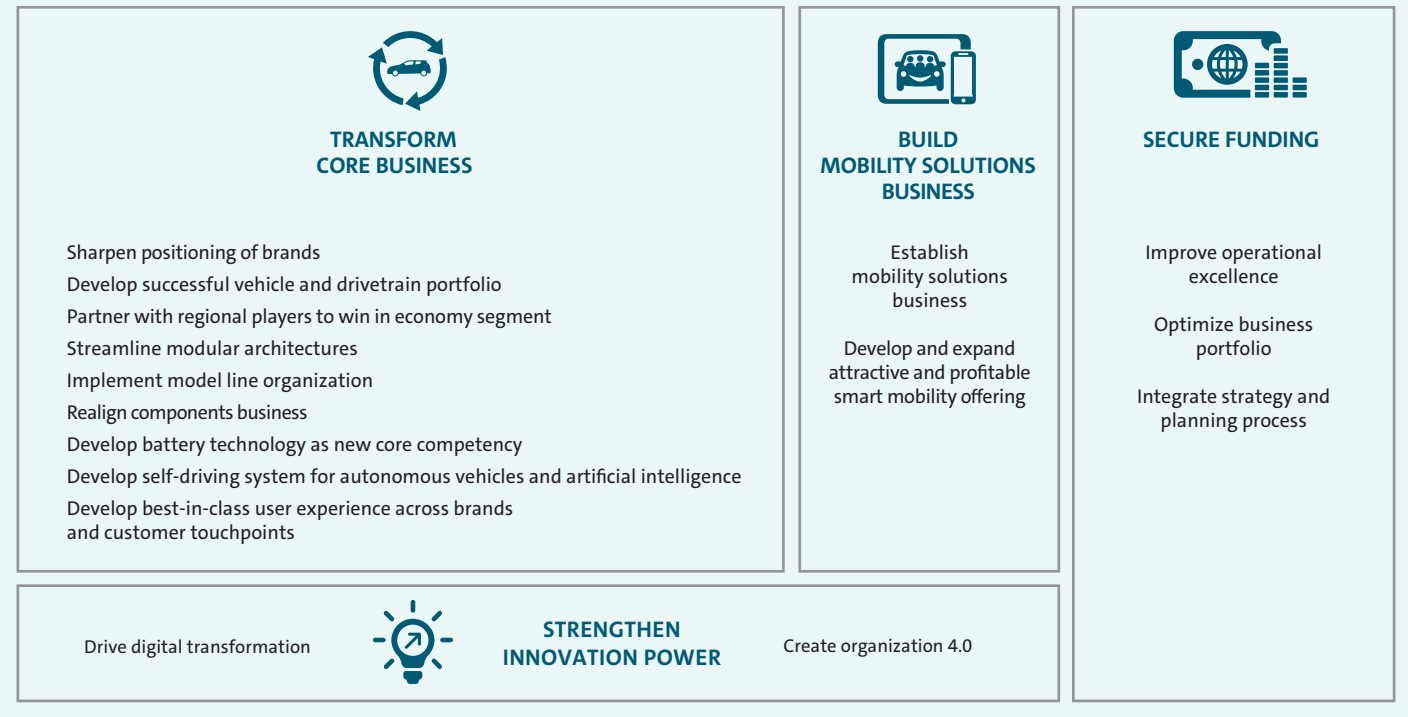
With the third key building block, we are intensifying our traditionally excellent innovative strength and placing it on an even broader footing. This is necessary both for the transformation of our core business and for the establishment of the new mobility solutions business. To this end, we are pushing ahead with the digital transformation in all parts of the Company.

Becoming one of the world's leading providers of sustainable mobility calls for substantial capital expenditure. This will be financed in particular through efficiency gains along the entire value chain – from product development and procurement through to production and distribution as well as in the central supporting areas. Additional funds for future investments can also be generated by optimizing the existing portfolio of brands and equity investments. Through the fourth key building block of the Group strategy we will safeguard the financing of the Volkswagen Group and place it on a solid basis.

## GROUP STRATEGY GOALS AND KEY PERFORMANCE INDICATORS

The strategic initiatives describe how we intend to achieve our vision of being one of the world's leading providers of sustainable mobility. For this purpose, we have defined four target dimensions – excited customers, excellent employer, role model for the environment, safety and integrity, and competitive profitability – which are designed to help us grow sustainably.


## BUILDING BLOCKS AND STRATEGIC GROUP INITIATIVES



Although these target dimensions apply throughout the Group, the strategic KPIs which we will use to measure our future progress in implementing our Group strategy will differ according to business model. After all, the business model for our passenger car-producing brands is different from that for trucks and buses and also from that of our Power Engineering Business Area and our services business.

In the following, we describe the Group's strategic goals attached to these target dimensions.

The definitions of the strategic KPIs for the target dimension of competitive profitability have been standardized and established across the Group. As the new Group strategy has yet to be specified in detail, the content of some strategic KPIs in the other target dimensions is still being determined. The relevance of the KPIs is reviewed at Group level and their focus continuously monitored and adjusted as necessary. We report on the defined nonfinancial strategic KPIs in the "Corporate Governance Report" and "Sustainable Value Enhancement" sections of the 2018 Annual Report.

 > Annual Report > Corporate Governance Report, 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, generating maximum benefit for them. That calls not only for the best products, the most efficient solutions and the best service, but also for 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

Skilled and dedicated employees are one of the keys to sustainable success. We wish to promote their satisfaction and motivation by means of equal opportunities, an attractive and modern working environment, and a forward-looking organization of work. Exemplary leadership and corporate culture form the foundation for this, enabling us to retain our core workforce and attract new talent.

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 as well as a KPI pertaining to cross-brand exchange and rotation 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 relation to the environment, safety and society. This is reflected in our thoughts and actions and in all our decisions in equal measure.

We pay particular attention to the resources used and emissions generated by our product portfolio as well as our locations and

plants. Our goal is to continuously reduce our carbon footprint and lower our pollutant emissions. Through our innovations and outstanding quality, we aim for maximum product safety.

The most important principles in this process include compliance with laws and regulations, the establishment of 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 include the decarbonization index, KPIs pertaining to emissions figures as well as to compliance, integrity and a culture of dealing openly with mistakes.

#### 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 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 <sup>1</sup>	6.0%	7–8%
Research and development ratio (R&D ratio) in the Automotive Division	7.4%	~ 6.0%
Ratio of capex in the Automotive Division	6.9%	~ 6.0%
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 Group sales revenue
Return on investment (ROI) in the Automotive Division	–0.2%	>15%

<sup>1</sup> 2015 before special items.

page **16**

Integrity: the Foundation  
of Our Actions

page **16**

Strategic Approach and  
Management

page **19**

**Compliant Behavior**

**STRENGTHENING INTEGRITY  
AND COMPLIANCE**

## STRATEGIC APPROACH AND MANAGEMENT

We believe that only with lasting, dependable integrity and compliant behavior will our Company gain and strengthen the trust of its staff, customers, shareholders, business partners and the general public. In the past, we have lost credibility and thus damaged the reputation of our Company. We deeply regret this and have taken radical action as a result of these developments. Our aim is to become a role model when it comes to integrity and compliance. This way, we want to win new trust and to maintain our integrity as a scandal-free company in the future.

Acting with integrity is an established part of our Group TOGETHER – Strategy 2025 – and is thus on par with the quality of our products, our financial KPIs and the satisfaction of our customers. By implementing our ambitious integrity program and the Code of Conduct, which applies throughout the Group, we have set important markers for the future.

### TARGET PROGRAM INTEGRITY AND COMPLIANCE

Action areas	Goals and actions	Deadline	Status
Integrity	<ul style="list-style-type: none"> <li>- Integrity program: mandatory participation in web-based training program for all non-managerial employees</li> <li>- Additional objectives currently in development</li> </ul>	2018	- Rollout of the integrity program tools; development of KPIs for regular integrity monitoring
Compliance	- Further deepen awareness and culture of compliance	Ongoing	- Target-group-specific information is provided via different media in the various brands and companies
	- Continuous optimization of compliance management system (CMS)	Ongoing	- Further development of CMS taking account of international legislation and internal Group benchmarks
	- Continue to develop and conduct Group-wide compliance training courses	Ongoing	- Risk-based approach for classroom and online training courses
	- Reorganization of Group-wide whistleblower system	Ongoing	- Define Group-wide minimum standards, external Internet presence, further rollout in brands and companies

## INTEGRITY: THE FOUNDATION OF OUR ACTIONS

For us, acting with integrity means doing the right thing in a professional context on the basis of our own convictions. This means complying with our Group Principles and the ethical principles established therein and behaving correctly in accordance with rules. This also includes the steadfastness needed to adhere to these principles – regardless of economic and social pressure.

In our opinion, basing correct conduct on rules and regulations alone is not enough. Instead, it requires the strength to do the right thing even if no one is looking. Integrity is an attitude which, in gray areas, in the absence of explicit rules or in the event of conflicting goals, is an inner compass for proper conduct. Integrity is the maxim for our actions and complements compliance, which ensures that all processes and decisions within our Group comply with the relevant rules. Together, they shape our corporate culture, where the spoken and unspoken rules and values relating to our daily work are combined.

### RELATIONSHIP BETWEEN INTEGRITY AND COMPLIANCE

In periods of upheaval, there is of course a greater need for clear rules. If, however, people come to understand integrity better and

thinking and acting with integrity every day becomes a matter of course, internal rules and guidelines can be reduced and steps can be taken to eliminate bureaucracy. Integrity sets the inner direction, while compliance defines the safeguards, provides guidance by specifying rules, and offers a secure basis for all employees to act under their own responsibility.

We would like to ensure that our employees not only know and follow rules and guidelines, but can also act with integrity in the workplace. At the same time, everyone should be aware that specific values and rules of conduct that are generally accepted in everyday life also apply in a professional context. This affects every individual – from an apprentice to the Chairman of the Board of Management.


### OBJECTIVE AND CONTROLLING OF MEASURES

The Integrity and Legal Affairs Board of Management business area, which was established in 2016, is responsible for integrity. Our Group thus has the organizational framework required for central integrity management. The business area, headed by Hiltrud D. Werner, is responsible for planning, preparing and implementing





programs and projects aimed at raising awareness, providing explanation and reinforcing a collective understanding of integrity. It is also responsible for reinforcing a culture of integrity within the Company.

With its independent expertise and its recommendations, the Volkswagen Group's Sustainability Council supports our efforts to encourage integrity.

 > Efficient Control thanks to Sustainability Management

The adjustment of the remuneration system, in which the Supervisory Board was assisted by renowned, independent external remuneration and legal consultants, resulted in an alignment with the Group strategy TOGETHER – Strategy 2025.

 > Annual Report > Remuneration Report  
 > Goals and Strategies

## INTEGRITY PROGRAM UNTIL 2020

Since 2016, we have been implementing the integrated integrity program, which, with its information campaigns, dialog opportunities and initiatives, is aimed at all employees. The program has three key objectives:

understanding integrity – exemplifying integrity – demonstrating integrity

The integrity program is subdivided into six action areas which were shaped by the following activities in 2018:

### 1. Strategy and Measuring Success

Naturally, we will also measure how far we have come as regards integrity. To this end, we have developed an integrity index in 2018. Not only do we want to know where we are making progress, we also want to identify what action still needs to be taken. The integrity index will be launched as a pilot project at Volkswagen Passenger Cars and Audi in Germany in 2019.

### 2. Dialog and Communication

The focus was on communicating and ensuring the permanent visibility of the issue of integrity through focused involvement of employees. Examples include the “Your Decision” campaign and the dialog tour, where Hiltrud D. Werner as the Director of Integrity and Legal Affairs seeks personal discussions with employees regarding the integrity-related challenges encountered in day-to-day work. Since it began in 2017, the dialog bus tour has stopped off more than 12 times at locations including the Volkswagen plants in Wolfsburg, Braunschweig and Hanover and at Audi in Ingolstadt.

### 3. Ambassador Program

When it comes to localizing and solving problems, the role of the some 200 voluntary integrity ambassadors should be highlighted. They serve as interfaces between business areas and integrity management and ensure that the issue of integrity becomes embedded deep within the structures of the Company.

### 4. Engagement Program

Managers have a special responsibility when it comes to change processes. As role models, they are among the biggest factors influencing employee conduct. Their commitment towards integrity and compliance is an effective way of creating a culture of open discussion and reducing misconduct. After the Volkswagen Convention with over 7,000 managers in 2017, similar cross-brand events with an international focus took place in 2018, for example in Brazil, in Mexico and at AUDI AG. In total, more than 13,000 managers around the world have already found out about integrity, held discussions and shared their knowledge on the subject.

For foremen and team spokespersons in production, a series of around 70 integrity workshops began in October 2018. The aim of the series of events is to highlight the importance that integrity plays in production every day and to highlight specific ways of handling various situations. The integrity workshops will continue in 2019.

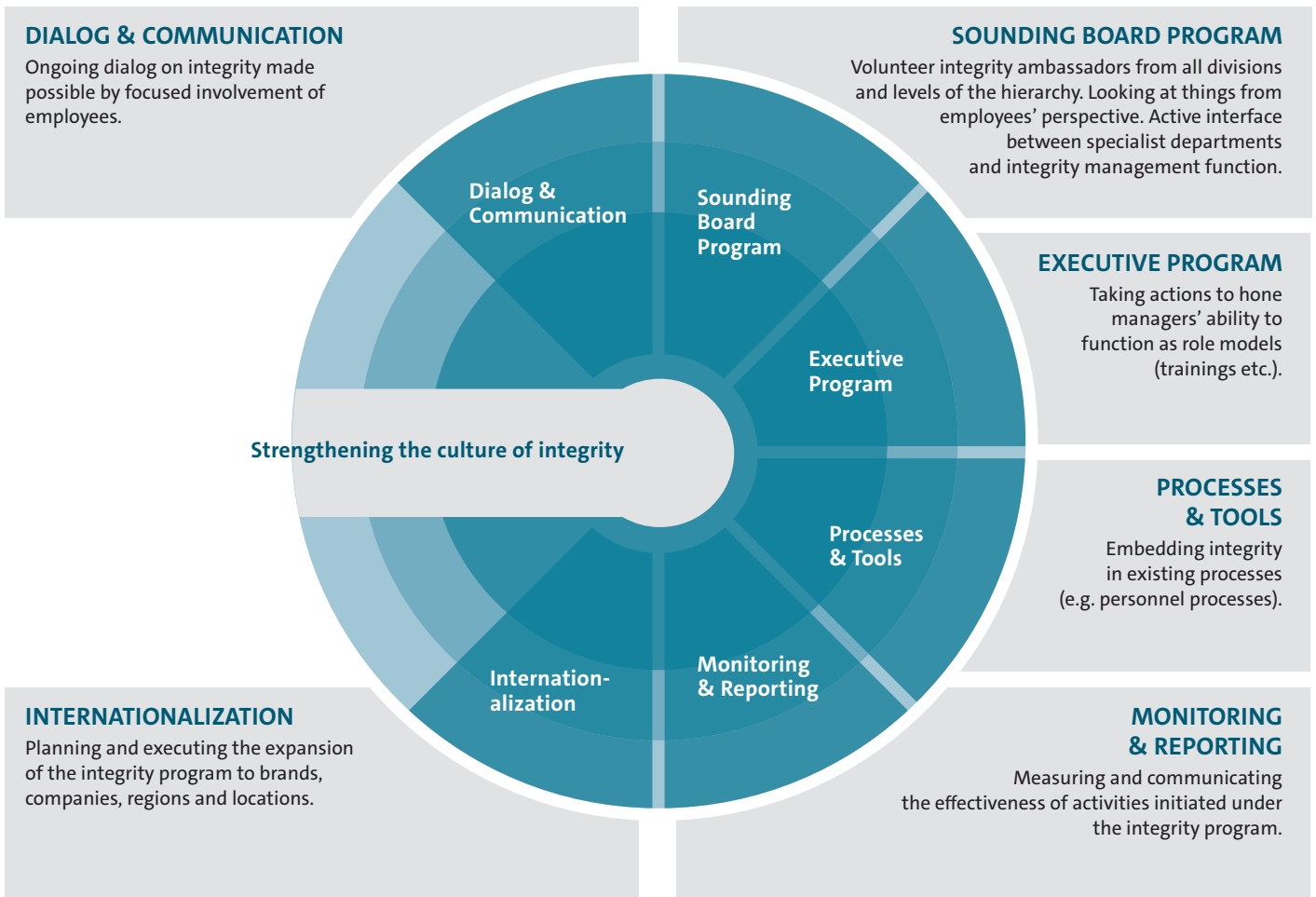
### 5. Processes and Instruments

For us, making integrity an inherent part of the Group's established structures and management processes is essential. One key area is HR – here, integrity is already integrated into 25 processes. From 2019, integrity will be part of all new employment contracts and the work regulations which apply within the Volkswagen Group. Training and presentation documents aimed at specific target groups will be used to provide information for new and existing employees and ensure that they have the competence they need.

### 6. International Rollout

Following the pilot phase in Wolfsburg, we have taken steps to extend the integrity program to brands and selected companies, regions and sites. We have used a wide range of formats for this purpose: from ramp-up weeks, conventions and dialog events to workshops. In the 2018 reporting period, activities were focused on the USA, Brazil, Argentina, Russia and Austria.

**THE SIX ACTION AREAS OF THE INTEGRITY PROGRAM**



**TOGETHER4INTEGRITY – ALL INITIATIVES UNDER ONE UMBRELLA**

In April 2018, the Board of Management of Volkswagen AG launched an umbrella program known as Together4Integrity (T4I) in order to establish excellence in integrity and compliance throughout the Group – in all brands, regions and companies and in relation to processes, structures, attitudes and conduct. T4I follows the five principles of the internationally recognized Ethics & Compliance Initiative (ECI). The principles relate to strategy, risk management, taking on responsibility and a culture of integrity and discussion. They are specified as a target level within the Group and are operationalized through T4I.

With the T4I program, we as a Group would like to become a role model for a successful, well-run, honest and transparent company.

A uniform, consistent rollout has begun in all Group companies. The focus was on events in Germany, China, Spain, the USA, Austria and Slovakia, while the activities during the reporting period focused on ramp-up weeks and workshops. The rollout takes place in accordance with a set time plan, prioritized according to size and risk profile. The Board Member for Integrity and Legal Affairs and the Board Member for Human Resources are responsible for T4I. The other members of the Group Board of Management also take

on roles as sponsors and ensure that T4I is implemented within their areas of responsibility.

As a dynamic and agile program, T4I is designed to undergo improvements on a continuous basis. A T4I toolbox has been developed. Best practices are regularly added to it, and it is made available to the Group companies for specific adaptation.

**KEY ROLE FOR CORPORATE CULTURE**

The corporate culture describes the values, rules and paradigms which shape the decisions, actions and conduct of our Company's employees. Integrity is a key part of our corporate culture and an important success factor when it comes to achieving our TOGETHER – Strategy 2025 goals.

The Volkswagen Group Principles are the basis for our corporate culture. These are:

- 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.

As part of our cultural shift with a focus on integrity, we have derived conduct anchors from the Group Principles and Company values. They formulate these principles as guidelines and provide guidance for employees in their day-to-day work:

We act with integrity by

- representing our standpoint boldly and sincerely in the interests of the Company and standing up for our own convictions,
- discussing critical procedures, instructions and actions as well as deviations from rules and process weaknesses openly and contributing constructively to dealing with them,

- acting reliably and in a binding manner,
- recognizing risks within our own area of responsibility which could jeopardize the success of a project or the Company and/or the health of people, making these transparent and initiating changes and
- making decisions in the interests of the Company taking into account their effects outside the Company.

With the initiatives bundled together under the T4I umbrella, we continue to pursue the goal of creating a corporate culture where ethical decisions are the norm and people express their reservations as a matter of course.

## COMPLIANT BEHAVIOR

Compliance with national and international laws and regulations, internal rules and voluntary commitments is among our Company's guiding principles as well as ensuring compliant behavior in a lasting manner. We are striving to strengthen the trust of our customers, our business partners and stakeholders in our Group through fair treatment. Compliant behavior is the basis for this and must be a matter of course for all Group employees. One of our Company's main tasks at the present time is to further enhance awareness of this.

### OUR GROUP'S COMPLIANCE ORGANIZATION

Our Group's compliance organization supports and advises the Group and brand companies with an effective, risk-based, Group-wide compliance management system, helping them to conduct their business activities in accordance with the rules and to consistently adhere to relevant laws and internal regulations. Our global compliance organization is headed by the Group Chief Compliance Officer, who reports directly to the Director of Integrity and Legal Affairs and the Audit Committee of the Volkswagen AG Supervisory Board. Compliance officers and their employees support the Group and brand companies in fulfilling their responsibility for compliance in the operating business. They help management in the different companies to identify, assess, manage and monitor compliance risks and to take suitable action to counter these risks. Additional centers of competence are responsible for the overall direction of compliance work and develop compliance instruments and compliance program components with which the companies can implement the compliance requirements themselves across the Group. Additional resources allocated in the reporting period gave a significant boost to the Group-wide compliance organization.

The heads of the centers of competence report to the Group Chief Compliance Officer on disciplinary and functional matters. The

compliance officers of the brand companies and the head of the regional compliance office for China report to the Group Chief Compliance Officer on functional matters. Communication between the Group and brand compliance managers and networking take place through regular meetings and conferences.

The Group Compliance Committee – a committee on a top management level chaired by the Director of Integrity and Legal Affairs – ensures that compliance and integrity standards are developed, applied and communicated in a standardized manner across divisions and brands. Our compliance management system is aligned with national and international laws and standards. The focus of our compliance organization is on preventing corruption, breaches of trust, embezzlement, fraud and money laundering and thereby on reducing the risk of unlawful actions.

The aim of our whistleblower system is to protect our company and employees from harm using firm principles and a clearly governed, transparent and fair process. Experience with violations of laws and regulations helps us to enhance our compliance management and prevent similar incidents in future. The basis of compliance work within the Volkswagen Group is a systematic process of risk identification and reporting in accordance with the IDW standard AsS 980.

### CODE OF CONDUCT AND GUIDELINES PROVIDE GUIDANCE

The Volkswagen Group's Code of Conduct is the key instrument for strengthening employees' awareness of correct behavior and finding the right contact persons in cases of doubt. The Code of Conduct was revised in 2017 and was established throughout the Group. The framework is available to all employees on the intranet and to third parties on the Internet at any time.

The Code of Conduct is also integrated into operating processes. For example, employment contracts for employees of Volkswagen AG include a reference to the Code of Conduct and the obligation to comply with it. In addition, compliance with the Code of Conduct remained part of our employees' annual reviews in the reporting period and was thus taken into account when calculating their variable, performance-related remuneration.

In addition to the Code of Conduct, there are various Group policies and guidelines regarding specific compliance issues. Organizational instructions also apply on dealing with gifts and invitations as well as on making donations.

#### WHISTLEBLOWER SYSTEM FOR POSSIBLE BREACHES OF RULES

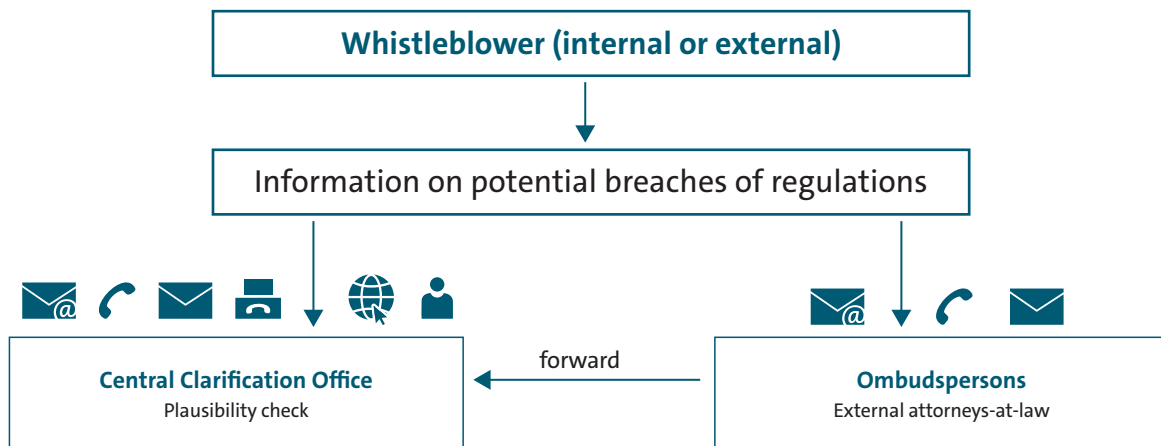
The Company has had a system for reporting any breaches of the law or rules since 2006. This system is optimized on an ongoing basis. Among other things, a central investigative office has been set up in the Compliance department. It is responsible for coordinating the whistleblower system within the Volkswagen Group and for processing information concerning Volkswagen AG and its subsidiaries – with the exception of AUDI AG, Dr. Ing. h.c. F. Porsche AG and TRATON AG. These companies have separate investigative offices for themselves and their subsidiaries.

Information on misconduct can be submitted in any of the major languages used by the Group and is treated confidentially. The

people providing the information will be protected and need not fear any sanctions from the Company for their actions. They can decide for themselves whether they wish to give their names. For this reason, a specially protected online reporting channel (io@volkswagen.de) was set up in 2017, via which information can be sent to the investigative office anonymously. We continue to rely on established channels such as the ombudsman system too. This system can be used to confidentially report any suspicions – in one of 11 different languages – to two independent lawyers appointed by the Group. The ombudspersons and the whistleblower system can be used by anyone – employees and people outside the Company.

In addition to the existing reporting channels, it has also been possible to report potential breaches of rules via a 24/7 telephone hotline since August 2018. By calling the relevant number (+800 444 46300), employees, business partners and customers anywhere in the world can provide information round the clock, 365 days a year. A caller who calls the global telephone number will speak to a specially trained person, who can include an interpreter in the call if necessary. In addition, a revised Group policy was passed in 2018. This has further improved the whistleblower system by providing extra communication options. The whistleblower system was also strengthened significantly by adding more staff. A total of 2,920 reports were registered throughout the Group in 2018. All substantiated reports have been, or will be, investigated, and any misconduct penalized.

#### REPORTING CHANNELS OF THE WHISTLEBLOWER SYSTEM



#### ENCOURAGING TRAINING AND COMMUNICATION

The Code of Conduct is a key component of compliance training. The training is completed by anyone from directors to individual employees. Face-to-face and web-based or online training is used. Following a risk-based approach, mandatory compliance training is provided for specific target groups. In addition to traditional lectures and online tutorials, case studies, role-playing games and other interactive formats form part of the training provided to

employees and managers. Employees can also use special e-mail addresses to solicit advice on compliance issues.

All internal channels are used to communicate regulations and other compliance-related content – with a focus on further developing the whistleblower system over the course of the reporting period. Online communication takes place mainly via employees' own posts on the Volkswagen intranet and on the internal, Group-wide communications platform "Group Connect". There are also

articles, interviews and other publications in cross-brand and specific divisions' media. At the same time, compliance-related issues are publicized at various employee information events and company meetings held at a number of locations. Providing information concerning the whistleblower system formed part of a cross-site event regarding corporate culture.

# STRENGTHENING SUSTAINABILITY THROUGHOUT THE GROUP

page **24**  
Strategic Approach  
and Management

page **27**  
Checking the  
Materiality Analysis

page **28**  
Strategic Stakeholder Management

page **26**  
Efficient Control thanks to  
Sustainability Management

page **31**  
Ratings and Indices

page **31**  
Worldwide Social Engagement

page **32**  
Active Protection of Human Rights

page **33**  
Responsible Supply Chain

page **36**  
Effective Controls through  
Risk Management

## STRATEGIC APPROACH AND MANAGEMENT

As one of the world's largest industrial corporations, our Group bears a special social responsibility. We wish to put our creative powers to good use for the benefit of people and the environment. We have thus developed a sustainable style of company management and put in place the necessary management structures. For our Group, sustainability means simultaneously striving for economic, social and environmental goals in a way that gives them equal priority. The TOGETHER – Strategy 2025 future program places sustainable growth at the heart of our strategic target dimensions: we want to be an excellent employer and a role model for the environment, safety and integrity, to excite customers and to ensure that we achieve competitive profitability. Our corporate citizenship activities also support us in this endeavor.

### > Worldwide Social Engagement

A particular challenge when implementing our strategic goals on all levels of the value chain is the complexity of our Company, with its 12 brands, more than 664,000 employees and 123 production sites. At the same time, our Group is undergoing a comprehensive transformation, especially as a result of the transition to e-mobility, digitalization and new mobility services. We have not yet finished dealing with the consequences of the diesel crisis. It remains our duty to ensure compliance on a permanent basis and to establish and deepen a culture of integrity throughout the Group.

### > Strengthening Integrity and Compliance

Climate protection is the greatest global challenge affecting all three sustainability dimensions (triple bottom line). Through efficient combustion drives and Roadmap E, it is our aim to continuously improve the climate footprint of our vehicles. We are also confronted with a range of conflicting goals and sustainability-related challenges resulting from our business model. The consistently strong desire for individual mobility, the growing consumer markets in emerging and developing countries and the high demand for our SUVs potentially go against our approaches to conserve resources and protect the environment. Although electric vehicles have clear environmental advantages over conventional vehicles with internal combustion engines during the usage phase, energy consumption in the supply chain is higher and there are unanswered questions, for example when it comes to battery recycling.

In an environmental context, we face challenges in Germany, primarily as a result of the threat to air quality in town and city centers and driving bans owing to excessive levels of nitrogen oxide in a number of cities. We have already entered into a responsible and objective dialog with the local authorities concerned. This includes cooperation when analyzing and selecting the most efficient improvement measures. As digitalized mobility concepts and autonomous vehicles become more widespread in the future, new requirements as regards data protection will apply too. We must

thus work closely with the authorities and associations as well as other market players to ensure that these requirements are met.

### > Shaping Mobility with a View to the Future

We also want to live up to our responsibility through our business relationships on a global level. The localization strategies at our production sites around the world are generating increasingly complex supplier structures. For this reason, we feel particularly obliged to ensure sustainability in the value chain. We deal with existing risks associated with resource extraction and in upstream value stages, for example conflict minerals. Our business partners are expected in particular to comply with high ethical, social and ecological standards. At the same time, we observe the growing regulatory requirements resulting from the National Action Plans to implement the UN Guiding Principles on Business and Human Rights.

Our efforts to ensure sustainable supplier management and to protect human rights are embedded in a comprehensive risk management system. Its aim is to ensure that key risks affecting the Volkswagen Group as well as the environment and society are managed and monitored appropriately and effectively. We would like to come up with the right answers to these challenges. It is important that we gain understanding of our stakeholders' expectations and take these into account in our programs and measures.

The cornerstones of the TOGETHER – Strategy 2025 future program, in conjunction with the 18 action areas from the materiality analysis, which was last conducted in 2017, are the basis for our current strategic focus. We have established a stakeholder management system and involve various internal and external committees in the coordination of activities within the Group. Our actions are governed by our target program, which is based on the Group strategy and key sustainability issues.

A new edition of our comprehensive materiality analysis will be published in 2019 and will be shaped by these requirements. At the same time, this is the starting point for further integrating sustainability into the corporate strategy and setting out the goals that we will pursue as part of an integrated sustainability program. We used 2018 as the year of transformation, thoroughly preparing this process and identifying top issues where urgent action needs to be taken.

With our strategic approach and sustainable processes, we have a solid foundation which we are constantly strengthening and developing. Our actions are determined by Group-wide voluntary commitments and principles such as our sustainability model, our Group guidelines on sustainability and our corporate guidelines. We also follow the recommendations of the German Corporate Governance Code.



## TARGET PROGRAM STRATEGY AND MANAGEMENT

Action areas	Goals and actions	Deadline	Status
Sustainable management	- Ensure similar management of sustainability within the Group and by the brands	Ongoing	
	- Sharpen positioning of brands	Ongoing	
	- Establish IT-based sustainability management system at Group, brand and company level	Ongoing	
Supplier management	- Extend e-learning tool and sustainability questionnaire	Ongoing	- In terms of procurement spending, 74% coverage for e-learning tool and 92% for sustainability questionnaire
	- On-site sustainability audits	Ongoing	- 947 on-site sustainability audits completed in the reporting period
	- Provide supplier training in sustainability	Ongoing	- More than 900 suppliers trained on the subject of sustainability
	- Implementation of OECD Due Diligence Guidance	Ongoing	- Identification of 321 smelters of tin, tantalum, tungsten and gold
Risk management	- Operation and further development of risk management and internal control systems (RMS/ICS) in operating business units	Ongoing	- Support for operating business units to further develop RMS/ICS (e.g. in Volkswagen brand's development of powertrains; in training courses on defining and documenting internal controls for technical development)
	- Standardize and further develop risk management methods and risk management and internal control processes to safeguard the future viability of the Volkswagen Group	Ongoing	- Strengthening of quarterly risk reporting process across all Volkswagen AG executive functions by further enhancing relevance of risk management and migration of the process to the Risk Radar IT tool - Further development of GRC IT system to ensure consistent, standardized risk reporting - Conceptual design of a Group-wide standard ICS
	- Strengthen networking of risk management organization and activities between brands	Ongoing	- All Group brands now involved in regular sharing of information on risk management, network meetings - Risk management wiki and Group Connect as information and idea-sharing platform for GRC organization

# EFFICIENT CONTROL THANKS TO SUSTAINABILITY MANAGEMENT

Our sustainability targets are derived from our future program TOGETHER – Strategy 2025 and the Group also follows departmental strategies which are linked to divisional targets.

Our sustainability model is based on the balance between economic, ecological and social interests, responsible action on a regional, national and global level as well as transparent communication and fair cooperation. The sustainability model is currently being revised with a view to including new topics and developments such as the technological shift towards e-mobility.

We have created a clear structure for coordinating our sustainability activities that includes internal and external sustainability committees. The highest committee is the Group Board of Management, which acts as the Sustainability Board at the same time. Members of the Group Sustainability Steering Committee regularly update the Group Board of Management on issues of relevance to sustainability. The members of this steering committee include executives from central Board of Management business areas and representatives of the Group Works Council and the brands. The Group Steering Committee defines specific strategic sustainability goals and position statements, identifies key action areas and approves the sustainability report.

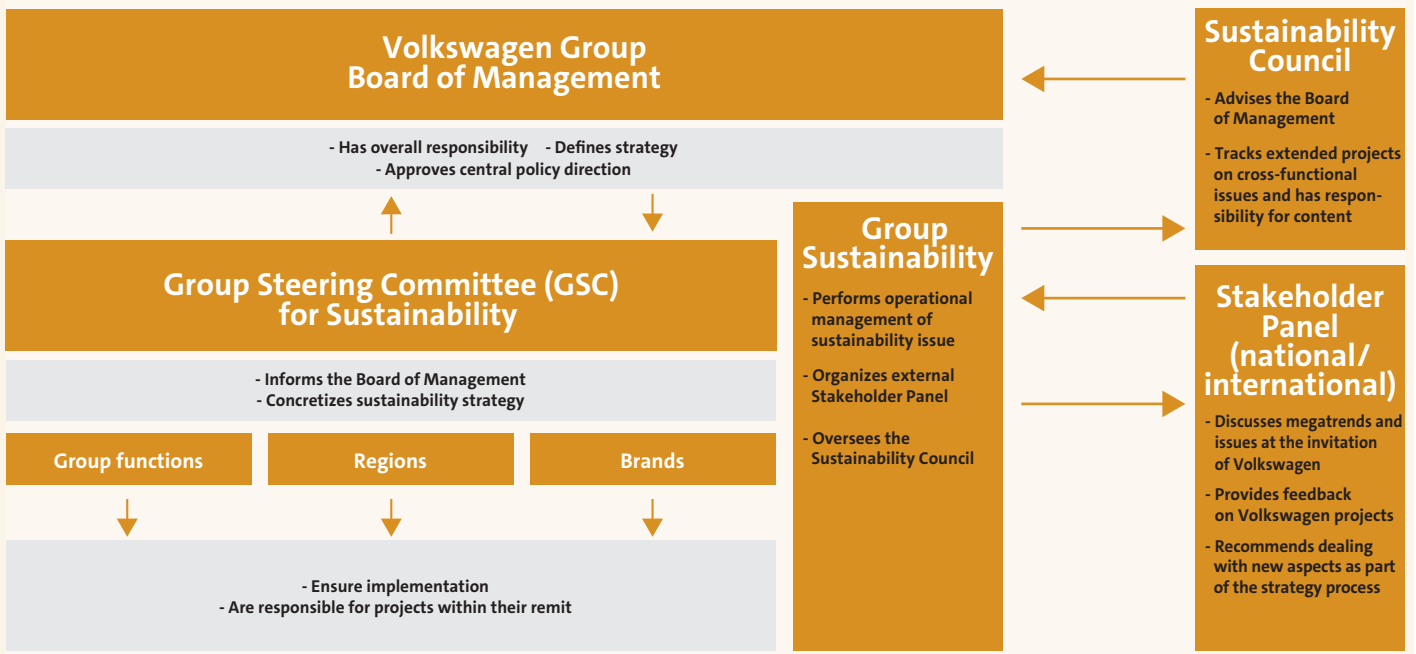
Management indicators are used to monitor the extent to which these sustainability goals are being met. The Group Sustainability

Office supports the Group Steering Committee. It performs a central governance function for all sustainability-related activities within the Group and the brands. In 2018, the Group Sustainability Office functional area was assigned to the Group Strategy business area as part of a reorganization in order to further reinforce the link between sustainability, the strategic Company goals and its core business. It also oversees and coordinates sustainability ratings, is responsible for producing the sustainability report and oversees the Sustainability Council and its work meetings. At the same time project teams work on current projects and issues such as reporting, stakeholder management and sustainability in supplier relationships both on a departmental level and across divisions.

The Group Sustainability Office works with the departments, brands and regions to further develop sustainability management within the Group, strengthens our expertise and coordinates joint initiatives. Communication takes place via regular meetings or during the annual Group Sustainability Summit. In 2018, the focus was on thematic workshops and the link between sustainability and the core business.

We have institutionalized our stakeholder work through external committees. On a Group level, these are the Sustainability Council and the Stakeholder Panel.

## SUSTAINABILITY EMBEDDED IN THE VOLKSWAGEN GROUP



# CHECKING THE MATERIALITY ANALYSIS

GRI 102-43, 102-44, 102-46, 102-49

During the reporting period, we successfully changed the sustainability reporting procedure to take into account the new Global Reporting Initiative (GRI) Standards, which have been binding since July 2018. As of the 2017 reporting period, the same applies to the requirements of the CSR-RUG (German CSR Directive Implementation Act) regarding the disclosure of nonfinancial information.

In order to identify key topics, we took into account external studies, sector and media analyses, ratings, stakeholder surveys, internal and external guidelines and codes, the Group-wide future program TOGETHER – Strategy 2025 and the individual departmental strategies. The Volkswagen Group’s 18 identified action areas were assessed as regards their strategic importance for the strategy and their stakeholder relevance. We analyzed their demands, expectations and attitudes in relation to the action areas as part of a desk research project which took into account more than 40 national and international stakeholder groups. This procedure complements the activity of the established Stakeholder Panel and the Group companies’ stakeholder surveys.

During this process, Volkswagen identified a total of 18 key topics in accordance with the CSR-RUG.

In 2018, we expanded the materiality process with the aim of viewing sustainability even more comprehensively from a company perspective, in the eyes of our stakeholders and as regards our ecological, economic and social impact.

In 2017, the implications of CSR-RUG (for the disclosure of non-financial information) and of the new GRI standards were discussed with representatives of the brands and corporate functions in four workshops, and subsequently reconciled with our divisional strategies.

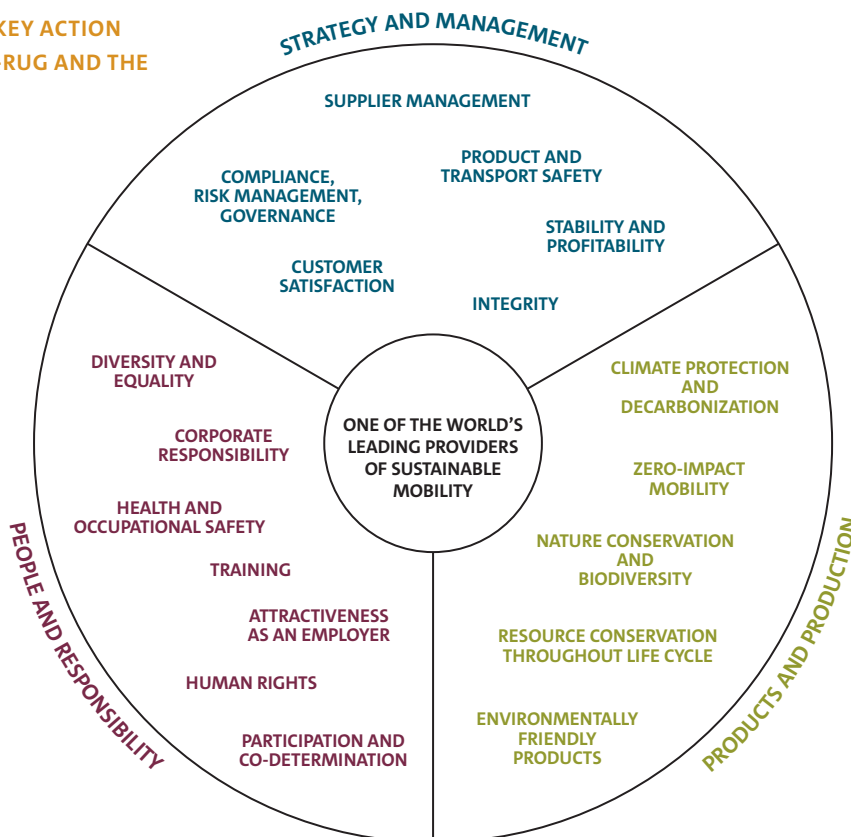
When further developing our materiality analysis in the 2018 reporting period, we were guided to an even greater extent by focusing on the top topics revealed by global trends and the transformation of our business model. Many of these are already linked to the Group’s strategic goals. They include decarbonization in all value creation stages, digitalization, implementing the Roadmap E and Vision Zero for avoiding traffic accidents along with employee satisfaction and employer attractiveness.

To date, we have deliberately avoided prioritizing the action areas. Firstly, the importance of individual aspects can vary considerably depending on the region. Secondly, there are binding issues where we naturally comply with legal and social norms and standards. We take all economic, ecological and social aspects of our corporate responsibility equally seriously but in the future we will define key areas via our sustainability program.

As the details of the new Group strategy have not yet been finalized, we are still in the process of specifying the content of the key action areas and defining corresponding values, targets and indicators. In 2019, we will implement our materiality analysis even deeper within the company and expand it with the help of an extensive IT-based data analysis.

## VOLKSWAGEN GROUP’S KEY ACTION AREAS IN LINE WITH CSR-RUG AND THE GRI STANDARDS

GRI 102-46, 102-47, 102-49



# STRATEGIC STAKEHOLDER MANAGEMENT

GRI 102-42, 102-43, 102-44

Our stakeholders are individuals, groups or organizations who influence or are influenced by the way in which the Group reaches its corporate decisions and the implications of those decisions.

Our customers and our employees are the key stakeholders in our stakeholder network. Around this core, we have identified eight further stakeholder groups of equal importance on the basis of our annual stakeholder assessments.

## VOLKSWAGEN GROUP STAKEHOLDERS

GRI 102-40



For us, stakeholder management means interacting with key stakeholder groups systematically, continually and in line with our future program TOGETHER – Strategy 2025. The aim of stakeholder management is to identify expectations systematically and to use the feedback from our stakeholders in order to reflect critically on strategic planning processes.

Given the size and complexity of the Group, we follow a multi-level approach. Our brands and regions have their own stakeholder activities. This diversity is our strength. The Group's task is to bring together all of these activities in an integrated stakeholder activity framework. This includes:

- Stakeholder activities on a Group level with specific committees, special formats and a focus on corporate stakeholders.

- Advising and coordinating the brands and regions and their activities through sustainability management, e.g. with the help of internal workshops, regular video and telephone conferences and the annual Group Sustainability Summit.
- Harmonizing activities, e.g. with the help of our Sustainability Model, Stakeholder Guidelines and regular internal meetings to share best practices.
- Documenting activities, e.g. with the help of the sustainability report and the "Shift" magazine. In addition to this, we provide information regarding current projects on the Group website, in press releases and newsletters and on social media.
- Carrying out international studies and surveys among key stakeholder groups.

**ACTIVE AND INDEPENDENT: THE SUSTAINABILITY COUNCIL**

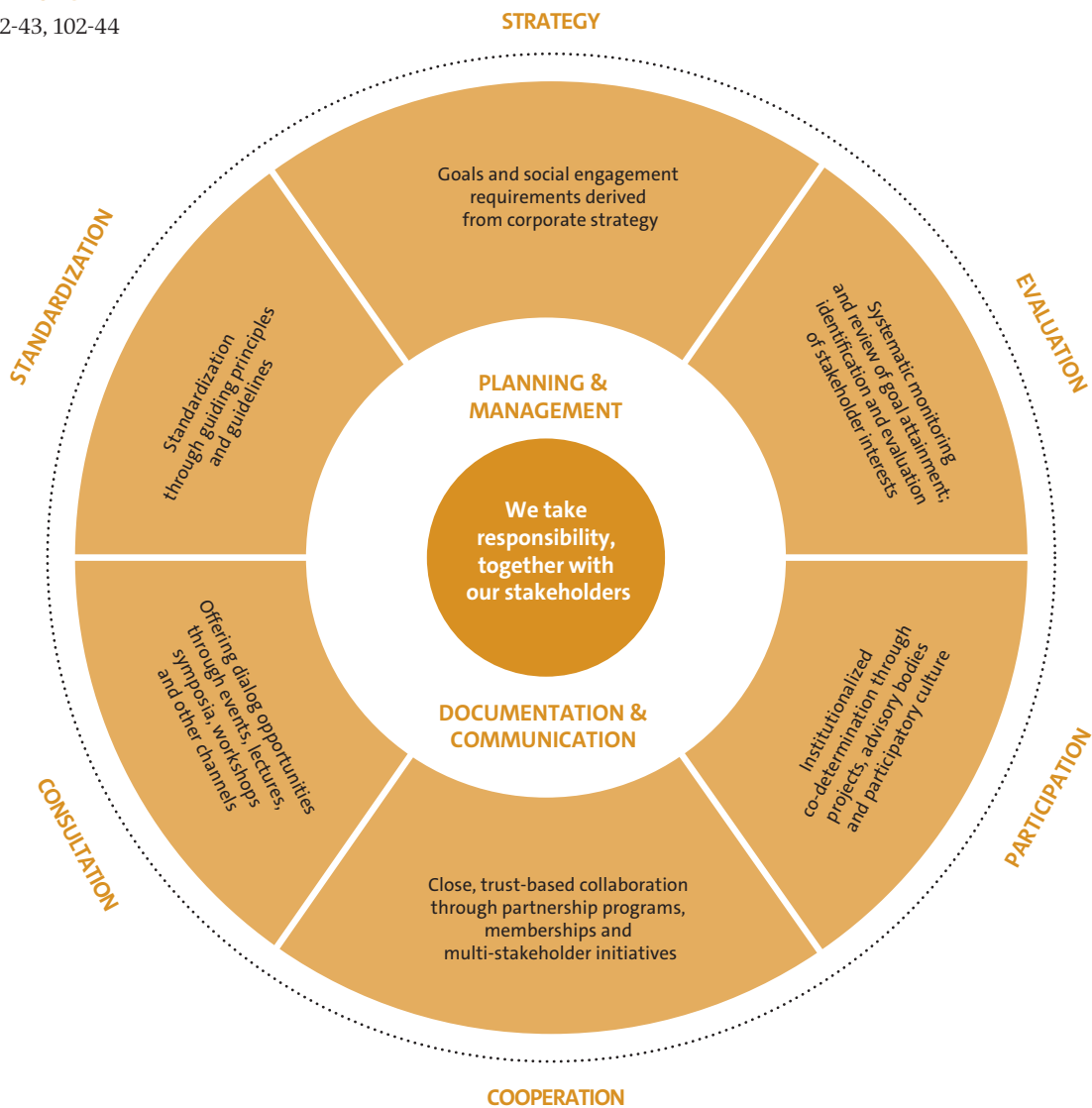
In September 2016, the Volkswagen Group set up an international Sustainability Council to provide support regarding strategic sustainability issues. The renowned experts from industry, politics, science and civil society act as independent advisors to the Group Board of Management, providing advice on sustainable mobility and environmental protection, social responsibility and integrity as well as the future of work and digitalization. The Council has provided the Board of Management with specific recommendations regarding technological, cultural and political change. The Sustainability Council also holds regular discussions with top management and employee representatives. In 2018, the Sustainability Council carried out the projects approved in 2017 and initiated three further initiatives: a project flanking the strategic focus of sustainability at Volkswagen, setting up a guest professorship for Open Labs and cultural change at the Einstein Center Digital Future in Berlin. We publish further detailed information regarding the members, the activities and the recommendations of the Council online.

**OPEN DISCUSSIONS IN THE STAKEHOLDER PANEL**

In close partnership with the Institute for the Market, Environment and Society (imug), the Volkswagen Group has established a Stakeholder Panel, which has overseen the Group sustainability activities for over 20 years. The aim is to critically question and continuously improve sustainability management, Group initiatives and reporting processes. In the 2018 reporting period, we expanded the panel from 200 to 300 national and international stakeholders. In 2019, we will step up discussions with our stakeholder groups by providing additional international dialog opportunities and thus further increase the importance of the Stakeholder Panel.

**STAKEHOLDER MANAGEMENT AT VOLKSWAGEN – A HOLISTIC APPROACH**

GRI 102-42, 102-43, 102-44



## WIDE RANGE OF DIALOG AND INTERACTION OPPORTUNITIES

A detailed overview of our activity formats can be found on our website and in the extra information contained in this report.

 > [www.volkswagenag.com/en/sustainability/reporting.html](http://www.volkswagenag.com/en/sustainability/reporting.html)

The following three flagship projects in the 2018 reporting period exemplify our activities:

- **Stakeholder dialogs:** We invite people to take part in dialog events at regular intervals. The stakeholder dialog is a format where we discuss current Group initiatives and sustainability activities openly and critically. In the 2018 reporting period, MAN SE organized a stakeholder workshop in Munich and AUDI AG a stakeholder dialog in Berlin. The next Group dialog is planned for spring 2019.

- **Partnerships with NGOs:** On a Group level, we have already worked successfully with a number of stakeholders for many years. In the 2018 reporting period, we continued our close partnership with the German Red Cross and, in this context, supported the Forecast-Based Financing project.
- **Global Reputation Survey:** Once a year, we question opinion leaders from science, civil society, the media, politics and the financial market in Germany, the USA and China regarding their attitudes towards and expectations of the Volkswagen Group. In the 2018 reporting period, we doubled the number of cases for this study, internationalized project management, had the methodology validated by external experts and publicized the results. The results indicate that stakeholder trust in Germany is still low. In the USA, there was a significant increase in trust, while in China the level of trust was high and stable.

## SUGGESTIONS FROM STAKEHOLDERS AND REACTIONS OF VOLKSWAGEN AG

Once a year, we produce a synthesis of our stakeholder feedback. In the 2018 reporting period, our stakeholders submitted the following recommendations to the Group via all committees and formats. These suggestions and remarks provide important stimuli for further developing the Group.

GRI 102-44

Area	Requirements of our stakeholders	Reactions of Volkswagen AG (examples)
Integrity and compliance	<ul style="list-style-type: none"> <li>- Volkswagen as a respectable, upstanding company</li> <li>- Place integrity and technological competence on an equal footing</li> <li>- Cultural change</li> </ul>	<ul style="list-style-type: none"> <li>- Legal Affairs and Integrity Board of Management department</li> <li>- Multilingual internal employee training</li> <li>- Global rollout of the Together4Integrity campaign</li> <li>- Global KPI for integrity</li> <li>- Employee activity formats (e.g. KulTour, top management-employee breakfast, integrity bus tour)</li> </ul>
Sustainability management and climate change	<ul style="list-style-type: none"> <li>- Substantial contribution towards reducing greenhouse gas and harmful substance emissions</li> <li>- Coming up with additional measures to comply with the Paris climate agreement</li> <li>- Political positioning on the transport and energy revolution</li> </ul>	<ul style="list-style-type: none"> <li>- Additional investments in sites to improve energy efficiency, conserve resources and use renewable energy sources</li> <li>- Coming up with a global sustainability program focusing on decarbonization and a Scope 3 carbon footprint KPI for the passenger car segment</li> <li>- Public positioning on transport-policy issues (e.g. emissions standards, carbon pricing, energy revolution)</li> </ul>
Sustainable products and services	<ul style="list-style-type: none"> <li>- Commitment towards electrification</li> <li>- Sustainable mobility services</li> </ul>	<ul style="list-style-type: none"> <li>- Implementing the Roadmap E electrification strategy with investments worth billions</li> <li>- Market launch of MOIA in Hanover</li> <li>- New city partnerships for developing intermodal transport concepts in urban areas</li> </ul>
Sustainability communication and stakeholder engagement	<ul style="list-style-type: none"> <li>- Expanding the opportunities for dialog for external stakeholders</li> <li>- Institutional and professional stakeholder dialog</li> <li>- Identify and communicate conflicting objectives</li> </ul>	<ul style="list-style-type: none"> <li>- Activities of the Group Sustainability Council</li> <li>- Expanding the Group Stakeholder Panel</li> <li>- Continuing and further developing the Global Stakeholder Reputation Survey</li> <li>- Continuing the “Shift” sustainability magazine</li> <li>- Numerous opportunities for dialog for the Group, brands and regions</li> </ul>
Supply chain management	<ul style="list-style-type: none"> <li>- Ensuring a sustainable supply chain with an emphasis on e-mobility and conflict raw materials</li> </ul>	<ul style="list-style-type: none"> <li>- Further developing the “Sustainability in supplier relationships” concept</li> <li>- Developing a compliance management system for checking global compliance with due diligence as regards human rights standards</li> </ul>
Company strategy	<ul style="list-style-type: none"> <li>- KPIs for turning the Company into a sustainable mobility service provider</li> </ul>	<ul style="list-style-type: none"> <li>- Consolidating nonfinancial KPIs as part of the TOGETHER – Strategy 2025</li> </ul>

## RATINGS AND INDICES

Analysts and investors are referring increasingly to company sustainability profiles when making their recommendations and decisions. They draw primarily on sustainability ratings to evaluate a company's environmental, social and governance performance. At the same time, sustainability ratings are instrumental in determining whether we are meeting our goal of being one of the world's leading providers of sustainable mobility. Furthermore, they provide the basis for implementing internal measures.

After the diesel issue became public knowledge, the Volkswagen Group was downgraded significantly in the MSCI, RobecoSAM, Sustainalytics, oekomISS, Vigeo Eiris, EcoVadis and RepRisk sustainability indices and consequently removed from sustainability indices such as the Dow Jones Sustainability Index and the FTSE4Good Index. In fiscal year 2018, Volkswagen continued to have a score of A- in the CDP and an A- rating in the WDP.

## WORLDWIDE SOCIAL ENGAGEMENT

As a good corporate citizen, we would like to be a constant economic driver, contributing to local structural development and equal opportunities. We have always believed in the importance of recognizing our social responsibilities towards our stakeholders. The main focus of our corporate social engagement activities is on supporting local development, educational and community projects at many of our sites around the world.

We select specific projects and develop them on our own or in partnership with local partner organizations and NGOs. We choose and carry out projects in accordance with our Group-wide guidelines:

- The projects are in accordance with the Group Principles and address a specific issue of local relevance or a global challenge.
- They are an expression of diversity within the Group and the social environment in which the projects are carried out.
- The ideas for the projects come about in close consultation with local stakeholders, who are involved in carrying them out.
- Projects are managed locally under the responsibility of the units operating there.

### FOCUS OF OUR ACTIVITIES

During the reporting period, we were involved in numerous projects to sustainably improve social structures. We also provide help on an ad-hoc basis in the event of natural disasters etc. For example, we made a donation to the German Red Cross at the end of 2018 to help people cope with the consequences of the volcanic eruption off the coast of Java and Sumatra. We give donations in cash and in kind to support activities and projects primarily devoted to research and education, culture, sports and social causes. Donations may only be given to recognized non-profit organizations or ones specifically endorsed to receive donations. As a general rule, we do not make any donations to political parties, party-affiliated foundations or individual politicians. In the reporting period, Volkswagen AG made donations amounting to €33.8 million. On top of this, there are donations provided by our employees as so-called workforce donations, which are used to support disadvantaged people who live near Volkswagen AG sites.

One of our biggest projects is the strategic partnership with the German Red Cross. The focus here is on the Forecast-Based Financing project, which provides financial resources for humanitarian aid on the basis of detailed forecasts and risk analyses. The aim is to predict disasters, to minimize their effects as far as possible and thus prevent human suffering. Another part of the partnership is the "Future of public health protection and the emergency services in Germany". We also encourage our employees to do voluntary work for local organizations in their spare time. Activities are bundled and supported via the "Volkswagen pro Ehrenamt" office.

### INTEGRATION SUPPORT FOR REFUGEES

We continue to support refugees, focusing on three key areas: education, professional integration and meetings. In the reporting period, we focused on providing language courses lasting a number of months, subsidizing integration and employability courses and awarding study scholarships for 100 refugees. Through career guidance and skills assessment measures, helping people to prepare for a future career by taking part in internships and sitting in on classes and providing entry qualifications and training opportunities, we have helped refugees in the area of professional integration. This work is complemented by various opportunities to meet other people and voluntary activities on the part of our employees.

Acquiring language skills, developing expertise and obtaining preliminary qualifications are the key to trainability and entering the labor market. Study scholarships, language courses, integration courses, obtaining entry qualifications, professional training and job offers are thus some of the key aspects of the support that we provide. By the end of 2018, we helped over 3,850 refugees to gain language and other preliminary qualifications.

Once the biggest challenges facing refugees have been overcome, the focus of many Group projects at sites in Germany is on helping people to learn German and to integrate into society. Our Group's activities include providing a support program for refugees which, once successfully completed, leads to an apprenticeship as a warehouse logistics specialist at Volkswagen.

## GLOBAL SOCIAL BUSINESS SUMMIT: RECOGNIZING GLOBAL RESPONSIBILITY

In November 2018, Volkswagen AG and the Autostadt in Wolfsburg hosted the ninth Global Social Business Summit, a meeting attended by 800 leading social business players from 55 countries. The meeting is the world's leading forum for social business and encourages cooperation between the private sector, civil society, NGOs, the public sector, universities and students as well as social business companies.

The ideas of Nobel Peace Prize winner Muhammad Yunus are an excellent example of social business. Yunus introduced a system offering microcredit to impoverished groups of people in Bangladesh and has been fighting poverty in his home country ever since. Under the slogan "New Civilization", this year's summit looked at the extent to which a value-based civilization can be established through social management. During workshops, keynotes, master class events, networking sessions and presentations, participants and interest groups met for talks. They discussed ideas and initiatives relating to the plastics industry and the circular economy, solidarity, mobility, sport and nutrition.

Volkswagen and the Autostadt contributed to the Global Social Business Summit not only as a partner and host, but also with a large team of socially committed employees.

## ACTIVE PROTECTION OF HUMAN RIGHTS

We work to protect human rights and encourage the use of internationally recognized principles and agreements as fundamental, generally valid rules on an ongoing basis. We reject all forms of child, forced or compulsory labor, modern slavery and human trafficking. This applies to all processes within our Company and to our work with business partners along our entire value chain.

### > Responsible Supply Chain

The basis for cooperative work relations characterized by social harmony are the Volkswagen Group's charters and declarations which were agreed with the European and Global Group Works Council. They offer our employees certainty as regards their employee and human rights. This includes their freedom of association, their right to collective negotiations and equal pay, and the banning of discrimination at work.

## PREPARING THE YOUNG GENERATION FOR THE DIGITAL FUTURE

With the "KIDScraft" project, which took place at Wolfsburg Congress Park in 2018, we invited 150 schoolchildren in years three to eight to learn about electronics, IT and robots in a fun way. The schoolchildren could try out their IT skills at a total of ten interactive stations with the help of IT professionals, media educators, designers and artists. A "CampTour" also took them through parts of Volkswagen IT as well as Research and Development. One station was the Smart Production Lab where robots are programmed.

The Volkswagen Group is also helping to educate young people for the digital future through the "xStarters" program. The online platform aims to show young people aged between 14 and 19 years the digital world and the opportunities that it offers, helps them to build up digital skills and encourages them to come up with ideas for digital and social innovations. On October 15, 2018, an online competition was started via the xStarters app. The competition allows young teams assisted by Volkswagen employees to develop and perfect their ideas and projects for digital social solutions. This format provides young people with a creative, experimental platform for their own digital social ideas. In February 2019, the best ideas were presented to a distinguished jury and received awards.

In order to observe universal human rights, we follow various international, European and national agreements. These include:

- the United Nations' Universal Declaration of Human Rights,
- the UN Guiding Principles on Business and Human Rights,
- the Core Labor Standards of the International Labor Organization (ILO),
- the Convention for the Protection of Human Rights and Fundamental Freedoms,
- the OECD Guidelines for Multinational Enterprises and
- the German federal government's National Action Plan for Business and Human Rights.


Our expectations of our employees and our Group-wide understanding of the observance of universal human rights are also set out in our Code of Conduct. The issue of human rights is covered in the section on "Our responsibilities as a member of society".

Our principles of conduct apply to all employees of all brands, companies and hierarchy levels. Our Corporate Guidelines also lay down further principles.



## AVOIDING RISKS OF HUMAN RIGHTS BREACHES

We aim to identify human rights risks at the earliest possible juncture and act to continually minimize them. For this reason, we are constantly working towards establishing human rights due diligence at all levels of our value chain. We pay particular attention to encouraging responsible supply chains for minerals from high-risk areas and areas of conflict.

-  > Effective Controls through Risk Management; Responsible Supply Chain
-  > Annual Report > Report on Risks and Opportunities

All employees receive training on the Code of Conduct that applies throughout the Volkswagen Group. We use real-life examples of potential human rights violations, among other violations, to illustrate the individual issues and help employees put the Code of Conduct's rules into practice. Moreover, since our procurement

employees are a key interface with our business partners and thus our supply chain, awareness of sustainability issues and potential risks is raised among all new buyers and training is also provided.

Our employees, business partners and other third parties can highlight serious breaches of rules and rights on the part of employees via various channels in the Volkswagen Group's whistleblower system. A breach of human rights is a good example of a potential serious breach of this type. Suspected cases concerning our supplier relationships can also be reported via [sustainability@vwgroupsupply.com](mailto:sustainability@vwgroupsupply.com).

-  > Annual Report > Compliance and Corporate Governance


Both employees and third parties can report possible breaches to the Volkswagen Group's national and international employee representative bodies, or to national and international trade union federations.

## RESPONSIBLE SUPPLY CHAIN

We have more than 40,000 tier 1 suppliers worldwide, who employ more than five million people. At 41 locations in 21 countries, our procurement network ensures that our production facilities are supplied with materials of the requisite quality, in the required quantities, at competitive prices. The goods and services we purchase around the world to manufacture our products are worth over €185 billion (including our Chinese joint ventures).

### SUSTAINABILITY IN SUPPLIER RELATIONS CONCEPT IMPLEMENTED

We can only ensure that our sustainability standards are met if we work closely with our business partners. We work in accordance with the sustainability in supplier relationships concept, which is based on three pillars: requirements, qualification and monitoring.

-  > <https://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/2016%20Code%20of%20Conduct%20for%20Business%20Partners%20DE-EN.pdf>

This framework is used to define our requirements as regards sustainability for our business partners. We use targeted monitoring instruments to ensure compliance, and organize training initiatives to steadily raise suppliers' awareness of sustainability issues. In order to identify current developments and long-term challenges in the individual countries, we encourage dialog between our brands and regions through the Sustainability Procurement Network, in which more than 20 experts work together.

### PRECISE REQUIREMENTS SET OUT

The Sustainability in Supplier Relations concept is based on the "Volkswagen Group requirements regarding sustainability in its relationships with business partners (Code of Conduct for Business Partners)". The latter embeds our expectations of our business partners' conduct with respect to key environmental, social and compliance standards in our contractual agreements. We also call on our tier 1 suppliers to pass these requirements down along the supply chain. Among other things, these requirements are based on the principles of the UN Global Compact, the International Chamber of Commerce's Business Charter for Sustainable Development, and the conventions of the International Labour Organization. The Code of Conduct for Business Partners was revised in the reporting period with a view to further increasing the sustainability requirements imposed on suppliers. Various topic areas such as harassment, the integration of sustainability issues into processes and other topics such as occupational health and safety were expanded. Since publication, suppliers have also been required to disclose high-risk supply chains on request and to share information regarding the origin of their materials with us. Through this, we want to make a substantial contribution towards meeting our due diligence obligations. In 2019, a guideline designed to provide suppliers with practical tips for implementing the requirements will be added to the Code of Conduct.

In order to assess the sustainability-related risks on suppliers' sites before potential suppliers are actually nominated, we use a country risk analysis system and other data. This analysis is based on third-party information and the results of in-house analyses. We also subject all potential new business partners and suppliers to an integrity check (Business Partner Check).

Before submitting a quotation, our suppliers must confirm that they acknowledge our sustainability requirements; this explicit acknowledgment must be repeated after 12 months have elapsed if they wish to submit new quotations. These requirements are an integral part of our contracts with all suppliers to General Procurement and with all suppliers of production materials. They apply to all goods and services purchased worldwide.

**SUPPLIER MONITORING EXPANDED FURTHER**

We ask our business partners to fill in the sustainability questionnaire in order to document the steps taken in selected areas. We have incorporated our sustainability questionnaire into the sector-wide self-assessment questionnaire (SAQ) developed for use throughout the industry in a joint project with other automotive corporations involved in the DRIVE Sustainability Working Group organized by CSR Europe. By the end of the reporting year, over 28,000 suppliers had submitted a sustainability self-assessment questionnaire to us. This covers around 92% of our total procurement volume.

On the basis of the self-assessments, we identify ways to enhance sustainability performance, and then communicate the latter to our suppliers. In the reporting period, over 2,100 suppliers improved their sustainability performance through taking appropriate steps.

A certified environmental management system in accordance with ISO 14001 and/or EMAS is one of the ecological requirements our tier 1 suppliers have to meet. To date, 76% of our tier 1 suppliers have documented such a system. In addition, we recommend that our suppliers put in place a certified occupational health and safety

management system that complies with OHSAS 18001, SA8000 and/or AA1000.

Where selected business partners are identified as being at increased risk of non-compliance with sustainability requirements, they are audited by an external specialist on-site. These audits cover all our sustainability assessment criteria as well as interviews with employees of the selected suppliers. During the reporting period, audits were carried out at 947 suppliers.

What we refer to as “ad-hoc cases”, i.e. suspected breaches of the sustainability requirements which occur suddenly, represent a significant proportion of our supplier assessment activity. These may be discovered, for example, during an audit on the supplier’s premises. In such a case, the ad-hoc expert team responsible coordinates a catalog of measures on behalf of the relevant brand or region and is supported by the Group ad-hoc expert team. If we determine that suppliers or sub-suppliers are failing to meet our sustainability requirements, we ask them to provide a written statement based on a standardized report (6D Report). Based on the six points, our business partners can describe the situation and any remedial measures. Repeated on-site checks carried out by external service providers can help to determine whether the measures were carried out in a satisfactory manner.

During the reporting period, Group Internal Audit agreed measures with suppliers in addition to 30 ad-hoc cases that were processed by Procurement. This concerned suppliers where behavior contravening the rules or contracts was identified as a result of information provided or audits carried out. In 2018, Group Internal Audit arranged for 44 measures to be carried out at suppliers.

**SUSTAINABILITY IN SUPPLIER RELATIONSHIPS**

REQUIREMENTS	MONITORING	TRAINING AND SKILLS
<p><b>Contractually binding</b></p>	<p><b>Verification of compliance with requirements</b></p>	<p><b>Training and raising awareness of buyers and suppliers</b></p>
<ul style="list-style-type: none"> <li>- Environmental protection</li> <li>- Employee rights</li> <li>- Transparent business relationships</li> <li>- Fair trading practices</li> <li>- Duty of care to build responsible supply chains</li> </ul>	<ul style="list-style-type: none"> <li>- Sustainability questionnaire</li> <li>- App for evaluating suppliers’ sustainability</li> <li>- Transparent business relations</li> <li>- Supplier audits</li> </ul>	<ul style="list-style-type: none"> <li>- E-learning programs for suppliers and buyers</li> <li>- Classroom training courses for suppliers and buyers</li> </ul>

**FURTHER DEVELOPMENT**

- Working and sharing information with the global procurement network
- Involvement in cross-sectoral sustainability initiatives
- Involvement in working groups on sustainability with other automotive manufacturers

## AD-HOC CASES 2018

Geographical distribution	Context	Type of supplier
Europe	17 Social standards	18 Direct supplier 27
Asia	5 Environmental protection	5 Subcontractor 3
North America	3 Compliance	3
South America	5 Multiple contexts	4
Africa	0	

\*In terms of geographical distribution, Russia and Turkey are allocated to Asia.

Employees and external parties can also report potential breaches of rules on the part of our suppliers to the Volkswagen Group's employee representatives or the trade union associations and use the Volkswagen Group's whistleblower system. Potential breaches of rules can also be reported to [sustainability@vwgroupsupply.com](mailto:sustainability@vwgroupsupply.com). This applies to possible breaches on the part of our tier 1 suppliers as well as sub-suppliers in the supply chain.

### > Compliant Behavior

We are developing the sustainability requirements which apply to our suppliers all the time. After all, we are convinced that a sustainable supplier network guarantees long-term company success. For this reason, the Volkswagen Group will introduce a new, expanded compliance and sustainability rating for all business partners in 2019. The aim is to ensure transparency as regards compliance with the Volkswagen Group's standards along the entire supply chain.

## EXERCISING DUE DILIGENCE

As part of our sustainable supplier management measures, we pay particular attention to protecting those groups of people who, along our supply chain, are at particularly high risk of human rights abuses. In this context, we formulate the due diligence requirements for building responsible supply chains of minerals from conflict-affected and high-risk areas as an additional contractual requirement for our suppliers.

Not only do we deal reactively with breaches of rules in our supply chain, we also work proactively in order to exercise due diligence. By doing so, we aim to meet the requirements of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. This contains guidelines for management approaches, for risk identification and prevention, for checking smelters and for communication and reporting instruments. Our due diligence obligations are shown below using conflict minerals as an example.

## 5-STEP FRAMEWORK

<b>Step 1</b>	Establishing a solid company management system
<b>Step 2</b>	Determining and assessing risks along the supply chain
<b>Step 3</b>	Devising and implementing a strategy for combating risks
<b>Step 4</b>	Performance of independent audits by third parties on smelters/refineries to meet the due diligence requirements for the measures performed
<b>Step 5</b>	Annual report to meet the due diligence requirements in the supply chain

We expect our suppliers to use their management systems to rule out the use of minerals from smelters affected by conflicts. Minerals are considered conflict minerals if non-governmental armed groups are supported directly or indirectly through their extraction, transportation, trade, handling, processing or export. In cases of suspected non-compliance, we also expect our suppliers to disclose the sources of materials that may have some connection with human rights violations such as child, forced or compulsory labor as well as any other forms of modern slavery or human trafficking. This also applies to labor conditions in the extraction of raw materials such as cobalt and mica.

In order to identify risks, increasing transparency is a matter of top priority for us. Upon request, suppliers and subcontractors must disclose to us the smelters or refineries from which they source the metals tin, tantalum, tungsten and gold. In 2018, suppliers provided us with specific information on their supply chains that enabled us to identify 321 smelters of tin, tantalum, tungsten and gold.

If we identify non-certified smelters in our supply chain, we take steps to certify these smelters. Non-compliant smelters identified in the reporting period must be replaced by compliant smelters.

We have launched similar activities for the sustainable sourcing of cobalt. We are in close contact with companies from the mine to our tier 1 suppliers. It is important that we share not only the same company goals, but also the same company values: transparency, compliance and sustainability must be observed and implemented by all potential partners. To date, our discussions with everyone involved have been on an equal footing and with the aim of finding shared, constructive solutions.

In the 2018 reporting period, we also stepped up checks of smelters and mines, e.g. through on-site visits in the Democratic Republic of the Congo.

We continue to publicize our activities and progress through press reports and the sustainability report. In the coming year, we will step up our activities in our supply chains. We will take further steps to better map out our supply chain and focus on other raw materials. We will not only identify risks, but also try to minimize them with various tools, such as certification.

## SHAPING COOPERATION AND DISCUSSIONS ON AN INTERNATIONAL LEVEL

In our efforts to ensure the sustainable sourcing of raw materials and to prevent the use of conflict minerals, we work closely with international initiatives and organizations. As part of our supplier management, we use the Risk Readiness Assessment (RRA) and standardized reporting templates of the Responsible Minerals Initiative (RMI). With the help of data provided by RMI, we inform suppliers in business relationships with non-compliant smelters and/or refiners about alternative options for working with conflict-free smelters and/or refiners.

Together with the RMI and the DRIVE Sustainability Working Group, we have produced a study on the sustainability risks in the raw materials sector entitled the "Material Change Report". On this basis, we have prioritized the critical raw materials.

We would also like to test and implement innovative, interdisciplinary approaches in supplier management. Together with Zalando SE and other project partners, we organized a hackathon in 2018. This focused on the use of blockchain technology to track raw materials throughout the supply chain.

We also held workshops with mining companies from the copper and platinum industry in order to come up with joint plans and approaches for making improvements.

### ENCOURAGING CO<sub>2</sub> REDUCTION IN THE SUPPLY CHAIN

With fully and partly electrified vehicles, the CO<sub>2</sub> impact shifts away from the usage phase to the manufacturing phase, as a result of which the focus shifts to the supply chain. The Volkswagen Group thus uses green electricity at this stage of value creation. The use of electricity sourced from renewable energy sources with proof of origin is now a prerequisite when awarding contracts for the production of high-voltage battery cells. By actively taking part in the CDP supply chain program, we closely involve our suppliers

in our efforts to reduce greenhouse gas emissions throughout the value chain.

In 2019, we will continue to focus on reducing CO<sub>2</sub> and identifying the main sources of emissions along the supply chain.

 > Climate Protection through Decarbonization

## DEVELOPING SKILLS FOR SUPPLIERS AND EMPLOYEES

We continually take steps to train our employees and raise their awareness of sustainability in the supply chain. For all Procurement employees, this issue is an established part of the skills profile. In 2018, more than 2,000 procurement staff worldwide were given training in this area. Our training measures are also geared to specific target groups. For example, buyers of components associated with higher sustainability risks were given an intensive training program in a separate format. Since 2017, we have trained our procurement employees to deal with the special challenges found in battery supply chains.

To facilitate ongoing supplier development, we make an e-learning module on sustainability available to all current suppliers, as well as to Volkswagen Group procurement staff, in the nine languages of the countries which have been defined as compliance risks. By the end of the reporting year, more than 31,000 suppliers – representing 74% of our procurement volume – had completed the e-learning module.

Alongside the e-learning format, we also conduct issue-specific sustainability training courses and workshops with our suppliers at selected locations. During the reporting period, events were held in countries including Turkey, Germany, Mexico, Hungary, Thailand, China, Argentina and Brazil. In total, around 900 personnel employed by some 550 of our suppliers were given training on sustainability issues at these events.

## EFFECTIVE CONTROLS THROUGH RISK MANAGEMENT

Promptly identifying the risks and opportunities associated with our business activities and taking a forward-thinking approach to managing them is crucial to our Company's long-term success. A foresighted risk management process and effective internal control systems are therefore vitally important to us. Not only do we set high internal standards, we also insist that all our suppliers along our entire value chain comply with these standards.

### RISK MANAGEMENT AND INTERNAL CONTROL SYSTEM (RMS/ICS)

A comprehensive risk management and internal control system (RMS/ICS) helps us to handle risks responsibly. It defines the primary principles and elements of our Group, forming the basis for the appropriate and effective management and control of material risks. This applies to risks with consequences for the Volkswagen Group and to risks for the environment and society.

The organizational design of the Volkswagen Group's RMS/ICS is based on the internationally recognized COSO Enterprise Risk Management framework (COSO: Committee of Sponsoring Organizations of the Treadway Commission). During the reporting period, a risk management approach which takes into account aspects of the internal control system was followed.

Through a Group risk management policy, all business divisions and units are obliged to implement an RMS/ICS. The exact form of the RMS/ICS is up to the risk managers in the individual divisions and business units. The Group Risk Management function supports the divisions by providing necessary training and participating in conceptual development.

The Board of Management receives ad-hoc, quarterly and annual risk reports.

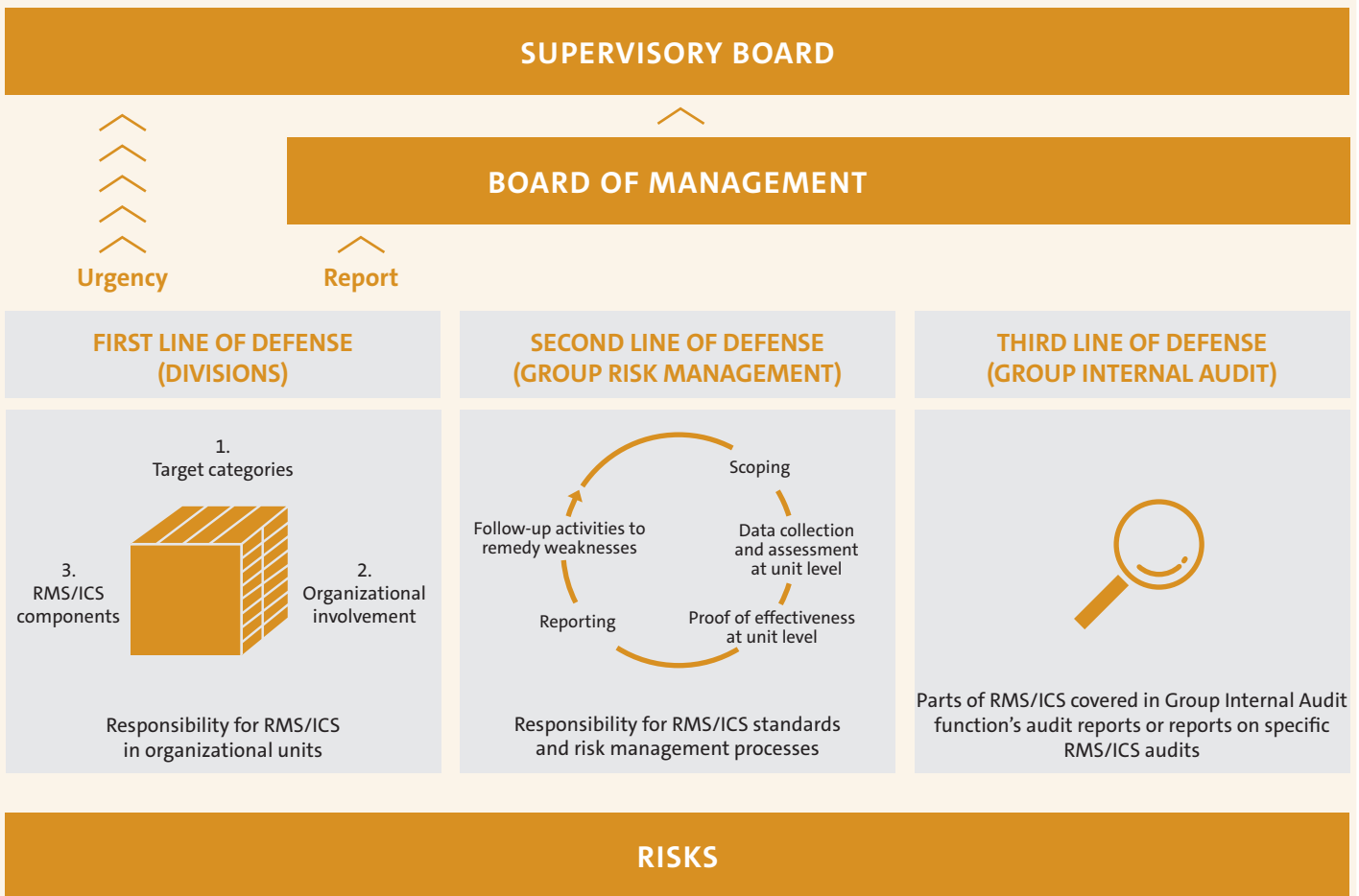
Assessing the probability and extent of future events and developments is, by its nature, subject to uncertainty. We are therefore aware that even the best RMS cannot foresee all potential risks and even the best ICS can never completely prevent irregular or non-compliant actions.

Another key element of our RMS/ICS is the three lines of defense model – a basic element required, among others, by the European Confederation of Institutes of Internal Auditing (ECIIA). In line with this model, our RMS/ICS has three lines of defense that are designed to protect us from the occurrence of material risks.

- The first line of defense comprises the risk management and internal control systems at the individual Group companies and divisions. The RMS/ICS is an integral part of our Group's organizational structures and processes.
- The second line of defense is the Group Risk Management function, which sets standards for the RMS/ICS and coordinates the quarterly risk survey and annual governance, risk and compliance (GRC) control process. It reports to the Group Board of Management on any material risks, which are defined in terms of quantitative and qualitative assessment criteria and given probability ratings.
- The third line of defense is Group Internal Audit, which carries out regular checks on the structure and implementation of the RMS as part of its independent audit activities.

 > Annual Report > Report on Risks and Opportunities

### "THREE LINES OF DEFENSE" APPROACH



## BROAD SPECTRUM OF RISK ANALYSIS

The diesel issue both causes intrinsic risks for the Volkswagen Group and has an impact on existing risks.

Risks that could impact on our bottom line also include general environmental risks and climate-change risks.

These include risks that could result from differing CO<sub>2</sub> and emissions regulations. Extreme weather situations, storms or floods can cause failures of information and communication technology, supplier failures resulting in production stoppages, or general production downtime at one or more of our production facilities around the world. Our evaluation of the overall risk situation includes the potential impacts of natural disasters and resource shortages. Our risk assessment takes the form of a net analysis, i.e. taking account of any countermeasures initiated to minimize the risk.

Our Group risk management processes also take account of the risks associated with the six nonfinancial aspects:

- Environmental matters
- Employee matters
- Social matters
- Customer matters
- Respect for human rights
- Combating corruption and bribery

Key risks in the eyes of the Volkswagen Group including the risks relating to the six nonfinancial aspects which must be reported on are presented in the risks and opportunities report in the status report. This also includes the risks resulting from the diesel issue which affect the nonfinancial aspects of environmental issues. Otherwise no other high-probability risks with potentially severe negative impacts on nonfinancial aspects were identified in fiscal year 2018.





page **50**  
Responsibility for  
Quality and Safety

# SHAPING MOBILITY WITH A VIEW TO THE FUTURE



page **42**

## Strategic Approach and Management

page **46**

Mobility Concepts for a  
Transport Revolution



page **48**

High Customer Satisfaction  
in All Business Areas

page **44**

## Innovative and Environmentally Friendly Vehicle Technologies

## STRATEGIC APPROACH AND MANAGEMENT

The Volkswagen Group is actively evolving from an automotive manufacturer to a provider of sustainable mobility. We are bridging the gap between innovative vehicle technologies and futuristic mobility concepts which are geared to customers' requirements but can also help to solve environmental and traffic problems in urban areas around the globe.

We aim to take on a world-leading role in the areas of e-mobility, autonomous driving, digitalization and new mobility services. This means not only opportunities for long-term business success, but also challenges and risks. As a result of the forthcoming transformation, we are confronted with entirely new market players and competitive situations for which we need to be prepared. We also depend to a large extent on the development of widespread, high-performance infrastructures – something that we can only influence indirectly. At the same time, connected driving and digitalization rely on the exchanging of large quantities of data, but we must also comply with legislation governing personal data protection.

We also have to deal with conflicting goals: in spite of innovative mobility concepts, many people still want to own their own car, especially in emerging and developing countries or in sparsely populated areas. Although we would like to cater for people's desire for individual mobility, we must also take into account our use of natural resources and harmful emissions.

### FOCUSING ON THE EFFECTS ON PEOPLE AND THE ENVIRONMENT

In order to achieve full transparency regarding the environmental impact of our vehicles and their use of resources, we look at their entire life cycle. We focus on CO<sub>2</sub> emissions and are committed to reducing these significantly as part of our decarbonization program. Our analyses show that the usage phase of vehicles currently results in the largest quantities of emissions. As a result of the transition towards e-mobility, CO<sub>2</sub> emissions viewed over the life cycle will shift in principle from the usage phase towards production – with battery manufacture as a major source. We would like to begin here and regard climate-neutral production as one of the most important levers.

Vehicles in cities around the world also cause noise, traffic jams and air pollution. We believe that we have a particular responsibility here: we want to understand the effects of these problems on people, the environment and society even better given the complexity of the interactions between vehicle technologies and mobility solutions and assess these reliably. We are thus carrying out impact assessments based on real data, models and simulations in many areas or are supporting relevant initiatives. In this reporting period, the focus was on reducing noise, air pollution control and shared mobility.

The diesel crisis has damaged our reputation and we are still feeling the consequences. In order to play an active role in finding solutions, we have worked on a study looking at measures to reduce nitrogen oxide pollution in a number of German cities.

### FUTURE STRATEGY FOR CLEAN VEHICLES AND CUSTOMER-ORIENTED SERVICES

We are addressing the aforementioned challenges ambitiously because we are convinced that we can offer important answers and solutions in all action areas. Our aim is to be a leading innovator and technology provider and in turn to underpin our high level of customer satisfaction. We have embedded new mobility solutions and digital services as core elements in our future program TOGETHER – Strategy 2025. In order to achieve this, we will expand and improve our range of products and services while reducing the number of platforms. We are implementing the Roadmap E for all brands and would like to become the world's number one in electric mobility. When developing our products, we focus on minimizing consumption and using resources in the most efficient way possible.

Through our MOIA offering, we develop and market our own mobility solutions and are stepping up our partnerships with cities and existing traffic systems. With SEDRIC (SELF-DRIVING Car), we have an innovative mobility concept based on autonomous vehicles. SEDRIC is our cross-brand idea platform for sustainable, safe and comfortable mobility available to anyone.

The trust of our customers is particularly important for a successful transformation to a provider of sustainable mobility. For our customers, we bundle all digital services and apps on the Volkswagen We service platform. They thus become part of an entirely new mobility ecosystem which complements the Volkswagen experience on wheels and brings the digital world into customers' own cars. The motto of our sales strategy is "Customer Delight". This means achieving the highest level of customer satisfaction possible.

In order to be able to measure and manage this, we collect data on two strategic indicators for the major passenger car-producing brands: loyalty rate and conquest rate. We also measure customer satisfaction for our truck business and our financial services.

As far as the quality and safety of our vehicles and mobility concepts are concerned, we set the highest standards. "Vision Zero" serves as a target for preventing accidents or significantly reducing their consequences – something we aim to achieve through our technical measures.

## TARGET PROGRAM MOBILITY

Action areas	Goals and actions	Deadline	Status
Establish mobility solutions business	- Build mobility solutions business	2025	- Examples: Volkswagen launches car-sharing in Rwanda. The focus is on car-sharing and ride-hailing services. Community car-sharing (in Kigali) marks the start, a ride-hailing service is to follow. More mobility services are planned to be introduced in 2019. - MOIA: The on-demand mobility service scheme is due to be launched in Hamburg in April 2019 with a fully electric vehicle fleet. Initially, MOIA will operate roughly 200 vehicles; by 2022, 1,000 fully electric MOIA vehicles will be on Hamburg's streets.
	- Rapidly develop new mobility solutions	2025	- 2018: MOIA offers new ride-sharing concept in Hanover with 150 vehicles
	- Leading provider of autonomous vehicles – rapid market launches planned	2025	- New umbrella brand campaign IQ.DRIVE; IQ.DRIVE special editions available as of January 2019
	- Mobility trends	2019	- Volkswagen launches e-mobility car-sharing in Berlin: "We Share" to start in second quarter of 2019 with 1,500 e-Golf, 500 e-up! will be added at a later point in time
Environmentally compatible products	- Volkswagen Passenger Cars will offer more than 20 fully electric vehicles by 2022. - The Volkswagen I.D., I.D. BUZZ and I.D. CROZZ mark the start of Volkswagen's fast-paced e-offensive in 2020. - As the first vehicle based on the new modular electric drive matrix (MEB), the compact fully electric Volkswagen I.D. will be coming off the assembly line at the Zwickau site in Saxony as of the end of 2019. Within five years, there will be 32 model ramp-ups based on the new MEB around the globe and across all brands.	By 2022	- I.D. - I.D. BUZZ - I.D. CROZZ
	- Roadmap E: - End-to-end electrification of the entire model portfolio (at least one electrically powered version of each of the Group's approx. 300 models, battery-powered, as hybrid or mild hybrid vehicles) - >€20 billion for the industrialization of e-mobility	By 2030	- See Roadmap E: status by 2025
Product and road safety	- Systematic quality assurance along the entire value chain	Ongoing	
	- Implementation of Vision Zero: zero fatalities or severe injuries in or due to vehicles manufactured by the Group	Ongoing	
Climate protection and decarbonization	- Regular external audits of emissions tests by independent experts; introduction of random, realistic testing of on-the-road emission behavior	2025	- Transition to the new WLTP
	- Fitting particulate filters to TSI and TFSI engines	2017	- Step-by-step installation of gasoline particulate filters (GPF) in all the Group fleet's direct-injection TSI and TFSI engines - By 2022, up to seven million vehicles are to be equipped with this technology every year.

# INNOVATIVE AND ENVIRONMENTALLY FRIENDLY VEHICLE TECHNOLOGIES

Our technological developments are very much geared to increasing the efficiency and eco-friendliness of drivetrains and fuels with each new model generation. This applies to internal combustion engines, hybrid and plug-in hybrid drivetrains and even purely electric drivetrains and fuel cell systems. As part of the e-offensive, the further development of electric drivetrains is very much at the center of our work. Nevertheless, we retain our large and diverse drivetrain range, allowing the brands to react to the individual requirements of markets and customers.

## MODULAR ELECTRIC TOOLKIT TAKES ON A KEY ROLE

Our modular toolkits allow us to use various drivetrains in combination and to install these flexibly on the production lines at our sites around the world. The Modular Electric Drive Toolkit (MEB) is the technological backbone of electric vehicles and is a unique selling point for the Volkswagen Group. It allows e-drivetrain components, auxiliary systems and interior features to be linked together intelligently. It will make the manufacture of e-cars more efficient and less expensive in the long term. This will allow Volkswagen to focus production on e-mobility and to respond to the growing demand for electric vehicles.

The first model based on the new MEB is the Volkswagen I.D., which will be available from 2020. It will offer a range of up to 440 km for the price of a Golf diesel. E-cars will thus become affordable for millions of people. We will launch the I.D. as a 100 percent emission-neutral electric car – over the entire production process including battery cell manufacture.

## ROADMAP E PAVES THE WAY FOR THE FUTURE

As part of our future program TOGETHER – Strategy 2025, we are launching the Roadmap E, the biggest electrification offensive in the automotive industry. By 2025, we would like to be a world leader for e-mobility and launch more than 80 electrified models, including some 50 all-electric vehicles and 30 plug-in hybrids. According to our forecasts, one in four new vehicles from our Group will feature a purely electric drivetrain by 2025. Depending on how the market develops, this could be as many as three million electric vehicles per year.

By 2030, we would like to offer at least one electrically powered version of each of the 300 or so passenger car models manufactured by the Group, across all brands and markets – battery-powered, as hybrid or mild hybrid vehicles. By doing so, we will be the first mobility group to set a deadline for the electrification of its vehicle fleet. With the Roadmap E, we will provide more than €20 billion for direct investments in the industrialization of e-mobility by 2030.

In order to support our electric offensive, we have recruited SKI, CATL, LG Chem and Samsung as strategic battery cell suppliers for our most important markets and the first MEB models. We predict that the Volkswagen Group alone will require almost 150 gigawatt hours annually by 2023. At the moment, there are only capacities

for 20 gigawatt hours in Europe. We are therefore looking at acquiring a stake in a battery cell production company.

In September 2018, Audi began producing the e-tron at its Brussels plant in Belgium. To this end, the plant was completely converted within two years. This included a battery production facility where only cell modules are bought in. In 2018, Audi started mass production of its own electric motors in Győr (Hungary). These motors are used for production in Brussels.



- Further information on e-mobility can be found in the sustainability sections of our brands:
- Audi | e-tron
  - Porsche | IONITY
  - Volkswagen Passenger Cars | I.D. Family
  - Volkswagen Commercial Vehicles | e-Crafter
  - MAN | eTrucks

## CHARGING INFRASTRUCTURE MUST BE DEVELOPED

If e-mobility is to achieve a breakthrough, there must be an accessible, available charging infrastructure geared to people's needs as well as a customer-friendly charging procedure. Volkswagen AG is setting up its own charging and energy ecosystem based on car-related hardware and software and is focusing on all areas of use: at home, at work, in public areas and on major roads.

The joint venture IONITY plays an important role here. Together with the BMW Group, Daimler AG and the Ford Motor Company, Volkswagen AG is working to establish a reliable network of quick charging facilities (350 kWh) along major European roads. By 2020, 400 of them will be in operation. We are also working to promote the spread of e-mobility with mobile charging points. A pilot project with quick charging points that work similar to a power bank, flexibly and independently of the mains network, began in Wolfsburg in 2018.

Generally speaking, all countries are working hard to develop the charging infrastructure to meet the growing needs of e-mobility users. In Germany, we worked with the VDA in 2018 to establish recommendations and requirements regarding the development of charging infrastructures to encourage e-mobility and took these into account in the discussion. These recommendations and requirements focus on subsidy programs, charging convenience, construction measures, network integration and legal frameworks.

When it comes to developing the charging infrastructure, Volkswagen is taking steps too: all 4,000 official Volkswagen dealerships in Europe will be equipped with charging points. At the same time, Volkswagen will expand the network of charging points in staff car parks at its production sites from 1,000 to 5,000 by 2020. We are also working to offer electricity from renewable energy sources at our Company's charging points wherever possible.

#### INTERNAL COMBUSTION ENGINE WITH BRIDGING FUNCTION

On the road to sustainable mobility, we need an orderly change of systems which includes the internal combustion engine as a bridging technology. So that we can offer a broad product portfolio as economically as possible, we are reducing the variety of individual modules. In the case of our conventional combustion engines, for example, we will cut the number of variants within the Group by more than one third over the long term.

We will increase the proportion of vehicles in our fleet which comply with the requirements of the Euro 6 standard, which has been compulsory for newly registered vehicles since September 2015. In 2017, we launched the series production of the 96 kW 1.5 l TSI evo, an exceptionally fuel-efficient powertrain for our latest BlueMotion models. It has a special sailing function where the engine is switched off while the vehicle is coasting. Together with other technical innovations, this can improve fuel consumption by up to 1.0 l/100 km.

Every new diesel vehicle now has an SCR catalyst as standard, while the new petrol engines are all equipped with particulate filters.

Since 2017, new measuring procedures for exhaust-gas emissions (including particulates and nitrogen oxides) and consumption (CO<sub>2</sub>) have applied for new vehicle types in the EU. Consequently, each vehicle is assigned its own CO<sub>2</sub> value. WLTP allows the measurement of CO<sub>2</sub> emissions for passenger cars and light commercial vehicles in an internationally standardized manner and provides customers with more realistic information. The second introductory phase for the WLTP, which requires that all new vehicles be checked in accordance with the new standard, began in 2018. In addition to WLTP, measurements in accordance with the RDE testing procedure have been taken in Europe since September 2017. RDE stands for "real driving emissions". Unlike with WLTP, emissions are not measured on a test bench – they are measured in actual road traffic.

#### STUDY ON MEASURES TO COMBAT NITROGEN OXIDE POLLUTION

The fact that nitrogen oxide levels often exceed the limit values in German cities and the resulting discussion regarding the banning of diesel vehicles have prompted us to offer dialog regarding possible measures for specific cities and to step up partnerships with the cities affected. Our shared aim is to avoid the banning of certain vehicles and to achieve maximum transparency as regards the effects of the individual improvement measures in the local area.


Prompted by a VDA initiative, our Group including the Audi, Porsche, Volkswagen Passenger Cars and Volkswagen Commercial Vehicles brands is the only German automotive company to offer selected cities financing for complex model-based measure assessments for air pollution control. The cities of Kiel, Heilbronn, Ludwigsburg and Hanover have accepted this offer. It allowed them to apply for the subsidies provided with sound arguments.

The independent assessment of the measures was carried out by the PTV Group. The measures have also been integrated into the cities' air pollution control plans. PTV is the world leader for integrated traffic concepts on the basis of intelligent software solutions, which are already in use in numerous cities around the world. The calculations were based on the nature of the urban infrastructure, traffic levels and vehicle fleets, existing emissions sources such as vehicles, industry or house fires, basic meteorological and topographical conditions and the existing nitrogen oxide background pollution.

The cities involved selected the measures to be assessed on the basis of their own development strategies. These also included measures from the 2017 diesel summit, e.g. software updates and replacing vehicle fleets. Moving traffic to other areas and times, switching from individual transport to public transport or using bicycles and stabilizing traffic flow, for example through speed limits and alternative traffic light sequences, were also investigated.

In spite of different basic conditions in each region, naturally replacing vehicle fleets was consistently identified as by far the most effective measure. In Germany, this means 3.5 million vehicles per year. Investing in clean drive technologies and high-quality fuels is thus the most important approach when it comes to achieving significantly better air quality. With our vehicle technology innovations such as the E-Offensive, we have the right approaches to solve this problem. Measures to reduce nitrogen oxide pollution, which can occur in a highly localized manner, as quickly as possible in specific cities may also be necessary.

We realize that air pollution in major cities and urban areas is a problem which is not confined to Germany. People in large urban areas around the world face much more serious health problems than we do here. We are thus active on a global level, for example in the WBCSD project "Transforming Urban Mobility" which, together with other players, is searching for solutions for clean cities.

 > <https://www.wbcds.org/Programs/Cities-and-Mobility/Transforming-Mobility/Transforming-Urban-Mobility>

## REDUCING EMISSIONS THROUGH ALTERNATIVE FUELS AND ENERGY SOURCES

In addition to e-mobility, we are focusing on allowing better use of environmentally friendly CO<sub>2</sub>-reduced fuels in internal combustion engines. The advantage here is that technological innovations could help to protect our climate and the environment, even in existing vehicles. By using compressed natural gas (CNG) for transportation purposes, i.e. using natural gas or methane as a fuel, we offer customers in the passenger car and commercial vehicles sector a drive technology for sustainable mobility which is available immediately and affordable. CNG as a fuel produces up to 25% less CO<sub>2</sub> emissions than today's petrol engines. Through the use of bio-CNG or e-gas, CNG mobility will be virtually CO<sub>2</sub>-neutral in the years ahead.


Methane as a liquid gas (liquefied natural gas, LNG) is an economical and clean alternative for trucks and buses in particular because its high energy density is ideal for long-distance applications. However, the natural gas filling station network in most countries needs to be improved if this development is to be a success.

Various research projects and testing procedures for CO<sub>2</sub>-reduced regenerative fuels are under way at the Volkswagen Group and the brands. In the reporting period, the newly developed fuel R33 Blue Diesel was tested at the plant's own filling station in Wolfsburg. Regenerative fuel components – purified and chemically processed cooking fat – make up one third of the innovative fuel, allowing CO<sub>2</sub> savings of at least 20% compared to ordinary diesel in the

energy balance, which includes fuel manufacture. R33 complies with the EU norm for diesel (EN590) and is compatible with all existing diesel vehicles. The fuel is now permanently available at the filling station and is used for the entire fleet of company cars. This solution is particularly attractive for big customers who, given the long ranges of their fleets, continue to rely on diesel vehicles, yet still want to achieve their environmental targets.

When it comes to making greater use of regenerative fuels in the future, we apply the same strict sustainability criteria as we do for other vehicle technologies used by us. When obtaining raw materials, we avoid competing with food production, conserve natural resources and comply with social standards.

Under Audi's development leadership, we are also looking at hydrogen (H<sub>2</sub>) as a fuel and are working constantly on fuel cell technology where H<sub>2</sub> is converted into electrical energy in the vehicle. Long ranges and short refueling times make hydrogen an attractive fuel for e-mobility. This applies especially to larger vehicles where the weight advantages of a fuel cell vehicle make a real difference. Through operating test fleets, Audi has gained extensive practical experience with these drivetrains and will join forces in this area with partners such as Hyundai in the future. Along with further progress in the area of fuel cell technology, the regenerative production of hydrogen and the development of a widespread, customer-friendly infrastructure will be crucial to the market success of this form of drivetrain in the future.

 > Appendix > Alternative drive technologies in the Group

## MOBILITY CONCEPTS FOR A TRANSPORT REVOLUTION

We are deliberately making futuristic mobility services a mainstay of our business model. We would like to offer our customers connected, environmentally friendly services which can be used regardless of whether they own their own vehicle, complement other modes of transport and use proven shared economy concepts. The focus here is on urban areas where there is considerable pressure to act owing to traffic jams, air pollution, noise and a lack of space.

### VOLKSWAGEN WE AS A DIGITAL ECOSYSTEM

Via the Volkswagen We digital service platform, we are bundling more and more innovative mobility services and apps. This complements the Volkswagen experience on wheels and brings the digital world into cars. Volkswagen already offers the following applications: "WePark", the parking app with integrated billing, "WeDeliver", the parcel delivery service in a luggage compartment, and "WeExperience" with personalized services and recommendations close to car parks. With "WeShare", we are entering the world of car-sharing.

The new service structures are also based on partnerships with outside companies requiring joint data access. We take great care to make all processes transparent and lawful so that customers always retain control of their own data.

In the future, the "Volkswagen We" ecosystem will be an important part of the Volkswagen Automotive Cloud, which links vehicles, a cloud-based platform and customer-oriented services provided by all brands. As a large industrial cloud, it will include all future mobility services and other digital services from Volkswagen. In doing so, Volkswagen is pressing ahead with its digital transformation.

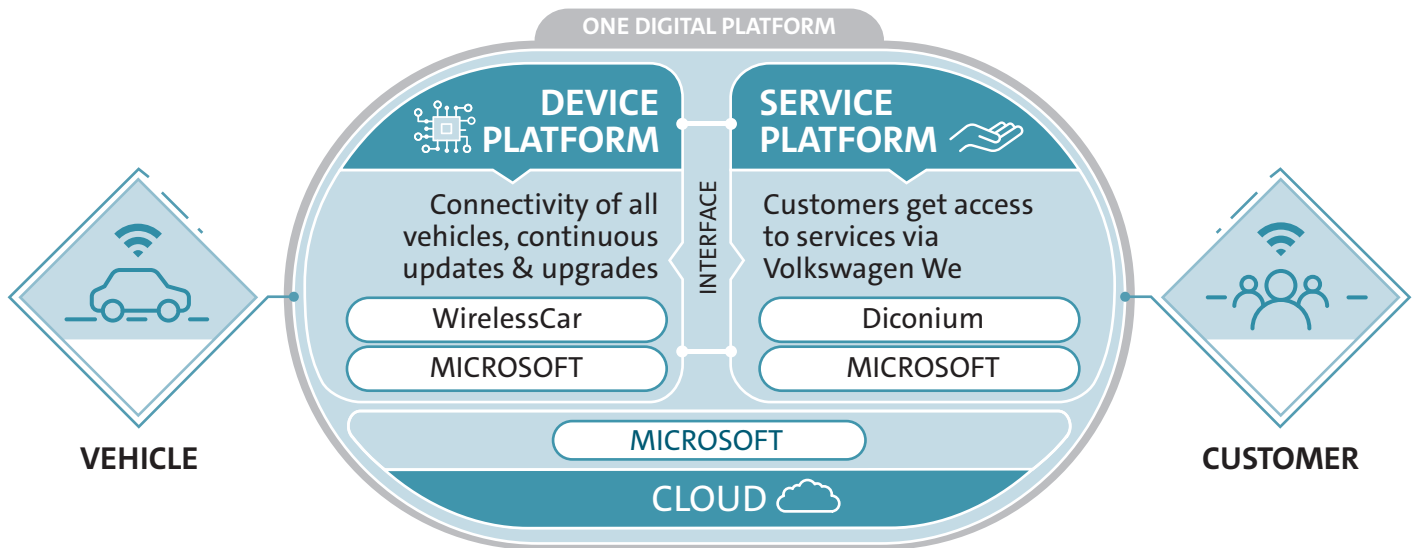
In 2018, Volkswagen and Microsoft established a strategic partnership to develop the Volkswagen Automotive Cloud together. In the future, all IT and other services in vehicles from the core brands as well as the Group-wide cloud-based digital One Digital Platform (ODP) architecture will be based on Microsoft's Azure cloud platform and will use platform services such as Azure IoT Edge.

As part of the partnership, Volkswagen will set up a new development center for the Automotive Cloud in North America. In the

long term, the solutions resulting from the strategic partnership will be rolled out at other Group brands and in all world regions. The Volkswagen Automotive Cloud will thus form the basis for all of the Group brands' digital services and added value offerings.

In addition to this partnership, we will also seek to work with innovative IT start-ups that will assist us in further developing our services and in optimizing the digital infrastructure of the Volkswagen Group.

## VOLKSWAGEN AUTOMOTIVE CLOUD



Volkswagen implements the digital ecosystem with technology partners

## MOIA: SHARED USE OF TRANSPORT SERVICES

We would like to do our bit to solve urban transport problems. Through shared journeys, we ease the burden on traffic and the environment. With MOIA, we offer bundled on-demand mobility services such as ride-sharing in Germany. Instead of using their own cars, people travel to their destination with other passengers all traveling in the same direction.

With its ride-sharing service, MOIA complements existing public rail and bus routes in a practical, inexpensive manner and offers an attractive alternative to private cars. As an independent Volkswagen Group brand, the subsidiary develops and markets its own mobility services independently or in partnership with cities and existing transport systems.

After a test phase lasting several months, MOIA was launched in the Lower Saxony state capital of Hanover in 2018. Initially, 100 vehicles will be available, but there are plans in place to have 250 on the street at a later stage. The service is available to all residents and can be booked via smartphone app. On average, the fee is between that of public transport and a taxi. By the end of 2020, at least 50% of the pool will be made up of electric vehicles. The scheme is due to be launched in Hamburg in April 2019 with a fully electric vehicle fleet. Initially, MOIA will operate roughly 200 vehicles; by 2022, 1,000 fully electric MOIA vehicles will be on Hamburg's streets.

## NEW CAR-SHARING MODEL IN BIG CITIES ABOUT TO BE LAUNCHED

We are complementing the MOIA service with vehicle-on-demand services which are aimed at people in urban areas and are designed to introduce them to the benefits of e-mobility. Under the sub-brand "WeShare", the Volkswagen brand is introducing a comprehensive, purely electric car-sharing service in selected big cities. The first vehicle fleet will be launched in the German capital Berlin in 2019. "WeShare" is also the first service in Volkswagen's new "We" ecosystem which is aimed at people who do not own cars. After the launch in Berlin, "WeShare" will be introduced in other big German cities. From 2020, the scheme will also be extended to European core markets and to selected cities in the USA and Canada.

## AUTONOMOUS DRIVING IS BECOMING REALITY

Autonomous driving is the key issue in our transformation from an automotive manufacturer to a provider of sustainable mobility. A concept based on heavily used autonomous vehicles will not only require less space and energy – it will also be much safer. We would like to make automated driving accessible to everyone, everywhere.

With SEDRIC (SELF-DRIVING Car), we have not only created an innovative, integrated mobility concept for the urban traffic of the future, we have also developed a totally new kind of concept car. It has an intuitive operating system where a push of a button, a voice command or a smartphone app is enough. The self-driving car will bring passengers to their destination comfortably, reliably and safely.

Since SEDRIC was first unveiled, significant progress has been made in developing the self-driving system as well as systems for environment recognition and traffic data analysis. SEDRIC will be a symbol for smart mobility solutions and is the Volkswagen Group's contribution towards ridding cities of problems such as traffic jams, air pollution and accidents.

In 2018, a year after the world premiere of the SEDRIC, the Volkswagen Group presented the latest version of its mobility concept for fully automated driving: the SEDRIC School Bus. With this bus, the Company is underpinning the goal it set out in the TOGETHER – Strategy 2025 future program, namely becoming a global leader in the area of autonomous driving.

In the future, we would like to expand this form of mobility and make it safer and thereby more accessible to older or disabled people, for example. At the same time, we want to not only further develop cars as a means of transport, but also establish them as a retreat or a place for working or entertainment. We would also like as many people as possible to share an autonomous car.

In the years ahead, autonomous and connected driving will fundamentally change the growing road freight transport too. For example, we are working with MAN and DB Schenker to test platooning, where electronically connected trucks travel close to each other in a convoy. This allows fuel savings of 10%, reduces emissions and eases the burden on drivers through the use of drive assistance and control systems.

#### IMPACT ASSESSMENT FOR SHARED MOBILITY CONCEPTS

In cities in particular, people's mobility habits are changing and they are now more willing to use alternatives other than traveling

individually in their own cars. We would like to gain an even better understanding of how new mobility concepts work and the complex effects that they have. To this end, we are developing methods and expanding our own know-how.

In the reporting period, the focus was on analyzing the effects of shared mobility concepts on cities. On the basis of mobility demand and mobility service simulations, we compared the two shared mobility services which dominate at the moment – ride-hailing and ride-pooling. The ride-hailing concept is based on an app which is used to organize door-to-door rides. In contrast, ride-pooling intelligently bundles a number of people's individual journeys with similar routes in one vehicle. The people get in and out at virtual stations. This is similar to the MOIA service that Volkswagen has launched.

During the study, we assumed that there is considerable interaction between users, providers and the urban transport infrastructure. Our initial results indicate that ride-hailing is better than ride-pooling for the journey time but is more likely to result in additional driving and more traffic. Ride-pooling results in fewer empty runs and transports more people, which will probably result in less driving and fewer car journeys.

We will gradually use the impact assessment method on other mobility concepts. At the moment, the focus is on commercial transport, which accounts for around a third of inner-city journeys. We are looking at possible improvements, for example linking goods and passenger transport, improving last mile logistics, e.g. through more cargo bikes, and other micromobility services.

## HIGH CUSTOMER SATISFACTION IN ALL BUSINESS AREAS

As part of our future program, we have developed a sales and marketing strategy aimed at exciting customers on a whole new level under the slogan "Customer Delight". We regard ourselves as an innovative and sustainable mobility provider for all commercial and private customers worldwide – with a unique product portfolio encompassing 12 successful brands and innovative financial services.

In the 2018 fiscal year, we achieved a milestone in our sales strategy TOGETHER – Strategy 2025: together with their sales partners and importers, our passenger car brands have agreed on a procedure for integrating innovative products and services into the sales network. The priority is safe handling of customer data and the way in which this is processed for digital products and services or in connection with vehicle sales. 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.

Optimal coverage of markets, customer segments and customer budgets are at the heart of a strategic Group initiative. To this end, we are establishing automobile-specific customer segmentation to steer the positioning of our brands. At the same time, we are examining global markets for potential revenue sources. This methodology has already been established for Europe and China and in 2018 was rolled out to further markets including the United States and Brazil. It will be continuously applied in the strategy and product process and regularly reviewed and adjusted as necessary whenever new market requirements arise.



The Volkswagen Group aims its sales activities at exciting its customers. This is our top priority, as enthusiastic customers remain loyal to our brands and recommend our products and services to others. We value customer satisfaction with our products and services and therefore 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 collect data on and analyze two strategic indicators for the major passenger car-producing brands:

- **Loyalty rate:** proportion of customers of our passenger car brands who have bought another Group model. The loyalty of Volkswagen Passenger Cars, Audi, Porsche and ŠKODA customers has kept these brands in the upper loyalty rankings in the core European markets in comparison with competitors for a number of years even though the Volkswagen Passenger Cars and Audi brand have seen a slight decrease in the loyalty rate as a consequence of the diesel issue. Compared to other manufacturer groups, the Volkswagen Group continues to hold a top spot in the core European markets in terms of loyalty, with a considerable margin over the competition.
- **Conquest rate:** newly acquired passenger car customers as a proportion of all potential new customers. Here, too, the Volkswagen Group has a top ranking, primarily thanks to the good scores achieved by the Volkswagen Passenger Cars brand.

In the core European markets, the downward trend in brand image and brand trust at the Volkswagen Passenger Cars brand as a consequence of the diesel issue did not continue in 2018. After the first signs of recovery had been seen in 2017, the figures continued to stabilize in the reporting period. Porsche remains in top position in the image ranking.

We also use a strategic indicator to measure the satisfaction of customers with our products and services in the truck business:

- **Customer satisfaction:** in the markets relevant for the Volkswagen Group, we aim to be one of the industry leaders in terms of the satisfaction rate for our commercial vehicle brands. To evaluate these criteria, we use customer satisfaction studies, which again delivered exceedingly positive satisfaction figures in line with our targets in the reporting period.

In the financial services business, we use two strategic indicators:

- **Customer satisfaction:** a customer-oriented product range and the service focus of our staff make for satisfied customers. In the annual measurement, the two aspects are suitable indicators for the critical assessment as to whether we will achieve our target of 90% customer satisfaction in 2025. In 2018, we were within the expected range with a satisfaction rate of 82%. Our goal is to satisfy our customers completely. For this we are developing current measures at country level.
- **Customer loyalty:** trust in and loyalty to our services rely on customer satisfaction with our product range and service. At

currently 20%, the new contract rates that are regularly determined based on product sales to our customers – financing agreements and leases for purchases of new Volkswagen Group vehicles – are proof of customers' trust in our financial services. With ambitious targets of 50% for 2025 we underscore the focus on fulfilling the needs of our customers.

## STABLE BUSINESS WITH FLEET CUSTOMERS

The Volkswagen Group has an established base of business fleet customers in Germany and the rest of Europe in particular. Our extensive product range enables us to satisfy their individual mobility needs from a single source. In the German passenger car market that declined as a whole by 0.2% in 2018, the share of fleet customers in total registrations fell to 13.6 (14.1)%. The Volkswagen Group's share of this customer segment decreased to 44.0 (44.7)%. Outside Germany, the Group's share of registrations by fleet customers in Europe remained stable at 25.2 (25.2)%. The upward trend until August shows that fleet customers still have considerable confidence in the Group. The temporary limitation of the model range as a consequence of the changeover to the WLTP had a negative impact from September 2018 onwards.

## GLOBAL AFTER-SALES SERVICE FOR PASSENGER CARS AND COMMERCIAL VEHICLES

In addition to individual service, the timely provision of genuine parts is essential in ensuring passenger car customer satisfaction in After Sales. The genuine parts supplied by our passenger car brands and the expertise of the service centers represent the highest level of quality and ensure the safety and value retention of our customers' vehicles. With our global after-sales network including more than 130 of our own warehouses, we ensure that almost all our authorized service facilities around the world can be supplied 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, we ensure the worldwide mobility of our customers. The partner businesses offer the entire 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 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 squarely on both dealers and customers with their specific needs, 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 will additionally improve the customer experience.

Around the world, our commercial vehicles business also prides itself on products of the highest quality and on customer focus. Our range of trucks, buses and engines is complemented by services

that guarantee fuel efficiency, reliability and good vehicle availability. The workshop service and service contracts 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 reducing vehicles' total operating costs and helping them retain their value.

## RESPONSIBILITY FOR QUALITY AND SAFETY

### GROUP QUALITY MANAGEMENT

The quality of our products and services plays a key role in maintaining customer satisfaction. Customers will be 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 fill them with enthusiasm in all areas, and thus to win them over with our outstanding quality.

### STRATEGY OF GROUP QUALITY MANAGEMENT

We embody outstanding quality and ensure dependable mobility for our customers worldwide – this is the strategic goal that guides the work of Group Quality Management. Group Quality Management 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 goodwill costs.


In consultation with the brands, we developed the Group Quality Management strategy as part of our future program TOGETHER – Strategy 2025. Focal areas include digitalization, new technologies and business areas as well as uniform processes, methods and standards at all brands.

The advancing digitalization is also a major challenge for the Volkswagen Group: an ever increasing number of digital products and services is being developed and brought to market. To continue to ensure our customary level of quality and safety amid this diversity, we must adapt our quality measures accordingly. For example, the increased functional diversity and complexity of the driver assistance systems, extending all the way to autonomous vehicles, means that the software is also growing in scope. We have therefore introduced the processes and structures of what are known as smart quality organizations in the Group and the brands, completing this in the reporting period. Among other things, smart quality organizations refine the methods we use to support the development of software for selected critical features, and with which we can ensure that quality requirements are met. We are also taking advantage of the progress in digital technology to further optimize our existing processes and structures. For example, we use virtual measurement technologies or big data analyses when vehicles on the market encounter quality problems.

The strategy of Group Quality Management developed in this context comprises the following four goals:

- We will impress our customers with our outstanding quality by understanding what exactly they perceive as quality and implementing this in our products.
- We will contribute to competitive products with optimal quality costs by ensuring robust processes, thereby reducing the expense involved in testing each vehicle.
- In critical business processes, we will reinforce the principle of multiple-party verification and monitor achievement of milestones even more closely.
- We will become an excellent employer by promoting the personal development of every single employee even more intensively.

To achieve our goals, we are working on a variety of quality initiatives. All are focused on the topics that are decisive to the success of the quality organizations in the Volkswagen Group.

 > [Annual Report](#) > [Management Report](#) > [Group Quality Management](#)

### VISION ZERO: ZERO TRAFFIC FATALITIES THROUGH HIGH VEHICLE AND TRAFFIC SAFETY

Vehicles from the Volkswagen Group brands should no longer be involved in accidents with fatalities and seriously injured people. This is at the heart of our "Vision Zero". In order to achieve it, we have set three sub-goals:

- avoidable accidents should be prevented,
- unavoidable accidents should be positively mitigated and
- the severity of an accident should be minimized.


If we are to achieve these goals, our Group accident research department needs to collect data from real accidents. This includes carrying out technical analyses of the vehicles involved and determining the technical seriousness of the accident, medical analyses of the injuries suffered by those involved and psychological analyses of the circumstances surrounding the accident. We use the findings of these analyses to develop measures to protect people inside and outside the vehicle. These include the development of bodywork concepts and occupant retention systems as well as new driver assistance systems capable of avoiding accidents. These include emergency braking systems and lane-keeping systems. If a collision cannot be avoided, passive systems ensure that the consequences of the accident for vehicle occupants are either obviated or

mitigated. Our developments here focus on coordinated interaction between the vehicle structure and the occupant retention system.

We also believe that further developing autonomous driving will have a very positive effect on safety. After all, if cars are able to steer and brake themselves and communicate with each other, driver error will play an ever decreasing role.



page **54**  
Strategic Approach  
and Management



page **56**  
Climate Protection  
through Decarbonization

page **59**  
Resource Efficiency  
in Value Creation

# CREATING TRUST IN ENVIRONMENTAL PROTECTION



## STRATEGIC APPROACH AND MANAGEMENT

We realize that the production and use of our vehicles pose risks for the environment and can have a negative impact on it. In light of climate change, the threat to air quality in urban areas and the use of natural resources, we must also refocus and transform our core business to take into account environmental needs. At the same time, stricter regulations as regards exhaust gas emissions and fuel consumption as a result of this situation along with the diesel crisis make it all the more important to take action. These developments require new and integrated solutions for the supply chain, production processes, vehicle technologies, employee qualifications and communication with our customers.

We believe that these challenges offer opportunities and the chance to take the necessary action. Our aim is to become the world's leading provider of sustainable mobility. At the same time, we would like to achieve a competitive advantage by using our know-how to make production more resource-efficient and to develop environmentally friendly drive technologies. Environmental protection is not only a central goal of our TOGETHER – Strategy 2025 future program – we want to be a “role model as regards environment”. We believe that this offers an important opportunity to win back our stakeholders' lost trust and to renew our “license to operate”.

In order to be a role model, we consider environmental impact throughout the entire product life cycle: from manufacturing (including the supply chain) to use and disposal. Life cycle assessments help us to determine where in the life cycle we need to apply levers in order to improve our environmental performance. This is particularly important given the technological transformation towards e-mobility, as there is a shift of key environmental effects from the usage phase towards production at our sites and, to an even greater extent, our supply chain. We are thus encouraging the use of renewable energy sources, greater energy efficiency and the use of sustainable materials.

We have defined the following goals for environmental protection in the Volkswagen Group:

- To continuously improve our carbon footprint
- To continuously reduce harmful emissions
- To continuously reduce resource consumption

The Volkswagen Group is committed to achieving the Paris climate targets and is pursuing the goal of making its vehicle fleet completely carbon neutral by 2050. The decarbonization index (DCI) will be used as a strategic indicator which allows us to measure and manage the CO<sub>2</sub> emissions of products along the entire value chain. The DCI thus enables us to track progress towards climate-friendly mobility in a transparent, integrated manner. At the moment, we are working with the Volkswagen Group brands to define the target values for a decarbonization program.

We are also determining the environmental impact reduction production (UEP) indicator for the Group and its brands. We have set a target to reduce the environmental impact of production by 45% per vehicle compared with 2010 levels. UEP includes the consumption of energy and water, emissions of CO<sub>2</sub> and VOCs, as well as the amount of waste for disposal.

In addition to meeting our own targets and goals, we aim to achieve top positions in key sustainability ratings. They are an important measure of success for us and help to make our activities more visible.

### MANAGING GOALS AND MEASURES

The Group Board of Management is the highest internal decision-making level for environmental matters and also functions as the Group's Sustainability Board. The Group-wide management of environmental protection is the responsibility of the Group Steering Committee for the Environment and Energy. Other committees manage important individual aspects for our products – such as CO<sub>2</sub> and exhaust emissions. These include the Group Steering Committee for CO<sub>2</sub> and the Group Steering Committee for Fleet Compliance and Exhaust Emissions.

The Volkswagen Group coordinates the activities of the brands, which in turn manage measures in the individual regions. In organizational terms, the brands and companies themselves are responsible for environmental issues. They define their environmental protection activities on the basis of the targets, guidelines and principles that apply throughout the Group. The following documents are binding:

- The TOGETHER – Strategy 2025 future program
- The environmental policy of Volkswagen AG
- The Group Environmental Principles Locations/Production
- The Group Environmental Principles Products
- The Mission Statement Biological Diversity

The Group Steering Committee for the Environment and Energy reports to the Board of Management as to how the measures are progressing. Environmental officers and experts from throughout the Group meet regularly for the Group Environmental Conference in order to optimize the environmental focus along the entire value chain.

In 2018, 101 of our 123 sites including the central development areas were certified in accordance with ISO 14001 or EMAS. In terms of employee numbers, this equates to approximately 90%. In addition, 44 production locations have certified their energy management systems in accordance with ISO 50001. Since 2009, the “Integration of Environmental Factors into the Volkswagen Brand's Product Development” model used in the Volkswagen Passenger Cars brand's Technical Development department has also been certified to ISO/TR 14062. SEAT development is certified in accordance with ISO 14006.

We involve our employees throughout the Group in order to achieve our Company's environmental goals together. A good example of this is the "Works Agreement on Environmental Protection" at Volkswagen AG plants (including Technical Development in Wolfsburg). In support of the production process, the Volkswagen brand has appointed environmental protection and energy experts.

In line with our life cycle approach, we involve our suppliers in our efforts to minimize our environmental impact early on. As a result, we can cover over 89% of production-relevant purchasing volume via the CDP Supply Chain Program (SCP).

With our environmental and energy management system, the entire Group has tools which enable us to meet our environmental responsibility over the entire life cycle of our vehicles and in all stages of the value chain.

## TARGET PROGRAM ENVIRONMENTAL PROTECTION

Action areas	Goals and actions	Deadline	Status
Climate protection and decarbonization	- Decarbonization program	2019 (launch)	- The development of a Group-wide decarbonization program is currently under way to reduce CO <sub>2</sub> emissions throughout the entire life cycle of products and services. The program covers the setting of CO <sub>2</sub> targets to be met by 2025, Group-wide CO <sub>2</sub> measures and tools, and control elements.
	- Continuous reduction of the carbon footprint	2025	- CDP inventory overall: reduction in total CO <sub>2</sub> emissions per vehicle produced (Scope 1, 2, 3) from 40.5 t/a in 2017 to 40.4 t/a in 2018 - CDP Scope 3 inventory, category 11: status of CO <sub>2</sub> fleet emissions in 2018 - EU: 123 g/km <sup>1,2</sup> (cars and light commercial vehicles) - China: 144.5 g/km (VGIC+SVW+FAW-VW) - Brazil: 132.4 g/km - USA: 163.2 g/km (Audi/VW calendar year; excluding VWoA)
	- Reduction of European new-car fleet CO <sub>2</sub> emissions to 95 g/km	2020	- EU fleet CO <sub>2</sub> emissions in 2018 123 g/km <sup>1,2</sup> (cars and light commercial vehicles)
Resource conservation throughout life cycle	- Top places in selected product rankings, ratings and awards	2018	- Environmental awards in 2018 - ADAC Ecotest 2018: 1st: e-Golf, 2nd: e-up! - VCD/VCS: award for VW eco up!, Skoda Citigo and SEAT Mii with natural-gas drive
	- Reduction of greenhouse gas emissions from energy supply to production facilities in Germany by 40% per unit produced by 2020 (compared with 2010 baseline)	2022 / 2019	- Approval for building and operating certified wind power facilities producing 12.8 MW at the MAN Salzgitter site was granted in 2017 as part of a public procedure. The project was confirmed in the Federal Network Agency's EEG Tendering Process 2018. They are due to go into operation in the fourth quarter of 2019. - CO <sub>2</sub> emissions per vehicle from production operations in Germany have already been reduced by around 32% since 2010.
Nature conservation and biodiversity	- Environmental impact reduction production per unit (UEP): across the Group as a whole, energy and water consumption plus waste for disposal (production-specific volumes only) and emission levels to be reduced by 45% per unit produced (baseline:2010)	2025	- UEP totaled 33.9% <sup>3</sup> in 2018
	- Worldwide commitment to the protection of biodiversity at Group locations - A research project was conducted to develop a standardized biodiversity assessment system at production sites; deployment of the system will commence in pilot projects in 2019	Ongoing	- More than 80 nature conservation projects by ten brands

<sup>1</sup> Subject to official publication by the European Commission in the annual CO<sub>2</sub> fleet monitoring report.

<sup>2</sup> Up to and including 2020, European fleet legislation will be complied with on the basis of the New European Driving Cycle (NEDC). After 2021, the NEDC target value will be changed into a WLTP target value through a process defined by lawmakers; the changing of the target value is not expected to put additional strain on the target value.

<sup>3</sup> Approximately 70% of the improvement in CO<sub>2</sub> emissions for cars and light commercial vehicles is attributable to an improvement in government CO<sub>2</sub> factors in electricity sourcing in China.

# CLIMATE PROTECTION THROUGH DECARBONIZATION

## LIFE CYCLE ENGINEERING IS A CENTRAL APPROACH

We observe our environmental impact over the entire life cycle and all stages of the value chain. This includes the manufacturing process with the extraction of raw materials, the manufacture of materials for the production process, the processes at our suppliers and our own production at our sites, the usage phase with vehicle emissions and the necessary provision of fuel and the ultimate recycling of the vehicle at the end of its life cycle.

### > Shaping Mobility with a View to the Future

For detailed life cycle assessments (LCA), we use special LCA software with our own LCA database LEAD (Life Cycle Environmental Assessment Database), which ensures the exchanging of harmonized data throughout the Group and a standardized basis for calculating our environmental performance. With this software, we can 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.

We will play our part in achieving climate targets by largely decarbonizing mobility by 2050.

We use the decarbonization index (DCI) as a strategic indicator in this context to document our progress. It measures products' CO<sub>2</sub> emissions along the entire value chain. The DCI is calculated by dividing our carbon footprint by the number of vehicles sold. It thus incorporates both direct and indirect CO<sub>2</sub> emissions from the individual production sites (Scope 1 and 2) as well as all other CO<sub>2</sub> emissions occurring throughout the life cycle of the vehicles sold – from the extraction of raw materials through the use phase to the recycling of end-of-life vehicles (Scope 3). We are currently defining the DCI target figures for 2025 together with the Volkswagen Group brands.

## TRANSPARENCY REGARDING CO<sub>2</sub> EMISSIONS AND GOVERNANCE

The Volkswagen Group not only aims to achieve maximum transparency as regards CO<sub>2</sub> emissions over the entire life cycle of its products. As part of reporting for the Carbon Disclosure Project (CDP), we also make detailed statements regarding the risks and opportunities for the Company resulting from climate change and reveal the governance structures as well as the associated strategies and measures for reducing emissions and avoiding risks. The Volkswagen Group currently has a CDP "A–" rating. Through CDP reporting, we also largely comply with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) which was established by the International Financial Stability Board (FSB) and focuses on the voluntary disclosure of climate-related risks and opportunities in the financial markets sector. In order to further optimize compliance with the TCFD criteria, the company with support from outside will undergo a TCFD Readiness Check in 2019.

Every year, we calculate the Group's carbon footprint. On this basis, we can determine the success of our measures and identify other areas for action. In order to reduce Group-wide CO<sub>2</sub> emissions, we focus on making improvements at our own production sites. Our most effective lever for reducing our global carbon footprint is to optimize CO<sub>2</sub> emissions from our vehicle fleet. After all, according to the Scope 3 GHG Inventory, 78% of all CO<sub>2</sub> emissions are produced during the use phase. It is important not only to increase efficiency but also to make greater use of low-CO<sub>2</sub> fuels.

The direct CO<sub>2</sub> emissions from our company cars are not shown separately. Extrapolated across the employees of all production sites, they account for approximately 4% of the Group's Scope 1 and 2 CO<sub>2</sub> emissions. Additional Group CO<sub>2</sub> compensation projects are not shown. The emissions which occur in the Volkswagen AG power plants for providing district heating and electricity to third parties are not included either. In 2018, these amounted to 392,391 t of CO<sub>2</sub>.

## CO<sub>2</sub> EMISSIONS AND ENERGY CONSUMPTION REDUCED IN PRODUCTION

The Volkswagen Group uses a range of measures in order to achieve a significant reduction in CO<sub>2</sub> emissions<sup>1</sup> in production. We are increasing energy efficiency, pressing ahead with the switch from coal to gas and increasing our use of regenerative energy systems for our electricity supply. 37% of the energy that we use around the world now comes from renewable sources.

CO<sub>2</sub> emissions (Scope 1 and 2) have fallen since 2010, thanks to improved energy efficiency and a reduced-carbon energy supply.

Despite the inclusion of new production sites, direct CO<sub>2</sub> emissions in the passenger car and light commercial vehicle category and in the entire Group have been falling since 2010. This is despite a slight increase in energy consumption and CO<sub>2</sub> emissions at Volkswagen AG between 2017 and 2018. This reduction in the absolute volume of emissions goes hand in hand with the decline in direct CO<sub>2</sub> emissions per vehicle since 2010.

Since 2010, our total energy consumption has increased as a result of a continuous rise in production volumes. At the same time, we have been able to reduce energy consumption per vehicle since 2010. Our overall consumption of electrical energy has risen in comparison with 2010, even though we have taken various efficiency-enhancing measures to successfully reduce our electricity consumption per vehicle since 2010.

Heat consumption relates to space heating demand for production and non-production areas in manufacturing facilities and heating demand for technical processes. Since space heating accounts for the greater proportion of the total heating demand, weather conditions have a major impact on trends in overall heating demand.

<sup>1</sup> Approximately 70% of the improvement in CO<sub>2</sub> emissions for cars and light commercial vehicles is attributable to an improvement in government CO<sub>2</sub> factors in electricity sourcing in China.



## DECARBONIZATION OF PRODUCTION

We are taking steps to decarbonize production at our sites by continuously increasing energy efficiency and by covering our remaining energy requirements in a way which reduces CO<sub>2</sub> emissions. This includes generating our own energy and revising supply contracts.

One important lever for reducing energy consumption is operating all facilities according to actual needs. Hall ventilation is an important cross-sectional technology. Sites throughout the Group are working to optimize it while the Group's Energy working group ensures the transfer of knowledge. In the reporting period, around 57,000 MWh of energy and 18,000 t of CO<sub>2</sub> was saved across sites through optimizing ventilation.

Painting vehicle bodies is the most energy-intensive process. Most energy-related analyses thus focus on this area. In the reporting period, 165,000 MWh of energy and 34,000 t of CO<sub>2</sub> was saved at Group sites through optimization measures in the paint shops.

Measures have also been implemented in energy generation and consumption. In the reporting period, the proportion of renewable energy from a wind power park for the Silao site in Mexico was increased to 100% of all electricity required. The site thus meets 93% of its energy needs through renewable energy sources.

At the Wolfsburg site, electricity and heat production is planned to be switched entirely to natural gas by 2022. This will result in a 15% decrease in total CO<sub>2</sub> emissions from Group production sites. Most of the electricity for the Volkswagen Group's German production sites which is not produced by the Company itself is CO<sub>2</sub>-neutral Volkswagen Naturstrom® electricity. Approval for building and operating certified wind power facilities producing 12.8 MW at the MAN Salzgitter site was granted in 2017 as part of a public procedure. The project was confirmed in the Federal Network Agency's EEG Tendering Process 2018. The four wind turbines have been ordered from the manufacturer. They are due to go into operation in the fourth quarter of 2019.

When it comes to decarbonization, the sites that produce e-vehicles are particularly worthy of note. Production at the Brussels site is now completely CO<sub>2</sub>-neutral: by purchasing biogas certificates and using green electricity, 95% of the energy required is produced using CO<sub>2</sub>-free fuels. The remaining CO<sub>2</sub> emissions are compensated for through climate protection projects.

At the Zwickau site too, a decision has been made to make production of the I.D. CO<sub>2</sub>-neutral from 2019. Through energy efficiency and highly efficient cogeneration as well as the sourcing of green

electricity, CO<sub>2</sub> emissions at the Zwickau site have been reduced. The remaining emissions will initially be compensated for through climate protection projects, although the intention is to gradually reduce this. In addition, agreements are being entered into with suppliers so that customers who purchase an I.D. will receive a vehicle which is produced in a completely CO<sub>2</sub>-neutral manner throughout the supply and production chain. At the moment, we are coming up with decarbonization programs for other sites.

## CO<sub>2</sub> BALANCE IN THE USAGE PHASE

In line with the Scope 3 standards published by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI), we report CO<sub>2</sub> emissions for 12 out of a total of 15 Scope 3 categories. Accordingly, around 94% of all Scope 3 emissions are in the "Purchased goods and services" and "Usage phase" emissions categories. The calculation of CO<sub>2</sub> emissions in the usage phase is based on a Group fleet value representing the global cars and light commercial vehicles fleet in the four major regions (EU28, USA, Brazil and China). In order to provide as complete a picture as possible, we also collect data on emissions in this category that are produced during the production and transportation of fuels ("well to tank" emissions).

The Volkswagen Group's new passenger car fleet in the EU (excluding Lamborghini and Bentley) emitted an average of 123 g CO<sub>2</sub>/km<sup>2,3</sup> in the reporting period – below the 2018 European limit of 130 g CO<sub>2</sub>/km. The small year-on-year increase is mainly due to the introduction of new measuring procedures. As small-volume manufacturers, the Lamborghini and Bentley brands each have an independent fleet for the purposes of the European CO<sub>2</sub> legislation and complied with their individual targets. Bentley complied with its individual target, Lamborghini was slightly above its target.

CO<sub>2</sub> emissions from the Volkswagen Group's new passenger car fleet outside the EU break down as follows: in the USA, the fleet emissions figure is 163.2g/km (model year 2017), in China it is 144.5 g/km (Volkswagen Group [Import] Co. Ltd. [VGIC] + Shanghai Volkswagen [SVW] + First Automotive Works [FAW-VW]) and in Brazil it is 132.4 g CO<sub>2</sub>/km (values subject to notification of the relevant authorities).

<sup>2</sup> Subject to official publication by the European Commission in the annual CO<sub>2</sub> fleet monitoring report

<sup>3</sup> Up to and including 2020, European fleet legislation will be complied with on the basis of the New European Driving Cycle (NEDC). After 2021, the NEDC target value will be changed into a WLTP target value through a process defined by lawmakers; the changing of the target value is not expected to put additional strain on the target value.

## ROADMAP E: THE ROUTE TO ENVIRONMENTALLY FRIENDLY DRIVETRAINS

We regard innovative drivetrain technologies and alternative fuels as the key to reducing the CO<sub>2</sub> emissions of our vehicles. With the Roadmap E, we have launched the biggest electrification offensive in the automotive industry. By 2025, we would like to be a world leader for e-mobility and launch more than 80 new electrified models around the world.

Compared to vehicles with an internal combustion engine, e-vehicles have less of an impact on the environment, as they produce no local emissions during use. Our calculations based on Golf-class vehicles show that the CO<sub>2</sub> balance of e-vehicles is better over the entire life cycle too. Nevertheless, e-mobility also leads to greenhouse gas emissions – both as a result of electricity use and during production. Overall, the majority of emissions will shift towards production in the future, primarily as a result of battery manufacture.

We believe that we and our partners in the supply chain have a particular responsibility here. We thus require that our suppliers use electricity from renewable sources when manufacturing high-voltage batteries (and other parts of the Modular Electric Toolkit). We also recycle lithium-ion batteries, which also helps to reduce CO<sub>2</sub> emissions.

 > Responsible Supply Chain

For all drivetrain technologies, the use of alternative fuels along with the use of green electricity is the most important CO<sub>2</sub> reduction measure. The use of “reduced-carbon” fuels is already possible across all brands, as their suitability for use in internal combustion engines has been proven on numerous occasions.

All other information regarding innovative vehicle technologies can be found in the chapter “Ensuring sustainable mobility”.

 > Shaping Mobility with a View to the Future

## MAKING SUPPLIERS RESPONSIBLE FOR OUR CLIMATE AND WATER AS WELL

We extend the responsibility for environmental effects of our vehicles to our suppliers throughout the value chain. We have been actively involved in the CDP Supply Chain Program (SCP) since 2015. In 2018, we increased the number of suppliers who we survey as part of the SCP regarding responsibility for our climate and water to more than 200. This equates to 89% (2017: 43%) of our production-related procurement spending (excluding services, VW Brazil, Scania and our joint ventures in China). With the climate protection survey, we achieve an above-average response rate of 79% (83% of production-related procurement spending). According to our suppliers’ self-assessments, they reduced their overall emissions by a total of 11.7 million t of CO<sub>2</sub>-e compared to the previous year (2017: 16.5 million t of CO<sub>2</sub>-e). Since 2016, the CDP has included science-based targets (SBTs) in the questionnaire: 29% of our suppliers questioned have already set SBTs or have undertaken to set such targets. For the first time ever, we also carried out a survey on responsibility for water in 2018. We achieved an above-average response rate of 66% (78% of production-related procurement spending) here. These developments for reducing emissions within the supply chain as well as our efforts when it comes to water contribute towards Volkswagen’s positive assessment in the WDP and CDP ratings.

 > Responsible Supply Chain

## PARTICIPATING IN EMISSIONS TRADING

Thirty-three of our Group locations participate in European emissions trading and thus comply with a legal requirement of the EU. For 2018, a total of 1,085,244 emissions certificates were allocated to the Volkswagen Group free of charge (50,508 fewer than in the previous year). The European Commission is already planning to make further changes to emissions trading when the fourth trading period begins (from 2021). These could lead to a tightening of the system and thus to price increases for the certificates. In addition to the EU member states, other countries in which the Volkswagen Group has production sites are also considering introducing an emissions trading system. Seven corresponding pilot projects are running in China, for example, although they have not so far affected the Volkswagen Group. The Chinese government officially implemented a national emissions trading system at the end of 2017. Initially, the impact will only be on the energy generation sector; a gradual expansion is planned.

## RESOURCE EFFICIENCY IN VALUE CREATION

The efficient use and conservation of natural resources is one of our key environmental protection approaches. We set ourselves ambitious targets and measure our progress using the UEP criterion (environmental impact reduction production). This was defined as part of the production strategy and includes targets for the Group and its brands. One element of the production strategy is the environmentally exemplary production initiative. This involves us working on four key issues in the period leading up to 2025:

- Setting and achieving ambitious environmental targets for production
- Developing a long-term vision for environmental targets in production and rolling it out across the Group
- Strengthening employees' environmental awareness and integrating relevant environmental aspects into processes
- Achieving top positions in renowned environmental rankings

In this context, the Volkswagen Group has set itself the goal of reducing the five key environmental indicators of energy and water consumption, waste for disposal (production-specific volumes only), and CO<sub>2</sub> and VOC emissions in production by 45% as a weighted average for each vehicle produced by 2025 – starting from 2010 levels. Given their high environmental relevance, we focus particularly on energy and CO<sub>2</sub>. This objective applies to all of the Group's production locations and is derived from our environmental requirements for production processes, which are anchored in the Group's environmental principles. The following charts show the development of these figures:

- Specific energy requirements: -19.1% (-17.9%)
- Specific CO<sub>2</sub> emissions: -34.3%<sup>4</sup> (-26.3%)
- Specific VOC emissions: -53.3% (-49.5%)
- Specific water consumption: -15.1% (-17.1%)
- Specific waste for disposal (production-specific volumes only): -47.6% (-31.5%)

With the IT-supported "Massnahmen@web" system, we record environmental measures and encourage the Group-wide exchange of best practices. In the reporting period, around 1,500 implemented measures in the area of environment and energy were documented in this system. They serve to improve infrastructure and production processes for passenger cars and light commercial vehicles. In addition to the environmental improvements, these activities also resulted in savings of over €38 million in the 2018 reporting period.

An example of our integrated approach for resource efficiency is the new MEB factory operated by our subsidiary company SAIC Volkswagen in Anting, Shanghai, one of China's metropolitan regions. Covering a total area of 610,000 m<sup>2</sup>, it uses 27 environmentally friendly technologies.

There is a particular focus on keeping water clean, saving energy and reducing CO<sub>2</sub> emissions. For example, the use of the latest welding tong technology in the planned body shop could render the use of the 12 bar network for compressed air unnecessary.

### GREATER USE OF MATERIAL LOOPS

We are stepping up efforts to use closed material loops in our production processes. When selecting raw materials, we opt for recycled ones obtained from production waste or old materials. When developing new vehicles, we pay attention to the recyclability of the required materials, use high-quality recycled material and avoid pollutants. In compliance with legal requirements in the EU, our vehicles are 85% recyclable and 95% recoverable at the end of their lives.

In order to calculate how much of a complete vehicle is recycled, we determine the materials for all components in the vehicle and their recycled materials content and add these together. Reliable information straight from suppliers and sector-specific association data are essential for this.

The Aluminum Closed Loop Project, which for the first time achieved a closed loop for aluminum beyond Company boundaries in 2017, is an example of our approach. Aluminum scrap was returned directly from our press shops to the supplier for reuse in vehicles. The procedure which is used at Audi has already received a sustainability certificate (Performance Standard) from the Aluminum Stewardship Initiative. The project was continued in 2018 and will be expanded to other sites as well. With lithium-ion batteries too, we ensure not only the longest service life possible but also the use of materials from a closed loop.

### SUSTAINABLE USE OF MATERIALS

In order to reduce our resource consumption, we rely on environmentally friendly raw materials from renewable and nonrenewable sources when manufacturing our vehicles. Wherever possible, our Group brands use renewable raw materials such as the natural fibers flax, cotton, wood, cellulose and hemp.

Regenerative materials can be used if they comply with all the technical requirements and perform better than conventional materials over the life cycle. In addition, our strict sustainability standards naturally apply for our suppliers.

We take advantage of new opportunities in body construction where we improve existing products or design new ones in the interests of functionality, quality, safety and environmental compatibility. Intelligent lightweight construction is the guiding principle here. For volume models, we use hot-formed, high-strength steel. Although energy consumption in production is higher, the lighter vehicle body allows a reduction in CO<sub>2</sub> emissions and thus an improvement in the overall environmental impact of the product. We

<sup>4</sup> Approximately 70% of the improvement in CO<sub>2</sub> emissions for cars and light commercial vehicles is attributable to an improvement in government CO<sub>2</sub> factors in electricity sourcing in China.

also follow the vehicle and platform-specific mixed construction approach, i.e. we use various materials in a car body. At the same time, we use lightweight materials such as aluminum when developing new platforms.

### RESPONSIBLE USE OF WATER

The supply chain, in particular obtaining and processing raw materials, is responsible for most of our water use. Because we cannot influence these aspects directly, we concentrate on our production sites. Of all fresh water that we use, 55% (around 22 million m<sup>3</sup>) is used by sites in risk zones. The concept for sustainable water management approved by the Group Steering Committee for the Environment and Energy takes into account this aspect and defines four areas of activity:


- the safe supply and disposal of water by protecting groundwater reserves against pollution,
- efficient water use through closed loops over the life cycle,
- social and ecological work through projects to protect water reserves and raise public awareness of environmental issues,
- transparency through supporting the CEO Water Mandate and the CDP Water Disclosure Project (WDP).

We manage water-saving processes at our Group's locations during production in line with Group-wide specifications. In 2018, we achieved an A- rating in the WDP ranking for our sustainable water management.

Given our growing production figures and the integration of new sites in recent years, our Group's absolute fresh water use has increased in recent years. In contrast, the amount of fresh water used per vehicle has been falling continuously since 2010 – thanks to a range of recycling measures and the introduction of manufacturing processes requiring little water.

The amount of waste water produced is in line with the amount of fresh water that we use. Differences in quantities between fresh and waste water are the result of evaporation in cooling towers and during the manufacturing process.

At the end of 2018, one of the Group's biggest and most modern waste water treatment facilities went into operation at the Chengdu site in China. The facility cleans all waste water produced using a membrane bioreactor. In a further step, any salts contained are removed from the water and the water is then used as a high-quality resource in the paint shops and cooling towers. The savings will be around 40% of the fresh water used, thus helping to reduce local water stress.

 > Appendix > Fresh water and waste water, Waste water discharges, Water withdrawal by source

### EFFICIENT WASTE MANAGEMENT

Our waste strategy aims to reduce the quantity of waste per unit produced and to reuse unavoidable waste to create high-quality materials. The focus is on:

- avoiding waste creation by optimizing production and auxiliary processes and increasing material utilization levels (material efficiency),
- reducing the quantity of waste produced by processing waste at sites and
- prioritizing the reuse of waste and reducing the quantity of waste that needs to be disposed of.

In order to optimize our management of waste, we are increasingly using digital waste management systems in all German and a number of European plants of the brands Volkswagen, Volkswagen Commercial Vehicles, Porsche, Audi and MAN. They make it easier to control waste management processes and facilitate state control of the disposal of hazardous waste (electronic government). There are plans to implement more of these systems in Europe and other regions around the world.

In order to monitor waste management and recycling processes, we carry out regular cross-site and cross-OEM waste disposal audits in Germany and the rest of Europe. In addition, the auditors receive further training and hold regular discussions to ensure that they have a common understanding of the quality requirements associated with waste disposal services, to carry out audits of consistently high quality and to allow other OEMs and suppliers to take advantage of the results.

We reuse waste from production, logistics, workshops and technical development to produce high-quality materials. Our Procurement division has established a reliable Group-wide system for recovering waste materials which can generate income, for example paper, plastics, wood or metal.

As a result of increased production in the passenger car and light commercial vehicle categories compared to 2010, the overall amount of hazardous waste produced has risen, while the overall amount of nonhazardous waste has fallen. We have managed to reduce the amount of production-specific waste for disposal per vehicle since 2010. Increasing the proportion of recoverable waste is also the result of the waste strategy established in our Group, which aims to ensure that a larger proportion of waste is recovered.

Given that Group-wide production has risen over the entire reporting period since 2010, the absolute quantity of metallic waste materials has increased. VW Kraftwerk GmbH's energy generation facilities inevitably produce power plant waste. In the previous reporting period, we were able to recover materials from approximately 139,891 t of waste.

 > Appendix > Specific waste for disposal

## VOLATILE ORGANIC COMPOUNDS UNDER CONTROL

Increased production volumes and downstream procedures for the thermal afterburning of VOC emissions from paint shops resulted in higher consumption of gases used to fuel manufacturing processes.

Painting processes are the main cause of VOC emissions. In modern paint facilities, paints and process materials containing low levels of solvents are used. We take suitable steps to intercept or eliminate emitted solvents. In order to do this, we mainly use thermal afterburning of outgoing air, which is downstream of the actual painting process. In spite of an increase in vehicle production and the resulting increase in the amount of painting carried out since 2010, we have reduced our absolute VOC emissions. We have also significantly reduced the emissions per vehicle since 2010.

 > Appendix > VOC emissions

## GREEN LOGISTICS: ENVIRONMENTALLY FRIENDLY TRANSPORT

The transport chain plays a key role in our measures to increase resource efficiency. Our Group-wide Green Logistics initiative, which is geared to the A-S-I approach developed by the GIZ, is at the heart of this. A-S-I stands for

- A – Avoid:** Avoiding transport wherever possible
- S – Shift:** Shifting goods to more environmentally friendly means of transport
- I – Improve:** Use of improved or modern technology

## BIODIVERSITY AND CONSERVATION

Biodiversity means the variety of life on our planet and comprises the variety of species, the genetic differences within species and the diversity of ecosystems. We rely on it as the basis for our continued existence: healthy food, clean water, fertile soils and a balanced climate. Due to the global decline in biodiversity, the United Nations has declared the current decade to be the “UN Decade on Biodiversity”.

Volkswagen has been committed to protecting biodiversity since 2007 and is a founding member of the Biodiversity in Good Company e.V. initiative. In our mission statement, we have committed to supporting the protection of species at all of our sites. We collaborate with local partners and suppliers in order to achieve this aim. Our membership of the Biodiversity in Good Company e.V. initiative was temporarily suspended owing to the diesel issue. We resumed active membership at the beginning of 2019.

On the basis of this approach, we have defined universal internal principles and derived from these strategic guidelines and rules designed to ensure that our environmental standards in logistics processes are implemented globally.

An important starting point for reducing CO<sub>2</sub> emissions is the selection of the mode of transport. Maritime transport is one of the most efficient options given its high transport capacity. To further improve the environmental sustainability of transporting more than two million vehicles by ship every year, Volkswagen Group logistics will put two charter ships powered by liquefied natural gas (LNG) into service in 2019. This will lastingly reduce air pollution – nitrogen oxides by up to 30%, particulate matter by up to 60% and sulfur oxides by as much as 100%. CO<sub>2</sub> emissions will also be reduced by up to 25%. The two alternative vehicle transporters will be powered by an engine developed by MAN Diesel & Turbo. They will replace two of the ships in the Volkswagen fleet powered by conventional heavy oil engines. Group Logistics is also relying on LNG trucks. There are plans to use more than 100 Scania LNG trucks in Northern Germany. In order to make this possible, shipping companies will be offered help to procure these trucks and new LNG filling stations will be built.

Since 2014, the Euro 5 emissions standard has been the minimum standard for all new contracts for Volkswagen AG’s European shipping operations. We also optimize the transport of materials and vehicles by ensuring maximum use of capacity and avoiding empty runs. We significantly reduce our freight volume with a very high packing density.

Protecting biodiversity is an integral part of our environmental management. We contribute to achieving the targets of the UN Convention on Biological Diversity (CBD) by supporting and carrying out biodiversity projects, reducing greenhouse gas emissions and utilizing resources as efficiently as possible. Volkswagen supports environmental education projects and networking between the various players in the fields of business, politics, society and academia with a view to increasing public awareness of biodiversity conservation and general knowledge of the issue.

Working with the University of Bochum, we are in the process of developing a suitable evaluation model to show the effect of biodiversity projects and promote biodiversity at our production sites.

page **64**

Strategic Approach  
and Management

page **68**  
Qualification in Each  
Professional Phase

page **66**  
Employer of Choice



page **69**  
Encouraging Diversity  
and Equal Opportunities

page **67**  
Co-determination and  
Employee Participation

page **71**

Healthy and Safe  
Working Environment

**BEING AN EXCELLENT  
EMPLOYER**

## STRATEGIC APPROACH AND MANAGEMENT

The global automotive industry is on the verge of radical change towards e-mobility and connected driving. We would like to play a leading role in shaping this transformation. The decisions that we made in 2018 whereby three plants in Germany alone will be converted to factories for e-vehicles are a visible sign of this. If we are to make a success of this change, we need to involve our employees, train them and prepare them for the forthcoming changes in the best way possible, as the success of our Company depends more than ever on the skills and commitment of our employees and on our attractiveness as an employer.

Most importantly, we must analyze exactly what effects the newly developing business areas will have on employment. We know that e-mobility will reduce complexity in development and production and that the depth of production will decrease as a result of digitalization. On the other hand, there will be a need for new career profiles and for people who combine for example IT and electronics qualifications with automotive engineering skills.

We will guarantee a high level of job security in spite of the changes that are occurring. As an employer of more than 660,000 people, we have a great responsibility – for our employees, their families and for social and economic development in the areas surrounding our locations.

From a personnel perspective, we want to provide the right answers to global challenges such as technological change and demand for new mobility concepts. At the same time, however, we must keep track of the various developments on a national or continental level. They also require us to take into account the needs of employees in the local area, to restructure our business and to maintain and even increase our attractiveness as an employer.

In 2018, a large part of our Group's personnel-related activities therefore focused on encouraging further cultural change, strengthening cooperation between all employees across hierarchies and establishing the importance of integrity in our actions. In doing so, we have taken important steps towards overcoming the effects of the diesel crisis. At the same time, Germany and other parts of Western Europe face not only risks resulting from demographic changes but also shortages of skilled workers who we will need for IT and digitalization in the future. We are actively combating these problems through extensive recruitment measures.

Our international presence enriches our Company and offers numerous advantages. We regard the diversity of our employees with their broad range of experience, viewpoints and problem-solving ideas as a pillar of our future viability and as something that ought to be encouraged further. Between now and 2020, the Volkswagen Group will thus develop its existing approaches for boosting diversity throughout the Company, put in place specific targets for increasing the number of female employees and bring together all measures and concepts in a diversity management system.

At the Volkswagen Group, our belief in openness and diversity in the global markets is part of a clear attitude. We adhere strictly to the relevant national legal standards when dealing with all personnel matters. However, in line with our tradition of social partnership and the balancing of interests, we go beyond these standards. We would like to allow all our employees throughout the world to share in Volkswagen's social achievements and its high work and social standards.

With our new Empower to Transform personnel strategy, which forms part of the Group's TOGETHER – Strategy 2025, we are constantly adapting our Group, our brands and their workforces to face up to the changing challenges in our surroundings. The most important aim of our personnel strategy is to be perceived as one of the world's most attractive employers, even in the era of digitalization and connected mobility. Through this, we would like to help make the Volkswagen Group a world-leading provider of mobility, one that is geared to sustainability and is profitable in the long term.

In terms of the Group personnel policy, our strategy sets out five general aims:

1. The Volkswagen Group aims to be an excellent employer with all of its brands and companies worldwide.
2. Highly competent and dedicated employees strive for excellence in terms of innovation, added value and customer focus.
3. A sustainable work organization ensures optimal working conditions in factories and offices.
4. An exemplary corporate culture creates an open work climate that is characterized by mutual trust and collaboration.
5. The Company's human resources work is highly employee-oriented while also aiming for operational excellence and providing strategic value-added contributions.

Our strategy is being implemented in nine Group-wide strategic initiatives which are systematically assigned to the five central target areas and serve as key tools for operationalizing our HR policy program.

### MANAGING GOALS AND MEASURES

Our HR work is based on standards and regulations which we completely revised in 2017. These include the Company's management principles and the Group-wide Code of Conduct. The compliance system has been expanded further and the Code of Collaboration has been established as a basis for Group-wide cooperation. We are committed to complying with internal Group agreements such as the Social Charter, the Charter on Labor Relations, the Charter on Temporary Work, the Charter on Vocational Education as well as country and site-specific agreements.

In spite of all the change and transformation processes going on in the Company, we never lose sight of our aim of providing working environments geared to the needs of people. In order to achieve



this aim, we are constantly improving the way in which our HR work is organized. In 2018, Volkswagen AG launched the Fokus Personal project. Designed to help the Company improve the quality of its HR work, it focuses on bundling processes, creating flatter organizational structures and improving the quality of supervision.

We are doing this to benefit our employees. Our approach involves not only providing optimum training for top teams but also working with departments to put in place a framework which will allow the teams to maximize their performance. We want to enable them

to deal confidently with ongoing change. At the same time, we involve all employees with impairments by encouraging inclusion and further developing programs for employees with impaired abilities.

We attach great importance to assessing the processes and measures that have been launched along with the general employment conditions as regards their effects on our attractiveness as an employer. We thus carry out annual employee surveys and measure satisfaction via our "Opinion Survey".


## TARGET PROGRAM EMPLOYER

Strategic initiative	Action areas	Goals and actions	Deadline and status
Innovative working environments	<ul style="list-style-type: none"> <li>- Occupational health and safety</li> <li>- Qualification</li> <li>- Employer attractiveness</li> <li>- Participation and co-determination</li> </ul>	<ul style="list-style-type: none"> <li>- Innovative practices on the shop floor for factories and offices</li> <li>- Greater participation and individual responsibility</li> <li>- Technology interpretation with a focus on employees</li> <li>- Creation of modern working environments</li> </ul>	<ul style="list-style-type: none"> <li>- Ongoing/Dec. 31, 2019</li> </ul>
Corporate culture	<ul style="list-style-type: none"> <li>- Diversity and equal opportunities</li> <li>- Social responsibility</li> <li>- Employer attractiveness</li> <li>- Participation and co-determination</li> </ul>	<ul style="list-style-type: none"> <li>- Creation of corporate culture with flat hierarchies</li> <li>- Promoting transparency and participation</li> </ul>	<ul style="list-style-type: none"> <li>- Culture cascades on all levels of the company, implementation of the Role Model Program by the end of 2019</li> </ul>
Personnel management 4.0	<ul style="list-style-type: none"> <li>- Diversity and equal opportunities</li> <li>- Employer attractiveness</li> <li>- Participation and co-determination</li> </ul>	<ul style="list-style-type: none"> <li>- Digitalization of personnel instruments</li> <li>- Improved data transparency for employees</li> <li>- Creation of self-administration options for employees</li> </ul>	<ul style="list-style-type: none"> <li>- Restructuring of HR completed by Sept. 30, 2019</li> </ul>
Employer of choice	<ul style="list-style-type: none"> <li>- Diversity and equal opportunities</li> <li>- Employer attractiveness</li> </ul>	<ul style="list-style-type: none"> <li>- Improve external employer attractiveness and focus on new target groups in the context of digital transformation</li> </ul>	<ul style="list-style-type: none"> <li>- Completion of the pilot phase for a Volkswagen AG recruiting center by June 30, 2019</li> </ul>
New approaches to personnel development	<ul style="list-style-type: none"> <li>- Qualification</li> <li>- Employer attractiveness</li> <li>- Participation and co-determination</li> </ul>	<ul style="list-style-type: none"> <li>- More transparent routes into management with greater emphasis on individual responsibility</li> </ul>	<ul style="list-style-type: none"> <li>- Completion of the pilot phase for a Volkswagen AG recruiting center by June 30, 2019</li> </ul>
Reorganization of personnel development for management	<ul style="list-style-type: none"> <li>- Diversity and equal opportunities</li> <li>- Qualification</li> </ul>	<ul style="list-style-type: none"> <li>- New management principles and new criteria for management appointments</li> <li>- Transparency about vacant management positions</li> </ul>	<ul style="list-style-type: none"> <li>- Completion of implementation in 2019</li> </ul>
Strategic skills management	<ul style="list-style-type: none"> <li>- Employer attractiveness</li> <li>- Participation and co-determination</li> </ul>	<ul style="list-style-type: none"> <li>- Systematic management of HR transformation</li> <li>- Better, skills-appropriate deployment of employees</li> <li>- Access to additional upskilling opportunities</li> </ul>	<ul style="list-style-type: none"> <li>- System devised in 2017</li> <li>- Rollout 2018</li> </ul>
Next-level diversity	<ul style="list-style-type: none"> <li>- Diversity and equal opportunities</li> <li>- Social responsibility</li> <li>- Qualification</li> </ul>	<ul style="list-style-type: none"> <li>- Development of diversity and internationality</li> </ul>	<ul style="list-style-type: none"> <li>- Continuous target monitoring and implementation of supporting measures</li> <li>- Target adjustment in accordance with new Group structure in preparation</li> <li>- Ongoing systematic development of management approach</li> </ul>
Health	<ul style="list-style-type: none"> <li>- Employer attractiveness</li> <li>- Human rights</li> </ul>	<ul style="list-style-type: none"> <li>- Development of preventive measures and healthcare</li> </ul>	<ul style="list-style-type: none"> <li>- Ongoing/Dec. 31, 2018</li> </ul>

## EMPLOYER OF CHOICE

Our key aim is to be an attractive, reliable employer and to underline our leading role in this area. For us, being an attractive employer means keeping all the promises that we made to our employees and making our employees aware of this in their day-to-day work. This is the only way to ensure the long-term performance and motivation of our workforce which are the basis for the Company's competitiveness. Given that talented potential employees are becoming increasingly scarce, a high degree of credibility and awareness is another key requirement if the Company is to be perceived as a top employer and is to attract and keep the best employees. In order to be able to fill vacancies in futuristic areas with experienced and creative IT and digitalization experts, we are stepping up our efforts by forming a new recruiting unit and with extra employer branding activities such as the "beat ordinary thinking" recruiting campaign, which was launched in Germany in 2018.

Volkswagen AG's very low fluctuation rate in all comparisons indicates that we are well positioned as an attractive employer with our basic HR policies and are well equipped to cope with future challenges.

 > Appendix > Employee turnover

### ENCOURAGING AN EXEMPLARY MANAGEMENT AND CORPORATE CULTURE

Participation, initiative and individual creative opportunities are particularly important when it comes to keeping our promises as an employer. We would like our employees to be responsible, competent and confident "Company citizens" who actively take part in company affairs and get involved in decision-making processes. This distinct corporate culture is based on binding standards which protect individual employees at work and provide opportunities to participate.

As part of the Group's TOGETHER – Strategy 2025, the Volkswagen Group has launched a range of initiatives to update the corporate culture. Important milestones in the past two years were formulating a new Group-wide management guideline and introducing the Code of Collaboration, which sets out clear values for working together within the Group. It describes how collaboration is to take place within our group of brands using the terms "trust", "genuine", "straightforward", "open-minded", "as equals" and "united".

Through Group-wide corporate culture conventions aimed at several thousand executives, managers and employee representatives, we actively encouraged the creation of a common understanding of management and culture. The events focused on suitable approaches allowing managers to exemplify and convey integrity, corporate culture and compliance in their day-to-day work.

The Volkswagen Group Principles, which were introduced in 2018, set out the common basic values for all brands and companies within the Group. Seven simple "We" statements describe what the company stands for: "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 also encourage employees to analyze the Group Essentials and to integrate them into all work processes.

### OPINION SURVEY MEASURES EMPLOYEE SATISFACTION

We attach great importance to involving our employees in processes and to ensuring that their opinions, assessments and criticism are heard. With our Group-wide opinion survey, we measure the satisfaction of our employees and thus the values relating to our internal employer attractiveness. It also serves to identify possible improvements and inform managers where action needs to be taken in their organizational units. The annual results of the Opinion Survey are looked at intensively throughout the Company and provide impetus for improvement processes in all organizational units – especially when it comes to management and collaboration issues. The 2018 survey was carried out at 175 sites and companies in 50 countries. Approximately 480,000 of over 600,000 employees in the participating Group units responded; this is equivalent to a response rate of 79%. In 2018, the score on the employee satisfaction index – a key indicator generated by the Opinion Survey – was 78.9 out of 100 possible index points and thus slightly above the score in the previous year (2017: 78.3 index points).

### REMUNERATION IN LINE WITH PERFORMANCE AND GEARED TO SUCCESS

In accordance with our global Social Charter, the remuneration and fringe benefits for our employees correspond at least to the legally required minimum level which is to be guaranteed in the particular country. This not only applies to our own workforce, but to all our suppliers' employees as well. As they are collectively agreed with trade unions, our rates of pay are usually considerably higher than the prevailing minimum levels.

When setting individual pay rates, we make no distinction between people of different genders or belonging to other groups: our employees are selected, appointed and nurtured exclusively on the basis of their qualifications and abilities. Remuneration is based strictly on the job performed and individual performance. Generally speaking, it is calculated in our Companies with primarily European sites using a three-level system. This provides basic remuneration to cover living expenses, a performance-based component and a collectively agreed right to a share of the Company's profits.

Employees of Group companies enjoy further Company benefits. Depending on location, these may include subsidized transport and meals, low-cost accommodation, monthly childcare allowances and discounts on certain leisure activities. Additional healthcare or supplementary pension benefits round off the range of company benefits at specific sites. By offering occupational pension schemes,

Volkswagen AG, its brands and subsidiaries make an important contribution towards securing their employees' income in old age.

### WORK/LIFE BALANCE WITH FLEXIBLE WORKING HOURS


We are constantly taking steps to make it easier for employees to reconcile their work and private lives by offering flexible working time models. For example, we would like to take into account the specific needs of new parents, single parents or employees who are also carers. The rules and programs here vary from country to country and are determined by the legal conditions and the results of collective negotiations with trade unions.

In Germany, the large number of people who take advantage of their legally governed parental leave entitlement proves how many employees wish for reconcilability of work and family life. In our Company regulations too, we endeavor to take into account the fact that many employees need greater flexibility as regards their working hours and place of work. Since 2016, a far-reaching Company agreement for working outside Company premises (mobile working) has been in place. Group brands such as Audi and Porsche have similar arrangements.

Our reinstatement guarantee offers a very high level of flexibility. For the past 20 years or so, Volkswagen AG employees have been able to take up to eight years' leave of absence without having to give a reason. Regardless of whether this leave is used for a sabbatical, for parental leave or for career development purposes, employees have a guaranteed right to re-employment on the same terms and conditions as before.

We also help our employees to care for and look after close relatives. Employees can take up to ten days' leave at short notice in order to organize care for sick relatives, for instance. Employees can take up to six months' leave or reduce their working hours for the same period in order to care for a relative. Employees can work part-time for up to 24 months in order to care for their families.

The Volkswagen Group in Germany and abroad endeavors to offer childcare geared to specific groups of people. In addition to the existing facilities, a number of daycare centers near our operating locations have been set up in recent years. All German sites of the Volkswagen Passenger Cars, Audi, Porsche, Volkswagen Commercial Vehicles and MAN brands offer childcare during school holidays.

 > Appendix > Returning from parental leave

## CO-DETERMINATION AND EMPLOYEE PARTICIPATION

We involve our employees in strategic decisions as early as possible in order to achieve lasting acceptance of necessary changes among the workforce. When establishing cooperative labor relations marked by social harmony, we are guided by universally valid human rights and the standards of the International Labor Organization (ILO). On this basis, we have agreed various charters and declarations with our Group European Works Council (GEWC) and Global Group Works Council (GGWC) that safeguard the collective rights of our employees in the workplace and set out basic work policy principles. We implement them rigorously throughout the Group together with the co-determination committees or the employee representatives at the relevant sites.

They include:

- The Declaration on Social Rights and Industrial Relations at Volkswagen (Social Charter), which is geared to the relevant ILO conventions
- The Charter on Labor Relations, which sets out additional information, consultation and co-determination rights for employee representatives of the brands, companies and locations represented by the Group European Works Council and the Global Group Works Council
- The Charter on Temporary Work, in which Group management as well as the Group European Works Council and the Global Group Works Council have agreed on principles relating to temporary work, for example guide values for the ratio of temporary

to permanent employees, equal pay, qualification measures and the limitation of employment periods with a subsequent review as to whether to take on the employee permanently

- The Charter on Vocational Education and Training, in which professional training is established as a central part of labor relations. According to this charter, key aspects of training and the selection process, the duration and quality of professional training and the taking on of employees permanently are to be set out as part of the local implementation process for all sites.

In addition, there are a number of country and site-specific agreements that stipulate, for example, standards for further training or preventive healthcare measures.

These policy foundations underpin the rights of employees and their elected representatives at Group level in the European and Global Works Councils. Executive managers and employee representatives meet regularly to consult on relevant issues. All members of the Group European Works Council and the Global Group Works Council attend a joint session every year. As well as discussing the current situation at the various sites, the respective HR managers and Group executive management also share information about product and workforce plans as well as social welfare and personnel standards.

At many sites, employees are represented in two ways: firstly, by a trade union, and secondly, by representatives elected to a works council. Many companies in the Group have a supervisory board on which the workforce is represented. The Charter on Labor Relations allows employee representatives around the world to conclude agreements with local management on specific rights to information, consultation and co-determination.

We attach great importance to informing the workforce of changes as early as possible. In committees made up of equal numbers of employee and employer representatives, both sides receive all relevant information at the same time.

This far-reaching form of participation has proved highly successful over many decades. It ensures that change processes are approached together and are supported by the entire workforce. Through their creativity, their knowledge and their initiative, employees take on responsibility for improving processes and products and ultimately help us to achieve our sustainability goals. More than 42,500 ideas were entered as part of idea management, resulting in savings of approximately €128 million at the German sites of Volkswagen AG, Volkswagen Sachsen GmbH and Volkswagen Osnabrück GmbH. At the beginning of 2019, we launched a new company agreement and a new IT system in order to further optimize idea management processes.

 > Appendix > Ideas management

## QUALIFICATION IN EACH PROFESSIONAL PHASE

Manufacturing innovative, efficient and environmentally friendly automobiles requires the very highest technological excellence every day. The comprehensive specialist qualifications of our employees in manual and technical fields remain the basis for this. They are also an important prerequisite if we are to achieve our planned transformation from a vehicle manufacturer to a mobility provider. The electrification of the vehicle fleet as well as the transition towards connected, autonomous driving mean that employees will need very different qualifications in the future. Skills in IT or function-oriented, model-based development will complement the activities of engineers and other specialists. Traditional processes such as casting will fade into the background, while new qualifications in high-voltage technology, new joining techniques and automation systems will be needed.

We need to prepare for these changes now and are therefore developing our highly differentiated basic and further training system with tailored qualification measures to meet specific needs. At Volkswagen, our measures enabling employees to acquire further qualifications are organized around vocational groups. Employees who require similar skills to perform their jobs and who possess the associated competencies are said to belong to a vocational group. The general and technical competencies required for each specific activity are defined in skills profiles. A wide range of qualification measures are available to employees, enabling them to develop new skills throughout their careers and build on their knowledge all the time. 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. At Volkswagen, the possibility of making a contribution through qualifications and developing new skills in each career phase is an important part of our promise as an employer.

### DUAL TRAINING AS THE FLAGSHIP OF PROFESSIONAL QUALIFICATION

Within the Volkswagen Group, the dual vocational training creates the basis for high levels of expertise and excellent performance. With its flexible combination of practical activities and theoretical knowledge, it prepares our young professionals for the forthcoming challenges in the best way possible. For this reason, we focus on our successful dual vocational training scheme throughout the Company and believe it is the best way for employees to acquire the qualifications they need.

On an international level, we implement the high German training standards but also take into account the relevant national standards and regulations. As with employee qualifications, the content of the training is very much geared to the skills required in the various vocational groups. When planning new plants, we factor in dual vocational training as standard from the outset. Accordingly, more than three-quarters of all trainees in the Group are now learning their trades through the dual system.

In 2017, the Volkswagen Group was training 19,244 young people in 50 trades. We also support the career development of new entrants once they have completed their apprenticeship. For example, particularly talented young specialists are nurtured in talent groups. In the reporting period, 81 skilled workers joined this development and qualification program. Through the “Wanderjahre” (year abroad) program, fully qualified vocational trainees also have the opportunity to move to an international Group company for 12 months. During the reporting period, 27 Volkswagen Group sites in 17 countries took part in this development program. In 2018, 67 participants from Germany plus 15 from seven other countries began their year abroad within the Volkswagen Group in Germany.

 > Appendix > Apprentices, Level of qualification

## FURTHER TRAINING FOR SKILLED WORKERS AND MANAGERS

At the Volkswagen Group Academy, skilled workers can choose from a broad range of advanced training courses. These range from further training in occupational or cross-disciplinary areas of general interest to the company to specific qualifications in vocational groups and even comprehensive personnel development programs. With further training, the focus also remains on the dual training principle, which combines theoretical learning with practical experience. Overall, around 114,000 qualification activities totaling 15.1 million hours of training were completed across the Group in 2018. The majority of our development programs and selection procedures for executives, foremen and managers are standardized throughout the Group. In the reporting period, the Volkswagen Group Academy provided around 681 training courses and assessment centers for executives, foremen and managers in twelve countries.

## DEVELOPING SKILLS ON AN ACADEMIC LEVEL

As part of the Volkswagen Group Academy, AutoUni employs top in-house experts and collaborates with higher-education

institutions to equip the Company with valuable knowledge for the future. In 2018, around 9,450 people took part in over 170 AutoUni events all over the world; a growing number were transmitted to the Group's various sites via Skype.

Volkswagen is exploring new ways of expanding the knowledge base for the digital transformation within the Company. With the innovative Faculty 73 program, which was launched in autumn 2018, we train hundreds of software developers per year. The AutoUni program is designed for employees with basic IT skills as well as in-house and external candidates with other suitable basic qualifications.

The AutoUni also connects the internal contact persons for universities within the Group and registers global university partnerships: in the reporting period, there were more than 1,700 national and international partnerships with universities, technical colleges and research institutions.

## ENCOURAGING DIVERSITY AND EQUAL OPPORTUNITIES

The Volkswagen Group stands for respect, tolerance and equal rights. For us, these values not only reflect our inner convictions – they are also crucial for our competitiveness as a company and our attractiveness as an employer. Anyone who fails to serve a range of markets and target groups or to recruit and nurture new talent is missing out on future opportunities. We need a variety of people and a working environment in which they can contribute their different skills. A common understanding of management and culture is the key to achieving this respectful attitude within the Company. We aim to deepen this understanding by strengthening people's rights and through efficient structures and measures to raise awareness of the issue.

### COMMITMENT TO NONDISCRIMINATORY CONDUCT

Taking the United Nations Sustainable Development Goals into account, we champion diversity and equal opportunities at all our locations around the world. We encourage equal treatment irrespective of a person's ethnic origin, skin color, gender, disability, ideology, faith, nationality, sexual orientation, social background or political beliefs, provided the latter is based on democratic principles and tolerance towards those who hold different views. The Volkswagen Group's Code of Conduct provides guidance throughout the Group and is reinforced in the Social Charter.

Under the code, every employee and manager is responsible for ensuring that colleagues work together in partnership. They are

obliged to report any breaches immediately. If employees feel discriminated against, they can turn to trained experts within the Group for advice and support. At the initiative of the Works Council, employees' obligations and rights to non-discrimination were laid down in the "Cooperative Conduct at the Workplace" company agreement applicable to all Volkswagen AG employees at all its sites.

Every new employee receives a copy of it when they join the company and the contents are also covered in management training courses. Every employee can refer to the Company agreement in the event of a breach. All reports are investigated and, if a complaint is justified, countermeasures are taken immediately.

### DIVERSITY MANAGEMENT HELPS TO ENSURE COMPLIANCE WITH TARGETS

In the reporting period, we continued to work hard to implement a specific diversity approach, which we will systematically develop into a Group-wide diversity management system between now and 2020. In 2018, the Volkswagen Group's second diversity conference took place at the Scania headquarters in Södertälje (Sweden). Fifty diversity managers from 20 nations and from all Group brands took part. The diversity managers' key tasks include raising awareness of the importance of the issue at Company locations and achieving a common understanding of diversity within the Group.

The foundations for the Group-wide rollout of awareness training have also been laid. The aim of the training is to create awareness of the importance and value of diversity. It also aims to raise awareness among managers in order that they encourage diversity and ensure a working environment free of prejudice and processes providing equal opportunities.

Our approach centers around binding quotas for women in managerial positions and targets for the internationality of our top management. These two figures are combined in our diversity index, which has been in force since January 1, 2017.

The diversity index forms part of our HR strategy and applies throughout the Volkswagen Group. With this index, we manage measures and measure the extent to which they have been implemented. The calculation is based on current workforce figures. The proportion of women in management amounted to 13.8% in 2018 and was therefore at the prior-year level; we aim to raise this to 20.2% by 2025. We aim 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 19.2 (18.7)%. These targets are decided by the Group's Board of Management and are binding for the whole organization.

#### **PURSUING GOALS FOR INCREASING THE PROPORTION OF WOMEN IN ACCORDANCE WITH GERMAN LAW**

We have formulated goals as regards the proportion of women for Volkswagen AG in accordance with German law. In line with Germany's law on equal participation for women and men in executive positions, Volkswagen AG has set itself targets for increasing the proportion of women in management by the end of 2021: 13% on the first level of management and 16.9% on the second level within the active workforce. As of December 31, 2018, the proportion of women in the active workforce on the first level of management was 10.7% (2017: 10.4%), while on the second level the proportion was 15.4% (2017: 14.0%). The Group's Board of Management and Supervisory Board are regularly updated on the progress we are making towards these targets.

In the reporting period, the proportion of women in managerial roles as part of the overall workforce of our Group in Germany rose to 9.4% in senior management and 14.4% in management generally (as of year end, excluding Scania, MAN and Porsche). The proportion of women in top management increased from 6.5% in 2017 to 7.0% in the reporting period (as at year end, excluding Scania, MAN and Porsche). The proportion of women in management across the Group in Germany (excluding Scania, MAN and Porsche) thus came to 12.1%, up from 11.4% the year before.


#### **A FOCUS ON DEVELOPING FEMALE TALENT**

We would like to increase the proportion of women in all divisions of the Volkswagen Group and are paving the way for this early on. In Germany, for instance, we are specifically seeking to attract

female talent, for example by arranging special work experience and orientation days for young women. Our aim is to increase the proportion of female trainees in industrial and technical trades from 22% in 2018 to 30% in 2020. Various brands are involved in the Girls' Day and future days, which give a realistic insight into industrial and technical trades within the automotive sector.

By recruiting female academics, we lay the foundations for a higher proportion of female managers. We recruit the best graduates from each year in the required disciplines, taking as our starting point the proportion of female graduates on each course. When all the courses of relevance to Volkswagen are averaged out, these differentiated quotas currently produce a female graduate recruitment target of 30%.

Family-friendly working models, mobile working and the option of working part-time even for managers play an important role in encouraging more women to work for the Company. Job sharing for managers is a particularly effective tool for combining a career and a family flexibly and one that we actively encourage. 2017 saw a fourth group embark on our cross-brand management mentoring program, with 55 women participating (mainly from the Volkswagen Group in Germany). There will be a modular offering in the future, enabling talents to freely choose individual modules. In addition, Volkswagen offers the "Kompass" program specifically to encourage female talent to aim for a career in management. In the reporting period, 60 women took part in this program.

 > Appendix > Female employees, Proportion of women

#### **FURTHER IMPROVING INCLUSION IN THE WORKPLACE**

Our understanding of diversity extends far beyond gender equality and internationality. We also pay particular attention to the integration of employees with disabilities. In this context, we concentrate on promoting health and providing future-oriented working environments with maximum accessibility. This includes enabling all employees – regardless of any disability – to find, access and use all buildings, information and communication facilities without outside help.

In 2017, we published an Inclusion Report for Volkswagen AG for the first time. This set out details of our integration work with impairments or differing abilities. On an international level, we operate five protected workshops and are setting up additional workstations for more than 300 people with disabilities at the ŠKODA production sites in the Czech Republic. In the Czech Republic, these activities won an award as one of the "Personnel Projects of 2018".

Our responsibility for keeping employees in valuable, meaningful activities for their entire career if possible also extends to the needs of employees with a restricted working capacity. After all, individual forms of work organization can result in higher performance and job satisfaction levels for these groups of employees. The Work2Work program provides a good example. Since 2001,

Volkswagen AG has opened up new career opportunities within the Company for employees with differing abilities. The program matches the employees' potential and the requirements of the particular job in a way which allows the employee to create significant

value for the Company in spite of not being able to do their original job. More than 2,100 employees have benefited from this program in recent years. In Wolfsburg, 714 employees are currently employed in Work2Work jobs in around 100 different areas.

## HEALTHY AND SAFE WORKING ENVIRONMENT


We want to strengthen not only our employees' specialist skills but also their health. This is important if they are to perform well at work and cope with the stress on their bodies which is typical when working in a production company. In the area of health, sustainability means for us that as many employees as possible can retire from work healthy. This long-term approach also helps our Group to cope with demographic change in the form of an aging population, which is now characteristic in Germany.

Volkswagen's holistic approach to health management goes far beyond statutory preventive healthcare and occupational health and safety; it also includes aspects such as work organization, ergonomics, prevention, integration and rehabilitation, along with leadership culture.

### HOLISTIC HEALTH MANAGEMENT ESTABLISHED

Our employees receive medical care at all our sites in accordance with the relevant national legal regulations and internal rules and on the basis of Group guidelines on protecting and promoting health. Among other things, we keep a record of particularly demanding activities. We offer employees who perform these activities special prevention programs as well as more options for rotating jobs. All Group sites have at least one facility for dealing with medical emergencies. Most of them also offer medical care provided by a company doctor.

As part of the strategy process, we set up a Group initiative for health which focuses on further developing prevention, Company health management and ergonomics. It aims to improve employees' quality of life, to reduce stress, to avoid chronic illnesses, to improve employees' performance and to reduce absences.


 > Appendix > Absenteeism

### IMPROVING OCCUPATIONAL SAFETY

Like preventive healthcare and emergency health provision, the continuous improvement of occupational health and safety is vitally important to us. In 2004, the Volkswagen Group established an internationally valid occupational health and safety policy. Among other things, it calls for compliance with legal requirements and the development of targets in Group companies for continually improving occupational health and safety at work. In the

area of occupational health and safety, sustainability means for us that employees do not suffer accidents when working. With the introduction of the "Safety First" strategy, Volkswagen is aiming to achieve this goal and would like superiors and employees to follow this guiding principle in everything they do. The strategy also requires all Volkswagen Group production sites to comply with the ISO 45001 standards and more specific Group requirements.

A Group process standard was introduced to provide cross-brand information in the event of serious or fatal accidents involving our own employees or workers from partner firms. On this basis, specific measures can be taken to prevent similar accidents across all our sites in the future.

 > Appendix > Accident severity, Accident indices

### PREVENTION AND REHABILITATION ENHANCED THROUGHOUT THE GROUP

We are also boosting health protection by promoting individual health screening and prevention. The Volkswagen Checkup – a free, comprehensive health screening program for all employees – is now established at all Volkswagen AG German sites and helps employees stay fit and healthy and improve their performance. In 2018, 12,020 checkups were carried out at Volkswagen AG sites. The checkup is now available at virtually all international sites and is carried out in accordance with Group-wide standards. Country-specific additional examinations are also available.

We offer a rehabilitation program at many sites. This is designed to reintegrate employees following serious or prolonged illness by providing specific job-related support at an early stage. The aim is to restore the employees' working ability and performance within three to six months. At Volkswagen AG, individual services are integrated into the rehabilitation program. One example is the "Job/Reha" with measures focusing on orthopedic or psychological rehabilitation.





# Appendix

page **74**  
About this Report

page **76**  
About the Nonfinancial Report (NFR)

page **78**  
Additional KPIs and Diagrams

page **88**  
GRI Content Index


page **104**  
Independent Assurance Report

# ABOUT THIS REPORT


## REPORT STRUCTURE

The Volkswagen Group is committed to providing transparency to all its stakeholder groups. For the second time, this Group Sustainability Report 2018 includes a combined separate nonfinancial report that complies with sections 289b para. 3 and 315b para. 3 of the Handelsgesetzbuch (HGB – German Commercial Code), hereinafter referred to as the “nonfinancial report”. The nonfinancial report serves to meet the disclosure requirements of the CSR-Richtlinie-Umsetzungsgesetz (CSR-RUG – German CSR Directive Implementation Act).

All text passages, tables and graphics in the Group Sustainability Report that form part of the nonfinancial report are highlighted. The Group Sustainability Report 2017 is supplemented by a detailed description of the sustainability activities of our brands and regions and of the Volkswagen Group’s CSR projects. This additional information, which does not form part of the nonfinancial report, can be found on the Volkswagen Group’s corporate website at: [www.volkswagenag.com > Sustainability > Reporting](http://www.volkswagenag.com > Sustainability > Reporting). The latest, continuously updated news on sustainability in the Volkswagen Group can be found on the Group portal at:

 > [www.volkswagenag.com/sustainability.html](http://www.volkswagenag.com/sustainability.html)

Further information regarding sustainability can be found in our separate sustainability magazine, Shift 2018, at:

 > [www.volkswagenag.com > Sustainability > Shift](http://www.volkswagenag.com > Sustainability > Shift)

## BASIS FOR REPORT

As in the previous year, Volkswagen AG will issue a nonfinancial statement at company level for reporting year 2018 and a non-financial Group statement for reporting year 2018, which will be published together as a combined separate nonfinancial report in the sense of HGB sections 289b para. 3 and 315b para. 3 as part of the Group Sustainability Report 2018. The nonfinancial report is drawn up in accordance with HGB sections 315b and 315c, in conjunction with sections 289b through 289e. Furthermore, the GRI Standards of the Global Reporting Initiative (GRI) were used as the framework for drawing up the nonfinancial report. In this nonfinancial report, Volkswagen has systematically used the GRI Standards as the underlying structure for the materiality analysis and reports on management approaches as well as the specific standard disclosures. In line with CSR-RUG, this nonfinancial report will concentrate on those action areas that are necessary for an understanding of the Volkswagen Group’s business development, overall performance and position as well as the Volkswagen Group’s influence on nonfinancial aspects.

Unless indicated otherwise, any information provided for the Group also applies to Volkswagen AG. In addition to Volkswagen AG, the Group includes all major subsidiaries inside and outside Germany that are directly or indirectly controlled by Volkswagen AG. In the

financial data, our joint ventures in China are reported on using the equity accounting method. However, they are included in full (100%) in volume-related data (sales, production and workforce) and environmentally relevant data.

In terms of content, the Group Sustainability Report was prepared in compliance with the GRI Standards of the Global Reporting Initiative (GRI), applying the “Comprehensive” option. At the same time, the GRI Content Index shows how we are implementing the requirements of the United Nations Global Compact (UNGC) and are using as guidance the United Nations Sustainable Development Goals (SDGs) as well as the criteria of the German Sustainability Code (DNK).

Important ideas for the report’s content were provided by the questionnaires and appraisals of sustainability-oriented rating agencies. We also took our lead from Stakeholder Engagement Standard AA1000.

To validate issues of material significance for the Volkswagen Group resulting from various global challenges, we drew upon the findings of the Volkswagen Group’s Stakeholder Panel, which has been in place for many years now, as well as the results of the latest comprehensive stakeholder surveys conducted by Group companies Audi, MAN, Porsche and Volkswagen Financial Services.

To manage its sustainability performance, the Volkswagen Group records strategic key performance indicators (KPIs) in accordance with the requirements of the Global Reporting Initiative (GRI) and the framework for ESG (environment, social and governance) indicators defined by the European Federation of Financial Analysts’ Societies (EFFAS). Increasingly, shareholders and investors are calling for transparency, making them an important target group for our sustainability reporting.

The KPIs presented in this report build on the indicators presented in previous years. We have made no changes to the methods used to collect and measure the data on our sustainability performance. The Volkswagen Group’s global production network comprised 123 production sites as of the end of the reporting year. This is now the seventh time we have reported our emissions in line with Scope 3 of the WBCSD/WRI Greenhouse Gas Protocol (GHG).

GRI 102-45, 102-48, 102-49

## REPORT AUDITING

The combined separate nonfinancial report prepared in accordance with HGB sections 289b para. 3 and 315b para. 3 was subjected to a voluntary, limited assurance audit by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (PwC) in accordance with ISAE 3000 (Revised) to verify that its disclosures comply with the principles of the Sustainability Reporting Standards of the Global Reporting Initiative and the relevant statutory requirements.

Further information on the audit can be found in the independent auditor's remarks on nonfinancial reporting in the Independent Assurance Report.

#### ADDITIONAL REPORTING WITHIN THE GROUP

The nonfinancial report is drawn up in accordance with HGB section 315c, in conjunction with sections 289c through 289e. By referencing this combined separate nonfinancial report, all Group companies required by national legislation to disclose nonfinancial and diversity-related information pursuant to Directive 2014/95/EU are exempted from the obligation to submit their own nonfinancial reports.

More detailed insights into our environmental management approach can be found in the environmental statements published by numerous Group locations as part of their voluntary participation in the European Eco-Management and Audit Scheme (EMAS). The sustainability reports published by the Audi, MAN, Porsche, Scania and ŠKODA brands also bear testimony to the Group's commitment to sustainability.

#### EDITORIAL NOTES

The information in this report relates to the Volkswagen Group as a whole. Where information relates to individual Group brands only, this is clearly indicated in the text.

#### REPORTING PRACTICES

The nonfinancial report and Group Sustainability Report are published annually. In addition to information about the Group's sustainability activities in the 2018 fiscal year (January 1 to December 31, 2018), the sustainability report also contains selected information from the 2019 fiscal year.

The editorial deadline was February 4, 2019. Both reports appear in German and English. The next nonfinancial report will be published in the first quarter of 2020, and we anticipate that the next Group Sustainability Report will also appear in the second quarter of 2020.

#### LEGAL INFORMATION

This sustainability report contains statements relating to the future business development of the Volkswagen Group. These statements are based on assumptions regarding the development of the economic and legal conditions in individual countries and economic regions, in particular as they relate to the automotive industry, which we have made on the basis of the information available to us and which we consider to be realistic at the time of publication. The estimates given entail a degree of risk, and actual developments may differ from those forecast. Any changes in significant parameters relating to our key sales markets or any significant shifts in exchange rates of relevance to the Volkswagen Group will

have a corresponding impact on the development of our business. In addition, there may be departures from our expected business development if the assessments of factors influencing sustainable value enhancement, and of risks and opportunities, presented in this sustainability report develop in a way other than we expect at the time of publication, or if additional risks and opportunities or other factors emerge that affect the development of our business.

#### CALCULATION OF FLEET EMISSIONS IN EUROPE

The figure for Group fleet CO<sub>2</sub> emissions is the figure annually recorded in the course of official monitoring pursuant to "Regulation (EC) 443/2009 of the European Parliament and of the Council of 23 April 2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO<sub>2</sub> emissions from light-duty vehicles" by the European Environment Agency (EEA) on behalf of the European Commission for the brands belonging to the group of connected manufacturers "VW Group PC". This figure is the volume-weighted average of all specific CO<sub>2</sub> emissions from new passenger cars registered for the first time in the respective calendar year, based on the calculation logic defined in EU Regulation 443/2009. Provided that the figure for fleet CO<sub>2</sub> emissions is set down in a Commission Implementing Decision to confirm or amend the average specific CO<sub>2</sub> emissions and specific emissions targets for manufacturers of passenger cars for the respective calendar year in accordance with Regulation (EC) 443/2009 of the European Parliament and of the Council, this figure is published; otherwise, provisional CO<sub>2</sub> emissions figures are published, which are evaluated on the basis of internal systems using the same logic.

#### NOTICE PURSUANT TO EU DIRECTIVE 1999/94 EC

Further information on the official fuel consumption and official specific CO<sub>2</sub> emissions of new passenger cars can be found in the "Guide on the Fuel Economy, CO<sub>2</sub> Emissions and Power Consumption of All New Passenger Car Models Offered for Sale on the German Market", which can be obtained free of charge from all sales outlets of and directly from DAT Deutsche Automobil Treuhand GmbH, Hellmuth-Hirth-Strasse 1, 73760 Ostfildern, Germany.

 > [www.dat.de](http://www.dat.de)

## ABOUT THE NONFINANCIAL REPORT (NFR)

The following index provides an overview of the disclosures required for the nonfinancial report in accordance with HGB section 315c in conjunction with sections 289c to 289e, together with appropriate references to the sections of this Group Sustainability Report in which these disclosures may be found.

PwC has subjected the elements of the Group Sustainability Report that make up the nonfinancial report to a voluntary limited assurance audit in accordance with ISAE 3000 (Revised).


All text passages, tables and graphics in the Group Sustainability Report that form part of the nonfinancial report are highlighted.

References to disclosures outside the summarized management report are supplementary information and do not form part of the nonfinancial report.

Based on various global challenges, the Volkswagen Group has drawn up a list of 18 key action areas. This analysis was based on external studies, industry analyses and stakeholder surveys as well as internal policies and guidelines from our different divisions.

These action areas were largely defined on the basis of the findings of expert workshops held in the past that addressed topics relating to the economy, the environment and civil society.

In the course of evaluating the statutory reporting requirements, Volkswagen expanded its materiality analysis in 2017 and revised the action areas in terms of the requirements of the CSR Directive Implementation Act (CSR-RUG). In line with CSR-RUG, this nonfinancial report will concentrate on those action areas that are necessary for an understanding of the Volkswagen Group's business development, overall performance and position as well as the Volkswagen Group's influence on nonfinancial aspects. Based on an analysis carried out in the 2018 reporting period, the action areas identified during the 2017 materiality analysis continue to apply. The review of the materiality analysis started in 2018 will continue in 2019.

 > Checking the Materiality Analysis

### INDEX – NONFINANCIAL REPORT

	Relevant content in Sustainability Report 2018	Page(s)
Description of the business model of	- The Volkswagen Group - Goals and Strategies	8–9 11–13
Material risks	- Effective Controls through Risk Management	36–38

Nonfinancial aspects	Action area	Section of Sustainability Report	Page(s)
Broad thematic issue; affects all nonfinancial aspects	Compliance, risk management, governance	- The Volkswagen Group	8–9
		- Goals and Strategies	11–13
		- Strengthening Integrity and Compliance	16–21
		- Strategic Approach and Management (Sustainability Management)	24
		- Action Plan – Strategy and Management	25
		- Efficient Control thanks to Sustainability Management	26
		- Checking the Materiality Analysis	27
		- Strategic Stakeholder Management	28
		- Effective Controls through Risk Management	36–38
			Supplier management
Customer matters	Customer satisfaction	- High Customer Satisfaction in All Business Areas	48–49

Nonfinancial aspects	Action area	Section of Sustainability Report	Page(s)
Environmental matters	Resource conservation throughout life cycle	- Goals and Strategies	11–13
		- Strategic Approach and Management (Shaping Mobility with a View to the Future)	42
		- Innovative and Environmentally Friendly Vehicle Technologies	44, 46
		- Strategic Approach and Management (Creating Trust in Environmental Protection)	54–55
		- Environmental Protection Target Program	55
		- Resource Efficiency in Value Creation	59–61
		- Additional KPIs and Diagrams (Appendix)	82–83
	Climate protection and decarbonization	- Innovative and Environmentally Friendly Vehicle Technologies	44, 46
		- Strategic Approach and Management (Creating Trust in Environmental Protection)	54–55
		- Climate Protection through Decarbonization	56–58
		- Additional KPIs and Diagrams	81–82
Employee matters	Employer attractiveness	- Strategic Approach and Management (Being an Excellent Employer)	64–65
		- Employer Target Program	65
		- Employer of Choice	66
		- Additional KPIs and Diagrams	85
	Diversity and equal opportunities	- Strategic Approach and Management (Being an Excellent Employer)	64–65
		- Employer Target Program	65
		- Encouraging Diversity and Equal Opportunities	69–70
	Occupational health and safety	- Strategic Approach and Management (Being an Excellent Employer)	64–65
		- Healthy and Safe Working Environment	71
		- Additional KPIs and Diagrams (Appendix)	87
Social matters	Social responsibility*	- Strategic Approach and Management (Sustainability Management)	24
		- Worldwide Social Engagement	31
Respect for human rights	Human rights	- Strategic Approach and Management (Sustainability Management)	24
		- Active Protection of Human Rights	32–33
Combating corruption and bribery	Compliance, risk management, governance	- Strategic Approach and Management (Strengthening Integrity and Compliance)	16
		- Integrity and Compliance Target Program	16
		- Integrity: the Foundation of Our Actions	16–19
		- Compliant Behavior	19–20

Apart from the diesel issue, no reportable connections have been identified in this nonfinancial report to amounts reported in the 2018 annual or consolidated financial statements. Additional special items in connection with the diesel issue amounting to €3.2 billion (previous year: €3.2 billion) were recognized in the reporting period.

\* This action area relates to both environmental and social matters.

## ADDITIONAL KPIS AND DIAGRAMS






The following section contains additional information on the chapters of this sustainability report. This information is expressed in tables and graphics. Especially the portrayal of KPIs is designed to help the reader understand the development of figures in recent years and consequently assess the sustainability performance of the Group. In the interest of user-friendliness, the color scheme matches the individual design elements in the respective chapters.






## STRENGTHENING SUSTAINABILITY THROUGHOUT THE GROUP

The following information provides an overview of stakeholder management and the steering of supplier management, for the latter of which selected indicators are presented in either a cumulative manner or year-to-year comparison.

### DIALOG AND INTERACTION OPPORTUNITIES PROVIDED BY THE VOLKSWAGEN GROUP

GRI Core: D102–43

Stakeholders	Communication opportunities (examples)	
	During the year and continuously	Once a year
 Employees (including prospective ones)	<ul style="list-style-type: none"> <li>- “KulTour” event series</li> <li>- Together4Integrity (T4I) integrity campaign</li> <li>- Employee breakfasts with managers (Board of Management, top management)</li> <li>- “Volkswagen Inside” staff newspaper</li> <li>- “MITBESTIMMEN!” Works Council newspaper</li> <li>- “Volkswagen Portal” Intranet</li> <li>- “Group Connect” social Intranet</li> <li>- Political message service</li> <li>- Daily press review</li> <li>- Company meetings</li> <li>- Welcome days for new employees</li> <li>- Recruitment fairs</li> </ul>	<ul style="list-style-type: none"> <li>- Group-wide “Opinion Survey” staff survey</li> <li>- Works Council dialog with employees (for example with apprentices, doctoral students)</li> <li>- Internal conferences (for example Global Sustainability Summit, Group Global Communication Conference, Global Government Affairs Meeting)</li> <li>- “Shift” sustainability magazine</li> </ul>
 Customers	<ul style="list-style-type: none"> <li>- Volkswagen magazine</li> <li>- Group fleet magazine</li> <li>- Product brochures</li> <li>- Social media (Facebook, Twitter)</li> <li>- Trade fair appearances</li> <li>- TV product advertising</li> <li>- Advertising campaigns</li> <li>- Customer surveys</li> <li>- Autostadt as an automotive world of discovery</li> </ul>	<ul style="list-style-type: none"> <li>- “Shift” sustainability magazine</li> </ul>
 Business partners	<ul style="list-style-type: none"> <li>- Working groups</li> <li>- Expert conferences</li> <li>- Trade fair appearances</li> <li>- Workshops for suppliers</li> <li>- Concept: “Sustainability in supplier relationships”</li> </ul>	<ul style="list-style-type: none"> <li>- “Shift” sustainability magazine</li> <li>- Group sustainability report</li> <li>- Stakeholder dialog event</li> <li>- International Suppliers Fair (IZB)</li> </ul>
 Investors and analysts	<ul style="list-style-type: none"> <li>- SRI roadshows</li> <li>- Discussions with investors</li> <li>- Special “Investor Relations” area on the Group homepage</li> <li>- Financial news</li> <li>- Ad-hoc releases</li> </ul>	<ul style="list-style-type: none"> <li>- Investor conferences</li> <li>- General meeting</li> <li>- Annual press conference</li> <li>- Group annual report</li> <li>- Group sustainability report</li> <li>- Stakeholder dialog event</li> <li>- “Shift” sustainability magazine</li> </ul>
 Competitors	<ul style="list-style-type: none"> <li>- Working groups</li> <li>- Expert conferences</li> <li>- Cooperation projects</li> <li>- Conferences</li> </ul>	

Stakeholders	Communication opportunities (examples)	
	During the year and continuously	Once a year
 Politics and associations	<ul style="list-style-type: none"> <li>- Memberships</li> <li>- Delegation visits</li> <li>- Experts talks and opinions</li> <li>- Events at Group representative offices</li> <li>- Event sponsoring (party days, summer festivals, parliamentary receptions etc.)</li> <li>- Advertisements in party publications</li> <li>- Involvement in working groups and steering committees</li> <li>- Project working groups</li> <li>- Workshops and conferences</li> <li>- Symposiums and expert meetings</li> <li>- “Street.Food.Politics” event series</li> <li>- Activities of the Global and Group Works Councils</li> </ul>	<ul style="list-style-type: none"> <li>- Group sustainability report</li> <li>- Stakeholder dialog event</li> <li>- “Shift” sustainability magazine</li> </ul>
 Media	<ul style="list-style-type: none"> <li>- Discussions with journalists</li> <li>- Press releases</li> <li>- Group Media Portal</li> <li>- Online newsfeed</li> </ul>	<ul style="list-style-type: none"> <li>- Group sustainability report</li> <li>- Group annual report</li> <li>- Annual press conference</li> <li>- “Shift” sustainability magazine</li> </ul>
 NGOs/charitable organizations	<ul style="list-style-type: none"> <li>- Memberships</li> <li>- Cooperations (for example DRK)</li> <li>- Event sponsoring</li> <li>- Global CC projects</li> <li>- Inquiries and statements</li> <li>- Funds for disaster relief</li> <li>- Volkswagen refugee aid (for example language development, sitting in on classes)</li> <li>- Host of the Global Social Business Summit 2018</li> <li>- Hackathon event series</li> </ul>	<ul style="list-style-type: none"> <li>- Group sustainability report</li> <li>- Stakeholder dialog event</li> <li>- “Shift” sustainability magazine</li> </ul>
 Researchers & experts	<ul style="list-style-type: none"> <li>- Research subsidy programs</li> <li>- Conference sponsoring</li> <li>- Cooperation projects</li> <li>- Expert talks and conferences</li> <li>- Research colloquiums</li> <li>- Employee lectureships</li> <li>- Audi’s “Perspective Responsibility” series of presentations</li> <li>- AutoUni Wolfsburg activities (guest presentations, institute work)</li> </ul>	<ul style="list-style-type: none"> <li>- Group sustainability report</li> <li>- Stakeholder dialog event</li> <li>- “Shift” sustainability magazine</li> </ul>
 Residents & local authorities	<ul style="list-style-type: none"> <li>- Open day</li> <li>- CC projects at sites</li> <li>- Plant management discussions with residents</li> <li>- Local event sponsoring (for example fun runs, cycling tours), support for local associations</li> <li>- Sponsoring awards (for example Mönchehaus Museum Gosla)</li> <li>- Sponsoring cultural symposiums (for example Art X Tech in Beijing)</li> <li>- Free tickets for museum visits (for example Volkswagen ART 4 ALL at the Hamburger Bahnhof museum in Berlin)</li> <li>- Foundation partnerships (for example with the Central Academy of Fine Arts Beijing)</li> <li>- Sponsoring of local art and cultural events by Volkswagen plants</li> </ul>	<ul style="list-style-type: none"> <li>- “Shift” sustainability magazine</li> <li>- Group sustainability report</li> <li>- Audi Summer Concerts in Ingolstadt</li> <li>- Easter Festival in Salzburg</li> </ul>

## STATUS OF SUSTAINABILITY QUESTIONNAIRE

	Procurement expenditure-based target for 2018	Status in 2018, based on procurement expenditure	Total 2012–2018, cumulated <sup>1</sup>
Sustainability questionnaire (self-assessed)	93%	92%	28,221

<sup>1</sup> This figure also includes former suppliers of the Volkswagen Group.

## STATUS QUO E-LEARNING SUSTAINABILITY QUESTIONNAIRE

	Procurement expenditure-based target for 2018	Status in 2018, based on procurement expenditure	Total 2012–2018, cumulated <sup>1</sup>
E-learning	83%	74%	31,059

<sup>1</sup> This figure also includes former suppliers of the Volkswagen Group.

## SALES-REVENUE-BASED PROPORTIONS OF ENVIRONMENTAL AND SOCIAL CERTIFICATIONS HELD BY MAIN SUPPLIERS

	2018	2017	2016	2015	2014
<b>Environmental certification (EMAS, ISO 14001)</b>					
Verified	76%	61%	55%	49%	48%
<b>Social certification (OHSAS 18001, SA8000, AA1000)</b>					
Verified (total)	32%	50%	13%	9%	8%

## SHAPING MOBILITY WITH A VIEW TO THE FUTURE

This table provides a year-to-year comparison of the numbers of alternative drive technologies in vehicles of the Volkswagen Group.

### ALTERNATIVE DRIVE TECHNOLOGIES IN THE GROUP<sup>1</sup>

Vehicles produced

	2018	2017	Change (2017 vs. 2018)	
Globally	Gas drives (natural gas and LPG)	99,016 (0.94%)	84,938 (0.82%)	+14%
	Hybrid drives	46,703 (0.44%)	39,525 (0.38%)	+1%
	All-electric drives	33,421 (0.32%)	20,913 (0.20%)	+25%
	<b>Eco-friendly drives (total)</b>	<b>179,140 (1.71%)</b>	<b>145,376 (1.40%)</b>	<b>+12%</b>

	2018	2017	Change (2017 vs. 2018)	
Western Europe <sup>2</sup>	Gas drives (natural gas and LPG)	48,445 (1.39%)	34,537 (1.01%)	+11%
	Hybrid drives	23,814 (0.69%)	34,939 (1.02%)	+5%
	All-electric drives	28,008 (0.81%)	16,305 (0.47%)	+42%
	<b>Eco-friendly drives (total)</b>	<b>100,267 (2.88%)</b>	<b>85,781 (2.50%)</b>	<b>+14%</b>

<sup>1</sup> Volkswagen Group production: VW PC, Audi, ŠKODA, SEAT, VW light commercial vehicles, Audi light commercial vehicles excl. luxury brands.

<sup>2</sup> Western Europe: BEL, DNK, DEU, FIN, FRA, GRC, GBR, IRL, ISL, ITA, LUX, NLD, NOR, AUT, PRT, SWE, CHE, ESP, rest of W. Europe.



## CREATING TRUST IN ENVIRONMENTAL PROTECTION

We report selected environmental data as regards production within the Volkswagen Group. The data is collected, checked and approved at our production sites in line with an internal standard (VW Standard 98 000). The values for December of the preceding year may include some estimated data if, for example, they are based on bills from power suppliers or waste disposal providers which were not yet available at the time of compilation. In the next data collection round, this estimated data will be replaced with the finalized figures for December.

In accordance with our environmental strategy, the various time series portrayed here refer to the baseline year of 2010 and show comparisons to both the reporting period and the previous year. Overall, environmental data is collected from the Group's production sites. As in the Volkswagen Group's Annual Report, data in the "Cars and light commercial vehicles" category is reported for 2010, 2017 and 2018. Data for the brands Scania AB, MAN SE, Ducati Motor Holding S.p.A. and VW Kraftwerk GmbH is reported in the "Other divisions" category; the respective proportions are shown separately in the tables. Unless otherwise indicated, all the Group's production sites, together with the power stations and boiler plants operated by Volkswagen AG in Wolfsburg, Kassel and Hanover in Germany, are included in both categories.

The data covers 117 of the Group's 123 production sites. No data is available for six Scania Regional Product Centers. These correspond to approximately 0.1% of the workforce at the production sites, hence have no relevant influence on the Group's KPIs.

The Volkswagen Group is essentially an automotive manufacturer which produces cars and light commercial vehicles as well as heavy-duty commercial vehicles and buses. MAN SE does, however, also manufacture marine engines and power station components.

### ENVIRONMENTAL PROTECTION COSTS\*

in € million/vehicle

	2018	2017	2010
Investments	12	14	11
Operating costs	206	186	179

\* Volkswagen AG production locations in Germany.

### ENVIRONMENTAL PROTECTION COSTS\*

in € million/year

	2018	2017	2010
Investments	13	17	12
Operating costs	230	227	197

\* Volkswagen AG production locations in Germany.

### DIRECT CO<sub>2</sub> EMISSIONS SCOPE 1\*

in kg/vehicle

	2018	2017	2010
Direct CO <sub>2</sub> emissions (Scope 1)	347	361	588

\* Cars and light commercial vehicles.

In view of this product diversity, our overall environmental impact cannot simply be expressed in terms of the volume of vehicles produced.

Consequently, relative indicators are only shown for the "Cars and light commercial vehicles" category. The number of vehicles produced in 2018 totaled 10,787,245 cars and light commercial vehicles as well as 230,376 heavy-duty commercial vehicles.

The changing production volumes and associated fluctuations in capacity utilization levels at our various locations are reflected in changes in the absolute values of many indicators. However, increased efficiency did result in improvements in the specific values of a number of indicators.

Weather conditions have an appreciable but uncontrollable impact on the consumption of resources. This relates primarily to space heating demand for both production and non-production areas, since the annual average temperatures impact the direct consumption of energy sources as well as the amount of energy purchased from third parties.

The specific values are also influenced by a range of factors. On the one hand, absolute consumption or emissions levels may change, while on the other, rising or falling production volumes at the individual production sites also influence the indicators.

### DIRECT CO<sub>2</sub> EMISSIONS SCOPE 1

in million tonnes/year

	2018	2017	2010
Direct CO <sub>2</sub> emissions (Scope 1)	3.91	4.05	4.32
of which cars and light commercial vehicles	3.74	3.85	4.29
of which other divisions	0.17	0.19	0.03

### CO<sub>2</sub> EMISSIONS SCOPE 1+2\*

in million tonnes/year

	2018	2017	2010
CO <sub>2</sub> emissions (Scope 1+2)	8.21	9.09	8.04
of which cars and light commercial vehicles	7.77	8.62	7.99
of which other divisions	0.44	0.47	0.05

\* Cars and light commercial vehicles and other divisions.

Approximately 70% of the improvement in CO<sub>2</sub> emissions for cars and light commercial vehicles is attributable to an improvement in government CO<sub>2</sub> factors in electricity sourcing in China.

### CO<sub>2</sub> EMISSIONS SCOPE 1+2\*

in kg/vehicle

	2018	2017	2010
CO <sub>2</sub> emissions (Scope 1+2)	720	808	1,096

\* Cars and light commercial vehicles.

Approximately 70% of the improvement in CO<sub>2</sub> emissions for cars and light commercial vehicles is attributable to an improvement in government CO<sub>2</sub> factors in electricity sourcing in China.

### GHG EMISSIONS SCOPE 3

in the Volkswagen Group (cars and light commercial vehicles)

No.	Category	2018 <sup>1</sup>		2017 <sup>2</sup>	
		t CO <sub>2</sub>	%	t CO <sub>2</sub>	%
1	Purchased goods and services	67,434,157	15.8	64,139,109	15.2
2	Capital goods	14,212,385	3.3	13,846,493	3.3
3	Fuel/energy	1,402,775	0.3	1,399,741	0.3
4	Upstream transportation and distribution <sup>2,3</sup>	4,374,823	1.0	3,795,390	0.9
5	Waste generated in operations	2,265,212	0.5	2,259,423	0.5
6	Business travel	708,180	0.2	685,148	0.2
7	Employee commuting	1,009,481	0.2	976,650	0.2
8	Upstream leased assets <sup>3</sup>	not reported	–	not reported	–
9	Downstream transportation and distribution <sup>4</sup>	not reported	–	not reported	–
10	Processing of sold products	13,000	0.003	13,000	0.003
11	Use phase (200,000 km) <sup>5</sup>	332,364,361	77.7	332,622,200	78.6
12	End-of-life treatment <sup>2</sup>	1,145,858	0.3	1,114,154	0.3
13	Downstream leased assets <sup>4</sup>	1,048,978	0.2	942,053	0.2
14	Franchises	1,550,000	0.4	1,550,000	0.4
15	Investments	not reported	not reported	not reported	–
<b>Total of reported Scope 3 emissions</b>		<b>427,529,210</b>	<b>100</b>	<b>423,343,361</b>	<b>100</b>

<sup>1</sup> Individual figures are rounded. This may lead to minor discrepancies in the sum total.

<sup>2</sup> Figure based on the 2018 CDP report – the figure for 2018 will appear in the 2019 CDP report.

<sup>3</sup> Upstream.

<sup>4</sup> Downstream.

<sup>5</sup> Well-to-wheel, fiscal year 2017 value adjusted retrospectively based on a kilometer reading of 200,000 instead of 150,000. The calculation is based on an extrapolation of fleet values for the passenger car and light commercial vehicle fleet in the four large regions (EU28, USA, Brazil, China).

### CO<sub>2</sub> EMISSIONS

of the Volkswagen Group's European (EU 28)

New Passenger Car Fleet in g/km

	2018	2017	2016
CO <sub>2</sub> emissions	123 <sup>1,2</sup>	122	120

<sup>1</sup> Subject to official publication by the European Commission in the annual CO<sub>2</sub> fleet monitoring report.

<sup>2</sup> Up to and including 2020, European fleet legislation will be complied with on the basis of the New European Driving Cycle (NEDC). After 2021, the NEDC target value will be changed into a WLTP target value through a process defined by lawmakers; the changing of the target value is not expected to put additional strain on the target value.

### VOC EMISSIONS\*

in tonnes/year

	2018	2017	2010
VOC emissions	22,091	23,342	30,347
of which cars and light commercial vehicles	20,789	22,235	30,081
of which other divisions	1,302	1,107	266

\* Cars and light commercial vehicles and other divisions.

### VOC EMISSIONS\*

in kg/vehicle

	2018	2017	2010
VOC emissions	1.93	2.08	4.13

\* Cars and light commercial vehicles.

### ENERGY CONSUMPTION\*

in million MWh/year

	2018	2017	2010
<b>Total</b>	<b>24.13</b>	<b>24.23</b>	<b>19.37</b>
Electricity	12.75	12.58	9.45
of which cars and light commercial vehicles	11.47	11.31	8.72
of which other divisions	1.27	1.27	0.72
Heat	6.83	7.04	6.46
of which cars and light commercial vehicles	6.04	6.27	6.24
of which other divisions	0.79	0.77	0.22
Fuel gases for manufacturing processes	4.56	4.62	3.47
of which cars and light commercial vehicles	4.46	4.48	3.40
of which other divisions	0.10	0.14	0.06

\* Cars and light commercial vehicles and other divisions.

## ENERGY CONSUMPTION\*

in kWh/vehicle

	2018	2017	2010
<b>Total</b>	<b>2,037</b>	<b>2,068</b>	<b>2,519</b>
Electricity	1,064	1,060	1,197
Heat	560	588	855
Fuel gases for manufacturing processes	414	420	467

\* Cars and light commercial vehicles.

## FRESHWATER AND WASTE WATER\*

in million m<sup>3</sup>/year

	2018	2017	2010
<b>Freshwater volume</b>	<b>55.66</b>	<b>53.77</b>	<b>37.23</b>
of which cars and light commercial vehicles	41.59	40.16	33.11
of which other divisions	14.07	13.61	4.12
<b>Waste water volume</b>	<b>30.61</b>	<b>32.90</b>	<b>27.93</b>
of which cars and light commercial vehicles	28.97	31.26	27.41
of which other divisions	1.64	1.64	0.52

\* Cars and light commercial vehicles and other divisions.

## FRESHWATER AND WASTE WATER\*

in m<sup>3</sup>/vehicle

	2018	2017	2010
<b>Freshwater volume</b>	<b>3.86</b>	<b>3.76</b>	<b>4.54</b>
<b>Waste water volume</b>	<b>2.69</b>	<b>2.93</b>	<b>3.76</b>

\* Cars and light commercial vehicles.

## WATER WITHDRAWAL BY SOURCE<sup>1,2</sup>

in million m<sup>3</sup>/year

	2018	2017	2016
<b>Groundwater</b>	<b>6.82</b>	<b>6.60</b>	<b>6.58</b>
<b>Rainwater/surface water</b>	<b>1.48</b>	<b>1.30</b>	<b>1.17</b>
<b>Purchased freshwater</b>	<b>33.3</b>	<b>32.3</b>	<b>32.0</b>

<sup>1</sup> Cars and light commercial vehicles.

<sup>2</sup> No differentiated data was compiled prior to 2013.

## WASTE WATER DISCHARGES<sup>1,2</sup>

in million m<sup>3</sup>/year

	2018	2017	2016
<b>Receiving stream</b>	<b>8.09</b>	<b>10.26</b>	<b>8.99</b>
<b>Municipal effluent treatment plant</b>	<b>20.88</b>	<b>21.01</b>	<b>21.29</b>

<sup>1</sup> Cars and light commercial vehicles.

<sup>2</sup> No differentiated data was compiled prior to 2013.

## WASTE FOR RECYCLING\*

in kg/vehicle

	2018	2017	2010
<b>Non-hazardous waste for disposal</b>	<b>46.91</b>	<b>41.27</b>	<b>33.28</b>
<b>Hazardous waste for disposal</b>	<b>14.06</b>	<b>13.96</b>	<b>12.43</b>
<b>Metallic waste</b>	<b>208.88</b>	<b>208.85</b>	<b>217.27</b>

\* Cars and light commercial vehicles.

## WASTE FOR RECYCLING\*

in million tonnes/year

	2018	2017	2010
<b>Non-hazardous waste for disposal</b>	<b>592,737</b>	<b>515,858</b>	<b>298,753</b>
of which cars and light commercial vehicles	505,985	440,278	242,611
of which other divisions	86,751	75,580	56,142
<b>Hazardous waste for disposal</b>	<b>170,424</b>	<b>169,571</b>	<b>97,607</b>
of which cars and light commercial vehicles	151,694	148,916	90,584
of which other divisions	18,730	20,655	7,023
<b>Metallic waste</b>	<b>2,388,441</b>	<b>2,349,495</b>	<b>1,845,474</b>
of which cars and light commercial vehicles	2,253,201	2,227,899	1,844,845
of which other divisions	135,239	121,596	629

\* Cars and light commercial vehicles and other divisions.

## SPECIFIC WASTE FOR DISPOSAL\*

(production-specific volumes only) in kg/vehicle

	2018	2017	2010
<b>Non-hazardous waste for disposal</b>	<b>5.46</b>	<b>7.65</b>	<b>14.03</b>
<b>Hazardous waste for disposal</b>	<b>6.74</b>	<b>8.30</b>	<b>9.27</b>

\* Cars and light commercial vehicles.

## SPECIFIC WASTE FOR DISPOSAL\*

(production-specific volumes only) in tonnes/year

	2018	2017	2010
<b>Non-hazardous waste for disposal</b>	<b>65,588</b>	<b>88,168</b>	<b>103,037</b>
of which cars and light commercial vehicles	58,855	81,657	102,291
of which other divisions	6,732	6,511	746
<b>Hazardous waste for disposal</b>	<b>83,988</b>	<b>97,482</b>	<b>71,094</b>
of which cars and light commercial vehicles	72,731	88,562	67,547
of which other divisions	11,258	8,920	3,547

\* Cars and light commercial vehicles and other divisions.

## DIRECT NO<sub>x</sub> AND SO<sub>2</sub> EMISSIONS\*

in tonnes/year

	2018	2017	2010
<b>Nitrogen oxides (NO<sub>x</sub> as NO<sub>2</sub>)</b>	<b>3,846</b>	<b>4,086</b>	<b>4,331</b>
of which cars and light commercial vehicles	1,865	1,972	2,720
of which other divisions	1,980	2,114	1,611
<b>Sulfur dioxide (SO<sub>2</sub>)</b>	<b>899</b>	<b>1,062</b>	<b>2,085</b>
of which cars and light commercial vehicles	16	36	368
of which other divisions	883	1,026	1,716

\* Cars and light commercial vehicles and other divisions.

**DIRECT NO<sub>x</sub> AND SO<sub>2</sub> EMISSIONS\***

in kg/vehicle

	2018	2017	2010
Nitrogen oxides (NO <sub>x</sub> as NO <sub>2</sub> )	173	185	373
Sulfur dioxide (SO <sub>2</sub> )	1	3	51

\* Cars and light commercial vehicles.

**CHEMICAL OXYGEN DEMAND (COD)\***

in g/vehicle

	2018	2017	2010
Chemical oxygen demand	449	473	555

\* Cars and light commercial vehicles.

**CHEMICAL OXYGEN DEMAND (COD)\***

in tonnes/year

	2018	2017	2010
Chemical oxygen demand	5,039	5,222	4,043
of which cars and light commercial vehicles	4,847	5,051	4,043
of which other divisions	192	171	0

\* Cars and light commercial vehicles and other divisions. The shares attributable to other divisions are not shown separately because they are too small.

**PARTICULATE EMISSIONS\***

in tonnes/year

	2018	2017	2010
Particulate emissions	350	347	380

\* Cars and light commercial vehicles in Europe (total dust emissions).

**PARTICULATE EMISSIONS\***

in g/vehicle

	2018	2017	2010
Particulate emissions	68	68	98

\* Cars and light commercial vehicles in Europe (total dust emissions).

**CO<sub>2</sub> EQUIVALENTS\***

in million tonnes/year

	2018	2017	2010
CO <sub>2</sub> equivalents	0.153	0.095	0.067
of which cars and light commercial vehicles	0.150	0.094	0.067
of which other divisions	0.003	0.002	0.000

\* Cars and light commercial vehicles and other divisions.

**CO<sub>2</sub> EQUIVALENTS\***

in kg/vehicle

	2018	2017	2010
CO <sub>2</sub> equivalents	13.92	8.80	9.21

\* Cars and light commercial vehicles.

**PLANTS IN THE VICINITY OF NATURE CONSERVATION AREAS**

Plant	Distance (km)	Area* (ha)
Braunschweig (D): Oker	0.8	53
Poznań, logistics (PL): Dolina Cybiny	2.7	30
Chemnitz (D): Zwönitz	2.5	21.3
Poznań, foundry (PL): Fortyfikacje-w-Poznańiu	6.7	40
Dresden (D): Mühlberg	1	8.3
Poznań, production (PL): Dolina Cybiny	0.6	40
Ehra-Lessien (D): Vogelmoor	3.9	
Mlada Boleslav, production (CZ): Radouci	1.2	212
Emden (D)	0.9	400
Vrachlabi, production (CZ): Krkonose	1.1	23
Hanover (D): Leine	0.75	118
Kvasiny, production (CZ): Uh inov-Benátky	5	42
Ingolstadt (D): Training ground	3.8	200
Martin, components (SK): Malá Fatra	<5	12.4
Kassel (D): Fuldataal	1.6	280
Bratislava, production (SK): Moravy	<2	178
Leipzig (D): Tannenwald, Strohgäu	0	20
Palmela, production (POR): Arrabida	3.5	24.5
Neckarsulm (D): Jagst, Kocher	0.1	95
Barcelona, production (ES): Llobregat	3.6	39.3
Osnabrück (D): Mausohr, Belm	5.45	36.1
Martorell, R&D, production (ES): Llobregat	0.85	800
Salzgitter (D): Heerter See	7.5	280
Pamplona, production (ES): Pena de Etxauri	15	163
Stuttgart (D): Max-Eyth-See	0.75	28.8
Prat, components (ES): Llobregat	0.7	15.5
Weissach (D): Enztal, Stuttgarter Bucht	0.05	84.9
Brussels, production (B): Verrewinkel-Kinsendael	3	44
Wolfsburg (D): Barnbruch	0.2	800
Győr, components (HU): Göny i homokvidék	<1	30
Zwickau (D): Zwickauer Muldetal	0.1	180
Crewe (UK): West Midlands Moor	5.7	
Polkowice, components (PL): Jelonek	7.9	
Polkowice, Sitech (PL): Jelonek	3.2	

\* Area = space of the production site.

## BEING AN EXCELLENT EMPLOYER

In the following tables of KPIs, we disclose the development of significant indicators regarding the workforce of the Volkswagen Group. These indicators include the number of employees and apprentices as well as structural information such as operating

### WORKFORCE

in the Volkswagen Group

	2018	2017	2016	2015	2014
Employees	664,496	642,292	626,715	610,076	592,586

### NUMBER OF EMPLOYEES IN THE VOLKSWAGEN GROUP

by region

	2018	2017	2016	2015	2014
Europe	492,445	474,522	464,199	451,257	438,631
The Americas	58,930	59,086	58,491	59,329	59,790
Africa	6,350	5,918	6,082	6,388	6,330
Asia	105,544	101,643	96,823	91,991	86,752
Australia	1,227	1,123	1,120	1,111	1,083
<b>Total</b>	<b>664,496</b>	<b>642,292</b>	<b>626,715</b>	<b>610,076</b>	<b>592,586</b>

of which:

temporary staff	29,157	27,684	21,806	17,909	15,161
permanent staff	635,339	614,608	604,909	592,167	577,425

### NUMBER OF EMPLOYEES IN THE VOLKSWAGEN GROUP

by type of work

	2018	2017	2016	2015	2014
Production workers	313,650	310,083	289,438	279,771	273,418
Non-production workers	331,602	313,002	317,787	311,654	300,709
Apprentices	19,244	19,207	19,490	18,651	18,459
<b>Total workforce</b>	<b>664,496</b>	<b>642,292</b>	<b>626,715</b>	<b>610,076</b>	<b>592,586</b>

of which:

active employees*	636,156	615,081	601,443	585,242	566,998
in passive phased retirement	9,096	8,004	5,782	6,183	7,129

\* All employees with an active employment contract in the Group who are involved in the value added process.

### NUMBER OF EMPLOYEES

in the Volkswagen Group by segment

	2018
Financial Services	16,469
Commercial Vehicles/Power Engineering	126,292
Passenger Cars	521,735

segment, age, type of employment and regional distribution. These tables also document accident figures and staff absences. Some pieces of information, such as the utilization of parental leave and the fluctuation rate, refer exclusively to Volkswagen AG.

### EMPLOYEE AGE STRUCTURE

in the Volkswagen Group (in %)

	2018
<20 years	
- Women	0.4
- Men	1.6
20–29 years	
- Women	3.7
- Men	17.5
30–39 years	
- Women	5.0
- Men	23.7
40–49 years	
- Women	4.2
- Men	20.6
50–59 years	
- Women	2.7
- Men	16.5
>60 years	
- Women	0.4
- Men	3.5

### EMPLOYEE TURNOVER\*

at Volkswagen AG (in %)

	2018	2017	2016	2015	2014
Women	0.5	0.4	0.3	0.4	0.3
Men	0.6	0.5	0.5	0.4	0.4
<b>Total</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>

\* Excludes age-related turnover.

### RETURNING FROM PARENTAL LEAVE

at Volkswagen AG

	2018
Women	742
Men	3,021
<b>Total</b>	<b>3,763</b>

### PARENTAL LEAVE\* AT VOLKSWAGEN AG

	2018	2017	2016	2015	2014
Women	968	889	812	718	601
Men	3,027	2,743	2,540	2,112	1,658
<b>Total</b>	<b>3,995</b>	<b>3,632</b>	<b>3,361</b>	<b>2,830</b>	<b>2,259</b>

\* Number of employees who started their parental leave in the year concerned.

## APPRENTICES

in the Volkswagen Group in Germany

	2018	2017	2016	2015	2014
In percent	4.6	4.6	4.6	4.7	4.8

## LEVEL OF QUALIFICATION\*

in the Volkswagen Group (in %)

	2018	2017
Higher education	22.6	21.8
Secondary education	59.1	58.4
Vocational education and training	15.3	16.4
Other	3.0	3.4

\* Includes Scania according to allocation formula.

## APPRENTICES IN THE VOLKSWAGEN GROUP

	December 2018			December 2017		
	Total	Domestic country	Foreign country	Total	Domestic country	Foreign country
Volkswagen Passenger Cars	6,341	5,036	1,305	6,306	4,973	1,333
Audi	2,793	2,725	68	2,851	2,753	98
ŠKODA	959	1	958	936	—	936
Porsche	903	845	58	840	796	44
Porsche Holding Salzburg	1,853	1,098	755	1,766	1,114	652
SEAT	229	69	160	237	64	173
Bentley	140	—	140	135	—	135
Other	454	372	82	797	366	431
<b>Automotive Division</b>	<b>13,672</b>	<b>10,146</b>	<b>3,526</b>	<b>13,868</b>	<b>10,066</b>	<b>3,802</b>
MAN	3,279	2,157	1,122	3,132	2,169	963
Scania	1,189	233	956	1,081	—	1,081
Volkswagen Commercial Vehicles	906	728	178	932	732	200
<b>Commercial Vehicles/Power Engineering Division</b>	<b>5,374</b>	<b>3,118</b>	<b>2,256</b>	<b>5,145</b>	<b>2,901</b>	<b>2,244</b>
Financial Services	198	149	49	194	148	46
<b>Group</b>	<b>19,244</b>	<b>13,413</b>	<b>5,831</b>	<b>19,207</b>	<b>13,115</b>	<b>6,092</b>

## FEMALE EMPLOYEES\*

in the Volkswagen Group

	2018	2017	2016	2015	2014
In percent	16.5	16.3	16.0	16.0	15.7

\* Figures from 2013 onward include MAN and Porsche.

## ABSENTEEISM\*

Cumulative values

	2018	2017	2016	2015	2014
In percent	3.9	3.7	3.9	3.7	3.4

\* Production sites with 1,000 employees or more, excluding Scania.

Figures from 2014 onward include Porsche. Figures from 2015 onward include MAN Germany. Figures from 2017 onward include MAN Ausland, Ducati, Shanghai Volkswagen Powertrain, Volkswagen Automatic Transmission and Volkswagen Transmission Shanghai.

## PROPORTION OF WOMEN

in the Volkswagen Group in Germany (in %)

	2018	2017
Total management	12.1	11.4
Total apprentices	27.5	28.8
Industrial apprentices	22.0	23.0
Commercial apprentices	49.9	55.4
Students on "dual system" courses	33.8	33.6
University graduates recruited <sup>1</sup>	28.7	30.3
<b>Total Volkswagen Group in Germany</b>	<b>18.5</b>	<b>18.2</b>

<sup>1</sup> Volkswagen AG.

## ACCIDENT INDICES

in the Volkswagen Group

	2018 <sup>1</sup>	2017	2016	2015	2014
Accident frequency	4.1	3.9	3.5	3.4	3.6
Accident severity <sup>2</sup>	5.6	5.0	5.0	4.9	4.8

<sup>1</sup> Excluding FAW VW.

<sup>2</sup> Excluding Scania.

The accident frequency rate provides information on the number of accidents as a proportion of the total of all hours worked. It is calculated as follows: number of accidents at work reported x 1 million / total number of hours worked.

The accident severity rate shows the total number of working days lost due to accidents as a proportion of the total of all hours worked. It is calculated as follows: number of working days lost x 100,000 / total number of hours worked.

## ACCIDENT FIGURES<sup>1</sup>

in the Volkswagen Group

	2018 <sup>2</sup>	2017	2016	2015	2014
Working days lost <sup>3</sup>	40,294	39,730	36,420	36,420	35,361
Number of occupational accidents	3,273	3,144	2,769	2,540	2,646

<sup>1</sup> Accidents reported.

<sup>2</sup> Excluding FAW VW.

<sup>3</sup> Excluding Scania.

There were two fatal accidents affecting the Volkswagen and Audi brands in Germany in the reporting period.

## AVERAGE AGE OF EMPLOYEES

Average age at Volkswagen AG

	2018	2017	2016	2015	2014
Women	39.9	39.5	39.0	38.6	38.4
Men	44.7	44.5	44.0	43.7	43.6
<b>Total</b>	<b>43.9</b>	<b>43.6</b>	<b>43.2</b>	<b>42.9</b>	<b>42.8</b>

## IDEAS MANAGEMENT\*

in the Volkswagen AG

	2018	2017
Ideas suggested	42,729	54,899
Implemented ideas for improvement	51,706	59,872
Awarded ideas for improvement	21,946	24,267
Savings (€ million)	128	124
Bonuses (€ million)	24	22

\* Including Volkswagen Sachsen GmbH and Volkswagen Osnabrück GmbH.

# GRI CONTENT INDEX



This report was prepared in accordance with the GRI Standards, applying the “comprehensive” option. On behalf of the Materiality Disclosures Service, GRI Services verified that the GRI content index is well structured and that disclosures for 102-40 to 102-49 match the corresponding chapters in the report.

At the same time, we show how we are implementing the requirements of the United Nations Global Compact (UNGC) and are using the Sustainable Development Goals (SDG) as well as the criteria of the German Sustainability Code (DNK) as guidance.

Statements and references in the index refer to fiscal year 2018 (from January 1 to December 31, 2018).

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
GRI 101: Foundation 2016						

## GENERAL DISCLOSURES

GRI 102: General Disclosures 2016

## ORGANIZATIONAL PROFILE

102-1	Name of the organization	8				
102-2	Primary brands, products, and services	8–10 Annual Report 2018: Divisions				
102-3	Location of the organization’s headquarters	8				
102-4	Countries with significant operations	9				14
102-5	Nature of ownership and legal form	8 Annual Report 2018: Structure and Business Activities				
102-6	Markets served	8–9 Annual Report 2018: Divisions				
102-7	Scale of the organization	9 Annual Report 2018: Divisions				
102-8	Information on employees and other workers	8, 85–86 Charter on Temporary Work Charter on Labour Relations	No breakdown by employees and supervised workers nor within the individual categories by gender (level of coverage not material).  The moderate use of temporary work represents an essential flexibility instrument for Volkswagen.	6	8	
102-9	Supply chain	10				4
102-10	Significant changes to the organization and its supply chain	Annual Report 2018: Structure and Business Activities				4



## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
102-11	Precautionary Principle or approach	19–20, 24–24, 35 Annual Report 2018: Risk Management and Internal Control System		7		1
102-12	External initiatives	72, 24–31				1
102-13	Membership of associations	28–30 Volkswagen memberships (www.volkswagenag.com/en/sustainability/policy.html)				19
<b>STRATEGY</b>						
102-14	Statement by the most senior decision-maker	4–5				1
102-15	Key impacts, risks, and opportunities concerning sustainability	4–5, 37–38				2
<b>ETHICS AND INTEGRITY</b>						
102-16	Values, principles, standards, and norms of behavior	4–5, 24–25 Group Values, Model of Sustainable Development, Code of Conduct (www.volkswagenag.com/en/sustainability/policy.html)		10	16	5, 6, 7
102-17	Mechanisms for advice and concerns about ethics	19–20		10	17	20
<b>GOVERNANCE</b>						
102-18	Governance structure	26				
102-19	Delegating authority for economic, environmental, and social topics	26 Annual Report 2018: Report of the Supervisory Board				
102-20	Executive-level responsibility for economic, environmental, and social topics	26, 19–21 Annual Report 2018: Sustainable Value Enhancement				5
102-21	Consulting stakeholders on economic, environmental, and social topics	Annual Report 2018: Disclosures Required under Takeover Law, Shares and Bonds			16	9
102-22	Composition of the highest governance body and its committees	26 Annual Report 2018: Report of the Supervisory Board, Corporate Governance Report, Executive Bodies			5, 16	
102-23	Chair of the highest governance body	Annual Report 2018: Cooperation, Report of the Supervisory Board			16	
102-24	Nominating and selecting the highest governance body	Annual Report 2018: Corporate Governance Report			5, 16	

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
102-25	Conflicts of interest	Annual Report 2018: Cooperation, Report of the Supervisory Board			16	
102-26	Role of highest governance body in setting purpose, values, and strategy	Annual Report 2018: Report of the Supervisory Board, Corporate Governance Report				5
102-27	Collective knowledge of highest governance body	Annual Report 2018: Corporate Governance Report			4	
102-28	Evaluating the highest governance body's performance	Annual Report 2018: Corporate Governance Report				8
102-29	Identifying and managing economic, environmental, and social impacts	36–38 Annual Report 2018: Corporate Governance Report			16	5
102-30	Effectiveness of risk management processes	36–38 Annual Report 2018: Corporate Governance Report				5
102-31	Review of economic, environmental, and social topics	36–38 Annual Report 2018: Corporate Governance Report				5, 7
102-32	Highest governance body's role in sustainability reporting	26				5
102-33	Communicating critical concerns	Annual Report 2018: Corporate Governance Report				14
102-34	Nature and total number of critical concerns	Annual Report 2018: Report of the Supervisory Board				9
102-35	Remuneration policies	17 Annual Report 2018: Remuneration Report ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )				8
102-36	Process for determining remuneration	66–67 Annual Report 2018: Remuneration Report ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )				15
102-37	Stakeholders' involvement in remuneration	Annual Report 2018: Remuneration Report			16	
102-38	Annual total compensation ratio	66–67 Annual Report 2018: Remuneration Report				8
102-39	Percentage increase in annual total compensation ratio	66–67 Annual Report 2018: Remuneration Report				

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
<b>STAKEHOLDER ENGAGEMENT</b>						
102-40	List of stakeholder groups	28				9
102-41	Collective bargaining agreements	67–68		3	8	14
102-42	Identifying and selecting stakeholders	28–30				9
102-43	Approach to stakeholder engagement	30				9
102-44	Key topics and concerns raised	30				9
<b>REPORTING PRACTICE</b>						
102-45	Entities included in the consolidated financial statements	74 Annual Report 2018: Basis of Consolidation				
102-46	Defining report content and topic boundaries	27				
102-47	List of material topics	27				2
102-48	Restatements of information	74				
102-49	Changes in reporting	24, 74				2
102-50	Reporting period	75				
102-51	Date of most recent report	75				
102-52	Reporting cycle	75				
102-53	Contact point for questions regarding the report	106				
102-54	Claims of reporting in accordance with the GRI Standards	88				
102-55	GRI content index	88				
102-56	External assurance	104–105				
<b>GRI STANDARDS: ECONOMIC TOPICS</b>						
<b>ECONOMIC PERFORMANCE</b>						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	11–13				2, 4
103-2	The management approach and its components	11–13, 24–25			1, 5, 8	3, 6
103-3	Evaluation of the management approach	19–20, 36–38				3, 7
GRI 201: Economic Performance 2016						
201-1	Direct economic value generated and distributed	9, 81 Annual Report 2018: Value Added Statement			2, 5, 7, 8, 9	18
201-2	Financial implications and other risks and opportunities due to climate change	38		7	13	

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
201-3	Defined benefit plan obligations and other retirement plans	66–67 Annual Report 2018: Provisions for Pensions				
201-4	Financial assistance received from government	8, 20 Annual Report 2018: Cost of Sales		10		

## MARKET PRESENCE

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	64–65				
103-2	The management approach and its components	64–65				
103-3	Evaluation of the management approach	64–65				

### GRI 202: Market Presence 2016

202-1	Ratios of standard entry level wage by gender compared to local minimum wage	66–67 Charter on Labour Relations, Social Charter, Charter on Temporary Work ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )		1, 2, 6	1, 5, 8	
202-2	Proportion of senior management hired from the local community	66–67 Charter on Labour Relations ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )		1, 2, 6	8	

## INDIRECT ECONOMIC IMPACTS

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	24–25				
103-2	The management approach and its components	24–25				
103-3	Evaluation of the management approach	26–27				

### GRI 203: Indirect Economic Impacts 2016

203-1	Infrastructure investments and services supported	30			2, 5, 7, 9, 11	
203-2	Significant indirect economic impacts	36–37			1, 2, 3, 8, 10, 17	

## PROCUREMENT PRACTICES

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	33–34				2, 4
103-2	The management approach and its components	33–34				3, 4, 6

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
103-3	Evaluation of the management approach	36–38				3, 7

### GRI 204: Procurement Practices 2016

204-1	Proportion of spending on local suppliers	25 Annual Report 2018: Procurement	Percentage not indicated (data not collectable)		12	
-------	---	--	---	--	----	--

## ANTI-CORRUPTION

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	19–20		10		2, 4
103-2	The management approach and its components	16–17		10		3, 6
103-3	Evaluation of the management approach	36–38		10		3, 7

### GRI 205: Anti-Corruption 2016

205-1	Operations assessed for risks related to corruption	19–20	No breakdown by location (distribution is immaterial) and risks identified (confidential information).	10	16	20
205-2	Communication and training about anti-corruption policies and procedures	19–21	Percentage not indicated (data not collectable). No further breakdown by governance body members, employee category and regions (data is not collectable and publishable respectively due to local labor laws).	10	16	20
205-3	Confirmed incidents of corruption and actions taken	19–20 Annual Report 2018: Ombudsman System	No breakdown by nature of confirmed incidents of corruption (confidential information).	10	16	20

## ANTI-COMPETITIVE BEHAVIOR

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	16–18		10		2, 4
103-2	The management approach and its components	16–18		10		3, 6
103-3	Evaluation of the management approach	36–38		10		3, 7

### GRI 206: Anti-Competitive Behavior 2016

206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Annual Report 2018: Litigation		10	16	20
-------	---	-----------------------------------	--	----	----	----

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
<b>GRI STANDARDS: ENVIRONMENTAL TOPICS</b>						
<b>MATERIALS</b>						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	54–55		7, 8, 9		2, 4
103-2	The management approach and its components	54–55		7, 8, 9		3, 6, 11, 12
103-3	Evaluation of the management approach	54–55		7, 8, 9		3, 7
GRI 301: Materials 2016						
301-1	Materials used by weight or volume	59–60		8, 9	8, 12	11, 12
301-2	Recycled input materials used	59–60		8, 9	8, 12	11, 12
301-3	Reclaimed products and their packaging materials	59–60		8, 9	8, 12	11, 12
<b>ENERGY</b>						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	54–55		7, 8, 9		2, 4
103-2	The management approach and its components	54–55		7, 8, 9		3, 6, 10, 11, 12
103-3	Evaluation of the management approach	54–55		7, 8, 9		3, 7
GRI 302: Energy 2016						
302-1	Energy consumption within the organization	56–57		8	7, 12, 13	11, 12
302-2	Energy consumption outside of the organization	—	Energy consumption not indicated; we report Scope 3 emissions instead.	8, 9	7, 8, 12, 13	11
302-3	Energy intensity	55–57		8	7, 8, 12, 13	11
302-4	Reduction of energy consumption	59		8, 9	7, 8, 12, 13	10, 12
302-5	Reduction in energy requirements of products and services	59		8, 9	7, 8, 12, 13	10, 12
<b>WATER</b>						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	55, 58		7, 8		2, 4
103-2	The management approach and its components	54–55		7, 8		3, 6, 11, 12
103-3	Evaluation of the management approach	54–55		7, 8		3, 7

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
GRI 303: Water 2016						
303-1	Water withdrawal by source	83		8	6	11, 12
303-2	Water sources significantly affected by withdrawal of water	83		8	6	11, 12
303-3	Water recycled and reused	—	Total volume of recycled water not indicated; data uncollectable due to the complexity of the company.	8	6, 8, 12	11, 12

## BIODIVERSITY

GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	54–55, 61		7, 8		2, 4
103-2	The management approach and its components	54–55, 61		7, 8		3, 6, 11, 12
103-3	Evaluation of the management approach	54–55		7, 8		3, 7
GRI 304: Biodiversity 2016						
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	84		8	6, 14, 15	11
304-2	Significant impacts of activities, products, and services on biodiversity	61 Mission Statement on Biodiversity, Engagement for Biodiversity ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )		8	6, 14, 15	11
304-3	Habitats protected or restored	61 Mission Statement Biodiversity, Engagement for Biodiversity ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )		8	6, 14, 15	11
304-4	Species with habitats in areas affected by operations	61		8	6, 14, 15	11

## EMISSIONS

GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	54–55		7, 8, 9	12, 13, 14, 15	2, 4
103-2	The management approach and its components	54–55		7, 8, 9	12, 13, 14, 15	3, 6, 11, 12, 13
103-3	Evaluation of the management approach	54–55		7, 8, 9	12, 13, 14, 15	3, 7
GRI 305: Emissions 2016						
305-1	Direct (Scope 1) GHG emissions	81		8, 9	3, 12, 13, 14, 15	13
305-2	Energy indirect (Scope 2) GHG emissions	81		8, 9	3, 12, 13, 14, 15	13

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
305-3	Other indirect (Scope 3) GHG emissions	82		8, 9	3, 12, 13, 14, 15	13
305-4	GHG emissions intensity	81		8	13, 14, 15	13
305-5	Reduction of GHG emissions	55		8, 9	13, 14, 15	13
305-6	Emissions of ozone-depleting substances (ODS)	—	No significant emissions.	8, 9	3, 12, 13	13
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>2</sub> ), and other significant air emissions	83–84		8, 9	3, 12, 13, 14, 15	

## EFFLUENTS AND WASTE

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	54–55, 60		7, 9	12, 13, 14, 15	2, 4
103-2	The management approach and its components	54–55		7, 9	12, 13, 14, 15	3, 6, 11, 12
103-3	Evaluation of the management approach	54		7, 9	12, 13, 14, 15	3, 7

### GRI 306: Effluents and Waste 2016

306-1	Water discharge by quality and destination	83		8, 9	3, 6, 12, 14	11
306-2	Waste by type and disposal method	60, 83		8, 9	3, 6, 12	11, 12
306-3	Significant spills	—	No significant spills were registered in the reporting period.	8, 9	3, 6, 12, 14, 15	11
306-4	Transport of hazardous waste	—	Total weight cannot be computed due to the size and complexity of the company. We do not import any waste, we only export small volumes of waste, and we only dispose of waste in the countries in which it is generated or export it to other countries if these offer better disposal methods.	8	3, 12	11, 12
306-5	Water bodies affected by water discharges and/or runoff	60		8, 9	6, 15	11, 12

## ENVIRONMENTAL COMPLIANCE

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	19–20		7	12, 13, 14, 15	2, 4
103-2	The management approach and its components	19–20		7	12, 13, 14, 15	3, 6, 11, 12
103-3	Evaluation of the management approach	19–20		7	12, 13, 14, 15	3, 7

### GRI 307: Environmental Compliance 2016

307-1	Non-compliance with environmental laws and regulations	Annual Report 2018: Litigation		7	16	
-------	--	--------------------------------	--	---	----	--



## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
<b>SUPPLIER ENVIRONMENTAL ASSESSMENT</b>						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	33–34		7, 8, 9		2, 4
103-2	The management approach and its components	33–34		7, 8, 9		3, 6, 11, 12
103-3	Evaluation of the management approach	33–34		7, 8, 9		3, 7
GRI 308: Supplier Environmental Assessment 2016						
308-1	New suppliers that were screened using environmental criteria	33–34 Code of Conduct for Business Partners ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )		8		11, 12
308-2	Negative environmental impacts in the supply chain and actions taken	33–34 Annual Report 2018: Procurement		8		4, 11, 12
<b>GRI STANDARDS: SOCIAL TOPICS</b>						
<b>EMPLOYMENT</b>						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	64–65				2, 4
103-2	The management approach and its components	64–65				3, 6, 14
103-3	Evaluation of the management approach	64–65				3, 7
GRI 401: Employment 2016						
401-1	New employee hires and employee turnover	85		6	5, 8	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	66–67		6	8	15
401-3	Parental leave	85		6	5, 8	15
<b>LABOR/MANAGEMENT RELATIONS</b>						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	64–66		3		2, 4
103-2	The management approach and its components	64–66		3		3, 6
103-3	Evaluation of the management approach	64–66		3		3, 7
GRI 402: Labor/Management Relations 2016						

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
402-1	Minimum notice periods regarding operational changes	67–68 Annual Report 2018: Disclosures Required under Takeover Law Charter on Labour Relations, Charter on Temporary Work ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )		3	8	14

## OCCUPATIONAL HEALTH AND SAFETY

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	71				2, 4
103-2	The management approach and its components	71				3, 6, 14
103-3	Evaluation of the management approach	71				3, 7

### GRI 403: Occupational Health and Safety 2016

403-1	Workers representation in formal joint management–worker health and safety committees	71 Charter on Labour Relations ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )			8	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	87	No additional breakdown by gender and region provided (confidential information). Current contracts with the companies working for Volkswagen do not allow us to access the required information.		3, 8	16
403-3	Workers with high incidence or high risk of diseases related to their occupation	71			3, 8	16
403-4	Health and safety topics covered in formal agreements with trade unions	71 Charter on Labour Relations ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )			8	16

## TRAINING AND EDUCATION

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	68–69		6		2, 4
103-2	The management approach and its components	64–65		6		3, 6, 15
103-3	Evaluation of the management approach	64–65		6		3, 7

### GRI 404: Training and Education 2016

404-1	Average hours of training per year per employee	69		6	4, 5, 8	16
404-2	Programs for upgrading employee skills and transition assistance programs	68–69		6	8	16

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
404-3	Percentage of employees receiving regular performance and career development reviews	68–69	Every employee of Volkswagen AG, Volkswagen Financial Services AG and Volkswagen Immobilien Service GmbH has an individual appraisal with their supervisor once a year.	6	5, 8	16

## DIVERSITY AND EQUAL OPPORTUNITY

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	69–71		4, 6		2, 4
103-2	The management approach and its components	64–65		4, 6		3, 6, 14, 15
103-3	Evaluation of the management approach	64–65		4, 6		3, 7

### GRI 405: Diversity and Equal Opportunity 2016

405-1	Diversity of governance bodies and employees	69–70 Annual Report 2018: Objectives for the Composition	In our experience a breakdown by minority group membership is not a relevant indicator.	4, 6	5, 8	15, 16
405-2	Ratio of basic salary and remuneration of women to men	66 Social Charter ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )		4, 6	5, 8, 10	15

## NON-DISCRIMINATION

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	69–70		6		2, 4
103-2	The management approach and its components	64–65		6		3, 6, 14, 15, 17
103-3	Evaluation of the management approach	64–65		6		3, 7

### GRI 406: Non-Discrimination 2016

406-1	Incidents of discrimination and corrective actions taken	32 Annual Report 2018: Ombudsman System		6	5, 8, 16	16, 17
-------	--	---	--	---	----------	--------

## FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	32–33		1, 2, 3		2, 4
103-2	The management approach and its components	24–25		1, 2, 3		3, 6, 14, 17
103-3	Evaluation of the management approach	24–25		1, 2, 3		3, 7

### GRI 407: Freedom of Association and Collective Bargaining 2016

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	32–33		1, 2, 3	8	17

## CHILD LABOR

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	34–35		1, 2, 5		2, 4
103-2	The management approach and its components	34–35		1, 2, 5		3, 6, 14, 17
103-3	Evaluation of the management approach	34–35		1, 2, 5		3, 7

### GRI 408: Child Labor 2016

408-1	Operations and suppliers at significant risk for incidents of child labor	34–35		1, 2, 5	16	17
-------	---	-------	--	---------	----	----

## FORCED OR COMPULSORY LABOR

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	35		1, 2, 4		2, 4
103-2	The management approach and its components	35		1, 2, 4		3, 6, 14, 17
103-3	Evaluation of the management approach	35		1, 2, 4		3, 7

### GRI 409: Forced or Compulsory Labor 2016

409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	35		1, 2, 4	8	17
-------	--	----	--	---------	---	----

## SECURITY PRACTICES

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	24–25, 33		1, 2		2, 4
103-2	The management approach and its components	24–25		1, 2		3, 6, 14
103-3	Evaluation of the management approach	24–25		1, 2		3, 7

### GRI 410: Security Practices 2016

410-1	Security personnel trained in human rights policies or procedures	33	Percentage not indicated (data not collectable).	1, 2	16	17
-------	---	----	--	------	----	----

## RIGHTS OF INDIGENOUS PEOPLES

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its boundary	24–25		1, 2		2, 4
-------	--	-------	--	------	--	------

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
103-2	The management approach and its components	24–25		1, 2		3, 6, 14, 17
103-3	Evaluation of the management approach	24–25		1, 2		3, 7
GRI 411: Rights of Indigenous Peoples 2016						
411-1	Incidents of violations involving rights of indigenous peoples	32–33		1, 2	2	17

## HUMAN RIGHTS ASSESSMENT

GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	32–33		1, 2, 3, 4, 5, 6		2, 4
103-2	The management approach and its components	24–25		1, 2, 3, 4, 5, 6		3, 6, 14, 17
103-3	Evaluation of the management approach	24–25		1, 2, 3, 4, 5, 6		3, 7
GRI 412: Human Rights Assessment 2016						
412-1	Operations that have been subject to human rights reviews or impact assessments	32–33		1, 2, 3, 4, 5, 6		17, 18
412-2	Employee training on human rights policies or procedures	33	No indication of the number of hours or percentage of employees (data not collectable).	1, 2, 3, 4, 5, 6		17, 18
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	32–33 Charter on Labour Relations, Code of Conduct for Business Partners ( <a href="http://www.volkswagenag.com/en/sustainability/policy.html">www.volkswagenag.com/en/sustainability/policy.html</a> )		1, 2, 3, 4, 5, 6		17, 18

## LOCAL COMMUNITIES

GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	24–25				2, 4
103-2	The management approach and its components	24–25				3, 4, 6
103-3	Evaluation of the management approach	24–25				3, 7
GRI 413: Local Communities 2016						
413-1	Operations with local community engagement, impact assessments, and development programs	24–25				17, 18
413-2	Operations with significant actual and potential negative impacts on local communities	24–25, 38			1, 2	4

## SUPPLIER SOCIAL ASSESSMENT

GRI 103: Management Approach 2016

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
103-1	Explanation of the material topic and its boundary	33–35		1, 2, 3, 4, 5, 6		2, 4
103-2	The management approach and its components	33–35		1, 2, 3, 4, 5, 6		3, 4, 6
103-3	Evaluation of the management approach	33–35		1, 2, 3, 4, 5, 6		3, 7
GRI 414: Supplier Social Assessment 2016						
414-1	New suppliers that were screened using social criteria	32–33 Code of Conduct for Business Partners	Percentage not indicated (data not collectable).	1, 2, 3, 4, 5, 6	5, 8, 16	17, 18
414-2	Negative social impacts in the supply chain and actions taken	32–33	No details stated for individual sub-points (data not obtainable).	1, 2, 3, 4, 5, 6	5, 8, 16	17, 18

## PUBLIC POLICY

GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	31				2, 4
103-2	The management approach and its components	31				3, 6
103-3	Evaluation of the management approach	31				3, 7
GRI 415: Public Policy 2016						
415-1	Political contributions	31		10	16	19

## CUSTOMER HEALTH AND SAFETY

GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	33–35				2, 4
103-2	The management approach and its components	33–35				3, 4, 6
103-3	Evaluation of the management approach	33–35				3, 7
GRI 416: Customer Health and Safety 2016						
416-1	Assessment of the health and safety impacts of product and service categories	45				10
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	45 Annual Report 2018: Litigation			16	

## MARKETING AND LABELING

GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	42–43				
103-2	The management approach and its components	42–43				
103-3	Evaluation of the management approach	42–43				

## GRI CONTENT INDEX

GRI Standard	Disclosure	Reference	Comments	UNGC	SDG	DNK
GRI 417: Marketing and Labeling 2016						
417-1	Requirements for product and service information and labeling	45		8, 9	12, 16	
417-2	Incidents of non-compliance concerning product and service information and labeling	Annual Report 2018: Litigation			16	
417-3	Incidents of non-compliance concerning marketing communications	Annual Report 2018: Litigation				
CUSTOMER PRIVACY						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	42–43		10		
103-2	The management approach and its components	24–25, 42		10		
103-3	Evaluation of the management approach	24–25		10		
GRI 418: Customer Privacy 2016						
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	—	Confidential information.	10	16	
SOCIOECONOMIC COMPLIANCE						
GRI 103: Management Approach 2016						
103-1	Explanation of the material topic and its boundary	16–17				2, 4
103-2	The management approach and its components	16–17				3, 4, 6
103-3	Evaluation of the management approach	19–20				3, 7
GRI 419: Socioeconomic Compliance 2016						
419-1	Non-compliance with laws and regulations in the social and economic area	Annual Report 2018: Litigation			16	14, 20

Key:  
SDG = Sustainable Development Goals  
UNGC = United Nations Global Compact  
DNK = German Sustainability Code

# INDEPENDENT PRACTITIONER'S REPORT ON A LIMITED ASSURANCE ENGAGEMENT ON NON-FINANCIAL REPORTING <sup>1</sup>

## TO VOLKSWAGEN AG, WOLFSBURG

We have performed a limited assurance engagement on the combined separate non-financial report pursuant to §§ (Articles) 289b Abs. (paragraph) 3 and 315b Abs. 3 HGB ("Handelsgesetzbuch": "German Commercial Code") of Volkswagen AG, Wolfsburg, (hereinafter the "Company") for the period from 1 January 2018 to 31 December 2018 which comprises the text sections, tables and diagrams marked with a colored background in the Group Sustainability Report 2018 of the Company (hereinafter the "Non-financial Report").

## RESPONSIBILITIES OF THE EXECUTIVE DIRECTORS

The executive directors of the Company are responsible for the preparation of the Non-financial Report in accordance with §§ 315b and 315c in conjunction with 289b to 289e HGB and the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter the "GRI-Criteria").

This responsibility of Company's executive directors includes the selection and application of appropriate methods of non-financial reporting as well as making assumptions and estimates related to individual non-financial disclosures which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal controls as they have considered necessary to enable the preparation of a Non-financial Report that is free from material misstatement whether due to fraud or error.

## INDEPENDENCE AND QUALITY CONTROL OF THE AUDIT FIRM

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis - IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## PRACTITIONER'S RESPONSIBILITY

Our responsibility is to express a limited assurance conclusion on the Non-financial Report based on the assurance engagement we have performed.

Within the scope of our engagement, we did not perform an audit on external sources of information or expert opinions, referred to in the Non-financial Report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the Company's Non-financial Report for the period from 1 January 2018 to 31 December 2018 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289b to 289e HGB and the relevant GRI-Criteria.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement, and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the conduction of the materiality analysis
- Inquiries of relevant managerial personnel involved in the preparation of the Non-financial Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Non-financial Report
- Identification of the likely risks of material misstatement of the Non-financial Report
- Analytical evaluation of selected disclosures in the Non-financial Report
- Evaluation of the implementation of group management requirements, processes and specifications regarding data collection through on-site visits at selected sites and brands of the VW Group
  - Volkswagen AG (Wolfsburg, Germany)
  - Audi México, S.A. de C.V. (San José Chiapa, Mexico)
  - Volkswagen Argentina S.A. (Pacheco, Argentina)
  - Volkswagen of South Africa (Pty) Ltd. (Uitenhage, South Africa)

<sup>1</sup> PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the combined separate non-financial report and issued an independent assurance report in German language, which is authoritative. The following text is a translation of the independent assurance report.



- Audi AG (Ingolstadt, Germany)
- Dr. Ing. h. c. F. Porsche AG (Stuttgart-Zuffenhausen, Germany)
- Volkswagen AG (Kassel, Germany)
- Volkswagen AG (Braunschweig, Germany)
- Volkswagen Nutzfahrzeuge (Hannover, Germany)
- Scania CV AB (Södertälje, Sweden)
- Škoda Auto a.s. (Kvasiny, Czech Republic)
- Audi Hungaria Motor Kft. (Győr, Hungary)
- SAIC Volkswagen Automotive Co. Ltd. Shanghai (Shanghai/Anting, China)
- Volkswagen FAW Platform Company, Ltd. (Chengdu, China)
- Assessment of the aggregation of Scope-3-GHG-emissions (categories 1 and 11) on group level
- Comparison of selected disclosures with corresponding data in the annual and consolidated financial statements and in the group management report which is combined with the Company's management report
- Evaluation of the presentation of the information

Frankfurt am Main, 22 February 2019  
PricewaterhouseCoopers GmbH  
Wirtschaftsprüfungsgesellschaft

Frank Hübner  
Wirtschaftsprüfer  
[German public auditor]

## ASSURANCE CONCLUSION

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the Company's Non-financial Report for the period from 1 January 2018 to 31 December 2018 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289b to 289e HGB and the relevant GRI-criteria.

## INTENDED USE OF THE ASSURANCE REPORT

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company about the results of the limited assurance engagement.

The report is not intended for any third parties to base any (financial) decision thereon. Our responsibility lies only with the Company. We do not assume any responsibility towards third parties.

Nicolette Behncke  
Wirtschaftsprüfer  
[German public auditor]

## CONTACT INFORMATION

### **PUBLISHED BY**

Volkswagen AG  
Group Sustainability  
Letterbox 011/1265  
38436 Wolfsburg  
Germany

### **CONTACT**

[sustainability@volkswagenag.com](mailto:sustainability@volkswagenag.com)

### **MAIN EDITING**

Volkswagen AG

### **CONCEPTION, EDITING AND DESIGN**

Volkswagen AG  
Scholz & Friends Reputation

### **ENGLISH TRANSLATION AND EDITING**

Language Services GmbH

### **IMAGE SOURCES**

Volkswagen Group and its Group brands

### **PUBLICATION**

March 2019

© Volkswagen AG

Errors and omissions excepted

### **CONTACT INFORMATION**

At the brands of the Volkswagen Group, work on all types and models never ceases, so please allow for the fact that changes in design, equipment and technical specifications may be made at any time. Consequently, the data and descriptions in this report cannot give rise to claims of any kind.

### **FORWARD-LOOKING STATEMENTS**

This report contains forward-looking statements on the development of the Volkswagen Group and its companies as well as on economic and political developments. These statements are assumptions that we based on all the information available to us at the time of reporting. If the assumptions made fail to materialize or additional risks occur, then the actual results, development and performance of the Group may differ from the forecasts given. The Volkswagen Group therefore assumes no liability for the forward-looking statements presented here.

The German version is binding. The English version is a convenience translation for information purposes only.

### **YOUR FEEDBACK**

In the interests of improving and advancing our commitment to sustainability, we would be delighted to receive your feedback on our sustainability report. You can send us your views online under the above-mentioned e-mail address.



