

## Levers to unleash value

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02/12/2019 - Frankfurt



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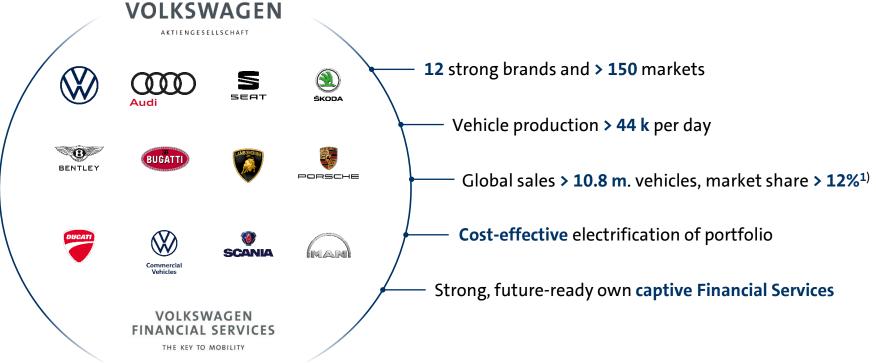
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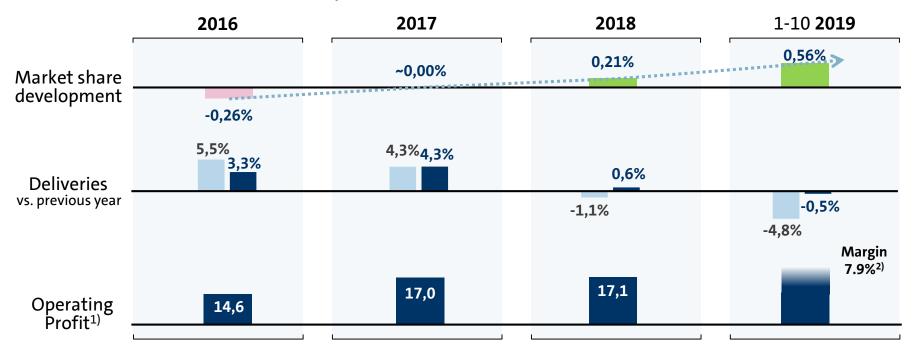
# Volkswagen with its strong brands is one of the largest players in the automotive industry – covering a wide range of customer needs





## Since 2017 we have been outperforming the industry...

Growth total markets vs. VW Group deliveries to customers

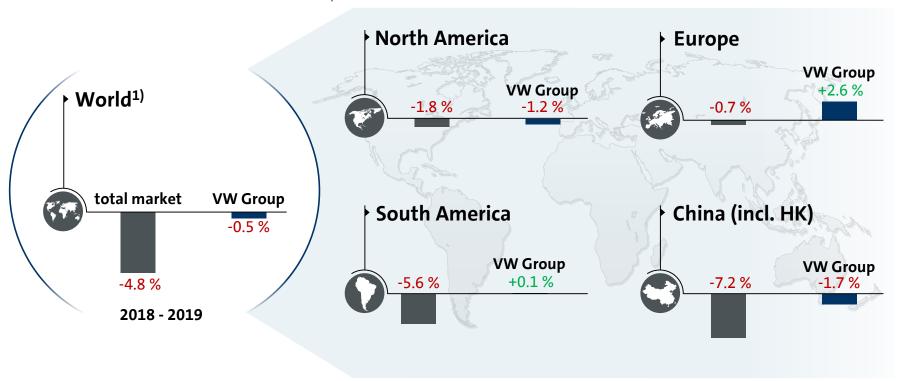


Total market VW Group



## ...and even in a challenging environment we have been gaining market share

Growth total markets vs. VW Group deliveries to customers Jan – Oct. 2019 vs. 2018





## We continuously deliver on demanding financial targets

Key financial targets	2016 Actual	2017 Actual	2018 Actual	2019 Outlook	2020 Strategic Targets	2025 Strategic Targets
Operating return on sales Before Special Items	6.7%	7.4%	7.3%	6.5-7.5%	6.5-7.5%	7-8%
Return on investment Automotive Division <u>before</u> Special Items	13.9%	14.4%	13.1%	12-14%	12-14% <sup>2)</sup>	>14% <sup>2)</sup>
Capex ratio Automotive Division	6.9%	6.4%	6.6%	6.5-7%	6%	6%
R&D cost ratio Automotive Divison	7.3%	6.7%	6.8%	6.5-7%	6%	6%
Cash Automotive Division  a) Net Cashflow <sup>1)</sup> b) Net Liquidity	€ 4.9 bn € 27.2bn	€ 10.3 bn € 22.4 bn		≥ €9 bn > € 15 bn <sup>2)</sup>	≥ € 10 bn > € 20 bn <sup>2)</sup>	> € 10 bn ~10% of Group turnover

#### **Volkswagen Group**

- Delivering consistently on our top line strategic KPIs and reconfirming guidance
- Record underlying cash flow generation levels
- CAPEX and R&D Ratios on track
  - Already holistic investments in future included (hybridization, electric mobility and digitalization)
- Dividend Pay-out-Ratio of 30% embedded in 5-year-planning
  - By 2022 at latest
- Volkswagen has delivered a TSR of 28.5% over the past year

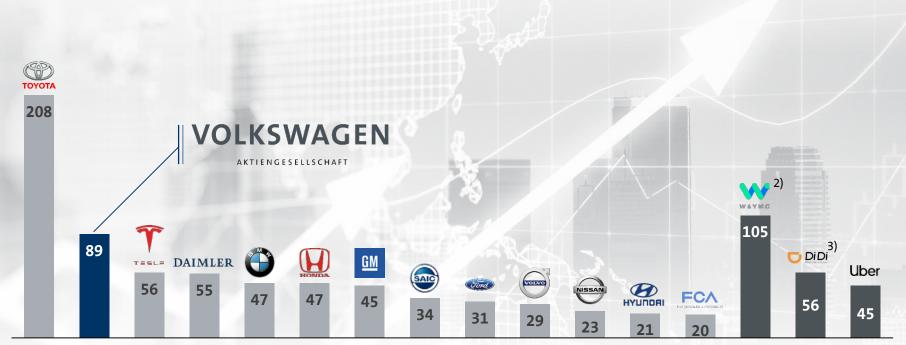
<sup>1)</sup> Excl. Diesel payments and M&A

<sup>&</sup>lt;sup>2)</sup> Including the negative IFRS 16 impact, effective from 1st January 2019
TSR: Total Shareholder Return



## However, our company valuation is not where it should be!

Market capitalization 2019¹) (€ bn)



<sup>1)</sup> As of 21/11/2019

<sup>&</sup>lt;sup>2)</sup> According to Morgan Stanley report from 26/09/2019



# To ensure future profits, we drive a fundamental transformation towards electrification and digitalisation

**Transformation** 

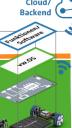
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Electrical transformation: **Battery electric vehicles** 



**Commitment to Paris goals 2050** 







**Conventional platforms** 

**Software & electric platforms** 







Digital transformation: Fully networked vehicles and autonomous driving



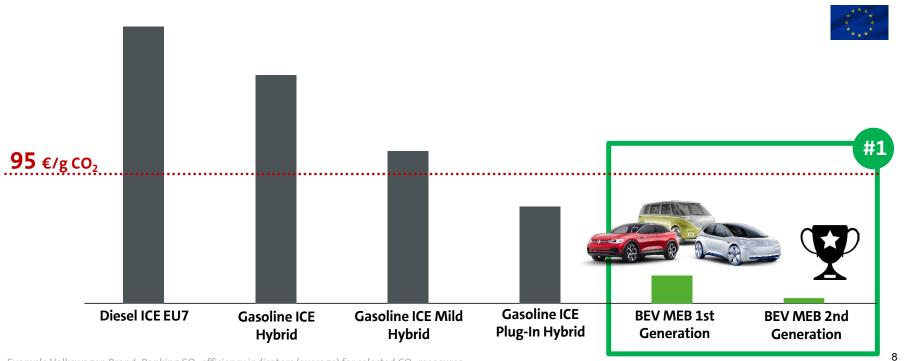
We will become a leading automotive software company





## BEVs are the first choice as the most cost-efficient solution for CO<sub>2</sub> reduction...

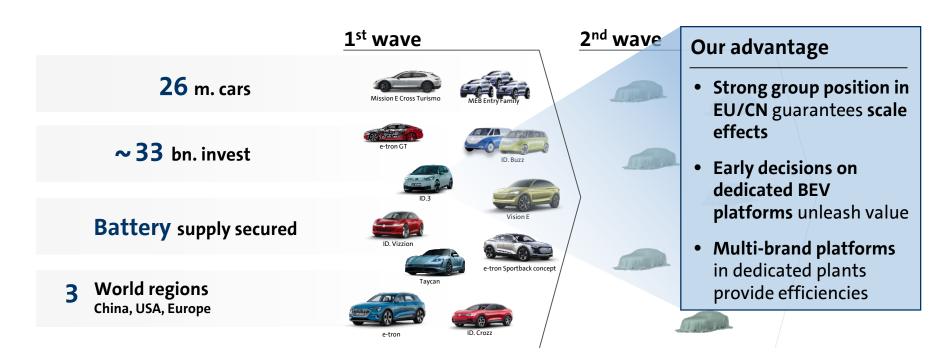
#### Measures for CO<sub>2</sub> reduction in €/g CO<sub>2</sub>







## ...therefore we based our strategy on dedicated BEV platforms already in 2015

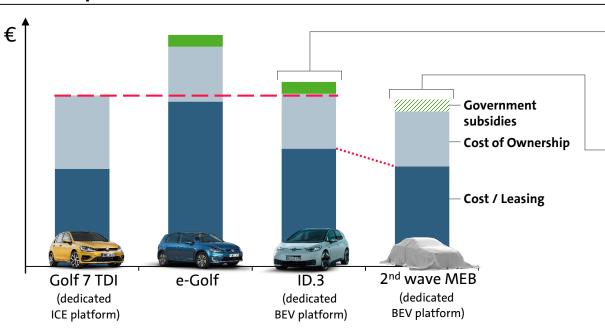






# Customers already experience comparable TCOs in 2020 – 2<sup>nd</sup> wave BEV will provide even more attractive TCOs

#### TCO comparison<sup>1)</sup>



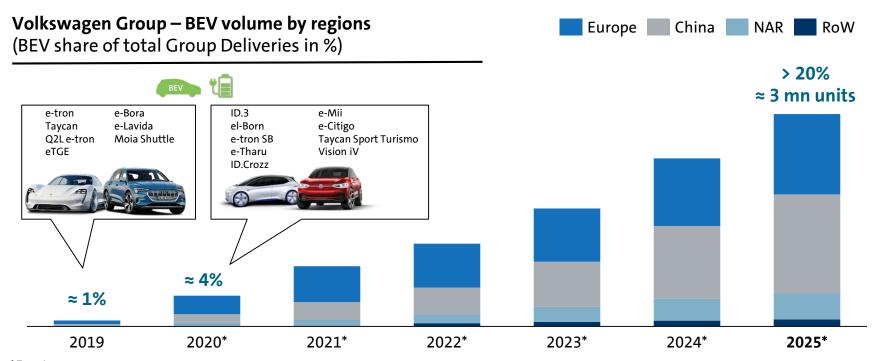
Including government subsidies for many customers BEV TCO are comparable to ICE TCO already today

> 2<sup>nd</sup> wave MEB cars will offer better TCOs than ICEs (even without government subsidies)





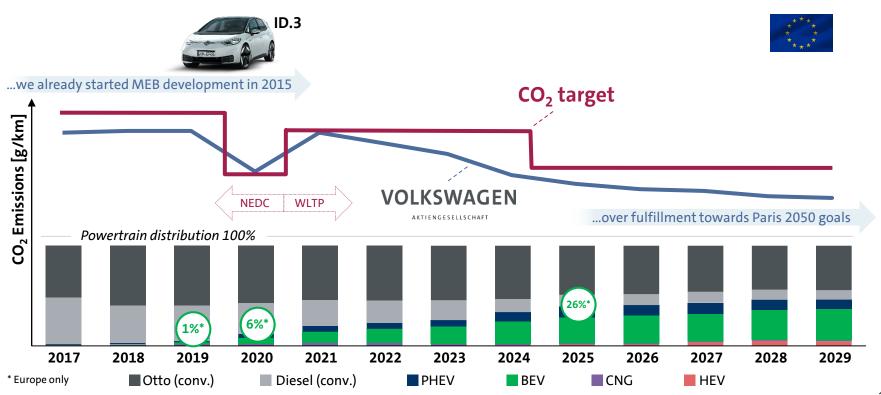
## Based on strong customer interest, we will significantly increase our BEV deliveries



<sup>\*</sup> Target



## Our dedicated BEV strategy enables us to meet CO<sub>2</sub> requirements

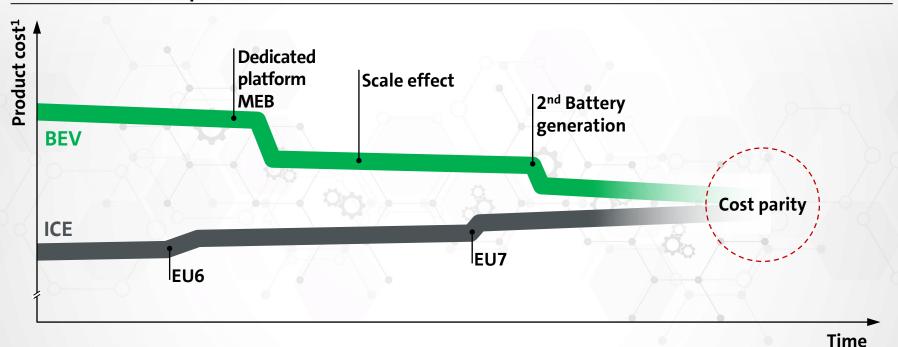






## We expect cost parity between BEVs and ICEs in the near future

#### Product cost development BEV vs ICE<sup>1)</sup>

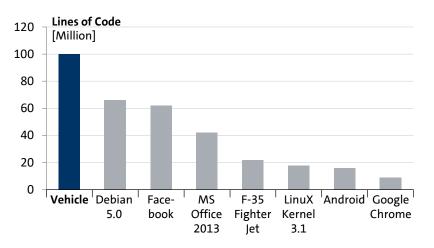




## In the future, software will be a main differentiator in the automotive industry...

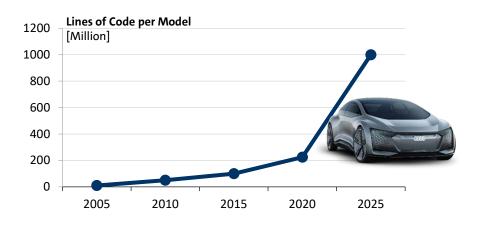
#### **Today**

- 100 million lines of code per vehicle
- Approximately \$ 10 per line of code
- Example: Navi system 20 million lines of code



#### **Tomorrow**

- > 200 300 million lines of code are expected
- Level 5 autonomous driving will take up to 1 billion lines of code

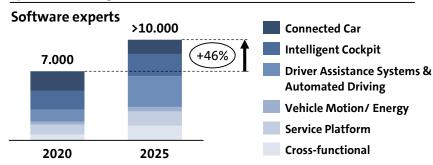






## ...therefore, we invest 7 billion Euro in a dedicated software organisation and will start operation in January 2020

### 😊 A strong team...



- More customer value...
  - Always up-to-date functions in all vehicles
  - Higher residual values
  - Lower maintenance downtimes



### ...develops software in-house

- Increase in-house share software development from 10% to 60%
- All news cars on VW.OS from 2025 on
- Migrate parallel solutions to gain scale, e.g. One Infotainment & One cloud
- ...less complexity for us
  - Cost reduction due to

O.5 bn
synergies by 2025 from
standardisation of
infotainments
Example

- significantly lower direct material cost
- reduced development cost
- smoother new vehicle launches
- reduced warranty cost



## We rigorously allocate capital and seek intelligent partnerships...





#### ...and continue to drive cost reduction initiatives

Selected examples

## Personnel cost reduction



- "Zukunftspakt" VW brand: (gross) Headcount reduction >10,600 since the start of the Zukunftspakt<sup>1)</sup>
- "Roadmap Digitale Transformation" VW brand: up to -4,000 jobs (indirect) until 2023<sup>2)</sup>
- "Audi.Zukunft": agreement with workers council, up to -9,500 jobs until 2025

## Zero-based budgeting program 2020



- Tight alignment of cost with strategic priorities
  - Technical development
  - Investments
  - Sales and Marketing
- Elimination of redundant activities across brands

### Synergies through structural improvements



- Single-brand crossfunctional responsibility for synergetic vehicle families
- One-for-all Engineering
- Worldwide logistics systems optimisation
- New market area concept



# We group our vehicles in synergy families in order to realise substantial savings

#### **Today**

- Successful market positioning
- Brand-specific design
- Synergistic concepts
- High share of carry over parts
- Scale effects through modular platform concept



Skoda Karoq (Launch 2017)



Seat Ateca (Launch 2016)

#### Target picture – 1st wave

- 4 cross-brand synergy families
- Cross-functional lead responsibility in one brand



1st Model family

2nd Model family

3<sup>rd</sup> Model family

4<sup>th</sup> Model family

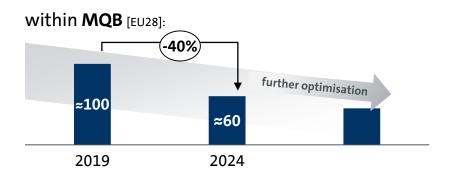


## We capture further synergies through "one-for-all" module engineering and reduce complexity significantly

## Dedicated module strategies with one lead developer – *example front seats*

- Uniform, standardized seat mounting for all brands and platforms
- One dedicated high seater module (SUV)
- One dedicated low seater module (Sedan)
- 30% less modules
- 60% less variation

### Planned complexity reduction – example engine-gearbox combinations





**VW: -36%** engine- / gearbox combinations in Golf 8 vs. Golf 7



### We are convinced that we have a strong Investment Proposition



### **T**GETHER 2025

FOCUS AND SPEED

- Strong brands with clear positioning and great products that inspire customers
- A leading position in China with global footprint and value creating growth
- Fully committed to "Go to Zero" and shaping e-mobility
- Transforming to one of the leading automotive software players
- Business portfolio optimisation and rigorous allocation of capital
- Taking complexity out and pushing for industry-leading economies of scale
- Delivering on demanding financial targets and committed to dividend pay out ratio

Unleash value

Integrity as the foundation of a successful business