

zero



## Sustainability at Volkswagen Group

Ralf Pfitzner, Head of Sustainability Volkswagen AG  
3. Volkswagen ESG Conference, 1 December 2020

## Disclaimer

The following presentations contain forward-looking statements and information on the business development of the Volkswagen Group. These statements may be spoken or written and can be recognized by terms such as “expects”, “anticipates”, “intends”, “plans”, “believes”, “seeks”, “estimates”, “will” or words with similar meaning. These statements are based on assumptions, which we have made on the basis of the information available to us and which we consider to be realistic at the time of going to press. These assumptions relate in particular to the development of the economic, political, and legal environment in individual countries and economic regions and the development of the automotive industry. Therefore the estimates given involve a degree of risk, and the actual developments may differ from those forecast. The Volkswagen Group currently faces additional risks and uncertainty related to pending claims and investigations in a number of jurisdictions in connection with findings of irregularities relating to exhaust emissions from diesel engines in certain Volkswagen Group vehicles. The degree to which the Volkswagen Group may be negatively affected by these ongoing claims and investigations remains uncertain.

The outbreak of COVID-19 (commonly referred to as coronavirus) has negatively impacted economic and social conditions in primary markets of Volkswagen, including China and Europe, as public, private, and government entities have implemented containment measures. The continued spread of COVID-19 has caused shortages of necessary materials and parts from suppliers directly or indirectly affected by the outbreak and has caused operational disruptions and interruptions at Volkswagen's production facilities, which led to production downtimes. The COVID-19 pandemic and the respective containment measures might continue to have a negative impact in the future.

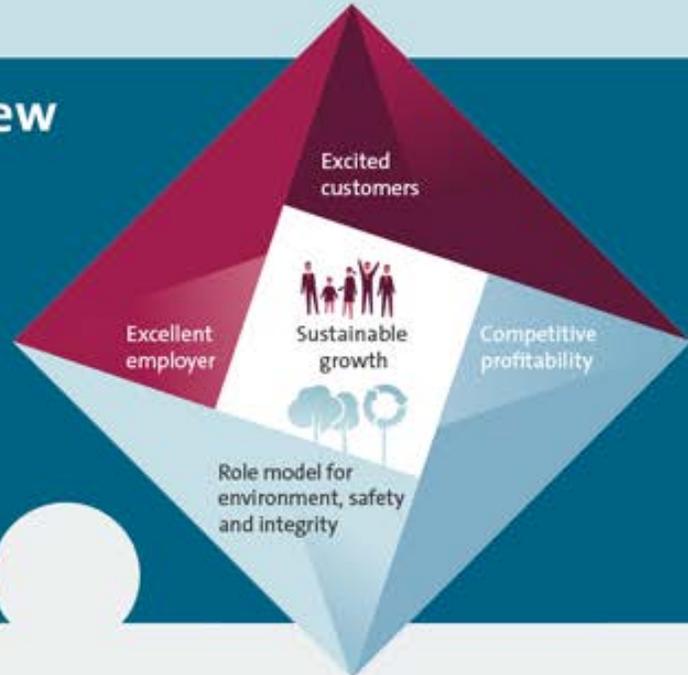
A negative development relating to ongoing claims or investigations, the continuation of COVID-19, an unexpected fall in demand or economic stagnation in our key sales markets, such as in Western Europe (and especially Germany) or in the USA, Brazil or China, and trade disputes among major trading partners will have a corresponding impact on the development of our business. The same applies in the event of a significant shift in current exchange rates in particular relative to the US dollar, sterling, yen, Brazilian real, Chinese renminbi and Czech koruna.

If any of these or other risks occur, or if the assumptions underlying any of these statements prove incorrect, the actual results may significantly differ from those expressed or implied by such statements.

We do not update forward-looking statements retrospectively. Such statements are valid on the date of publication and can be superseded.

This information does not constitute an offer to exchange or sell or an offer to exchange or buy any securities.

## Our new vision



# Shaping mobility – for generations to come.

## Our updated action plan



Best  
Governance



Best  
Performance



Best Brand  
Equity



Software-  
enabled  
car company



Excellent  
Leadership



Our belief

Values and integrity

Sustainability@Volkswagen covers a broad range of topics - Decarbonization, Integrity, Sustainable Supply Chains, Transforming the Workforce are among most material ones



# Volkswagen is fully committed to the Paris agreement – our goals are derived from it. Our decarbonisation program covers the entire product life cycle

## PARIS CLIMATE AGREEMENT 2015



- Global warming well below 2° Celsius
- Radically reduce CO<sub>2e</sub>-emissions by 2050
- Defines remaining global carbon budget

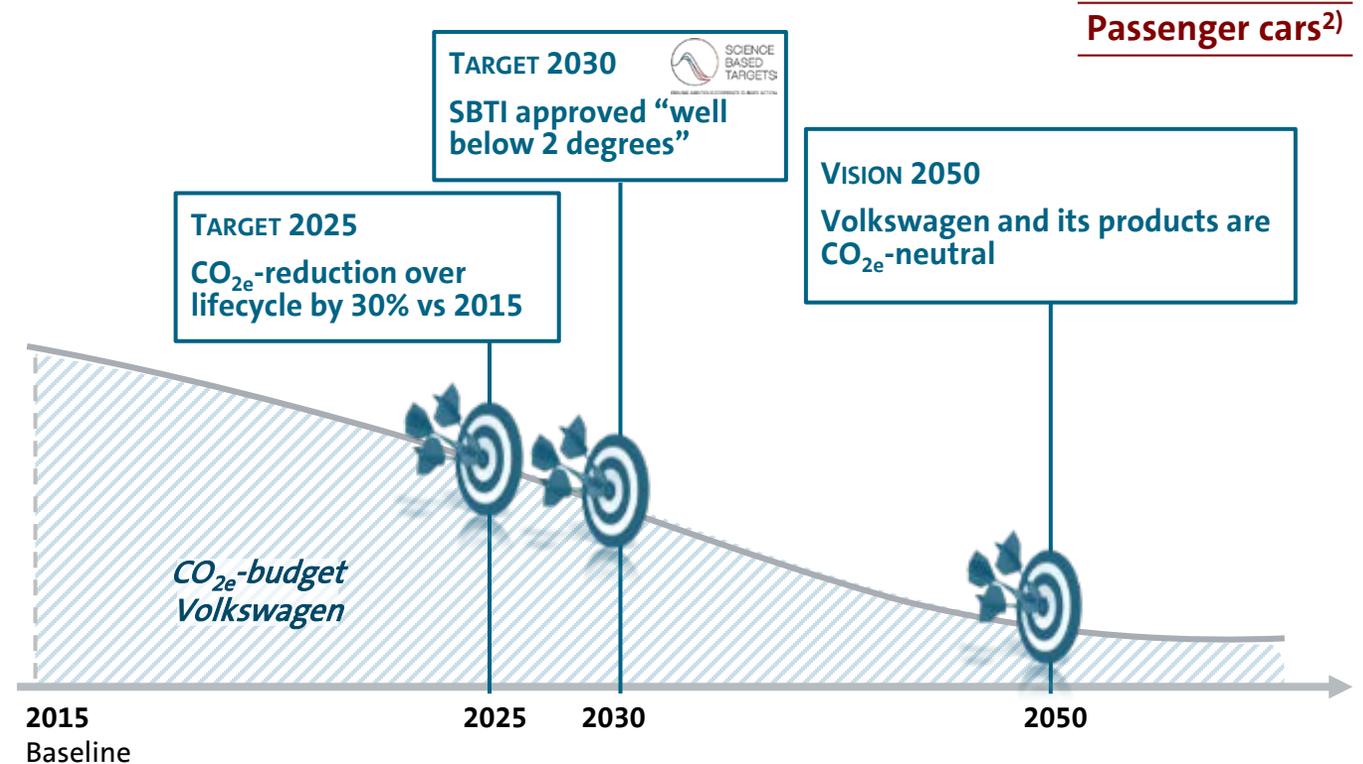
## POSITION BY VOLKSWAGEN



Dr. Diess

„The targets of the Paris Agreement are our yardstick. We will be systematically aligning production and other stages in the value chain to CO<sub>2</sub> neutrality in the coming years”<sup>1)</sup>

## VOLKSWAGEN GROUP DECARBONISATION PATH UNTIL 2050



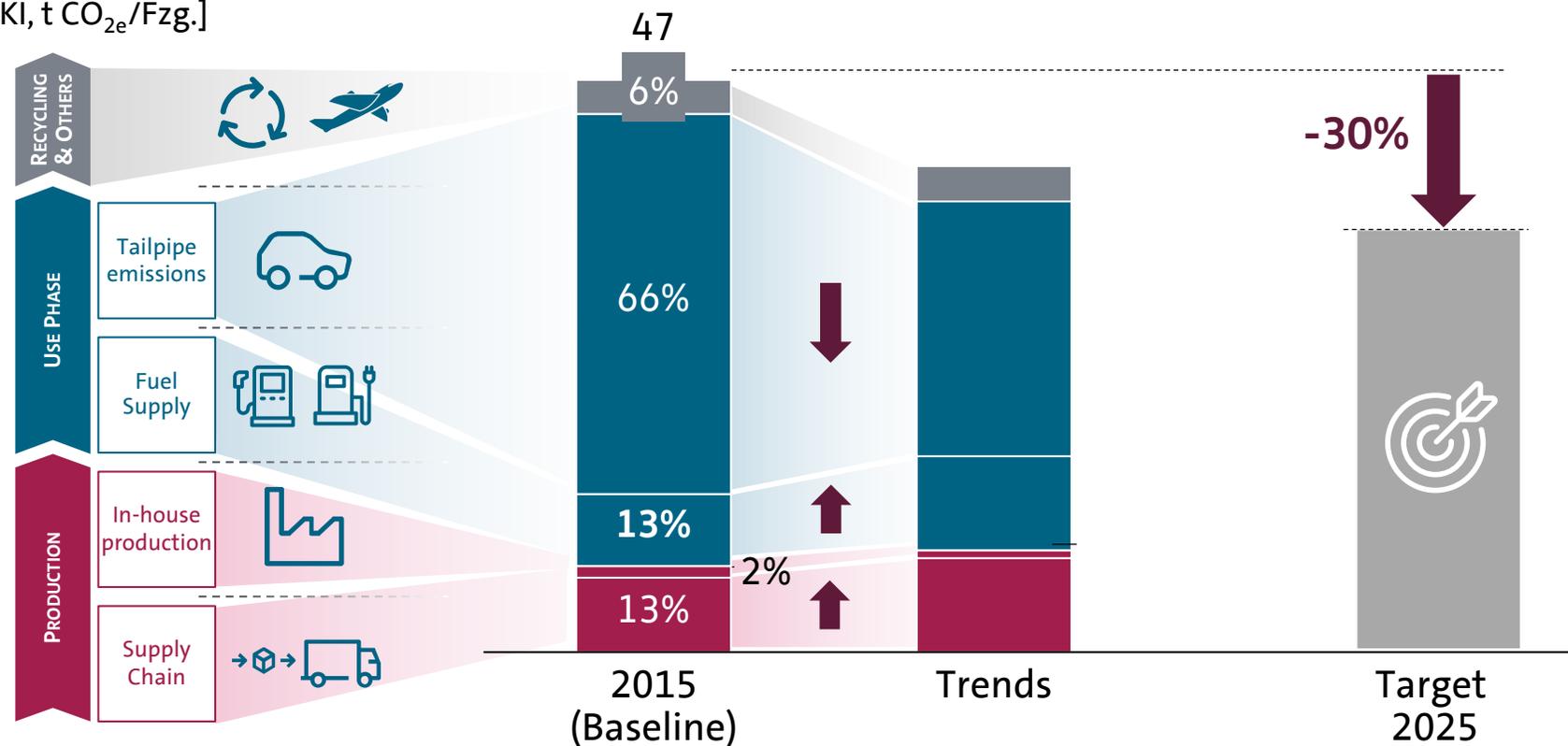
1) Annual Group Press Conference March 12, 2019 in Wolfsburg

2) Passenger cars including light duty vehicles

**Our goal: reducing 30% CO<sub>2e</sub>/vehicle over the life cycle by 2025 vs. 2015**  
**Only 2% of life cycle emissions come from production in our factories, 98% is Scope 3**

**GROUP TARGET 2025/VEH. (LIFECYCLE)**

[DKI, t CO<sub>2e</sub>/Fzg.]



**Passenger cars<sup>1)</sup>**

**Main trends initiated by the electrification strategy:**

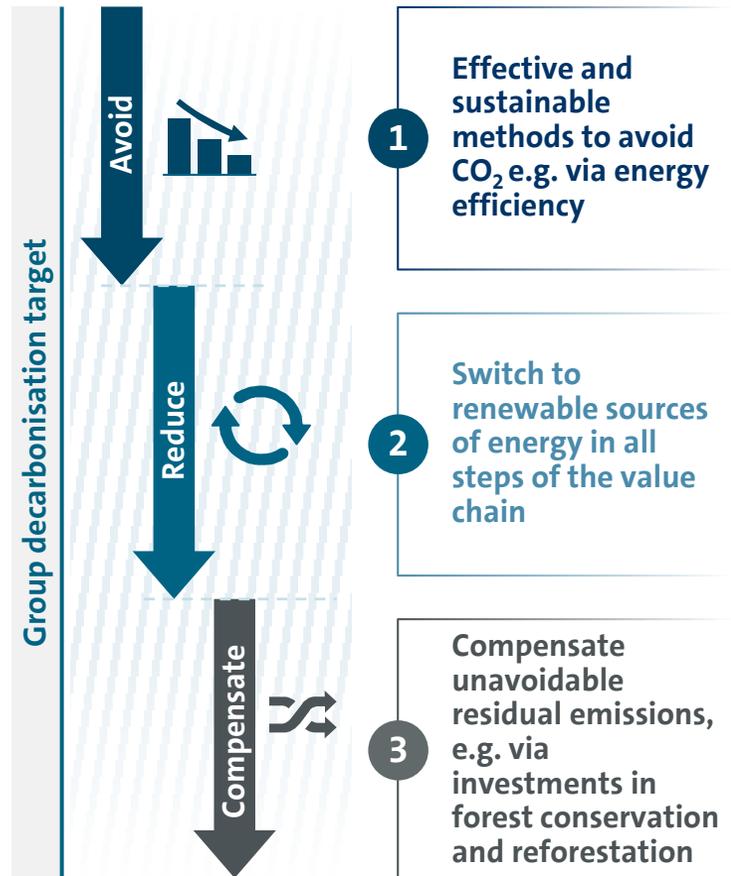
- Significant reduction of tailpipe emissions
- Increase of emissions in the fields of supply chain and fuel supply

→ **Additional measures are necessary**

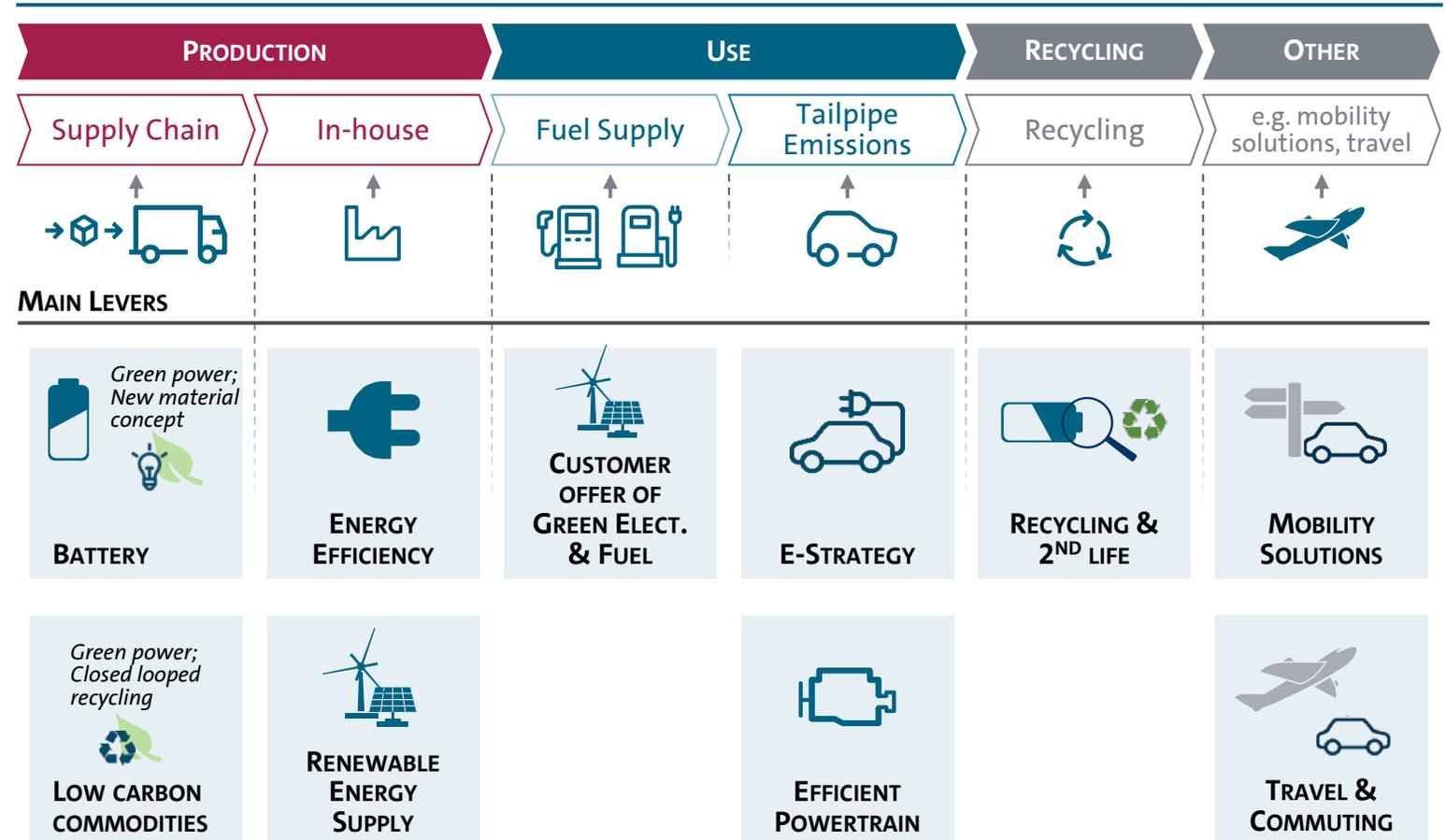
1) Passenger cars including light duty vehicles, WLTP cycle

Priority is to avoid and reduce CO<sub>2</sub>. Compensation covers unavoidable emissions.  
The decarbonisation program covers measures in all areas of the life cycle.

## HOW WE ACT

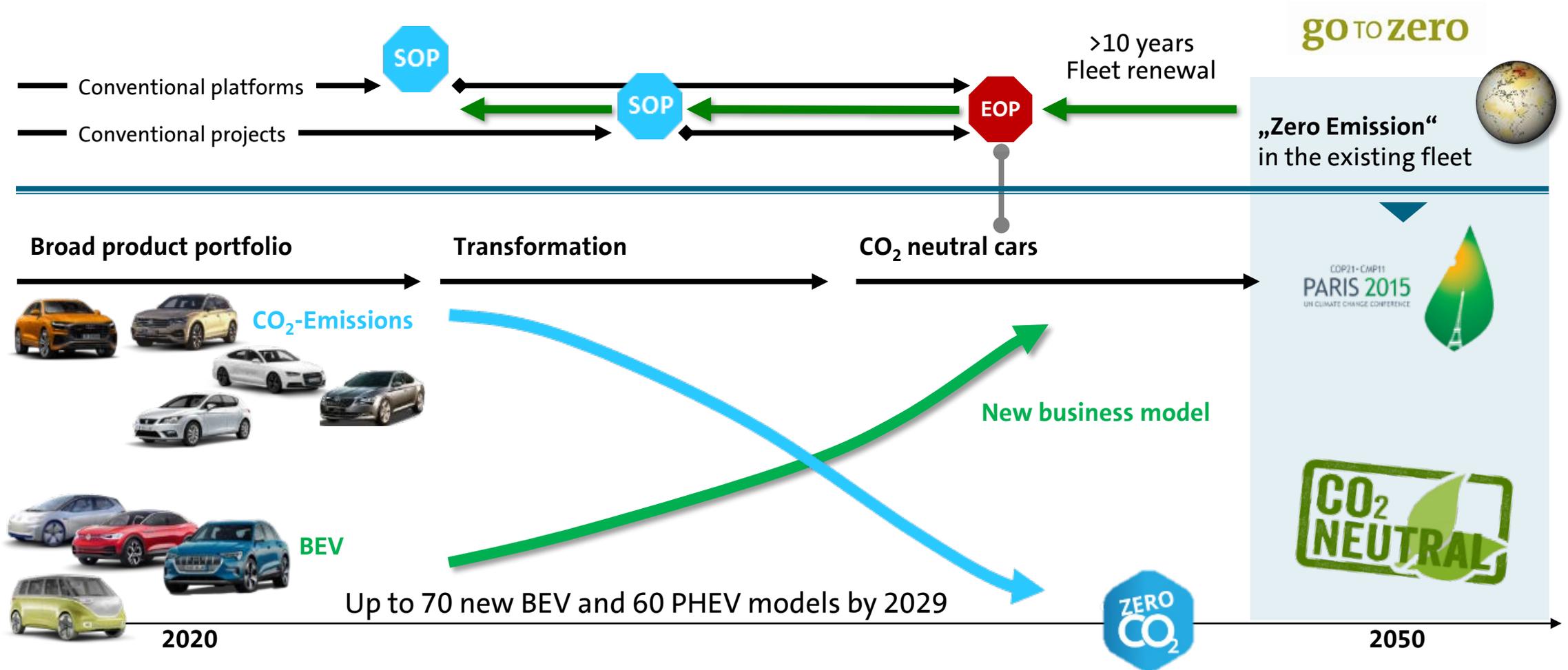


## WHERE WE ACT



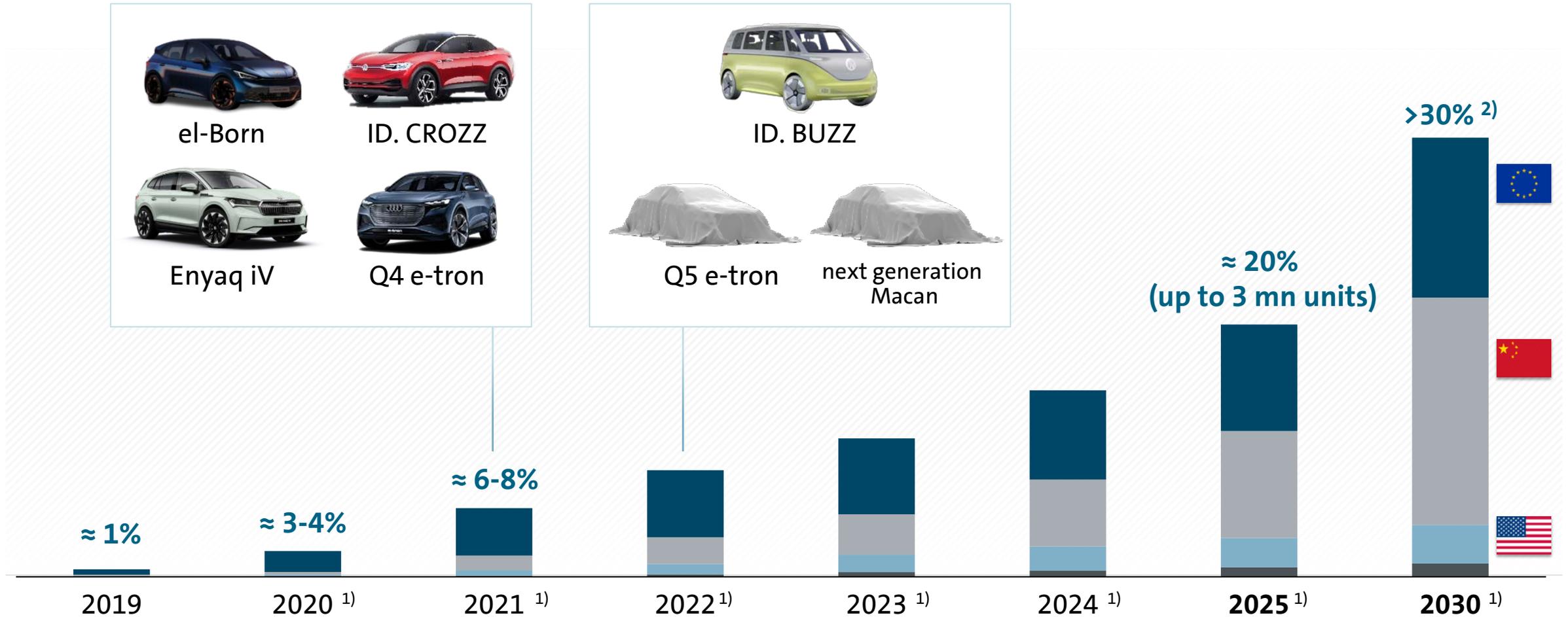
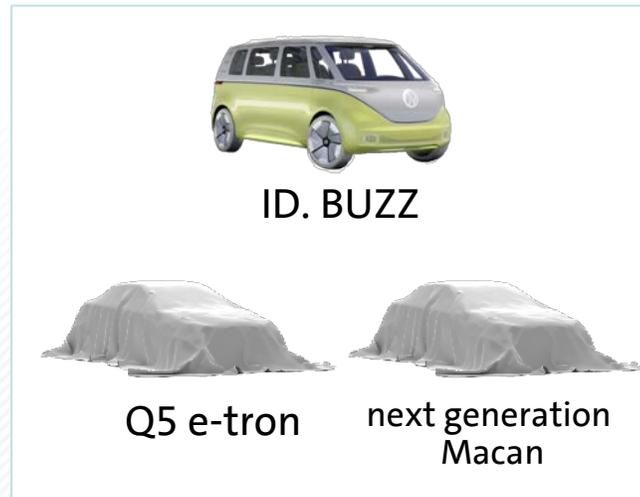
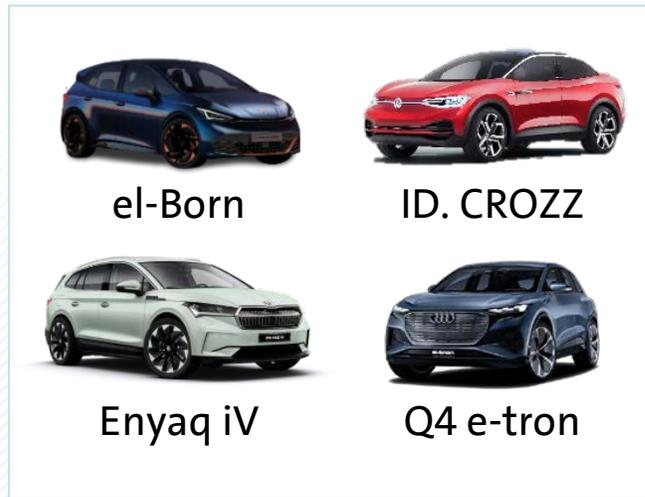
# “Go to zero” Transformation of portfolio underway – in 2030 >30% BEV share of Group deliveries

## PARIS IMPLICATIONS AND TRANSFORMATIONS PATH



# Significant increase in BEV deliveries will support our CO<sub>2</sub> compliance

Volkswagen Group – BEV volume by regions 2019 - 2030 | (BEV share of total Group deliveries in %)



<sup>1)</sup> Target    <sup>2)</sup> Green Deal need to be reflected.

■ Europe   ■ China   ■ NAR   ■ RoW

# Starting in Zwickau – the MEB factories scale up world wide



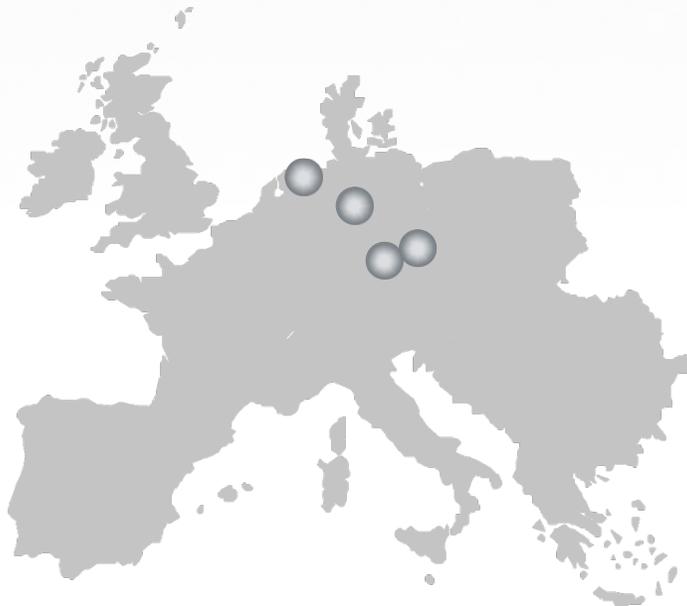
## North America



**Chattanooga:**  
SOP 2022



## Europe



**Zwickau:**  
SOP 2019



**Dresden:**  
SOP 2020



**Emden:**  
SOP 2023



**Hannover:**  
SOP 2022



## China



**Anting:**  
SOP 2020



**Foshan:**  
SOP 2020

SOP = Start of Production

# Holistic Battery-Strategy: Building competencies and further cooperations

## SUPPLIER



- The Group maintains strategic relations with several producers to secure its battery supplies in all world regions:
  - Europe: LG Chem, Samsung, SKI and CATL
  - China: CATL
  - US: SKI
- In Europe and NAR, Volkswagen expects annual demand of over 150 gigawatt hours from 2025, with demand in Asia at a similar level



- Joint venture with **Northvolt** established in 2019
- Initial investment of some €450 mn for joint battery factory
- Large-scale **production of lithium-ion batteries** in Salzgitter, Germany
- Battery cell production is scheduled to commence in early 2024
- Initial production capacity of 16 gigawatt hours

## JOINT VENTURES

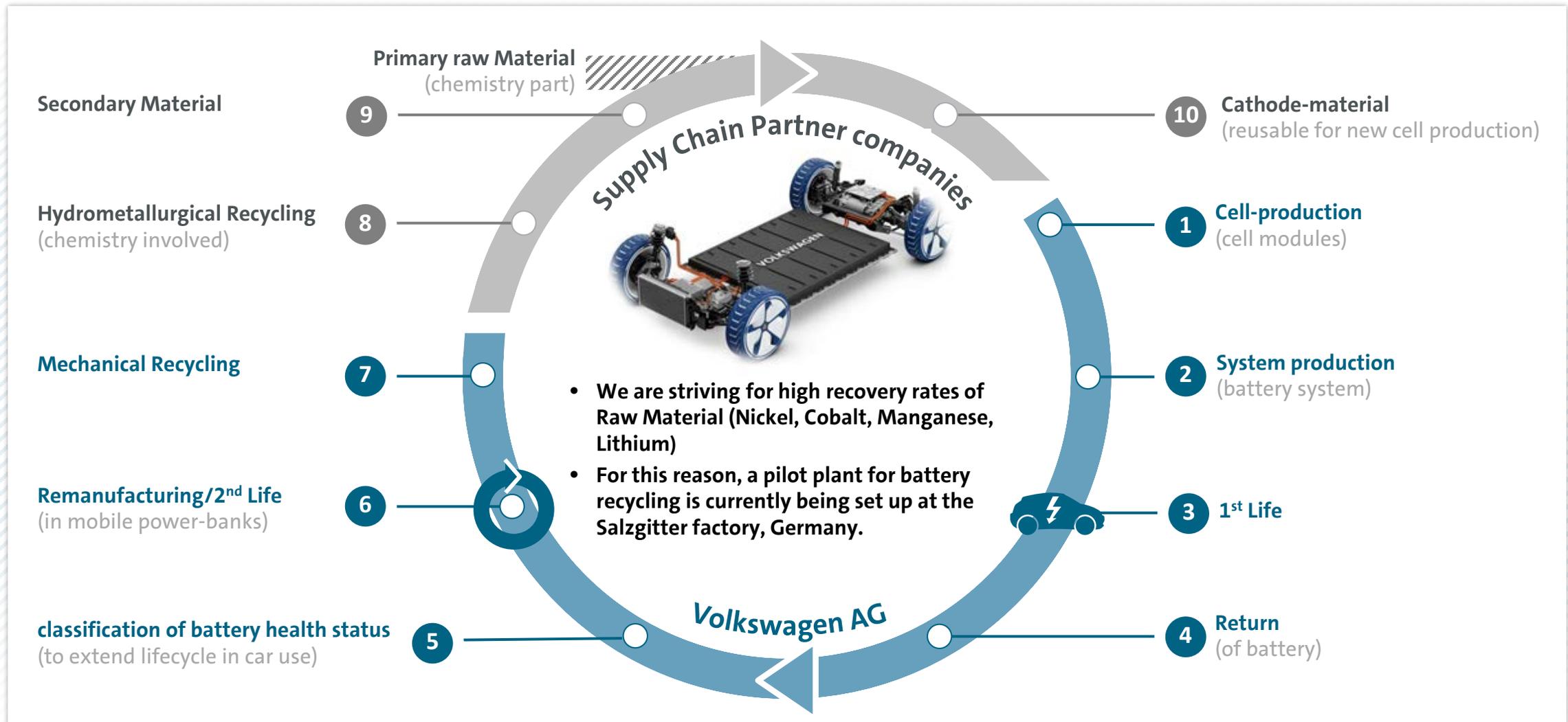


- Volkswagen will acquire a 26% stake of **Gotion High-Tech** for around €1 bn
- Secure future demand for **batteries for Chinese e-models**
- Planned to complete the deal by the end of 2020



- Non-exclusive relationship with Volkswagen dates back to 2012
- Volkswagen is committed of more than 300 million dollars in funding, and committed of additional dollars to help fund the manufacturing joint venture
- Goal is industrial-level production of solid-state batteries, start of production is targeted in mid 2020's

# Principle of Closed Loop Battery Materials



We increase our efforts to increase energy efficiency in manufacturing while reducing resource usage.



1. Avoid



Example: Carbon Fund

**-170.000**

tons CO<sub>2</sub> / year achieved in 2019

Selected measures:

- LED lighting
- HVAC supply manufacturing sites
- Wet processes & dryers in paintshops

Specific CO<sub>2</sub>-emissions per produced vehicle

**-38.3 %** 2019 vs. 2010

## More and more sites convert power supply to renewable energies



Wind park Emden



Solar field Chattanooga

### 2. Reduce



Green energy supply at manufacturing sites

> **40 %** share of  
renewable energies

as part of total power consumption 2019

Our Goal: 100% renewable energy for external power supply in Europe by 2023, globally by 2030 (except China, currently under evaluation)

## Volkswagen invests into credible CO<sub>2</sub> compensation projects to protect tropical forests



### 3. compensate

**Example: Carbon Credits from Katingan Mataya Forest Protection Project. It protects**

**150.000** hectares of  
**tropical forest**

On the island of Borneo / Indonesia

- Protection and restoration of tropical forests
- Habitat of Orang-Utans,
- Certified according to highest standards (VCS & CCB)
- June 2020: Joint Development Agreement for climate protection projects with Permian Global signed

## Our Sustainability Council acts as critical advisor to the Group Board of Management



Current members: Georg Kell (spokesperson), Connie Hedegaard (deputee spokesperson), Prof. Dr. Otmar Edenhofer, Magdalena Gerger, Rebecca Harms, Margo Oge, Prof. Ye Qi, Michael Sommer, Elhadj As Sy.  
Former members: Prof. Gesche Jost, Yves Leterme

### Topics

- Sustainable Mobility and Environmental Protection
- Social Responsibility and Integrity
- Future of Work and Digitalization

### Tasks

- Strategic Counseling of the BoM
- Strengthening Sustainability Management
- Expertise and Initiatives

### Projects

- Impacts of electrification and digitalization on employment
- Forecast-based Financing (Climate Change)
- Inclusive fiscal policies for sustainable mobility

# Communication on Sustainability: Sustainability Report and Sustainability Magazine Shift

## Sustainability Report

Includes the combined separate non-financial report and fulfils the requirements of the HGB (German Commercial Code) and the German CSR Directive Implementation Act.

**FOCUS:**  
ESG, facts, figures, regulation,  
GRI / UN SDGs<sup>1</sup>



<https://www.volkswagenag.com/en/sustainability/reporting.html>

## Shift Magazine

How can Volkswagen – after the Diesel Crisis - talk about sustainability again without fear of ridicule?

Shift, which complements our traditional Sustainability Report, is an initial answer.

**FOCUS:**  
conflicting goals, change /crisis,  
outlook



<https://www.volkswagenag.com/en/sustainability/shift.html>

1) GRI = Global Reporting Initiative, SDG = Sustainable Development Goals