

Group Circular Economy Strategy

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The following presentations as well as remarks/comments and explanations in this context contain forward-looking statements on the business development of the Volkswagen Group. These statements are based on assumptions relating to the development of the economic, political and legal environment in individual countries, economic regions and markets, and in particular for 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 going to press. The estimates given entail a degree of risk, and actual developments may differ from those forecast.

All figures are rounded, so minor discrepancies may arise from addition of these amounts.

Any changes in significant parameters relating to our key sales markets, or any significant shifts in exchange rates, energy and other commodities or the supply with parts relevant to the Volkswagen Group will have a corresponding effect on the development of our business. In addition, there may also be departures from our expected business development if the assessments of the factors influencing sustainable value enhancement and of risks and opportunities presented develop in a way other than we are currently expecting, or if additional risks and opportunities or other factors emerge that affect the development of our business.

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regenerate+

Volkswagen Group Sustainability



Making Circularity the new normal in mobility

Challenges & Opportunities

Circular Economy: how sustainability drives business

**Increased
resilience**



**Untapped
profit pool**



**Accelerating
nature action**

**Uncertain
legislation**



**Market
dynamics**



**Access to rare
& precious materials**

Unleash additional
revenue potential

**2031ff regulations for
battery & polymers**

Opportunities & current achievements

Examples on using recycled materials in our vehicles



Current VW ID.7

Innovative interior materials
Covers and surfaces made from recycled materials

Art-Velours "ECO" **71% recycled PET bottles** and Insulation/damping partially made from **recycled clothing** ...

Current VW T-Roc

Highest Recycled Material Share in any VW Model so far

T-Roc uses up to 40 kg of recycled plastics, about 20% thermoplastics and textiles ...

Cupra Raval

Bringing circularity to the mass market

Uses up to 36 kg of recycled plastics throughout the vehicle ...

Develop an effective and efficient Circular Economy business generating value and optimize costs



STRENGTHEN VALUES

Create & exploit synergies and profit pools

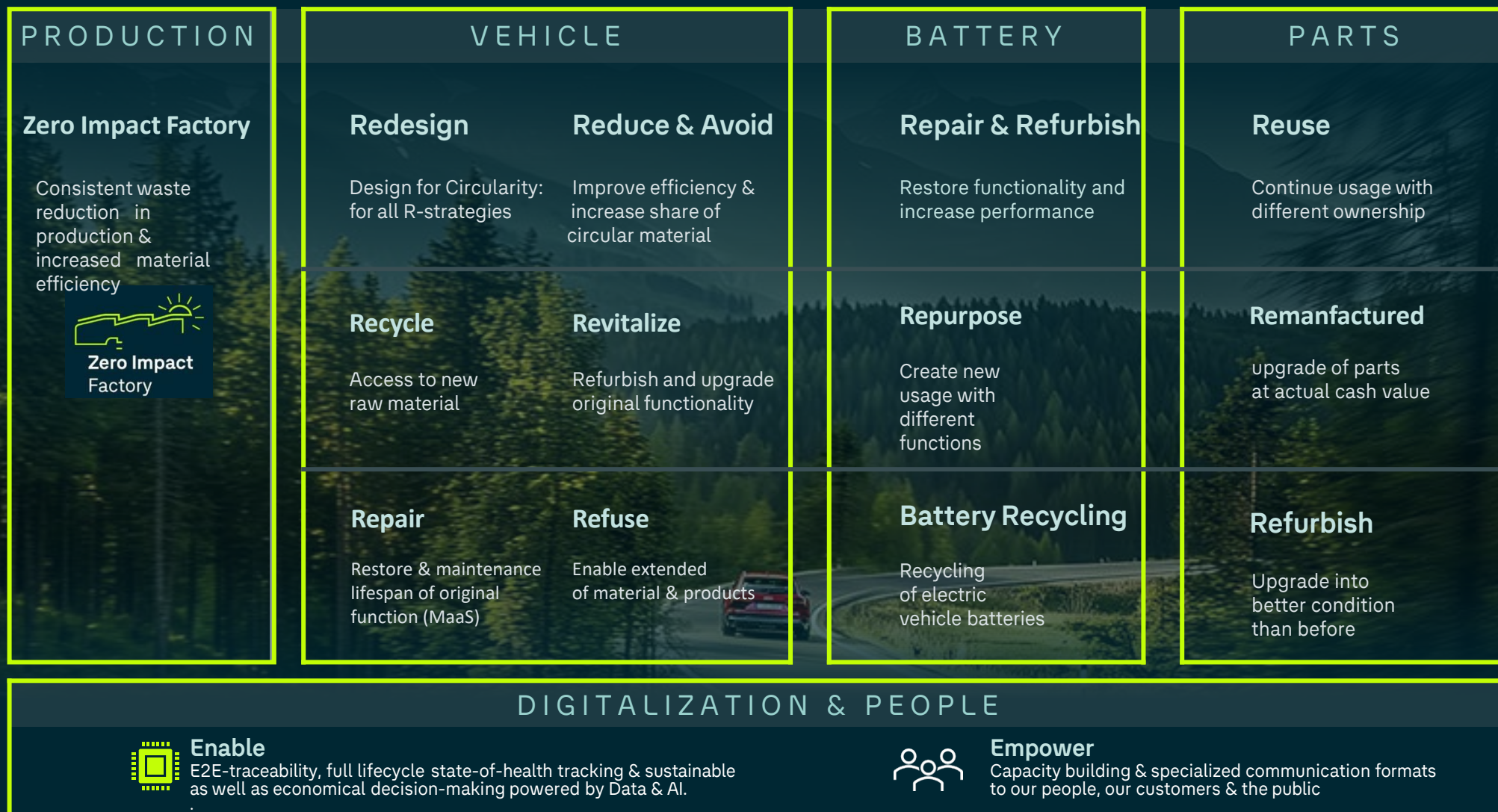
OPTIMIZE COSTS

Secure access to vehicles/ parts & batteries

Leveraging scalability on recycling

Partnerships to improve efficiency

Scoping Circular Economy Business fields



Volkswagen Groups Circular Economy Strategie „Reduce & Grow“

“MAKING CIRCULARITY THE NEW NORMAL IN MOBILITY”



- New business models
- Integrated R-strategies
- Save resources
- Reducing costs
- Strengthening innovation
- Using power of partnerships

Strategic partnerships will be essential in a developing market
Circular Economy will not work alone



“... it’s a Network
not a Circle”

Volkswagen Group **Circular Economy** initiatives to close the loop in the Automotive Industry



Vehicle recycling

Take back, dismantling & used parts business



Battery recycling

Investments in battery recycling start ups



VOLKSWAGEN GROUP
Volkswagen

CE Hub Zwickau

Group CE-Competence Center

CoE BATTERY


PowerCo & partner

Battery recycling technology




Circular Economy Strategy @ Audi

MaterialLoop



Strengthening resilience and sustainability is a key opportunity of the Circular Economy



Circular business models open new and lasting profit pools for the Volkswagen Group



Our CE strategy and implementation pathway are key to leveraging our scale and our innovation capabilities

VOLKSWAGEN GROUP

Range / consumptions / emissions

Model	Fuel consumption combined (WLTP)	Electrical consumption combined (WLTP)	CO ₂ emissions combined (WLTP)	Electric range combined (WLTP)
VW				
Golf R	8.1 – 8.5 l/100km	n/a	184 -193 g/km	n/a
Golf 8 GTI	7.3 – 7.1 l/100km	n/a	167 -162 g/km	n/a
ID.3 Neo	n/a	14.3-15.7 kWh/100km	n/a	up to 629km
ID.3 Pro S	n/a	14,9 kWh/100km	n/a	402 – 575km
ID.4 Pro	n/a	17.5-16.1 kWh/100km	n/a	395 – 545km
ID.5 Pro	n/a	15.5 – 18.0 kWh/100km	n/a	492 – 567km
ID.7 Pro	n/a	16.1 – 14.0 kWh/100km	n/a	up to 618km
ID.7 GTX	n/a	18.8 – 16.6 kWh/100km	n/a	up to 584km
ID. Buzz Pro	n/a	20.5-21.7 kWh/100km	n/a	420 – 461km
ID. Buzz GTX	n/a	21.6 – 20.5 kWh/100km	n/a	402 – 423km
ID. Buzz LWB Pro	n/a	21.2 – 19.5 kWh/100km	n/a	up to 487km
Caravelle	7.9 – 7.2 l/100km	n/a	207 – 188 g/km	
Passat R eHybrid	5.6 - 6.0 l/100km	17,5-16,6 kWh/100km plus 0,5-0,4 l/100km	9 g/km	up to 118km
ID. UNYX 09, ID. AURA T6, New Atlas	These vehicles are not offered for sale in Europe.			
Tayron R Line Hybrid	1.7 – 1.9 l/100km	14.0 – 15.0 kWh/100km	38 – 42 g/km	up to 116km

Range / consumptions / emissions

Model	Fuel consumption combined (WLTP)	Electrical consumption combined (WLTP)	CO ₂ emissions combined (WLTP)	Electric range combined (WLTP)
Škoda				
Vision O	The vehicle is not yet offered for sale and is therefore not subject to Directive 1999/94/EC. Consumption and emission data under review.			
Enyaq Laurin & Klement 85	n/a	15.7 - 20.3 kWh/100km	n/a	565 - 589km
Enyaq Sportline	n/a	15.8 - 16.6 kWh/100km	n/a	410 - 428km
Elroq 85	n/a	15,2 - 16,6 kWh/100km	n/a	540 - 580km
Kaylaq	The vehicle is not offered for sale in Europe.			
Porsche				
Macan S	n/a	21,1 - 17,9 kWh/100km	n/a	516 - 613km
Taycan Turbo S	n/a	18.8-16.6 kWh/100km	n/a	558 - 630km
Panamera 4S E-Hybrid	10.4 - 9.3 l/100km	28.6 - 26.0 kWh/100km	33 -24 g/km	83 - 91km
Porsche Taycan GTS Sport Turismo	n/a	24.1 - 21.0 kWh/100km	n/a	424 - 490km
Taycan 4	n/a	20.6 - 17.6 kWh/100km	n/a	478 - 559km
Porsche 911 Carrera	10,7 - 10,1 l/100km	n/a	244 - 230 g/km	n/a
Porsche GT3	13,8 - 13,7 l/100km	n/a	312 - 310 g/km	

Range / consumptions / emissions

Model	Fuel consumption combined (WLTP)	Electrical consumption combined (WLTP)	CO ₂ emissions combined (WLTP)	Electric range combined (WLTP)
Bentley				
Continental GT Speed	10.3 l/100 km	28.1 kWh/100km	29 g/km	n/a
Bentayga Speed	14.7 l/100 km	n/a	335 g/km	n/a
Lamborghini				
Revuelto	11,86 l/100km	n/a	276 g/km	n/a
Urus S	14.1 l/100km	n/a	320 g/km	n/a
Urus SE	2,08 l/100km	39,5 kWh/100 Km	51 g/km	n/a
Temerario	The vehicle is not yet offered for sale and is therefore not subject to Directive 1999/94/EC. Consumption and emission data under review.			
Seat / Cupra				
Born	n/a	14.9 - 16.7 kWh/100km	n/a	up to 594km
Tavascan VZ 250 kW 77kWh	n/a	16.6 kWh/100km	n/a	up to 522km
Terramar VZ 1.5 e-HYBRID 200 kW	0,4-0,5 l/100 km	7,6-19,0 kWh/100 km	10-12 g/km	n/a
Raval VZ Extreme	n/a	16.1 kWh/100km	n/a	up to 381km

Range / consumptions / emissions

Model	Fuel consumption combined (WLTP)	Electrical consumption combined (WLTP)	CO ₂ emissions combined (WLTP)	Electric range combined (WLTP)
Audi				
A5	7.7 – 4.8 l/100km	n/a	176 – 125 g/km	n/a
Concept C	Vehicle is not yet offered for sale & is therefore not subject to Directive 1999/94/EC. Consumption & emission data under review.			
Q4 e-tron 55	n/a	16.8 – 19.5 kWh/100km	n/a	449 – 523km
Q5	7.9–5.9 l/100km	n/a	180–148 g/km	n/a
Q6L e-tron	The vehicle is not offered for sale in Europe.			
Q8 55 e-tron	n/a	20.6 – 24.4 kWh/100km	n/a	460 – 595km
S5 Avant	7.5-7.9 l/100km	n/a	169-180 g/km	n/a
A6L e-tron	The vehicle is not offered for sale in Europe.			
AUDI E7X	The vehicle is not offered for sale in Europe.			
Scout				
Terra	Vehicle is not yet offered for sale & is therefore not subject to Directive 1999/94/EC. Consumption & emission data under review.			
Traveler	Vehicle is not yet offered for sale & is therefore not subject to Directive 1999/94/EC. Consumption & emission data under review.			
Jetta (China)				
Jetta X	The vehicle is not offered for sale in Europe.			