

1.0.



We make the future real.
e-Mobility@Volkswagen
Dr. Andreas Lassota



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TIMES ARE CHANGING.

Our industry lost touch with the Zeitgeist of today and the digitally driven society.

1 Change of Society



Seamless Greenovator
Digitalization
Collaborative Consumption
Health
Sustainability
Aging Society

airbnb KICKSTARTER NETFLIX
patagonia WeChat innocent

2 Change of Technology



3D printing
Industry 4.0
Autonomous driving
Virtual Reality
Artificial Intelligence
Internet of things

formlabs oculus IBM WATSON amazon alexa

3 Game changing Players



Apple Google
TESLA
NIO
KANDI (康迪)
UBER



Friday

Automotive industry lags behind.

The traditional automotive industry dramatic in terms of electric mobility, digitalization and Tech-giants like Apple and Google as well as such as Tesla are about to take over one of the industries worldwide. The leading position of the unsteady as never before.

Audi GM Peugeot Ford Fiat Chevrolet Volkswagen

Since E full elect success - BMW stan one year t establisher able to reat innovation a five years.



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TIMES ARE CHANGING.

ICE as a core technology is under heavy regulatory pressure.

1 Legal Regulations

Diesel ban

"Zero emission cars only by 2025" - goal

CO₂ reduction

Only e-cars in inner cities

Noise regulations

Paris Agreement

2 Incentives

Tax reductions

Governmental cash incentives

Subventions to alternative mobility companies

Scrapping incentives

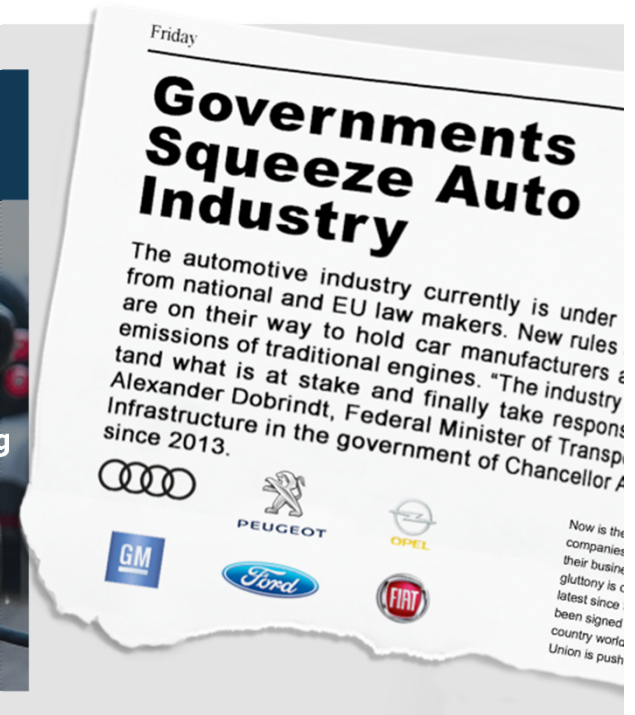
Toll-free travel for electric cars

3 Infrastructure

Free parking for e cars

Ubiquitous charging

Reserved lanes for e mobility



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VOLKSWAGEN STRATEGY TRANSFORM 2025+.

Four radical trends set the framework.

Connectivity

> 600 mn

number of fully connected vehicles worldwide in 2025



Autonomous Driving

> 90 minutes

Average time spent by drivers in their cars each day in Europe and the USA



Electrification

< 90g CO₂/km

Global environmental standards expected to be intensified drastically after 2020

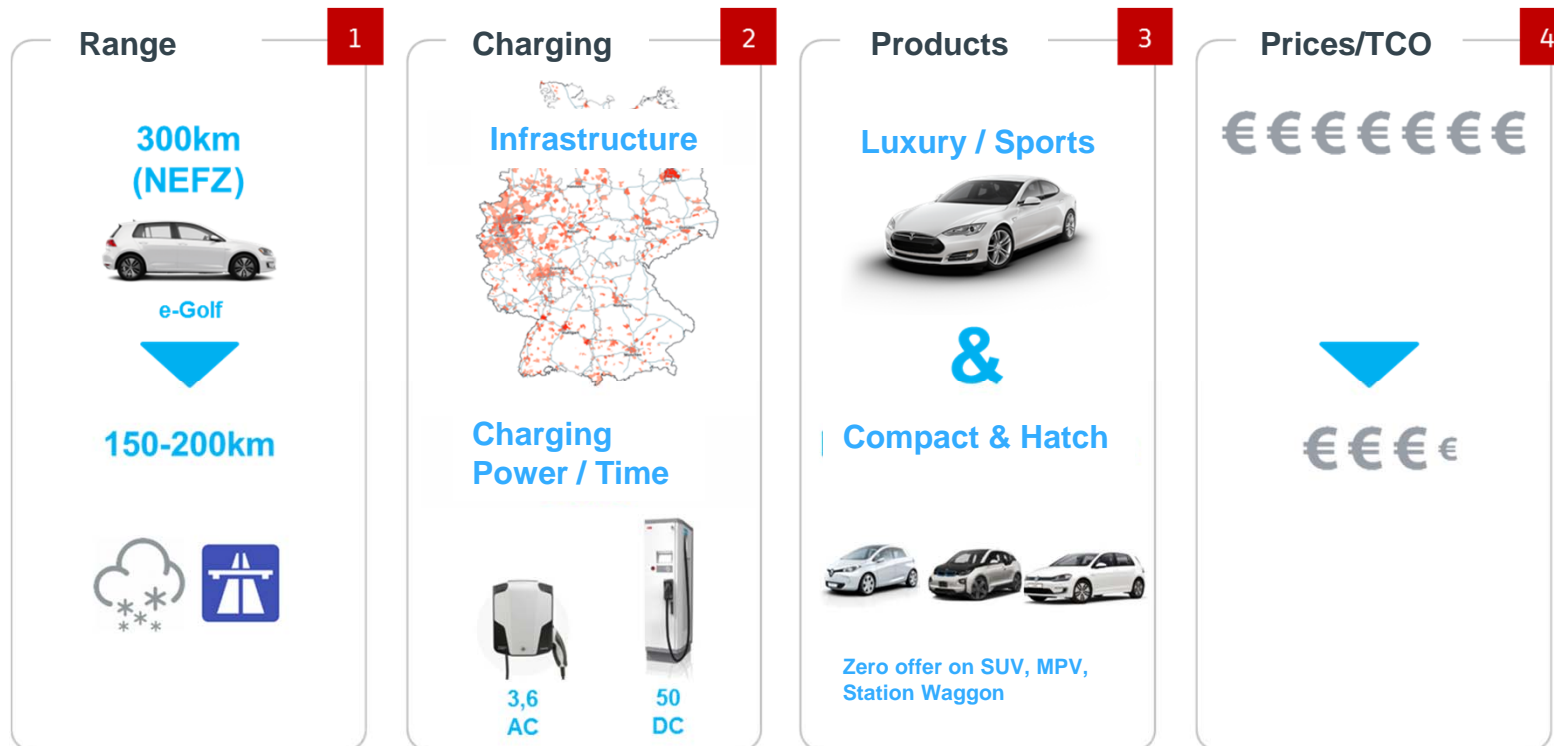


Shared Mobility

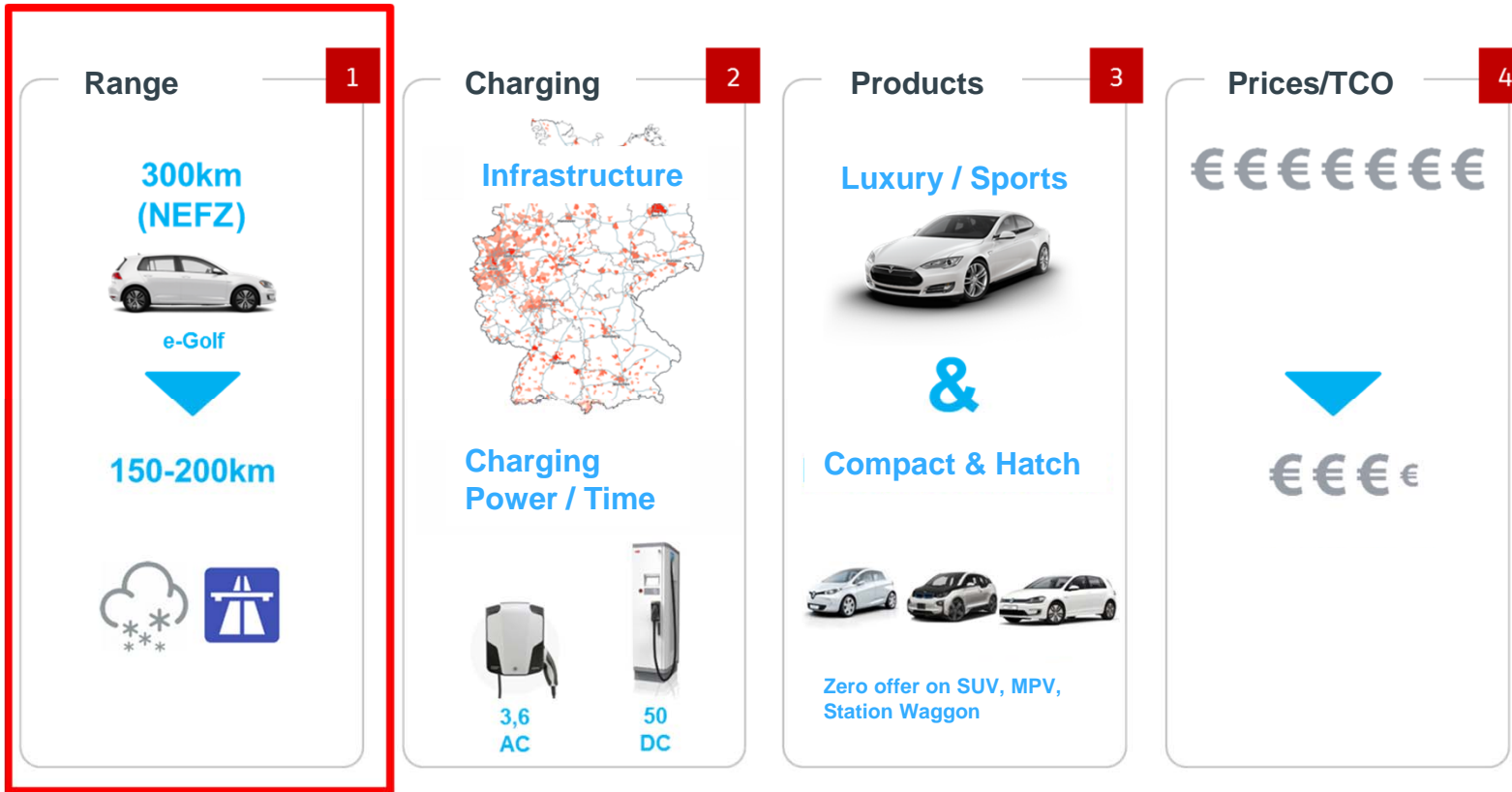
> 10%

Proportion of usage-based automobility in urban areas in 2025

HURDLES FOR E-MOBILITY SO FAR.

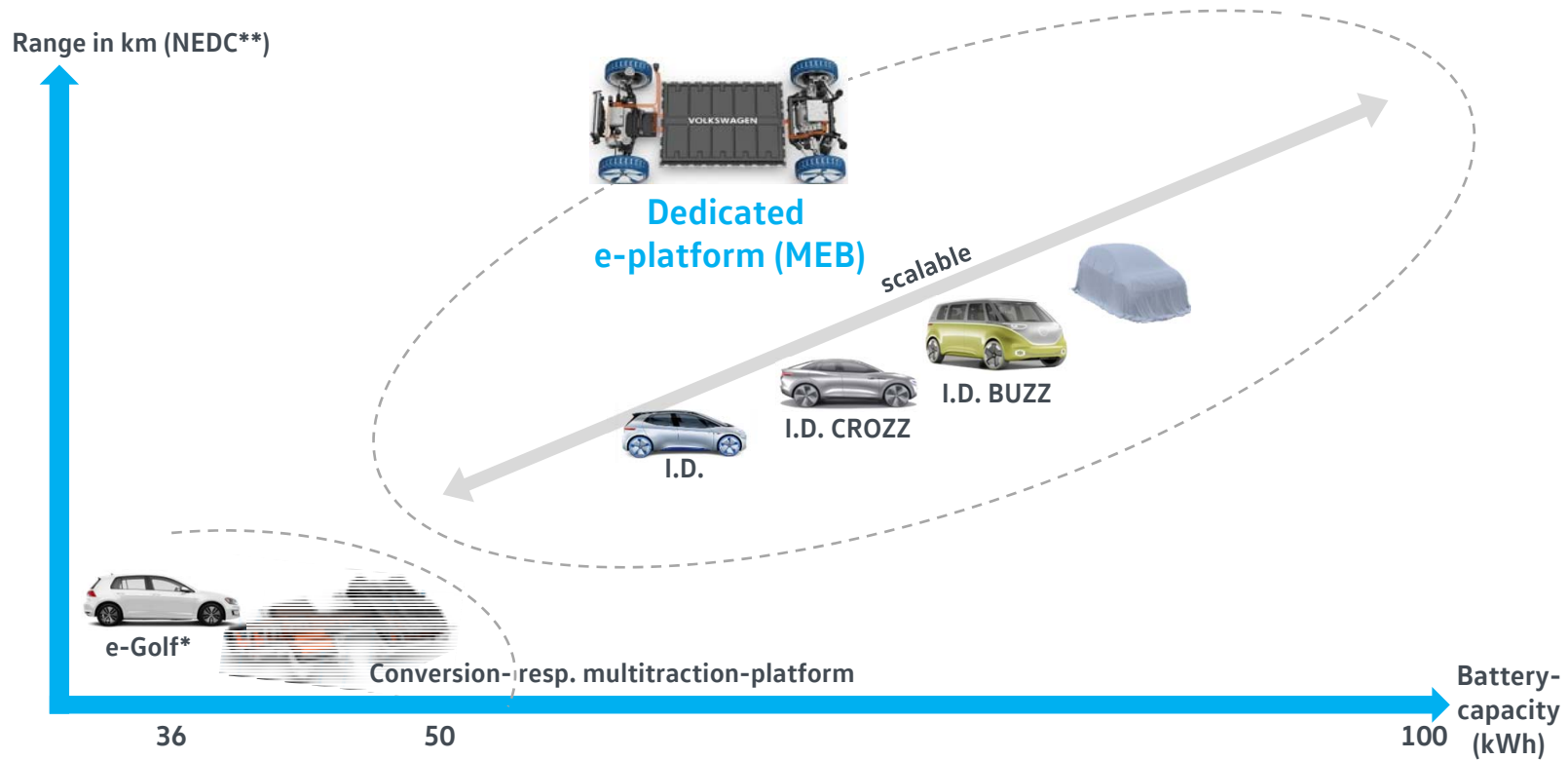


HURDLES FOR E-MOBILITY SO FAR.



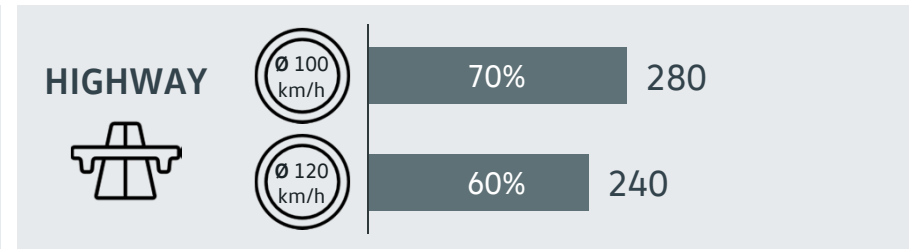
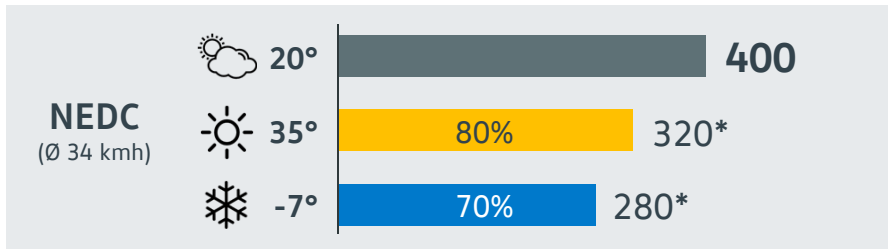
DEDICATED e-PLATFORM ENABLES HIGH NOMINAL RANGES (NEDC).

Optimal usage of packaging space through dedicated e-platform MEB.



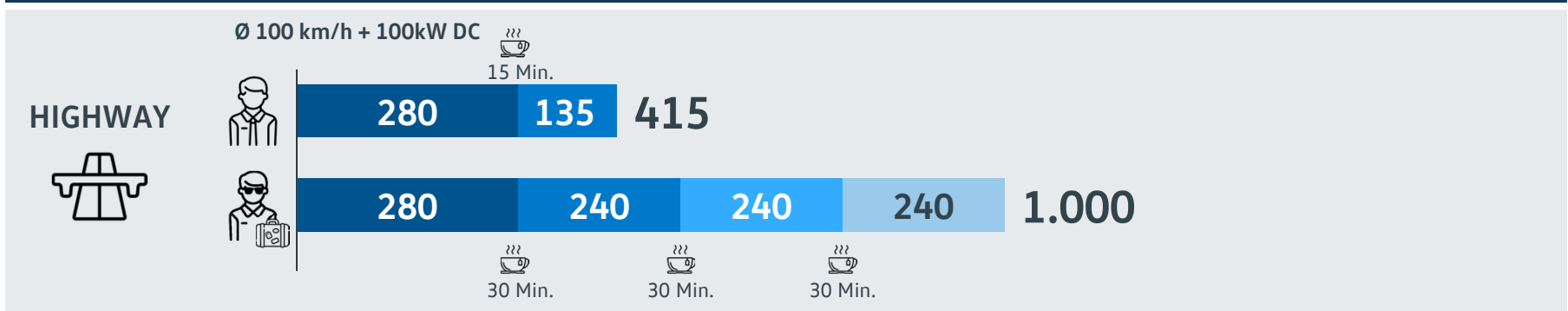
SCALABLE RANGES.

Ranges depend on personal use cases and external factors.



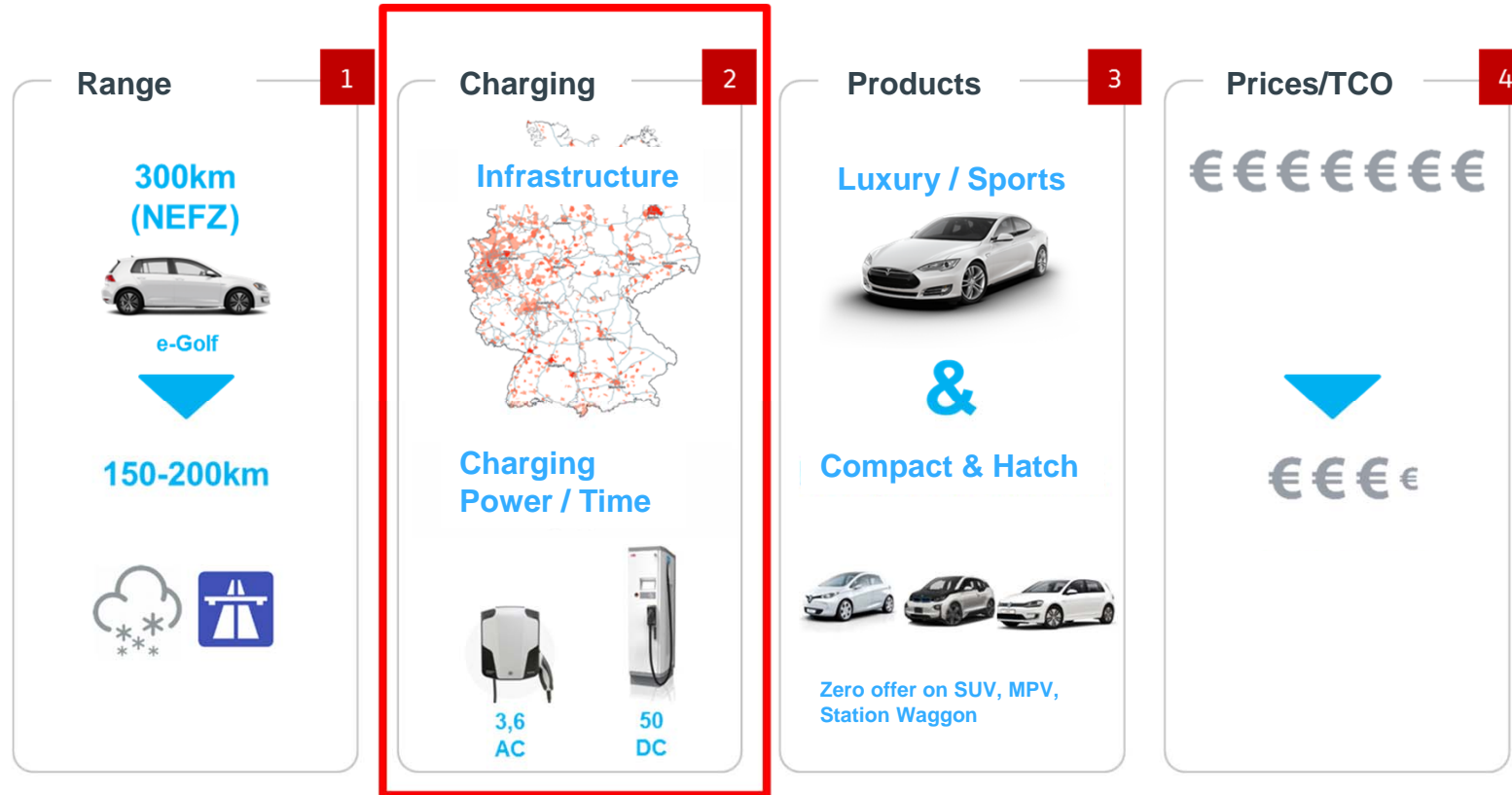
* Heating / Air Conditioning; Fan; Lights; Radio; Navigation; Seat Heating (winter)

Ranges can be extended with short charging stops.



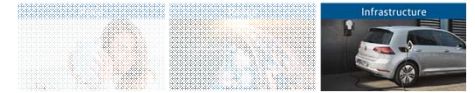
Schematic diagram


HURDLES FOR E-MOBILITY SO FAR.



CHARGING ANXIETY AS KEY CHALLENGE.


Charging infrastructure as enabler for e-Mobility.





 Innovative, competitive & affordable charging technology


 Fast DC charging



 Services for a better charging experience

 Charging everywhere & seamless

 Charging optimized routes

 Charging with a positive contribution to total cost of ownership

 Charge anywhere, anytime, seamless!

 Smart AC/DC Wallbox  HEMS*  Green energy **IONITY**

 Home ✓  48%  Work (✓)  21%  City (✓)  25%  Highway ✓  6%

*Home Energy Management System

CHARGING – HPC JOINT VENTURE ON HIGHWAYS.

Invest in 400 HPC stations until 2020 – starting 2017



JOINT VENTURE:
IONITY

VOLKSWAGEN
AKTIENGESELLSCHAFT




DAIMLER

BMW GROUP




- Station Network along Highways
- Long-distance capability
 - High Power DC
 - CCS based
 - Up to 350 kW


- 400 stations
- every 120km
- 6-10 charging points per station



125kW
(up to 350kW)



45% SOC
+100-150km*



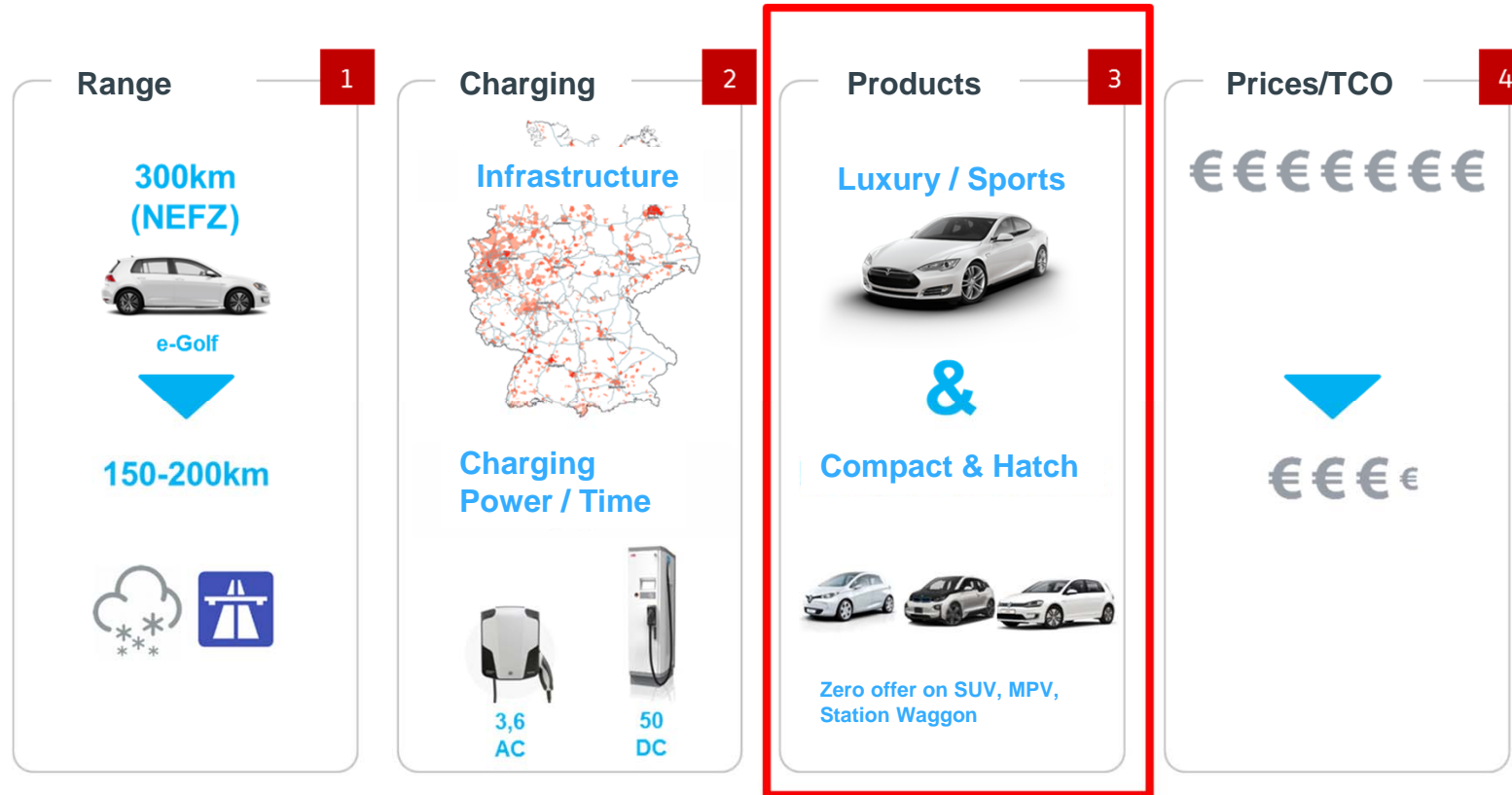
80% SOC
+150-260km*



100% SOC

*Real Range

HURDLES FOR E-MOBILITY SO FAR.



I.D.



I.D. BUZZ



I.D. CROZZ



I.D.

THE MEB PLATFORM.

MEB is built around the battery.



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THE MEB PLATFORM.

MEB is built around the battery.



Volkswagen

THE MEB PLATFORM.

MEB is built around the battery.



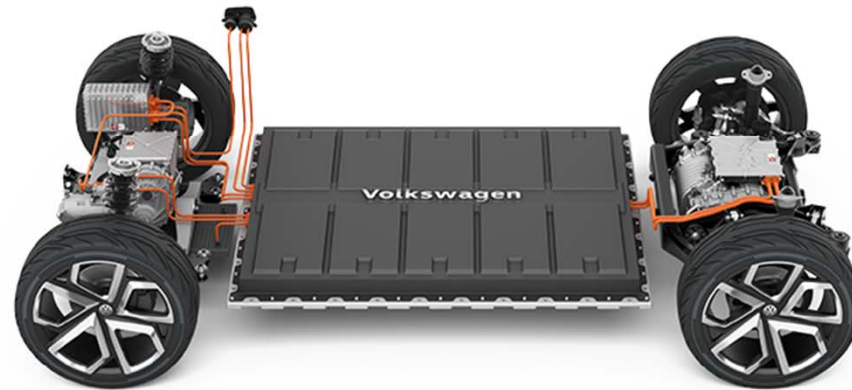
larger wheelbase
short overhangs



bigger
wheel diameter



no centre tunnel



rear drive
+ 4WD



trunk volume
~ ICE



central computer unit



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THE MEB PLATFORM.

MEB is built around the battery.



larger wheelbase
short overhangs



bigger
wheel diameter



no centre tunnel



rear drive
+ 4WD



trunk volume
~ ICE



More space in driver's
area and in the back;
higher seating position



central computer unit



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THE MEB PLATFORM.

MEB is built around the battery.



larger wheelbase
short overhangs



bigger
wheel diameter



no centre tunnel



rear drive
+ 4WD



trunk volume
~ ICE



different body shapes



More space in driver's
area and in the back;
higher seating position

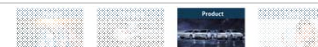


central computer unit



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I.D. LINE UP.



The first family members.

I.D.



I.D. CROZZ



Lounge-SUVe



I.D. VIZZION



I.D. Buzz



Character

Urban lifestyle

Best of SUV and BEV characteristics

Sporty & elegant

Loving heritage meets innovation

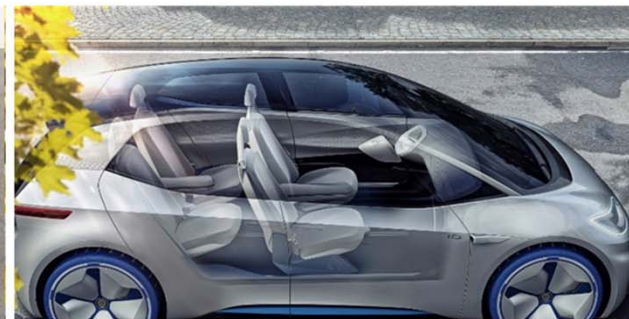


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I.D. EXTERIOR IMPRESSIONS.



I.D. INTERIOR IMPRESSIONS.



I.D. CROZZ EXTERIOR IMPRESSIONS.



I.D. BUZZ EXTERIOR IMPRESSIONS.

New front design



LED head & tail lights



Reinterpretation of the original



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THE CAR OF THE FUTURE IS 100% DIGITAL.

A unique customer ID as an enabler for a digital car.

Car



Entry to
both worlds
Customer
ID

Eco-System



The car becomes a **smart device** in a **Mobility-Service-Ecosystem**
where features and services make **peoples life better.**



THE NEW E-MODELS ' PRODUCT APPEAL.

Acceleration / driving pleasure



Comfort: more space and calm



Modern HMI



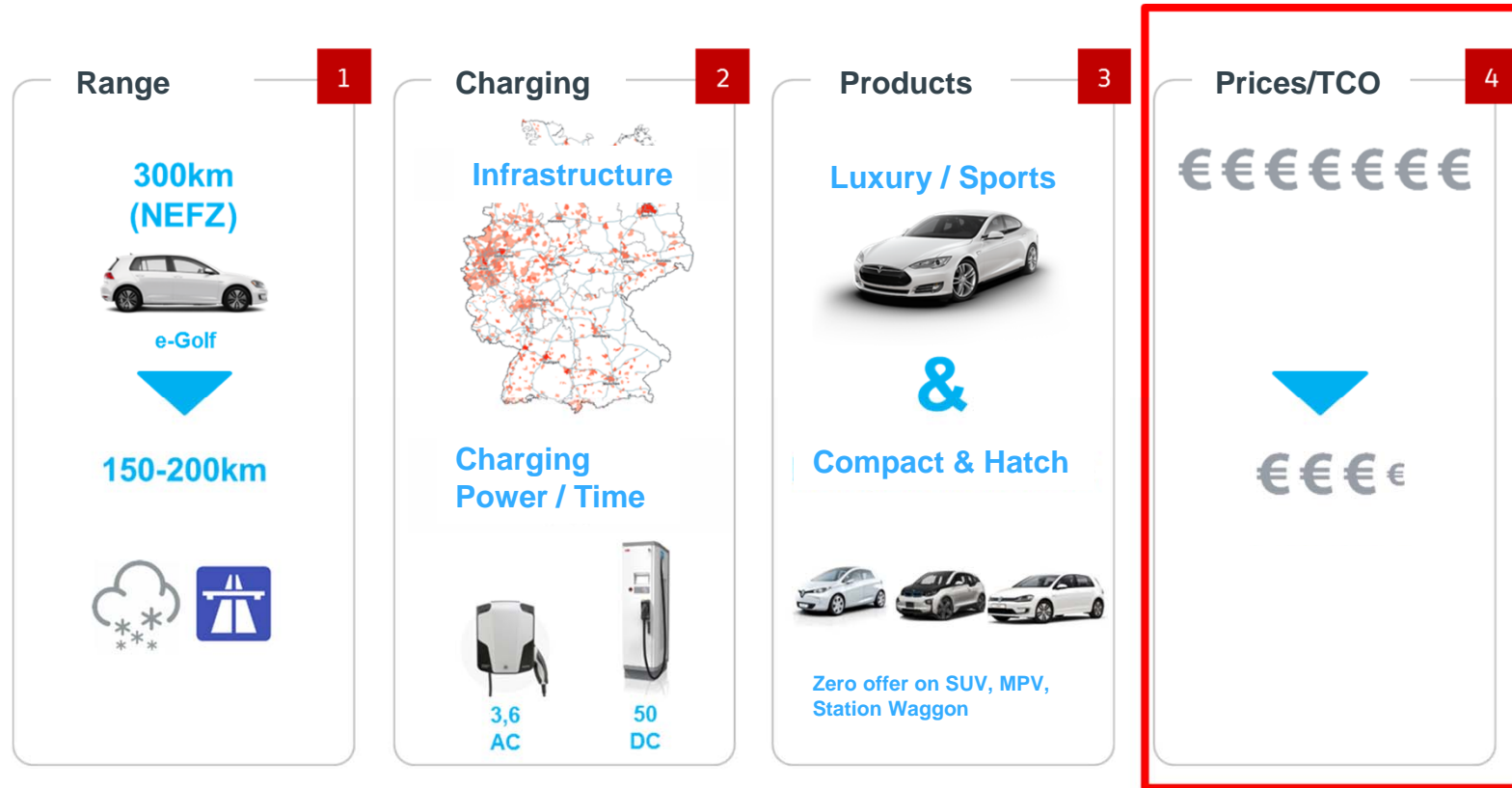
Sharing Services



Online Services



HURDLES FOR E-MOBILITY SO FAR.



AFFORDABLE PRODUCTS.

Price equal to a comparable Diesel.



Volkswagen

MADE BY PEOPLE – FOR PEOPLE.

We are committed to make e-mobility accessible for everyone.

MADE BY PEOPLE...



I.D.

PRODUCT RANGE

- + Affordable.
- + Fully connected.
- + Scalable range.
- + Suitable for everyday use.
- + In most wanted body styles.

...FOR PEOPLE.



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A red Volkswagen SUV is parked on a cobblestone path in front of a modern building with a glass facade. A man in a suit and a woman in a patterned dress are walking together on the path. The scene is illuminated by warm sunlight, creating long shadows. The text "THANK YOU." is overlaid in the bottom left corner, and the Volkswagen logo is in the bottom right corner.

THANK YOU.

