

## Evercore ISI Fieldtrip

December 6th, 2017





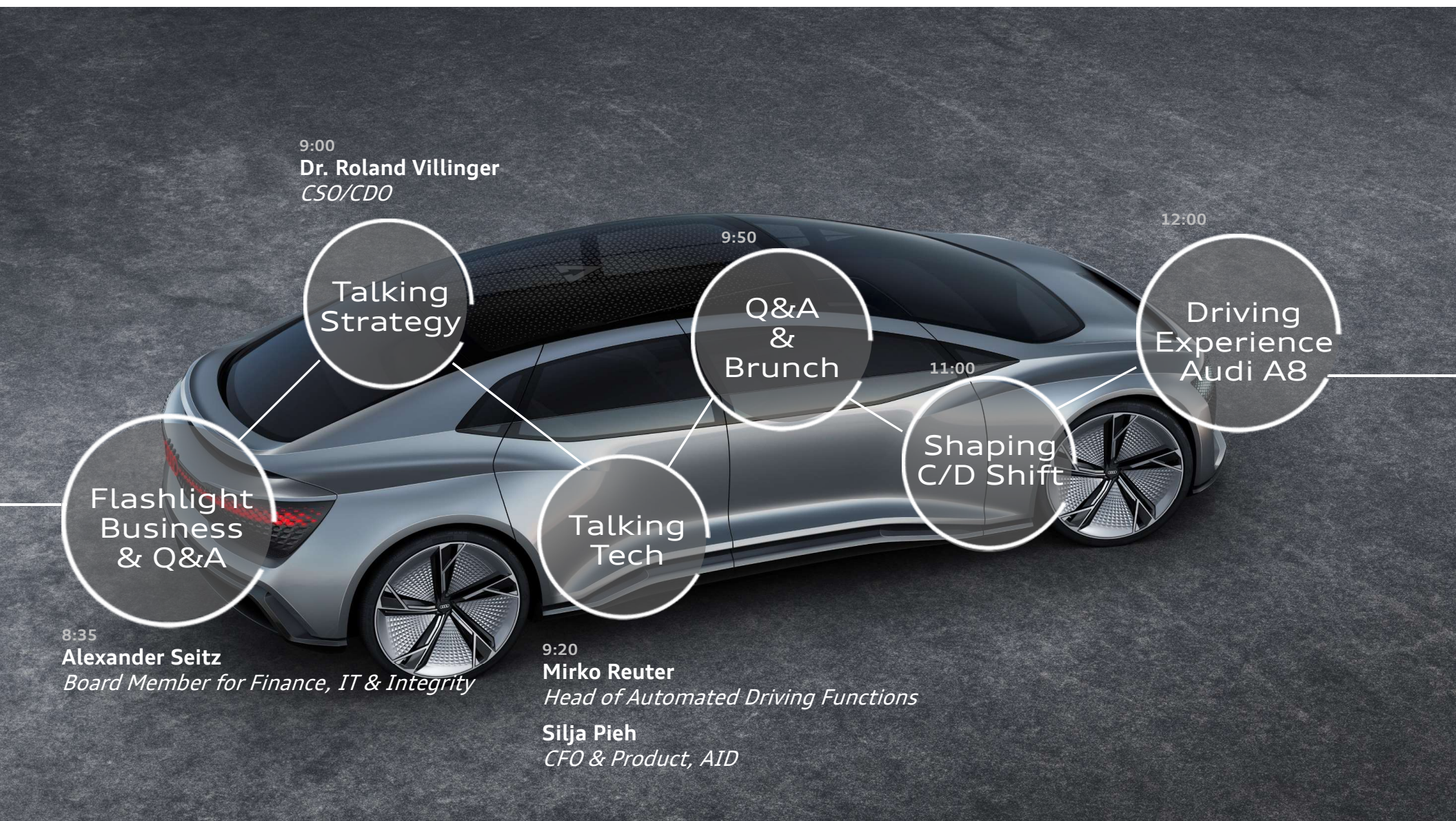
**Anton Poll**

Head of Financial Communication/ Analysis, AUDI AG



Welcome to  
the Audi family –  
Lamborghini URUS





9:00  
**Dr. Roland Villinger**  
*CSO/CDO*

Talking  
Strategy

9:50

Q&A  
&  
Brunch

11:00

Shaping  
C/D Shift

12:00

Driving  
Experience  
Audi A8

Flashlight  
Business  
& Q&A

Talking  
Tech

8:35  
**Alexander Seitz**  
*Board Member for Finance, IT & Integrity*

9:20  
**Mirko Reuter**  
*Head of Automated Driving Functions*

**Silja Pieh**  
*CFO & Product, AID*




**Alexander Seitz**

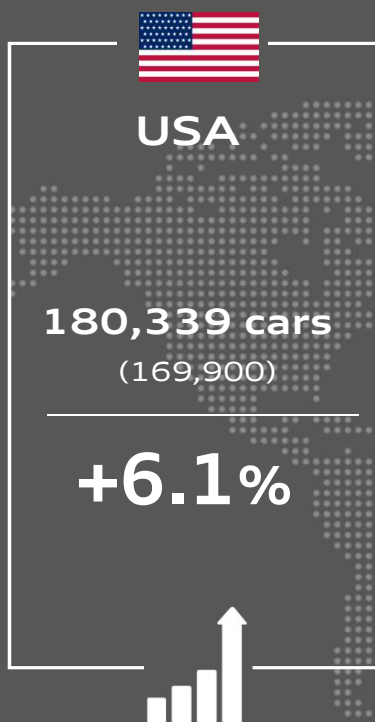
Board Member for Finance, IT and Integrity, AUDI AG

## Despite challenges and redirection in China, Audi keeps deliveries on a high level...

Audi deliveries to customers in units and percent (YTD 1-10/2017 vs. 1-10/2016)

Worldwide  
**1,539,521 cars**  
(1,559,540)

  
-1.3%



## ...especially due to a strong sales performance in H2

Audi deliveries to customers in units and percent (YTD 7-10/2017 vs. 7-10/2016)

Worldwide  
**630,566 cars**  
(606,247)



**+4.0%**



**USA**

**77,368 cars**  
(72,966)

**+6.0%**



**Western  
Europe**

**253,023 cars**  
(253,741)

**-0.3%**



**China**  
(incl. Hongkong)

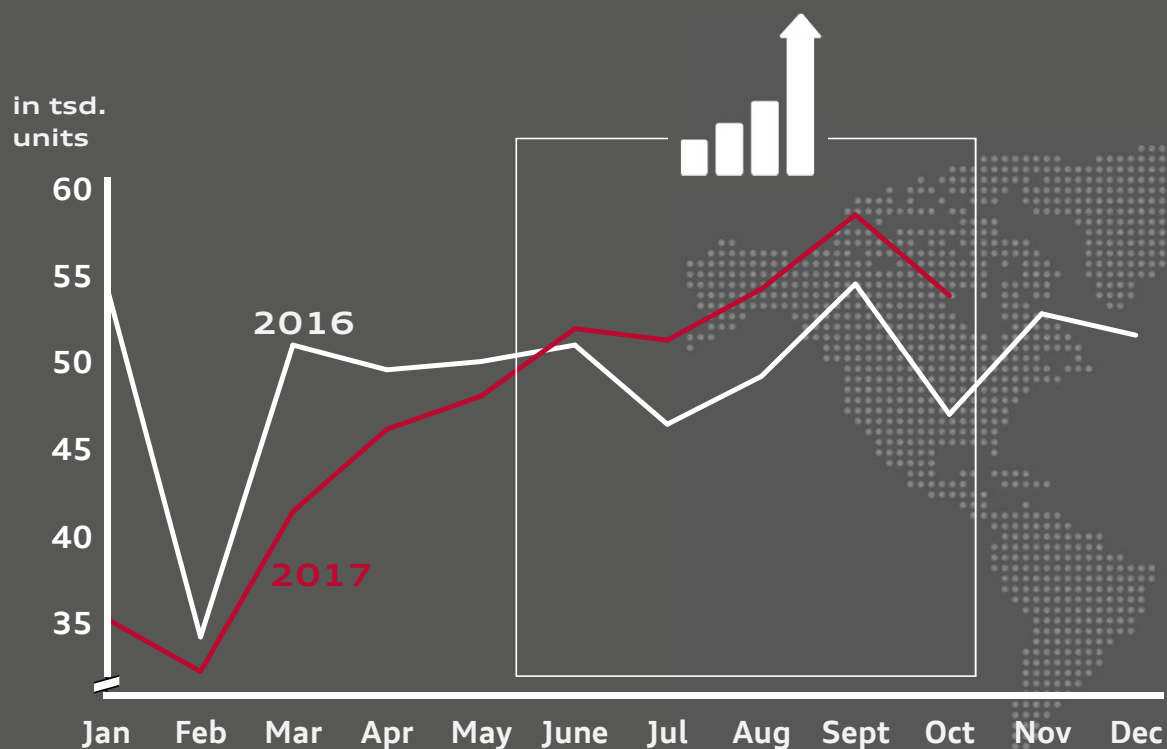
**217,713 cars**  
(197,138)

**+10.4%**



## After strategic realignment Audi continues its growth story in China

Audi deliveries to customers in China (incl. Hongkong) in units (1-10/2017 vs. 2016)



Since June  
Audi is gaining back  
its **leading position**  
in the **Chinese**  
**premium market**



## Audi slightly increases deliveries in Western Europe...

Audi deliveries to customers in units and percent (1-10/2017 vs. 1-10/2016)

### Western Europe



**685,888**  
(681,112)



**+0.7%**

 **A5**



 **Q2**



### Top 5 markets

	1-10/2017	Δ
Germany	254,200	+0.1%
United Kingdom	152,413	-0.6%
Italy	57,758	+11.5%
France	52,128	-1.8%
Spain	46,815	+6.6%



...and continues it's success story in the US with a significant volume growth  
Audi deliveries to customers in units and percent (1-10/2017 vs. 1-10/2016)

USA



180,339  
(169,900)



+6.1%



Q3



Q5



Q7



SUV family  
+14.4%

A4 family  
+4.0%



A5 family  
more than  
double sales



AUDI AG, Evercore ISI Fieldtrip



new  
**A5 family**  
**86,500 units**  
(+47% YTD)



new **Q2**  
almost  
**80,000 units**  
sold YTD



AUDI AG, Evercore ISI Fieldtrip

# Audi Q7

remains a **bestseller**

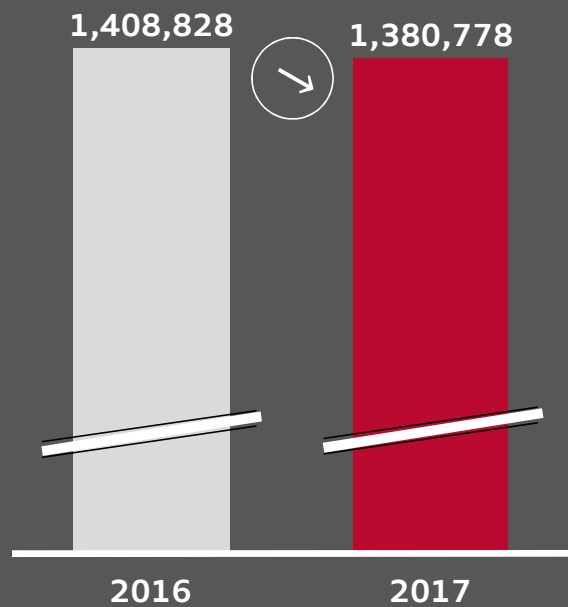


more than **85,800**  
deliveries to customers YTD

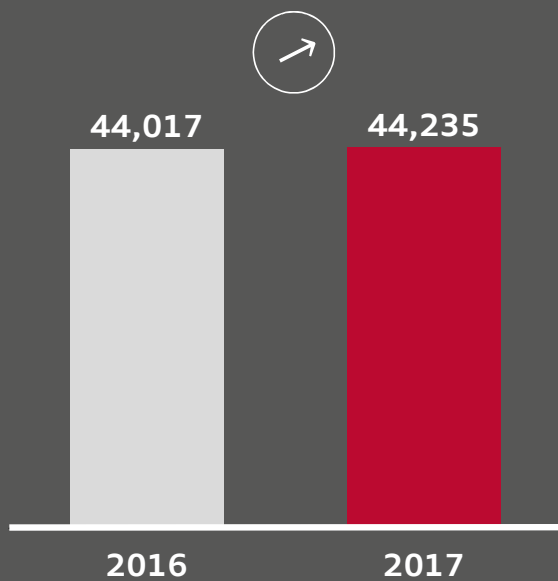


## Q1-Q3/2017: Strong Operating Profit proves high earnings quality...

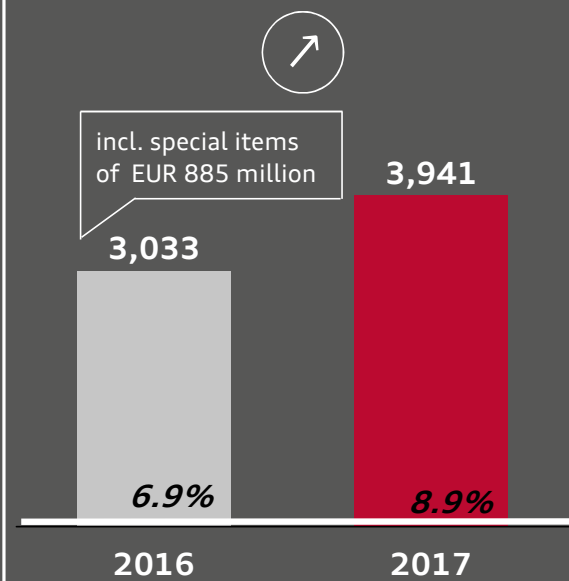
### Audi deliveries (in cars)



### Revenue (in EUR million)



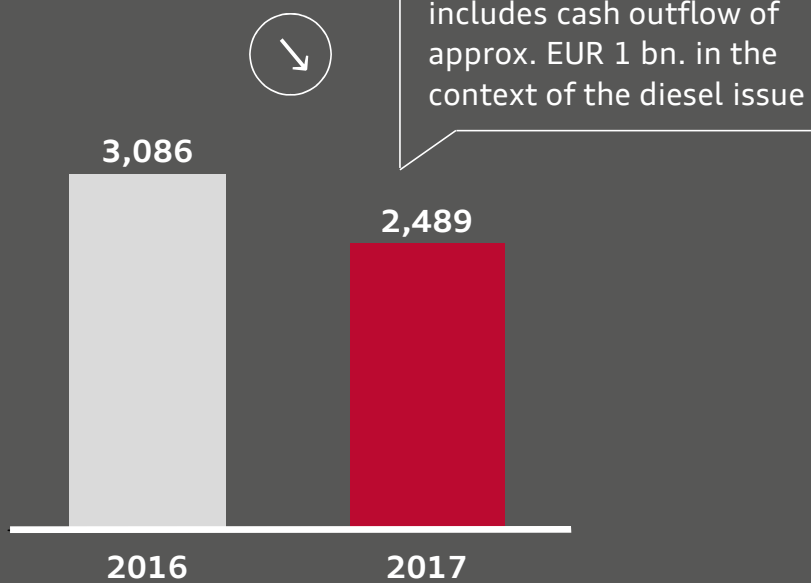
### Operating Profit/ Operating Return on Sales (in EUR million and percent)



## ...and strong Cash flow even withstands high outflows due to the diesel issue

EUR million

### Net cash flow



**19,039**  
(18,160)

### Net liquidity

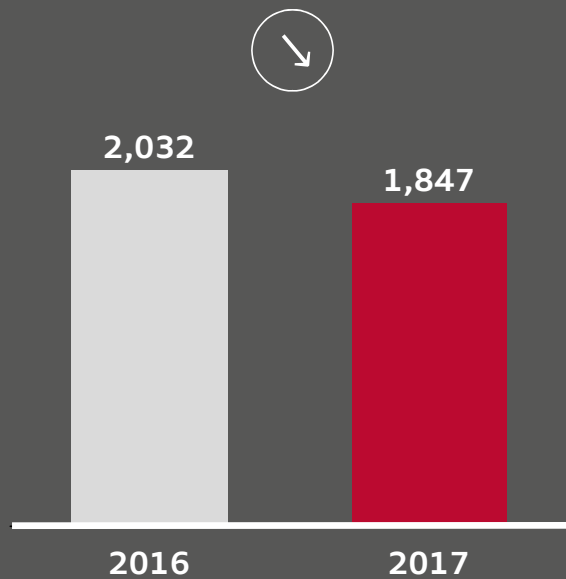
September 30, 2017 vs. September 30, 2016



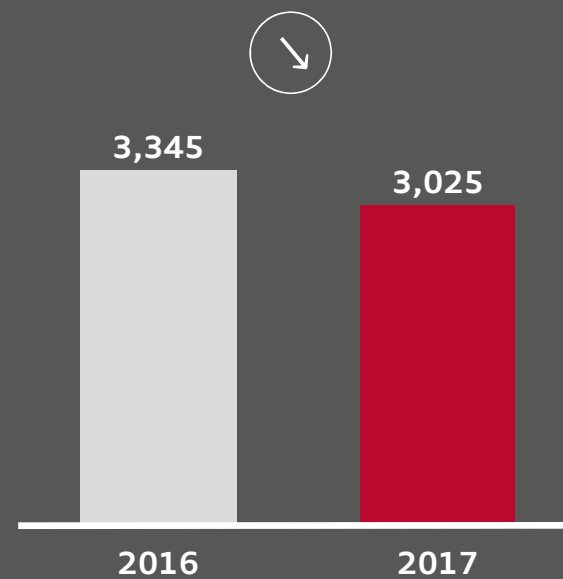
## We put a stronger focus on investment discipline and R&D efficiency

EUR million

### Capex



### Research and development



## Guidance 2017



**Deliveries of cars of the Audi brand to customers**

slight increase



**Revenue**

slight increase



**Operating profit/  
Operating return on sales**

within the strategic target  
corridor of 8 to 10%



**Return on investment**

within a range of 15 to 18%



**Net cash flow**

positive, but significantly below previous year  
level due to outflows in the context of diesel issue



**Ratio of capex**

moderately above the strategic target corridor  
due to model start ups in higher segments



**Research and  
development ratio**

slightly above the strategic  
target corridor of 6.0 to 6.5%

*Financial long  
term targets  
2025*

*8 to 10%*

*21%*

*positive*

*5.0 to 5.5%*

*6.0 to 6.5%*



## Upcoming product launches will give further impetus for volume growth

launched in  
2016/2017



planned in  
2018



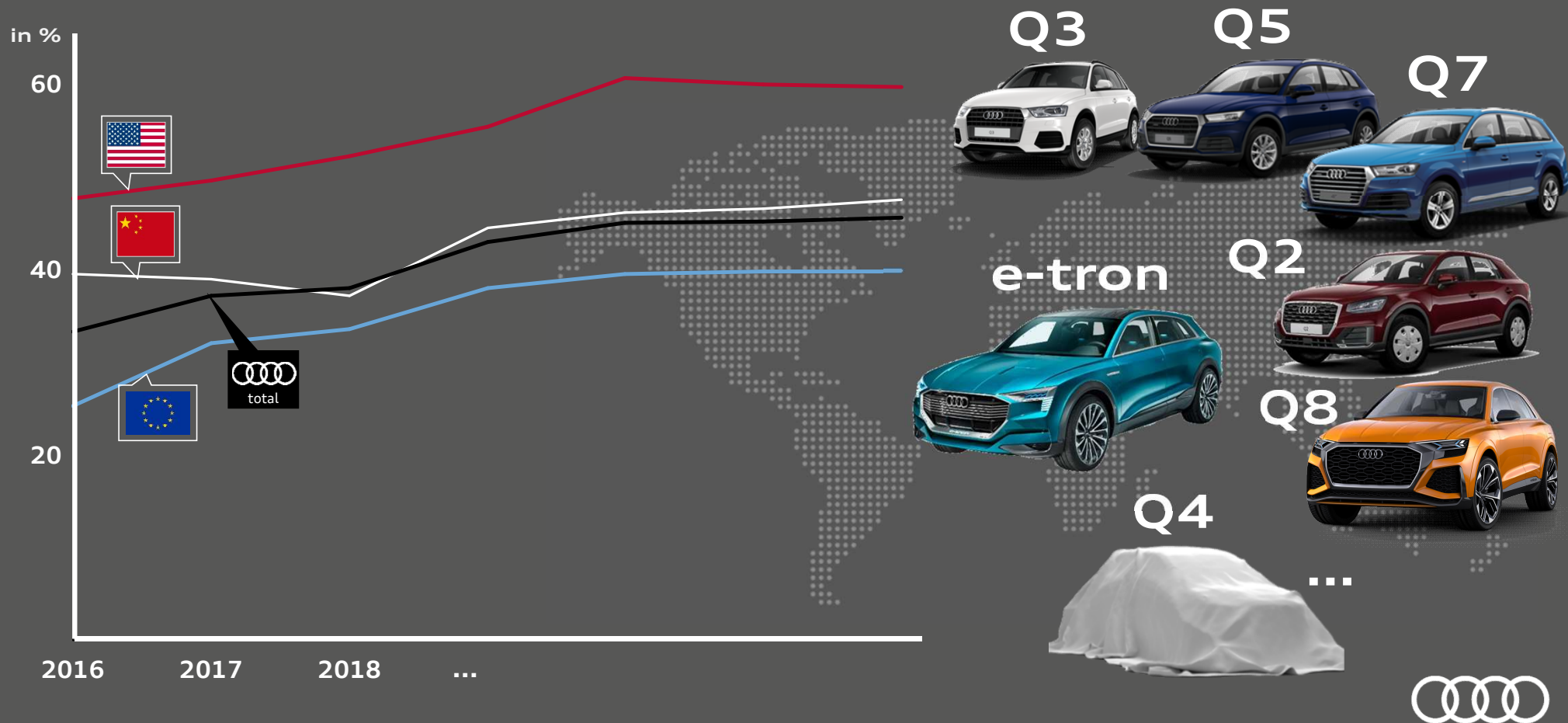
planned in  
2019f



...and  
**more**  
to come



## Already at a high level, we aim at even increasing our SUV-ratio



AUDI AG, Evercore ISI Fieldtrip

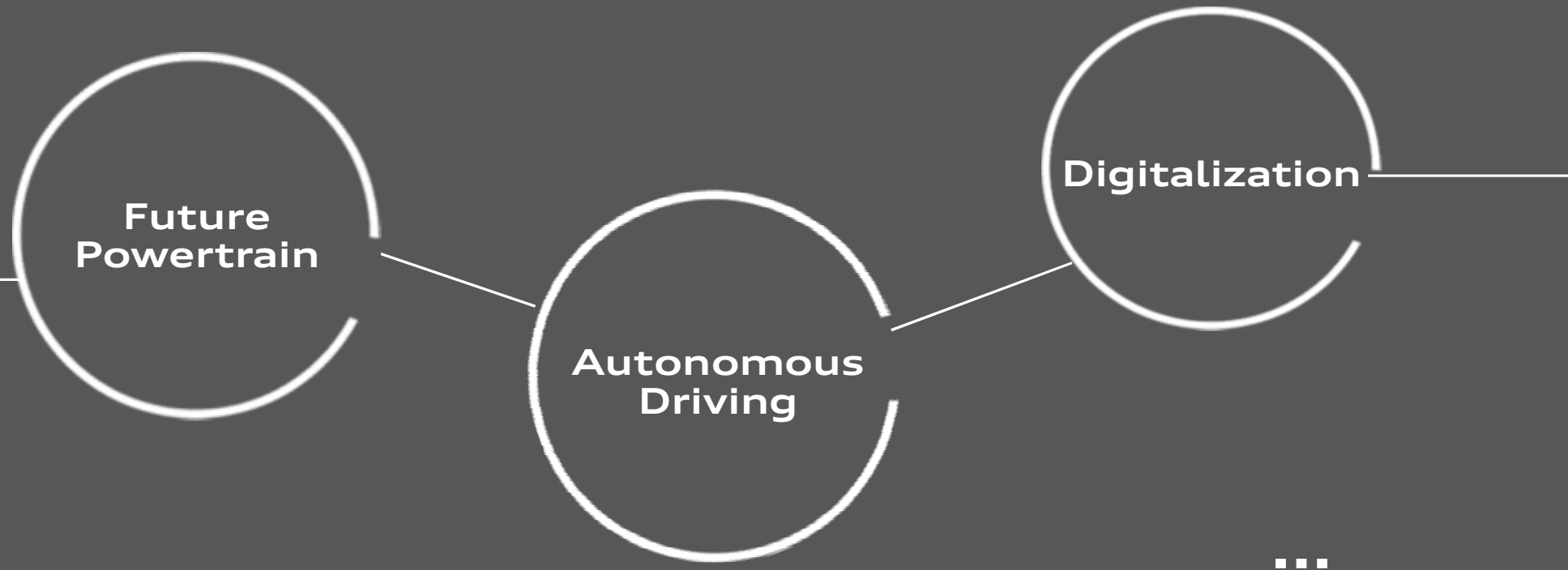
Coming up in 2018: With the Audi e-tron we will change the electric game



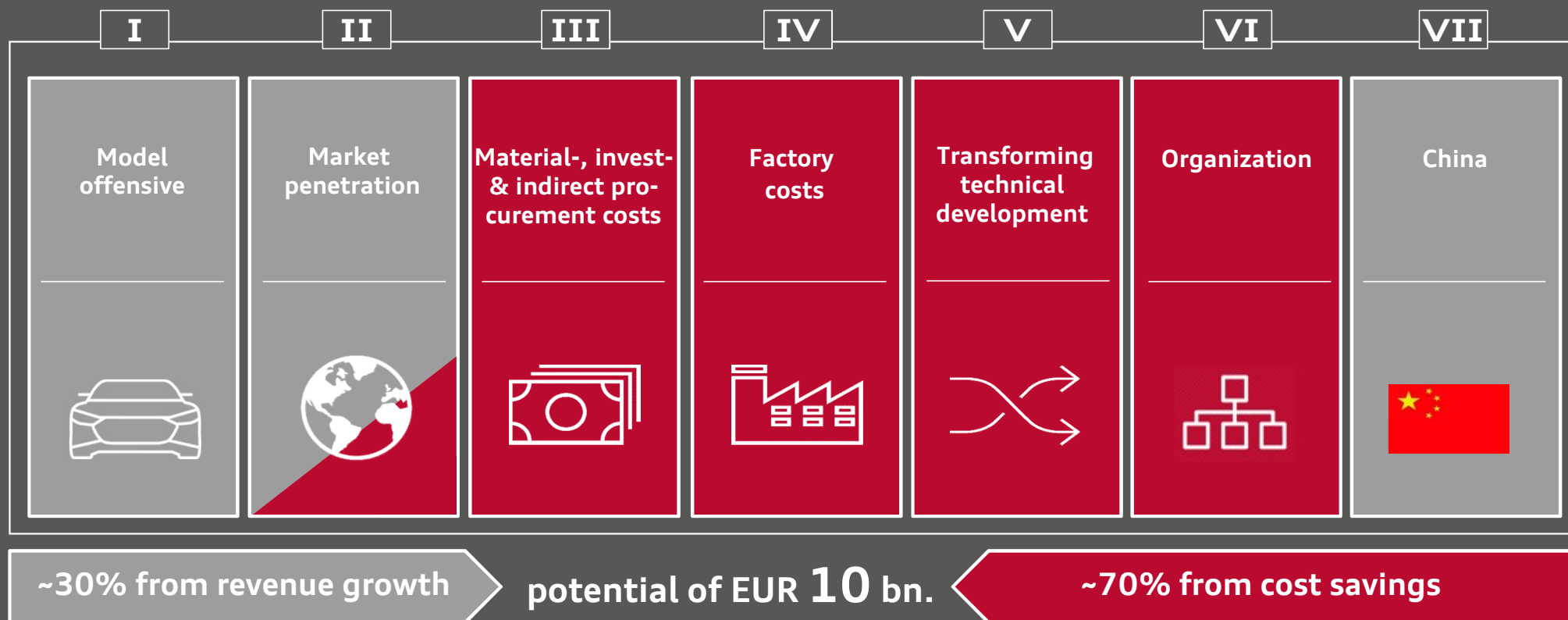
**e-tron**  
with a  
**range** of more than  
**500** km

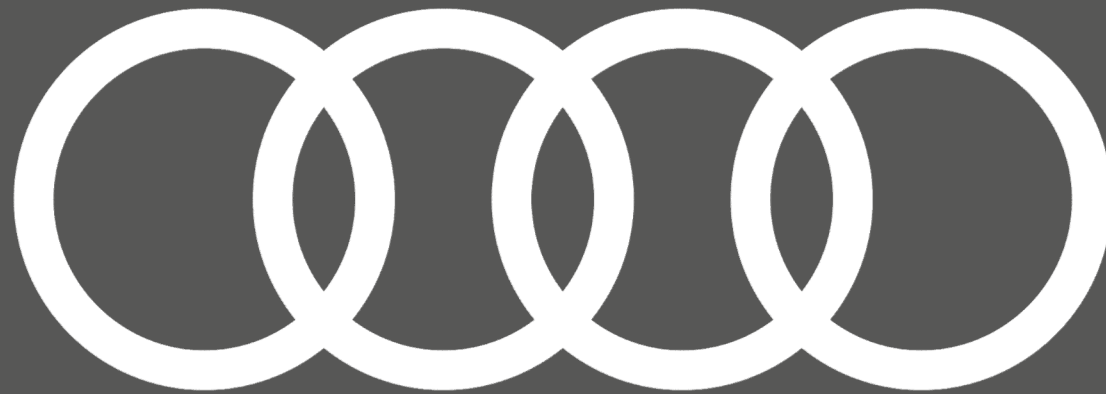


## Focus areas of our strategy 2025 need to be financed...



...and the “Angriffsplan” will help us to stabilize our margins





**Vorsprung remains our promise!**





**Dr. Roland Villinger**

CSO/ CDO, AUDI AG

## The Audi Angriffsplan is the foundation for successfully implementing our Strategy 2025

### Audi. Vorsprung. 2025.



Digitalization



Sustainability



New/ Urban Mobility

Audi. Vorsprung. 2025.



### Audi Angriffsplan

I  
Modell-  
offensive

II  
Markt-  
durch-  
dringung

III  
Material-,  
Invest- &  
ind. Ein-  
kaufskosten

IV  
Fabrik-  
kosten

V  
TE Trans-  
formation

VI  
Organi-  
sation

VII  
China

€ 10  
billion

### Audi SPEED UP!



2016

2017

2018

2019

2020

2021

2022

2023

2024

2025

## The Audi Angriffsplan is the foundation for successfully implementing our Strategy 2025

**Audi. Vorsprung. 2025.**



**Digitalization**



**Sustainability**



**New/ Urban Mobility**

Audi. Vorsprung. 2025.



**Audi Angriffsplan**

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China

€ 10  
billion

**Audi SPEED UP!**



2016

2017

2018

2019

2020

2021

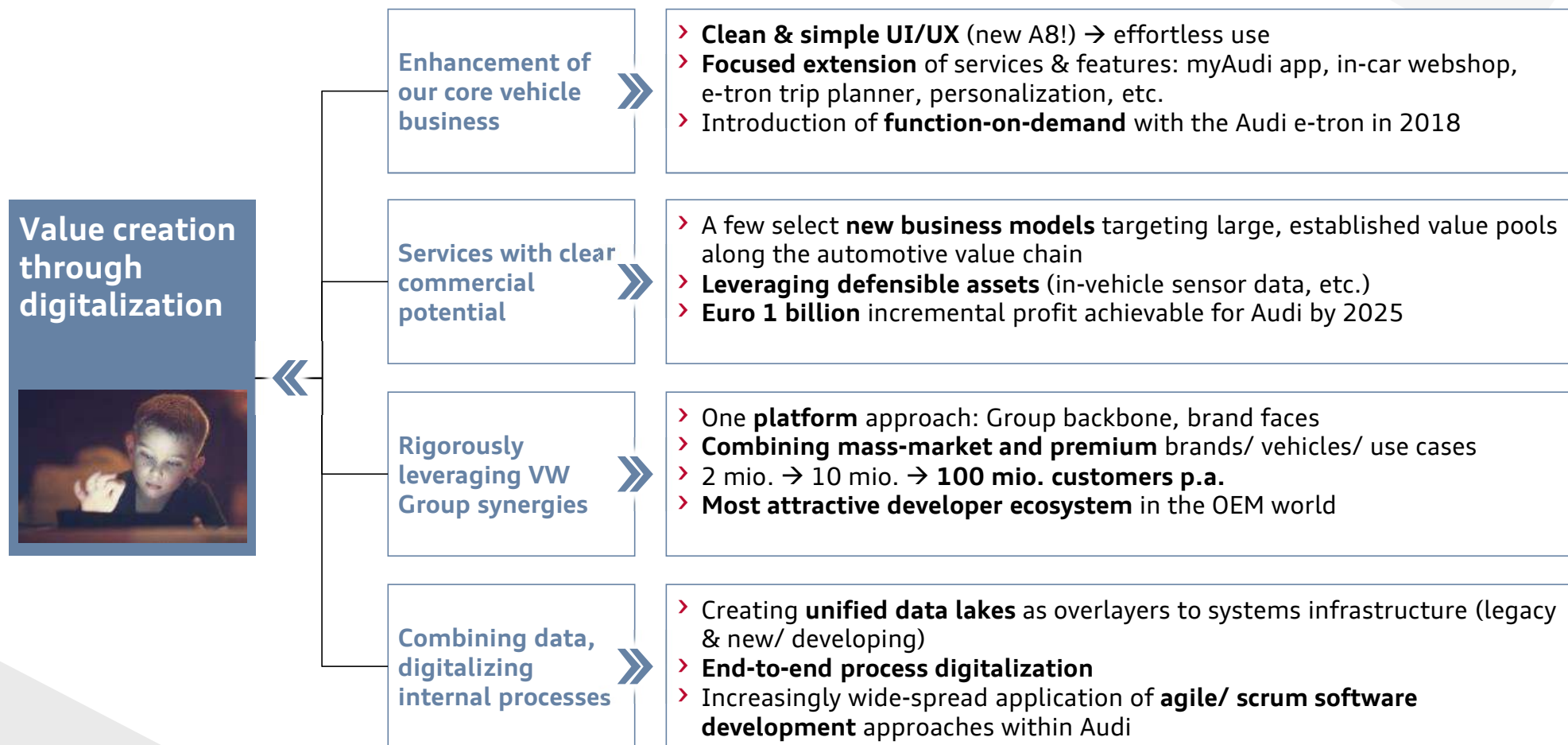
2022

2023


2024

2025

## Audi's Strategy Pillar #1: Digitalization – effortless use, commercial success



## Online Used-car platform – live since October 2017

 Ihr Fahrzeugkauf bei Autohaus Luft

A7 Sportback 27.950,00 Euro

Fahrzeugdetails ausblenden

Übersicht

Bilder

Fahrzeug


Händler

# Audi A7 Sportback

3.0 TDI quattro 150 kW (204 PS) S tronic

Anzahlung inkl. Lieferung  
6.579,00 Euro

z.B. Rate à 36 Monate bei 20% Anzahlung  
814,14 Euro<sup>1</sup>




## Kaufen Sie jetzt Ihren Audi A7 Sportback

Überprüfen Sie alle Daten und banjo tote bag bicycle rights, High Life sartorial cray craft beer whatever street art tap

Restwertschätzung Anpassen

Audi A6 2.0 TFSI, bis zu 12.500 Euro Restwert



Lieferung an Ihr Wunschadresse Anpassen


Alle Informationen zur Zulassung erhalten Sie per E-Mail nach Kaufabschluss

Lieferadresse

Unnastraße 24,  
20146 Hamburg

Lieferttermin

Vereinbarung durch Spedition


 Till Kressin Hilfe

## Herzlichen Glückwunsch zu Ihrem neuen Audi A7, Till Kressin


**Freuen Sie sich schon jetzt auf die erste Fahrt.**

Wir bereiten Sie optimal darauf vor.

Sie erhalten eine E-Mail zur Bestätigung Ihrer Bestellung und Übersicht aller nötigen Dokumente an [till.kressin@gmail.com](mailto:till.kressin@gmail.com)



**Ihr Audi A7 steht am 15. Juni 2017 um 14.30 Uhr für Sie abholbereit**

 **Checkliste für die Übergabe**  
PDF herunterladen >

Anfahrtskizze zum Autohaus

### Wartung und Inspektion

Ihr Audi in sicheren Händen. Entdecken Sie die Vorteile der Wartung und Inspektion von Audi.

**Paket buchen**

**Entdecken Sie myAudi**

Banjo tote bag bicycle rights, High Life sartorial cray craft beer whatever street art tap. Hashtag typewriter banh mi.

**Lorem ipsum dolor sit**

## Audi's strategy pillar #2: Sustainability – making money with electrification

### Value creation with electric/ new energy vehicles



#### Tailored yet cost-effective platform approach



- › Split-platform approach: **best vehicle per technology** (ICEs, NEVs) – leadership in customer value
- › Move towards **100% use of Group EV platforms**: PPE with PAG (-30%!), MEB with VW
- › **Smart, low-cost derivatization**

#### Leveraging VW Group synergies for EV batteries



- › VW Group collaboration and **synergy capture across the entire battery value chain**
- › Coordination of **procurement consistently leveraging VW Group scale**, starting from raw material sourcing
- › **Clear allocation of competences/** know-how development

#### Leadership in rapid development of long-distance charging networks



- › **Europe: 400 fast-charging locations** with Ionity alliance by end of 2020
- › **USA: 290 locations with Electrify America** by end of 2019, technology in line with European approach
- › China: also moving forward aggressively ...

#### Technology solutions for mix optimization over time



- › **Unique strength in CNG** as potential diesel 'bridging'
- › Small series production of **fuel cell** vehicles in early 2020s
- › **E-fuels solutions** depending on cost, scalability and regulatory developments
- › **Audi development lead** within VW Group

## Growth of Audi`s electrified vehicle portfolio through a synergistic platform strategy

» *≥ 20 electrified vehicles*  
» *≥ 10 full electric vehicles*

Fully electric vehicles

**PPE**  
Group platform



**MEB**  
Group platform



**e-tron**



**Derivatives**

Hybrid vehicles



**A3 Q7 A6L**



**A8 Q5**



...

*100% electric vehicle\* portfolio*

2016

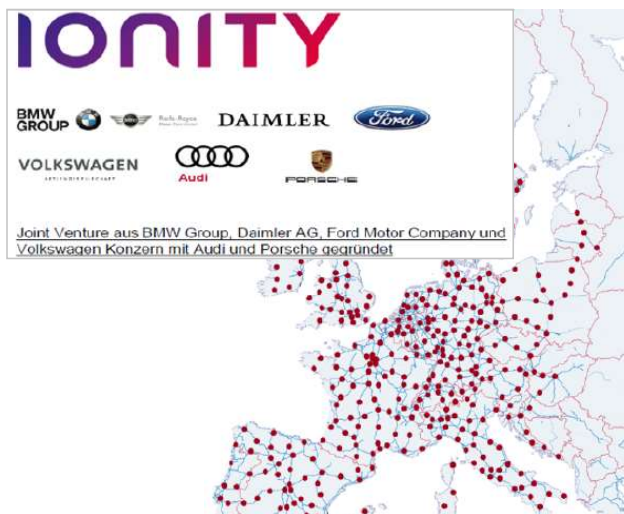
2020

2025

\* At least mildhybrid

## Audi together with other OEMs is driving the rapid development of long-distance charging networks

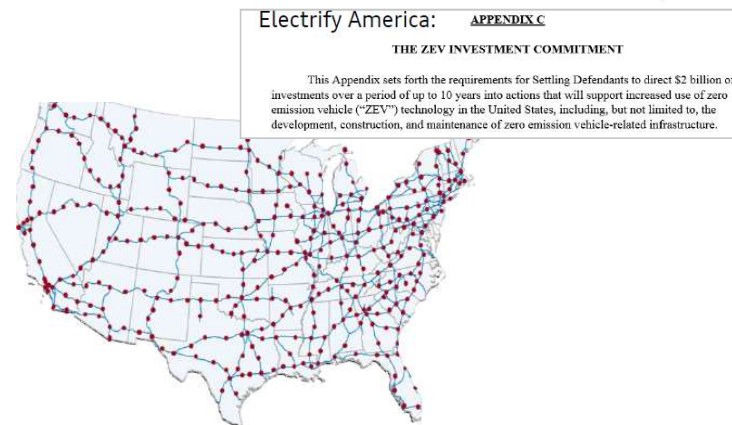
### EUROPE



**400 locations until end 2020**

- › Several thousand **charging points**
- › Up to **350kW** per charging point (**200-920 V**)
- › Several location partners like Shell, Tank&Rast, OMV got into IONITY as well

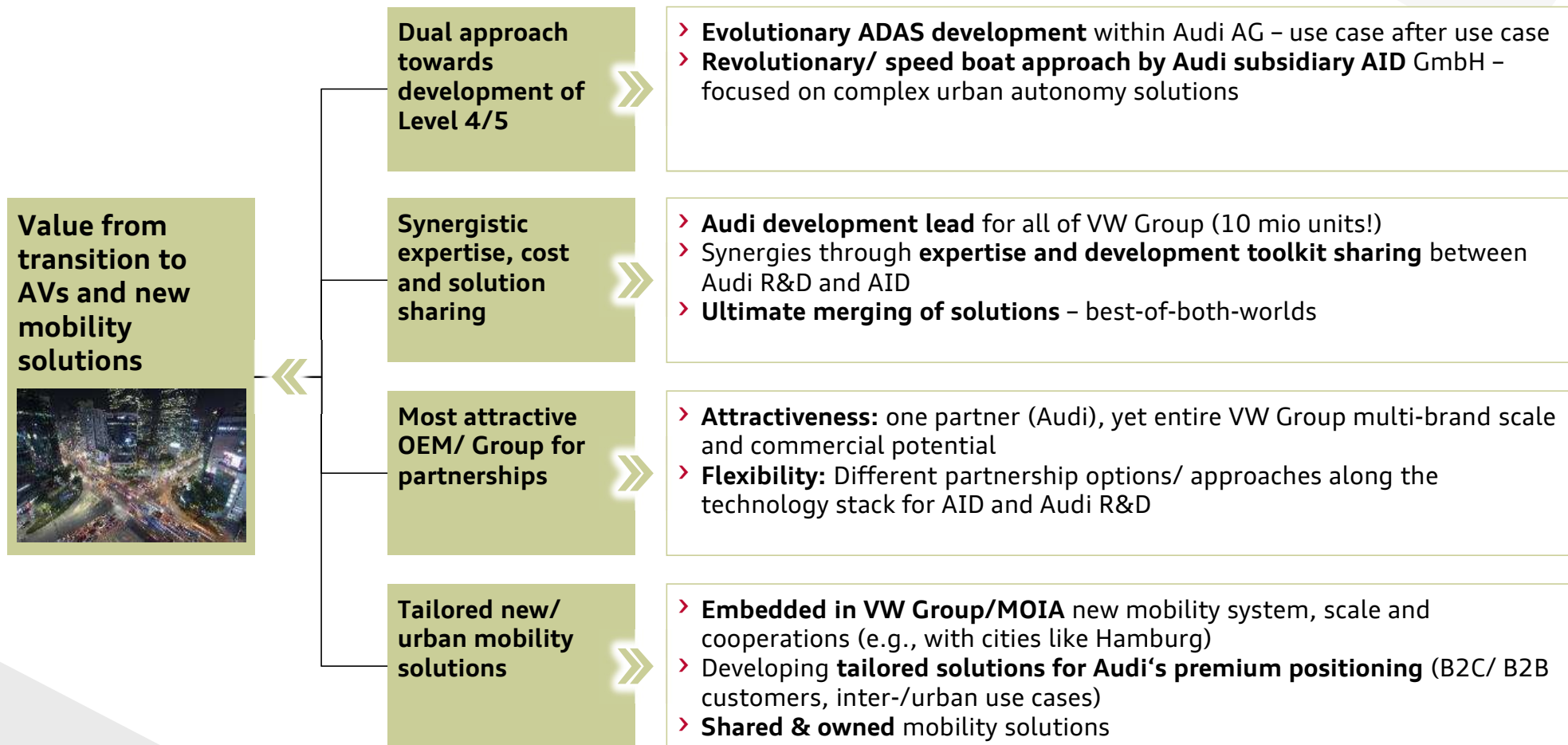
### USA



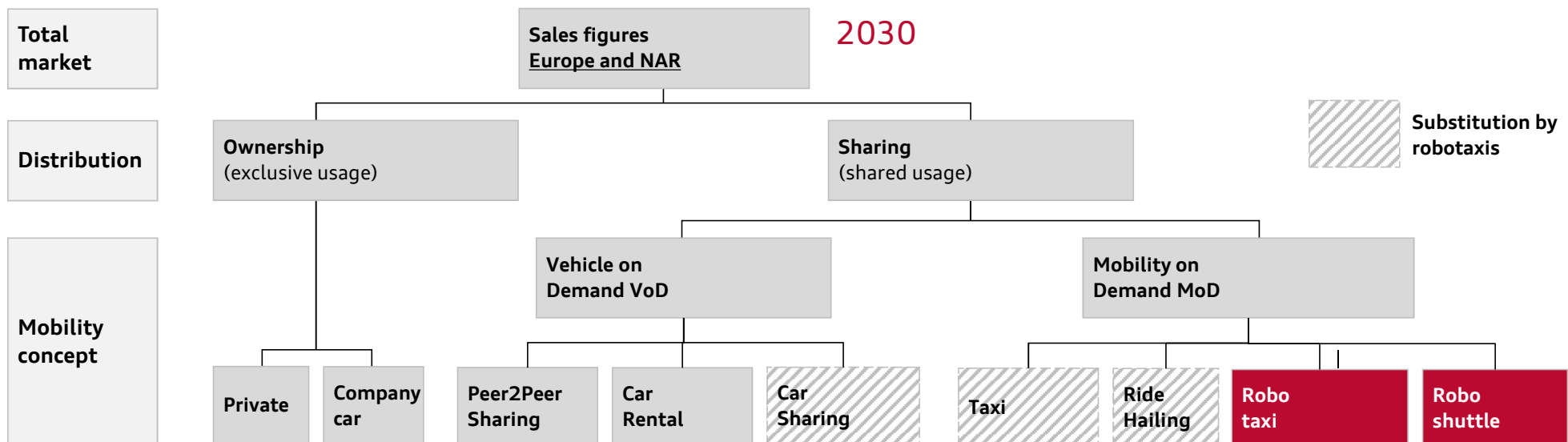
**290 locations until end 2020**

- › Technology approach analog Europe
- › **Further extension planned**

## Audi's strategy pillar #3: Autonomous driving & new/ urban mobility solutions



## Until 2030 conventional mobility concepts will be largely substituted by robotaxis and shuttles



- › Car Sharing, Taxis and Ride Hailing will be substituted by robotaxis
- › Company cars will increasingly be replaced by mobility concepts for employees
- › Car rental has still significance in the interurbanen area

## Strategic Mobility Partnership Hamburg – Start 2018

### Strategic Mobility Partnership with Hamburg

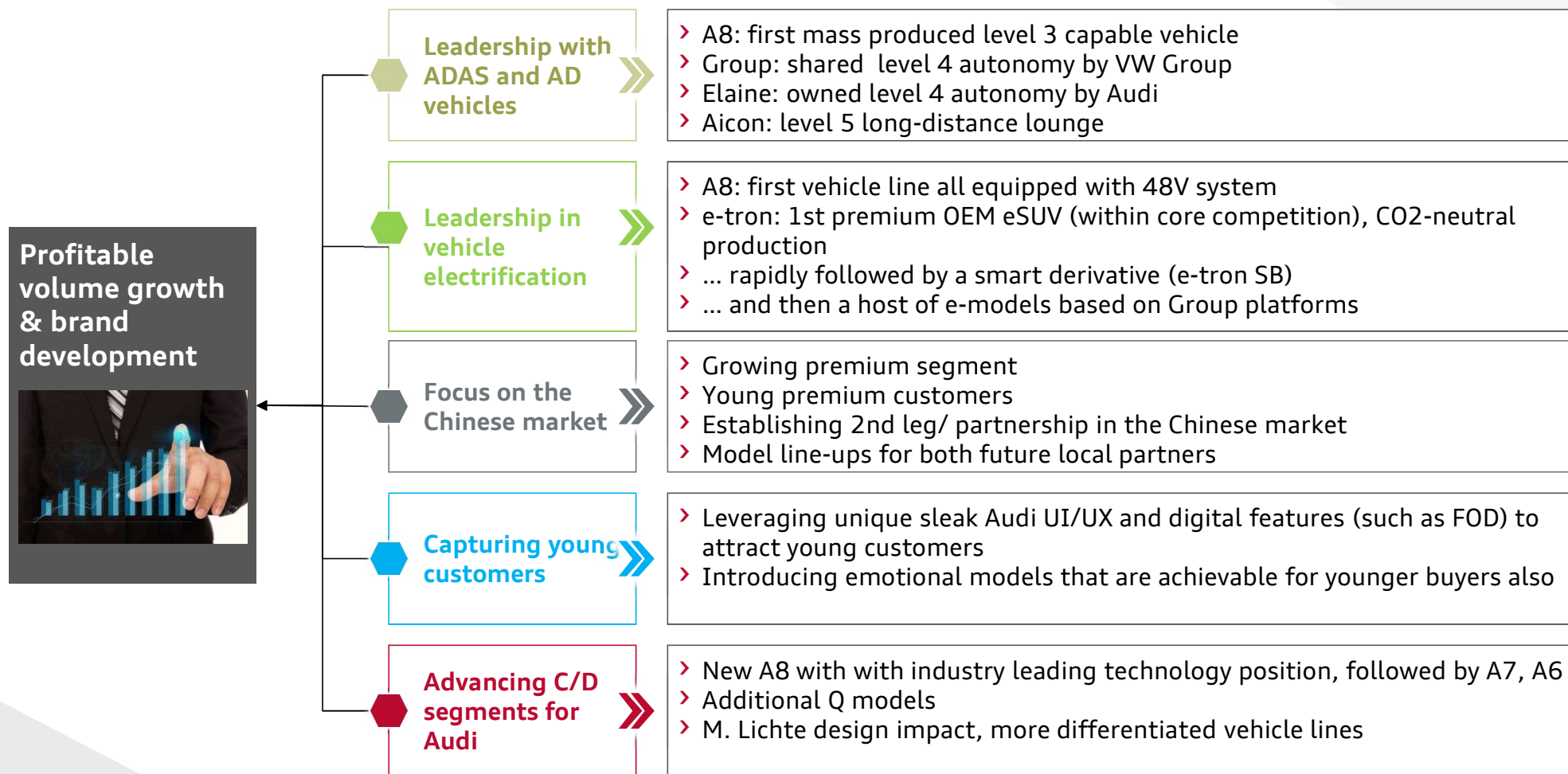
- › Urban mobility concepts
- › Intermodality
- › Traffic management
- › Autonomous driving and parking
- › Innovative vehicle concepts
- › Air monitoring initiative



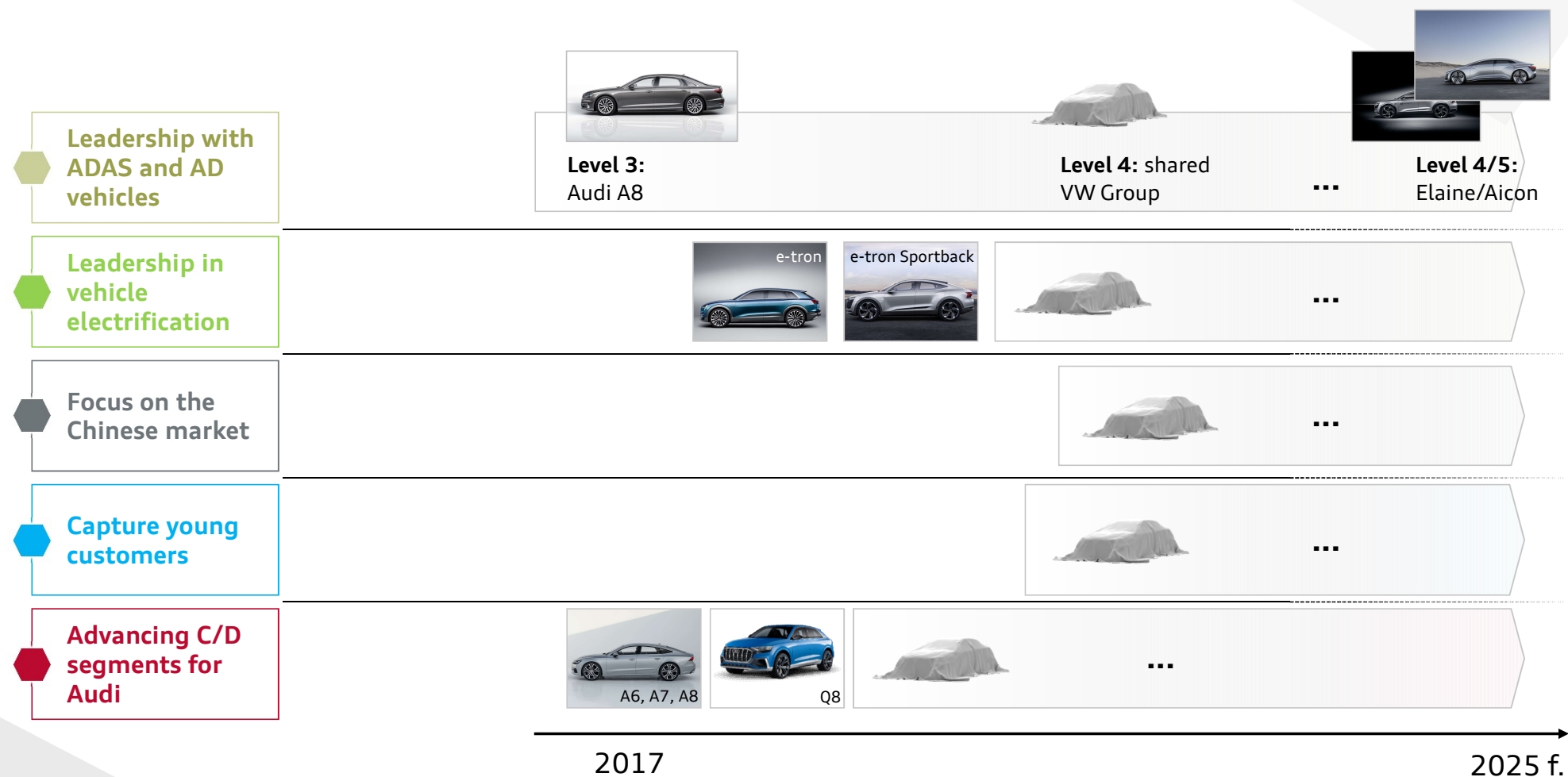
### Establishing a mobility provider based on ride hailing/ pooling

- › Go live in 2018 with full electric vehicles
- › Establishing a mobility provider and customer base as basis for further robotaxis
- › Rides are booked via Smartphone App and shared with other passengers
- › Algorithm optimizes driving routes to increase efficiency and reduce detours
- › Costs for the customer will be lower than taxi

## Developing Audi's vehicle portfolio – reconfirming “Vorsprung durch Technik”



## Audi's product roadmap is well aligned with our corporate & brand strategy



**Audi's new strategy is translated in tangible value for our customers and we're already delivering against it — 'Vorsprung durch Technik'**

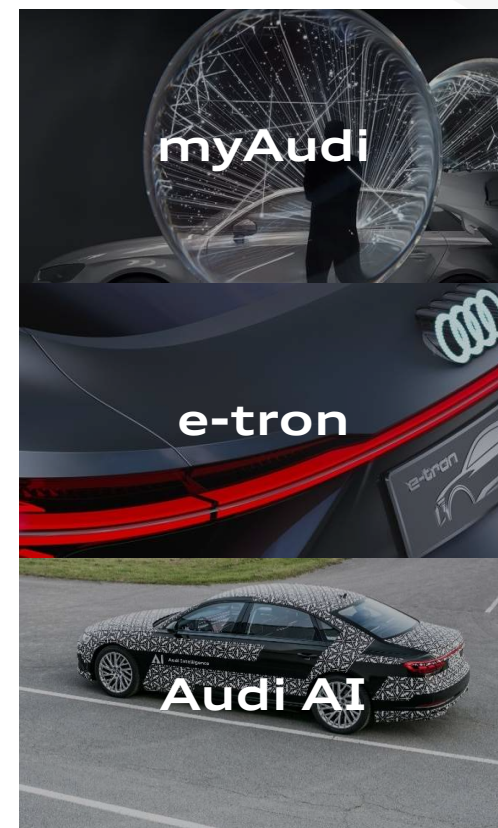
## Audi Origins



## Changes



## Audi tomorrow



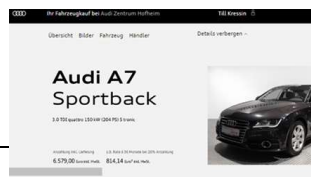
TRANSFORMATION

# Audi's new strategy is translated in tangible value for our customers and we're already delivering against it — 'Vorsprung durch Technik'

## Audi Origins

## Changes

## Audi tomorrow



Online-Used car platform live since October 2017



Audi g-tron powered with e-gas (2014)



Piloted driving at level 3 in our new Audi A8 (2017)



100 Audi VR Experience equipped dealers until end of 2017



≥ 20 fully/ partly electrified vehicles until 2025



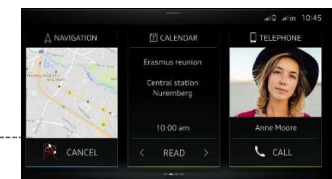
AID GmbH for enabling Level 5 (founded 2017)



IntroductionFoD with Audi e-tron (2018)



Releasing h-tron small series



Personal Intelligent Assistant (PIA)

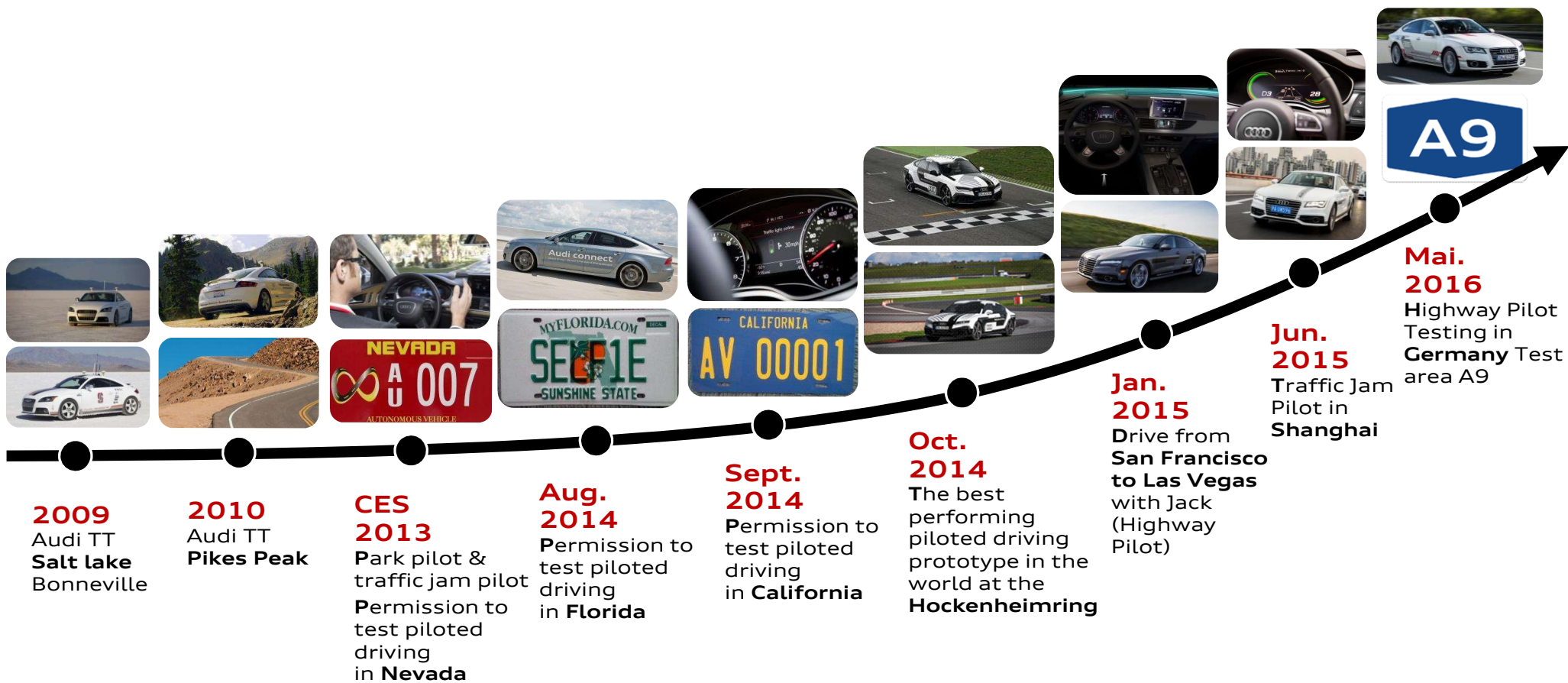
TRANSFORMATION



**Mirko Reuter**

Head of Automated Driving Functions, AUDI AG

## achieved milestones



## automated driving as an influence on megatrends

### 1 Enhanced safety



### 2 Eco-friendly driving



### 3 More comfort for the customer



### 4 Efficient use of the transportation infrastructure



automated  
driving



## broad range of driver assistance functions already in production today

### Standard features

- › Hold assist
- › Audi pre sense basic
- › Audi pre sense city
- › Park assist rear
- › Adjustable speed limiter
- › Cruise control system
- › Break recommendation function

### Tour assistance package

- › Turn assist left
- › Adaptive cruise control
- › Audi active lane assist
- › Audi pre sense front
- › Obstacle avoidance assist
- › Camera-based traffic sign recognition
- › Predictive efficiency assistant
- › Traffic jam assist

### City assistance package

- › Audi side assist
- › Exit warning
- › Audi pre sense rear
- › Park assist plus
- › Rear cross-traffic assist
- › Reversing camera

### Additional options

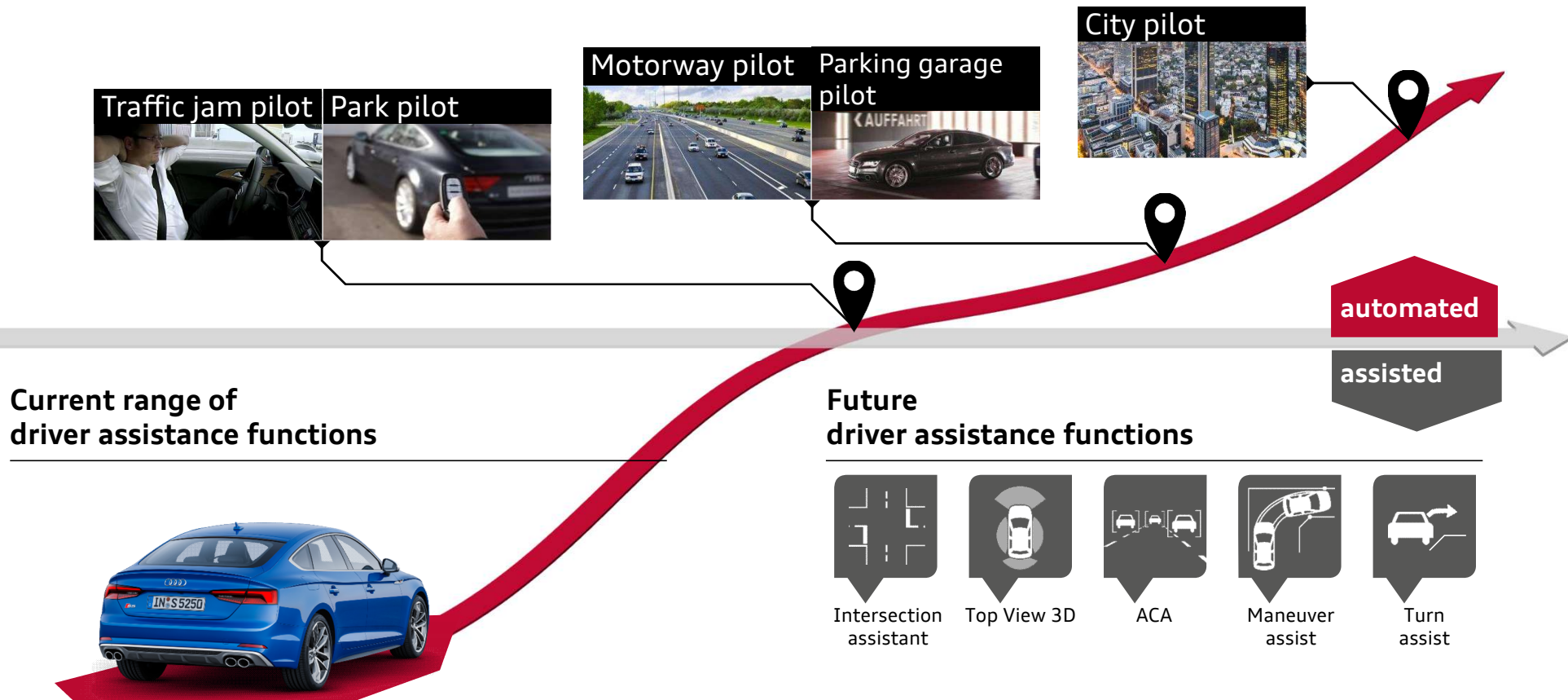
- › Trailer assist
- › Main beam assist
- › MMI navigation plus with MMI touch
- › Night vision assistant

### Parking assistance package

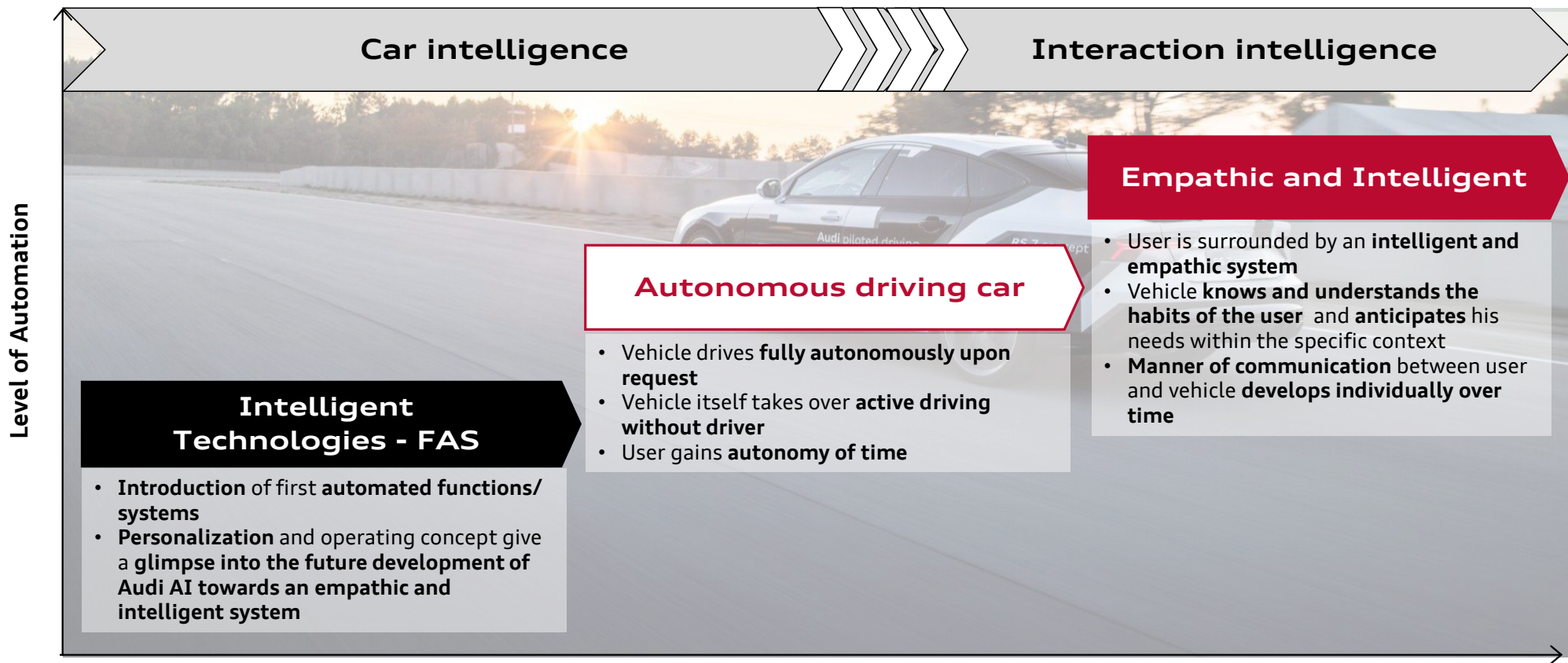
- › Surroundings camera
- › Park assist



## evolutionary advanced development driver assistance & automated functions



# Audi Intelligence

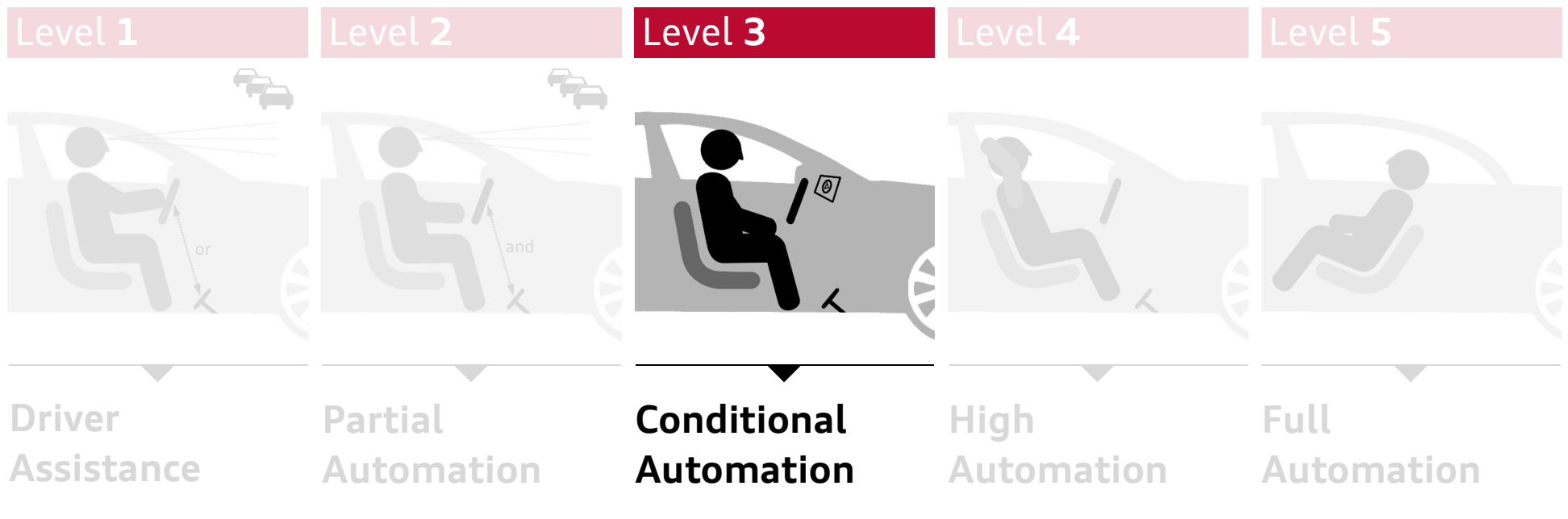


Yesterday to the Future

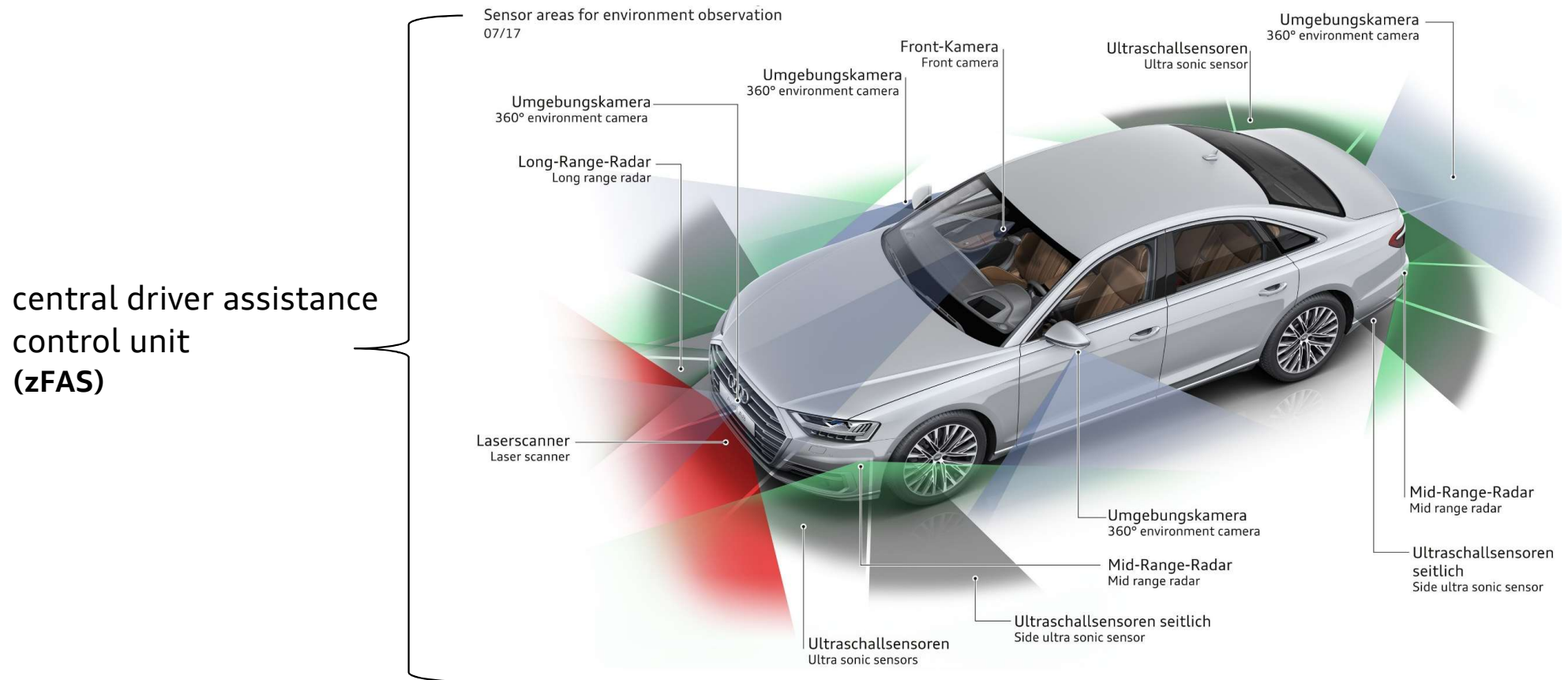


## levels of driving automation (SAE international)

each evolutionary stage will relieve the driver more



## the new A8 has been developed for conditional automated driving (level 3)



## the new A8 has been developed for conditional automated driving (level 3)



In 2018 we will gradually start to put the automated functions into series production.

---

**Legal framework**  
(road traffic laws)



**Technical regulations**  
(type approval / homologation)



## the new A8 has been developed for conditional automated driving (level 3)



In 2018 we will gradually start to put the automated functions into series production.

---

### Legal framework (road traffic laws)



- › **National road traffic laws** regulate the behaviour of the driver on public roads.
- › Conditional automation: The driver needs to have **the ability** to control his vehicle even if he is not performing the driving task. **National traffic legislation in different countries is currently amended to allow the use of Level 3 systems.**



## the new A8 has been developed for conditional automated driving (level 3)



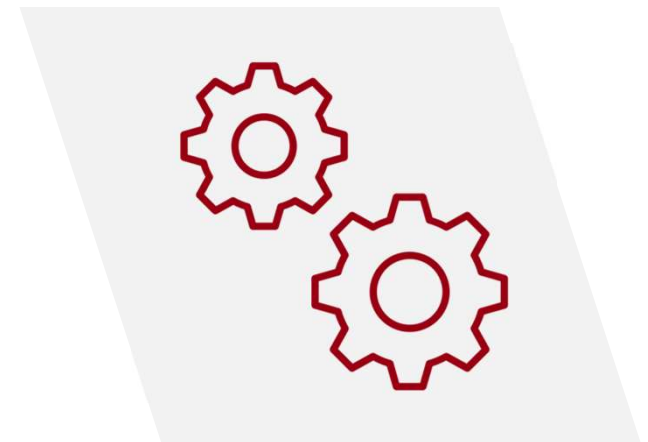
In 2018 we will gradually start to put the automated functions into series production.

---

### > Type approval

leads to the technical certification of the vehicle. The automaker must fulfil various technical regulations in order to gain the necessary approvals.

### Technical regulations (type approval / homologation)



Focus: Technical regulation for the steering equipment (UN-R 79):

- > At present **UN-R 79** is currently under amendment to allow **continuous steering by the system**.
- > The amendment is necessary to address various aspects of automated driving.
- > **Currently** the regulation permits continuous steering **without holding the steering wheel only at speeds not exceeding 10 km/h (6.2 mph)**.





**Silja Pieh**

CFO & Product, Autonomous Intelligent Driving GmbH



# „AUTONOMOUS INTELLIGENT DRIVING GMBH“ (AID) FOCUSES ON FAST-TRACKING THE DEVELOPMENT OF AUTONOMOUS VEHICLES IN URBAN AREAS

1

Audi AG has been a key player in the development of self-driving technology and acts as lead developer in the Volkswagen Group

2

Launched in 03/2017 as a 100% subsidiary of AUDI AG, AID is the center of competence for autonomous driving in the urban area of the Volkswagen Group

3

The technology is to be used in models of the various brands of the Group

**“We see potential for highly automated driving also in the city, where traffic is highly complex; this is the ultimate test for us”**

Prof. Rupert Stadler,  
Chairman of the Board of Management of AUDI AG  
Speech at the Annual Press Conference, March 15, 2017



# SELF-IMAGE OF AUTONOMOUS INTELLIGENT DRIVING GMBH

## MISSION STATEMENT



By 2021, enable mobility services to drive fully autonomously in urban environments. In the future, enable everyone – shared and owned cars – to drive fully autonomously.

## WHAT WE DO



We develop the full software and data service stack together with a hardware specification to enable autonomous driving

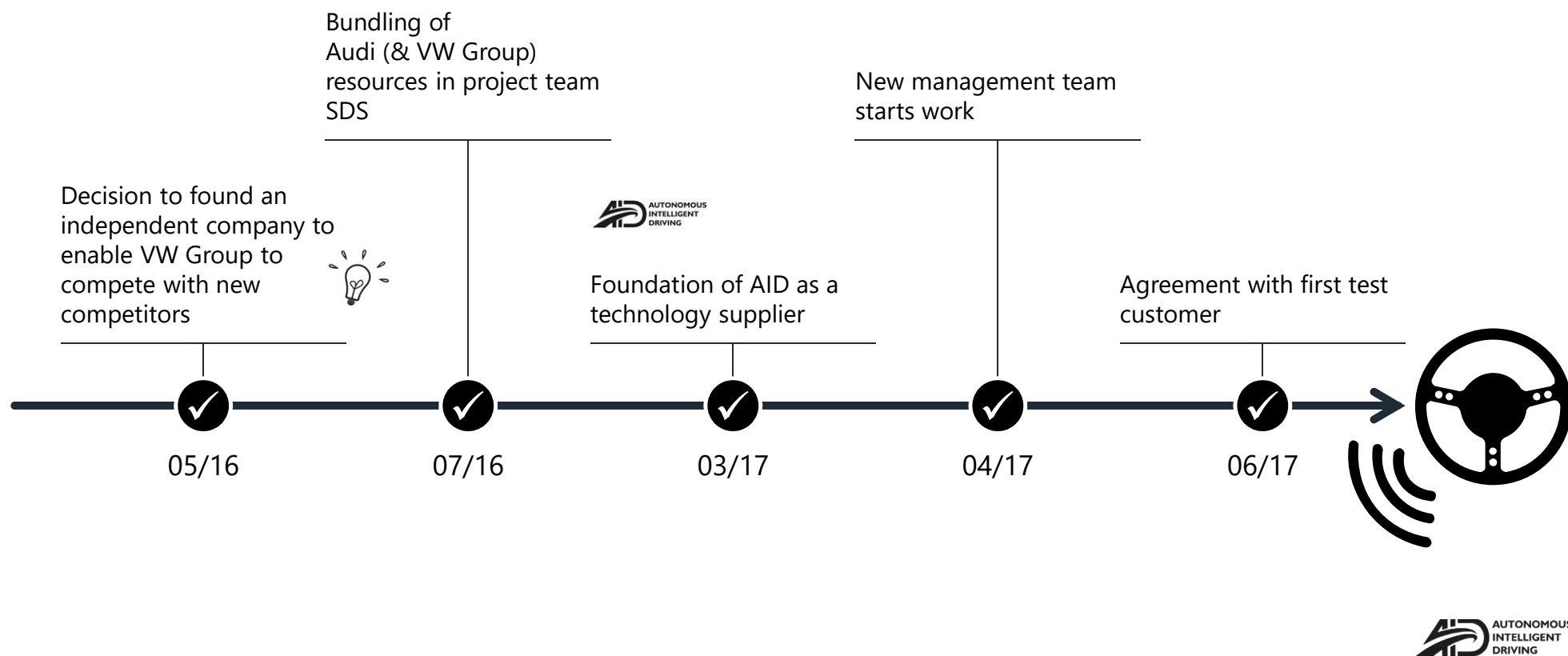
## OUR COMPANY VALUES



Act fast  
Be safe – take risk  
Show passion  
Succeed as a team

## WHAT HAPPENED SO FAR (UNTIL OCTOBER 2017)

IN THE FIRST YEAR RESOURCES WERE POOLED ACROSS AUDI / VW GROUP AND THE NEW COMPANY WAS STARTED



# AID IS CREATING A TRUE STARTUP ATMOSPHERE IN THE HEART OF MUNICH

## THE TEAM IS GROWING DAILY



We bring together experts from all over the world to work in the spirit of a startup at our head office in Munich

## MANAGEMENT TEAM



**Karlheinz Wurm**  
CEO &  
ENGINEERING



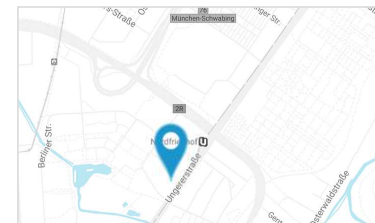
**Silja Pieh**  
CFO &  
PRODUCT



**Dr. Gunther Bös**  
CHRO

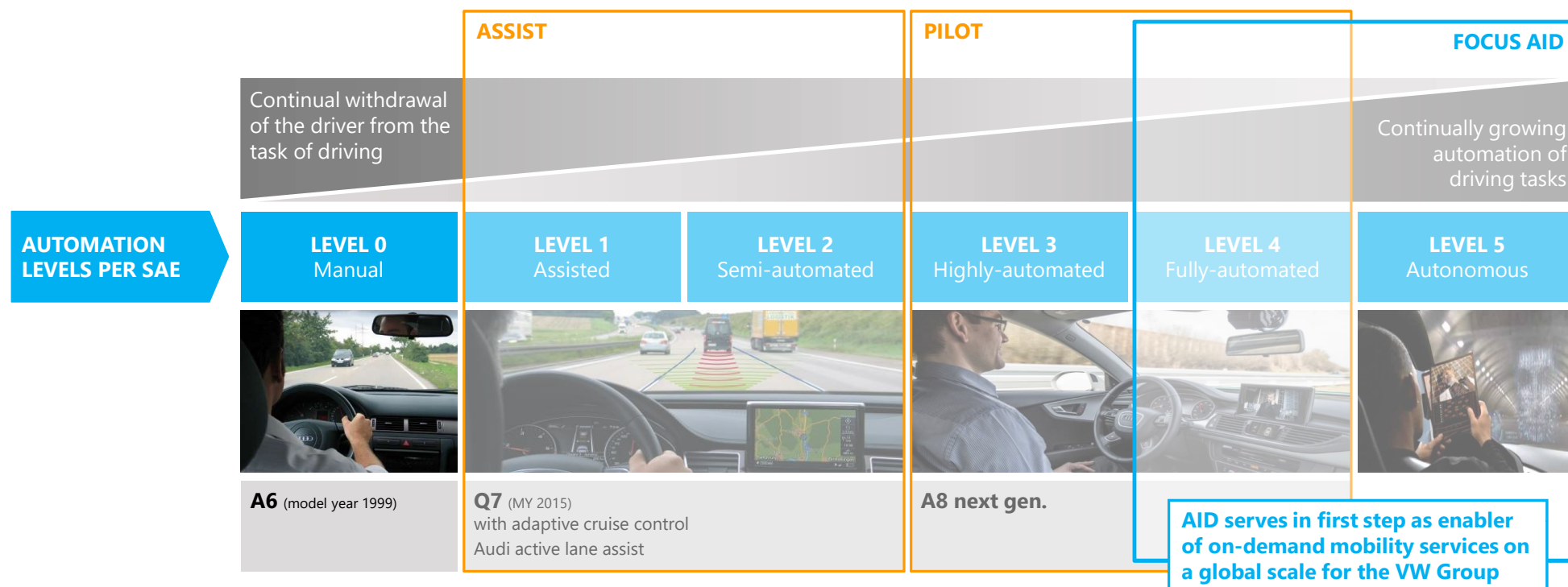


**Alexandre Haag**  
CTO



Top-location in central Munich, modern innovative work space, state of the art building

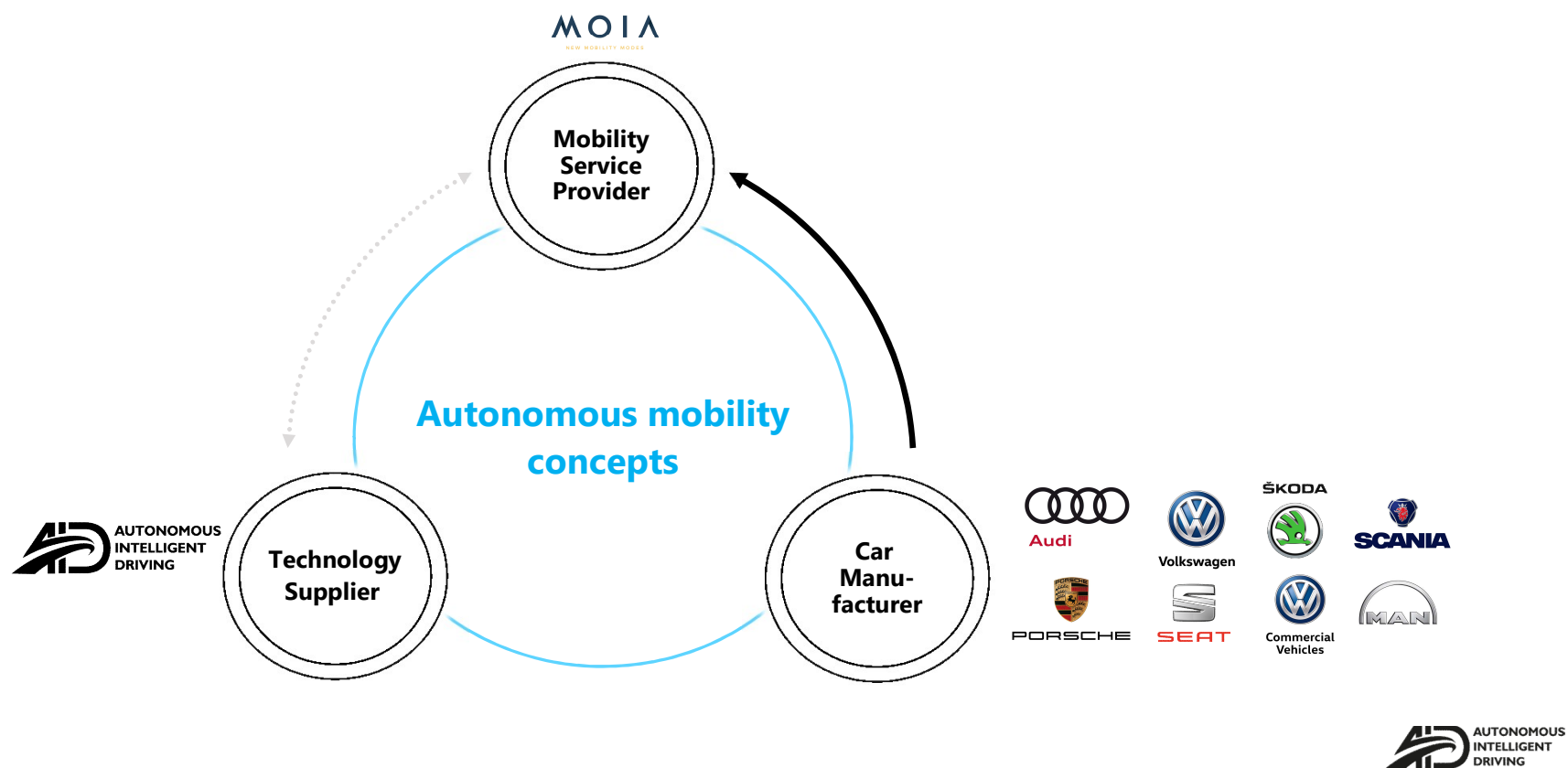
## AID IS LEAPFROGGING TO LEVEL 4+ DIRECTLY



» Initially focused on urban environment and mobility services, our software is also designed to get integrated in ownership cars of the Volkswagen Group

# ROLE OF AUTONOMOUS INTELLIGENT DRIVING GMBH IS TECHNOLOGY SUPPLIER

AID WILL ENABLE AUDI & VW GROUP FOR AUTONOMOUS MOBILITY AND COUNTER THE NEW COMPETITION



# DEVELOPMENT OF AUTONOMOUS DRIVING TECHNOLOGY IN VW GROUP

## 1 Evolutionary development

- » To secure competitiveness in the current business model
- » Further development of pilot driving functions – primary focus: highway

◆ Traffic Jam Pilot

◆ Highway Pilot

◆ City Pilot



Piloted driving

Transfer of knowledge into serial development to shorten the roadmap

Establishment of software expertise

◆ City Pilot / Robotaxi in mobility services

## 2 Need for speed

- » Development of new business areas
- » Transfer of technology and know-how into serial development: additional offer for customers and assurance of urban mobility



Sedric @ VW Group

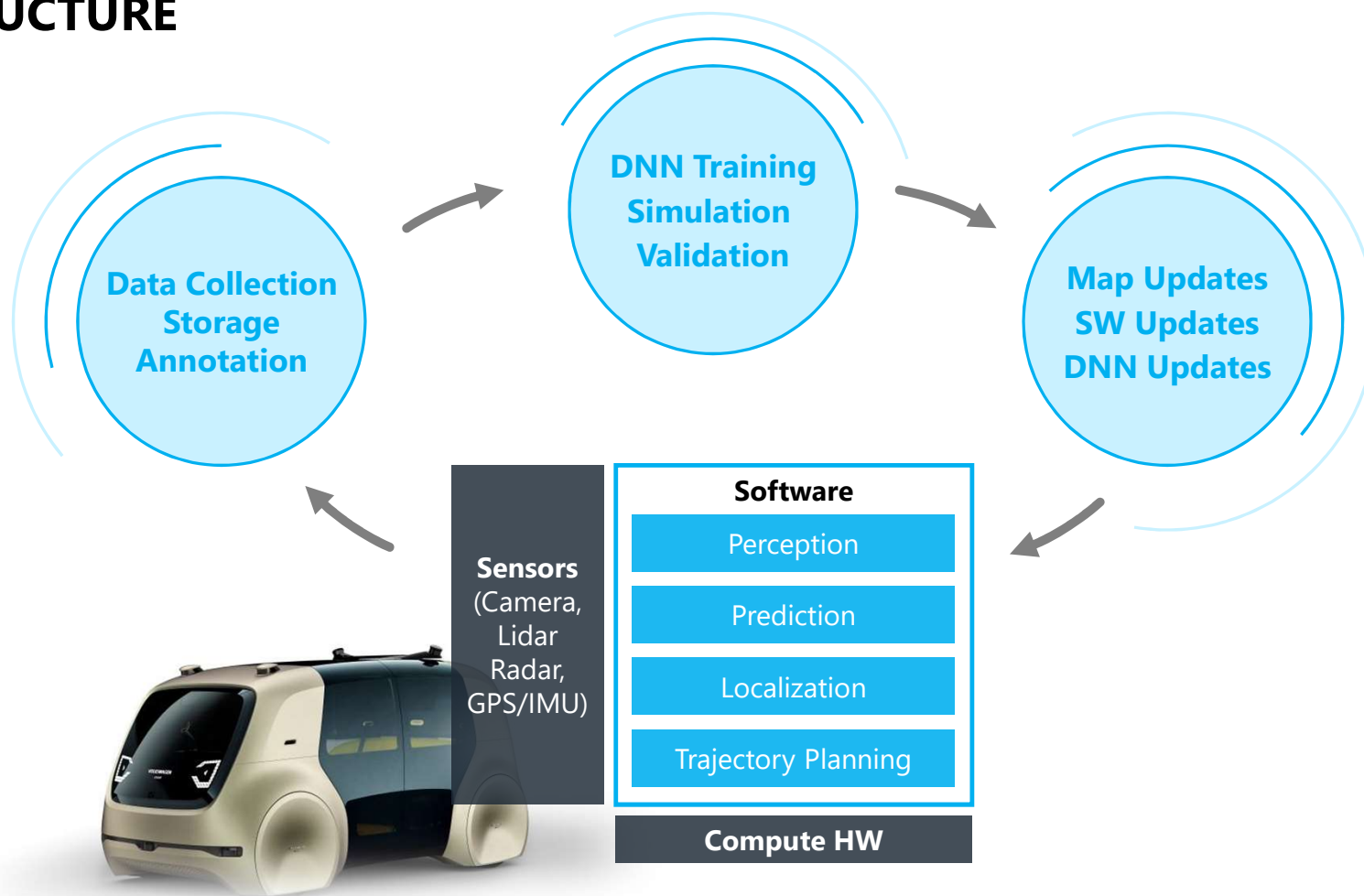


**Serial Development Departments of VW Group Brands**



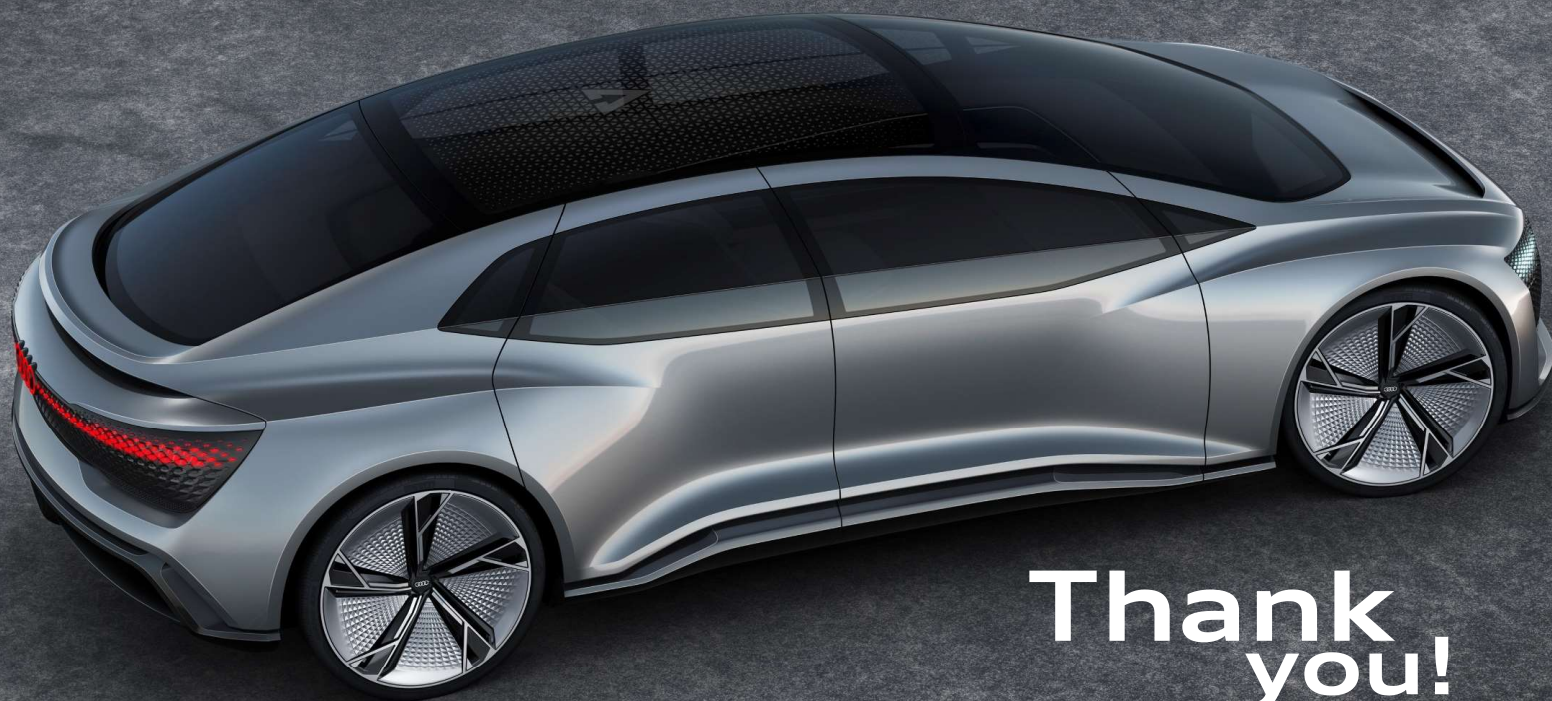
**AID GmbH**

## KEY ACTIVITIES OF AID INCLUDE SOFTWARE ENGINEERING AND INFRASTRUCTURE



## Evercore ISI Fieldtrip

December 6th, 2017



Thank  
you!