From Road to Cloud. From Virtual to Real.

Keynote Speech at KI Wissen Final Event | March 21, 2024

Gilles Mabire

Transformation of Mobility

Global trends revolutionizing the automotive industry

Automated Driving

Cloud Services

Internet of Things

UX Applications

Shared Mobility

36 %

Cars with over-the-air capabilities by 2026

2026

66% of OEMs plan to partner with software firms and system integrator firms

+400 %

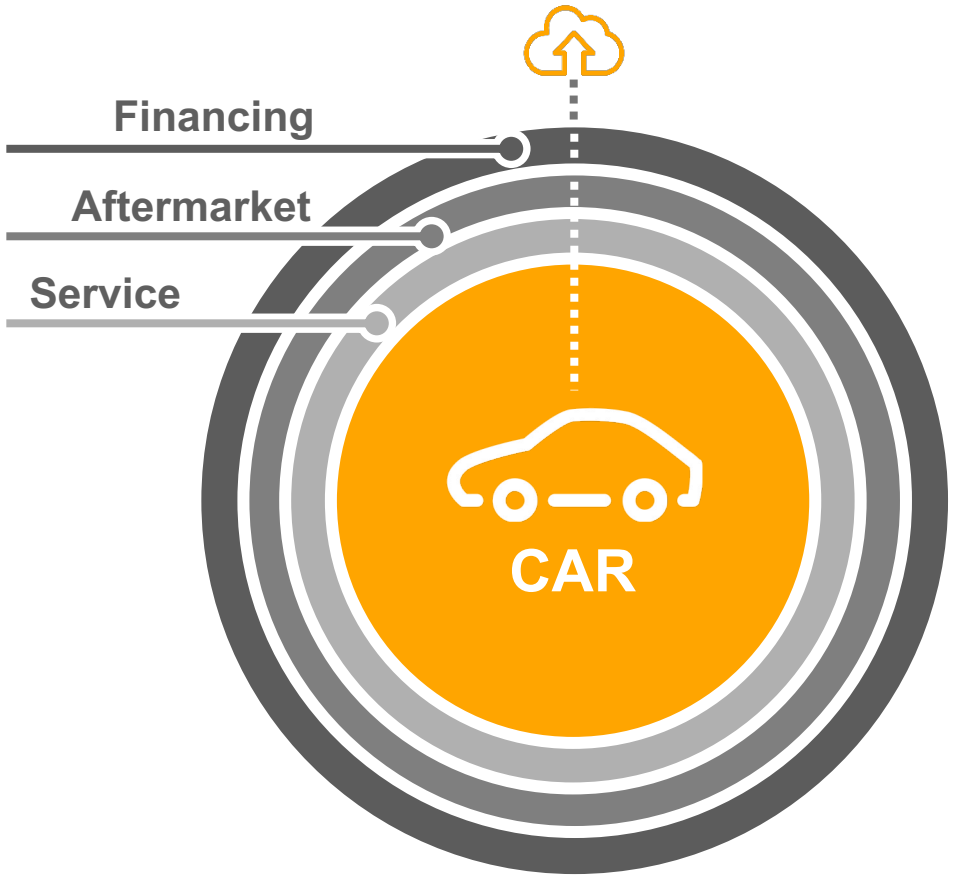
New vehicles based on common software platforms grow from 7% today to 35% by 2031

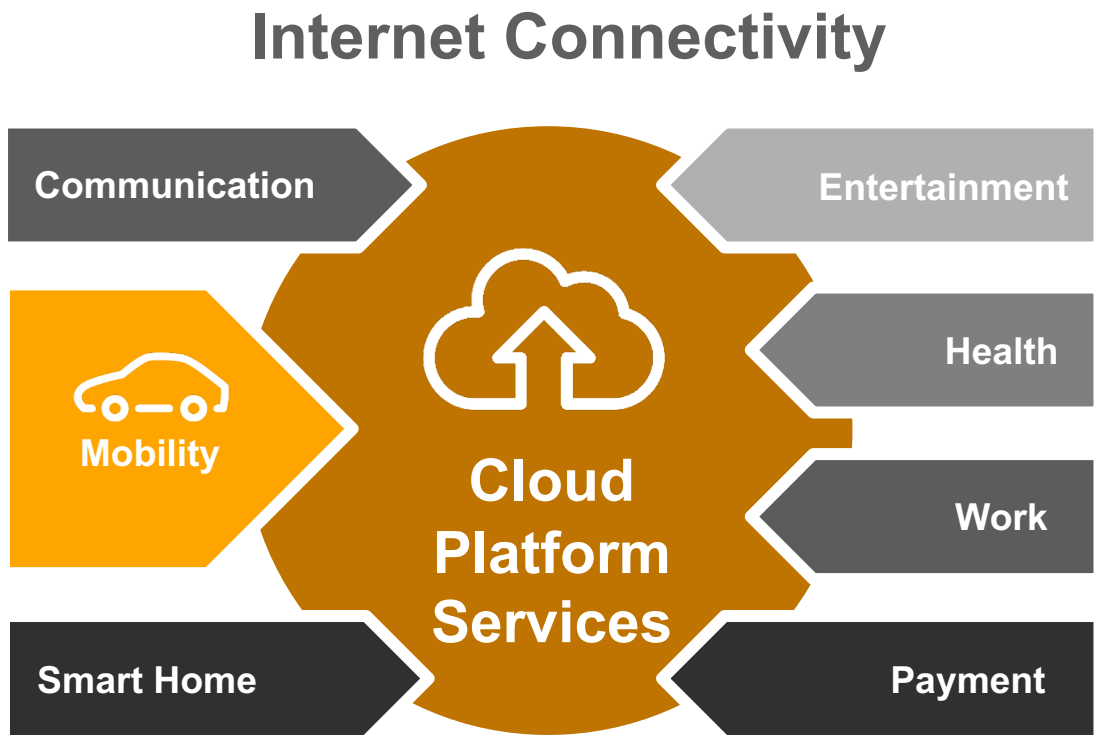
$640 billion

By 2031 software-based features and services will be a market worth $640 billion

Transformation of Mobility

The car is turning into a system within a system of systems





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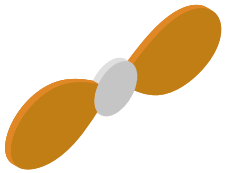
Advantages of the Software-Defined Vehicle

What to accomplish with the software-defined vehicle?



Continuously field data inflow to improve algorithm & product

Reduce test effort and time on the road by >50%

"Code to road" within 1 day

New business models

Data-driven development

Software separation from hardware

Service-oriented Architecture

Virtual development

Shorter time to market

Shorter development, test and integration cycles

Digital Lifecycle

(HW/SW/Services until EOL)

RFQ SOP EOP EOL

Software as a Product, or Service (SaaS) business models

Scalable Compute Platform

Functions/Applications

Automotive SW Platform

Continental HPC Platform

Cloud

Digital Twin

Predictive Maintenance

Cloud Services

Data Center

Open architecture for 3rd party software

Shorter time for vehicle SOP with increased platform lifetime

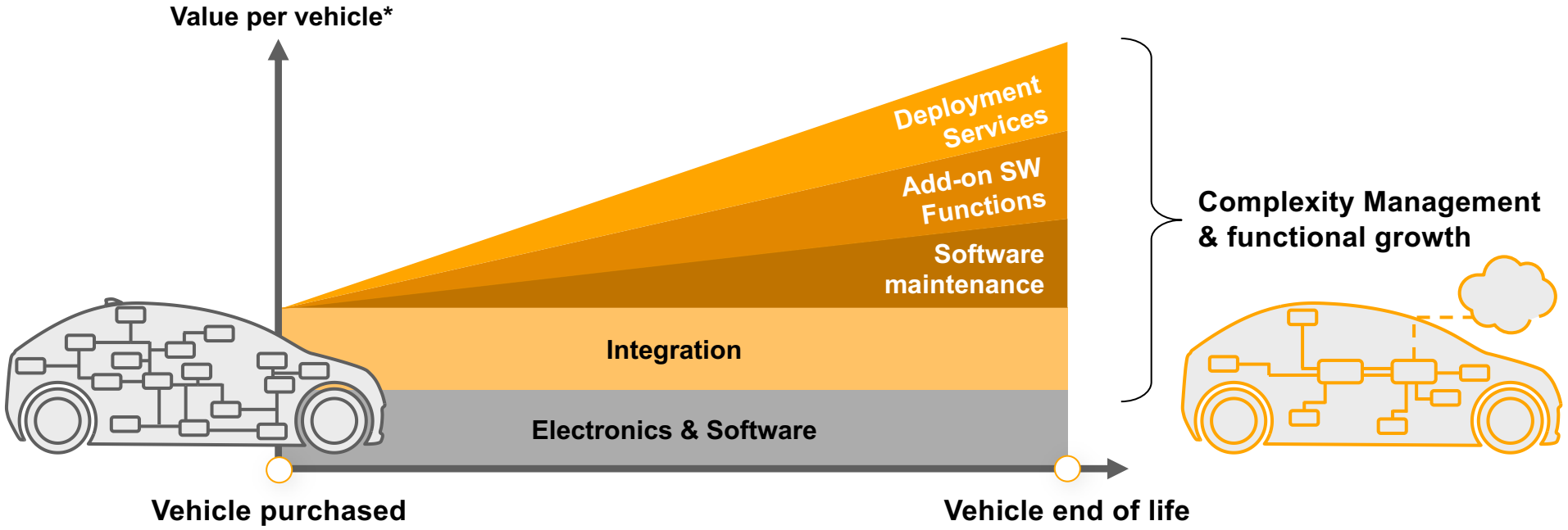
HW: Hardware; SW: Software; HPC: High-Performance Computer; RFQ: Request for Quote; SOP: Start of Production; EOP: End of Production; EOL: End of Life

The Software-Defined Vehicle

Additional value streams increase complexity

Up2now

Going forward



* Not to scale; for illustrative purposes only

road to cloud ecosystem
ENABLE. DEVELOP. INTEGRATE.
0101
1011
0100
Continental
April 10, 2024

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Road to Cloud Ecosystem

Enable. Develop. Integrate.

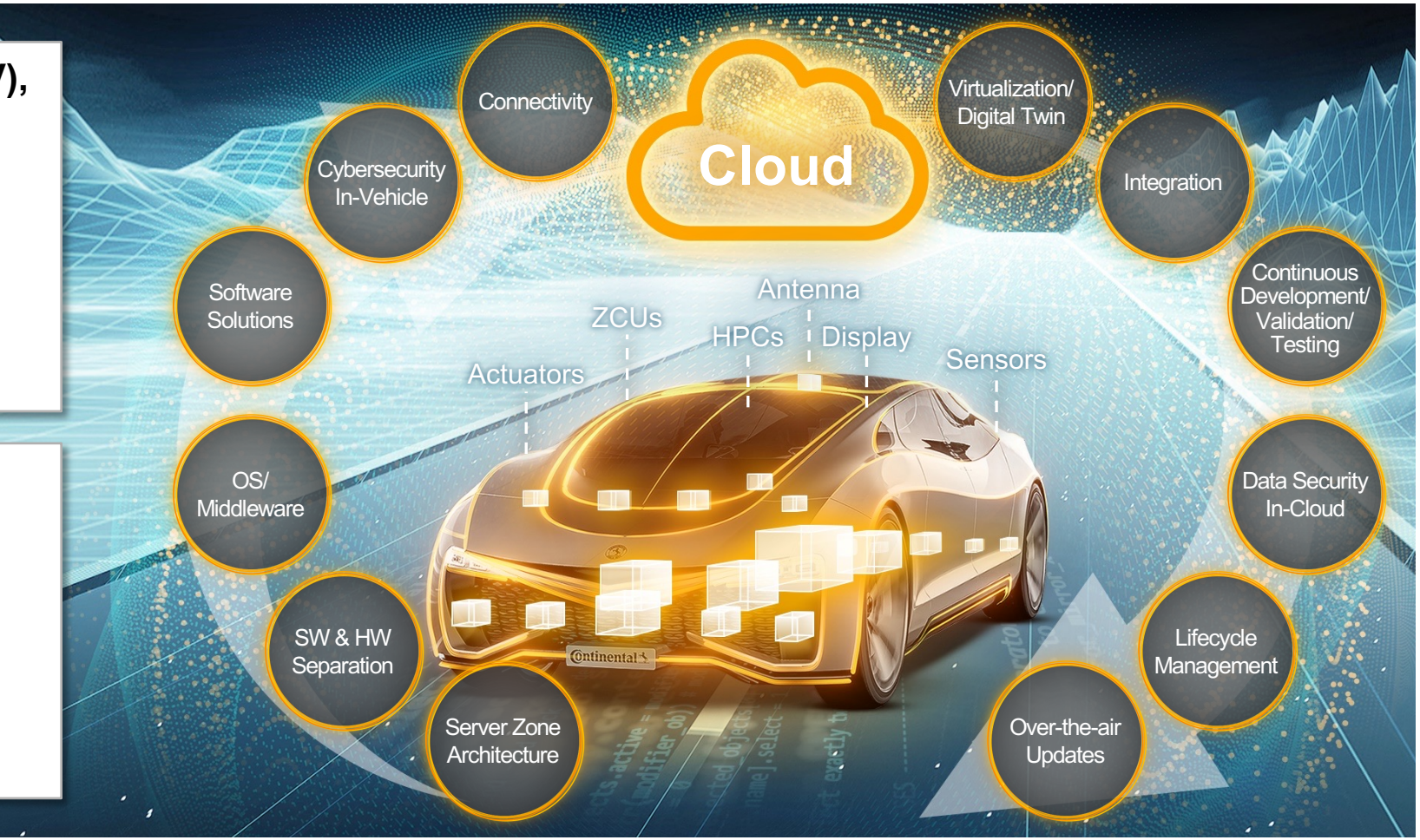
In the Software-defined Vehicle (SDV), functions are enabled by software.

Decoupling software from hardware enables swift and continuous development, testing & implementation of new functions and software updates throughout vehicle lifetime.

OUR APPROACH:
The road to cloud ecosystem

Within this we deliver:

› enabling technologies,
› hardware components and
› software solutions and functions.



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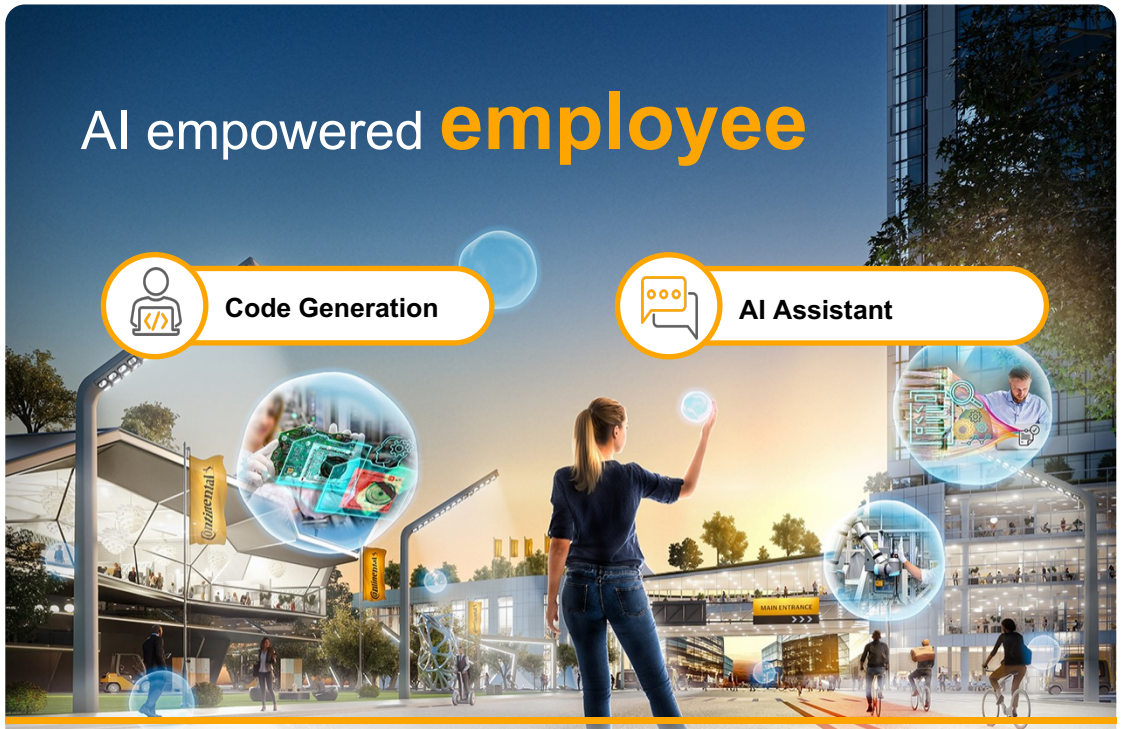
Artificial Intelligence (AI) at Continental

Continental’s vision on AI: The AI empowered company

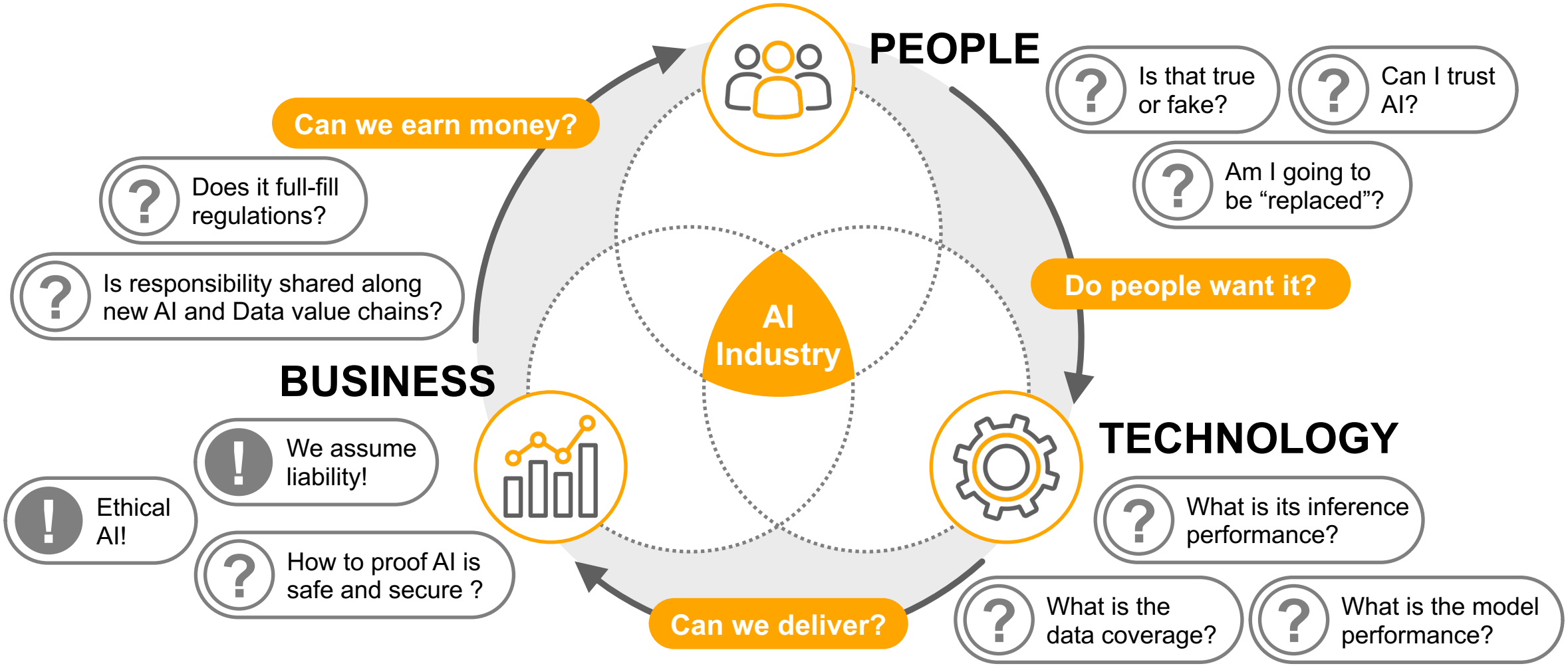
Keep and increase revenues through
AI enabled products and services



Increase productivity through
AI automation and data driven decisions

AI Empowered Company

AI is about people, technology and business



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Cloud
Connectivity
Cybersecurity In-Vehicle
Software Solutions
OS/ Middleware
SW & HW Separation
Server Zone Architecture
Virtualization/ Digital Twin
Integration
Continuous Development, Validation/ Testing
Data Security In-Cloud
Lifecycle Management
Over-the-air Updates
Antenna
ZCUs
HPCs
Display
Actuators
Sensors
From Road to Cloud
From Virtual to Real

From Road to Cloud.
From Virtual to Real.
Thank You For Your Attention!

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