



Connectivity – key to efficient, safe, and convenient driving

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 #boxberg15



“Invented for life” means connected for life

Combining cross-domain know-how

Connected mobility



Connected energy



Connected buildings



Connected industry



Bosch Software Innovations



Bosch IoT Suite

Bosch Connected Devices and Solutions

Smart sensors for unlimited applications



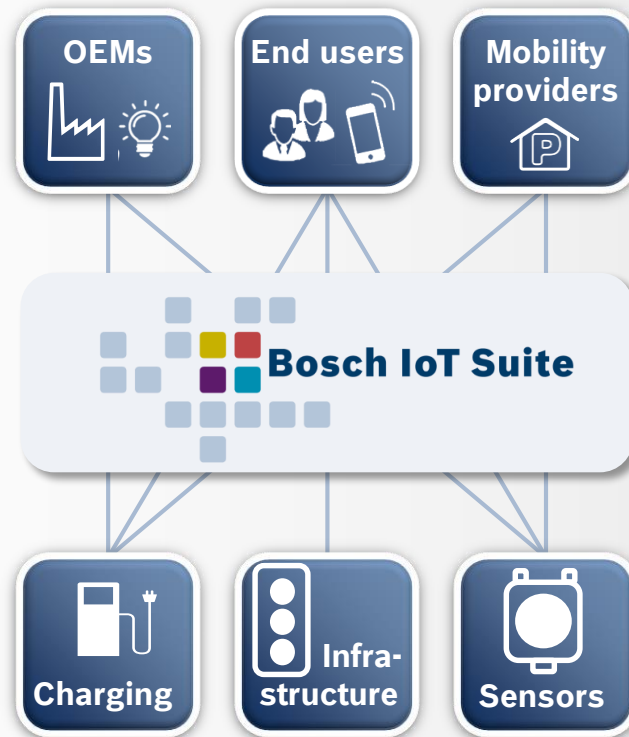
BOSCH

Our objective: integrated connected mobility solutions

Connectivity increases safety, efficiency, and convenience

Customer benefit

- lower fuel consumption, less CO₂
- greater road safety
- convenient driving and parking
- always online and up-to-date



Services and applications
(for and with)

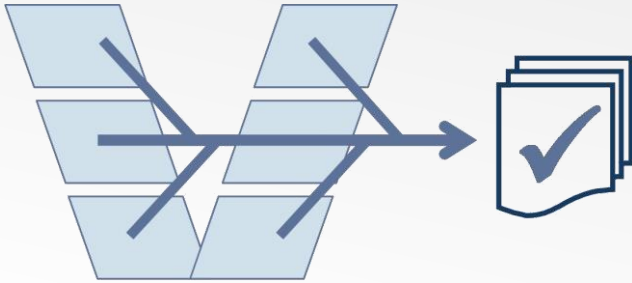
Software platform

Smart objects

Making vehicles safe and secure

Different fields, different considerations

functional safety



data security



data protection



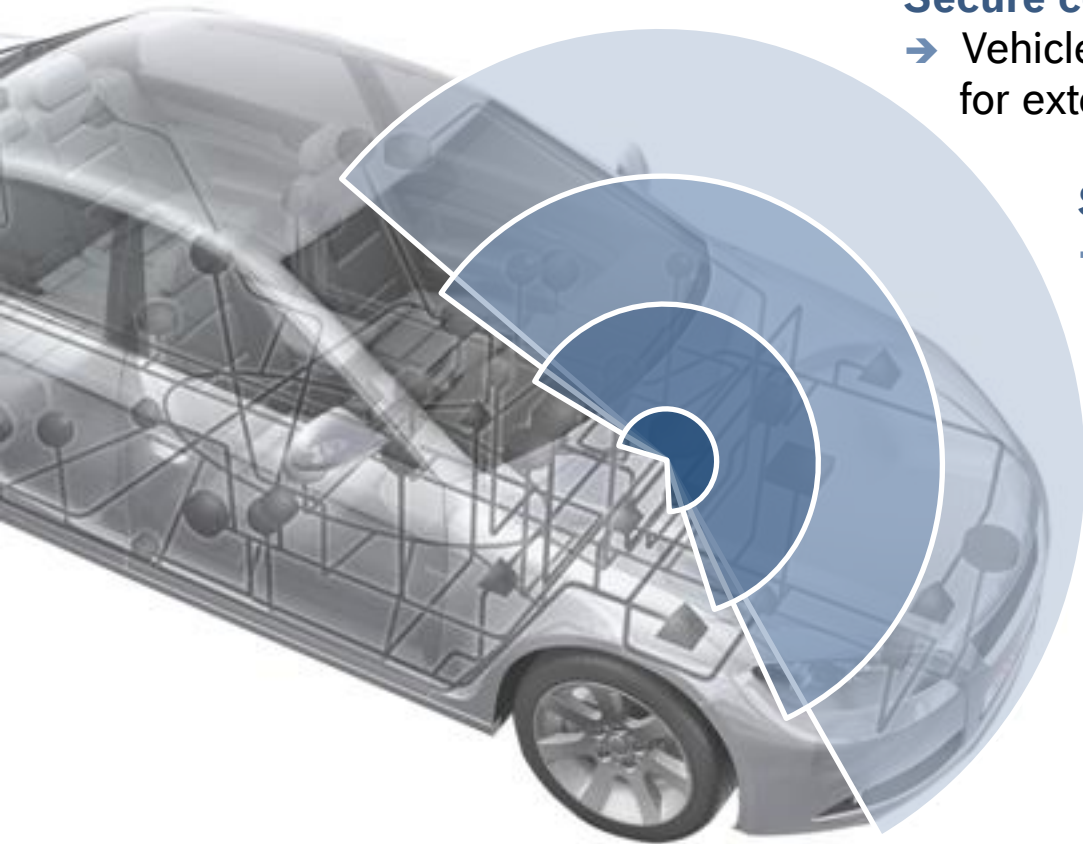
redundancy fault-tree analysis
ISO 26262 V model
safety validation product liability
fail-operational **ASIL**
fail-safe systems engineering

confidentiality access control
authenticity
threat and risk analysis cracker
risk management digital signatures
integrity cryptography

explicit consent privacy laws
legislation
services backend
self-determination personal data
customer trust IoT cloud

Different layers of data security

Solutions on hardware and software level



Secure connected vehicle

- Vehicle firewalls and security standards for external interfaces

Secure E/E architecture

- Use separation and securely configured gateways to protect functional domains of E/E architecture

Secure in-vehicle network

- Protect integrity of critical in-vehicle signals
- Standardized in AUTOSAR release 4.2.1

Secure individual ECU

- Protect integrity of ECU software and data
- Bosch “hardware security module”

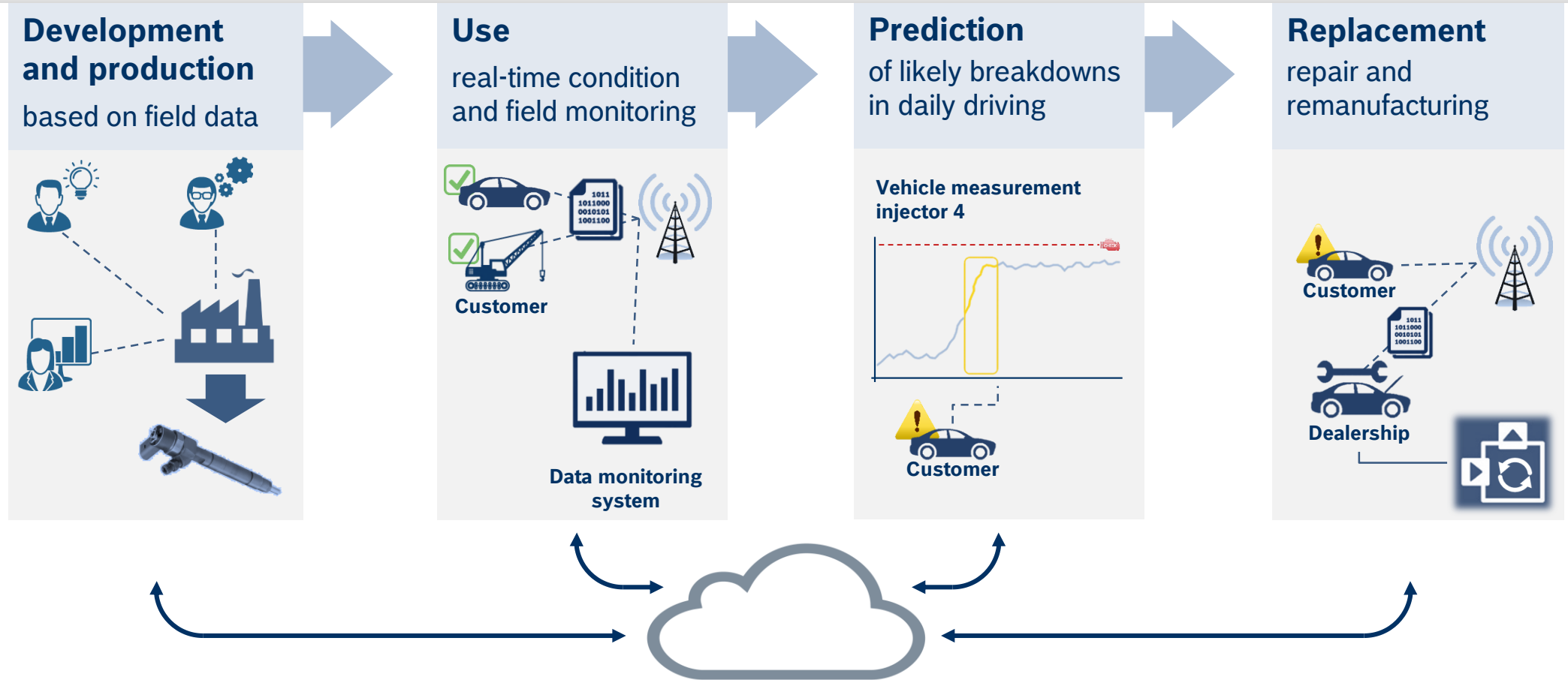
Connected vehicles – fleet solutions

Reduced costs and increased transparency



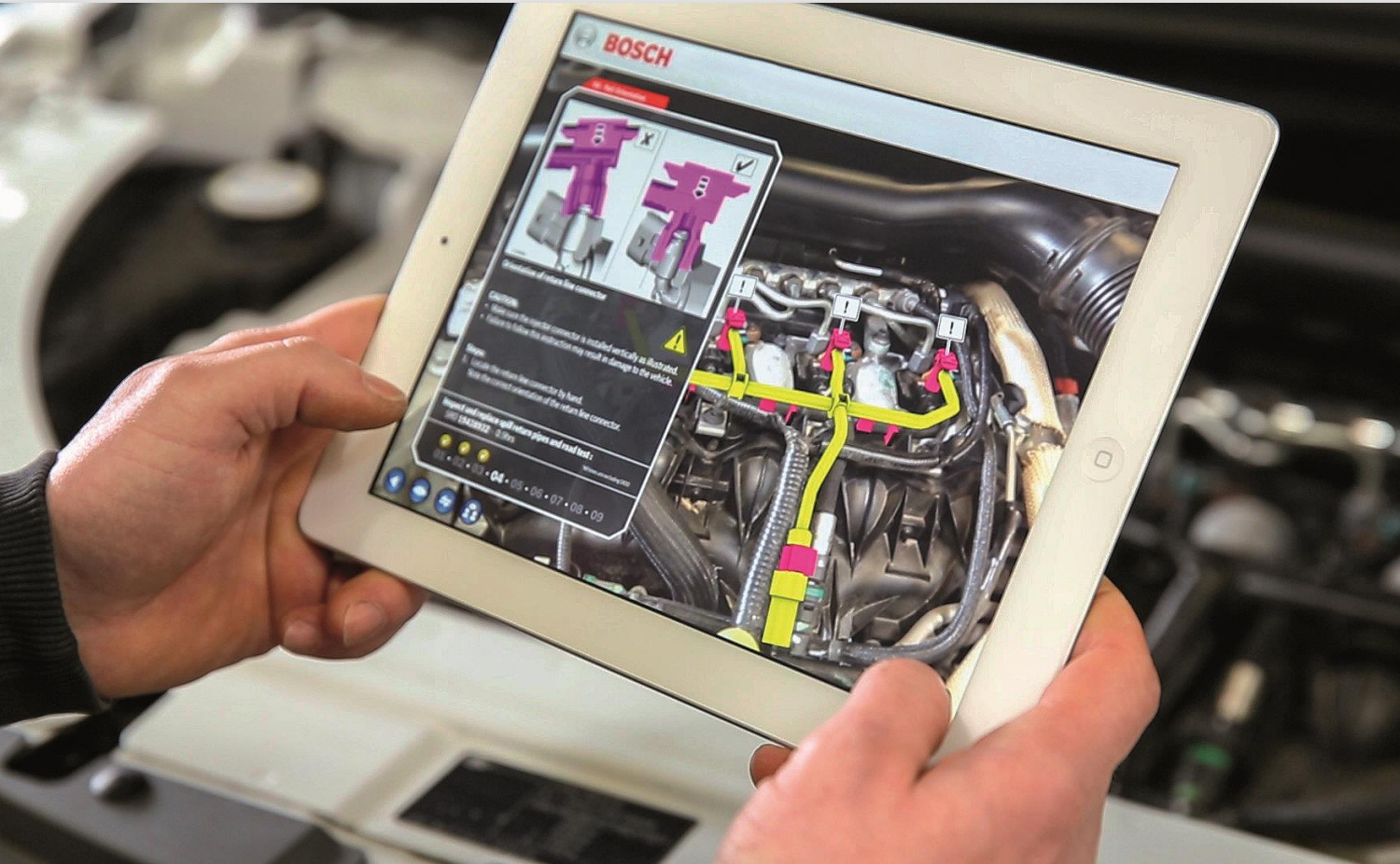
A connected product life cycle

Preventive maintenance increases uptime and enhances quality



Connected solutions for workshops

Augmented reality reduces repair times



- Additional info added to real image
- Graphics and video offers guidance for quick repairs
- Support for service employees of all skill levels
- Numerous further applications possible, e.g. training, sales information

mySPIN – the innovative smartphone integration solution

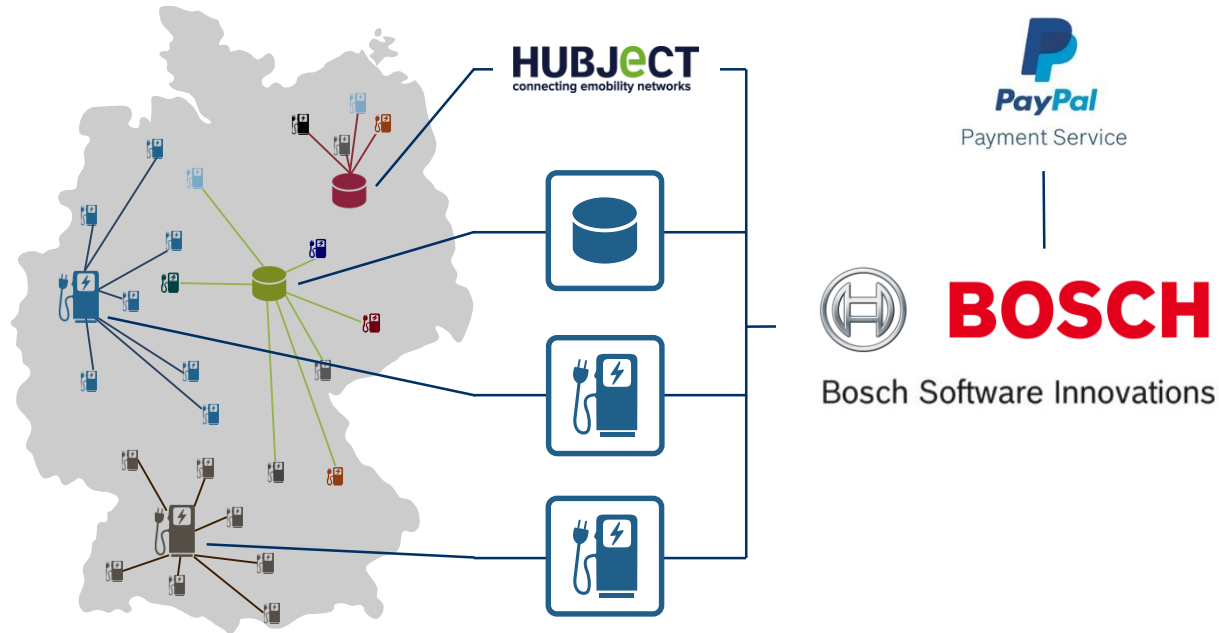
Safe and convenient operation while driving



- Compatible with Android and iOS smartphones
- Additional functions based on cloud services and use of vehicle data
- OEMs can adapt design to fit their own brand language
- >30 compatible apps with verified “car mode”

Connectivity – important enabler for electromobility

Smartphone app helps find and book charge spots, and pay as well



Easy and convenient to use



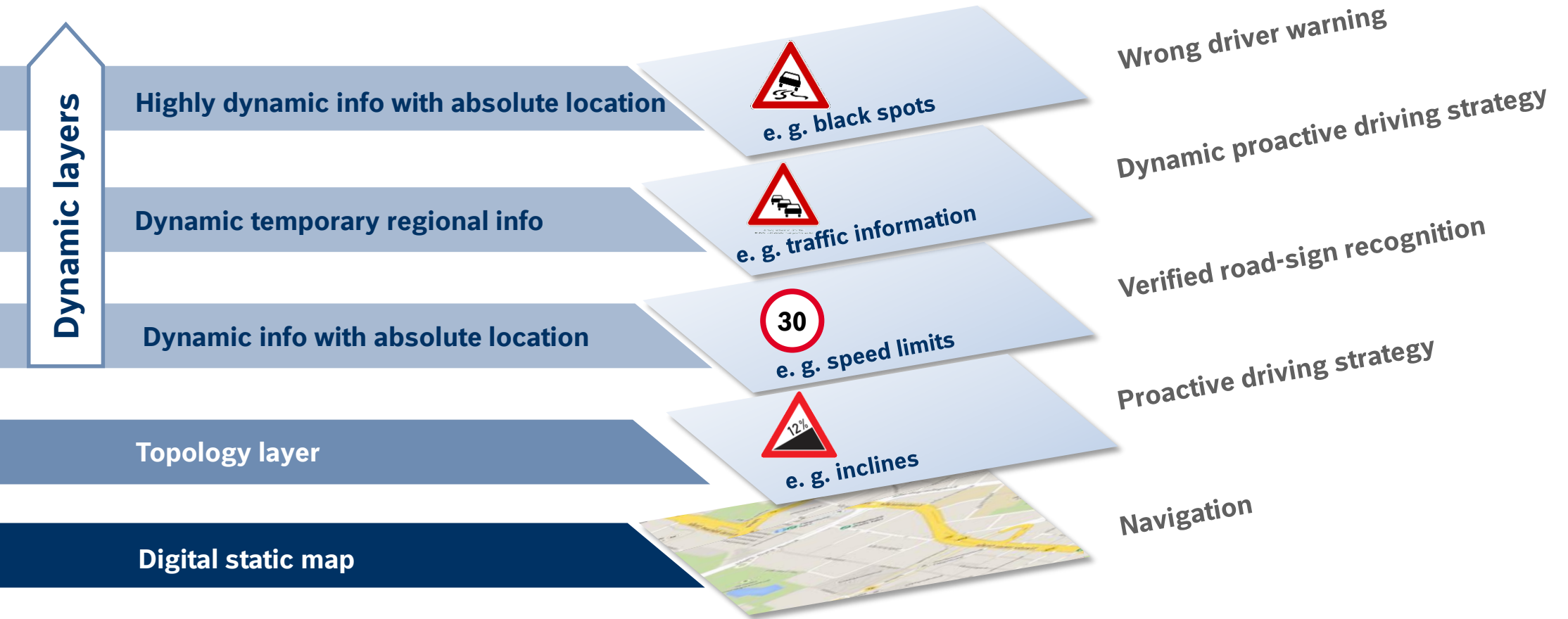
Electric range guaranteed



Transparency in charging and payment

Connected horizon – looking beyond the next bend

Dynamic information for advanced driver assistance systems





A connected car is always the smarter car