VECTOR

Distributed Functions

9th Vector Congress 2018

V1.0 | 2018-11-19

Introduction

Automated Driving

Connectivity (IoT)

Electrification

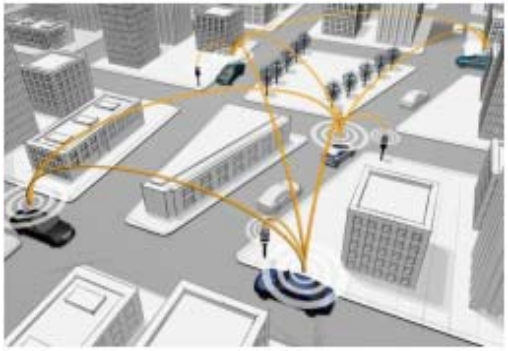
2025:
More than **400 Mio.**
connected vehicles
on the road

Focus Connectivity – Business Models

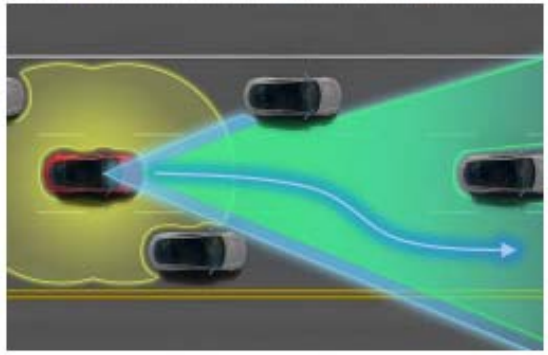
Usage-based insurance

Smart Home and business model integration

Vehicle-to-Everything communication

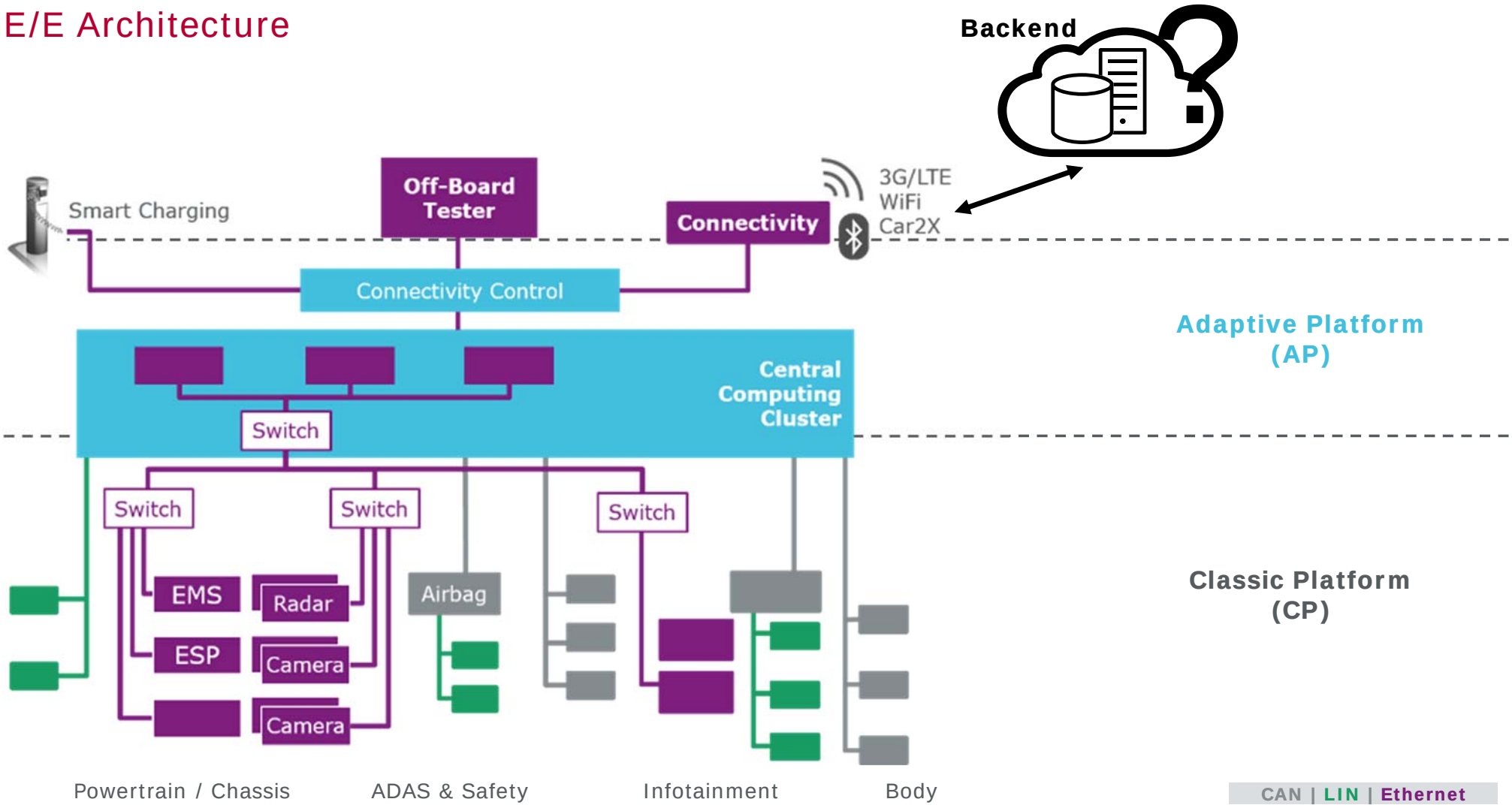


Autopilots and Self-driving cars



Source: Statisa, “Connected ca”, Market report, March 2017

E/E Architecture



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Focus Connectivity – Use cases

Infotainment

Apps:

- Advanced Navigation
- Streaming
- Weather
- ...

OTA - Infrastructure

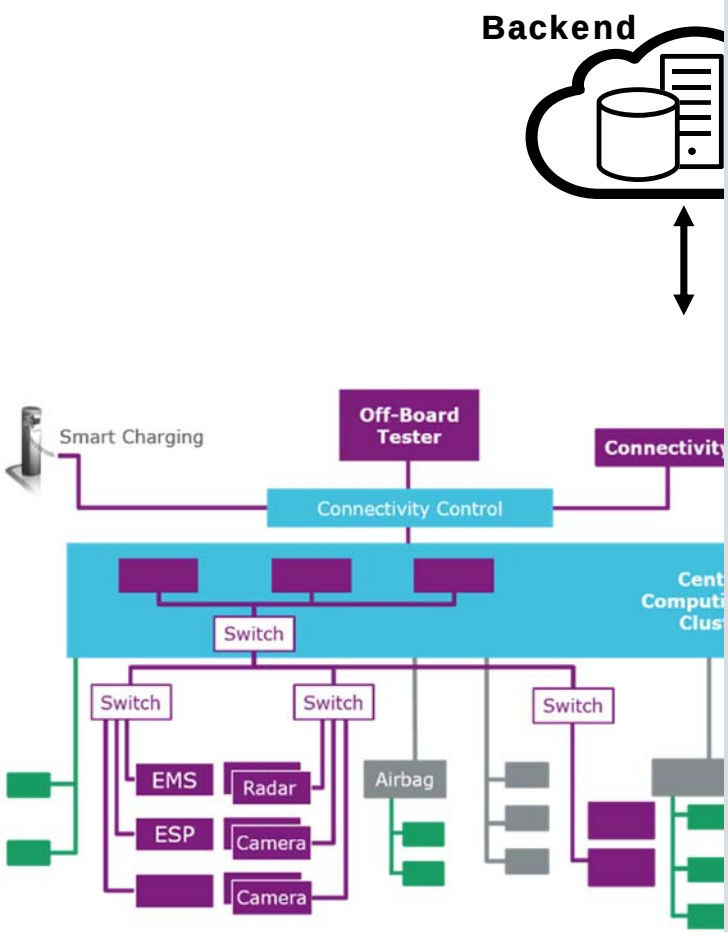
Apps:

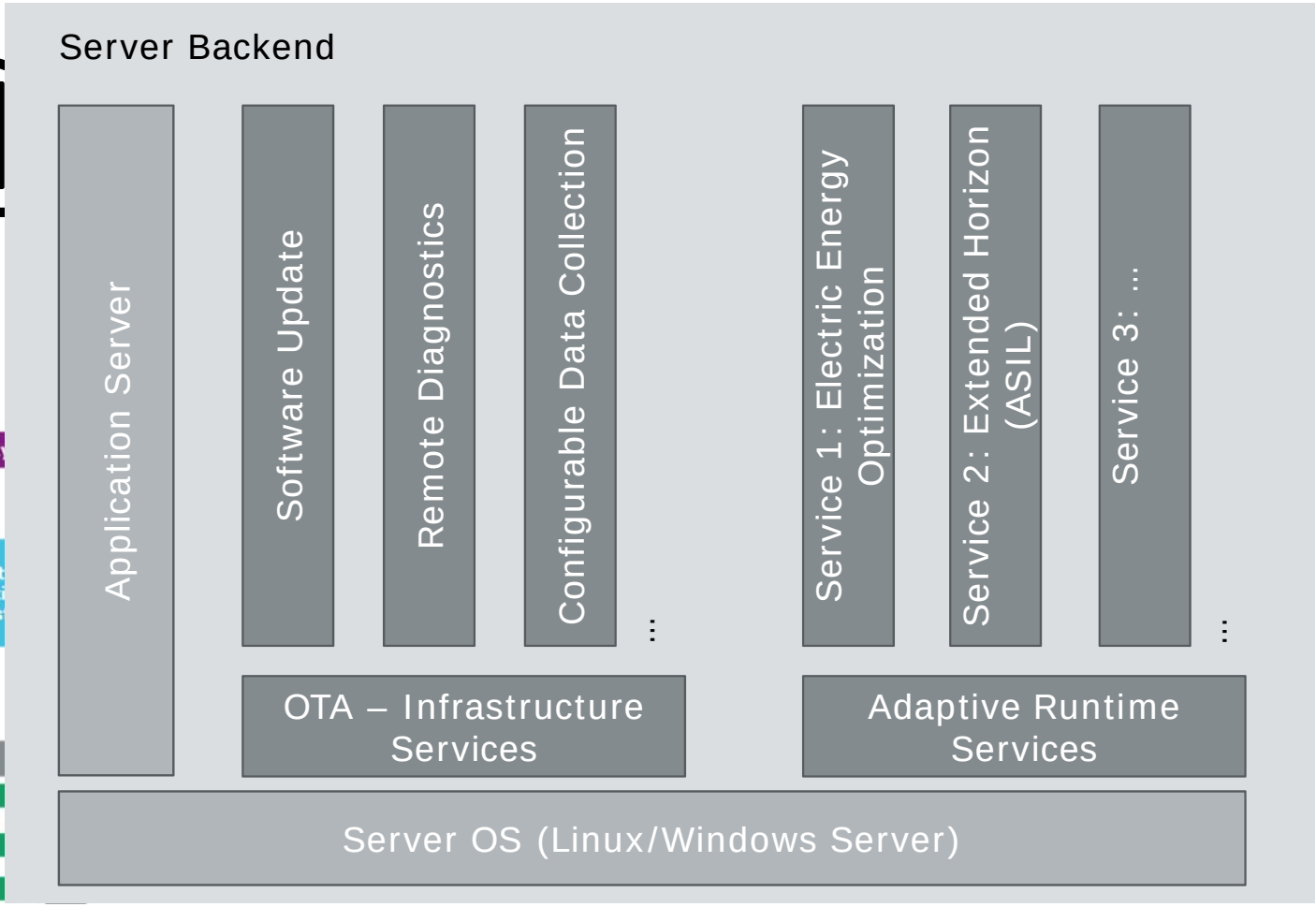
- Software Download
- Live Diagnostics
- Remote Diagnostics
- Data Collection

Distributed Functions

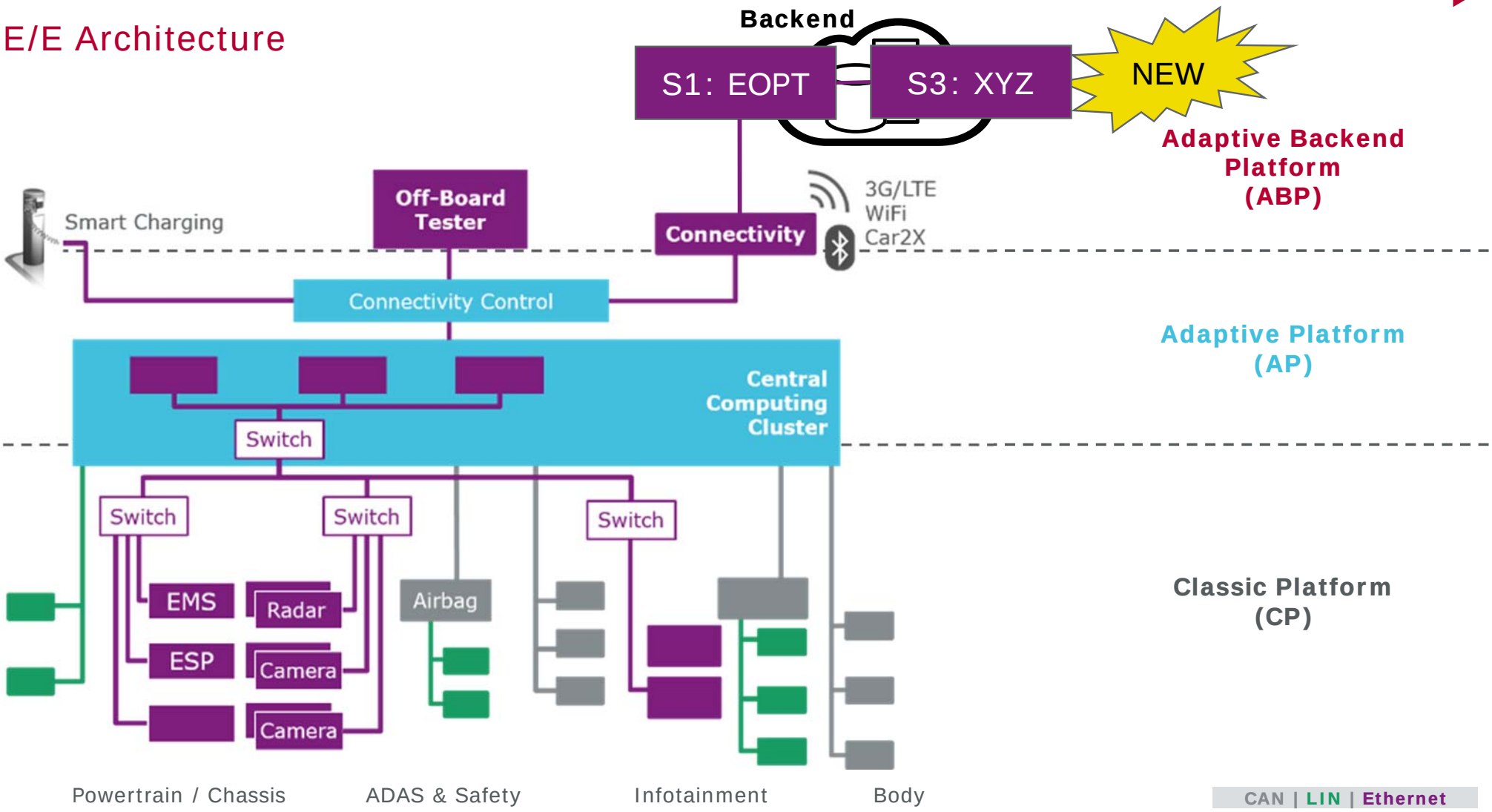
- Functions calculated in the Backend
- ASIL Level A+
- ...

E/E Architecture





E/E Architecture



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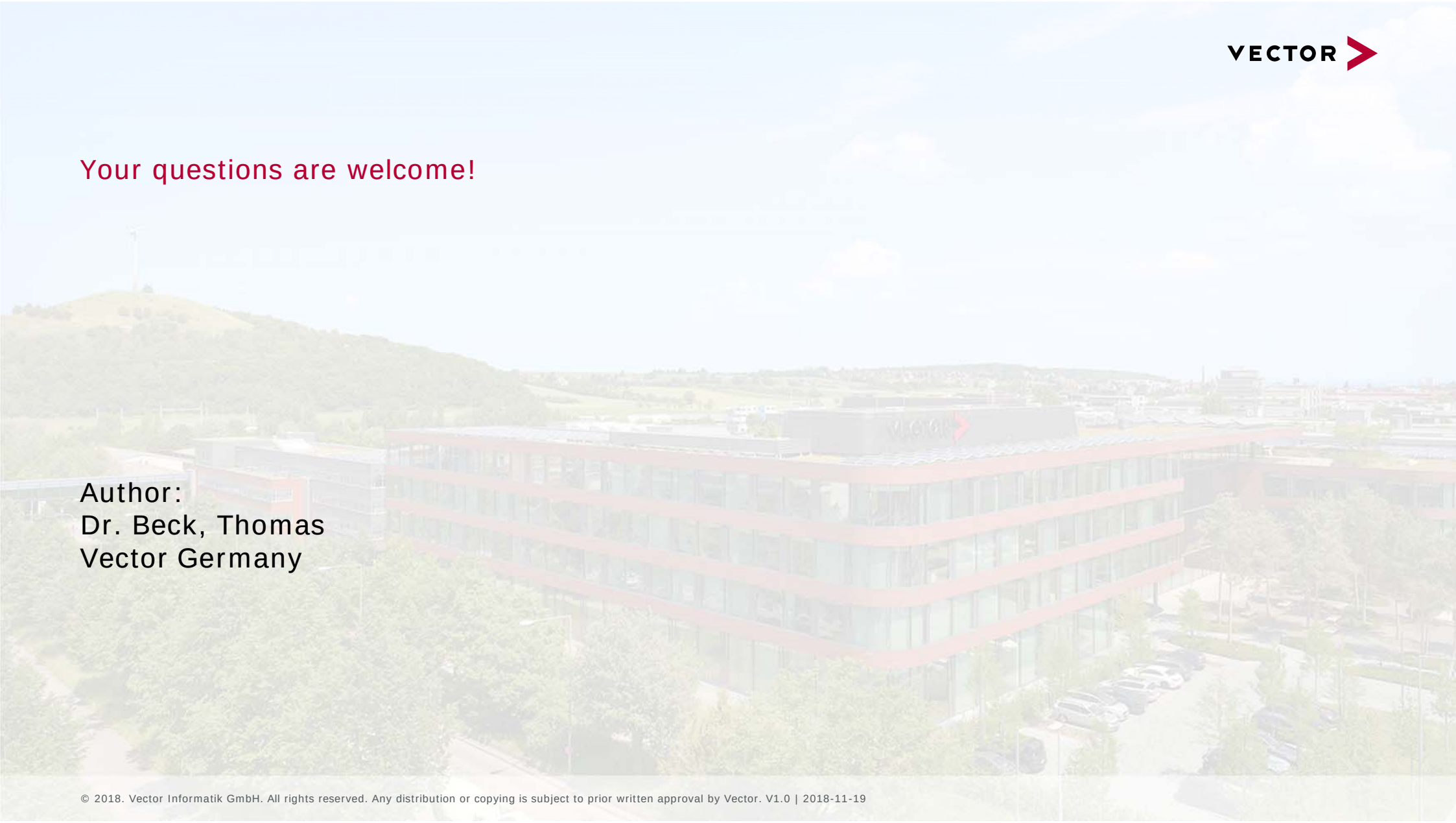
Conclusion

- OTA in today's meaning offers infrastructure services for the operation of a car
- With functions calculated on the backend a variety of today's unthought business cases become possible

- Needed
  - Reliable and safe platform in order to deploy and run those functions
  - Transparent architecture between inside car and backend
  - Tooling
  - Integration of "Productive IT" in E/E Development Centers



Your questions are welcome!

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