



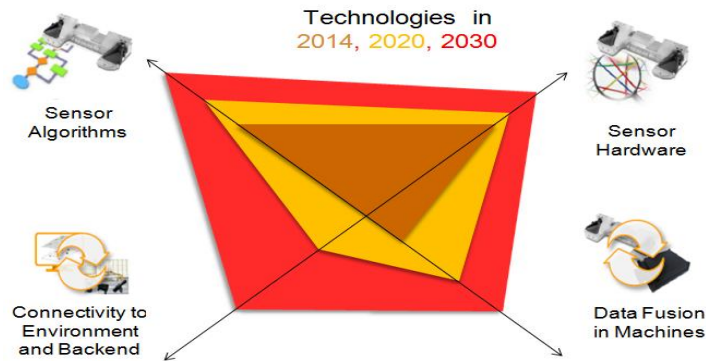
5G for IoT

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26.11.15

BUILDING A BETTER CONNECTED WORLD

Increased System Capabilities and 5G Connectivity Demands

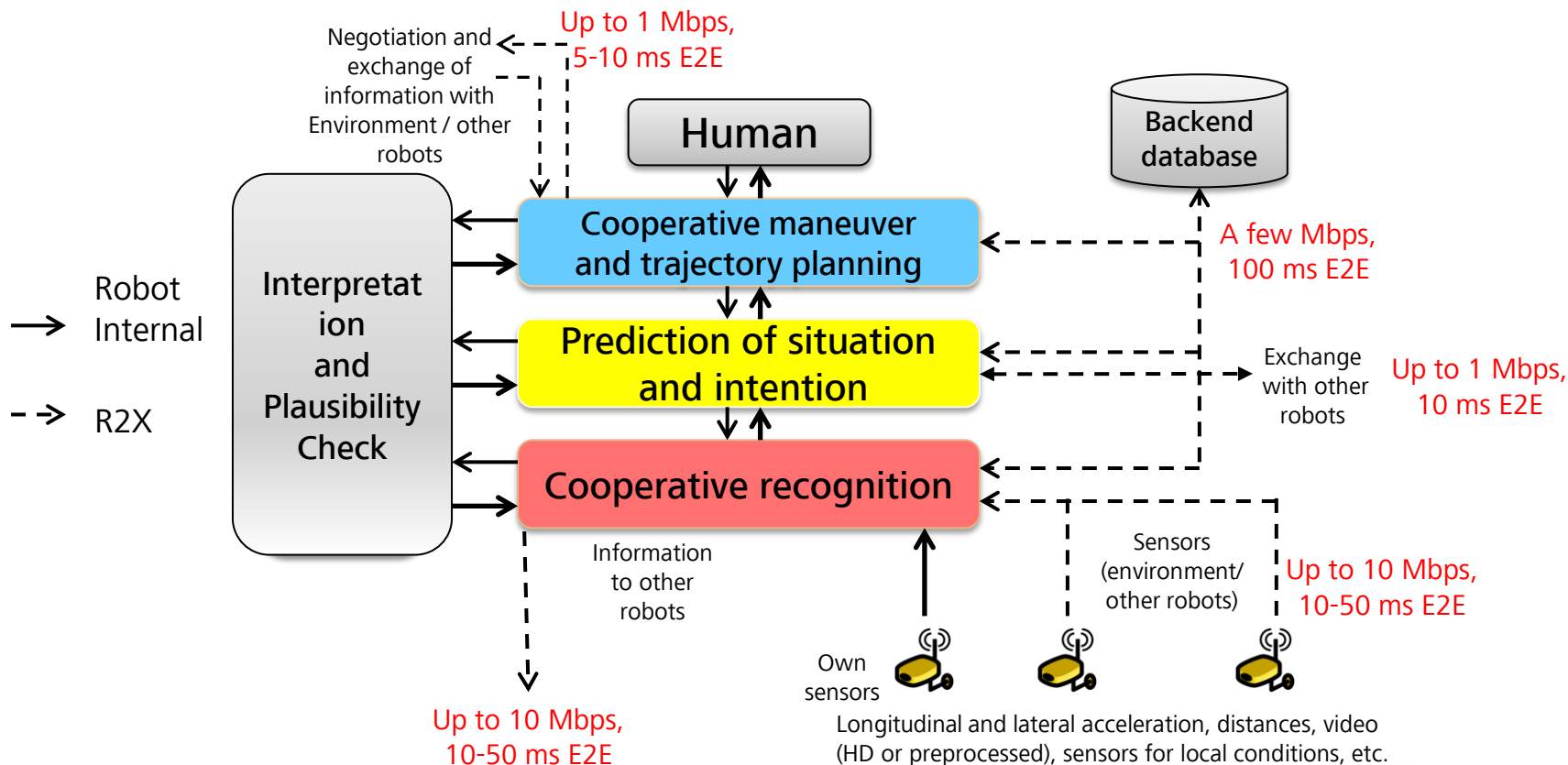
- Processes are optimized by algorithms
 - Based on real-time measurements obtained from complex sensors
- Data fusion from distributed multi-sensor sources complements the real-world representation



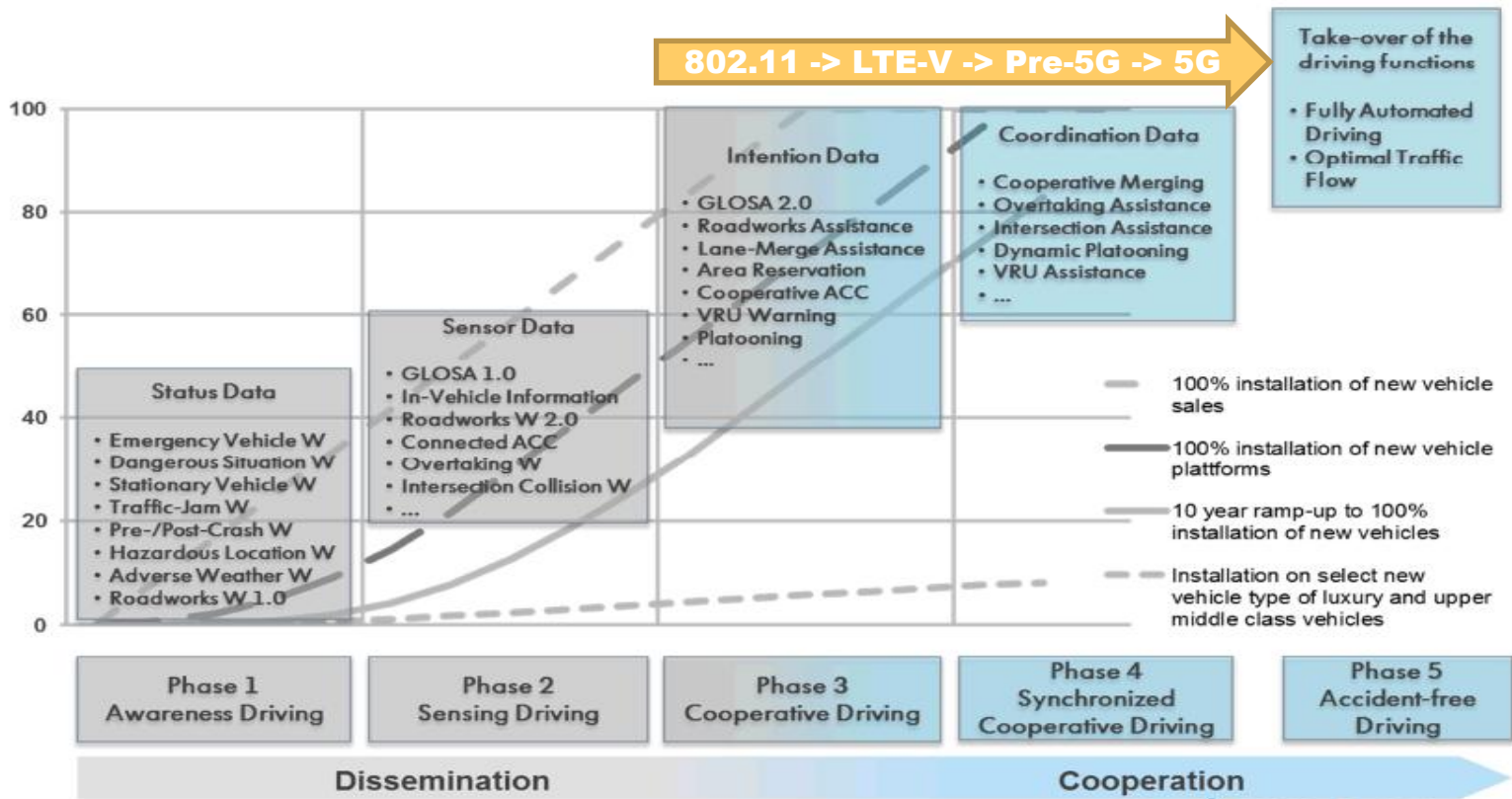
- Increased network capacity is demanded for full-fledged IoT development

➔ Connectivity is the key for value-added IoT applications

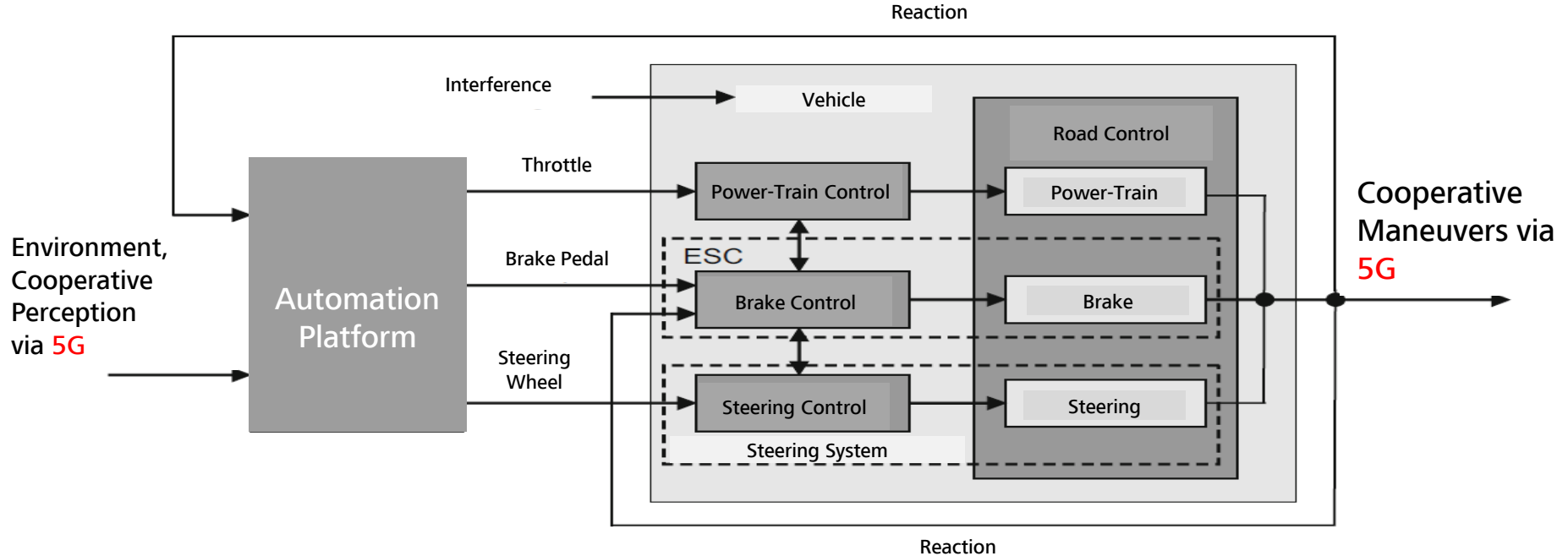
Information Model for Autonomous Robots and required KPIs



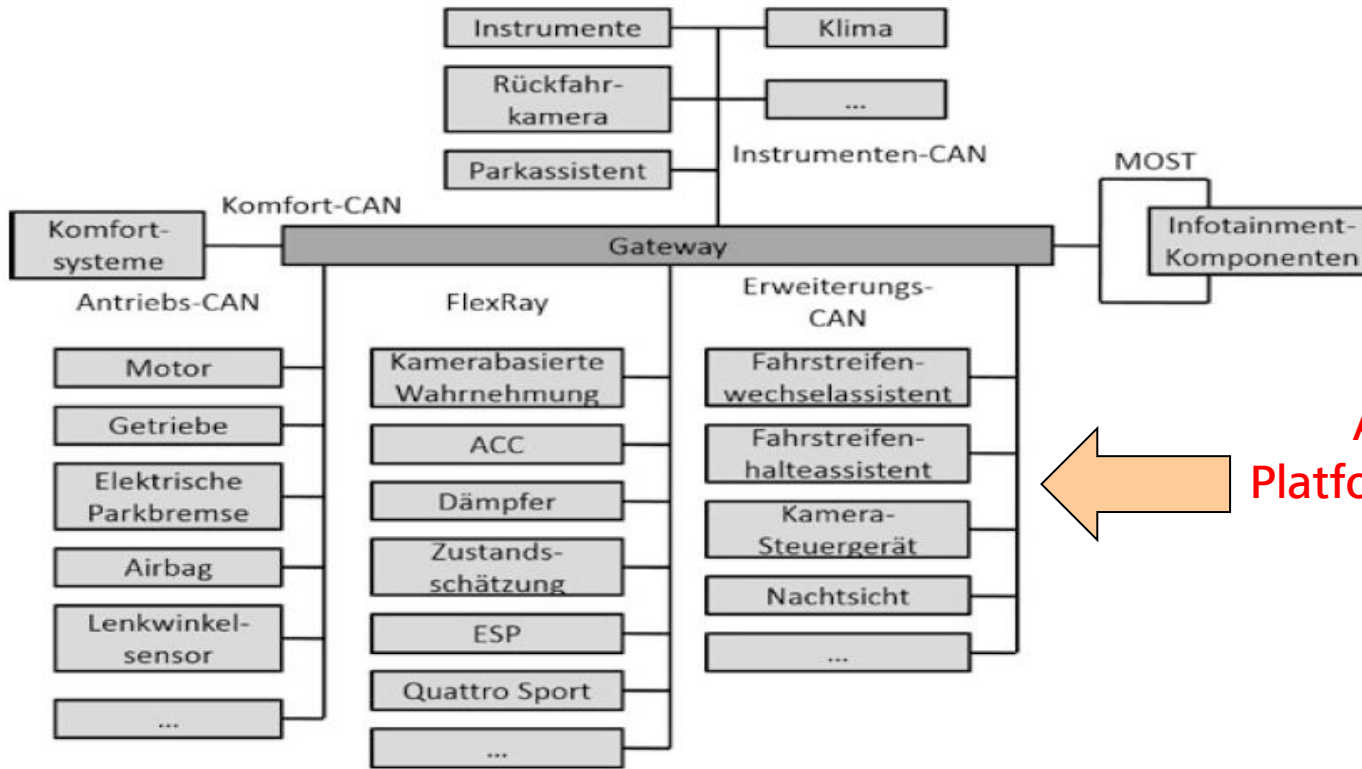
The Car-2-Car Communication Consortium applications roadmap



Automation Platform and 5G Vehicle Interaction



Example: Upgraded Audi A8 with Cooperative Functions



Automation Platform supported by 5G

5G / IoT requirements

- Reliable 5G protocol design for scalable delay and reliability
- Interworking between VI products and 5G:
 - Service oriented L1 adaptation (frequency, bandwidth)
 - Adaption strategies for L1/L2 algorithms and protocols
 - Adaption strategies for applications...
- Networking concepts for 5G multi-link machine routers
- Radio Resource Management (RRM) to exploit distributed antennas in machines
- New solutions for data aggregation and processing based on edge computing (MEC, MEN)
- Accurate channel models for different VI environments
- Proofed system concept and 5G automation platform integration
- Study Item (SI) / Work Item (WI) in 3GPP, ETSI, IEC...

JOIN US IN
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THANK YOU

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