

Technological impact assessment of automated driving on vehicle E/E architecture

CLIENT: ASIAN INDUSTRIAL CONGLOMERATE

BACKGROUND: Client wants to know about technological challenges due to autonomous driving functions. FEV was asked to provide comprehensive insights.

DELIVERABLES

- ADAS/AD roadmap & sales forecast for key markets Europe, USA and China
 - Based on SAE automation level, differentiated for each function
 - Estimation until 2035
- Analysis of key automotive market players
- Assessment of selected key topics related to ADAS/AD
 - Key challenges of E/E architect., sensor-set config., HD maps, costs
 - Impact on other vehicle models (Body, Chassis, Interieur, Exterior,...)
 - Current status of regulations & Standards
- Deep dive in E/E architecture
 - Provided information on vehicle hardware & software architecture
 - Identified development of E/E architecture due to AD technology
 - Analysis of OEMs regarding current and future E/E architecture developments

CURRENT & NEAR-TERM TECHNOLOGICAL CHALLENGES

E/E ARCHITECT.

SENSOR SET

HD MAP

COSTS

E/E ARCHITECTURE DEEP DIVE

ANALYSIS OF FUTURE ARCHITECTURES

OEM ANALYSIS

Introduction of ethernet at BMW

IMPACT ON OTHER VEHICLE MODULES

REGULATION & STANDARDS

SYSTEM INTERACTION OF DRIVER

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