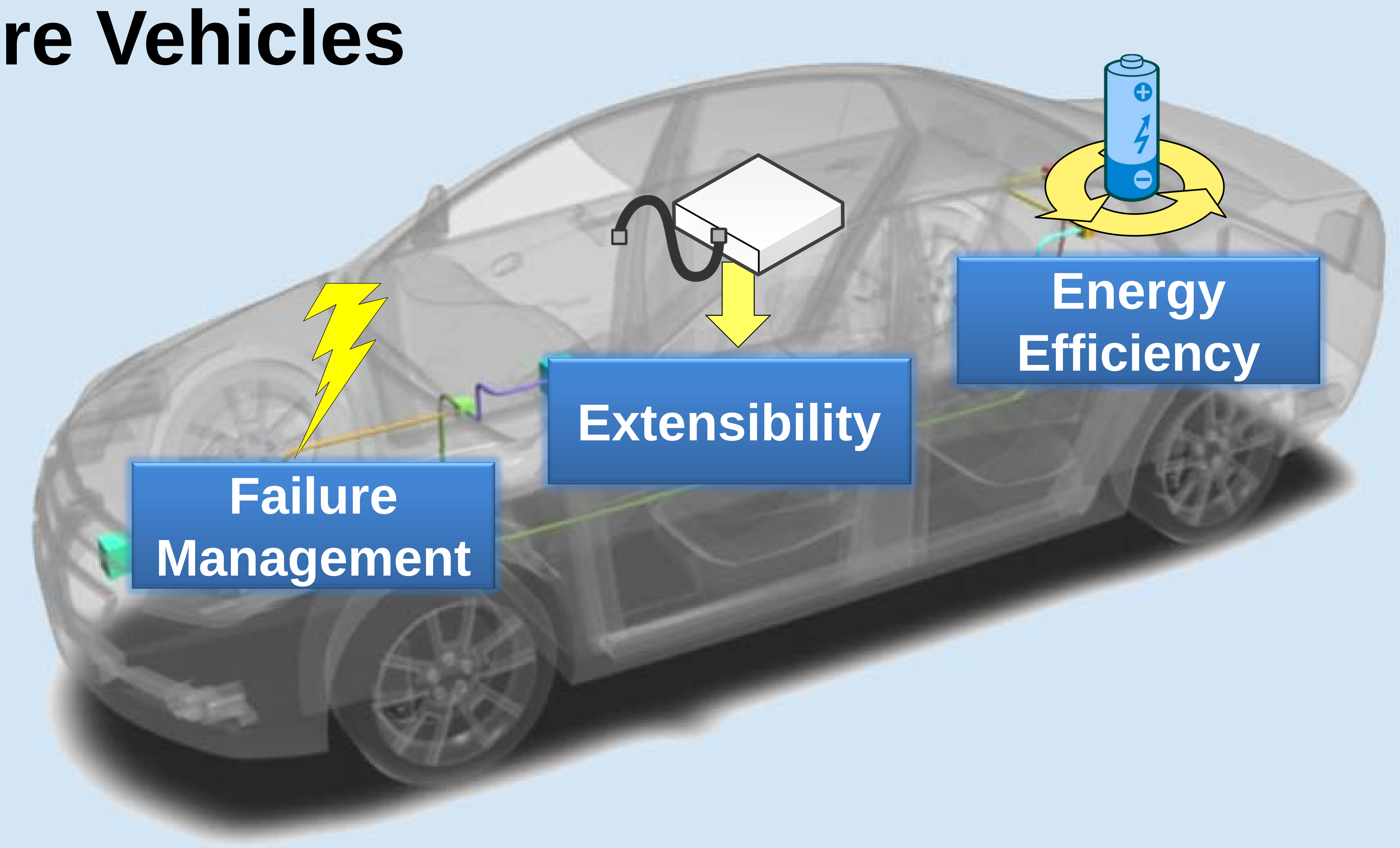
SafeAdapt

Safe Adaptive Software for Fully Electric Vehicles

SEVENTH FRAMEWORK PROGRAMME

Objective

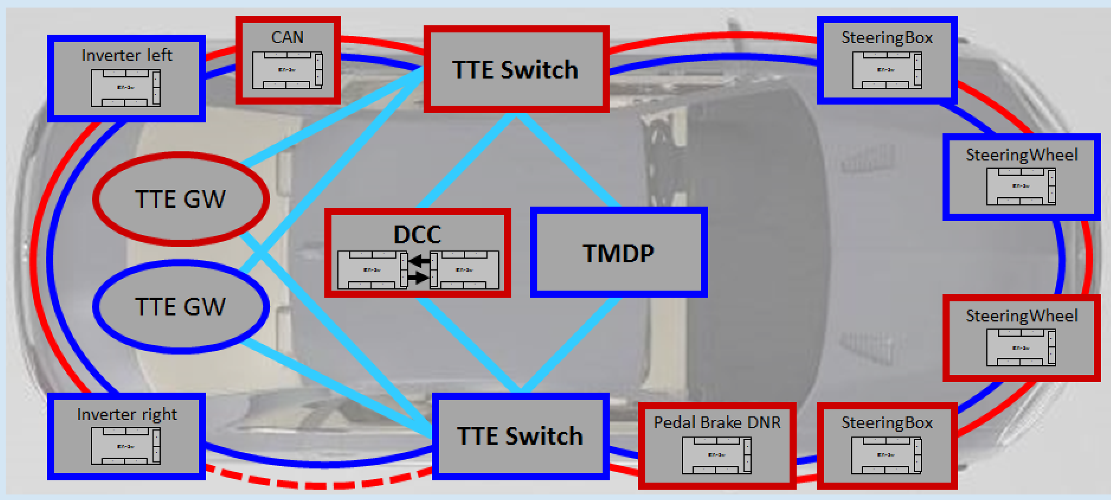
- **Novel E/E-Architecture for Future Vehicles**
  - **Generic software-based failure mechanism**
  - **Plug'n'play for extensibility**
  - **Optimization for energy-efficiency**



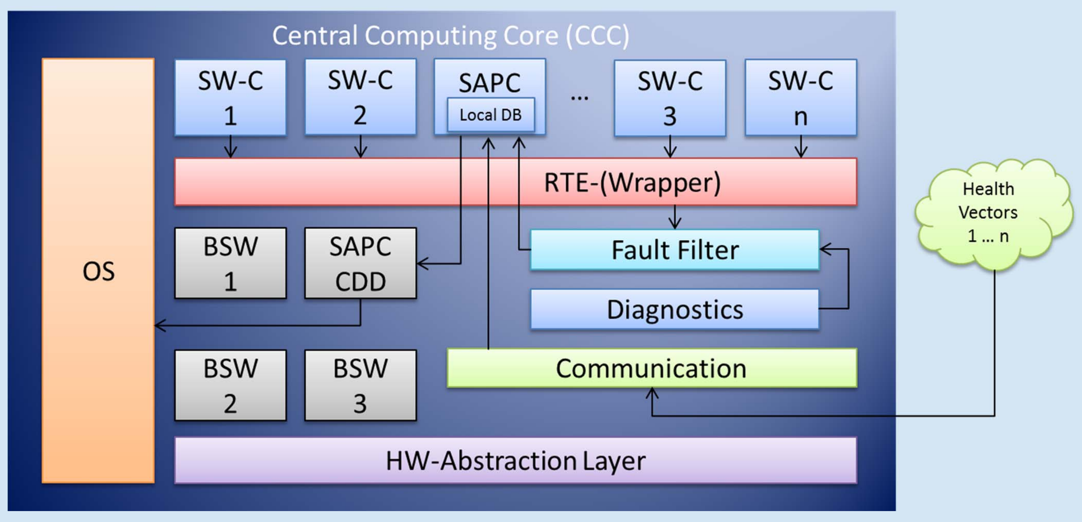
Approach & Results

- Enables **Fail-Operational Behaviour** (e.g. for **X-by-Wire** or **Automated Driving**)
- **Energy-efficient configurations**
- **Adaptation** under **ISO26262** considerations & **AUTOSAR** integration
- **Tool-Support** for modeling, automatic generation, validation & verification
- **Interoperability** and supplier-independence, including diverse hardware: RACE DCC, TMDP, TTEthernet, etc.

Generic Hardware Architecture

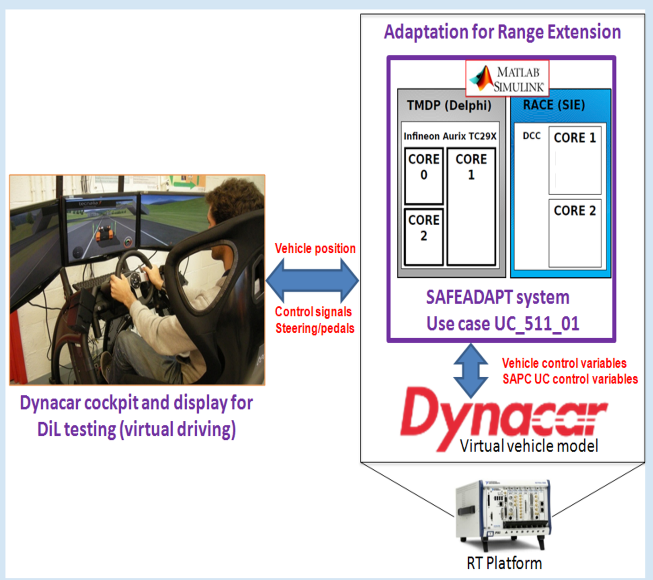


Generic Software Architecture



Evaluation Prototypes

- **E-vehicle prototype**
- **Driver-in-the-Loop Simulation**
- **Exemplary Applications:** Steer-by-Wire, Break-by-Wire, Drowsiness Detection, and others



Project Facts

- Project Duration: 07/2013-06/2016
- **Consortium:** **Fraunhofer ESK, TTTech, Fico Mirrors, Tecnalia, CEA LIST, Siemens, Pininfarina, Duracar and Delphi**
- Total costs: € 9.2 million, EU funding: € 5.9 million
- **Website: www.safeadapt.eu**

- **Project Coordinators** at Fraunhofer ESK

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