ECSEL JU

ArchitectECA2030 has been accepted for funding within the Electronic Components and Systems For European Leadership Joint Undertaking in collaboration with the European Union's H2020 Framework Programme (H2020/2014-2020) and National Authorities, under grant agreement n° 877539

ArchitectECA2030

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Trustable architectures with acceptable residual risk for the ELECTRIC, CONNECTED and AUTOMATED cars

ABOUT

The project will implement a unique in-vehicle monitoring device able to measure the health status and degradation of the functional electronics empowering model-based safety prediction, fault diagnosis, and anomaly detection. A validation framework comprised of harmonized methods and tools able to handle quantification of residual risks using different data sources (e.g., monitoring devices, sensor/actuators, fleet observations) is provided to ultimately design safe, secure, and reliable ECA vehicles with a well defined, quantified, and acceptable residual risk across all ECS levels.

PROJECT VISION

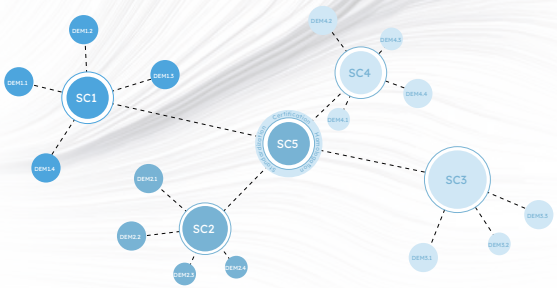
Provide a harmonized pan-European validation framework enabling mission-oriented validation of electronic components and systems (ECS) for electric, connected and automated (ECA) SAE L3 to L5 vehicles to improve reliability, robustness, safety and traceability.

OVERALL GOALS

- Manage failures, uncertainties, and misbehaviours across all layers (sub-components, components, sub-systems and system) propagating through the entire ECA vehicle stack
- Develop a harmonized homologation framework including methods, tools and processes to design safe, secure and reliable ECA vehicles with an acceptable residual risk
- Develop a concept for an in-vehicle monitoring device (MonDev) to identify the health status and possible degradations across all layers (sub-components, components, sub-systems and system)
- Bring together the representative stakeholders (ECS value chain, standardization, certification).

SUPPLY CHAINS

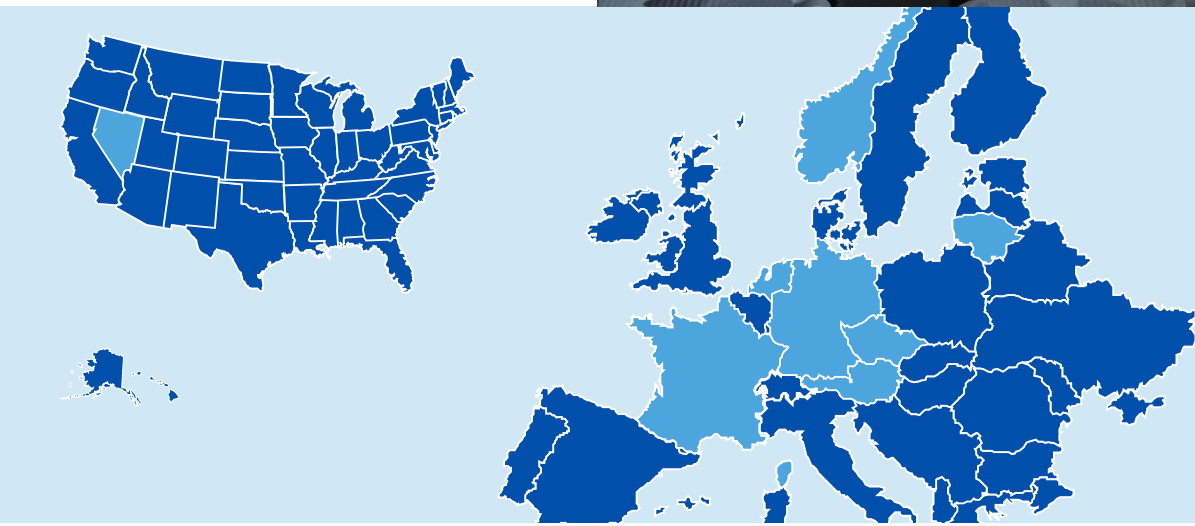
SC1 Failure modes, fault detection and residual risk in acquisition and perception systems
SC2 Failure modes, fault detection and residual risk in actuator and propulsion systems
SC3 Failure modes, fault detection and residual risk for safety and security in connectivity systems
SC4 Methods for monitoring and/or automated driving
SC5 Global alignment and contribution to standards



ArchitectECA2030

PROJECT FACTS

Coordinator: **INFINEON TECHNOLOGIES GERMANY AG**
Project Start: **01-07-2020**
Duration: **36M**
Total Investment: **~€M 13**
Requested EU Contribution: **~€M 4**
Participating Organizations: **20**
Number of Countries: **8**



PROJECT PARTNERS

FUNDING

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