This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 732242.
H2020 ICT-01-2016 DEIS

➢ DEIS: Dependability Engineering Innovation for CPS

➢ Funding scheme: H2020 ICT-01-2016
➢ Status: Project start by January 1\textsuperscript{st}, 2017
➢ Duration: 3 years
➢ Consortium: 10 partners
➢ Total budget: approx. 4.800k€
➢ Coordinator: AVL List
The open and cooperative nature of CPS poses a significant new challenge in assuring dependability. The DEIS project addresses this important and unsolved challenges by developing technologies that form a science of dependable system integration. In the core of these technologies lies the concept of a Digital Dependability Identity (DDI) of a component or system. DDIs are composable and executable in the field facilitating (a) efficient synthesis of component and system dependability information over the supply chain and (b) effective evaluation of this information in-the-field for safe and secure composition of highly distributed and autonomous CPS. This concept shall be deployed and evaluated in four use cases:

- **Automotive**: development of a stand-alone system for intelligent physiological parameter monitoring
- **Automotive**: Evaluation of automated driving functions and the dependability impact of connected powertrain on advanced driver simulator
- **Railway**: Plug-and-play environment for heterogeneous railway systems enabling dependable exchange of information between components and subsystems
- **Healthcare**: enhancement of clinical decision app for oncology professional targeting higher degree of dependability for ad-hoc systems
Objective 1: An open model for specifying Digital Dependability Identities enabling the efficient integration of modular dependability assurance cases

Objective 2: Semi-automated framework for the generation and evaluation of DDIs

Objective 3: A framework for the in-the-field dependability assurance in CPS

Objective 4: autonomous and connected CPS use cases
Improve Cyber-Physical Systems (CPS) by the introduction of Digital Dependability Identity (DDI)

a. Efficient synthesis over the supply chain
b. Safe and secure composition of highly distributed and autonomous CPS

Apply to four use industrial use cases from 3 different domains
**PROJECT STRUCTURE**

- WP1 project management
- WP2 project requirements
- WP3 model concept
- WP4 dependability collaboration workspace
- WP5 autonomous and connected CPS
- WP6 Case studies and evaluations
- WP7 impact management – clustering, dissemination and exploitation