Evaluation Report Innovation Cycle 1

D6.2

Publishable Executive Summary

www.deis-project.eu

Confidentiality	CO	**Deliverable Type**	R
Project	DEIS	**Project Number**	732242

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 732242 (DEIS).

1 Publishable Executive Summary

Cyber-Physical-Systems (CPS) provide the potential for vast economic and societal impact in domains such as automotive, health care and home automation. The open and cooperative nature of CPS poses a significant new challenge in assuring dependability. The DEIS project[1] addresses this important and unsolved challenge by developing technologies that enable a science of dependable system integration. A key innovation is the concept of the Digital Dependability Identity (DDI). A DDI contains all the information that uniquely describes the dependability characteristics of a CPS or CPS component. DDIs are used for the integration of components into systems during development as well as for the dynamic integration of systems into systems of systems in the field.

This deliverable provides a report on the evaluation of results undertaken by the project planned for the first year. This includes a description of the structure and relation of the evaluation metrics and improvement indicators. It also provides an overview of the DDI Engineering Stories defined in WP3 and implemented by the industrial use cases and a mapping which of the requirements defined in WP2 are addressed by which engineering story and implemented by which industrial use case. The report provides details of evaluation activities and indicators for the four industrial use cases completed by project partners and their expert judgement.

The evaluation activities within the first innovation cycle lead to the following outcomes:

- Introduction of the evaluation criteria driven by business impact (e.g., development costs & efforts, resulting product quality & consistency) to be evaluated in terms of expert judgment for each of the industrial use cases
- Already after the first innovation cycle a clear view on the expected impact of the DDI approach is possible showing advantages compared to state-of-the-art approaches in dependability engineering
- Requirement coverage analysis by the mapping between the industrial use cases to the high level requirements of the DDI approach (from WP 2) as well as by mapping the more generic DDI engineering stories (from WP 3) to the industrial use cases

[1] www.deis-project.eu