

ARTEMIS TECHNOLOGY CONFERENCE 2015

6+7 October | Turin, Italy

Eve-CPS

Enabling Adaptive future Cyber-Physical Systems

PROJECT IDEA

Cyber-physical systems (CPS) refer to the next generation of embedded ICT systems that are interconnected, collaborative and that provide users and businesses with a wide range of smart applications and services. The scenarios in which CPS operate are not static: the physical environment changes. Another source of change comes from social interaction in which CPS are just one stakeholder. As a result, the CPS software has to adapt itself at runtime. The Eve-CPS project addresses the challenge "Evolving, continuously adapting systems through learning and adaptive behaviour" by providing a framework to construct adaptive software. The aim of this framework is to support and automate the design, development of adaptive future CPS. This framework will be based on an existing reference architecture, and a set of mechanisms that automate both the development and the runtime reconfiguration of the components of a CPS, as well as modifications to its behaviour. These framework features represent an improvement in the production flexibility of CPS and a contribution inside the ECSEL multiannual strategic plan, since the Framework could be applied to Smart Societies, Smart Energy, and Smart Production and Industrial Automation environments.



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ORGANISATION

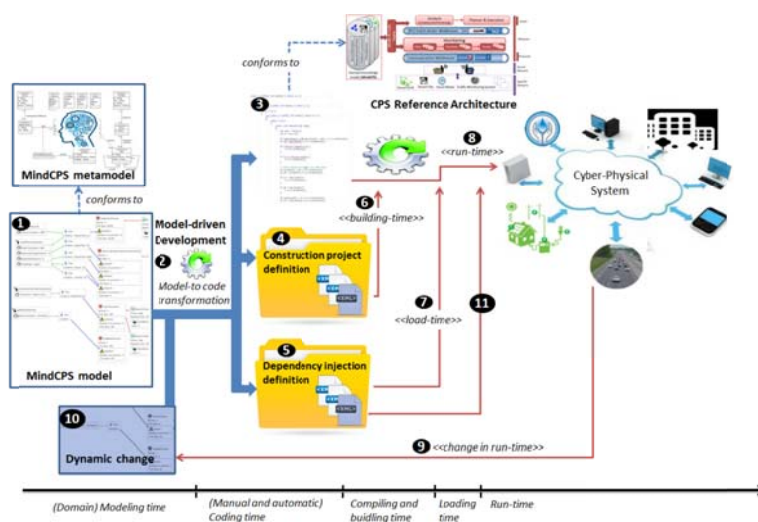
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<https://www.citsem.upm.es/index.php/en/>

CONSORTIUM STATUS

TBD

MISSING PARTNERS

- >Research:
 - Social interaction modelling
 - (Big) Data Analysis
- > Industry and users:
 - System integrators
 - Societies and communities
 - Energy
 - Production



KEY POINTS

- Dynamic reconfiguration
- Domain independent
- Cloud centric
- Flexibility