



Digital Transformation The Silent Revolution: A Great Opportunity for CPSoS

Statement from ARTEMIS

In parallel to the CPS Week event in Vienna, Austria on April 13, 2016, [ARTEMIS Industry Association](#) disclosed its Mars 2016 Strategic Research Agenda (SRA) edition.

This SRA focuses on the Digital Transformation to open the pathway and accelerate its take-up in various activity areas and markets. It proposes research directions that will enable more agile and shorter development cycle of Cyber-Physical Systems (CPS) through the adoption of design-by-composition and correct-by-construction principles. The SRA highlights the importance of this digital evolution that is now occurring as a silent revolution transforming our way of living and of doing business.

Indeed, CPS technology and more particularly the CPSoS are nowadays playing a crucial role and are widely recognised as core enablers lying at the heart of the development of many innovative products and services. By focusing on providing strong technological capability over the whole value chain, barriers can be removed between application contexts to yield multi-domain, reusable components

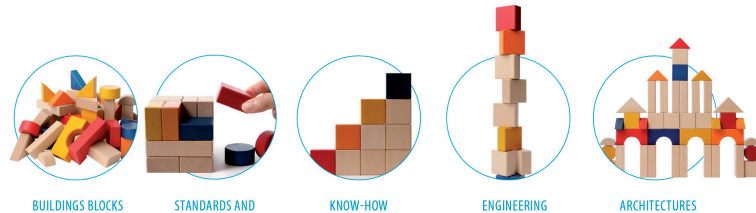
("building blocks") for CPS, extending from Systems and to the Systems of Systems across the whole value chain from engineering to applications for the benefit of all industrial sectors from automotive to healthcare, farming and pharmaceuticals...

CPSoS Support Action contributed largely in setting and orienting to new strategic research challenges and innovation strategy of this new SRA, and actively participated in the Working Group drafting it. Indeed, CPSoS figure among the major research chapters

as CPSoS "pose big challenges in their management and operation as well as in their engineering throughout their life cycle" and are therefore an essential Building Block promoted by the SRA. CPSoS is a strategic research domain to invest in and to explore to master their growing complexity, ensure safety, security and privacy, allow flexibility and facilitate interoperability between various systems.

Laila Gide,
Advanced Studies Director,
THALES, France

ARTEMIS feeds innovations through



Across the CPS System design flow / supply chain

*To make significant advances in 'design by composition'
To meet the challenges of dependability, cost effectiveness, time to market, ...*

By courtesy from ARTEMIS-IA SRA WG

News from

CPSoS

Edited Volume on Project Outcomes

The CPSoS project is in the process of producing an edited volume with the tentative title "Challenges in Engineering and Management of Cyber-Physical Systems of Systems". The purpose of the book is to introduce the results of the CPSoS project in terms of the long-term research challenges and the medium-term research and innovation priorities, and

to provide support from industry and academia for these viewpoints by means of contributed chapters in the wide area of CPSoS.

The planned publication date is in the first quarter of 2017, and an e-book version will be made available in Open Access.