

European Roadmap for Cyber-Physical Systems in Manufacturing

## sCorPiuS – Vision, Objectives, Impact and project methodology

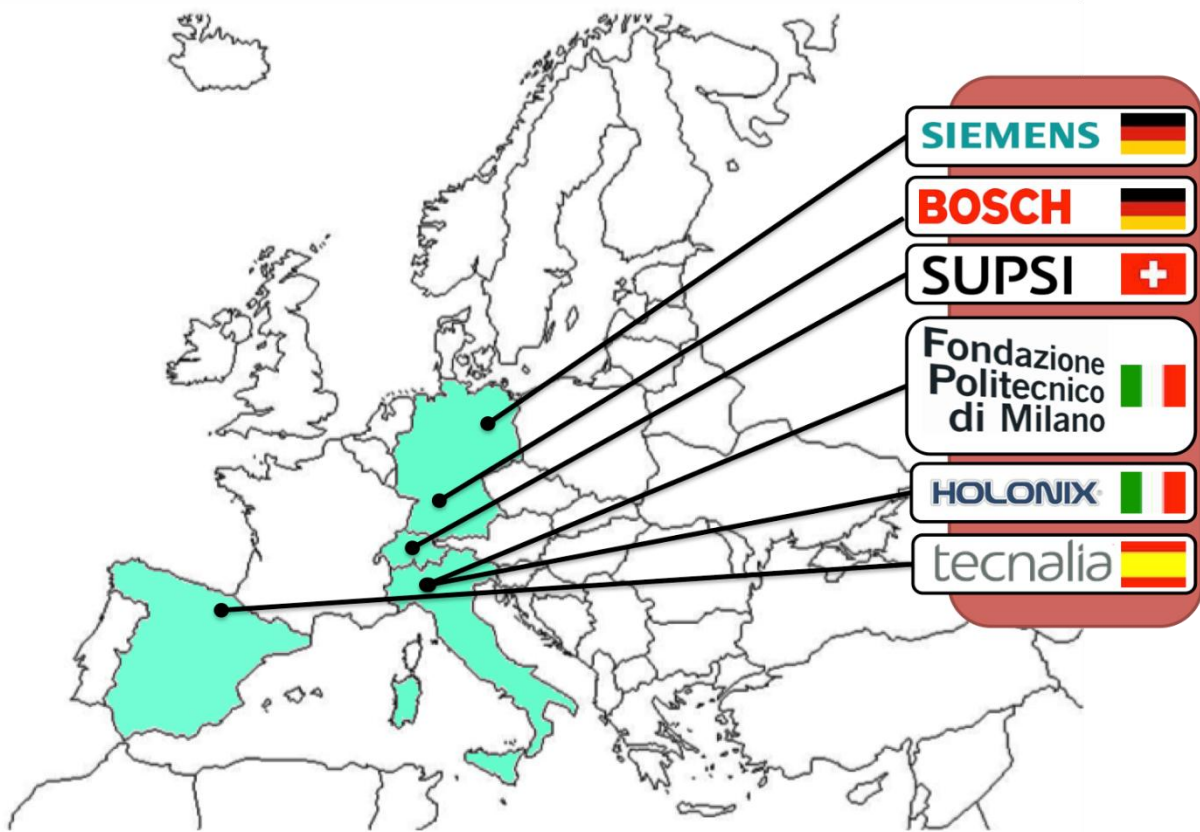
sCorPiuS

is aiming to become the  
catalyst for CPS4MFG  
(CPS for Manufacturing)  
community in Europe

1. To carry out an extensive analysis of the current framework and state-of-the art of CPS technologies, applications in industry, supplier and users as well the most relevant RD&I initiatives at global level;
2. To increase the understanding of how CPS technologies can improve engineering and manufacturing performance;
3. To analyze current development and needs in order to identify possible gaps and areas that need to be further researched;
4. To identify technological challenges and drivers in line with the needs of the vision for the future of engineering and manufacturing;
5. To develop, with the support of academic and industrial experts, a **reference roadmap** addressing the advances of CPSs (in terms of technology and implementation) that could also support the definition of further research streams in this area;
6. **To increase knowledge and awareness** (i.e. consensus building) about the use and impacts of CPSs in engineering and manufacturing by fostering a cross-sectorial dialogue involving potential users, experts and technology providers.

1. Consensus building for a factory-wide interoperability framework for Cyber Physical Systems engineering and manufacturing environment;
2. To create an experts community in the area of interest at European level in order to establish a communication channel for a continuous dialogue in the future evolution of CPS;
3. Definition of guidelines and references for the interested actors, both industrial and institutional ones. Identify directions for improving innovation exploiting advantages to reach more suitable performance.

- Started in March 2015
- Duration 24 Months
- Create the CPS4MFG vision by Oct 2015
- Release First version of the Roadmap by Jan 2016
- Final version of the roadmap by Jan 2017





Main Menu

Overview

Visioning

RoadMapping

Community Building

Objectives

Background

Consortium

Partners&Contrib

News

Events

Documents

Links

News

KOM – May 18

### Overview

sCorPiuS investigates the role of CPS as a lever to empower manufacturing performance and proposes the creation of a roadmap capable to preempting the most important technological trends. Therefore, the project purpose is to support the planning of the Research and Innovation activities with the involvement of the most important European stakeholders. In addition, the dissemination and communication activities are essential for the success of the project and for the long term, the principle behind is that collaboration is the key. For these reasons, one of the main objectives is to create a community building and awareness within the targeted communities of the European Union.

- 1. Knowledge Capture
- 2. Dissemination

sCorPiuS will address the following expected impacts:

- Increased capability for better and faster reaction to market changes by being able to use holistic global and local optimization algorithms in a collaborative value chain.
- Reduced complexity of manufacturing systems at least an order of magnitude through the use of a modular and standardized architecture approach and interoperability.
- Productivity increase of about 30% through the enhanced utilization of resources and information taking a holistic view in a collaborative value chain.
- Reinforced capacity to manufacture high-quality and innovative products and to penetrate new application areas.

- 1. Roadmaps
- 2. To be validated

Intranet

Username

Password

- 1. Meetings
- 2. Deliverables
- 3. Project Managements



### HORIZON 2020

The EU Framework Programme for Research and Innovation