Workshop on Medium-Term Research Priorities for Cyber-physical Systems of Systems

Tuesday, October 6th, 2015 – Turin/Italy

Venue: Starhotels Majestic

Room: Eleonora – *Address*: Corso Vittorio Emanuele II, 54, 10123 Turin – Italy

Agenda

12h30-13h30	*Arrival of participants, lunch (provided by ARTEMIS) & networking*
	Opening
13h30-13h45	**Introduction and Overview of CPSoS**
13h45-14h15	**CPSoS Research and Innovation Domains** Presentations by CPSoS and Discussion
	Contributions from Members of the CPSoS Working Groups and Discussion
14h15-16h00	**Contributors** - Francesco Brancati / ResilTech SRL, Italy - Erwin Schoitsch / AIT - Austrian Institute of Technology, Austria - Alessandro Cimatti / Bruno Kessler Foundation, Italy - Alberto Bemporad / IMT Institute for Advanced Studies Lucca, Italy - Alf Isaksson / ABB, Sweden - Patrick Panciatici / RTE, France
16h00-16h15	*Coffee break*
16h00-16h15	**Presentation of the CPSoS Medium-term Research Priorities**

Overarching topics:

- Overcoming the modelling bottleneck
- System integration and dynamic reconfiguration
- Robust distributed system-wide control and optimization
- Resilience of systems of systems
- Humans in the loop
- Towards cognitive CPSoS – data-based system operation

Sector-specific topics

- Process industries:
  - Integration of control, scheduling, planning and demand-side management
- Transportation and logistics:
  - Development and exploitation of ICT to support multi-disciplinary, multi-objective optimization of operations in complex, dynamic, 24/7 systems
  - Safe, secure and trusted autonomous operations for systems with humans in the loop
- Manufacturing:
  - New ICT infrastructures for adaptable, resilient, and reconfigurable manufacturing processes
  - Data and information visualization for decision support in manufacturing

17h00-18h00	**Discussion and prioritization**
18h00	**End of the workshop**