DT-SPIRE-06-2019

HyperCOG

Full Title: Hyperconnected Architecture for High Cognitive Production Plants

Aim:

The HyperCOG project aims to demonstrate that cyber-physical systems and data analytics can be used to drive transformation within the European process industry, while improving efficiency and competitiveness by harnessing the power of data. HyperCOG will demonstrate the potential of these technologies and will evaluate their replicability and transferability to different industrial sectors.

Concept:
Current industrial networks are implemented following a centralised and hierarchical architecture, with different layers at device level, control level and management level. This structure does not normally allow a direct communication between and amongst the separate layers, and this hinders an agile response to changing conditions. The next generation of industrial automation systems is being designed to be networked and with decentralised organisation. HyperCOG will build a hyperconnected cyber-physical systems (CPS) platform to provide process industries with the basis for faster and better decision-making. The project's smart manufacturing system will be robust in the face of any variable and uncertain scenario. The solution will be designed to allow for real-time monitoring, the analysis of a high volume of data, multilateral communication and interconnectivity between cyber-physical systems and people. This innovative architecture will be validated at three pilot sites in three different sectors: steel, cement and chemicals.

Start date:
01/09/2019

End date:

28/02/2023