



capri

DT-SPIRE-06-2019

CAPRI

Full Title: CAPRI Cognitive Automation Platform for European PProcess Industry digital transformation

Aim:

CAPRI brings cognitive solutions to the Process Industry by developing, testing and experimenting an innovative Cognitive Automation Platform (CAP) towards the Digital Transformation. CAPRI tries to deliver a series of challenges that Process Industry faces such as: Feedstock Variations, Energy Efficiency, Flexibility, Traceability, Energy and Raw Materials and Quality, by developing and testing Cognitive solutions technology. All cognitive solutions will be applied in planning, control and operation to achieve quality, flexibility and performance of the process industry.

Concept:

CAPRI project will develop and promote digital transformation through a Cognitive Automation Platform (CAP) involving a Reference Architecture with four levels of cognitive human-machine interaction and a set of reference implementations both commercial and open source. This Cognitive Automation Platform will coordinate a set of specific cognitive solutions at the various levels of functional organization of the automation (from planning to sensors). It conceptualises:

- Smart IoT connection
- Smart Events processing
- Smart Knowledge modelling
- Smart Decision support

CAP platform through a modular architecture will support knowledge models, machine learning systems and different cognitive modules of planning, operation and control. It will further coordinate a set of specific cognitive solutions at the various levels of functional organisation of the automation (from planning to sensors) based on the analysis of the different use cases involved in CAPRI. CAP will be applied and demonstrated in three use cases, key actors in the process industry; Steelmaking,

Asphalt and Pharma Industry.

Start date:

01/04/2020

End date:

30/09/2023