Ingeteam participates in Cogniplant project financed by the EC to advance towards Industry 4.0.

Ingeteam has become part of an extensive consortium* of organisations which, within the framework of the H2020 Programme (developed by the European Commission, for financing research and innovation projects), is developing the Cogniplant project with a budget of over 8.5 million euros. This will result in the creation of a cognitive platform for improving the throughput and sustainability of European industrial processes.

The Cogniplant project develops an innovative approach to the advanced digitalisation and smart management of industrial processes using a new approximation based on data analysis and monitoring tools.

The idea is to take advantage of the latest developments in advanced analytics and cognitive reasoning to improve the operational throughput of production plants, with a disruptive use of the digital twin concept (virtual replicas of objects or processes that simulate the behaviour of their real counterparts).

The aim of the project is to advance towards a real Industry 4.0. Thanks to the new solutions being tested, improvement ratios of up to 68% will be achieved in controlling the production environment in realtime; 65% in the quality control of finished products, and 70% in the response time in the event of unforeseen or uncontrolled incidents.

This concept will be initially implemented by four end users from different SPIRE industries (*Sustainable Process Industry through Resource and Energy Efficiency*): a chemical plant in Austria, an aluminium refinery in Ireland, a manufacturing industry in Italy and a steelmaking industry in Spain.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869931

Ingeteam will work on the concept of a new IOT embedded device which responds to the paradigms of INDUSTRY 4.0:

- Edge processing using model-based design.
- New communication protocols and distributed I/Os which enable data to be acquired in real time and managed strictly in real time.
- High-performance digital processing based on shared processing between a microprocessor and FPGA.

The Cogniplant solution will provide hierarchical monitoring and control in terms of supervising operations to obtain an overall view of both the production throughput of each of the plants and energy consumption and resources.

(*): **The company consortium involved in the Cogniplant project is composed of the following companies:** Ibermatica SA, Idekos Coop, Technische Universitaet Muenchen Ingeteam Power Technology SA, Hermes Schleifmittel Ges.M.B.H., Savvy Data Systems SL, Software Competence Center Hagenberg gmbh Logpickr, Mr. Nec B.V., Stam srl, Fornaci Calce Grigolin SPA, Core Innovation and Technology OE, Aughinish Alumina Ltd and Acería de Álava, S.A.

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