CoPro will provide tools for the plant-wide optimisation of continuous and discrete decisions, will develop technology for balancing production and consumption in industrial parks for industrial symbiosis and will address power plant scheduling and demand side response.

The Project builds on the results of the FP7 projects PSoC and and M3ORE and is closely linked to the H2020 projects CoPro and and PSoC.

**Start:** November 1st, 2016
**Duration:** 42 months
**Funding:** 6 million €
**Consortium:** 17 partners from 8 countries

**Project Structure & Use Cases**

Guided by the requirements of the industrial use cases, technological innovations of broad applicability will be made in the following areas:
- Overcoming the modelling bottleneck
- Data-based process and product quality monitoring
- Plant- and site-wide optimisation and control of continuously operated plants
- Plant-wide scheduling and control of multi-product plants
- Human-machine interaction
- System integration and data orchestration
- Model management and life cycle support
- Integration of LC assessment tools

**Industrial use cases**

- **(Petro-)chemical production:** Coupled processes incl. power plant and the purchase of electricity, unit switch on/off, scheduling and maintenance, coordination within a chemical park
- **Coupled base chemicals production units:** Coordinating consumption and production of base chemicals with optimal procurement of resources from external suppliers
- **Cellulose fibre production plant:** Network of units with redundant equipment, selection and switching of active units, planning of cleaning
- **Production, formulation and packaging of detergents:** Scheduling of maintenance operations, optimization of product changeovers, data-based detection of anomalies and predictive maintenance
- **Sterilisation and packaging of food:** Scheduling of production steps in a multi-product plant, optimal operation of thermal processing steps

**CoPro will make significant contributions towards**

- Efficiently utilising existing plants by integrated plant-wide scheduling and control
- Better coordination of connected units in a site and within a chemical park
- Buffering the effects of fluctuating renewable energy production and distribution by integrating demand side response with plant-wide scheduling and control

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**Consortium**

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**www.copro-project.eu**

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