

1st meeting of the CoPro Cross-sectorial Industrial Stakeholder Panel

The CoPro consortium met the CoPro Cross-sectorial Industrial Stakeholder Panel (ISP) for the first time on 29th May 2018 in Frankfurt am Main, Germany. The consortium presented the goals and the progress of CoPro to the experts from several industrial domains and non-profit associations who provided feedback on the benefits and the utilisation of the results beyond the participating companies.



The SPIRE-project CoPro “**Improved energy and resource efficiency by better coordination of production in the process industries**” is realised by 17 partners from 8 countries, large industries, SMEs and research institutions. It is coordinated by Prof. Sebastian Engell of TU Dortmund. The project started in November 2016.

The goal of the CoPro project is to develop and to demonstrate methods and tools for process monitoring and optimal dynamic planning, scheduling and control of plants, industrial sites and clusters under dynamic market conditions, to provide decision support to operators and managers and automated closed-loop solutions to achieve an optimally energy and resource efficient production. In addition, by addressing the coordination of production beyond the limits of a single company, CoPro contributes to the long-term goal of industrial symbiosis.

The work of CoPro is guided by six challenging use cases from different sectors of the process industries:

- (Petro-)Chemical production in large production complexes (2 use cases)
- Coupled production units in an industrial park
- Cellulose fiber production
- Production, formulation and packaging of consumer goods
- Sterilisation and packaging of food

In order to gather feedback and to align the research with the industrial needs from different sectors, CoPro has set up a Cross-sectorial Industrial Stakeholder Panel (ISP). The members of the ISP represent 13 companies and international non-profit associations of companies and developers of process technologies across Europe. During the ISP meeting, the CoPro Coordinator and project partners provided an overview of the goals and ambitions of CoPro, of methods and practical solutions that have already been developed and of the future plans.

Some statements from ISP members at the end of the meeting:

“It was a real pleasure to see that there is an outstanding consortium in place, it is not very common seeing working together University and Industrial groups providing real, robust and working solutions. I believe CoPro is exploring the hidden potential of merging production planning and real time production control. Many European companies will be able to get benefits of such merge, from the big petrochemical processes to the medium/small manufacturing companies. I encourage you to continue this way, the initial results are indeed promising so the industrial expectation is really high, please keep me informed of the results. Congratulations and thanks a lot.”

Rafael Gonzalez | Process Control & Optimization Manager | Petronor, S.A.

“I really liked the inspired out of the box thinking to generate benefits (like the collaboration and controlling of different companies for steam feed/usage etc.) even if I personally think they might experience substantial difficulties on the short term. Anyhow, this thinking beyond the usual represents an important step for new developments/strategies and should be encouraged to a certain degree.”

Dr Bernhard König | Area manager of the metallurgical competence centre | K1-MET

“It has been a pleasure to participate in the ISP meeting and to see the newest research results from the CoPro project members. The use cases presented by INEOS in Köln, Covestro and TUDO showed that the combined production optimisation over complete sites is becoming feasible. However, there still are lots of problems and obstacles to overcome until this Industrie-4.0-implementation will work in real life. I very much appreciate the ground breaking ideas and methods that have been developed. Maintaining the autonomy of the individual subsystems by coordinating them by an upper level optimiser that does not know the detailed cost structure and constraints of the plants is an excellent approach that will work even if different companies are involved.

Congratulations to the great research work that the CoPro project team has performed so far!”

Markus Bauer | Head of Process Systems Engineering | Wacker Chemie AG

“This is a great project with many interesting aspects for Bayer. I was fascinated to see how well the scheduling of production has progressed and that many theoretical developments of the past can be put into practice in the specific case studies. Keep up the good work!”

Stefan Krämer | Head of Process Performance Improvement | Bayer AG

“The project is an excellent example of close collaboration between academic research and industrial needs. The focus on addressing real industrial cases and demonstrating how the most advanced insights in scheduling, operations, state-based predictive maintenance and coordination of activities can lead to significant increases in energy and resource efficiency, increased asset utilisation and direct cost savings is very powerful.”

Andreas ten Cate | Director International Business Development | ISPT - Institute for Sustainable Process Technology

“Since its launch SPIRE has been very successful to enable impactful project portfolios in the field of process control and modeling, SPIRE CoPro is another good project example building on past results combined with a high level of ambition for reaching the next level of process efficiency through digitalisation. The consortium is strong and the project is well on track, so the expectations for the project outcomes of the SPIRE community are very high.”

Martin Winter | Innovation Manager & SPIRE Public Private Partnership R&I Advisory Group | CEFIC - The European Chemical Council