

# DIGITIZED OPERATIONS for SUSTAINABLE PROCESS INDUSTRIES



The objective of the workshop is to present the EU perspective on digital operations in process industries and to focus on plant-wide monitoring and control of data-intensive processes i.e., the scope of SPIRE-02-2016 projects.

First, the EU vision on digitization in sustainable process industries will be presented by Angelica Marino (**EC DG RTD**), Dr. Martin Winter (chair of SPIRE Digital Working group - **A.SPIRE**) and Chris Decubber (Technical Director - **EFFRA**).

The four projects will then introduce their vision and first outcomes, through technical presentations and a poster session. Finally, a panel with main experts in the field will discuss about chances and challenges of full digitalization of process operations.

The event will end with the "Process Industry Aperitif" offering a pleasant workshop conclusion and an occasion for informal networking.

**Attendance at the workshop is FREE, but the number of participants is limited. Please, register to the following link:**

<https://www.eventbrite.co.uk/e/digitized-operations-for-sustainable-process-industries-registration-50164721031>

#### **Workshop Organization Committee:**

Rosaria Rossini (ISMB) - [rossini@ismb.it](mailto:rossini@ismb.it)

Marco Dias (GLN Plast) - [marco.dias@famolde.gln.pt](mailto:marco.dias@famolde.gln.pt)

Claudio Pastrone (ISMB) - [pastrone@ismb.it](mailto:pastrone@ismb.it)

Erik Dahlquist (Mälardalen University) - [erik.dahlquist@mdh.se](mailto:erik.dahlquist@mdh.se)

Matti Vikko (Tampere University of Technology) - [matti.vilkko@tut.fi](mailto:matti.vilkko@tut.fi)

Sebastian Engell (TU Dortmund) - [sebastian.engell@tu-dortmund.de](mailto:sebastian.engell@tu-dortmund.de)

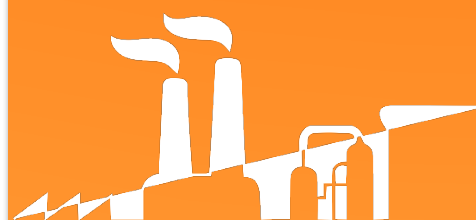


#### **Venue:**

DECHEMA  
Frankfurt am Main, Germany

#### **Date:**

18 October 2018, 9:30 – 20:00





**Venue:** DECHEMA, Frankfurt am Main, Germany

**Date:** 18 October 2018, 9:30 – 20:00

## Programme of the Workshop

Time	Topic	Speaker
9:30	Registration	
10:15	Welcome by DECHEMA	Alexis Bazzanella (DECHEMA)
10:25	Overview of the workshop	Claudio Pastrone (ISMB)
10:30	EC Vision and recommendations	Angelica Marino (EC DG Research and Innovation)
10:50	SPIRE vision on digitization and data exploitation in sustainable process industries (title to be defined)	Martin Winter (chair of SPIRE Digital Working group, A.SPIRE)
11:10	EFFRA vision on digitization and possible synergies with SPIRE industries	Chris Decubber (Technical Director, EFFRA)
11:30	Coffee Break	
11:50	Introduction of the SPIRE-02 projects (vision and few initial results)	
12:00	MONSOON – MOdel-based coNtrol framework for Site-wide OptimizatiON of data-intensive processes	Claudio Pastrone (ISMB)
12:15	COCOP – Coordinating Optimisation of Complex Processes	Matti Vilkkö (Tampere University of Technology)
12:30	FUDIPO – FUTURE DIRECTIONS of production Planning and Optimized energy- and process industries	Erik Dahlquist (Mälardalen University)
12:45	CoPro – Coordinated Production for Better Resource Efficiency	Sebastian Engell (TU Dortmund)
13:00	Lunch break	
	<b>Technical Session: Plant-wide monitoring and control of data-intensive processes</b>	
14:00	<i>Optimization and control of plant operations for improved efficiency</i> <i>(The session includes introduction and Q&amp;A)</i>	Matti Vilkkö (Tampere University of Technology)
	AI solutions for process and plant/site optimization in data intensive scenarios	Dimos Ioannidis (CERTH)
	Optimisation and scheduling in Copper plant	Mikko Korpi (Outotec)
	Large scale combined heat and power plants – production planning, performance monitoring and model based control with input from advanced sensors	Elena Tomas-Aparicio (Mälarenergi)
	Model-based operator support for improved energy efficiency in	Christian Jasch

	viscose production	(Lenzing AG)
<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
<b>15:20</b>	<i>ICT technologies for digitized operations in the process industry (The session includes introduction and Q&amp;A)</i>	Erik Dahlquist (Mälardalen University)
	ICT infrastructure for real-time plant operations and model based development of predictive control and life-cycle assessment functions	Alexander Schneider (Fraunhofer FIT)
	Communication architecture for plant wide optimisation	Carlos Leyva Guerrero (IDENER)
	Advanced control of digesters with “machine learning system”	Moksadur Rahman, (Mälardalen University)
	CoPro Integration Framework - Rapid integration of real time model based applications into heterogeneous IT system environments	Udo Enste (Leikon)
<b>16:40</b>	Coffee Break	
<b>17:00</b>	Poster Session	
	Posters from the 4 SPIRE-02-2016 projects	
<b>17:45</b>	<b><i>Panel: Full digitalization of process operations - chances and challenges</i></b>	Sebastian Engell (TU Dortmund)
	Martin Winter (chair of SPIRE Digital Working group, A.SPIRE), Jane Arnold (Head of Global Process Control Technology, Covestro), Manuel Remelhe (Technology Senior Expert, BAYER AG), André Augé (Statistical and data processing Manager, Rio Tinto / European Aluminium)	
<b>18:30</b>	Wrap up and Conclusion	Claudio Pastrone (ISMB) Erik Dahlquist (Mälardalen University) Matti Vilkkö (Tampere University of Technology)
	Process Industry Aperitif	
<b>20:00</b>	Closing	

