



# OMiLAB: An Environment to Design and Develop Modelling Methods for the Factory of the Future

## Workshop Chairs:

Xavier Boucher, École des Mines de Saint-Étienne, France  
Dimitris Karagiannis, University of Vienna, Austria

**Associated workshop** at the “8<sup>th</sup> IFAC Conference on Manufacturing, Modelling,  
Management and Control”

UTT- University of Technology of Troyes

# The OMi-KA2 Project

## OMiLAB - The laboratory for agile modelling method development

- > The Open Models Laboratory (OMiLAB, [www.omilab.org](http://www.omilab.org)) is a dedicated research, learning, collaboration and experimentation space for modelling method engineering.
- > Both as a physical and virtual place, it offers concepts, tools and a meta-modelling platform ([www.adoxx.org](http://www.adoxx.org)) for the engineering of IT-based modelling tools.

## Consortium (2014-2017)

- 8 partners
- 7 countries : Austria, Italy, France, Germany, Belgique, Grèce, Suède
- EU-funded Project under Erasmus+ Key Action 2: Strategic Partnerships

## Key actions :

- Development of 4 new modelling methods
- Development of teaching and educational material, available on an open learning platform
- International Doctoral Summer School : NEMO 2015, NEMO 2016
- Book Publication: “Domain-Specific Conceptual Modeling - Concepts, Methods and Tools”, D. Karagianis, H.C. Mayr, J. Mylopoulos



# Objective of the Workshop

## Industry 4.0



- ✓ *Intelligence & Technology*
- ✓ *Connexion, Interoperability*
- ✓ *Agile and collaborative socio-organisation*

## Digital Manufacturing

How can enterprise modelling and simulation methods help in implementing and managing the support and service processes required for the new paradigm of “Digital Manufacturing” ?



# Agenda of the Afternoon

## Conference Session

### Servitization as component of the transition towards Factory of the Future – Modelling Methods and Decision Making Supports

- > *Xavier Boucher, Mines St Etienne, manufacturing transition towards Product-Service-Systems*
- > *Yves Ducq, Bordeaux University, Interoperability through a model driven approach and applications*

### Designing and implementing the Factory of the Future – Interoperable Information Systems.

- > *Sandra Haltmayer, FSTI, Network related transitions towards the Industrial Internet of Things*
- > *Dimitris Kiritsis, EPFL, The LinkedDesign approach to semantic modelling for design manufacturing*

### Exchanges with the audience

## Demonstration Session

- > Nawfal Idrissi, Mines St Etienne, **PSS-Scenario Modeller: a PSS modelling method**
- > Robert Buchmann, University Babes-Bolyai Cluj Napoca, **The Modelling Requirements for Mobile Maintenance**
- > Jean Claude Morel, Missler, **Modelling in Additive Manufacturing**

## Panel Session

*How can enterprise modelling and simulation methods help in implementing and managing the support and service processes required for the new paradigm of “Digital Manufacturing” ?*

- > **Sergio Cavalieri**, Universita di Bergamo
- > **El-Houssaine Aghezzaf**, Ghent University
- > **Helena Navas**, Universidade Nova de Lisboa
- > **Alexandre Dolgui**, Ecole des Mines de Nantes

# Conference Materials: Download

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Overview  
Organization  
Program  
Venue and Location

Time	Topic
13:30 - 13:45	<b>Introduction session</b> <ul style="list-style-type: none"><li>General introduction on the Workshop <i>Prof. Dr. Xavier Boucher</i></li><li>OMILAB for the FoF Transition <i>Prof. Dr. Dimitris Karagiannis, Elena-Teodora Miron</i></li></ul>
13:45 - 14:35	<b>Servitization as component of the transition towards Factory of the Future – Modelling Methods and Decision Making Supports</b> <ul style="list-style-type: none"><li>The manufacturing transition towards Product-Service-Systems - towards a generic meta-model for PSS scenarios modelling and analysis <i>Prof. Dr. Xavier Boucher (FR), Ecole des Mines des Saint Etienne, UMR 5600 EVS, FAYOL Institute</i></li><li>Interoperability through a model driven approach and application to Product Service Systems: MDSEA Architecture – FR. <i>Prof. Dr. Yves Duqc (FR), Bordeaux University, IMS UMR 5218 CNRS, Leader of INTEROP GSO</i></li></ul>
14:35 - 15:25	<b>Designing and implementing the Factory of the Future – Interoperable Information Systems.</b> <ul style="list-style-type: none"><li>Network related transitions towards the Industrial Internet of Things – a testbed perspective <i>Ms. Sandra Haltmayer (DE), Project Coordinator Industrial Internet Ferdinand-Steinbeis-Institut</i></li></ul>

