

**PoEM 2017**

**22 - 24**

**November 2017**

**Leuven, Belgium**



# **The Practice of Enterprise Modelling**

10th IFIP WG 8.1 Working Conference PoEM 2017  
Leuven, Belgium, November 22-24, 2017

Proceedings of  
**Doctoral Consortium and Industry Track Papers**

**Edited by**

**Jolita Ralyté**

*University of Geneva, Switzerland*

**Ben Roelens**

*Ghent University, Belgium*

**Serge Demeyer**

*University of Antwerp, Belgium*



PoEM 2017  
Doctoral Consortium and Industry Track  
Papers

Proceedings

This volume of CEUR-WS Proceedings contains 4 Doctoral Consortium and 4 Industry Track papers presented at the 10th IFIP WG 8.1 working conference on the Practice of Enterprise Modelling (PoEM 2017). The conference was held in Leuven, Belgium, November 22-24, 2017.

Copyright © 2017 for the individual papers by the papers' authors. Copying permitted only for private and academic purposes. This volume is published and copyrighted by its editors.

*CEUR-WS.org, ISSN 1613-0073*

## Preface

For already 10 years the IFIP WG 8.1 working conference on the Practice of Enterprise Modelling (PoEM) is an annual meeting place and a discussion forum for the enterprise modelling and information systems community. It gathers academic researchers and practitioners aiming to share their achievements, knowledge and experiences on various topics related to enterprise modelling: enterprise modelling theory, practice, tools and frameworks, enterprise architecture, human aspects and quality issues in enterprise modelling, etc. The 10<sup>th</sup> edition of PoEM was held in Leuven, Belgium, from 22 to 24 of December 2017. This volume of CEUR-WS proceedings includes papers of two PoEM 2017 events – the Doctoral Consortium and the Industry Track.

The ambition of the Doctoral Consortium was to increase the participation of PhD students working on foundations, methods, tools and applications of enterprise modelling, and to offer them the opportunity to present and discuss their research with other academics and to get a fruitful feedback and advice on their research studies. The Doctoral Consortium was also an occasion to interact with other PhD students and stimulate exchange of ideas and suggestions among participants, to discuss concerns about research topics, supervision, the job market, and other career-related issues.

The PoEM 2017 Doctoral Consortium received and accepted 4 submissions coming from Belgium, France and Germany. Each paper has undergone three evaluation and revision phases. First, it was reviewed by two members of the Program Committee, then a dedicated Mentor helped to revise it and to prepare the presentation. Finally, during the Doctoral Consortium, the Mentor and the audience provided additional comments and recommendations that led to the final revision of the paper included in these proceedings.

The PoEM 2017 Industry Track had another important mission – to attract practitioners from industry and institutions, and to promote real-world success and/or failure stories concerning enterprise modeling. Experiences and lessons learned applying state-of-the-art methods, techniques and tools were especially welcome. The Industry Track selected 4 submissions by means of a two-step process involving the submission of a presentation outline (which was reviewed to see whether it would fit the scope of the conference), and submission of a draft paper (which was reviewed by an independent committee of academics and received three reviews). These contributions were presented and discussed during the conference sessions, and the feedback was incorporated into the papers as you read them below.

We would like to express our gratitude to the Program Committee members and Mentors of the Doctoral Consortium, for their efforts in providing very thorough evaluations of the submitted doctoral papers. We wish to thank the PhD students who accepted to share with us their research ideas and progress. We also wish to thank all Industry Track contributors and participants for having shared their practice and real-world experiences. Finally, we owe special thanks to the Programme Chairs and the Local Organisation Committee of PoEM 2017 for their support.

December 2017

*Jolita Ralyté  
Ben Roelens  
Serge Demeyer*

# Conference Organization

## Steering Committee

Anne Persson	University of Skövde, Sweden
Janis Stirna	Stockholm University, Sweden
Kurt Sandkuhl	The University of Rostock, Germany

## General Chair

Monique Snoeck	KU Leuven, Belgium
----------------	--------------------

## Program Committee Chairs

Geert Poels	Ghent University, Belgium
Frederik Gailly	Ghent University, Belgium

## Doctoral Consortium Chairs

Jolita Ralyté	University of Geneva, Switzerland
Ben Roelens	Ghent University, Belgium

## Industrial Chair

Serge Demeyer	University of Antwerp, Belgium
---------------	--------------------------------

## Doctoral Consortium Program Committee

Janis Grabis	Riga Technical University, Latvia
Paul Johannesson	Stockholm University, Sweden
Raimundas Matulevičius	University of Tartu, Estonia
Anne Persson	University of Skövde, Sweden
Kurt Sandkuhl	University of Rostock, Germany
Eva Söderström	University of Skövde, Sweden
Pnina Soffer	University of Haifa, Israel
Janis Stirna	Stockholm University, Sweden
Jelena Zdravkovic	Stockholm University, Sweden

## Organising Chair

Estefanía Serral Asensio	KU Leuven, Belgium
--------------------------	--------------------

## Table of Contents

### Doctoral Consortium Papers

Towards a Visual Language Approach for Modeling Business Ecosystems <i>Anne Faber</i>	1
Towards a Conceptual Model for Decision-making Regarding the Incorporation of Disruptive Technology: Technology Scanning for Early Warning Signals <i>Patrick Luyts</i>	9
A Breakthrough Business Process Management Approach Based on IT Support <i>Manon Froger</i>	25
A Pattern Catalog for GDPR Compliant Data Protection <i>Dominik Huth</i>	34

### Industrial Track Papers

BOEM: Business Object oriented Enterprise Modeling <i>Laleh Rafati and Patrick Derde</i>	41
Expanding the Discipline of Enterprise Architecture Modeling to Business Intelligence with EA4BI <i>Rudi Claes</i>	50
COBIT 5 as IT Governance Framework and Implementation Method – A Literature Mapping <i>Dirk Steuperaert</i>	58
Modelling Chatbots with a Cognitive System Allows for a Differentiating User Experience <i>Eric Michiels</i>	70