

The Practice of Enterprise Modelling

8th IFIP WG 8.1 Working Conference PoEM 2015 Valencia, Spain, November 10-12, 2015

Proceedings of

Short and Doctoral Consortium Papers

Edited by

Sergio España Utrecht University, The Netherlands Jolita Ralyté University of Geneva, Switzerland

Pnina Soffer University of Haifa, Israel Jelena Zdravkovic Stockholm University, Sweden

Óscar Pastor Universitat Politècnica de València, Spain



PoEM 2015 Short and Doctoral Consortium Papers

Proceedings

This volume of CEUR-WS Proceedings contains 9 short and 5 doctoral consortium papers presented at the 8th IFIP WG 8.1 working conference on the Practice of Enterprise Modelling (PoEM 2015). The conference was held in Valencia, Spain, November 10-12, 2015.

Copyright \bigcirc 2015 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

PoEM 2015 Short Papers Foreword

The 8th IFIP WG 8.1 working conference on the Practice of Enterprise Modelling (PoEM 2015) was held in Valencia, Spain, from 10 to 12 November 2015. Since its foundation in 2008, the PoEM conference series aims at understanding and improving the practice of Enterprise Modelling (EM) by offering a forum for sharing experiences and knowledge between the academic community and practitioners from industry and the public sector. It has traditionally covered topics such as EM and information system development, enterprise architecture, business and IT alignment, EM and business process improvement, Enterprise modelling tools and frameworks, quality issues in EM, change management and organizational transformation underpinned by information technology approaches.

This edition, PoEM received 72 submissions covering a large variety of EM topics. All submissions were subject to peer review and were assessed by at least 3 Programme Committee members, who provided constructive recommendations for further improvement. This CEUR Proceedings volume contains the accepted 9 short papers. Full papers are available in the PoEM 2015 Proceedings, published by Springer on the volume 235 of their Lecture Notes in Business Information Processing series. The authors of these short papers represent 8 countries: Brazil, Germany, Israel, Italy, Luxembourg, Norway, Sweden and Switzerland. The papers were presented in two sessions: Reflecting on Practice and Experiences, and Approaching Enterprise Modelling from New Angles.

We owe special thanks to the authors who submitted papers, for their trust in the relevance and rigour of this conference, and to the members of the international Program Committee and additional reviewers, for promoting the conference, as well as for providing valuable reviews for the submitted papers. We are also grateful to the PoEM Steering Committee Chairs for their continuous assistance and to the local organising team at the Universitat Politècnica de València for their hospitality and the organisation of the social events of the conference. Furthermore, we appreciate how the Session Chairs and audience contributed to experience lively Short Paper sessions.

October 2015

Sergio España Jolita Ralyté Óscar Pastor

PoEM 2015 Doctoral Consortium Foreword

PoEM 2015 has organised and held a Doctoral Consortium for the first time in this series of conferences. The ambition behind was to enrich the PoEM conference with a forum intended to bring together PhD students working on foundations, methods, tools and applications of Enterprise Modelling, and provide them with the opportunity to present and discuss their research with other academics.

In particular, the goals of the Doctoral Consortium were to provide fruitful feedback and advice to the selected PhD students on their research studies, to meet senior academics doing research on topics related to the Enterprise Modelling discipline, as well as to interact with other PhD students and stimulate exchange of ideas and suggestions among participants.

The PoEM 2015 Doctoral Consortium received 8 submissions from Belgium, Canada, France, Germany, Italy, Sweden, Tunisia and United Kingdom, 5 of which were accepted. Each paper was reviewed by two members of the Program Committee, and also assessed by the Doctoral Consortium Chairs.

The Doctoral Consortium included a tutorial by Prof. Paul Johannesson from Stockholm University, "Design Science - a Ritual for Legitimating Weak Research or a Tool for Making Research Relevant?" In addition the five accepted papers were presented and discussed.

We would like to express our gratitude to the mentors of the Doctoral Consortium, as well as to the members of the Program Committee for their efforts in providing very thorough evaluations of the submitted doctoral papers. We also wish to thank all PhD students who submitted papers for having shared their work with us. We owe special thanks to the Programme Chairs and the Local Organisation Committee of PoEM 2015 for their support.

October 2015

Pnina Soffer Jelena Zdravkovic

Conference Organization

Steering Committee

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

General Chair

Oscar Pastor Universitat Politècnica de València, Spain

Program Committee Chairs

Jolita Ralyté	University of Geneva, Switzerland
Sergio España	Utrecht University, The Netherlands

Organising Chairs

Tanja Vos	Universitat Politècnica de València, Spain
Marcela Ruiz	Universitat Politècnica de València, Spain

Doctoral Consortium Chairs

Pnina Soffer	University of Haifa, Israel
Jelena Zdravkovic	Stockholm University, Sweden

Workshops Chairs

Charlotte Hug	Université Paris 1 Panthéon-Sorbonne, France
Francisco Valverde	Universitat Politècnica de València, Spain

Publicity Chair

Program Committee

Raian Ali	Bournemouth University, UK
Dimosthenis Anagnostop	oulos Harokopio University of Athens, Greece
Hernán Astudillo	Universidad Técnica Federico Santa María, Chile
Marko Bajec	University of Ljubljana, Slovenia
Judith Barrios	Albornoz University of Los Andes, Colombia
Giuseppe Berio	Université de Bretagne Sud, France
	u University of Vienna, Austria
Rimantas Butleris	Kaunas University of Technology, Lithuania
Albertas Caplinskas	Institute of Mathematics and Informatics, Lithuania
Juan Pablo Carvallo	Universidad del Azuay, Equator
Jaelson Castro	Universidade Federal de Pernambuco, Brazil
Tony Clark	Middlesex University, UK
	los III University of Madrid, Spain
Wolfgang Deiters	Fraunhofer Institute for Software and Systems
6 6	Engineering, Germany
Dulce Domingos	FCUL, Portugal
Sergio España	Utrecht University, The Netherlands
Xavier Franch	Universitat Politècnica de Catalunya, Spain
Ulrich Frank	Universität of Duisburg Essen, Germany
Giovanni Giachetti	Universidad Andres Bello, Facultad de Ingenierí a, Chile
J ē nis Grabis	Riga Technical University, Latvia
Stijn Hoppenbrouwers	HAN University of Applied Sciences, The Netherlands
Paul Johannesson	Royal Institute of Technology, Sweden
Juergen Jung	DHL Global Mail, Germany
Hå vard Jø rgensen	Commitment AS, Norway
Monika Kaczmarek	University Duisburg Essen, Germany
Ron Kenett	KPA Ltd. and University of Torino, Italy
Lutz Kirchner	Scape Consulting GmbH, Germany
Marite Kirikova	Riga Technical University, Latvia
John Krogstie	IDI, NTNU, Norway
Birger Lantow	University of Rostock, Germany
Ulrike Lechner	Universität der Bundeswehr München, Germany
Pericles Loucopoulos	University of Manchester, UK
Beatriz Marín	Universidad Diego Portales, Chile
Florian Matthes	Technische Universität München, Germany
Raimundas Matulevičius	University of Tartu, Estonia
Graham Mcleod	Inspired.org, South Africa
Jan Mendling	Wirtschaftsuniversität Wien, Austria
Christer Nellborn	Nellborn Management Consulting AB, Sweden
Andreas L Opdahl	University of Bergen, Norway
Óscar Pastor	Universitat Politècnica de València, Spain
Anne Persson	University of Skövde, Sweden
Michael Petit	University of Namur, Belgium
Ilias Petrounias	University of Manchester, UK

Henderik Proper

Henderik Proper	Luxembourg Institute of Science and Technology, Luxembourg
Jolita Ralyté	University of Geneva, Switzerland
Colette Rolland	Université Paris 1 Panthé on-Sorbonne, France
Daniel Romero	Universidad Nacional de Asunción, Paraguay
Francisco Ruiz	University of Castilla la Mancha, Spain
Irina Rychkova	Université Paris 1 Panthé on-Sorbonne, France
Kurt Sandkuhl	University of Rostock, Germany
Ulf Seigerroth	Jönköping University, Sweden
Khurram Shahzad	Royal Institute of Technology, Sweden
Nikolay Shilov S	PIIRAS, Russian Federation
Pnina Soffer	University of Haifa, Israel
Janis Stirna	Stockholm University, Sweden
Darijus Strasunskas	DS Applied Science, Norway
Stefan Strecker	University of Hagen, Germany
Victoria Torres	Universitat Politècnica de València, Spain
Francisco Valverde	Universitat Politècnica de València, Spain
Olegas Vasilecas	Vilnius Gediminas Technical University, Lithuania
Pablo Villarreal	Universidad Tecnológica Nacional - Facultad Regional
	Santa Fe, Argentina
Frank Wolff	DHBW-Mannheim, Germany
Eric Yu	University of Toronto, Canada
Jelena Zdravkovic	Stockholm University, Sweden

Additional Reviewers

Nadia Abdu	Universität der Bundeswehr München, Germany
Nathalie Aquino	Universidad Nacional de Asunción, Paraguay
Marija Bjeković	Public Research Centre Henri Tudor, Luxembourg
Alexander Bock	Universität of Duisburg Essen, Germany
Anis Boubaker	University of Quebec at Montreal, Canada
Paulius Danenas	Kaunas University of Technology, Lithuania
Mohammad Hossein Dan	esh University of Toronto, Canada
Sybren De Kinderen	Luxembourg Institute of Science and Technology,
	Luxembourg
Khaled Gaaloul	Luxembourg Institute of Science and Technology,
	Luxembourg
Fáber Giraldo	University of Quindío, Colombia
Jens Gulden	Technische Universität München, Germany
Matheus Hauder	Technische Universität München, Germany
Elena Kushnareva	Université Paris 1 Panthéon-Sorbonne, France
Alexei Lapouchnian	University of Toronto, Canada
Karolyne Oliveira	Universidade Federal de Pernambuco, Brazil
Audrius Rima	Vilnius Gediminas Technical University, Lithuania
Marcela Ruiz	Universitat Politècnica de València, Spain
Alexander W. Schneider	Technische Universität München, Germany

Tomas Skersys	Kaunas University of Technology, Lithuania
Dirk van der Linden	Luxembourg Institute of Science and Technology,
	Luxembourg
Jéssyka Vilela	Universidade Federal de Pernambuco, Brazil

Doctoral Consortium Mentors

Paul Johannesson	Stockholm University, Sweden
Jelena Zdravkovic	Stockholm University, Sweden
Raimundas Matulevičius	University of Tartu, Estonia
Anne Persson	University of Skövde, Sweden
Geert Poels	Ghent University, Belgium

Doctoral Consortium Program Committee

Paul Johannesson	Stockholm University, Sweden
John Krogstie	IDI, NTNU, Norway
Raimundas Matulevičius	University of Tartu, Estonia
Anne Persson	University of Skövde, Sweden
Geert Poels	Ghent University, Belgium
Irina Rychkova	Université Paris 1 Panthé on-Sorbonne, France
Kurt Sandkuhl	University of Rostock, Germany
Ulf Seigerroth	Jönköping University, Sweden
Janis Stirna	Stockholm University, Sweden

Table of Contents

Short Papers 1: Reflecting on Practice and Experiences	
Participative Design of a Security Risk Reference Model: an Experience in the Healthcare Sector Application Lou Schwartz, Eric Grandry, Jocelyn Aubert, Marie-Laure Watrinet and Hervé Cholez	1
Modeling As-is, Ought-to-be and To-be – Experiences from a Case study in the Health Sector Snorre Fossland and John Krogstie	11
Insights from a Study on Decision Making in Enterprise Architecture Dirk van der Linden and Marc van Zee	21
Initial Experiences in Developing a Reference Enterprise Architecture for Small and Medium-Sized Utilities Felix Timm, Christina Köpp, Kurt Sandkuhl and Matthias Wißotzki	31
Short Papers 2: Approaching Enterprise Modelling from New Angles	
Adapting an Enterprise Architecture for Business Intelligence Pascal von Bergen, Knut Hinkelmann and Hans Friedrich Witschel	41
From Visual Language to Ontology Representation: Using OWL for Transitivity Analysis in 4EM <i>Birger Lantow and Kurt Sandkuhl</i>	
Ontology-based Modeling of Cloud Services: Challenges and Perspectives Barbara Livieri, Nicola Guarino, Marco Zappatore, Giancarlo Guizzardi, Mario Bochicchio, Antonella Longo, Julio Cesar Nardi, Glaice Kelly Quirino, Monalessa Barcellos and Ricardo A. Falbo	61
Agile Design of Sustainable Networked Enterprises Frank Lillehagen and John Krogstie	71
Modeling Authorization in Enterprise-wide Contexts Matus Korman, Robert Lagerström and Mathias Ekstedt	81
Doctoral Consortium Papers	
A Context Modelling Method to Enhance Business Service Flexibility in Organisations <i>Hasan Koç</i>	91
Towards an Ontology of Economic Value Barbara Livieri	99

Enterprise Architecture Modeling for Business and IT Alignment Julia Kaidalova	108
Modelling and Facilitating User-Generated Feedback for Enterprise Information Systems Evaluation <i>Nada Sherief</i>	117
Modeling Software Process Configurations for Enterprise Adaptability Zia Babar	125