Janis Grabis
Marite Kirikova
Jelena Zdravkovic
Janis Stirna (eds.)

PoEM Short Papers 2013


CEUR-WS.org/Vol-1023
ISSN 1613-0073
Preface

PoEM 2013 – the 6th IFIP WG 8.1 Conference on the Practice of Enterprise Modeling was held in November 2013 in Riga, Latvia. Since its foundation in 2008, the PoEM conference addresses the use of enterprise modeling in practice by bringing together the academic community and practitioners from industry to contribute to improved and novel enterprise modeling practices.

Enterprise Modeling (EM) is discipline that aims to externalize enterprise knowledge and thus adding to its value. It comprises modelling of the structure, behavior and organization of the enterprise. Using these models, the practitioners aim to better understand the enterprise’s functions, as well as to better link the functions to the models of Information Systems.

The PoEM 2013 conference included 39 presentations. The presented practitioner and short papers (on research in progress in enterprise modeling) are included in this volume. Other conference papers are available in PoEM 2013 Proceedings, published by Springer.

These Short Paper Proceedings include 20 practitioner or short papers. The authors of the papers represent ten countries: Colombia, France, Germany, Netherlands, Latvia, Luxembourg, Norway, Poland, Sweden, and Switzerland. Reflecting different topics of EM research, practices and tools, the papers were presented in five sessions: Enterprise Architecture; EM and Business Processes; Conceptualizations, Notations and Ontology; EM and Information Systems; and Compliance in EM.

The organization of PoEM 2013 owes special thanks to the members of the International Program Committee for promoting the conference, as well as for providing valuable reviews for the submitted papers. Furthermore, we are grateful to all authors who submitted the papers to the conference, and all participants who contributed to the Short Paper sessions. Special thanks go to Riga Technical University for an engaging organization of the conference.

November 2013

Janis Grabis
Marite Kirikova
Jelena Zdravkovic
Janis Stirna
PoEM 2013 Organization

Steering Committee
Anne Persson, Skövde University, Sweden
Janis Stirna, Stockholm University, Sweden

General Chair
Jānis Grabis, Riga Technical University, Latvia

Organizers
Jānis Grabis, Riga Technical University, Latvia
Gundega Lazdane, IIBA Latvia Chapter, Latvia
Līlīta Sparane, Latvian IT Cluster, Latvia
Renate Strazdina, Riga Technical University (industrial cooperation chair)
Jānis Kampars, Riga Technical University, Latvia

Program Committee Co-chairs
Marite Kirikova, Riga Technical University, Latvia
Jelena Zdravkovic, Stockholm University, Sweden

Program Committee
Daniel Amyot, University of Ottawa, Canada
Marko Bajec, University of Ljubljana, Slovenia
Janis Barzdins, University of Latvia, Latvia
Guiseppe Berio, University of South Brittany, France
Robert Buchmann, University of Vienna, Austria
Rimantas Butleris, Kaunas University of Technology, Lithuania
Albertas Caplinskas, VU IMI, Lithuania
Steinar Carlsen, Computas, Norway
Wolfgang Deiters, Fraunhofer ISST, Germany
Sergio España, Universitat Politècnica de València, Spain
Xavier Franch, Universitat Politècnica de Catalunya, Spain
Janis Grabis, Riga Technical University, Latvia
Norbert Gronau, University of Potsdam, Germany
Remigijus Gustas, Karlstad University, Sweden
Patrick Heymans, University of Namur, Belgium
Stijn Hoppenbrouwers, Radboud University Nijmegen, the Netherlands
Jennifer Horkoff, University of Trento, Italy
Paul Johannesson, Stockholm University, Sweden
Håvard Jørgensen, Commitment AS, Norway
Marite Kirikova, Riga Technical University, Latvia
John Krogstie, Norwegian University of Science and Technology, Norway
Marc Lankhorst, Novay, The Netherlands
Birger Lantow, University of Rostock, Germany
Ulrike Lechner, Munich University of the Armed Forces, Germany
Michel Leonard, Université de Genève, Switzerland
Peri Loucopoulos, Harokopio University of Athens, Greece /University of Loughborough, UK
Florian Matthes, Munich University of Technology, Germany
Raimundas Matulevicius, University of Tartu, Estonia
Graham McLeod, inspired.org, South Africa
Jan Mendling, Vienna University of Economics, Austria
Christer Nellborn, Nellborn Management Consulting AB, Sweden
Björn Nilsson, Anatés AB, Luxembourg
Andreas Opdahl, University of Bergen, Norway
Sietse Overbeek, University of Duisburg-Essen, Germany
Oscar Pastor, Valencia University of Technology, Spain
Anne Persson, University of Skövde, Sweden
Michael Petit, University of Namur, Belgium
Tomas Pitner, Masaryk University, Czech Republic
Naveen Prakash, GCET, India
Erik Proper, Radboud University Nijmegen, the Netherlands
Jolita Ralyté, Université de Genève, Switzerland
Colette Rolland, Université Paris 1 Panthéon Sorbonne, France
Irina Rychkova, Université Paris 1 Panthéon Sorbonne, France
Kurt Sandkuhl, Jönköping Technical University, Sweden
Ulf Seigerroth, Jönköping International Business School, Sweden
Khurram Shahzad, University of the Punjab, Pakistan
Nikolay Shilov, SPIIRAS, Russia
Pnina Soffer, University of Haifa, Israel
Maarten Steen, Novay, the Netherlands
Janis Stirma, University of Stockholm, Sweden
Darius Strusunskas, DS Applied Science, Norway
Renate Strazdina, Ernst&Young SIA, Latvia
Olegas Vasilecas, Vilnius Gediminas Technical University, Lithuania
Mathias Weske, University of Potsdam, Germany
Eric Yu, University of Toronto, Canada
Jelena Zdravkovic, Stockholm University, Sweden

Additional Reviewers
Gundars Alksnis, Riga Technical University, Latvia
Solivida Berzisa, Riga Technical University, Latvia
Nelly Condori-Fernandez, University of Twente, The Netherlands
Sybren De Kinderen, Vrije Universiteit Amsterdam, The Netherlands
Arturo Gonzalez, Universitat Politècnica de València, Spain
Mattheus Hauder, Munich University of Technology, Germany
Martin Henkel, Stockholm University, Sweden
Amin Jalali, Stockholm University, Sweden (PhD student)
# Table of Contents

**Enterprise Architecture**

Embracing Imperfection in Enterprise Architecture Models ........................................... 8  
*Hector Florez, Mario Sánchez and Jorge Villalobos*

Challenges of EA Methodologies Facing Progressive Decentralization in Modern Organizations ................................................................. 18  
*Irina Rychkova, Jelena Zdravkovic and Thomas Speckert*

Connecting the Dots: Examining Visualization Techniques for Enterprise Architecture Model Analysis ................................................................. 29  
*David Naranjo, Mario Sánchez and Jorge Villalobos*

Software Migration Project Cost Estimation using COCOMO II and Enterprise Architecture Modeling ................................................................. 39  
*Alexander Hjalmarsson, Matus Korman and Robert Lagerström*

**Enterprise Modeling and Business Processes**

Process Model Driven Requirements Engineering .......................................................... 49  
*Dag Rojahn Karlsen, Helle Frisak Sem and Steinar Carlsen*

Comprehensive Business Process Management through Observation and Navigation ......................................................................................... 59  
*Stefan Schönig, Michael Zeising and Stefan Jablonski*

Building a High-Level Process Model for Soliciting Requirements on Software Tools to Support Software Development: Experience Report ................................................................. 70  
*Ilia Bider, Athanasios Karapantelakis and Nirjal Khadka*

**Enterprise Modeling and Information Systems**

Towards Implementing IT Service Management in an ERP for the IT Service Industry ......................................................................................... 83  
*Johannes Hintsch and Klaus Turowski*

Enterprise Modeling in Complex ERP Adoptions: Learning from the Experience of an IT Company ......................................................................................... 95  
*Jan Trąbka and Piotr Soja*
Methodology of Building ALM Platform for Software Product Organizations ............105
   *Ivo Pekšēns*

Experiences from Teaching Enterprise Modelling to Students of Information Systems ...........................................................................................................116
   *Sobah Abbas Petersen and John Krogstie*

**Conceptualizations, Notations, and Ontologies**

Do Conceptual Modeling Languages Accommodate Enough Explicit Conceptual Distinctions? .......................................................................................................126
   *Dirk van der Linden and Henderik A. Proper*

Granular Ontologies and Graphical In-Place Querying .....................................136
   *Janis Barzdins, Edgars Rencis and Agris Sostaks*

vGMQL – Introducing a Visual Notation for the Generic Model Query Language GMQL ........................................................................................................146
   *Matthias Steinhorst, Patrick Delfmann and Jörg Becker*

Linking BPMN, ArchiMate, and BWB: Perfect Match for Complete and Lawful Business Process Models? .................................................................156
   *Ludmila Penicina*

Capturing and Representing Values for Requirements of Personal Health Records ....166
   *Eric-Oluf Svee, Maria Kvist and Sumithra Velupillai*

**Compliance in Enterprise Modeling**

Rule Governance, Social Coding and Social Modeling ........................................176
   *Joost de Vries and Stijn Hoppenbrouwers*

The Role of Invariants in the Co-evolution of Business and Technical Service Specification of an Enterprise .................................................................183
   *Biljana Bajić-Bizumić, Irina Rychkova and Alain Wegmann*

A Comparative Analysis of Enterprise Modeling Approaches for Modeling Business Strategy ..................................................................................................193
   *Constantinos Giannoulis, Iyad Zikra, Maria Bergholtz, Jelena Zdravkovic, Janis Stirna and Paul Johannesson*

Integration of Business Rules and Model Driven Development ..........................205
   *Lauma Jokste*