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Preface

BMSD is an annual international symposium on business modeling and software design that brings together researchers and practitioners interested in enterprise engineering and its relation to software development.

Referring to the LNBIP 173 Preface, we would like to emphasize the importance of business / enterprise models and their role as a basis for software generation aiming at: (a) properly integrating the software system in its enterprise context; (b) achieving an enterprise-software traceability; (c) re-use, based on enterprise modeling constructs and/or software components. Furthering this discussion, we would like to stress the growing role of business modeling that is to help us discuss and improve the ways we create, deliver, and capture value. We argue that information systems and software applications can only be successful if properly reflected in and restricted by a business model. This brings together technical disciplines (such as informatics), economic disciplines (such as management), and social disciplines (such as psychology), in addressing the challenge of adequately delivering to real-life customers complex technology-enabled services. In considering this, we need to distinguish between the physical and the social world. The physical world consists of measurable things, the social world consists of humans with feelings, beliefs, intentions, interacting with each other. We often need to express changes in the social/physical world that correspond to the changing needs or requirements of humans. This points to the interdisciplinary nature of current IT service provisioning, driven by the aim of delivering context-aware services as parts of adaptable information systems. Developing and maintaining such systems assumes dynamic business process management that supports the reactive or evolutionary modification or transformation of business process instances based on environmental conditions or changes. This in turn often points to the need for advanced business process modeling and simulation. Business processes concern actions that are realized by humans but may also be actions that are realized by software (these could be, for example, Web services that rely on cloud resources). This assumes the need of bringing together different “viewpoints” and reflecting them in complex enterprise architectures touching upon human activities, Web services, cloud resources, and so on, all put together driven by the aim of delivering value as according to an underlying business model. We believe that understanding this would lead to better ICT/software applications being created because they would adequately fit in their surrounding environment. We would then have more useful information systems resulting in better IT support to our real-life activities. This vision brings us together and inspires the BMSD Community.

Noordwijkerhout, The Netherlands, and the theme of BMSD 2013 was: Enterprise Engineering and Software Generation. The fourth BMSD edition (2014) took place in Luxembourg, Grand Duchy of Luxembourg, and the theme of BMSD 2014 was: Generic Business Modeling Patterns and Software Re-Use.

The Luxembourg edition of BMSD demonstrated for a fourth consecutive year a high quality of papers and presentations as well as a stimulating discussion environment.

In 2014, the scientific areas of interest to the symposium were: (a) business models and requirements; (b) business models and services; (c) business models and software; (d) information systems architectures. Further, there were three application-oriented special sessions, namely, a special session on “e-Health Services and Technologies,” a special session on “Intelligent Systems and Business Analysis,” and a special session on industrial applications of business modeling (labeled: “Industrial Track”).

BMSD 2014 received 52 paper submissions from which 37 papers were selected for publication in the symposium proceedings. From these, 12 papers were selected for a 30-minute oral presentation (full papers), leading to a full-paper acceptance ratio of 23% (the same as in 2013) and hence indicating intention of preserving a high-quality forum for the next editions of the symposium. The BMSD 2014 authors are from: Austria, Belgium, Bulgaria, China, Germany, India, Ireland, Italy, Japan, Kazakhstan, Luxembourg, The Netherlands, Poland, Portugal, Russia, Spain, Switzerland, Taiwan, Tunisia, UK, and USA (listed alphabetically); this indicates the strong international spirit at the fourth edition of BMSD.

The high quality of the BMSD 2014 program was enhanced by two keynote lectures, delivered by distinguished guests who are renowned experts in their fields: Henderik Proper (Public Research Centre Henri Tudor, Grand Duchy of Luxembourg) and Roel Wieringa (University of Twente, The Netherlands). Their inspiring lectures were greatly appreciated by the participants, helping them get deeper insight particularly in enterprise modeling and requirements engineering. Further, Erik’s and Roel’s participation (together with other professors) in the BMSD 2014 panel was of additional value.

BMSD 2014 was organized and sponsored by the Interdisciplinary Institute for Collaboration and Research on Enterprise Systems and Technology (IICREST), in collaboration with the Public Research Centre Henri Tudor (TUDOR). Cooperating organizations were the Dutch Research School for Information and Knowledge Systems (SIKS), Aristotle University of Thessaloniki (AUTH), the UTwente Center for Telematics and Information Technology (CTIT), and AMAKOTA Ltd.

This book contains revised and extended versions of seven selected BMSD 2014 papers, considering a large number of BMSD-relevant research topics: from modeling and simulation-related topics, such as declarative business rules, business (process) modeling, business process simulation, and information systems modeling, through architectures-related subjects, such as impact analysis with regard to enterprise architectures and architectural principles for service cloud applications, to topics touching upon quality-of-service-aware service systems.
We hope that you will find the current LNBIP volume interesting. We believe that the seven selected papers will be considered by you as helpful reference with regard to the above-mentioned topics.

I dedicate my editorial work on this book to the memory of my father, Blagovest.

April 2015

Boris Shishkov
Symposium Committee

Chair

Boris Shishkov  
Bulgarian Academy of Sciences / IICREST, Bulgaria

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Henderik Proper  Public Research Centre Henri Tudor, Grand Duchy of Luxembourg
Roel Wieringa  University of Twente, The Netherlands
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