Editorial

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Biographical notes: Ernesto Damiani is a Full Professor at the DTI – University of Milan, Italy, where he leads the SESAR research lab and is the Head of the PhD program in Computer Science. He has published more than 200 papers and several books in the area of secure software architectures, business process representation and distributed systems. He is the Area Editor of the *Journal of System Architectures* and the Associate Editor of the *IEEE Trans. in Service Computing*. He is the Vice-Chair of the IEEE TC on Industrial Informatics, the Chair of IFIP WG 2.6 on Databases and the Vice-Chair of the IFIP WG 2.13 on Open Source Development.

The extended enterprise (EE) is a business organisational form based on a distributed architecture of business elements enabled by internetworking technologies. Recent advances in technology are fostering the emergence of interactive, flexible processes of management, production, and distribution within EEs, as well as new forms of cooperative innovation.

Historically, enterprise architectures included the corporation's internal information system and a web-based infrastructure for interacting with customers and external organisations. Technological evolution is increasingly blurring this distinction, and a single notion of extended enterprise platform (EEP) is gradually emerging. Several alternative technological platforms have been proposed for EEPs, including service oriented architectures, service-enabled grids and others. The firm-centric view of innovation is correspondingly evolving toward an 'open' model, in which the interaction between internal resources and external networks is the key to success. Recombination, modularity, self-organising communities/markets and brokering become key elements of the management of distributed projects.

This special issue investigates the new challenges and opportunities that emerging technologies for knowledge representation and interchange are bringing to EEP development, fostering the evolution of digital business ecosystems (DBE). Also, it explores how EEPs enable enterprises to innovate, self-organise and adapt to respond to change. The papers published in this issue have been selected as follows: after the Advanced International Summer School organised by the e-Business Management Section of University of Salento/ISUFI and held in Ostuni, Italy, in 2006, the authors of the best contributions were invited to expand their research and submit full journal papers to *IJBPIM*. These submissions underwent additional refereeing and, finally, only six papers were selected, providing a wide and deep view over this emerging research field.

The paper 'On the drivers of extended enterprise and the problems of integration and governance' by Giorgio Gottardi, M. Rita Arico' and Andrea Piovesana, sets the overall scenario, presenting the business opportunities and the governance problems related to the emerging paradigm of the EE.

In the paper 'Leveraging peer-to-peer and ontologies for the extended enterprise', Giuseppe Pirrò, Massimo Ruffolo and Domenico Talia focus on the specific topic of representing and exchanging business knowledge on peer-to-peer distributed architectures. In the paper 'Software engineering within a dynamic digital business ecosystem', G. Marcon, H. Okada, T. Heistracher, A. Corallo and M. De Tommasi explore the technological challenges of the transition from the EE to the wider notion of DBE.

These new technologies have the potential to trigger a wave of creativity in product and process innovation. The paper 'How to use the innovative potential of online communities? Netnography – an unobtrusive research method to absorb the knowledge and creativity of online communities', by Gregor Jawecki and Johann Füller, provides valuable insight on how to unlock this potential, and the paper 'Semantic web-based profiled knowledge discovery in community of practice', by Paolo Ceravolo, Angelo Corallo and Gianluca Elia, shows how communities can be leveraged as sources of semantically rich business information. Finally, the paper 'Efficient join algorithms for distributed information integration based on XML' by Hongzhi Wang, Jianzhong Li and Shuguang Xiong tackles some crucial issues if efficient large-scale processing of semi-structured information. As a result, all six papers further depict various directions with different challenges in knowledge management and innovation for the EE. Also, the author hopes they retain at least some of the liveliness and appeal to non-specialists of the interesting discussions originally held in Ostuni.