Introduction to the Minitrack on The Dynamics of Business Engineering

Gert-Jan de Vreede  
Delft University of Technology  
devreede@sepa.tudelft.nl

Alexander Verbraeck  
Delft University of Technology  
verbraeck@sepa.tudelft.nl

Doug Vogel  
University of Arizona  
vogel@bpa.arizona.edu

Henk G. Sol  
Delft University of Technology  
sol@sepa.tudelft.nl

Business Engineering is about designing new organizational structures, processes, and systems in order to achieve more effective organizations. Business Engineering is not a new concept. Organizations have always been dynamic, for instance in seizing new opportunities, in reacting to changes from the outside world and to changes from within the organization, and in improving their way of working, e.g. by using information technology. This dynamism is an inherent characteristic of our society in general and of organizations in particular.

Dynamism complicates the analysis and understanding of organizational performance. In the vast amount of literature that is published on Business Engineering the focus is on trying to learn from the successes and failures of redesign projects, and in identifying the common elements that can be applied in methods and supported by tools. This minitrack on the Dynamics of Business Engineering is one of the key international platforms where the following two issues can be discussed:

1. How can we model organizations as dynamic systems in order to gain insight into their structure, processes and decision making approaches and performance?

2. How can the gathered experience and knowledge be used in designing more effective organizations and information systems?

The minitrack focuses on organizations and their (information) systems as part of the continuous search for new and better ways to gain understanding of how organizations function and how people and their tasks can best be arranged and supported. This search takes place at the micro-level (individual tasks), the meso-level (business components and their coordination) as well as at the macro-level (inter-organizational or corporate design issues). At each level, specific problems are encountered with the modeling, analysis, design and implementation of organizational structures, processes, and systems. Issues that deserve attention include:

- Methodological aspects of modeling, such as the use of participative modeling sessions and the design of field studies.
- Incorporating dynamism in system development methodologies.
- The functionality and design of supporting tools, such as interactive collaborative modeling workbenches with automated tools for simulation, animation, model validation and consistency checking, and experimental design.
- Special applications of business engineering methods, e.g. in gaming, training and operational decision support.
- Implementation issues, such as transferring models for design into actual implementations (new organizational structures and applications of information technology) and coping with resistance to organizational change.

It needs no emphasis that the research agenda for business engineering in a dynamic world is rich and challenging. This year’s papers in this minitrack show that progress is made again in studying dynamic behavior, modeling change, reacting to change, and creating tools and techniques to represent complex organizational systems.