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Abstract

Product Configuration Systems (PCS) are considered types of IT systems that enable companies to develop product alternatives to facilitate the sales and production processes automation. Based on literature, there are various challenges reported on managing different phases of PCS projects. Different tools and solutions have been suggested and applied for solving these challenges especially at the level of the project management process. Moreover, various software project management methods are used, in order to get high quality PCS, such as Rational Unified Process (RUP). The changes from Plan-driven methodologies towards a pure agile way of working is a challenge that comes with both benefits and risks. In this paper, first we will investigate about the PCS projects using the RUP method and then we will discuss PCS projects cases managed and launch using Agile principles. We use a comparative qualitative explanatory case study method on multiple data sources: documentation, workshops and participant observation. We find that changing from RUP to Scrum brings both positive effects and challenges to the organization.

Keywords
Product Configuration System (PCS), Project Management, Rational Unified Process (RUP), Agile

Biographies
Sara Shafiee is a postdoctoral research fellow at the Technical University of Denmark, Department of Mechanical Engineering. She has the experience of working in Engineer-To-Order companies as IT Project Manager and Senior Business Consultant and developing and maintaining more than 10 Product Configuration Systems. Her research is focused on Product Configuration systems challenges for complicated highly engineered products. She has a series of papers about product configuration projects scoping, documentation and modeling, knowledge management, IT tools integrations in international conferences and journals.

Yves Wautelet is an Assistant Professor in Information Systems at KU Leuven, Belgium and invited professor at Université de Namur, Belgium. He formerly has been an IT project manager and a Postdoc Fellow at Université catholique de Louvain, Belgium. He completed a Ph.D. thesis focusing on project and risk management issues in large enterprise software design. Yves also holds a Master of Management Sciences as well as a Master of Information Systems. His research interests include various aspects of software engineering and enterprise information systems such as life-cycle management, requirements engineering, IT governance, agent-oriented development and e-learning. He also focuses on the application of his research into industrial environments.

Lars Hvam is Professor at the Technical University of Denmark. He has been working on product configuration for more than 15 years as a teacher, a researcher and as consultant for more than 15 configuration projects in large industrial companies. He has supervised eight Ph.D. projects on the construction and application of configuration systems and has been the project leader for four large research projects on product configuration. Lars Hvam is also the founder and current chairman of the Product Modelling Association (www.productmodels.org), whose aim is to disseminate knowledge of the possibilities offered by product configuration.