Lessons Learned around the World: Key Success Factors to Enable Process Change

David Dorenbos, Motorola
Annie Combelles, Q-Labs

From Chile to Sweden to Georgia to Hong Kong, for very small teams to large organizations, for basic repeatability to complex technology, the question is the same: Why isn’t process change easier? The articles that follow demonstrate that aligning interests on a process change is hard work. But more than just facing hard work, each part of an organization’s staff must share the values of process change to succeed:
Company leadership must have a vision of the benefit.

Development teams must see the value.

Process engineers must recognize that the change will be both interactive and iterative.

In each focus article following this introduction, the qualitative evaluation of success factors emphasizes similarly strong values to enable process change. In “A Process Model for Successful CRM System Development” by Hee-Woong Kim, organizational commitment, project management, strategy and process, technology, and consequences are the key ingredients in this model for success. In the two cases the author studied, he found 12 common factors that are critical to an information systems project. Moreover, if the system is to succeed, you must consider the sequence of factors in the process. One change in any factor can ripple through all other related factors, thus affecting the consequences of an IS development.

In “Adopting the SW-CMM in a Small IT Organization,” Felipe Guerrero and Yadran Eterovic found a strong relationship between organizational environment and the initiative’s success. They documented 10 key lessons learned. Among these success factors, the following must certainly be in place: management commitment, developers’ involvement, focus on actions, and communication methods for providing visibility into the project. “Successful Process Implementation” by Anna Börjesson and Lars Mathiassen proposes to measure SPI success through implementation success—the extent to which initiatives lead to actual changes in software engineering practice. On the basis of the degree of process push and practice pull, the authors give an interesting classification of process change initiatives:

- Dead-end Street initiatives focus on the process itself.
- Country Road initiatives focus on a specific project’s engineering practices.
- Crossroads initiatives focus on several company-level units with similar requirements.
- Highway initiatives focus on solving specific problems identified by software practitioners.

Organizations directly benefit from “highway” initiatives, but even these might require significant iteration to reach the original goal. Planning the order in which changes are introduced is required.

Finally, “Model-Driven Reverse Engineering” by Spencer Rugaber and Kurt Stirewalt highlights similar needs for success from a different perspective. The authors explain how to use models to predict the amount of time needed for a reverse-engineering effort and to provide a quality standard against which the effort can be measured.

**About the Authors**

David Dorenbos is director of Software and System Engineering Research at Motorola Labs. Contact him at Motorola, 1303 E. Algonquin, Schaumburg, IL 60196; dave.dorenbos@motorola.com.

Annie Combelles is president of Q-Labs. Contact her at 28 Villa Baudran, 94742 Arceuil Cedex, France; akc@q-labs.fr.

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> Without a doubt, organizations will continue to face problems in implementing and deploying enhanced practices. Most of these problems aren’t technical; they relate to people, team, and community culture and behavior. Pursing these articles, you’ll find that your organization can use some of their recommendations to make your process changes achievable and your business more successful. And this is the ultimate target. 💼

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