Making Process Improvement Work

A Concise Action Guide for Software Managers and Practitioners

Neil S. Potter

Mary E. Sakry

Foreword by Karl Wiegers

"At last a commonsense and business-oriented approach to process improvement. This book gives very practical instruction that is easy to apply. Your people will thank you for it."

—*Nancy K. M. Rees, Vice President and Chief Engineer, Xerox Corporation*

"This is a short, concise volume that gets right to the heart of process improvement with specific, concrete steps and excellent examples. It's a book you can use today."

—*Dennis J. Frailey, Principal Fellow, Raytheon Company*

"If your customers demand better, faster cycle times and higher quality products, your software development and project management process must change. *Making Process Improvement Work* shows you how to define your real goals and devise practical strategies for achieving them. Of course, if you're perfectly happy with the way your development teams perform and your customers are always thrilled with your products, don't read this book."

—*From the Foreword by Karl Wiegers, Principal Consultant, Process Impact*

"As a manager of a software development organization, I found the book interesting, meaningful, and useful. In my work at Bradley Company, I've used the goal-problem approach that the book advocates and have firsthand knowledge that it works well. We've made remarkable progress with it. I specifically liked the following about the book:

- It is short and concise, which is refreshing. Nothing is more irritating than reading through a bunch of fluff. When that happens, I go into skim reading mode and possibly miss important points or the book isn't finished.
- The examples are very good, especially rewording of problems into goals and the compelling versus noncompelling goal examples. The how-to's are very good. I'm using some today. After reading this book, I plan to start using the risk management approach, especially the prioritization technique.
- Insights into different companies given in the examples are great for learning. Very few people in the industry have the background to credibly write a book containing this valuable information.
- The book answered my questions, such as 'How do you vary the approach based on the size of an organization and what happens when you want to achieve a CMM certification and there are residual practices that don't match a business problem?'"

—*Teresa M. Light, Senior Vice President and General Manager, Bradley Company*

"This book delivers a very clear message about what the focus of the improvement process should be. It makes one stop and think on what the objective really is. Do I want to get certified on whatever the trend the last consultant brought in or do I want to achieve a determined business goal? People will have to take two steps back and re-think about their goals.

The book is very easy to read. It does not throw the reader off with high technical jargon. I have the responsibility to oversee all software projects at the largest insurance company in Guatemala, but I would even give it to an end user or somebody from a nontechnical department with the purpose to acquire buy-in in the improvement process."

—*Alejandro Acevedo, Seguros G&T (Guatemala)*

"At IBM, I was for many years, a key member of the OS/390 project office, working directly with development managers to assure their deliverables met lifecycle development standards of all kinds. Since leaving IBM, I have worked as a consultant in similar roles. Guidance and tips in this book have helped me land a very good assignment as a 'software process improvement mentor' in a large insurance company.

The book is unique; much of what is written can be found in a variety of sources but not in one book."

—Wayne Yaddow, Consultant

"I would buy the book, because it is straightforward, with real-life examples and to the point (in Dutch 'gezond verstand' translated directly 'healthy mind, brains')."

—Maurits Van Cappellen, Alcatel (Belgium)

"This book is a blessing in disguise! It is well written, has examples and templates that can be easily used—a great start point for many. It covers all the highlights from management support to culture. I also really like how the book works the problem set and identification of goals into positive, desired state nomenclature. By doing so it can actually propel folks into action. The language of the book is written so that even beginners in the SPI world can get immediate understanding of how to start/continue."

—Barbara Marasco, Xerox

"I found this book exceedingly practical and helpful, particularly in planning an improvement program. I was able to use its advice on planning with no further research or guidance and was very pleased with the results.

I expect to refer to these ideas repeatedly and to recommend this book to others who do process improvement. The real-world examples and step-by-step approach are very effective at making the reader feel capable of tackling an improvement program and succeeding at it. Finally, but actually uppermost in my mind, I fully subscribe to the philosophy of the authors that we should undertake improvements because they will help our business."

—Kathy Rhode, USA

"Bravo! A book that provides real help with the 'critical' issues in a process improvement program. The risk management process is very 'doable' and the discussion of the adoption and resistance issues is exactly what people on the process improvement journey need to know. The approach is extremely practical. I especially applaud the 'don't force it' attitude with advice like 'If there are no unmet needs, goals, or problems to solve, then you should mutually agree that nothing will be done.'"

—Helen Smelser, Texas Instruments, Dallas

"The numerous examples, cases, graphs, and templates give the reader the tools to start the improvements in his or her own organization. Furthermore, the book is fun and easy to read."

—Robbert Schravendijk, Quint Wellington Redwood (The Netherlands)

"This is a great book. It is evident it is written from real experience. The chapter summaries are awesome. Anyone starting out or progressing in an improvement project will find this book extremely helpful. The content covers the important steps in action planning. It remains generic rather than tackling the specific practices of one of the accepted models. [The] illustrations are excellent. More than are usually presented in a small handbook. The expertise of the authors and the Process Group is unquestioned. This work further demonstrates their competence in leading improvement efforts and the ability to relate to the managers and change agents."

—Al Bennett, Software Engineering Manager,
ITT Industries, Aerospace/Communications Division

"I like the approach described in the book and only regret that we did not have this insight two years ago when we first started our software process improvement journey. We could have avoided many of the pitfalls."

—Tom Tougas, Harmon Industries, MO

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Foreword

I have never met a software developer who can honestly state, "I am building software today as well as software could ever be built." Therefore, I expect many people to be interested in Neil Potter and Mary Sakry's *Making Process Improvement Work*. Magazine articles on software process improvement abound, and several books are already available on specific process models, including the various SEI maturity models, SPICE, and ISO9001. Mary and Neil now help close a significant gap in the literature: the gap between model and practice, between concept and application.

Although many software organizations have reaped benefits from sustained improvement initiatives, others struggle to make headway. Too many organizations develop a checklist mentality targeted at achieving the next process maturity level or passing an audit. Not only does this strategy often fail to address the real problems, but process development for its own sake leaves a bad taste in the team members' mouths. Neil and Mary remind us to focus on pragmatic mechanisms for achieving superior business results, drawing from both established process models and the entire set of software engineering practices. They don't offer a simple silver-bullet prescription to solve all of your development and quality problems. Instead, they present numerous guiding principles and a process improvement strategy that any software organization can apply to meet ever-more-challenging demands.

This book provides solid advice about the most sensible approach to improving any organization's performance: Define your goals, identify the barriers that prevent you from achieving them, and implement focused changes to remove those barriers. Neil and Mary speak to software development managers and people who are responsible for leading an improvement initiative to a successful outcome. They encourage us to link our process improvement actions with our organization's desired business goals. They define a systematic approach to planning, implementing, and assessing the results of an improvement program. This book collects lessons learned from The Process Group's many years of hands-on process improvement experience.

If your customers demand better, faster cycle times and higher quality products, your software development and project management processes must change. *Making Process Improvement Work* shows you how to define your real goals and devise practical strategies for achieving them. Of course, if you're perfectly happy with the way your development teams perform and your customers are always thrilled with your products, don't read this book.

Karl Wiegers, principal consultant at Process Impact
Author of Creating a Software Engineering Culture,
Dorset House Publishing, 1996; Software Requirements,
Microsoft Press, 1999; and Peer Reviews in Software:
A Practical Guide, *Addison-Wesley, 2001*

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