



Process Improvement in Multimodel Environments

A three-year project proposed by the SEI

Can your organization benefit from a strategic approach to process improvement technology selection?

Is the complexity caused by using more than one technology for process improvement harming your organization?



All highly effective businesses face challenges to achieving and sustaining competitive advantage while complying with regulations. To meet these challenges, the highest performing organizations apply reference models, standards, and improvement technologies.

In this environment—where several improvement initiatives are concurrently implemented at different hierarchical levels and across organizational functions—different parts of an organization champion the technologies that best address their problems.

That kind of competition between technologies drains an organization's resources. And it erodes the benefits an organization gains from any one of the technologies it has acquired and implemented.

Thinking about your organization, do you

- see process improvement technologies competing with one another, rather than working together in support of your business and mission goals?
- wonder whether there is a simple way to operate and improve your business that front line people can use to solve the new challenges they face and remain in compliance with the models that assure your goals?
- think you should be able to gain the benefits of multiple technologies, extracting the best of each as demanded by your business, without complexity and confusion?

Some organizations have seen benefits from successfully organizing multiple models for process improvement.†

- Lockheed Martin IS&GS (through its Program Process Standard)—productivity gains of more than 50% and cost reductions by nearly 25%
- Wipro—30% reduction in cycle time and an ROI return, in the short-term, of up to 8 times its total investment in Six Sigma
- The University of Pittsburgh Medical Center (UPMC)—the first non-profit medical system in the country to be certified compliant with the most stringent provisions of Sarbanes-Oxley

These efforts show the promise of multimodel integration. However, they might not be easily transferable to other organizations.

Better Multimodel Integration Through Harmonization

The Carnegie Mellon® Software Engineering Institute (SEI) believes there can be a more comprehensive, thorough way to achieve the integration of multiple technologies for process improvement within an organization.

The SEI approach is to harmonize the process improvement models. To develop the methods for an organization to harmonize its models—those it uses today and those it might add in the future—the SEI is proposing a three-year project called **Process Improvement in Multimodel Environments (PrIME)**.

Process Improvement in Multimodel Environments

SEI to Lead PrIME Project

PrIME will span a breadth of topics that are needed for an organization to be successful with process improvement in multimodel environments. The project will concentrate on several subsets of models and standards that are commonly used in industry—for example, Six Sigma, CMMI®, Lean, and Agile methods.

The SEI has long held a leading role in process improvement technology research and implementation. This project is an extension of that leadership and the SEI position as an objective, third-party advisor to government and industry organizations.

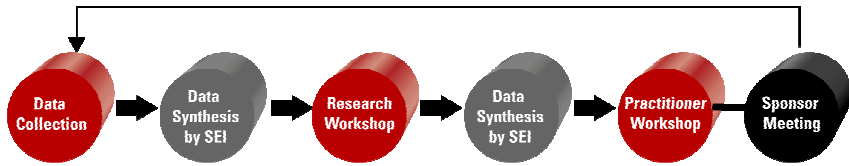
PrIME will focus on different research aspects in each project year as listed below:

Year	Focus Area
1	Strategy, Decision Tools, Selection of Technology Combinations for Study
2	Technology Decision Guidance, Technology Composition, Appraisal Guidance
3	Process Architecture, Technology Design, Scalability

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† Sivi, Jeannine M., Penn, M. Lynn, & Stoddard, Robert W. *CMMI® and Six Sigma: Partners in Process Improvement*. Addison-Wesley, 2007.

Sivi, Jeannine M., Kirwan, Patrick, Marino, Lisa, & Morley, John. *Maximizing your Process Improvement ROI Through Harmonization*. Software Engineering Institute White Paper, 2008.



The PrIME project annual activity cycle

In each project year, the PrIME project will produce case study reports, survey results, and pilot results. From these and related research, the SEI will produce publications, training materials, and guidebook updates that reflect the principles and guidance for each year's research focus.

How to Get Involved with PrIME

The SEI is looking for organizations to fund the PrIME efforts for the full three years of the project.

In return for agreeing to underwrite a portion of this work for the entire project period, PrIME sponsors will enjoy several benefits, including

- influencing the order in which models and research themes in this project are addressed
- royalty-free license for internal operations and internal research use
- regular, one-on-one implementation meetings with the SEI
- early access to research outputs
- combined research efforts
- participation in selected workshops
- visibility as a leader in the community

The PrIME project will deliver on the promise of multimodel process improvement, which includes

- business, rather than model, focus

- long-term and effective organizational approach to technology and model selection
- cost reduction through economies of scale for all aspects of model implementation, as well as audits and assessments
- cycle-time reduction for improvement efforts and the realization of performance objectives
- culture change related to the establishing enterprise processes and measurement systems
- process robustness to an ever-evolving and dynamic world of models and regulations

Related Web Site

www.sei.cmu.edu/process/research/prime.cfm

For More Information

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