

Unisys Brazil Applies CMMI® to Meet Challenges of Globalization

Company Background

Unisys Brazil, a subsidiary of Unisys Corporation, provides integrated technology solutions to customers in government, financial services, and commercial sectors around the world. Founded in 1924 and based in Rio de Janeiro, Unisys Brazil has grown to employ approximately 1,900 people. The company offers security solutions, advanced data analytics, cloud and infrastructure services, and application services. Based on a strategy rooted in next-generation innovation, deep engineering expertise, and continuous improvement of service delivery, Unisys helps clients tackle the most complex IT challenges.

THE BUSINESS NEED

As part of a global information technology company, Unisys Brazil provides industry-focused solutions to clients in the government, financial services, and commercial markets. Unisys Brazil is one link in a software development and delivery chain spanning countries from China and Colombia to Spain and India.

In part because of its widespread geographic locations (with teams crossing time zones, languages, and cultures), and in part because of evolving organizational practices, Unisys Brazil found it needed to re-evaluate core processes in order to deliver consistent, high-quality products.

Specifically, Unisys Brazil wanted to ensure its internal processes were first optimized, and then aligned with Unisys' global standards. The Brazilian unit also required being able to customize those processes as necessary for local markets. In addition, Unisys Brazil desired a means to monitor the execution of processes across all units, to be sure the processes were implemented and working.

Unisys Brazil previously undertook CMMI appraisal and implementation, using CMMI for Development (CMMI-DEV). In 2005, the company achieved maturity level 3. But Unisys Brazil—and the entire industry—underwent enormous change during the next 12 years, as globalization accelerated and processes continued to evolve. Competition intensified, mobile devices became more prevalent, and access to technology spread. The market—and Unisys itself—increasingly demanded a more agile and low-cost operation.



“ The adoption of CMMI by Unisys Brazil has brought important improvements to our delivery process for software development, allowing us to minimize risks and improve predictability and quality.”

– ALEXANDRE TOBIAS, LATIN AMERICA
APPLICATION SERVICES DIRECTOR

In addition to global alignment with its parent company’s standardized processes, Unisys Brazil identified five specific areas for improvement:

- Better integrate with teams working in different locations.
- Facilitate clear communication across language barriers.
- Introduce new tools, such as Microsoft Project Server.
- Optimize applied practices, especially for management and control.
- Enable faster team assignments and setup to eliminate wasted time during projects.

THE SOLUTION

Unisys Brazil returned to CMMI-DEV (V1.3) benchmarking to help the company reach its goals. CMMI helped the company integrate maturity level 3 methodologies with other applied process models Unisys Brazil had implemented, from ISO to Six Sigma to agile.

At the conclusion of the CMMI appraisal, conducted in July 2016, Unisys Brazil had achieved CMMI-DEV maturity level 3. The company had implemented best practices through standardization of the development process; the use of tools aligned to market; the optimization of procedures; and corporate alignment. Specific process improvements included:

- Employment of new tools (RMC, DOORS, Project Server)
- Facilitation of clear communication across language barriers
- Implementation of a peer-review process
- Development of a “Relatório de Análise Organizacional” (Organizational Analysis Report)
- Improved metrics management
- Checklist specific for each artifact
- Faster team assignments, helping ramp up projects more efficiently
- Staff commitment, buy-in, and alignment with the process
- Senior-level commitment and support



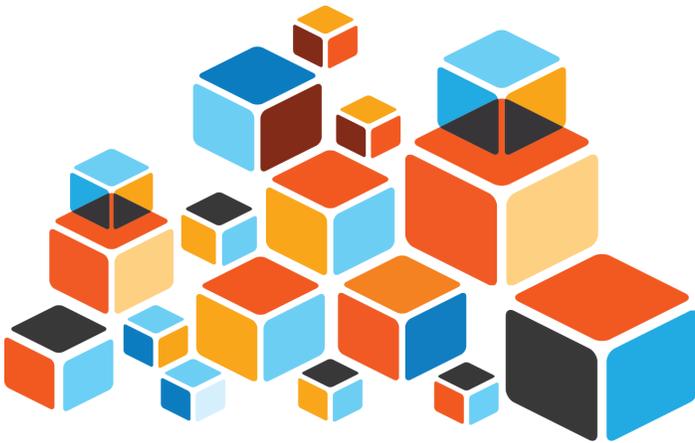
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RESULTS

Adoption of the CMMI model was a significant milestone in the evolution of the Unisys Brazil software process improvement framework. As a result, the organization is better able to improve its overall quality and meet the challenges of a changing and dynamic global marketplace.

Actions that were taken specifically to improve quality—such as reinforcing the importance of peer review, training specifically focused on team needs, and increasing coaching for projects—generated positive outcomes. Unisys saw a 31 percent increase in its compliance index, which measures the quality of the process and the products. It also achieved a 24 percent decrease in its rework index, which measures the number of hours worked, and hours to rework.

In addition, Unisys saw improvements in its estimating process. Customizing the process to enable the company to choose the estimating tool best suited to the project improved accuracy. And opening the process to allow the use of a combination of estimating techniques—Function Point Analysis, COCOMO II, and others—also yielded results. The estimating effort index, which shows the deviation percentage between the estimated effort and the effort consumed in the project, improved by 60 percent.



LESSONS LEARNED

Gap analysis is effective in evolving processes. With the help of CMMI, companies can identify potential areas of improvement and gain alignment with best practices. Once best practices in process are established, quality assurance is essential.

CMMI appraisals can be compatible with, and complementary to, quality management systems such as ISO. Unisys Brazil is a case in point. Its software process improvement framework includes methodologies such as ISO, Rational Unified Process, Software Development Framework, PMBOK®, Six Sigma, and agile. CMMI helped the company identify opportunities to leverage synergies among the quality management systems.

Stable, standardized process training has led to improvements in overall processes. As a result, new associates are being assigned to projects. In addition, newly implemented meetings with senior management increase the visibility of greater adherence to process.

A well-structured and effectively implemented peer-review process contributes to process quality by providing early identification of problems. Monitoring projects through participation in status meetings helps the Unisys Brazil Software Engineering Process Group (SEPG) identify opportunities for improvement sooner.

About CMMI® Institute

CMMI Institute (CMMIinstitute.com) is the global leader in the advancement of best practices in people, process, and technology. The Institute provides the tools and support for organizations to benchmark their capabilities and build maturity by comparing their operations to best practices and identifying performance gaps. For over 25 years, thousands of high-performing organizations in a variety of industries, including aerospace, finance, healthcare, software, defense, transportation, and telecommunications, have earned a CMMI maturity level rating and proved they are capable business partners and suppliers. CMMI Institute is a part of the ISACA family, the global non-profit association helping professionals to realize the positive potential of technology. To learn more about how CMMI can help your organization elevate performance, visit CMMIinstitute.com.



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