

# Navigating the CMMI Maturity Level 3 Journey: Five Cornerstones of Success

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## INTRODUCTION

Citizant, a provider of government professional technical solutions, achieved the Software Engineering Institute's (SEI) Capability Maturity Model Integration (CMMI) Maturity Level (ML) 3 rating in September 2008. This rating has become a requirement for many government software development programs, yet Citizant estimates that fewer than a dozen comparable small businesses in the federal marketplace have this qualification. This isn't surprising considering the investment, effort, and leadership required to standardize processes across an entire company.

Building upon a strong quality and program management culture, Citizant accomplished in 12 months what is typically an 18-month effort. Process is now *universal* at Citizant and the benefits are already visible to employees, customers, and senior management.

So how did Citizant, a small business with 125 employees, achieve this success in record time? This article outlines the five cornerstones that were pivotal to navigating the CMMI ML3 journey.

## 1. PLAN FOR SUCCESS

If it were necessary to offer one word of advice for companies pursuing CMMI, the word would be *plan*. Take the time to diligently plan for and chart the course to a successful appraisal. This involves careful consideration of resource allocation and an actionable schedule that guides the organization through process development, adoption, and assessment.

Much of the effort happens upfront when developing and refining the plan to avoid false starts. For example, spend several months discovering and analyzing existing best practices and process assets. This allows one to build on what already exists and engineer a set of standard processes that are proven and tailored to the company's culture.

While working on the plan, anticipate resistance. Recognize that resistance to change is protecting what has worked in the past. Step back and figure out what employees are protecting; embrace this resistance and commit to finding the kernel of effective process to keep.

A key component of Citizant's plan entailed managing the CMMI initiative like a project by implementing the company's own proven project management methodologies to ensure it stayed on track.

## 2. SECURE EXECUTIVE SPONSORSHIP

Planning requires working hand-in-hand with senior management to lay the groundwork. Considering the level of time, money, and human resources required, a steadfast commitment of company leadership is a critical success factor.

To underscore its commitment to this effort, Citizant's executive team identified the pursuit of CMMI ML3 appraisal as one of the key corporate initiatives in 2008 and hired a quality professional to lead the effort. While many companies throw quality initiatives on the back of someone who's really good in his or her focus area and assume he or she also will be good at quality management, Citizant underscored its commitment by dedicating a leader.

Finally, Citizant's president, a firm believer in the industry's responsibility to invest in the maturation of business practices to ensure customer success, served as the executive sponsor and remained actively involved in the effort.

## 3. FOSTER COMPANYWIDE COMMUNICATION AND INVOLVEMENT

The support of senior management must trickle throughout the organization, since the journey demands company-wide involvement. At Citizant, approximately 30 percent of the employees were involved in engineering processes to ensure a cultural fit and more than 70 percent of the company was involved in adoption and appraisal.

Also consider that the appraisal (SCAMPI A) and the dress-rehearsal (SCAMPI B) require the dedication of a team of individuals who are completely removed from their normal work for days. This means employees spending hundreds of hours examining thousands of

work products and interviewing a cross-section of the organization to confirm standard processes.

To ensure the required level of involvement, Citizant designed a corporatwide communications strategy that consisted of an overview of the plan, an educational campaign, milestone reports, and regular executive updates.

For the employees who were critical to the initiative, management made it part of their assigned duties by linking CMMI participation to their individual development plan, which identifies the goals and expectations upon which the employee will be evaluated.

## 4. CELEBRATE SUCCESS ALONG THE WAY

To gain momentum and keep employees engaged, it is important to maximize short-term wins, that is, let the audiences—employees, customers, and management—know the highlights achieved along the way.

For example, one of Citizant's earliest quality indicators occurred when a professional changed the service delivery method that his customer had been using for years. The employee realized there was a more efficient, process-driven alternative, and the customer was thrilled. At another point along the journey, a big opponent of the CMMI process had a turn around when using one of the processes and requested that his team be more involved in the appraisal effort.

One of Citizant's shining moments came during the SCAMPI A appraisal. During SCAMPI B, the interviewees often commented that the strength of the company is its people. In SCAMPI A, the interviewees frequently answered the strength is the *process*. The lead appraiser commented that this is characteristic of an ML3 organization. A common observation Citizant's lead appraiser noted is seeing mature organizations recognize the power of the process as a strength of the organization, whereas Level 1 and 2 companies identify the people exclusively.

## 5. KNOW WHAT RESULTS TO LOOK FOR

CMMI ML3 aligns with Citizant's corporate objectives of delivering quality and excellence in customer projects. Now every project at Citizant uses at least a minimum subset of processes; projects larger than a certain size use the full set of processes.

The ultimate goal is to bring the customers the benefits of consistent, repeatable, and predictable

outcomes with a measurable return on investment. There are a number of early success indicators. For example, just months after the appraisal, Citizant is seeing the benefits of predictability in that the company is better able to estimate the cost and schedule of its client work.

There is also great opportunity and flexibility for staff to be matrixed. Since the methodology for reporting and development has been standardized, it's easier for work to move across the organization because programs have the same look and feel. In addition to staff acknowledgment of this improvement, a customer commented on the company's ability to succeed in delivering value to its customers because it has greater quality and predictability about the customer's schedule and benefits.

Internally Citizant is refining the way it delivers to its customers. There is more timely information available about the work to recognize early potential issues to be resolved or potential variances in project progress against plan.

## CONCLUSION

These benefits to Citizant's employees, customers, and management are just the beginning. The company will continue to watch for indicators as it moves closer to experiencing the true benefits of process and a disciplined process improvement program, including increased predictability, improved customer satisfaction, and improved professional staff.

The five components outlined in this article were instrumental in Citizant's successful appraisal at SEI CMMI ML3—putting Citizant among the rare few small businesses in the marketplace with this distinguished software development quality rating.

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### BIOGRAPHY

Collette Dziemian is director of quality programs at Citizant, where she leads all of the company's quality initiatives. In addition to spearheading Citizant's CMMI ML3 appraisal effort, she has worked with more than a dozen organizations to implement and be appraised against the Software Engineering Institute's (SEI) CMMI at Maturity Levels 2 through 5. Dziemian joined Citizant from Science Applications International Corporation (SAIC), where she spent nearly a decade assisting internal units and customers to achieve improved quality. She is a certified Project Management Professional (PMP) and certified in IT Service Management based on the Information Technology Information Library (ITIL).