CMMI V1.3: Summing Up By Ben Linders

Summary

In october 2010, version 1.3 of the Capability Maturity Model Integration (CMMI) has been released by the Software Engineering Institute. The main changes in CMMI V1.3 as are clarifications of the high maturity process areas, alignment of the representations (staged and continuous) and the addition of modern engineering practices like agile.

High Maturity

The clarifications to the high maturity proces areas are a big step forward. The new process area Organizational Performance Management (OPM) links business objectives to organizational improvement; thereby setting the stage for and creating a business case in process improvement. I also like the improved process area Quantitative Process Management (QPM), which helps projects to select, deploy and use measurements. This process area includes Root Cause Analysis, which is crucial for project and teams to learn from mistakes and prevent similar mistakes to happen in the future.

Staged and Continuous

The way the staged and continuous representation is documented has changed. The description of maturity levels 4 and 5 have been simplified, by removing the generic goals for these maturity level. Mapping capability levels to maturity levels using equivalent staging makes it possible for an organization to use the continuous representation to improve their performance, and still get a (staged) maturity level. The elaborations for the generic goals, which were previously described in the section of the process area itself, have all been put in one section with the generic goals. The advantage of this way of subscribing is that it makes the CMMI smaller (in pages). But I see a risk that people become unaware of the generic goals when deploying a process area, because they are no longer mentioned together with the specific goals and practices. Given that many organizations have problems institutionalizing processes, I am afraid that this increases the chance that such problems will happen.

Agile

In the new CMMI V1.3, agile has been included with an interpretation guideline and by adding notes to the applicable process areas in the introduction on how to interprete agile practices. Some agile techniques or aspects are not mentioned in the CMMI V1.3. It doesn't mention specific methods, like Scrum, XP or DSDM. It mentions some agile techniques, like user stories, backlogs, story cards, pair programming, frequent builds, retrospectives, but doesn't mention others like planning poker, test driven development, burn down charts, etc. There is still room for interpretation in the CMMI process areas, which in my opinion is both bad and good. Bad because not including certain agile term makes it more difficult to recognize and map agile practices to the process area. But the good thing is that the CMMI defines the "what", and not the "how", leaving room for organizations to deploy agile in such a way that they reach the business (and CMMI) goals.

Models: Acquisition, Services and Development

There are 3 CMMI V1.3 models released: CMMI for Acquisition (ACQ), CMMI for Services (SVC), and CMMI for Development (DEV). The new CMMI version makes it easier to combine process areas of different models into a roadmap of processes that serves the needs of an organization. The selected process areas can be linked to the main business issues that your organization is facing, to assure that your investment delivers business results. CMMI Roadmaps are a goal-driven approach to selecting and deploying relevant process areas from the CMMI. Their aim is to deploy the CMMI more effective, and quickly get business result.

Conclusions

What is the value of the new CMMI version? That depends on how you use CMMI. If you used the CMMI to assess and evaluate organizations, then you always have to use the latest version. That version contains the latest insights and tools to assess an organization. Especially for agile organizations, using the new CMMI version is recommended; the addition of many examples of agile practices makes it much easier to assess such organization.

When you use the CMMI as a "best practices" model, it is useful to adopt the newest version. The CMMI is a language that helps to communicate about managing and improving processes. Put a number of professionals who know the CMMI together and there are often deep and rich discussions about what can be done and how. Using the abbreviations and terms from the CMMI they are able to communicate more effectively, and decide what to do. My opinion is that process experts must be able to understand the latest CMMI V1.3, but they must translate it towards the situation where they are applying it. They must explain to those involved what processes are, and how they can be used to improve results, without using specific CMMI process areas or terms.

The changes in version 1.3 makes it easier to deploy the CMMI, and to get higher business benefits from your process improvement initiative. For more information about the CMMI, please see my article CMMI V1.3: here to find information. If you have any question on the CMMI V1.3, feel free to contact me.

About the author

Ben Linders is Senior Consultant on quality-, process- and organizational improvement. He leads organizations to quality business results on time, by deploying good practices from Organizational Learning, Defect Prevention, collaboration, and communication, CMMI, People-CMM Agile, and Lean Six Sigma. He bridges gaps between process deployment, quality assurance and management of R&D, by addressing business needs and the development of professionals.

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