



WHAT IS THE CMMI®?

The CMMI® (Capability Maturity Model Integration) is a publicly available, international model for process maturity.

This model was created by the Software Engineering Institute, and since 2012 is managed by the CMMI Institute.

These terms are explained below. But first, one question:

Why should you use the CMMI?



WHY USE THE CMMI?

The answer is quite simple: *for the financial benefits that you can obtain.*

These benefits include:

1. Cost reduction: **34%**
2. Schedule improvement: **50%**
3. Productivity increase: **61%**
4. Quality improvement: **48%**

(Source SEI, based on 30 companies that published their performance results).

In brief, for each 1€ or \$1 invested in process improvement with CMMI, you can expect 4 in return.

WHERE DO THESE BENEFITS COME FROM?

There's no miracle; you have to implement improvements, with an initial investment to enhance your existing processes for additional maturity, guided by the CMMI's **process areas**.

THE NOTION OF PROCESSES

The CMMI sees a business organization as a set of processes. A process can be understood as a kind of pipe receiving inputs like raw materials, resources, or information, and which produces a useful output.

The process may be tangible or intangible.

The organization's costs are those incurred by its processes.

The CMMI provides benefits by enhancing the **maturity** of the organization's processes.

IMPLEMENTING THE CMMI

Thanks to its double notion of both model and maturity, the CMMI can be an invaluable asset.

The model describes the actions you must undertake to enhance process maturity, and especially the **best order** in which to do it.

Indeed, it is useless to put up a building's walls if the foundation isn't yet poured. For a building, the proper construction order is obvious. But it's not as simple to see when we're dealing with abstract concepts like processes.



To illustrate the notion of process maturity, the simplest way is to begin by explaining its first three levels:

1. **LEVEL 1** is called “**INITIAL**”. At this level, the process pipe doesn’t always work properly. That is, the finished outputs are not always those that are expected: you have to rework them, and sometimes they are even lost along the way. Each output that doesn’t meet expectations costs the organization money.

The first goal is thus to avoid losses due to improperly working process pipes.

2. Once this goal is reached, we have arrived at **LEVEL 2**, called “**MANAGED PROCESSES**”: outputs from the process pipe meet their expectations, reproducibly. In other words, they are saleable. The organization has eliminated waste and is more profitable.

We could, of course, stop there, but we would risk being surpassed by our competitors. That’s why there’s another level.

3. **LEVEL 3**, called “**DEFINED PROCESSES**”: the process benefits from a continuous improvement loop, using process related experiences collected throughout the organization.

In other words, not only do we continue to produce great outputs, we continually perform faster (shorter time to market) and more efficiently (lower development and maintenance costs).

THE CMMI IS A MODEL, NOT A STANDARD

The CMMI is a reference model, not a prescriptive standard. It tells you **WHAT TO DO**, without telling you **HOW TO DO IT**. As a result, it can be applied widely.

Each element of the model must be interpreted within a specific context and translated to an industry’s or organization’s specificities.

Among these elements we find training, qualification, indicators, etc.

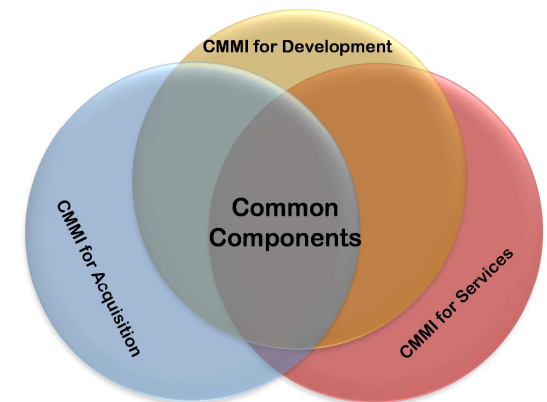
The basic message is this: an organization that bases its improvement program on the CMMI puts itself onto a well-marked track; by following this path, the organization enters into a permanent improvement approach.

Flavors of CMMI

The CMMI has been adapted for 3 different universes, depending on your business context:

1. **CMMI FOR DEVELOPMENT**: for any type of product development, either tangible or intangible.
2. **CMMI FOR ACQUISITION**: for businesses that work mainly via their suppliers/partners.
3. **CMMI FOR SERVICES**: for delivering services of all types.

The Galaxy of CMMI models



The CMMI Institute:

The CMMI Institute is a wholly-owned unit of Carnegie-Mellon University, in Pittsburgh, PA, one of the top 20 universities in the USA, with recognized excellence in technology.

The CMMI model is the result of 30 years of research and development carried out at Carnegie-Mellon, as a joint venture of industry, government, and the Software Engineering Institute, a federally-funded research and development center.

Progressively, the work of first the SEI and now the CMMI Institute, has evolved from software to processes, and more generally today, organizational **performance**.

For more information about the CMMI model and its benefits for you, please contact us:

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