

CAPABILITY MATURITY MODEL INTEGRATION (CMMI) FOR DEVELOPMENT, VERSION 1.3

CMMI-DEV 1.3 en

PROJECT MANAGEMENT

Requirements Management (REQM)

Requirements Management (REQM)
Maturity Level 2
The purpose of Requirements Management is to manage requirements of the project's products and product components and to ensure alignment between those requirements and the project's plans and work products.

Project Planning (PP)

Project Planning (PP)
Maturity Level 2
The purpose of Project Planning is to establish and maintain plans that define project activities. The purpose of Project Planning is to establish and maintain plans that define project activities.

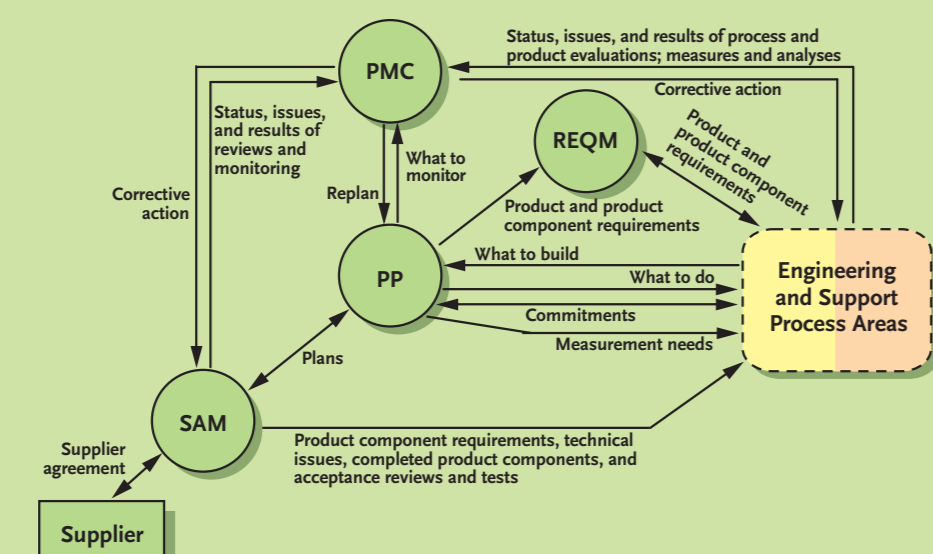
Project Monitoring and Control (PMC)

Project Monitoring and Control (PMC)
Maturity Level 2
The purpose of Project Monitoring and Control is to provide an understanding of the project's progress that is appropriate corrective actions can be taken when the project's performance deviates significantly from the plan.

Supplier Agreement Management (SAM)

Supplier Agreement Management (SAM)
Maturity Level 2
The purpose of Supplier Agreement Management is to manage the acquisition of products and services from suppliers.

Basic Project Management Process Areas



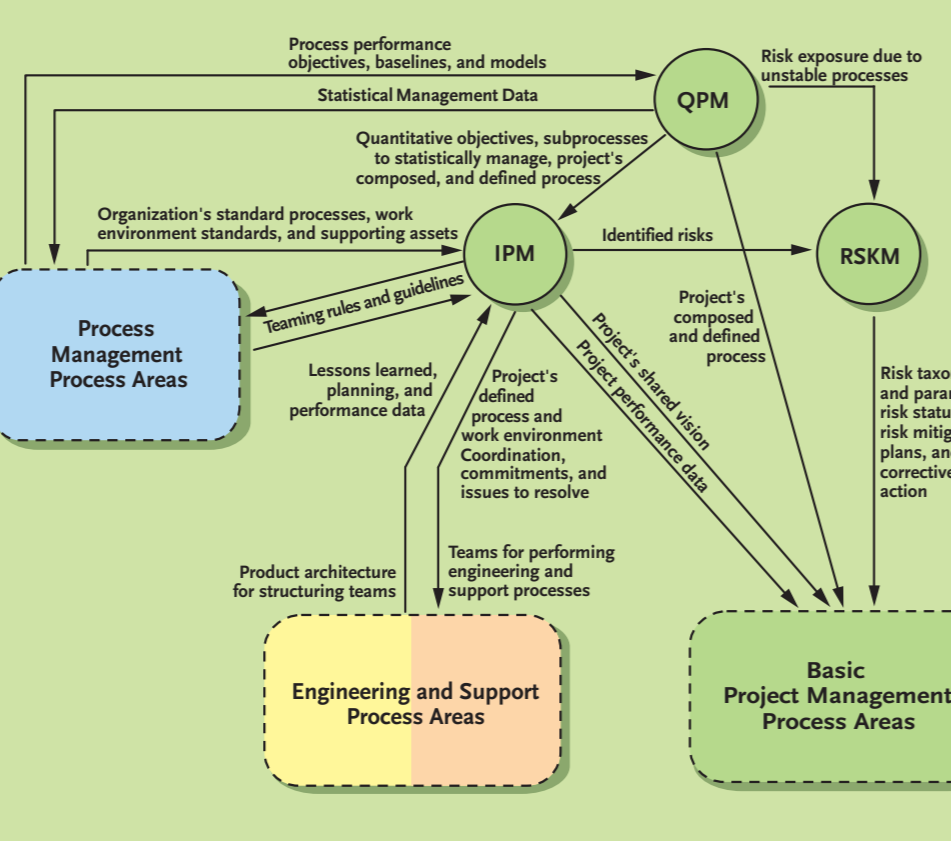
Integrated Project Management (IPM)

Integrated Project Management (IPM)
Maturity Level 3
The purpose of Integrated Project Management is to establish and manage the project and the involvement of relevant stakeholders according to an integrated and defined process that is tailored from the organization's set of standard processes.

Risk Management (RSKM)

Risk Management (RSKM)
Maturity Level 3
The purpose of Risk Management is to identify potential problems before they occur so that risk-handling activities can be planned and invoked as needed across the life of the product or project to mitigate adverse impacts on achieving objectives.

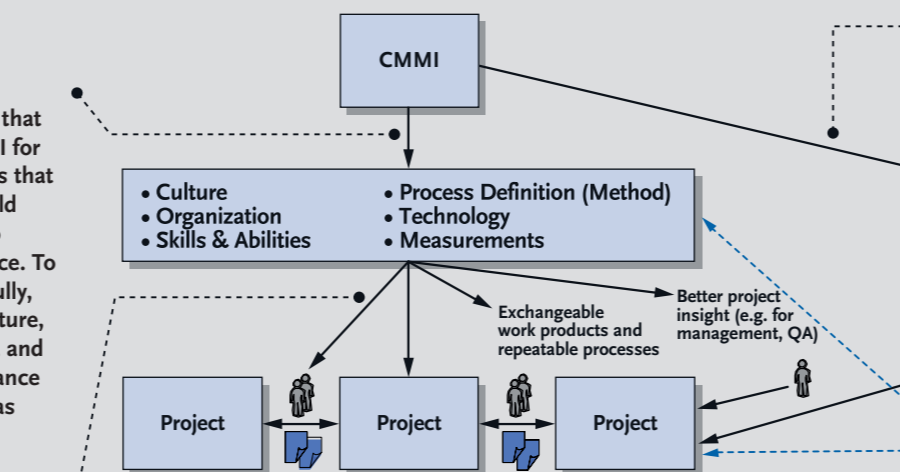
Advanced Project Management Process Areas



HOW TO USE

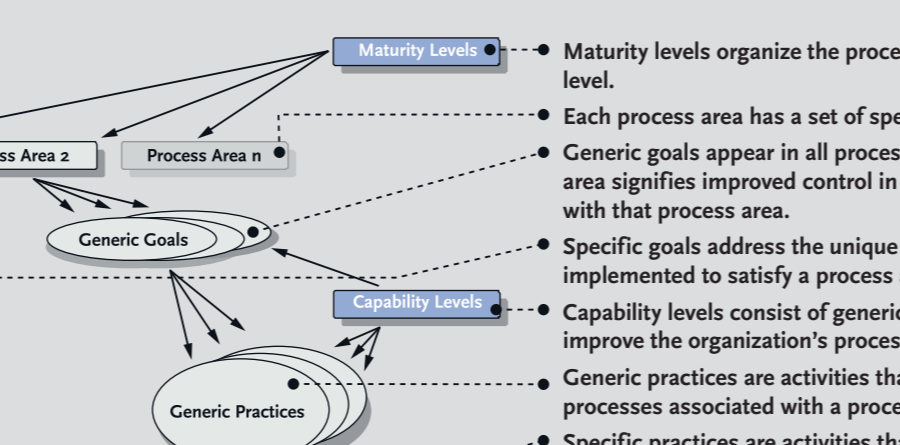
How to Use CMMI

Use CMMI for Development to guide process improvement in organizations that develop products and services. CMMI for Development describes best practices that characterize what organizations should do to be successful in areas critical to product development and maintenance. To implement CMMI practices successfully, organizations must consider their culture, structure, available skills, technology, and measurements. CMMI provides guidance on the development of these factors as well.



Maturity Levels and Capability Levels

A maturity level characterizes the degree of institutionalization of a single process area. Each maturity level defines a set of process areas essential to achieving that level. Maturity levels group process areas into manageable improvement steps for an organization.



Requirements Development (RD)

Requirements Development (RD)
Maturity Level 3
The purpose of Requirements Development is to elicit, analyze, and establish customer, product, and product component requirements.

Technical Solution (TS)

Technical Solution (TS)
Maturity Level 3
The purpose of Technical Solution is to select, design, and implement solutions to requirements. Solutions, designs, and implementations encompass products, product components, and product related lifecycle processes either singly or in combination as appropriate.

Product Integration (PI)

Product Integration (PI)
Maturity Level 3
The purpose of Product Integration (PI) is to assemble the product from the product components, ensure that the product, as integrated, delivers properly (i.e., possesses the required functionality and quality attributes), and deliver the product.

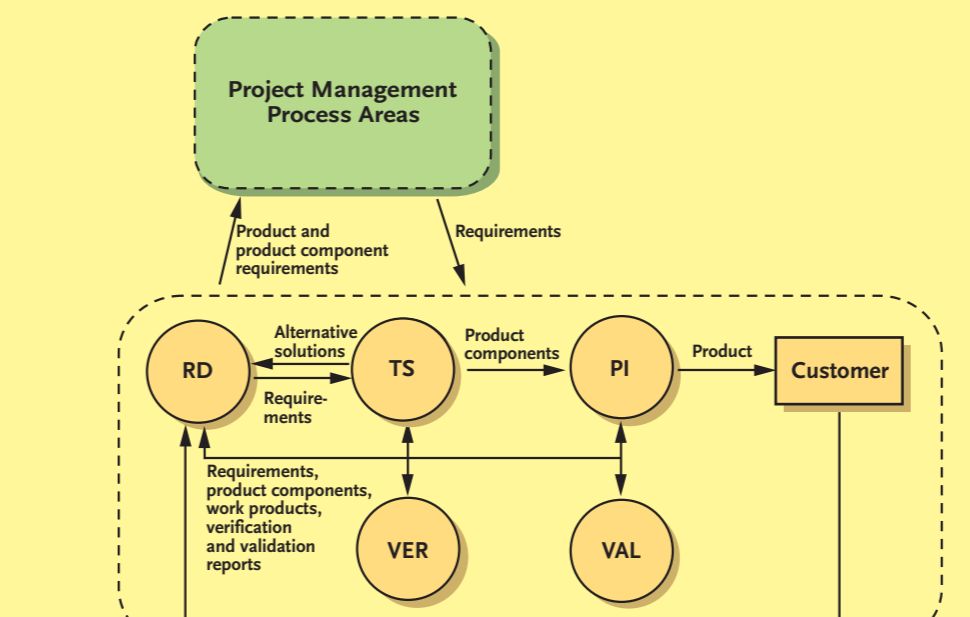
Validation (VAL)

Validation (VAL)
Maturity Level 3
The purpose of Validation is to demonstrate that a product or product component fulfills its intended use when placed in its intended environment.

Verification (VER)

Verification (VER)
Maturity Level 3
The purpose of Verification is to ensure that selected work products meet their specified requirements.

Engineering Process Areas



MANAGEMENT

Capability Level 1: Performed

A performed process is a process that accomplishes the needed work to produce work products; the specific goals of the process area are satisfied.

Capability Level 2: Managed

A managed process is a performed (capability level 1) process that is planned and executed in accordance with policy; employees skilled people having adequate resources to produce controlled outputs; involves relevant stakeholders in its monitoring, controlled, and reviewed; and is reviewed for adherence to its process.

Capability Level 3: Defined

A defined process is a managed (capability level 2) process that is tailored from the organization's set of standard processes according to the organization's tailoring guidelines; has a maintained process description; and contributes process related experiences to the organizational process assets.

PROCESS MANAGEMENT

Organizational Process Focus (OPF)

Organizational Process Focus (OPF)
Maturity Level 3
The purpose of Organizational Process Focus is to plan, implement, and deploy organizational process improvements based on a thorough understanding of current strengths and weaknesses of the organization's processes and process assets.

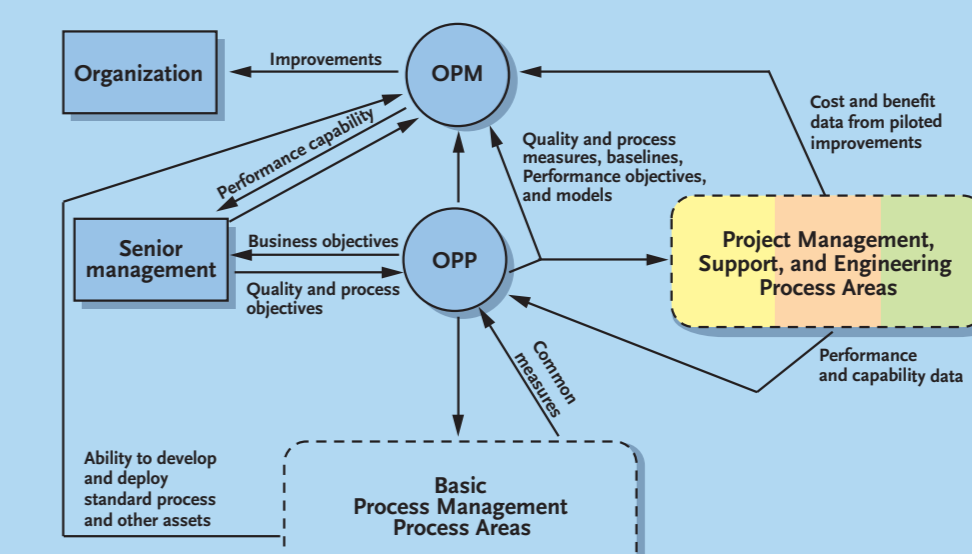
Organizational Process Definition (OPD)

Organizational Process Definition (OPD)
Maturity Level 3
The purpose of Organizational Process Definition is to establish and maintain a usable set of organizational process assets, work environment standards, and rules and guidelines for teams.

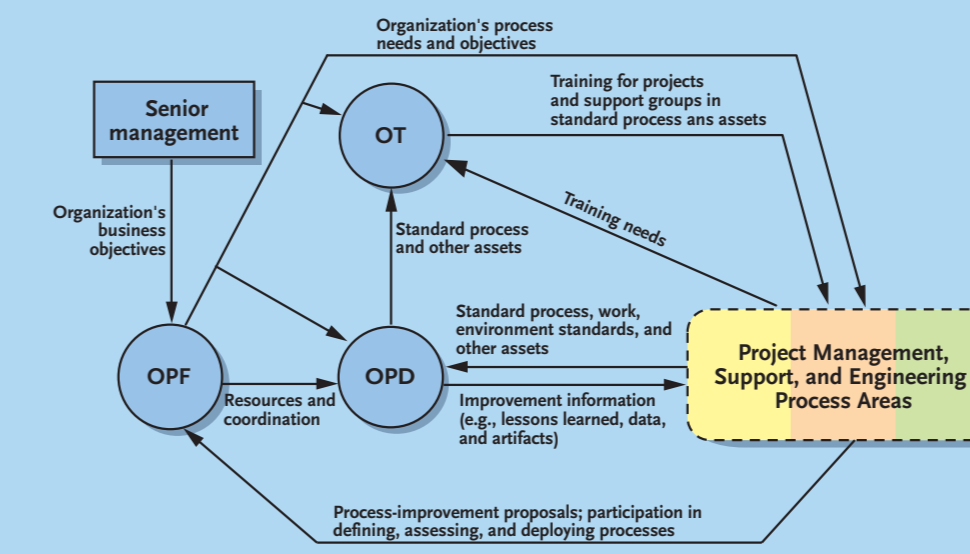
Organizational Training (OT)

Organizational Training (OT)
Maturity Level 3
The purpose of Organizational Training is to develop skills and knowledge of people so they can perform their roles effectively and efficiently.

Advanced Process Management Process Areas



Basic Process Management Process Areas



Organizational Performance Management (OPM)

Organizational Performance Management (OPM)
Maturity Level 3
The purpose of Organizational Performance Management is to proactively manage the organization's performance to meet business objectives.

Organizational Process Performance (OPP)

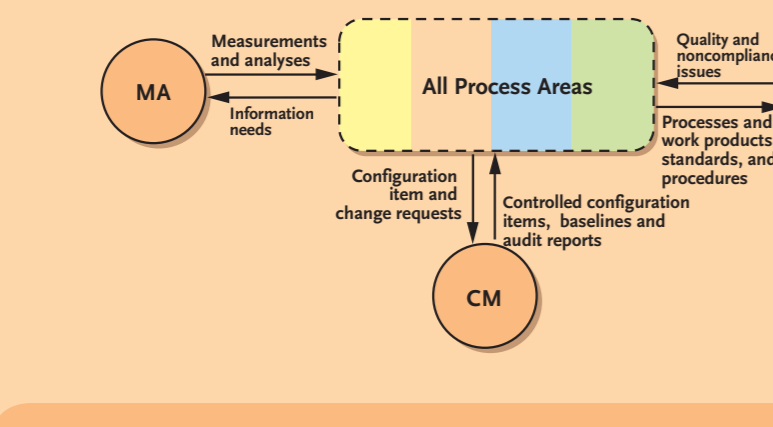
Organizational Process Performance (OPP)
Maturity Level 4
The purpose of Organizational Process Performance is to establish and maintain a quantitative understanding of the performance of selected processes in the organization's set of standard processes in support of achieving quality, and to provide process performance data, baselines, and models to quantitatively manage the organization's projects.

SUPPORT

Measurement and Analysis (MA)

Measurement and Analysis (MA)
Maturity Level 2
The purpose of Measurement and Analysis is to develop and sustain a measurement capability used to support management information needs.

Basic Support Process Areas



Configuration Management (CM)

Configuration Management (CM)
Maturity Level 2
The purpose of Configuration Management is to establish and maintain the integrity of work products using configuration identification, configuration control, configuration status accounting, and configuration audits.

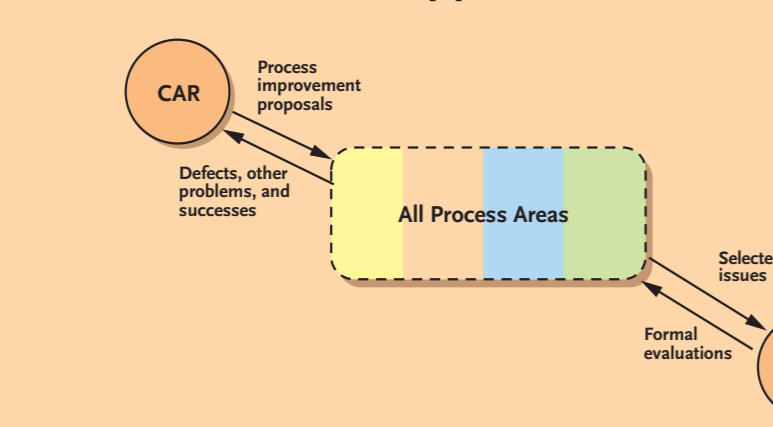
Process and Product Quality Assurance (PPQA)

Process and Product Quality Assurance (PPQA)
Maturity Level 2
The purpose of Process and Product Quality Assurance is to provide staff and management with objective insight into process and associated work products.

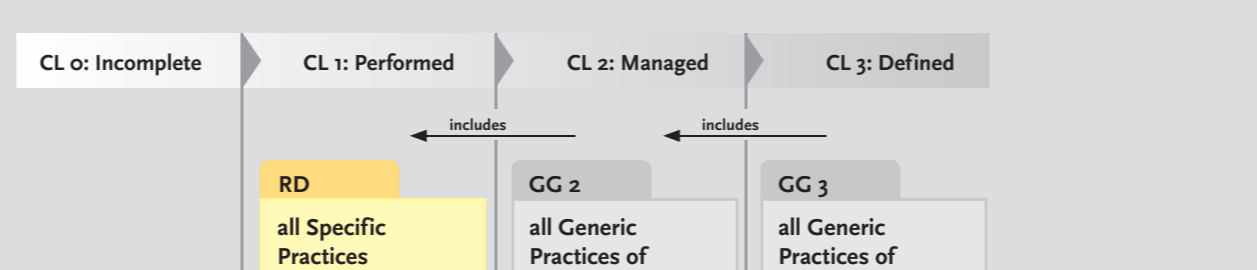
Causal Analysis and Resolution (CAR)

Causal Analysis and Resolution (CAR)
Maturity Level 2
The purpose of Causal Analysis and Resolution is to identify causes of selected outcomes and take actions to improve process performance.

Advanced Support Process Areas



Example: Capability Levels of Requirements Development (RD)



MORE INFORMATION

Software Engineering Institute: www.sei.cmu.edu/cmmi
wibas GmbH: www.wibas.com