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## **CMMI<sup>®</sup> and OPM3<sup>®</sup> Collaborative Opportunities**

**CMMI Technology Conference  
Denver, Colorado  
November, 2007**

“OPM3” is the registered trademark of the Project Management Institute  
“CMMI” is the registered trademark of Carnegie Mellon University





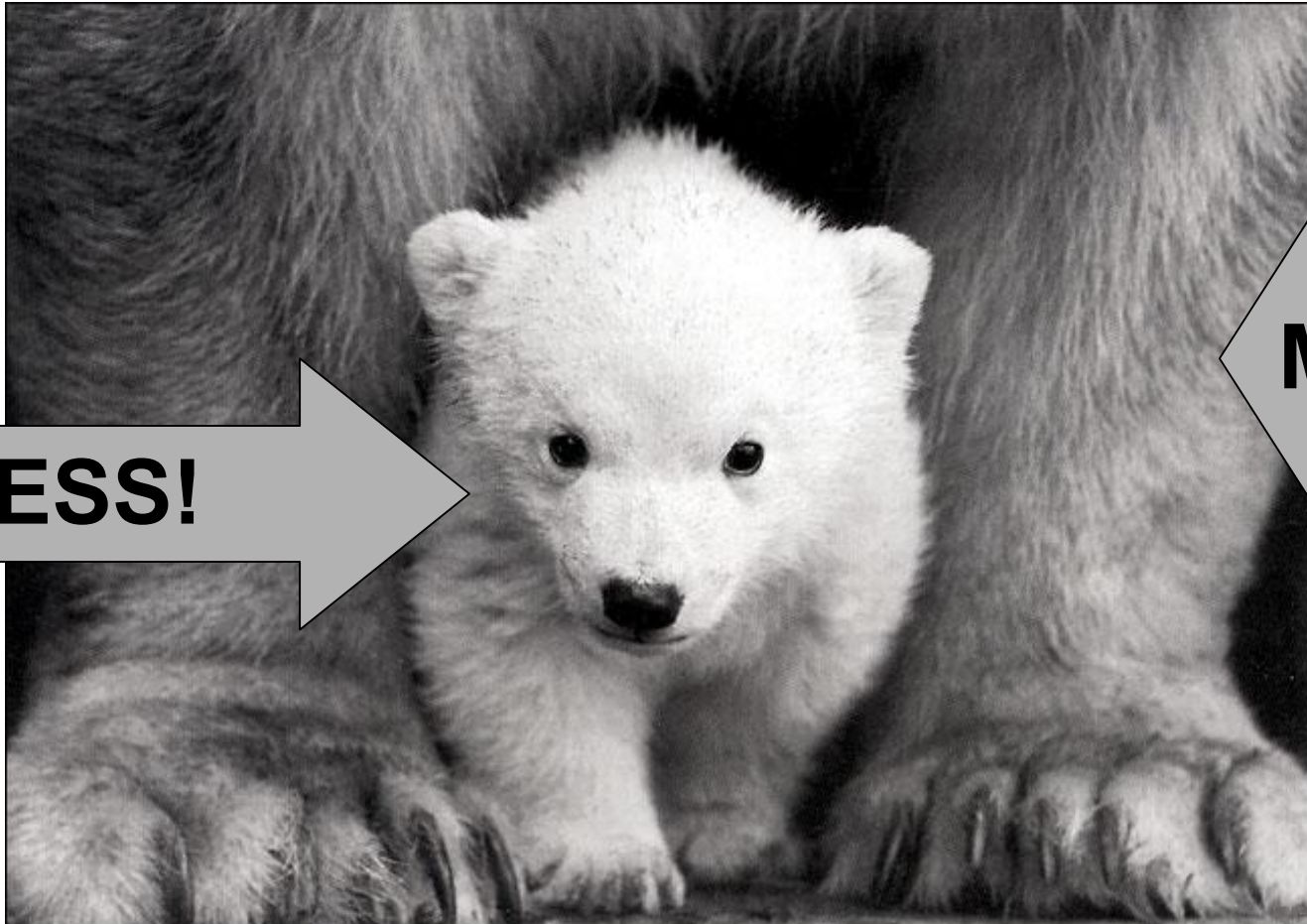
The state of being fully developed

The time after physical growth has stopped

[www.dictionary.com](http://www.dictionary.com)

**Maturity State:** An organization's degree of maturity in organizational project management (*OPM3*)

**Maturity Level:** Degree of process improvement across a predefined set of process areas in which all goals in the set are attained (*CMMI*)



**LESS!**

**MORE!**

# What are we talking about?



## Be precise about models...

A small object, usually built to scale, that represents in detail another, often larger object

An abstraction of reality

worthy of imitation; %exemplary behavior+

representation of something

[www.dictionary.com](http://www.dictionary.com)



**you get 'maturity models'**

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Conceptual framework

Useful references for process improvement

Should allow organizations to assess themselves against

Should be based on broad consensus

***A [www.google.com](http://www.google.com) search in April, 2005 provided 268,000 hits when 'Maturity Model' was used as the search item... a revised search in October 2007 revealed 2,480,000!***

Models from the SEI and CMU have been

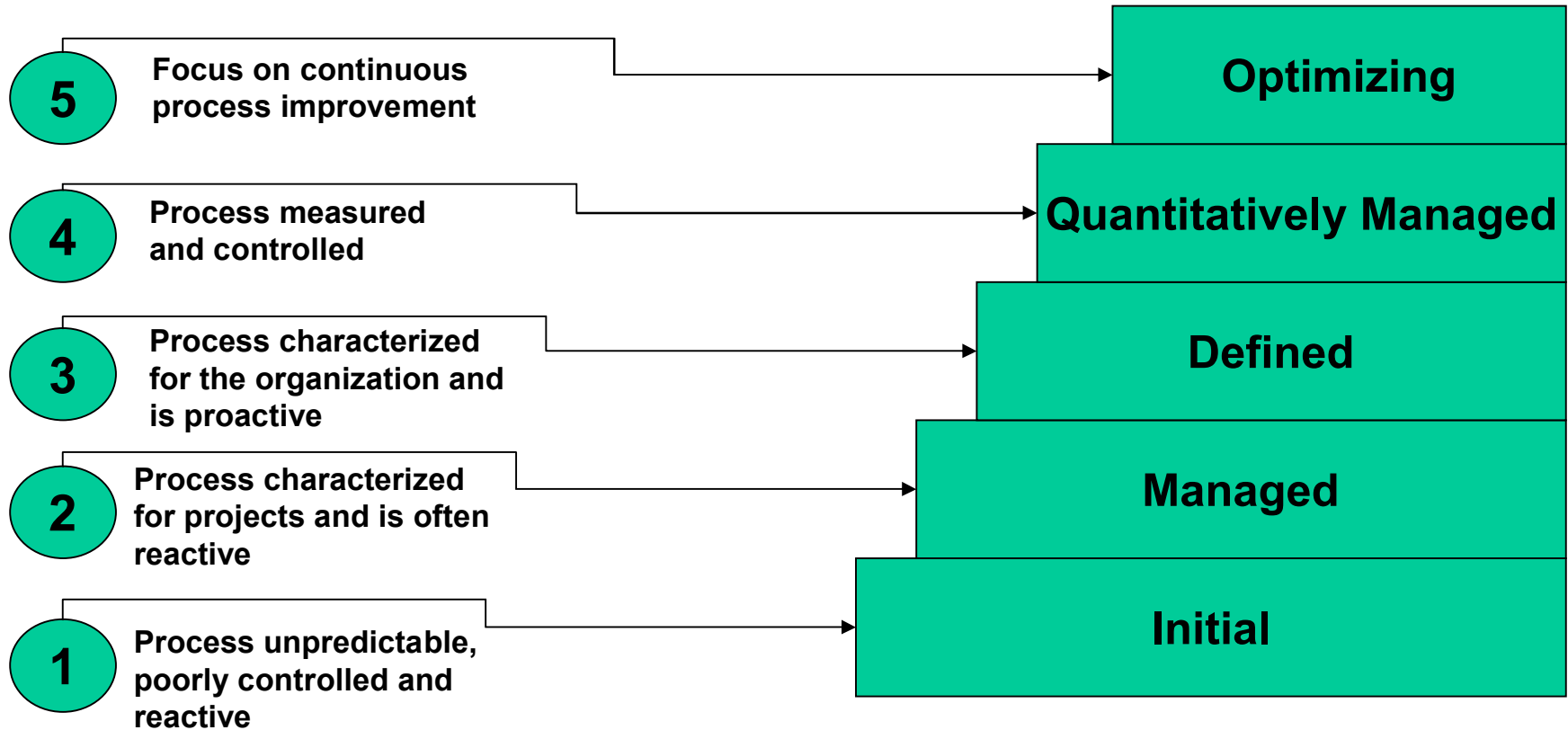
*CMMI for Development Version 1.2* published by SEI and CMU in 2006

- “ Replaces Legacy CMMs no longer supported by SEI
- “ Incorporates Four Disciplines
  - Systems Engineering
  - Software Engineering
  - Integrated Product and Process Development
  - Supplier Sourcing

*CMMI for Acquisition Version 1.2* published by SEI and CMU in 2007

- “ Uses Core Model Foundation Material with Acquisition
- “ Meant for acquirers instead of developers

# Organized Representation Maturity Levels helps Assess CMMI





## Process areas provides a perspective on the covered

**Project Planning**

**Project Monitor & Control**

Supplier Agreement Management

**Requirements Management**

**Process and Product Quality**

**Assurance**

**Configuration Management**

**Measurement and Analysis**

**Integrated Project Management**

**Risk Management**

Organization Process Focus

Organization Process Definition

Requirements Development

Technical Solution

Product Integration

Verification

Validation

**Decision Analysis and Resolution**

**Organizational Environment for  
Integration**

**Quantitative Project Management**

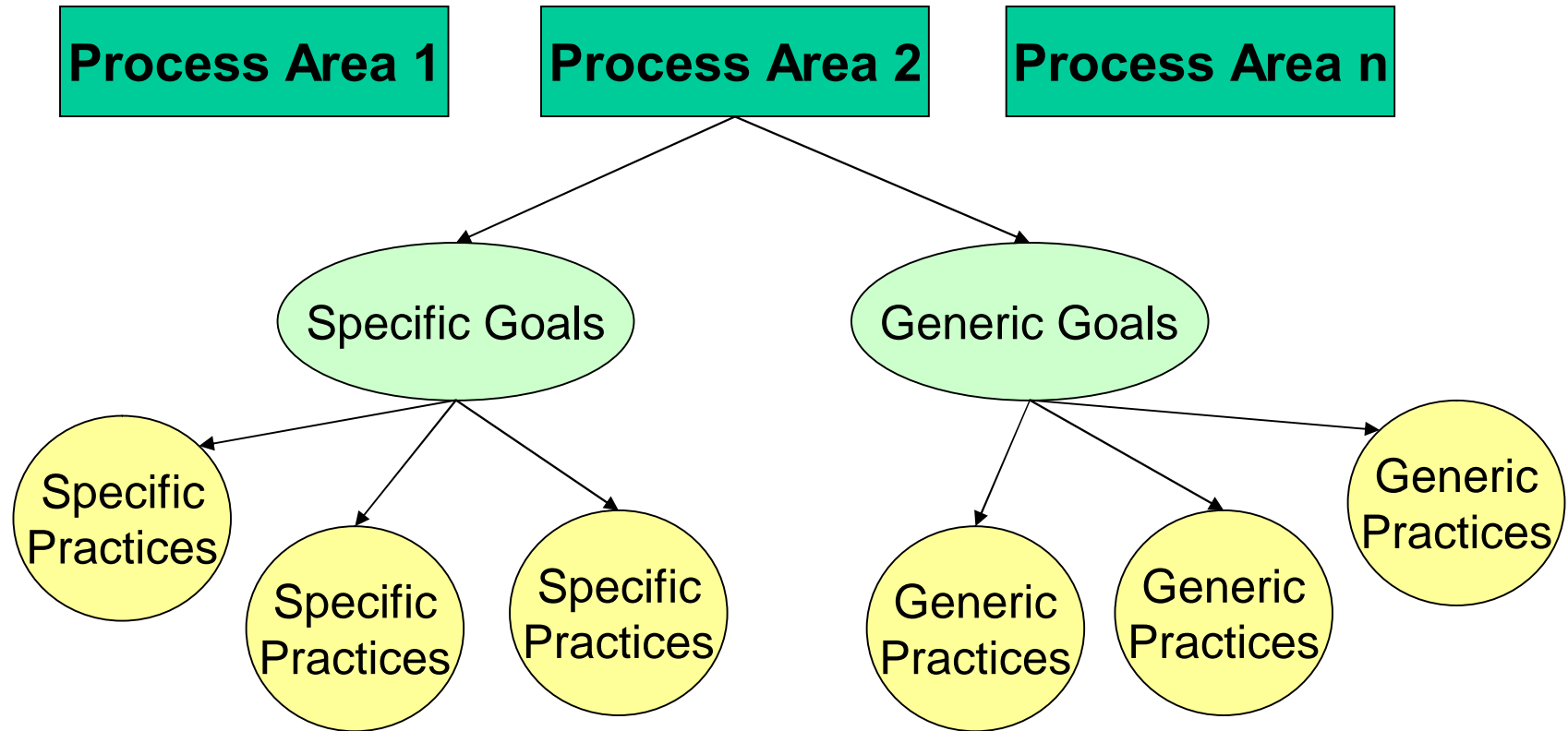
**Organizational Process Performance**

**Organizational Innovation and  
Deployment**

**Causal Analysis and Resolution**

## Core Model Foundation Process Areas

# Components include process areas, generic and specific practices



CMMI models also include other informative materials

- “ Typical Work Products
- “ Sub-practices
- “ References

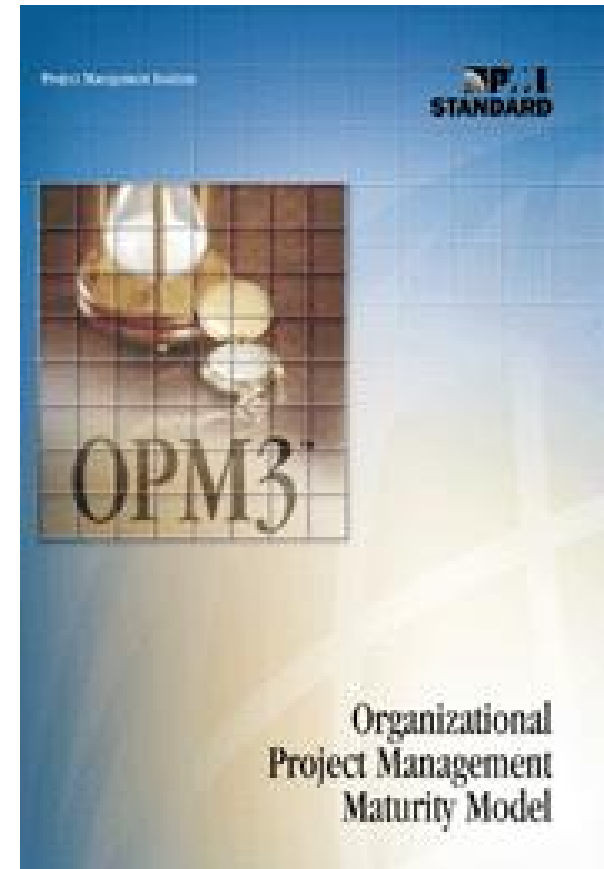
## Standard to address organizational project

Published by PMI in  
December, 2003

5 year project with over 800  
global volunteers

Beta-tested by 25 companies  
in varying industries before  
release

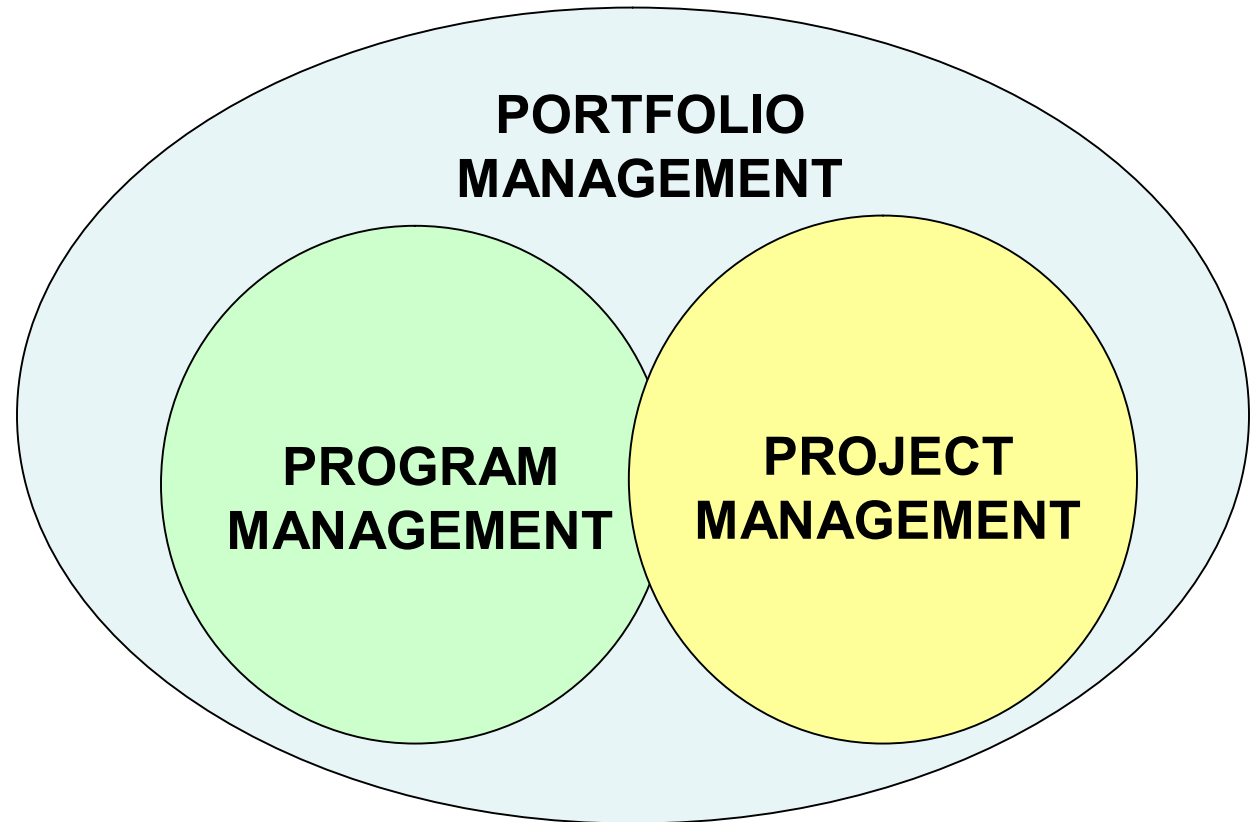
First standard to define  
Organizational Project  
Management



# al project management?

The application of knowledge, skills, tools and techniques to organizational and project activities to achieve the aims of an organization through projects.+

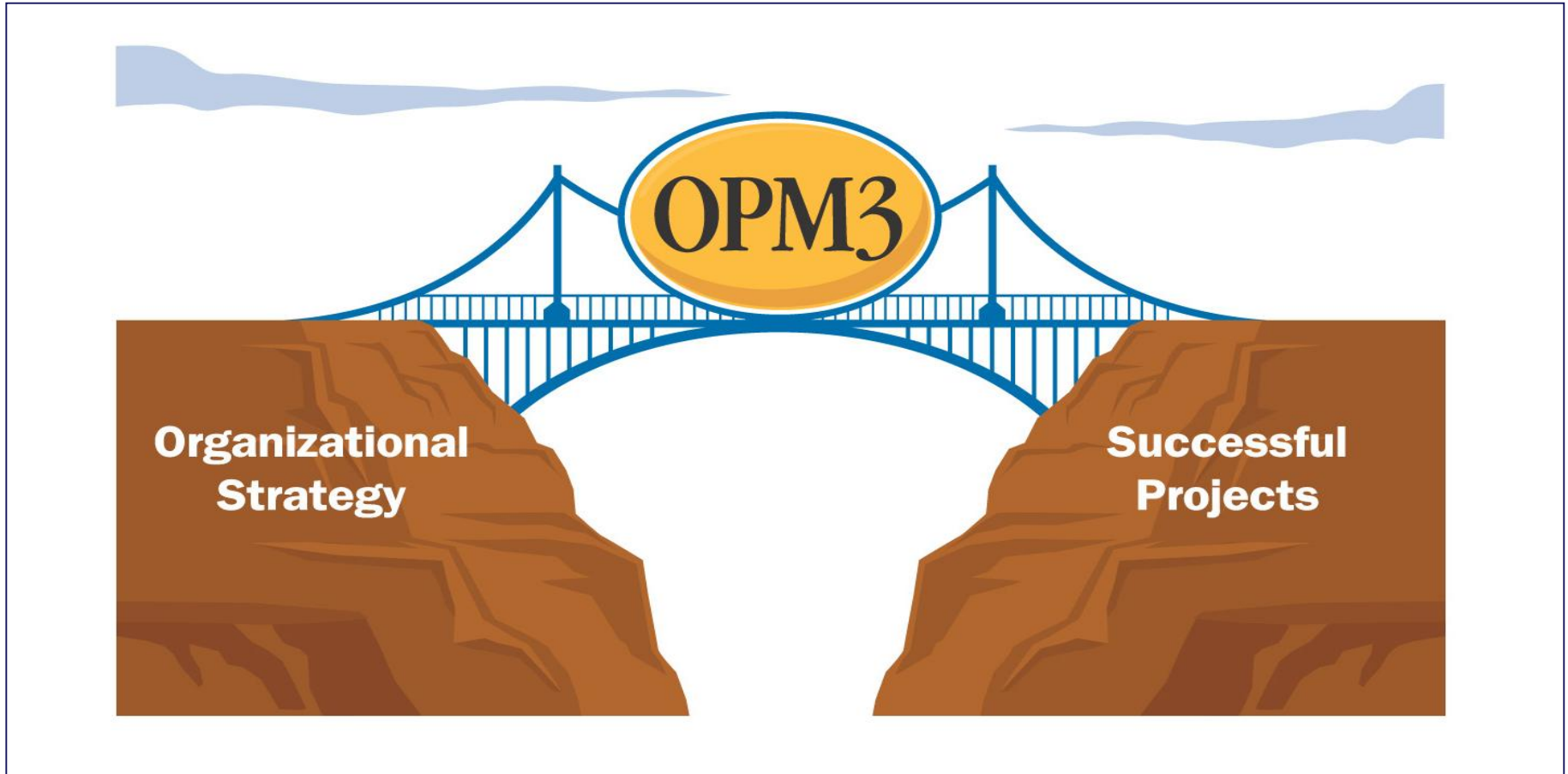
OPM3® Knowledge Foundation, p. 5



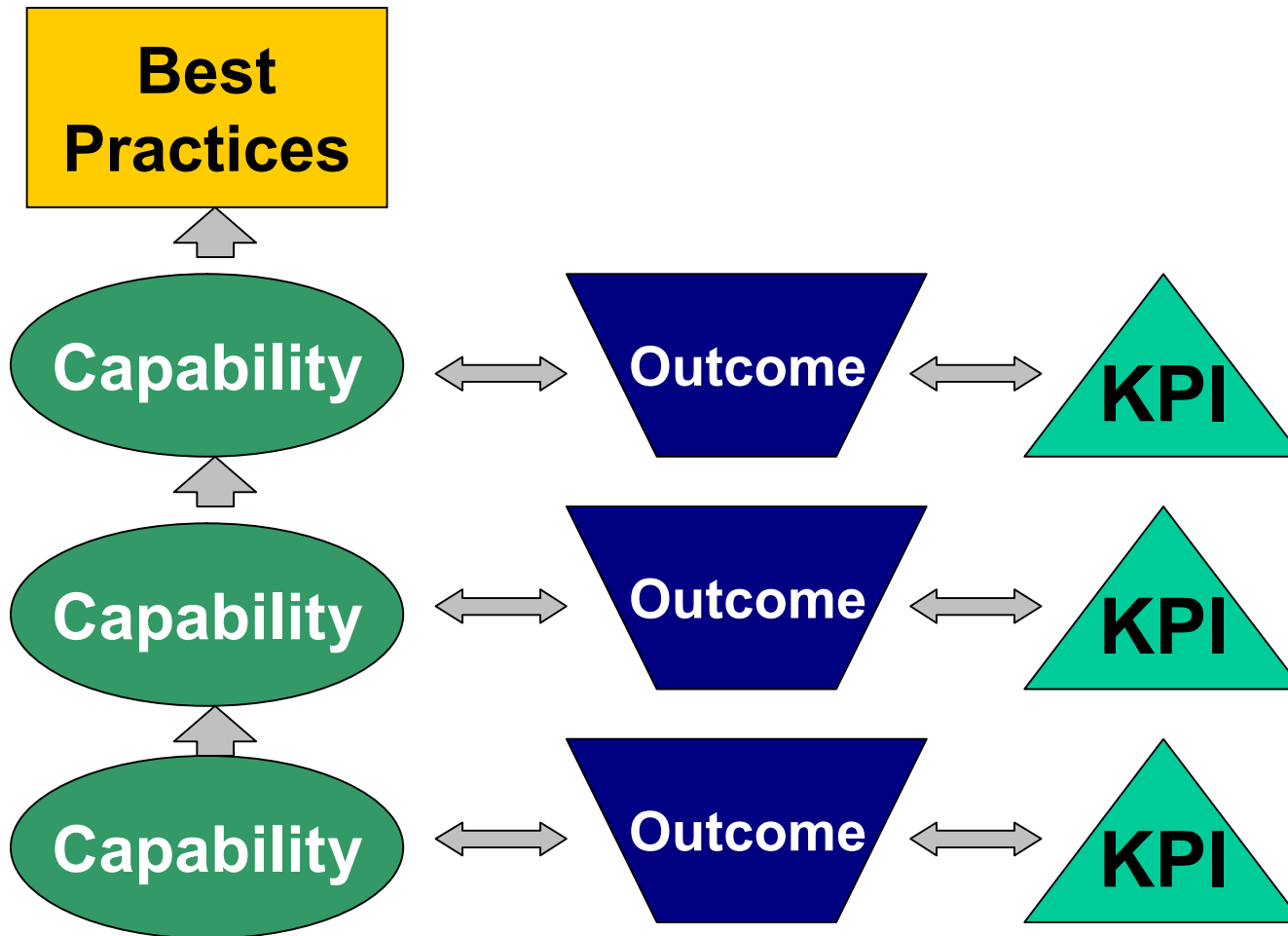
OPM covers three domains

# Closing the gap between an organization's strategy

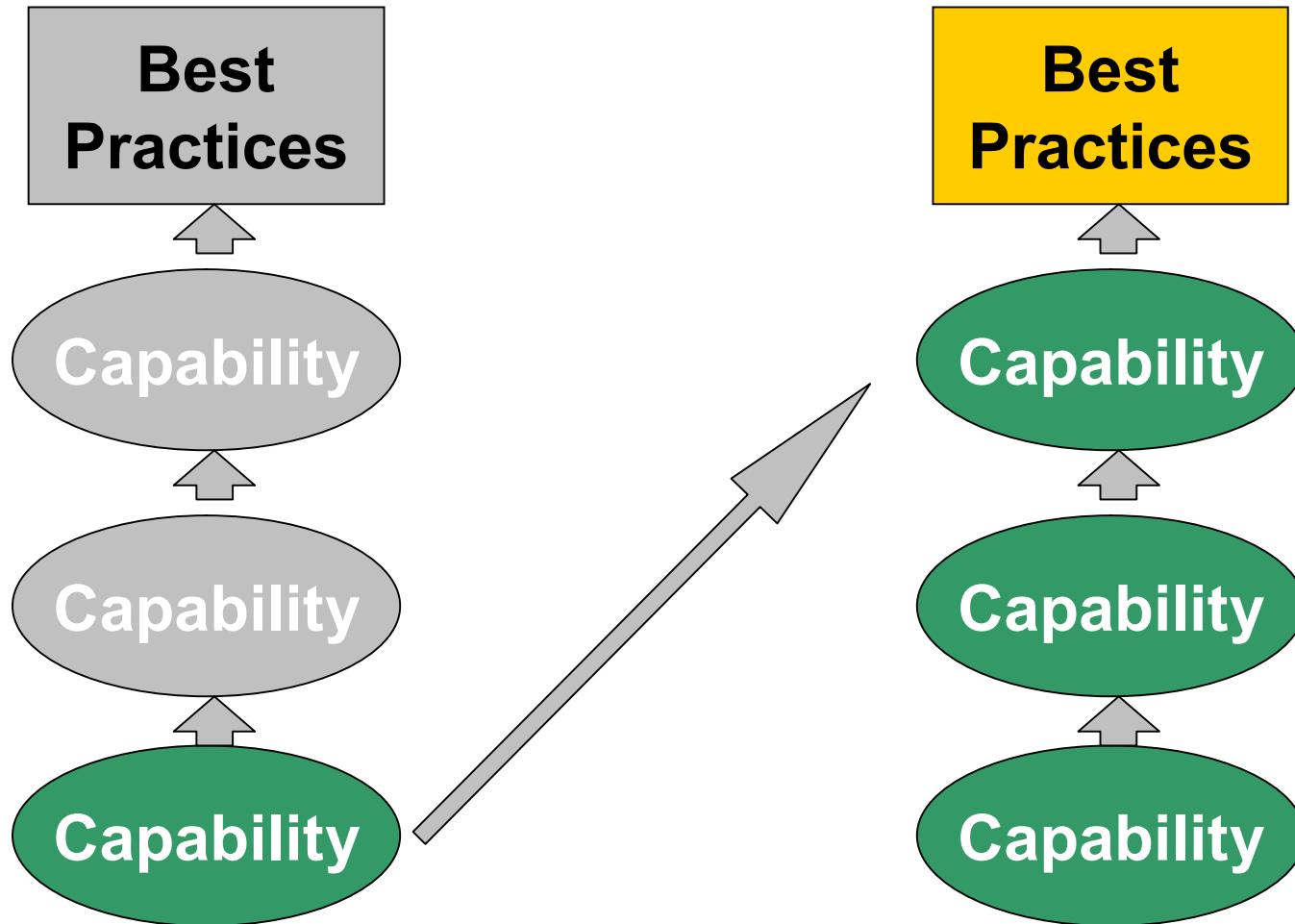
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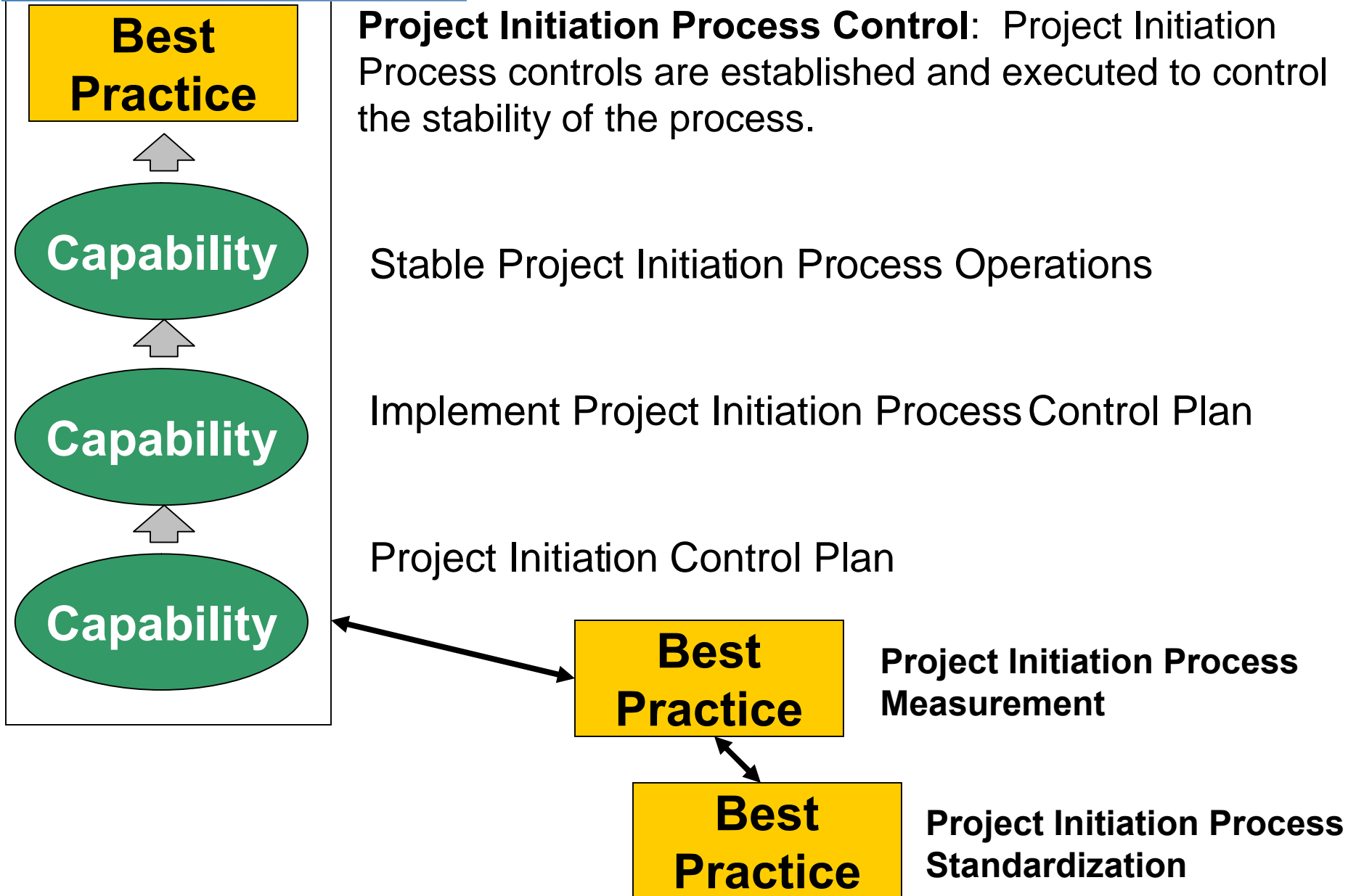
# Components are Best Practices, Capabilities, Outcomes, Indicators



are created equal ... some are dependent on others



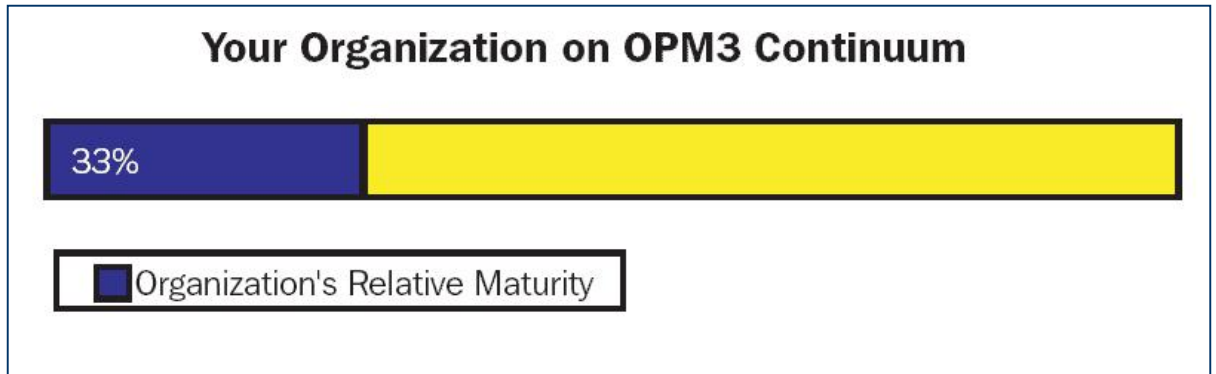
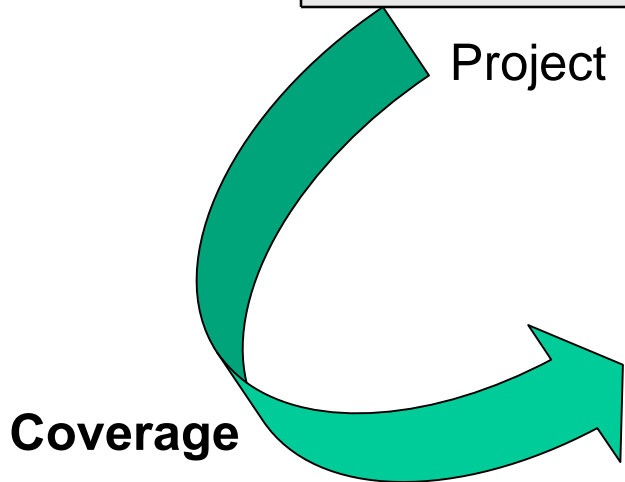
## Shows a best practice with three capabilities





# Organized by “PPP” and “SMCI” – more coverage of leads to higher score

Improve			
Control			
Measure			
Standardize			
	Project	Program	Portfolio



**Figure 6-3:** Graphical Representation of an Organizations Overall Position on a Continuum of Organizational Project Management Maturity

# How organizations can use both CMMI and OPM3, we that could be used to compare similar 'guides'



### Discipline

- " Sales
- " Manufacturing
- " Engineering
- " Project Management
- " Marketing
- " Legal

### Domain

- " Industry
- " Company size

### Key question:

- " Does the content conflict?

### Approach or method

#### Extent of the change

- " Which parts of the organization?
- " How much will it change the organization?

#### Resources

- " Specific tools
- " People
- " Training
- " Expertise

### Key questions:

- " What do I need to do to see benefit from using this guide?
- " Where do I get help?

### Key Questions:

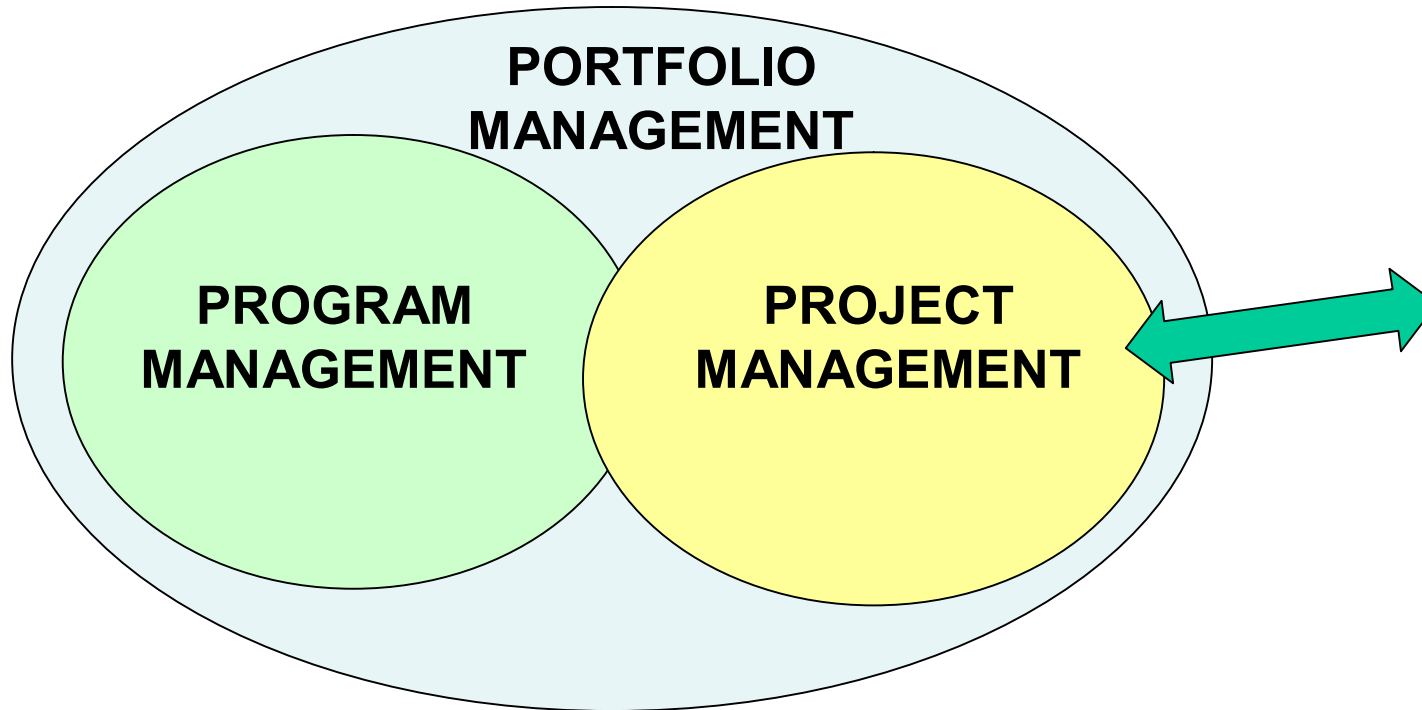
- " What will be improved?
- " How will it be sustained?
- " What do I really expect to get out of this?
- " What can I expect?

# cover project management and process conflict but differently

OPM3 covers the domain of project management

CMMI covers a group of process areas covering project management

OPM3 Domains



CMMI Categories

<b>Engineering/ Acquisition</b>
<b>Project Management</b>
<b>Process Management</b>
<b>Support</b>

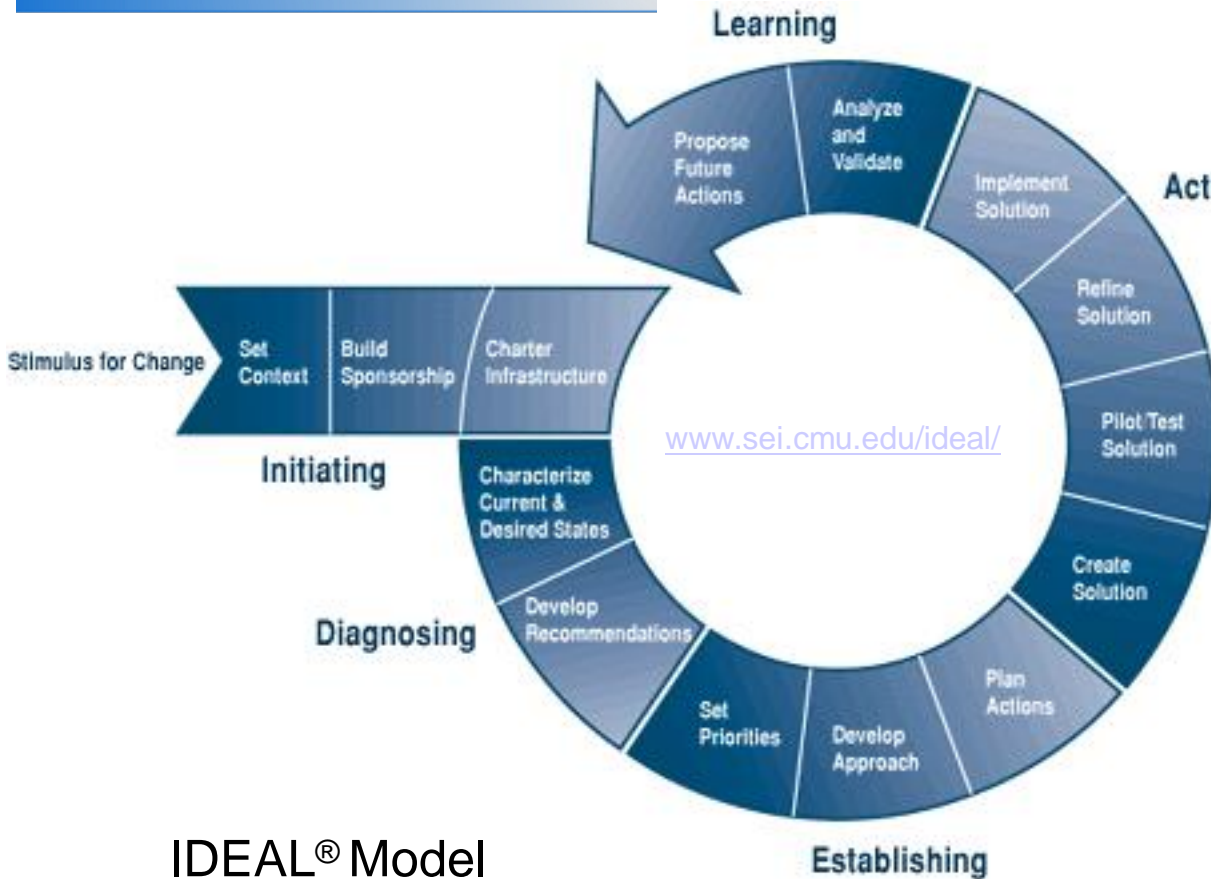
***Some of this other stuff is different!***

OPM3 distinguishes between project and program management and addresses portfolio management

CMMI covers technical disciplines related to acquisition or development

think about applying *OPM3* or *CMMI* is similar

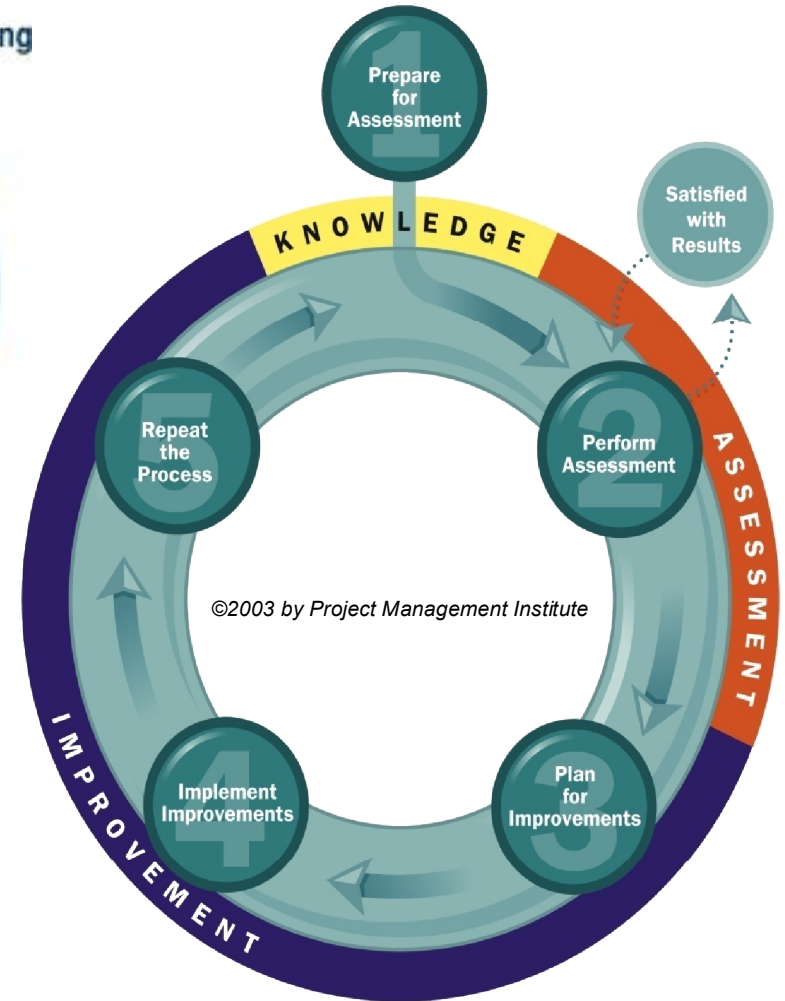
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IDEAL® Model

The SEI often references the IDEAL model when describing how to apply *CMMI*

The *OPM3* Cycle is part of the standard



OPM3® Cycle

# for both models vary in terms of depth and

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Assessment Type	OPM3	CMMI
<p>Entry-Level</p> <ul style="list-style-type: none"> <li>~ Short duration</li> <li>~ Minimal resources</li> <li>~ Low level of rigor</li> </ul>	<p><b>Self Assessment (SAM)</b></p> <ul style="list-style-type: none"> <li>~ Comes with OPM3 standard</li> <li>~ Shows approximate organizational maturity on overall continuum</li> <li>~ 151 binary (yes/no) questions</li> <li>~ Can be performed by anyone</li> <li>~ No specific requirements</li> </ul>	<p><b>SCAMPI C</b> (or ARC Compliant Gap Analysis)</p> <ul style="list-style-type: none"> <li>~ Organizations can assess whatever areas of risk are most important to them</li> <li>~ Outputs show which model areas are most at risk</li> <li>~ Conducted by as few as one appraiser</li> <li>~ Only one piece of evidence (artifact or verbal affirmation through interview) is required</li> </ul>
<p>Mid-range</p> <ul style="list-style-type: none"> <li>~ More effort</li> <li>~ More rigor</li> </ul>	<p><b>OPM3 ProductSuite Desk Assessment</b></p> <ul style="list-style-type: none"> <li>~ Requires assessor to look at capabilities and outcomes with process owners</li> <li>~ Shows approximate organizational maturity if rest of organization is following process</li> <li>~ Must be performed by a certified <i>ProductSuite</i> Assessor</li> <li>~ Requires evidence or testimony to demonstrate capabilities and outcomes</li> </ul>	<p><b>SCAMPI B</b></p> <ul style="list-style-type: none"> <li>~ Organizations can assess whatever areas of risk are most important to them but often focus on full coverage of a maturity level</li> <li>~ Outputs show which areas are most at risk</li> <li>~ Must be conducted by a minimum of 2 team members and an authorized team leader</li> <li>~ Multiple pieces of evidence (artifact or verbal affirmation through interview) are required</li> </ul>
<p>SEI or PMI authorized rating</p> <ul style="list-style-type: none"> <li>~ Significant effort</li> <li>~ Significant rigor</li> </ul>	<p><b>OPM3 ProductSuite Rigorous Assessment</b></p> <ul style="list-style-type: none"> <li>~ Requires assessor to look at capabilities and outcomes with process owners and practitioners</li> <li>~ Results in a benchmark of organizational project management maturity</li> <li>~ Must be performed by a certified <i>ProductSuite</i> Assessor</li> <li>~ Requires multiple pieces of evidence and testimony to demonstrate capabilities and outcomes</li> </ul>	<p><b>SCAMPI A</b></p> <ul style="list-style-type: none"> <li>~ Organizations coverage of a maturity or capability level</li> <li>~ Outputs include a maturity or capability level</li> <li>~ Must be conducted by a minimum of 4 team members and an authorized lead appraiser</li> <li>~ Multiple pieces of evidence (artifact or verbal affirmation through interview) are required</li> </ul>

How about combined assessments?



## Requires change management and both provide steps to maturity

Change management is required for a successful usage of *CMMI*  
or *OPM3*

- “ Management Support
- “ Budget
- “ Resources
- “ Time
- “ Tools



Organizations cannot go directly to best practices over night

***Commitment!***

Both models provide stepping stones to higher levels of maturity

## OPM3 have both reported significant results

Users of *OPM3* have reported

- “ Higher levels of customer satisfaction
- “ Increase in their PM capabilities and aligned processes to the *PMBOK*® *Guide*
- “ Visibility to how well they use their resources once they develop their portfolio management capabilities

Users of *CMMI* have reported

- “ Reduction in software costs either directly by streamlining processes or indirectly by performing less rework.
- “ Productivity increases of 20% to 30% from their engineering staff
- “ Quality objectives were met and the numbers of defects were reduced by using *CMMI*

Organizations that apply both *OPM3* and *CMMI* together can expect results as described above and will most likely see additional benefits such as:

- “ Reviewing the overall portfolio using the best practices from *OPM3* and freeing up resources to work on projects leading to innovation while leveraging the process areas from *CMMI* to execute those projects predictably and successfully
- “ Using the project and program management guidance from *OPM3* to figure out how to apply the planning and monitoring and controlling advice that is documented in *CMMI* and implement it at different levels of the organization
- “ Achieving either *OPM3* or *CMMI*-related objectives (e.g., cost, quality, or schedule improvements) faster than if they would by just considering one model alone because each model can provide a different perspective on the organizational opportunities

# Project Management Maturity – a global telecommunications provider prove PM capabilities as a competitive advantage

## Situation

A CMM Maturity Level 3 rated organization with a large number of Project Management Institute (PMI) Certified Project Management Professionals (PMPs) seeking to achieve world class project management processes

The organization was acquired so the management team also wanted to demonstrate their overall project management capability and take a lead in the new combined entity to integrate other departments and resources

## Solution

Collaboratively plan for an organizational assessment with the organizational leadership and key team members to ensure the right resources were available at the right time to obtain the data needed to establish a baseline everyone understood

Measure and baseline capabilities using the *OPM3*® ProductSuite

Train organizational resources on critical areas where gaps were identified from the assessment in order to start the movement toward organizational process improvement and build shared vision for the future processes

## Benefits

By using *OPM3*, company management was able to identify a root-cause problem of a lack of integration between the engineering and sales functions (lack of overall program management)

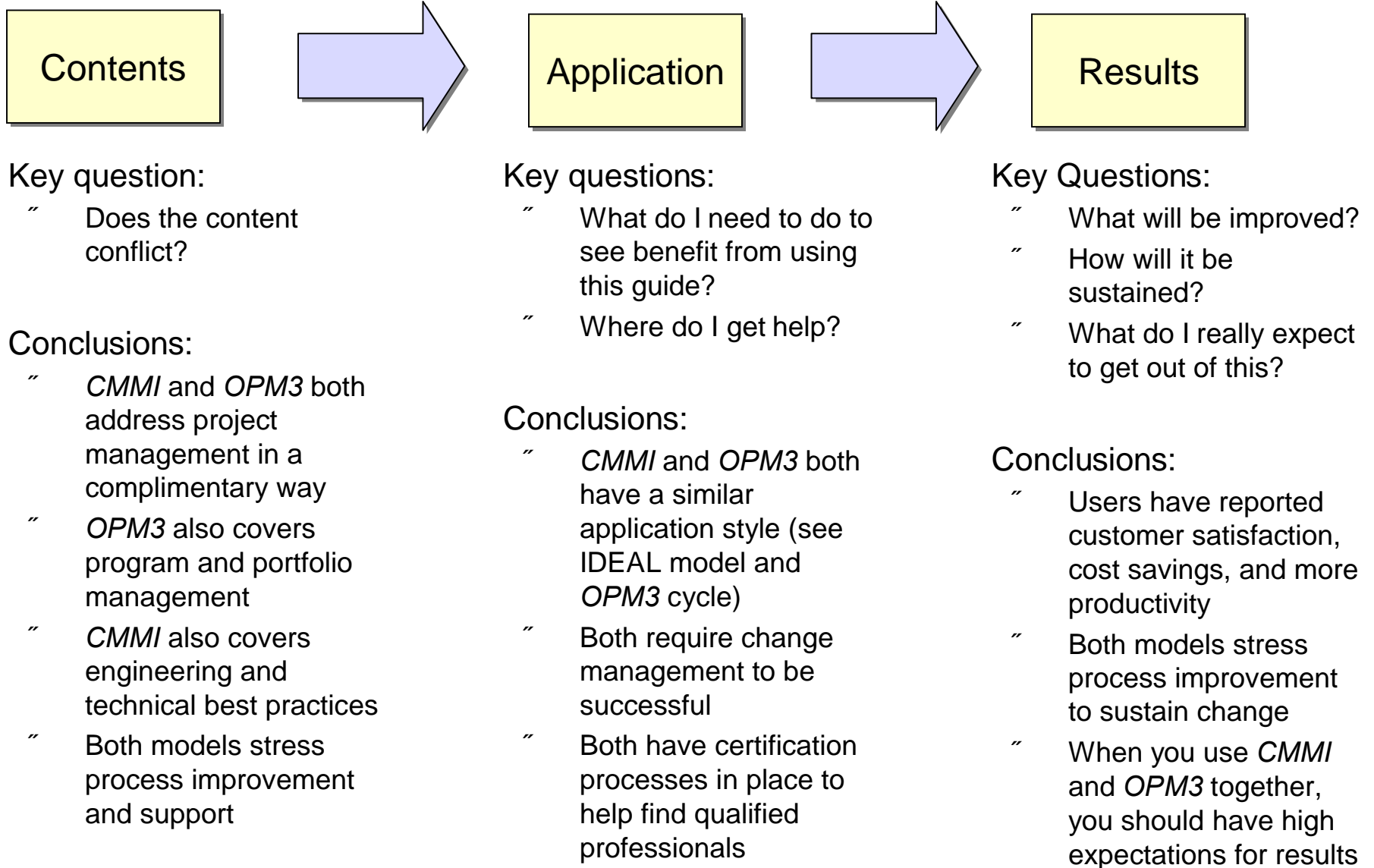
The company also improved visibility to the portfolio management process and identified immediate opportunities for improvement

## Performance Results formally reported through *OPM3*® ProductSuite





# Aspects of the two models, the way organizations apply them, the way organizations expect, support each other



**Using CMMI and OPM3, organizations can do the right projects the right way!**



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portunity to talk about **CMMI** and **OPM3!**

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Questions?

Comments?

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