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CMMI for Development Introduction & Implementation Roadmap

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CMMI & Business Beam



About CMMI for Development

CMMI for Dev – Introduction & Implementation Roadmap

What is CMMI?

- ▶ Owned and Managed by the CMMI Institute, USA
- ▶ De-facto standard for Software & Hardware development globally.
- ▶ Provides wider and deeper improvement opportunities to organizations as compare to any other model.
- ▶ Latest version of CMMI is v1.3

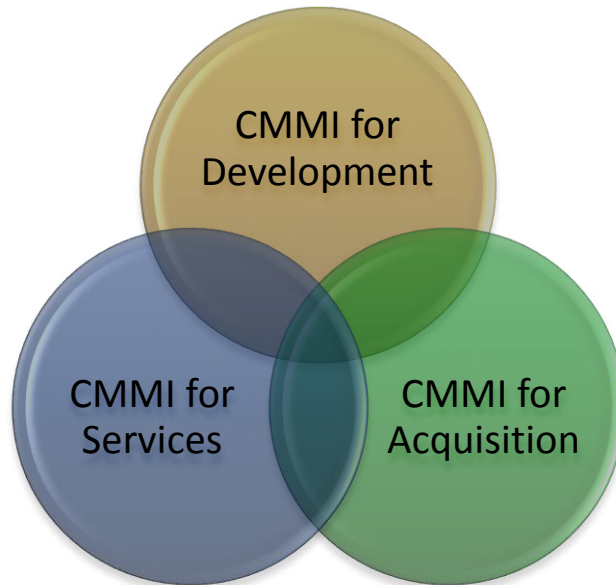


CMMI[®] Institute

Business Beam is CMMI Institute
Partner for Training, Consulting
and Appraisal

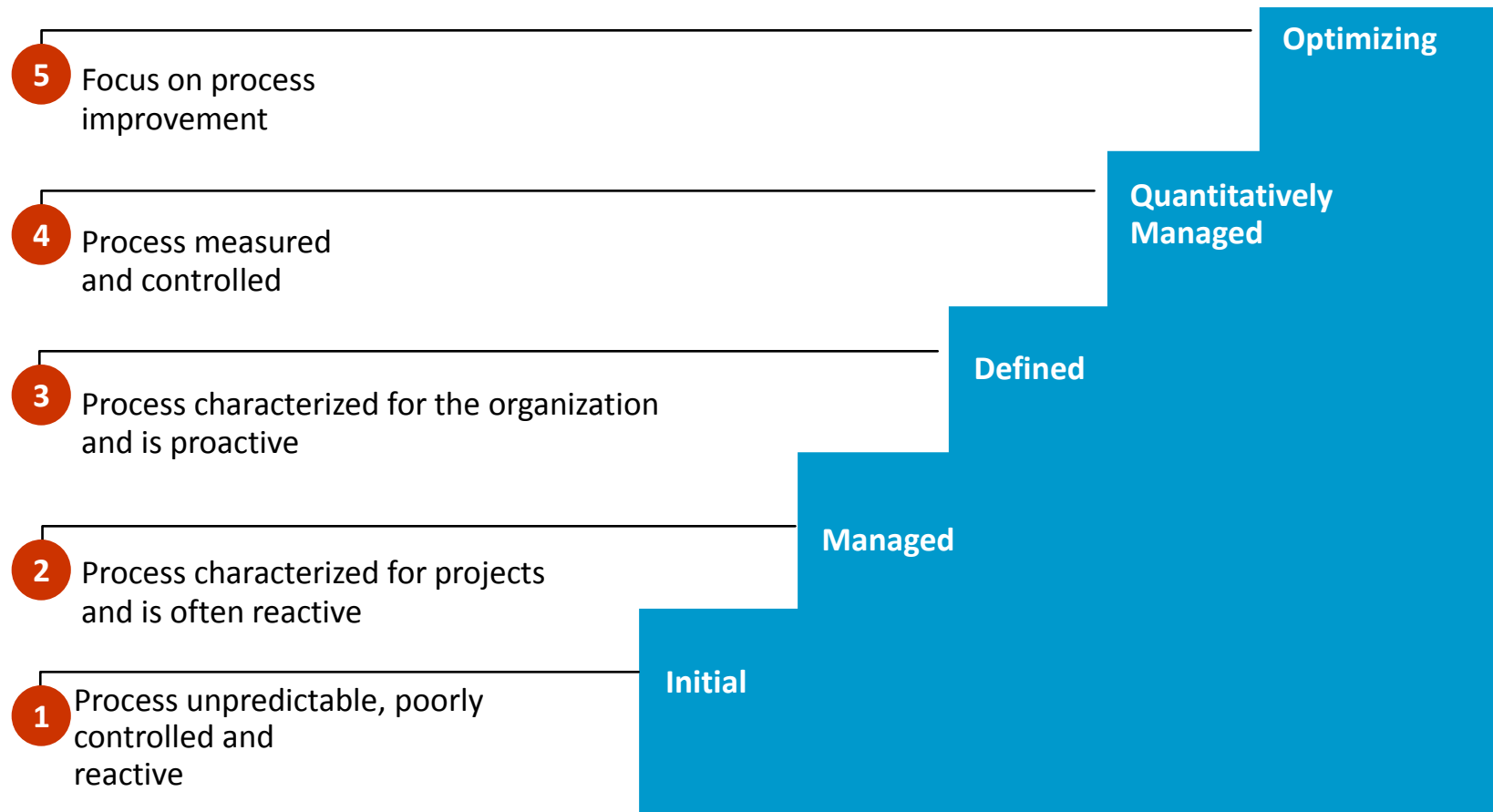
CMMI for Development

- ▶ Three Constellations of CMMI.



- ▶ Structure of CMMI for Development (CMMI-Dev) includes:
 - ▶ 5 Maturity Levels
 - ▶ 22 Process Areas
 - ▶ 6 Capability Levels for each PA

5 Maturity Levels in CMMI



22 Process Areas in CMMI-Dev

Project Management

- Project Planning
- Project Monitoring and Control
- Supplier Agreement Management
- Integrated Project Management
- Risk Management
- Quantitative Project Management

Engineering

- Requirements Management
- Requirements Development
- Technical Solution
- Product Integration
- Verification
- Validation

Process Management

- Organizational Process Focus
- Organizational Process Definition
- Organizational Training
- Organizational Process Performance
- Organizational Innovation and Deployment

Support

- Configuration Management
- Process and Product Quality Assurance
- Measurement and Analysis
- Decision Analysis and Resolution
- Causal Analysis and Resolution

Process Areas in Maturity Level 2

- ▶ Seven Process Areas (PAs):
 - ▶ Requirement Management (REQM)
 - ▶ Project Planning (PP)
 - ▶ Project Monitoring and Control (PMC)
 - ▶ Process and Project Quality Assurance (PPQA)
 - ▶ Configuration Management (CM)
 - ▶ Supplier Agreement Management (SAM)
 - ▶ Measurement and Analysis (MA)

Process Areas in Maturity Level 3

- ▶ **Eleven Process Areas (PAs)**
 - ▶ Requirements Development (RD)
 - ▶ Technical Solution (TS)
 - ▶ Product Integration (PI)
 - ▶ Verification (VAR)
 - ▶ Validation (VAL)
 - ▶ Organizational Process Focus (OPF)
 - ▶ Organizational Process Definition (OPD)
 - ▶ Organizational Training (OT)
 - ▶ Integrated Project Management (IPM)
 - ▶ Risk Management (RSKM)
 - ▶ Decision Analysis and Resolution (DAR)

Benefits of CMMI

- ▶ The performance results in the following table are from 30 different organizations that achieved percentage change in one or more of the six categories of performance measures below.

Performance Category	Median Improvement
Cost	34%
Schedule	50%
Productivity	61%
Quality	48%
Customer Satisfaction	14%
Return on Investment	4:1

** Data published by the Software Engineering Institute, Carnegie Mellon University*



Benefits of Achieving Maturity Level 2

- ▶ Requirements Management processes, including change management and traceability are streamlined.
- ▶ Project planning and its visibility during execution increase significantly.
- ▶ Quality of projects and processes is managed well.
- ▶ Best practices in Configuration Management are implemented.
- ▶ Measurements and metrics program provides thorough insights and facilitates factual decision making process.
- ▶ Agreements with your suppliers are well managed.

Benefits of Achieving Maturity Level 3

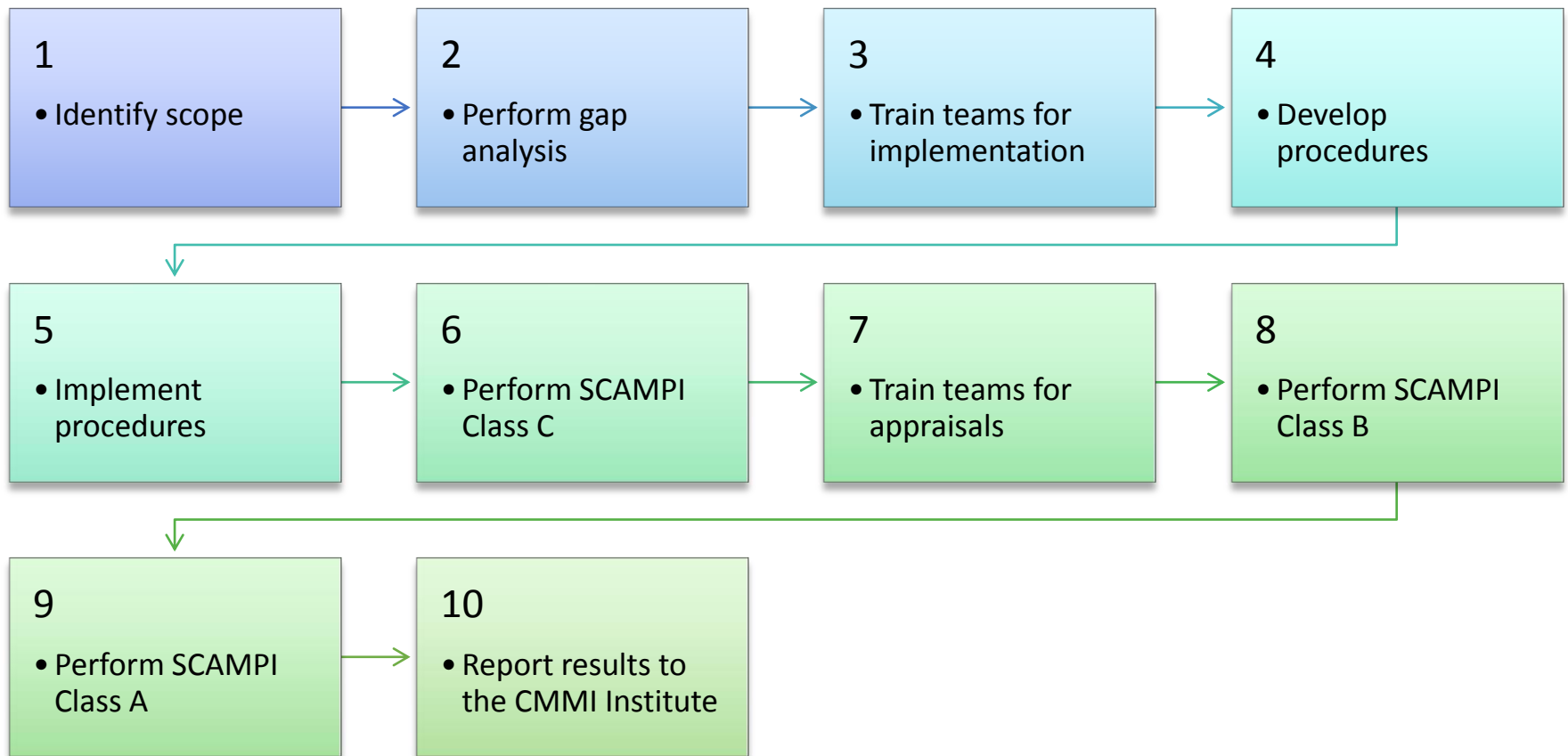
- ▶ Design, development and integration related processes are streamlined.
- ▶ Proper verification and validation strategies are implemented.
- ▶ Requirements are gathered effectively.
- ▶ Risks are managed properly.
- ▶ Decision Making process is developed and streamlined.
- ▶ Project learns from other projects.
- ▶ Organizational level processes are established.



Implementation Roadmap

CMMI for Dev – Introduction & Implementation Roadmap

Proposed Implementation Roadmap



** This is a generic implementation roadmap, and may change based on various factors including target maturity profile, team-size, locations, etc.*





CMMI and Business Beam

CMMI for Dev – Introduction & Implementation Roadmap

Reasons to Select Business Beam as Your CMMI Adoption Partner!



1

We are CMMI Partner, and Authorized by PSEB

- Authorized to deliver CMMI trainings, consultancy, and appraisal services internationally
- Authorized by Pakistan Software Export Board (PSEB) for CMMI adoption in Pakistan

2

Optimum combination of Skill & Experience

- 10+ successful adoptions of CMMI for various maturity levels
- 5+ senior-level consultants for CMMI on-board
- CMMI authorized trainers and lead appraisers

3

Focus on Skill Development

- Offer lots on hands-on trainings to practitioners for building right capacity
- Customized process development to enhance productivity
- Willing to go extra-mile for your success

4

We offer strongest knowledgebase

- Our CMMI consultants have experience of multiple domains including Information Security (ISO 27001), Service Management (ITIL, ISO 20000, CMMI for Services), Quality Management (ISO 9001, Six Sigma), etc.
- They are better equipped to deliver solutions effectively

CMMI Case Study 1

▶ eDev Technologies

- ▶ Objective: Achieve CMMI Maturity Level 2
- ▶ No. of Employees: 70+
- ▶ Geographic Scope: Karachi, Pakistan
- ▶ Project Dates: May 2005 – Nov. 2007
- ▶ Scope of Services: In-house Trainings, Gap Analysis, Documenting Policies, Processes & Procedures, Process Implementation Support, and Class C Appraisal
- ▶ Achievements:
 - ▶ Completed 100% compliance with CMMI Level 2 within 12 months
 - ▶ Processes integrated with ISO 9001 QMS already in place
 - ▶ The company successfully achieved CMMI Maturity Level 2. (Note: Delay in appraisal happened due to PSEB as this project was funded by Pakistan Software Export Board).

CMMI Case Study 2

▶ Prislogix

- ▶ Objective: Achieve CMMI Maturity Level 2
- ▶ No. of Employees: 40+
- ▶ Geographic Scope: Karachi, Pakistan
- ▶ Project Dates: May 2007 – July 2008
- ▶ Scope of Services: In-house Trainings, Gap Analysis, Documenting Policies, Processes & Procedures, Process Implementation Support, and Class C Appraisal
- ▶ Achievements:
 - ▶ Completed 100% compliance with CMMI Level 2
 - ▶ Processes integrated with ISO 9001 QMS already in place
 - ▶ The company successfully achieved CMMI Maturity Level 2

CMMI Case Study 3

▶ Matrix Systems

- ▶ Objective: Achieve CMMI Maturity Level 2 & ISO 9001
- ▶ No. of Employees: 50+
- ▶ Geographic Scope: Karachi, Pakistan
- ▶ Project Dates: Feb. 2007 – Feb 2009
- ▶ Scope of Services: In-house Trainings, Gap Analysis, Documenting Policies, Processes & Procedures, Process Implementation Support, Internal Audit, and Class C Appraisal
- ▶ Achievements:
 - ▶ Completed 100% compliance with ISO9001 and CMMI Level 2.
 - ▶ Implemented best practices across the board, including Project Management, Quality Assurance, Configuration Management, HR, Infrastructure Management, etc.
 - ▶ The company successfully achieved ISO 9001 and CMMI Maturity Level 2.

Client's Testimonials

- ▶ “Business Beam has been a catalyst in bringing about a positive change in the way Matrix Systems developed software. Their consultants are helping us adopt industry best practices and proven approaches in various aspects of software development and management. No doubt Business Beam has the required expertise and skills to lead us to successful implementation of ISO9001:2000 and CMMI.” ***Manager Engineering, Matrix Systems (Pvt.) Limited***
- ▶ “Our team is highly satisfied with the overall CMMI implementation process and the performance of Business Beam’s Consultants.” ***C.O.O., Prislogix (Pvt.) Limited***
- ▶ “We are very much thankful to Business Beam whose vast pool of talented and professional consultants having paramount knowledge and experience of implementing quality culture in software houses, helped our organization to align its business and technical domains of software development through standard frameworks and agile practices of software engineering.” ***Manager Process Engineering, eDev Technologies***



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Thank You!

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