Business Process Maturity, Improvement, and Technology

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Traditional BPM Approach—Function/Process Matrix

- **Functions** focus on the performance of skills within an area of expertise
- **Processes** focus on the flow and transformation of information or material

![Function/Process Matrix Diagram]
Best Practices ≠ Workflow

A collection of best practices ≠ a seamless work process

Problems left by adoption of best practices:

• Best practices too often localized within functional silos
• Best practices not integrated into a seamless workflow
• Gaps left in workflow between best practices
• Best practice outputs not matched to input needs of next steps
• Timing between best practices not coordinated

Process Maturity Framework

Consistent with People CMM & CMMI staged architectures

Level 5
Innovative
Innovation management

Level 4
Predictable
Capability management

Level 3
Standardized
Process management

Level 2
Managed
Project management

Level 1
Initial
Inconsistent management
How the BPMM Works

Level 5
Optimized
Innovate across the business process to close gaps with changing business targets
- Capable processes
- Perpetual innovation
- Change management

Level 4
Predictable
Optimize processes using statistical control, lean techniques, etc.
- Predictable results
- Reuse/knowledge mgt.
- Stable processes

Level 3
Standardized
Standardize processes, measures, and training for product & service offerings
- Productivity growth
- Effective automation
- Economy of scale

Level 2
Managed
Build disciplined work unit management to stabilize work and control commitments
- Reduced rework
- Repeatable practices
- Satisfied schedules

Level 1
Initial
Motivate people to overcome problems and just “get the job done”
- Defects and overruns
- Ad hoc methods
- Hero worship

Evolution of Maturity Models

Business Process MM
- Bus. Process Management
- Any organizational process
- Early ROI

IT Maturity Model
- Service operations
- ITIL & COBIT content
- Process maturity roadmap

CMM/CMMI
- Project-based
- Well understood
- Proven success
Business Process Maturity Model

Level 5: Innovative
- Organizational Improvement Planning
- Defect & Problem Prevention
- Continuous Capability Improvement
- Organizational Innovative Improvement
- Organizational Improvement Deployment
- Organizational Performance Alignment

Level 4: Predictable
- Organizational Common Asset Management
- Product & Service Process Integration
- Org. Capability & Performance Management
- Quantitative Product & Service Management
- Quantitative Process Management

Level 3: Standardized
- Organizational Process Management
- Organizational Business Governance
- Work Unit Requirements Management
- Work Unit Planning & Commitment
- Work Unit Monitoring & Control
- Work Unit Performance
- Work Unit Configuration Management
- Sourcing Management
- Process & Product Assurance

Level 2: Managed
- Organizational Process Leadership
- Organizational Business Governance
- Work Unit Requirements Management
- Work Unit Planning & Commitment
- Work Unit Monitoring & Control
- Work Unit Performance
- Work Unit Configuration Management
- Sourcing Management
- Process & Product Assurance

• Developed by 2 of the original CMM authors and funded by a bank
• Related to, but improves on CMMI
• Focuses on product & service life cycle and value chain workflows
• Similar to ITIL v3
• Validated in 4 case studies
• Approved as a standard by the Object Management Group in 2007

BPMM Adopters — 1

Company 1: International Bank

Objectives:
- Achieve cost reductions
- Recognition for efficiency

Barriers addressed:
- Overload, rework
- Multiple ways to do similar things
- Disappointing automation results

Company 2: Health Care Services Company

Objectives:
- Reduce billing errors
- Provide framework for 6σ and business process reengineering

Barriers addressed:
- Workflow bottlenecks, errors
- Difficulty selecting 6σ projects
- Disappointing end-to-end solutions
## BPMM Adopters — 2

### Company 3: Semiconductor Equipment Supplier

**Objectives:**
- Integrate improvement activities
- Extend process maturity benefits to every business process

**Barriers addressed:**
- Multiple improvement frameworks
- Best practices rather than processes

### Company 4: Point-of-Sale Supplier & Operator

**Objectives:**
- Integrate end-to-end development, installation, & support processes
- Improve efficiency of operations

**Barriers addressed:**
- Functional silos with independent processes
- CMMI only guides development

## Snowballing Rework Across Silos

BPM focuses on the enterprise:
- Creates seamless workflow
- Integrates functional silos
- Ends snowballing rework
- Simplifies automation

- **Sales:** Items left off bill of sale
- **Contracts:** Missing information
- **Provisioning:** Incomplete specs
- **Finance:** Incorrect invoices

- **Sales:**
  - Value adding work
  - Rework

- **Contracts:**
  - Missing information
  - Rework
  - Value adding work

- **Provisioning:**
  - Incomplete specs
  - Rework
  - Value adding work

- **Finance:**
  - Incorrect invoices
  - Rework
  - Value adding work
**Businesses Grow Organically**

**Region 1 Process**

1. Work Unit 1A  2. Work Unit 2A  3. Work Unit 3A  4. Work Unit 4A  5. Work Unit 5A  → Offering A

**Region 2 Process**

1. Work Unit 1B  2. Work Unit 2B  3. Work Unit 3B  → Offering A

**Level 1: Initial Organizations**

- No historical data
- Few repeatable practices
- Ad hoc processes
- Guesstimates
- Weak project management

Rework  Firefighting  Heroes
**Level 1 Characteristics**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis for success</td>
<td>Individual interactions, “People are our most important asset”</td>
</tr>
<tr>
<td>Automation</td>
<td>Inconsistent and contradictory requirements, implementing a mess</td>
</tr>
<tr>
<td>Problem</td>
<td>Little control over commitments, resources</td>
</tr>
<tr>
<td>Focus for improvement</td>
<td>Get control of commitments, establish repeatable processes within work units</td>
</tr>
</tbody>
</table>

**Level 2: Managed Organizations**

*Region 'A' workflow*

- **Work Unit 1A**
- **Work Unit 2A**
- **Work Unit 3A**
- **Work Unit 4A**
- **Work Unit 5A**

*Region 'B' workflow*

- **Work Unit 1B**
- **Work Unit 2B**
- **Work Unit 3B**

Outcome A

Outcome B
**Level 2 Characteristics**

<table>
<thead>
<tr>
<th>Issue</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Basis for success</td>
<td>Stable, repeatable processes that the work unit trusts</td>
</tr>
<tr>
<td>Automation</td>
<td>Different requirements for each work unit</td>
</tr>
<tr>
<td>Problem</td>
<td>Every unit has its own individual process, little consistency</td>
</tr>
<tr>
<td>Focus for improvement</td>
<td>Integrate and standardize most successful processes across work units</td>
</tr>
</tbody>
</table>

**Level 3: Standardized Organizations**

*Offering ‘A’ workflow*

- Work Unit 1<sub>A</sub> → Work Unit 2<sub>A</sub> → Work Unit 3<sub>A</sub> → Work Unit 4<sub>A</sub> → Work Unit 5<sub>A</sub> → Offering A Outcome

- Process Asset Library
  - Defined process Offering A
  - Defined process Offering B

*Offering ‘B’ workflow*

- Work Unit 1<sub>B</sub> → Work Unit 2<sub>B</sub> → Work Unit 3<sub>B</sub> → Work Unit 4<sub>B</sub> → Work Unit 5<sub>B</sub> → Offering B Outcome

- Tailoring Guidelines for Standard Processes
- Standard Process

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Evolution of Business Systems

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Culture</td>
<td>Functions coordinated in workflow</td>
<td>Workflow draws on functions as roles</td>
</tr>
<tr>
<td>Outcome</td>
<td>Documented, Repeatable Processes in each Function</td>
<td>Initial Enterprise Process Implementations</td>
</tr>
</tbody>
</table>

Level 3 Characteristics

<table>
<thead>
<tr>
<th>Issue</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis for success</td>
<td>Standardized work, organizational capability, and economy of scale</td>
</tr>
<tr>
<td>Automation</td>
<td>Well understood and consistent requirements</td>
</tr>
<tr>
<td>Problem</td>
<td>Standard process has inefficiencies</td>
</tr>
<tr>
<td>Focus for improvement</td>
<td>Optimize the process using statistical analysis, reuse, etc.</td>
</tr>
</tbody>
</table>
Level 4: **Predictable Organizations**

\[ \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \varepsilon = \hat{Y}_{\text{outcome}} \]

Level 4: **Optimization Example**

\[ a_0 + a_1 X_1 + a_2 X_2 + a_3 X_3 + a_4 X_4 + e = Y_{\text{repeat order}} \]
**Level 4 Characteristics**

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<thead>
<tr>
<th>Issue</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Basis for success</td>
<td>Deep understanding of process capability, predictability of results</td>
</tr>
<tr>
<td>Automation</td>
<td>Fine tuning of automated end-to-end process</td>
</tr>
<tr>
<td>Problem</td>
<td>Optimized process insufficient to meet new business demands</td>
</tr>
<tr>
<td>Focus for improvement</td>
<td>Innovation in technology, process, training, etc.</td>
</tr>
</tbody>
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**Level 5: Innovative Organizations**

- Process Asset Library
- Offering ‘A’ workflow
- Work Unit 1A
- Work Unit 2A
- Work Unit 3A
- Work Unit 4A
- Work Unit 5A

Flowchart showing the relationship between Work Units and the Process Asset Library, with a focus on offering guidelines for standard processes.
### Level 5 Characteristics

<table>
<thead>
<tr>
<th>Issue</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis for success</td>
<td>Continual innovation</td>
</tr>
<tr>
<td>Automation</td>
<td>Matching advanced technologies to requirements</td>
</tr>
<tr>
<td>Problem</td>
<td>How to standardize innovative processes</td>
</tr>
<tr>
<td>Focus for improvement</td>
<td>Continually repeat the Level 3-5 path for innovations</td>
</tr>
</tbody>
</table>

### Transforming the Culture

- **Organization**
  - Level 5: Proactive improvements. Agile culture.

- **Work unit**
  - Level 2: Unit mangers establish discipline & stability. Commitment culture.
  - Level 4: End-to-end process managed statistically. Precision culture.

- **Individual**
  - Level 1: Ad Hoc processes, inconsistent results. Hero-driven culture.
  - Level 5: Opportunistic improvements. Empowered culture.

- Discipline: Arrows indicating the flow of culture transformation from one level to the next.
- Trust: Arrows indicating the impact of culture on organizational trust.

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Membership is free
Measurement standards
White papers, blogs
Structural quality resources

Automated FPs  http://www.omg.org/spec/AFP/
Reliability     http://www.omg.org/spec/ASCRM/
Performance     http://www.omg.org/spec/ASCPEM/
Maintainability http://www.omg.org/spec/ASCMM/