Camping on a Seesaw: GM’S IS&S Process Improvement Approach

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Journey to Excellence

- **1996**: Divest EDS, Appoint 1st GM CIO, Form IS&S
- **1999**: Drive Global and Common Processes & Execution
- **2001**: Focus on Essential Process & Execution Improvement
- **2003**: Process & Project Execution Excellence
- **2006 +**: Continuously Deploy World-Class Improvements
Transitioning to Desired Capability

- Present Capability
- Transformation
- Improvement Approach
- Desired Capability
Improvement Approach (1996-2000)

- Focus on Defining System Delivery Process
  - Small, central group
  - Little involvement of practitioners
  - One size fits all mindset
- Single Intervention Guided by Executive Edict and External Consultants
- Expect “Quantum Change” of the Whole Organization
Facing the Music: Rhythms of Organizational Change

Status Quo  

Stunned Paralysis  

Denial  

Anger, Rage, Discredit  

Bargaining  

Depression  

Testing  

Acceptance  

Source: Adapted from Elizabeth Kubler Ross, On Death and Dying and Daryl Conner in Managing at the Speed of Change
Discovering the Chasm

Innovators & Early Adopters
Early Majority
Late Majority
Laggards

Chasm

Source: Moore, Crossing the Chasm, 1995
How to Start a Fire?
Or Regaining Momentum

Process Capability vs. Time

Organizational Capability vs. Time
Achieve and Maintain Excellence

- Focus on Organizational and Process Capabilities
- Balanced Intervention Guided by Leadership and Practitioners
- Expect Gradual Transformation of the Whole Organization
Successfully Crossing the Chasm

Source: Adapted from Hofmann and Geiger, Quality Management in Action, 1994
Improvement Approach (2001+)

Process Improvement
- Focus on Alignment
- Set Goals
- Collect Best Practices
- Establish Baseline
- Coordinate Initiatives

Project Execution
- Execute Process
- Provide Feedback
- Analyze Results
Why CMMI?

Project Portfolio

Commitment to Perform
Ability to Perform
Activities Performed
Directing Implementation
Verifying Implementation

Organizational Transition

Process Improvement
Using CMMI in An Outsourced Model

General Motors System Delivery Process

- Process Management
- Project Management
- System and Software Engineering
- Quality Assurance
- Support Processes

Strategic Planning

Supplier Management

Contracts
Legal
Finance

Supplier Processes

15th SEPG 2003
Perform CMMI-Style Assessments To Capture Organizational Baseline(s)

- Measure organizational awareness & compliance to IS&S policies and key IT processes
- 15-25% bi-annual sample of approx. 1700 IS&S employees and strategic project portfolio
- Corporate Program Office/Quality Assurance leads assessments (interviews and deliverable reviews)
- Assessment tool to enable consistent, on-site data capture and real-time data analysis
- Organizations develop and execute six months improvement plans
Establish Measurement Program Early

- Combine product metrics and assessment results
- Blend “soft data” and “hard facts”
- Gradually increase analysis capability as you collect improvement data
Set Priorities and Aggressive Goals

Supplier Work
- Priority #1: GM Processes For Supplier Execution

GM Work
- Priority #2: Processes For GM Project Execution

Integration
- Pilots and Deployment

Illustrative Example

<table>
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<tr>
<th>Compliance</th>
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<th>Q2 2002</th>
<th>Q3 2002</th>
<th>Q4 2002</th>
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<td>27% 55%</td>
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Priority #3: GM Program/ System Delivery
Coordinate Improvement Initiatives

Steering Committee → Executive Committee → IS&S PPQA

SEPG
- Process Mgmt
- Project Mgmt
- System & Software Engineering
- Support Processes

Common Processes, Methods and Tools
- Prioritized Needs

IS&S SEPG

PMOs
- Quality Assurance (PPQA)

PMOs
Focus on Alignment

IS&S SEPG | IS&S PPQA | IS&S PMO
---|---|---
SEPG Global Process | PPQA | PMO
SEPG Global Process | PPQA | PMO
SEPG Global Process | PPQA | PMO

Regional PMO | PPQA
Regional PMO | PPQA
Regional PMO | PPQA
Deploy Processes to Projects

- Project 1
- Project 2
- Project n

- Project Training & Workshop
- Project Support & Mentoring
- Project Lessons Learned
Performance Improvement

Note: Data for 2002 is through August, 2002
Lessons Learned

• Remember: This is a journey!
• Riding the wave of change (denial, anger, etc.)
• Whole organization has to prioritize and work together
• Tailor/reveal CMMI according to the organization’s capability
• Keeping focus & constancy of purpose
• Metrics & scorecards drive behavior and must evolve with the organization
• Maintain a delicate balance between the drive for improvement and the organizational capacity for change
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