



Virginia Information Technologies Agency

IMPROVING IT INVESTMENT MANAGEMENT IN THE COMMONWEALTH

ITIM Customer Council Status & Recommendations

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- 2003 ITIB/CIO/VITA legislation addressed both IT operations and IT governance
- Governance aspects essentially focused on two goals of IT Investment Management (ITIM):
 - Protecting against downside risks
 - Per 2002 JLARC Report, the legislative emphasis
 - *We're doing pretty good here!*
 - Optimizing upside returns
 - *Emphasis again has been at project level*
 - *Larger potential opportunities at the program/portfolio level*



- **The Challenge:** How do we move to improved IT investment optimization — “upside return” — at the program/ portfolio level while still encouraging further improvements at the project level?
- **The Proposal:**
 - Refine the current Balanced Scorecard to help agencies and the Commonwealth identify and track project benefits and ROI – “upside return”
 - Apply a maturity model concept to IT Investment Management, encouraging agencies to move to higher levels of investment management capability, with incentives to do so at the project management level



- Current Balanced Scorecard used in the Commonwealth is a good tool for determining if a project should be approved for development
- The ITIM Customer Council recommends some refinements
 - Update questions and develop a balanced scorecard *writer's guide* for large and small agencies
 - Conduct an initial validation of the revised balanced scorecard and writer's guide with project managers
 - Conduct a final validation of the revised balanced scorecard and writer's guide through a pilot with several agencies
 - Publish revised balanced scorecard and writer's guide in April 2008

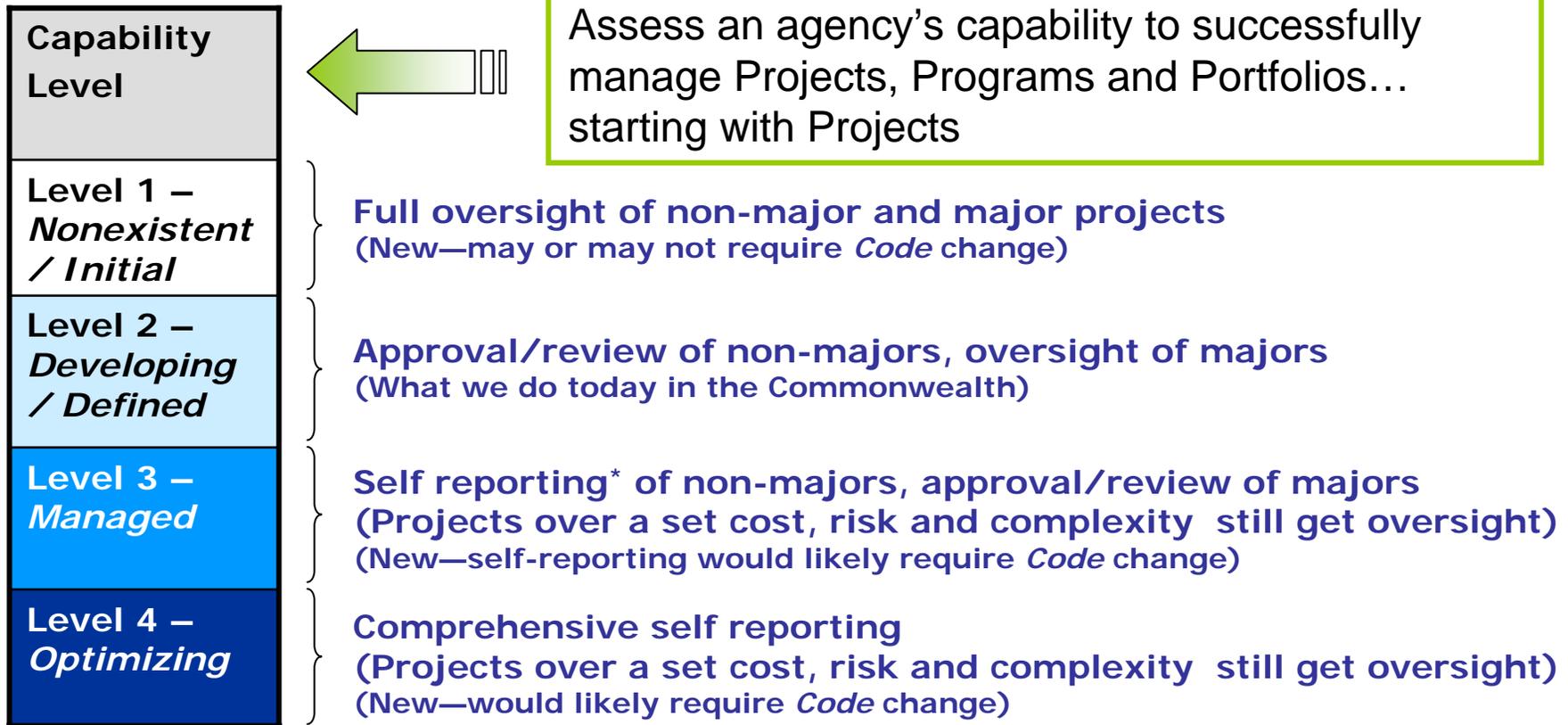


- ITIM Customer Council looked at several sources for guidance -- GAO, Gartner, PMI, NASCIO, and Forrester
- Determined Gartner's framework based on Software Engineering Institute's Capability Maturity Model Integration (CMMI) can be used to assess an agency's capability to successfully run projects, programs and portfolios
- Council recommends initial model be focused on Project level

| | | <i>Maturity Model</i> | | | | | |
|--|-------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | Level 0 Nonexistent | Level 1 Initial | Level 2 Developing | Level 3 Defined | Level 4 Managed | Level 5 Optimizing |
| C O M P O N E N T S | Projects | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices |
| | Programs | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices |
| | Portfolios | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices | Attributes and Best Practices |

Low Maturity
→
 High Maturity

| | | <i>Maturity Model</i> |
|--|---|---|
| | | Level 3 Defined |
| C O M P O N E N T S | Projects Short term endeavor to create a product, service or result | <p>Attribute (People):</p> <ul style="list-style-type: none"> • Organization has sufficient resources to staff multiple projects • Organization has a designated official to manage IT portfolio selection criteria • Initial group training in Investment Management becomes available <p>Best Practices:</p> <ul style="list-style-type: none"> • Does your organization have defined gateway milestones, where project deliverables are assessed to determine whether the project should continue or terminate? • Does your organization adhere to a standard set of project management methodology, processes, and procedures? • Does your organization use a formal performance system that evaluates individuals and project teams on their project performance as well as the projects' overall results? |



* Self reporting: Provide project initiation documentation (project charter and proposal), quarterly status reports, project close-out report, and Post Implementation Review (PIR)



ASSESSING CAPABILITY AND REDUCING RISK



(Recommendations from ITIM Customer Council and Project Manager Working Group)

- Use existing Commonwealth documents (IV&V, ARMICS, APA reports) in assessing agency capability
- Projects with a high dollar value, risk and complexity still get FULL oversight (thresholds TBD)
- Agencies must have key components of portfolio management in place such as an investment board that meets regularly
- PMD Analysts will sit in on agency investment board and project status meetings – “canary in the coal mine”
 - Agencies will have consistent oversight of projects on their own with PMD serving as a “safety net”
 - Projects that show signs of trouble will quickly get full oversight



- Encourages all agencies to become more mature in managing investments, both individual projects and beyond
- Puts additional spotlight on agencies with largest IT investments (top 15 agencies are about 85% of executive branch IT spend)
- Spotlights most critical deficiencies/opportunities for improvement in managing IT investments
- Rewards agencies for improving capabilities while still providing an adequate safety net at the project level—"downside risk" remains protected

- The Council is refining the Gartner model to assess project, program and portfolio management capability and apply it to the Commonwealth
 - The initial focus of the proposed capability model is on **project management** capabilities and assesses over 250 attributes and best practices
 - Gartner is currently assisting the Council on adding value to the framework: adding outcome measures (e.g. ROI); and simplifying the assessment

- The Council recommends validating the model through a pilot and is seeking appropriate Board representatives to work with in order to move forward
 - Pilot will assess the capability of an agency to successfully run projects
 - Capability level will determine amount of oversight and governance



- Execute a pilot during calendar 2008
 - Identify method(s) of assessment and quality assurance
 - Identify a handful of agencies as candidates for a test
 - Identify a date to apply the Project Management Capability Model against the test agencies
 - Apply the model to test agencies and analyze results
- Provide ITIB with feedback on results of testing with the Project Management Capability Model
- Identify any changes to the *Code of Virginia*, CTM Policy, and Standards
- Recommend amendments to modify the *Code*
- Based on *Code* changes, modify CTM Policy and Standards
- Implement Change (Communication plan emphasizing value, workshops, etc.)



- ***Cost/Benefit:*** The Council identified a need for process improvement in the Commonwealth around capturing and tracking project costs, benefits, and ROI
 - Some agencies need assistance with identifying overall project costs and benefits
 - Inaccurate or missing project costs, benefits, and ROI make it difficult to follow portfolio management best practices
- ***Scalability:*** The Council also analyzed the level of governance and oversight on projects to determine if it could be scaled
 - If an agency can run a project well, there may not be a need to spend money on significant oversight and governance
 - If an agency has limited resources, they may need more assistance with oversight and governance

GARTNER IT INVESTMENT MANAGEMENT ORGANIZATIONAL MATURITY MODEL



| | Level 0: Nonexistent — <i>ad hoc</i> | Level 1: Initial — <i>reactive</i> | Level 2: Developing — <i>emerging Discipline</i> | Level 3: Defined — <i>initial integration</i> | Level 4: Managed — <i>increasing efficiency</i> | Level 5: Optimized — <i>enterprise orientation</i> |
|-----------------------------|--|---|--|--|--|--|
| People | Staff assigned to projects on a first-available basis. PPM activity limited to interests and actions of individual managers. | Priority projects get appropriate staffing — everything else is "first available." Nascent PPM leader role — primarily still an individual manager focus. | PMO(s) established. Programs increasingly managed in house. Project staffing/resource capacity issues begin to be addressed. | PPM leader role formalized and increasing specialization trend beginning. Shared resource pools formalized. | Network of PPM leaders exist companywide in a federated model. Centers of excellence improve workload management. Capacity planning enabled. | PPM leaders exist in all areas of the company. Accepted specialization (program, portfolio and strategy) supports maximum performance. |
| PPM Processes | Projects assigned to line or staff managers. No formal PPM processes beyond high level budgeting, except as provided by outside vendors. | All internal processes centered on management of critical projects. Vendors are often Responsible for large initiatives. | Project processes in place. PMO(s) organized. Emerging understanding of PPM. Risk now reviewed. | PPM function established. Projects are approved on a portfolio basis. Enterprise architecture (EA) functions involved. | Similar projects managed as programs. Portfolio is actively maintained. | Portfolio extended beyond IT. Comprehensive PMO. Pipeline managed in real time. |
| Technology | Intermittent use of project schedulers, Spreadsheets and other point tools on a "by project" basis. | Project scheduling tools and milestone reporting adopted. | Project collaboration and team workspaces supported. | Portfolio tool is in place. Reporting dashboards. | Workflow added to toolset. Business users adopt tools as useful. | Single, integrated system supports reporting, collaboration and analysis. |
| Financial Management | Projects done without formal cost, benefit or risk valuation. | Projects have budgetary estimates, Actual cost can be estimated. Some benefit statements. | Project cost and labor hours captured. Estimate of benefit made for each project. | Costs are captured and forecast. Benefits are identified and related to strategy in the portfolio. | The portfolio is modeled and appropriately optimized, factoring in risk. Benefit realization is tracked. | Programs have their own financial resources, and full life cycle costing is available. |
| Relationships | Programs can only be defined and managed with vendor help. IT organization and business communicate ad hoc. | IT organization and business attempt to work together, usually via business analyst involvement and project manager updates. | Role of relationship manager emerges. | Relationship managers viewed as trusted advisors. | Relationship managers are full-fledged consultants to the business. | Social responsibility aspects are considered, as well as impact on supply chain. |



- Attribute
 - A quality, property, or characteristic that someone or something has
 - Example: *The number of skilled people in an agency is an essential attribute for good project management*

- Best Practice
 - PMI defines a best practice as an optimal way currently recognized by industry to achieve a stated goal or objective. For organizational project management, this includes the ability to deliver projects predictably, consistently, and successfully to implement organizational strategies.
 - Example: *An agency has standard processes in place for developing Project Plans*