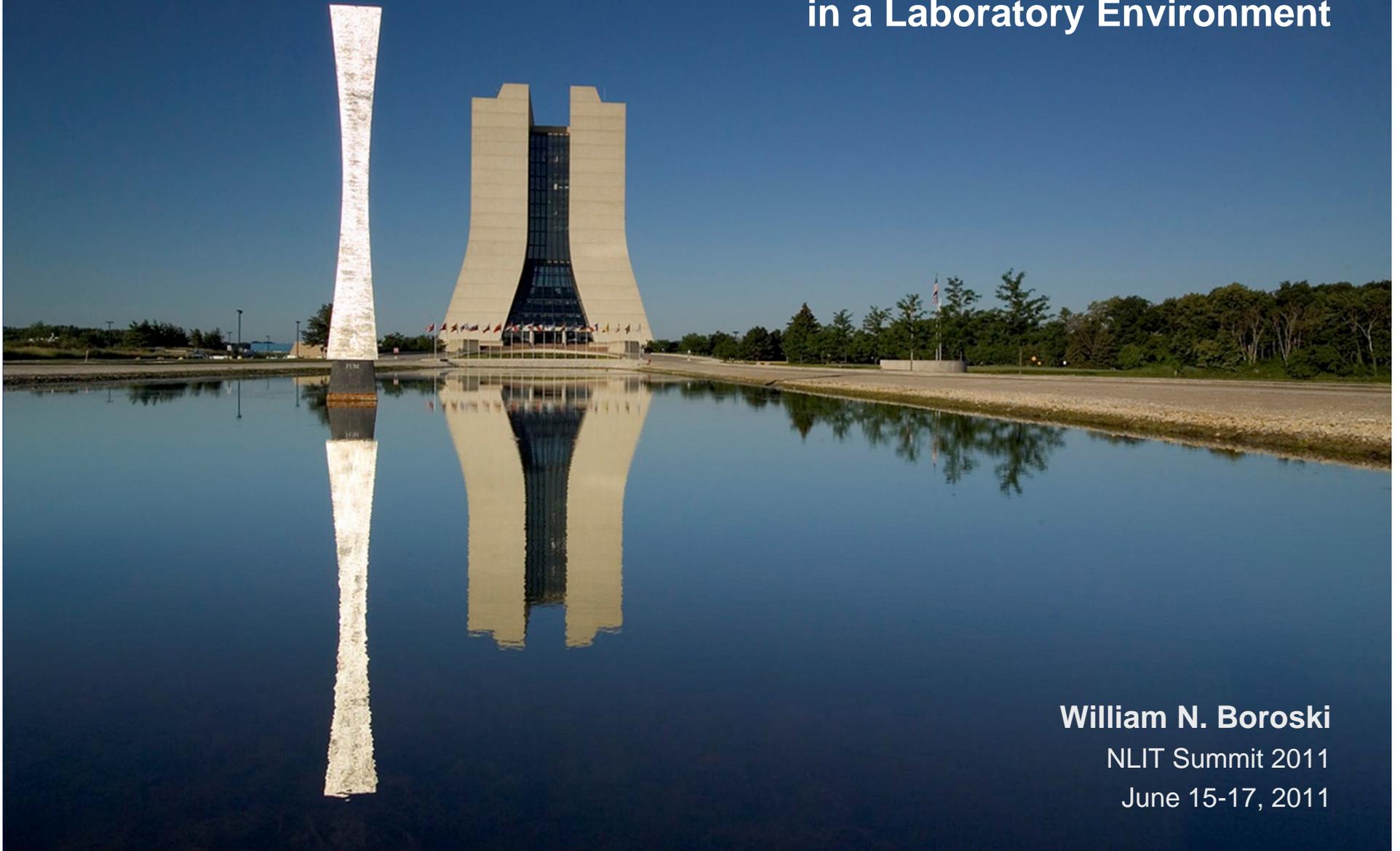


# Implementing PPM and PM Methodologies in a Laboratory Environment



**William N. Boroski**

NLIT Summit 2011

June 15-17, 2011

# Outline

- ✦ Introducing IT governance to the laboratory
- ✦ Approach for implementing Project Portfolio Management; and progress to date
- ✦ Approach for implementing project management methodologies for larger portfolio-level projects; and progress to date

## Our Definition of IT Governance

- ✿ The processes, policies, roadmaps and plans through which we ensure that IT investments are aligned with the laboratory's strategic plan, business plan, goals and priorities.
- ✿ The IT Governance Institute lists 4 key questions that governance must address.
  - ✦ Are we doing the right things?
  - ✦ Are we getting them done?
  - ✦ Are we doing them the right way?
  - ✦ Are we getting the benefits?
- ✿ Implementing Project Portfolio Management establishes one aspect of IT governance and helps to address these key questions.

# Benefits of Project Portfolio Management

- ✿ Aligns IT investments and priorities with the science and operational goals of the lab
- ✿ Ensures that customer voices are heard and the costs/benefits of what they want/demand are understood
  - ✦ If everyone wants a 24X7 service desk and instant response – we must understand both the cost/value and the risks in not doing it
- ✿ Establishes accountability and decision rights
  - ✦ Customers and IT must jointly be accountable for success of projects – many of which may involve cultural and business process change
- ✿ Champions innovation in IT and in particular, opportunities for improved capabilities and efficiencies.

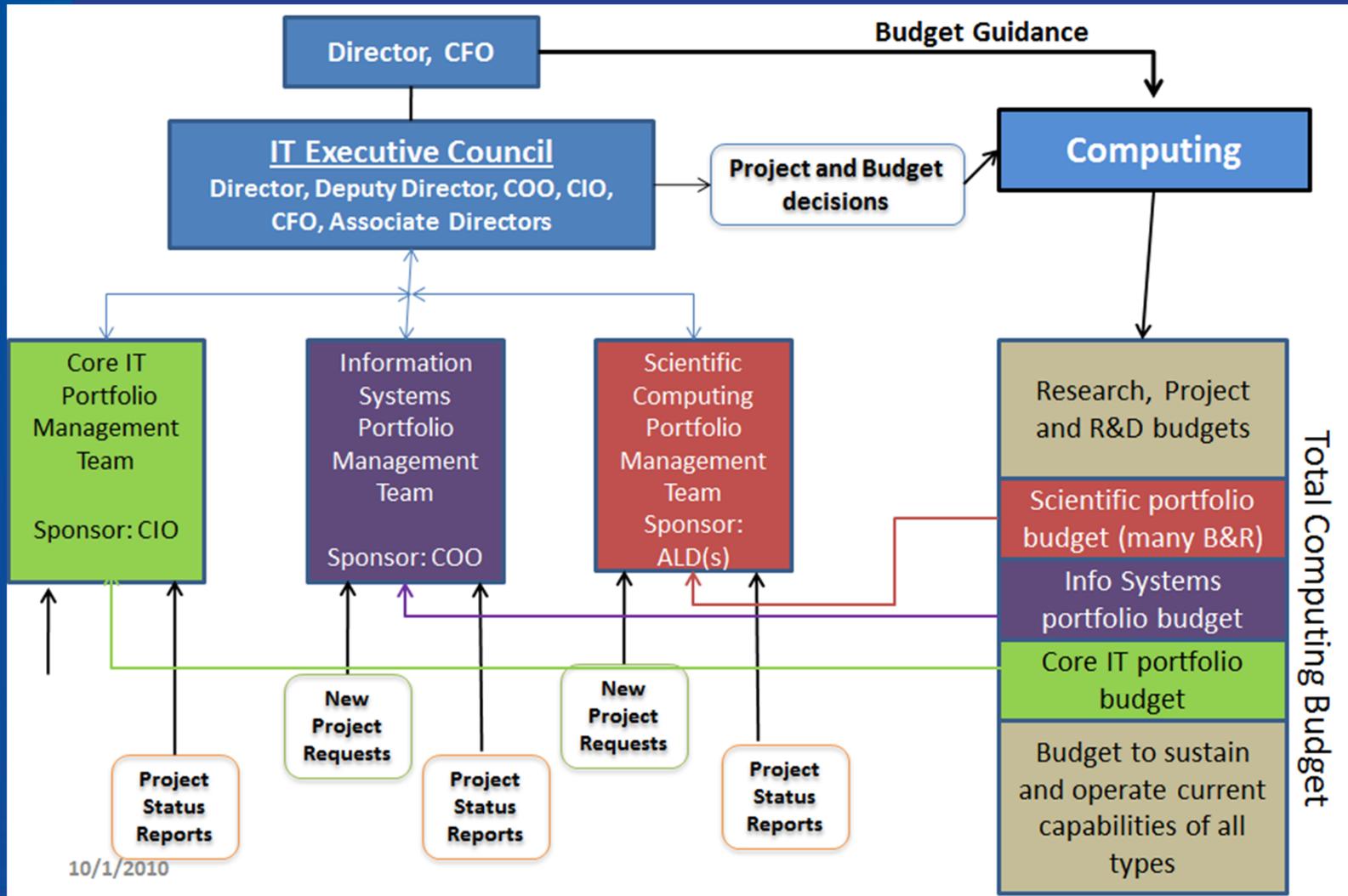
# Portfolio Project Definition

- ✦ Project – A temporary endeavor undertaken to create a unique product, service, or result (*PMBOK, 4<sup>th</sup> Edition*)
- ✦ Portfolio Projects – Projects that have broad laboratory impact and are intended to achieve strategic objectives, meet performance goals, maintain regulatory compliance, or increase functionality in a significant way to meet specific needs. They are typically sponsored by a senior member of laboratory management.
  - ✦ We have intentionally avoided defining portfolio projects based on cost, duration, and other such factors.

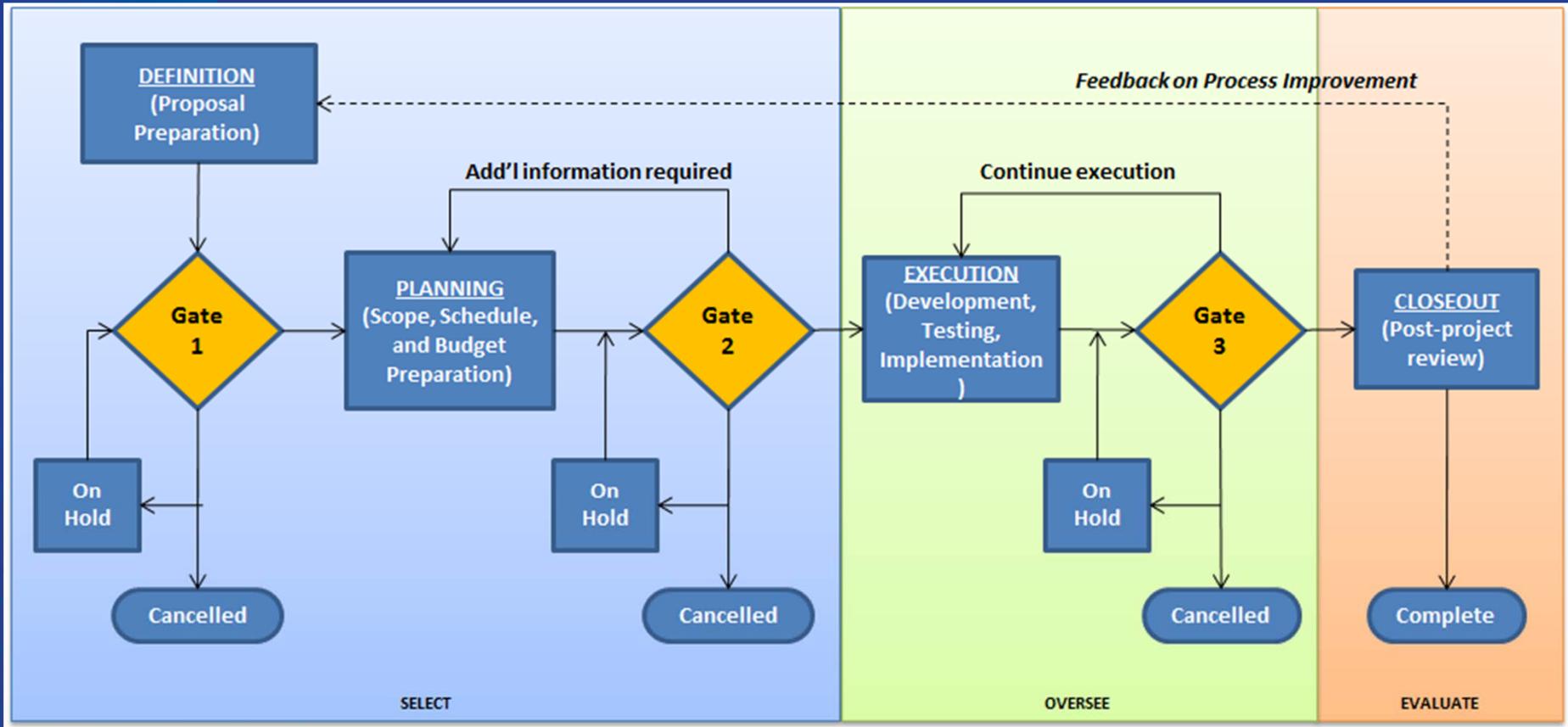
# Project Portfolio Management Implementation Approach

- ✦ Establish a portfolio management organizational structure
- ✦ Develop and implement key processes for
  - ✦ Identifying and evaluating potential projects
  - ✦ Determining a viable project mix that aligns projects with strategic goals and objectives
  - ✦ Monitoring the planning and execution of approved projects
  - ✦ Evaluating new opportunities against the current portfolio, taking into account our project execution capacity.

# IT Project Portfolio Management Organizational Overview



# Portfolio Management Team Phases & Gates



- During the “Select” phase, the PMT makes Go/Hold/Cancel decisions on proposals
- During the “Oversee” phase, the PMT monitors the health and continued relevance of projects under execution
- During the “Evaluate” phase, the PMT compares final project results to anticipated benefits to determine if key objectives were satisfactorily met. The review may also generate suggestions for process improvement and identify potential follow-on projects for future consideration.

# PPM Process Development

- ✦ Establish working group to develop draft documents to seed Portfolio Management Team (PMT) effort
  - ✦ PMT charter
  - ✦ Initial portfolio project list
  - ✦ Project proposal template
  - ✦ Initial set of project proposals
  - ✦ Evaluation and ranking process
  - ✦ Evaluation and ranking template
- ✦ Establish Portfolio Management Team (PMT)
  - ✦ Identify sponsor and chair
  - ✦ Identify team members (ideally of equal standing within organization)
- ✦ Initiate PMT meetings
  - ✦ Review, evaluate and rank initial set of proposed projects using draft documents
  - ✦ Refine process, templates, etc. through process implementation
  - ✦ A continuous improvement process to determine what works best

# Information Systems Portfolio Management Team (IS-PMT)

- ✦ To date, we have established one PMT to review, evaluate and prioritize proposed Information Systems projects
  - ✦ Planning for the Scientific Computing PMT is beginning.
- ✦ IS-PMT members are all Fermilab Division/Section Heads (with one exception).
  - ✦ Ideally, all members should be at the same rank in the organization.
  - ✦ Future PMTs may include Project Managers, Experiment Spokespeople.
  - ✦ Important for our PMTs to include Science reps (since this is our lab's "Business")
- ✦ The IS-PMT is chaired by the PMT sponsor.
  - ✦ May not be the case for future PMTs; ideally we're told that sponsors should not attend PMT meetings – violates the "all at the same level" rule.
  - ✦ Chair needs to be good at getting decisions and consensus - too many project needs
- ✦ The Computing Sector PMO provides staff support to the PMT
  - ✦ Gathers information, manages proposal preparation process, prepares evaluation summaries, reports on project status, maintains the PMT SharePoint site, etc.
- ✦ IS-PMT is currently meeting on a monthly basis
  - ✦ Bi-weekly meetings during initial process development

# Project Proposal Preparation & Review Process

- ✦ Developed a template to collect information on proposed projects
  - ✦ Templates will be customized to meet the needs of each specific portfolio management team
- ✦ Proposals are prepared by business analysts and/or project managers working closely with the project sponsor.
- ✦ Proposals are distributed to the Portfolio Management Team prior to a PMT meeting.
- ✦ Sponsors are asked to attend a PMT meeting to explain their proposed project and answer questions.
- ✦ PMT members individually evaluate and rank proposed projects, then collectively review and agree on overall priority order.
- ✦ We currently envision a quarterly review of new project proposals, with a re-ranking of project priorities as necessary.
  - ✦ New proposals for critical or otherwise high-priority projects will be reviewed on an as-needed basis.

# Proposal Content for Information Systems Projects

- ✦ Seven questions aimed at assessing benefits and alignment with strategic goals
  1. Is the project necessary to comply with laws, regulations or DOE Orders, or to complete a corrective action plan?
  2. Will the project help the organization meet contract commitments or other performance objectives?
  3. Is the project necessary in order to sustain current operations?
  4. Will the project help the organization to operate more efficiently and effectively?
  5. Will the project help the organization build facilities and experiments for the future?
  6. Will the project bring positive attention/recognition to the organization?
  7. Is there a compelling management interest in pursuing this project that is not captured above?

# Additional Information Contained in the Proposal

- ✦ Estimated Cost and Duration
- ✦ Schedule Constraints
- ✦ Key Stakeholders
- ✦ Impact and Business Process Changes
- ✦ New / Existing Service
- ✦ Similar Systems in Existence?
- ✦ Risk Assessment
- ✦ Other Information

# Initial Project Evaluation Form

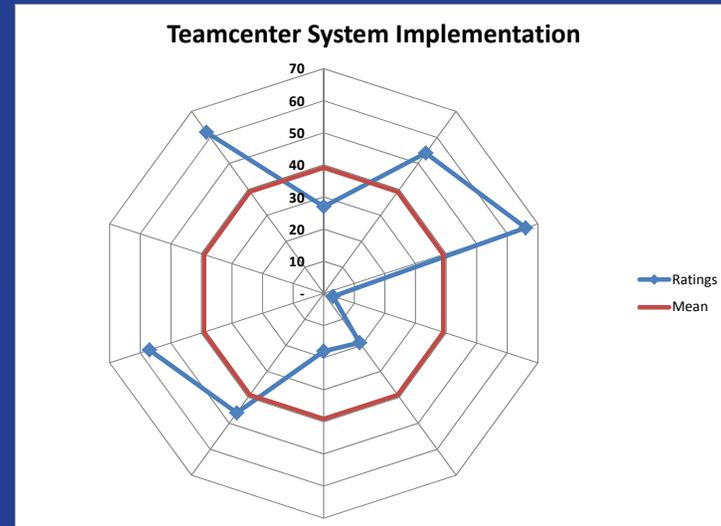
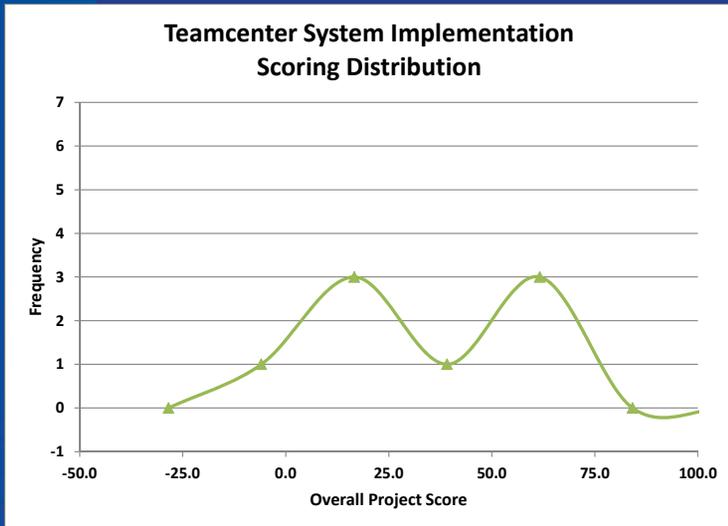
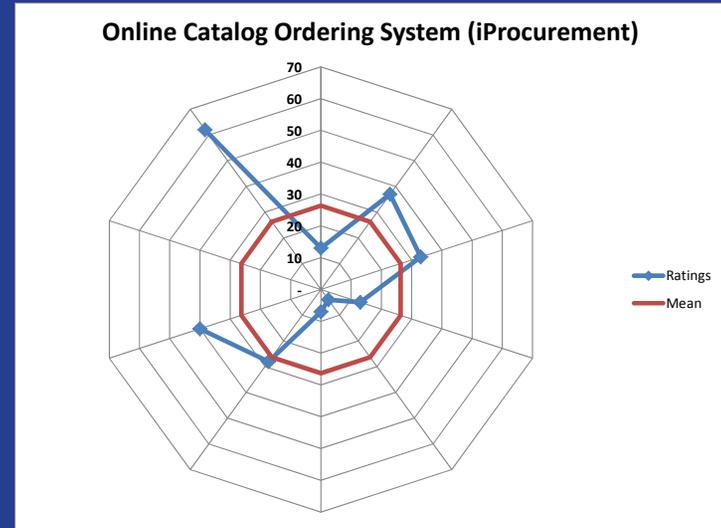
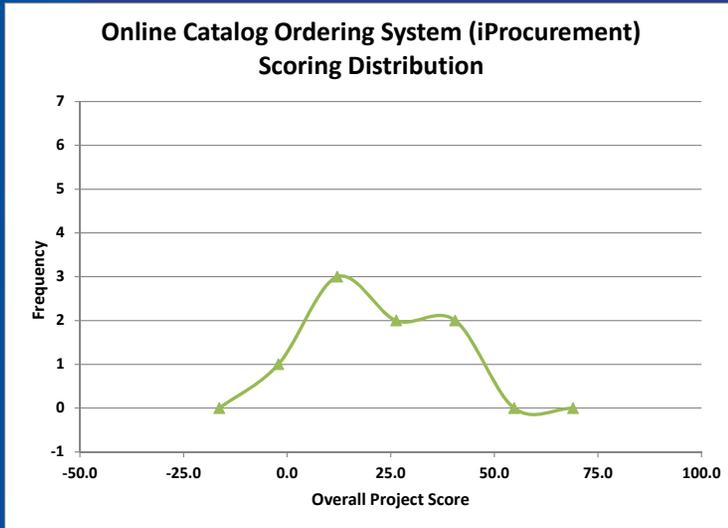
- Created an evaluation form that team members could use to score projects against the criteria contained in the initial proposal template.
- Used a scoring scale of 0, 1, 3, 9 to perceived indicate degree of alignment and/or impact
- Form based on an example from the textbook: *Project Portfolio Management: A Practical Guide to Selecting Projects, Managing Portfolios, and Maximizing Benefits*, by Harvey A. Levine (Jossey-Bass 2005).

Evaluator: _____		Date: _____						
Scoring: 9 = Strong alignment and/or high impact 3 = Moderate alignment and/or impact 1 = Limited alignment and/or impact 0 = No relationship	Strategic Alignment / Impact						Compliance	
	Does this project improve the lab's ability to carry out the scientific mission?	Does this project directly contribute to the efficient and effective construction of facilities or components?	Does this project improve or support the lab's ability to manage construction of facilities or components?	Is this project necessary to sustain current operations?	Will this project save money?	Will this project have positive impact by providing more modern or efficient information system?	Is this project necessary for compliance to laws, regulations, DOE Orders, or to complete a CAP?	Will this project help the lab meet contract commitments or other performance objectives?
<b>CANDIDATE PROJECTS</b>								
Employee Scheduling and Alternative Work Schedules Implementation	0	0	0	0	0	0	0	0
e-Travel and Travel Reconciliation System	0	0	0	0	0	0	0	0
Facilities Request Process Automation	0	0	0	0	0	0	0	0
Fermilab Management Dashboard (FermiDash)	0	0	0	0	0	0	0	0
HRMS and Workforce Planning Upgrade	0	0	0	0	0	0	0	0
Issues Management & Tracking System	0	0	0	0	0	0	0	0
Labwide Budget and Planning System	0	0	0	0	0	0	0	0
Labwide Document Management System Implementation	0	0	0	0	0	0	0	0
Leave Request System Implementation	0	0	0	0	0	0	0	0
Online Catalog Ordering System (iProcurement)	0	0	0	0	0	0	0	0
Project Mgmt Software Services (ProMiSe) Implementation	0	0	0	0	0	0	0	0
Scientist Survey Application	0	0	0	0	0	0	0	0
Teamcenter System Implementation	0	0	0	0	0	0	0	0

# Initial Evaluation Results

Scoring:  9 = Strong alignment and/or high impact  3 = Moderate alignment and/or impact  1 = Limited alignment and/or impact  0 = No relationship  CANDIDATE PROJECTS	Strategic Alignment / Impact						Compliance		Evaluation Summary					
	Does this project improve the lab's ability to carry out the scientific mission?	Does this project directly contribute to the efficient and effective construction of facilities or components?	Does this project improve or support the lab's ability to manage construction of facilities or components?	Is this project necessary to sustain current operations?	Will this project save money?	Will this project have positive impact by providing more modern or efficient information system?	Is this project necessary for compliance to laws, regulations, DOE Orders, or to complete a CAP?	Will this project help the lab meet contract commitments or other performance objectives?	OVERALL PROJECT SCORE	STD DEV	MEDIAN	MIN	MAX	SKEW
Teamcenter System Implementation	5.4	6.7	6.6	2.3	2.1	6.1	2.8	4.0	39.1	22.5	36.5	3.0	66.0	-0.12
Project Mgmt Software Services (ProMiSe) Implementation	3.3	4.7	6.0	1.1	1.4	3.7	1.8	2.3	27.4	15.9	20.5	6.0	54.0	1.05
Online Catalog Ordering System (iProcurement)	2.3	5.0	4.3	0.8	3.1	5.7	1.0	1.0	26.3	14.2	20.5	4.0	40.0	0.04
Labwide Budget and Planning System	4.9	4.1	3.4	1.7	3.1	7.0	0.6	1.4	25.2	11.5	30.0	14.0	42.0	-0.03
Fermilab Management Dashboard (FermiDash)	2.3	2.7	3.2	0.8	0.8	4.4	3.3	8.3	23.8	15.1	31.5	6.0	51.0	-0.11
Labwide Document Management System Implementation	3.7	3.7	2.8	1.2	2.2	4.6	2.0	1.1	23.0	11.9	20.0	4.0	36.0	-0.05
e-Travel and Reconciliation System	4.8	2.6	1.8	0.8	5.1	5.7	0.9	0.6	22.6	12.0	23.0	4.0	36.0	-0.20
HRMS and Workforce Planning Roadmap	3.1	3.7	2.1	0.4	1.3	3.9	1.3	1.7	16.7	15.5	10.5	4.0	48.0	1.24
Alternate Work Schedules Implementation	1.7	1.3	0.6	0.4	1.6	2.4	1.0	1.0	9.9	5.8	10.0	2.0	21.0	0.83
Issues Management & Tracking System	1.4	1.6	0.8	0.4	0.7	2.7	0.6	1.0	9.9	11.5	5.5	1.0	36.0	2.46
Scientist Survey	3.0	0.9	0.9	1.0	0.4	2.3	0.1	0.2	9.1	8.4	8.0	1.0	25.0	0.74
Leave Request System Implementation	0.8	0.6	0.2	0.0	1.0	2.2	0.3	0.3	5.7	3.9	6.0	1.0	13.0	0.58
Facilities Request Process Automation	0.6	0.1	0.0	0.1	0.9	1.4	0.0	0.0	3.3	5.5	1.0	0.0	16.0	2.18
<i>Overall Project Score = sum of the individual impact and compliance ratings</i>														
<b>LEGEND</b>														
Highest mean score in category														
Second highest mean score in category														

# Initial Project Evaluations (Sample Results)



# Shortcomings with our Initial Evaluation Form and Process

- ✱ Questions associated with benefit and strategic alignment in the proposal didn't necessarily speak to team members
  - ✦ Problematic since this information served as the evaluation criteria.
- ✱ Scoring sheet didn't allow for team members to abstain from scoring against a particular criteria.
  - ✦ A zero rating is not the same as no rating.
- ✱ Many texts and reference materials suggest summing the individual strategy impact ratings to provide an overall project score – this did not work in practice for us.
- ✱ Difficult for the portfolio management team to derive a priority-ordered list based solely on the output from the evaluation summary.

# Individual Project Ranking Worksheet

## Information Systems Project Portfolio Management Project Ranking Worksheet

Evaluator: \_\_\_\_\_

Date: \_\_\_\_\_

Candidate Projects	Rank	Comments
Alternate Work Schedules Implementation		
e-Travel and Reconciliation System		
Facilities Request Process Automation		
HRMS and Workforce Planning Roadmap		
Labwide Budget and Planning System		
Labwide Document Management System Implementation		
Leave Request System Implementation		
Online Catalog Ordering System (iProcurement)		
Project Mgmt Software Services (ProMiSe) Implementation		
Scientist Survey		

- Ranking worksheet is completed by each member on the Portfolio Management Team
- Team members assign a priority rating from 1-n
- Results are compiled to generate an priority-ordered project list.

# Individual Project Ranking Output (example)

Information Systems Project Portfolio Management Project Ranking Worksheet		
<b>Evaluator:</b> Mary Doe		
<b>Date:</b> 1/1/2011		
Candidate Projects	Rank	Comments
Alternate Work Schedules Implementation	7	will be required for sustainability at some level
e-Travel and Reconciliation System	2	efficiency improvemenst are real and can be achieved now
Facilities Request Process Automation	9	
HRMS and Workforce Planning Roadmap	3	needed in support of integrated planning efforts
Labwide Budget and Planning System	1	needed to advance in the lab's integrated planning efforts
Labwide Document Management System Implementation	5	one would think efficiency gains exist here in bringing more consistency
Leave Request System Implementation	8	
Online Catalog Ordering System (iProcurement)	6	one would think efficiency gains can be demonstrated here too
Project Mgmt Software Services (ProMiSe) Implementation	4	would have been rated higher but projects will slow; so have some time
Scientist Survey	10	

# Compiled Ranking Results (example)

## Information Systems Project Portfolio Management Project Ranking Summary

Evaluation Date: DD-MMM-YYYY

Candidate Projects	Person A	Person B	Person C	Person D	Person E	Person F	Person G	Person H	Person I	Person J	Mean	Min	Max	Std Dev
Labwide Budget and Planning System	1	7	2	1	1	1	2	1	1	1	1.8	1	7	1.87
e-Travel and Reconciliation System	5	3	5	2	2	2	1	2	6	3	3.1	1	6	1.66
Online Catalog Ordering System (iProcurement)	2	2	3	3	4	3	3	6	5	2	3.3	2	6	1.34
Project Mgmt Software Services (ProMiSe) Implementation	3	5	1	6	5	4	6	4	2	5	4.1	1	6	1.66
Labwide Document Management System Implementation	4	4	6	5	3	5	5	5	4	6	4.7	3	6	0.95
HRMS and Workforce Planning Roadmap	9	6	4	4	7	7	4	3	3	4	5.1	3	9	2.02
Alternate Work Schedules Implementation	6	1	7	7	9	9	9	7	10	7	7.2	1	10	2.53
Facilities Request Process Automation	7	10	10	8	8	6	7	9	9	8	8.2	6	10	1.32
Leave Request System Implementation	9	9	8	10	6	8	8	8	8	9	8.3	6	10	1.06
Scientist Survey	9	8	9	9	10	10	10	10	7	10	9.2	7	10	1.03

\*\*\* Project list sorted by mean rank, in ascending order.

### Legend

Outliers +/- 2 sigma from the mean

- Mean ranking used to order project list (lowest score = highest priority)
- Min, max, and std. dev. used to highlight level of agreement across individual rankings
- Reasonable agreement in priority rankings, for the most part
- Outliers identified and discussed as a group
- Consensus reached regarding priority order

# Published Ranking Summary

Information Systems Project Portfolio Management Project Ranking Summary					
Evaluation Date: 05-Apr-2011					
Candidate Projects	Mean	Min	Max	Std Dev	
Labwide Budget and Planning System	1.8	1	7	1.87	
e-Travel and Reconciliation System	3.1	1	6	1.66	
Online Catalog Ordering System	3.3	2	6	1.34	
Project Mgmt Software Services Implementation	4.1	1	6	1.66	
Labwide Document Management System Implementation	4.7	3	6	0.95	
Alternate Work Schedules Implementation	7.2	1	10	2.53	
Facilities Request Process Automation	8.2	6	10	1.32	
Leave Request System Implementation	8.3	6	10	1.06	
Scientist Survey	9.2	7	10	1.03	

\*\*\* Project list sorted by mean rank, in ascending order.

- Results of the ranking exercise are summarized and published on the PMT SharePoint site

# Current Incarnation of IS Project Evaluation Form

Evaluator: \_\_\_\_\_ Date: \_\_\_\_\_

Scoring: 9 = Strong alignment and/or high impact 3 = Moderate alignment and/or impact 1 = Limited alignment and/or impact 0 = No alignment and/or impact Blank = Abstain (e.g., insufficient information)	Evaluation Criteria							RANK	Comments
	Compliance		Strategic Alignment / Impact				Other		
	1 Is this project necessary for compliance to laws, regulations, DOE Orders, or to complete a CAP?	2 Will this project help the lab meet contract commitments or other performance objectives?	3 Is this project necessary to sustain current operations?	4 Will this project help the lab operate more efficiently and effectively by saving money or providing for a more modern or efficient information system?	5 Will this project help the lab to build facilities and experiments for the future?	6 Will this project bring positive attention/recognition to the laboratory?	7 Is there a compelling management interest in pursuing this project that is not captured elsewhere (e.g., employee satisfaction/morale)?		
<b>CANDIDATE PROJECTS</b>									
Alternate Work Schedules Implementation	0	0	0	0	0	0	0		
EFT for Employee Travel and Other Expense Reimbursement	0	0	0	0	0	0	0		
Employee Scheduling Implementation	0	0	0	0	0	0	0		
e-Travel and Travel Reconciliation System	0	0	0	0	0	0	0		
Facilities Request Process Automation	0	0	0	0	0	0	0		
Fermilab Management Dashboard (FermiDash)	0	0	0	0	0	0	0		
HRMS and Workforce Planning Roadmap	0	0	0	0	0	0	0		
Invoice Approval Workflow & Oracle Approvals Management	0	0	0	0	0	0	0		
Issues Management & Tracking System	0	0	0	0	0	0	0		
Labwide Budget and Planning System	0	0	0	0	0	0	0		
Labwide Document Management System Implementation	0	0	0	0	0	0	0		
Leave Request System Implementation	0	0	0	0	0	0	0		
Online Catalog Ordering System (iProcurement)	0	0	0	0	0	0	0		
Project Mgmt Software Services (ProMiSe) Implementation	0	0	0	0	0	0	0		
Scientist Survey Application	0	0	0	0	0	0	0		
Teamcenter System Implementation	0	0	0	0	0	0	0		

**Projects in the portfolio excluded from this ranking exercise:**  
 Fermilab Experiments/Experimenters System  
 Sustainable Acquisitions (Purchases)

Evaluation criteria and ranking combined on a single worksheet.

## A Few PPM Lessons Learned to Date

- ✦ Assembling a working group to develop draft documents to seed process development is worthwhile, but don't spend too much time fine-tuning the documents. The PMT will fine-tune to meet their needs. Finding the right balance is the challenge.
- ✦ Asking the individual PMT members to assign a “strength” score to each of the alignment criteria in the proposal causes team members to more carefully consider the benefits and impact of each proposal.
- ✦ Summing the “strength-of-alignment” ratings to provide an overall project score did not work for us.
  - ✦ Many texts and reference materials suggest summing the individual strategy impact ratings to provide an overall score, but this approach was not well-received in our environment.
- ✦ Using a hybrid approach of assigning individual alignment ratings, and then using that information to determine an overall priority ranking, has resulted in a workable prioritized list.

# Computing Project Management Implementation

- ✦ PM implementation efforts are being led by the Computing Sector Project Management Office, located in the Office of the CIO
  - ✦ We are engaging and working with others in the organization who have project management experience and/or an interest in being involved.
  - ✦ We are also working with Service Management and Enterprise Architecture to ensure that project delivery is aligned with, and meets, organizational needs.
- ✦ For our computing projects, we entertain the notion of big “P” and little “p” projects
  - ✦ Big “P” projects are typically portfolio-level projects with broad laboratory impact, etc. Require a higher degree of rigor and formality. Typically led by formally-trained project managers, including some PMPs.
  - ✦ Little “p” projects are typically smaller service improvement or upgrade projects that benefit from the application of project management principles and practices at an appropriate level.

# Project Management Implementation Approach

- ✦ Implement project management principles and methodologies at a level commensurate with the size and scope of our projects
  - ✦ Tailor PMBOK and other recognized standards and methodologies to meet our needs.
  - ✦ Most of our portfolio projects are being executed using the waterfall method.
  - ✦ One of our portfolio projects is being executed using more of an agile approach, but not rigorously following agile or scrum methods.
- ✦ Develop standardized SharePoint and document templates to speed project delivery and improve consistency
  - ✦ Modify and tailor document templates to meet our needs.
  - ✦ Develop templates for use on our portfolio projects; make these readily available through the PMO SharePoint site for use on smaller projects as appropriate and helpful.
- ✦ Use MS Project, Excel, Word and SharePoint to develop processes and approach; over time, may consider evaluation and implementation of tools to improve efficiency and effectiveness.

# Computing Project Lifecycle

	Definition	Planning	Execution	Closeout																								
Meetings	Sponsor Meetings Stakeholder Meetings	Project Team Meetings Steering Committee Meetings Security Review Service Delivery Planning Meeting Stakeholder Meetings, if necessary Customer Meetings, if necessary Vendor Meetings, if necessary Sponsor/Stakeholder Baseline Sign-off	Project Team Meetings Steering Committee Meetings Advisory Committee Meetings, if necessary Status Meetings with Sponsors/Stakeholders Change Control Board Meetings, as necessary Change Advisory Board Meetings, as necessary Final Service Delivery Review Meeting Vendor Meetings, if necessary	Post-Implementation Review Meeting Project Team Feedback Meeting Closeout Celebration																								
Deliverables	New Project Proposal (PS) Project Charter (PS) ROM Budget (PS) High-level summary of needed resources and expertise (KS)	Status Updates for Project Dashboard (PMO) Project SharePoint Site (PMO) Service Level Agreement (SO, SLM, SM) Availability & Continuity Plan (SO, PO, SM) Capacity Plan (SO, PO, SM) Requirements Document (PS, KS) Project Schedule (PS) Level-1 Milestone Table (PS) Level-2 Milestone Table (PM) Project Budget (PS) Production Acceptance Criteria (SO) Acceptance Test Plans (SO) Communication Plan (PS) Risk Register (PS) Post-Project Documentation List (SO)	Status Updates for Project Dashboard (PM) Project Management Change Requests-PCRs (CCB) Service Management Change Requests-RFCs (CM) Transition to Operations Plan (SO, CM, RM) Production Release Plan (SO, RM)																									
(Sign-off)	<p><b>Legend:</b></p> <table border="0"> <tr> <td>BA = Business Analyst</td> <td>BO = Business Owner</td> <td>CAB = Change Advisory Board (ITL)</td> </tr> <tr> <td>CCB = Change Control Board (Project)</td> <td>CM = Change Manager</td> <td>COM = CD Communication and Outreach Office</td> </tr> <tr> <td>FL = Functional Lead</td> <td>KS = Key Stakeholders</td> <td>MAT = Management Advisory Team</td> </tr> <tr> <td>PM = Project Manager</td> <td>PMO = Project Management Office</td> <td>PMT = Portfolio Management Team</td> </tr> <tr> <td>PO = Product Owner</td> <td>PS = Project Sponsor</td> <td>PT = Project Team</td> </tr> <tr> <td>QA = Quality Assurance</td> <td>QAR = Quality Assurance Representative</td> <td>RM = Release Manager</td> </tr> <tr> <td>SC = Steering Committee</td> <td>SLM = Service Level Manager</td> <td>SM = Service Manager</td> </tr> <tr> <td>SO = Service Owner</td> <td>TL = Technical Lead</td> <td></td> </tr> </table>				BA = Business Analyst	BO = Business Owner	CAB = Change Advisory Board (ITL)	CCB = Change Control Board (Project)	CM = Change Manager	COM = CD Communication and Outreach Office	FL = Functional Lead	KS = Key Stakeholders	MAT = Management Advisory Team	PM = Project Manager	PMO = Project Management Office	PMT = Portfolio Management Team	PO = Product Owner	PS = Project Sponsor	PT = Project Team	QA = Quality Assurance	QAR = Quality Assurance Representative	RM = Release Manager	SC = Steering Committee	SLM = Service Level Manager	SM = Service Manager	SO = Service Owner	TL = Technical Lead	
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SO = Service Owner	TL = Technical Lead																											

# Project Documentation Deliverables Chart

- Documentation deliverables chart integrates project management, service management, and enterprise architecture into the project delivery process.
- Documents required for a given project are determined using a graded approach.
- Standardized document templates are being developed.
- Goal is to tailor deliverables to optimize project delivery.
- Deliverables chart is a living document – still evolving.

Deliverable	Phase	Prepared by	Reviewed by	Approved by
Project Proposal	Definition	PM, BA, PS	PS	PS
Project Charter	Definition	PM, PS	PT, FL, KS, SC, EA	PS
ROM Budget	Definition	PM, PS	SC, PT	PS
High-level summary of needed resources and expertise	Definition	PM	PT	KS
Status Updates for Project Dashboard	Planning	PM	PM	PMO
Project SharePoint Site	Planning	PM, PMO	PMO	PMO
Service Definition, Service Level Agreement, Operational Level Agreement	Planning	SO, SLM	SO	SM
Availability and Continuity Plan	Planning	SO, SLM	SO	SM
Capacity Plan	Planning	SO, SLM	SO	SM
Requirements Document	Planning	PM, PS, KS	PS, SO, EA, KS, SC	PS, KS
Requirements Traceability Matrix	Planning	PM, PT	PS, SO, SC	PS
Project Schedule	Planning	PM, PS, KS, PT	PS, KS, PT	PS
Level-1 Milestone Table	Planning	PM	PS, KS, PMO	PS
Level-2 Milestone Table	Planning	PM	KS, PMO	
Project Budget	Planning	PM, PS, KS, PT	PS, SC	PS
Production Acceptance Criteria	Planning	SO, PM	SO	SO
Acceptance Test Plans	Execution	SO, PM	SO, QAR, CM, RM, PT	SO
Communication Plan	Planning	PM, COM	PS, KS, SC	PS
Risk Register	Planning	PM, PS, KS, PT	PS, KS, PT, SC	PS
Post-Project Documentation List	Planning	SO, PM	SO, PT	SO
Status Updates for Project Dashboard	Execution	PM	PM	
Project Management Change Requests (PCRs)	Execution	PM, PS, KS, PT	PS, KS, PT, SC	CCB
Service Management Change Requests (RFCs)	Execution	PM, SO	CAB	CM
Transition to Operations Plan	Execution	SO, CM, RM	SO, CM, RM	SO, CM, RM
Production Release Plan	Execution	SO, RM	SO, RM	SO, RM
Post-Completion Documentation	Closeout	SO	SO	SO
Lessons Learned Summary	Closeout	PM, PT	PT	PMO
Post-Implementation Review	Closeout	PMO, PS	PMO, PS	PMO, PS
Project Closeout Acceptance	Closeout	PM	SO, PS	SO, PS

Legend:		
BA = Business Analyst	BO = Business Owner	CAB = Change Advisory Board (ITL)
CCB = Change Control Board (Project)	CM = Change Manager	COM = CD Communication and Outreach Office
FL = Functional Lead	KS = Key Stakeholders	MIAT = Management Advisory Team
PM = Project Manager	PMO = Project Management Office	PMT = Portfolio Management Team
PO = Product Owner	PS = Project Sponsor	PT = Project Team
QA = Quality Assurance	QAR = Quality Assurance Representative	RM = Release Manager
SC = Steering Committee	SLM = Service Level Manager	SM = Service Manager
SO = Service Owner	TL = Technical Lead	

# Project Schedule Template

- ✦ MS Project template has been developed to help kick-start the project planning process.
- ✦ Standard entries help ensure that certain topics are always considered in the planning and execution phases (e.g.):
  - ✦ Security plans
  - ✦ Availability, capacity plans
  - ✦ Change and release mgmt touchpoints
  - ✦ Transition-to-ops plans
  - ✦ CMDB update
  - ✦ Closeout tasks
- ✦ Template is constantly being enhanced as needs are identified.

	1	Mile ID	WBS	Task Name	% Complete	Duration	Start
0				[-] CD Project Title Here...	0%	13 days?	Fri 11/5/10
1			1	[-] Project Planning	0%	13 days?	Fri 11/5/10
2			1.1	Develop Project Charter	0%	1 day?	Fri 11/5/10
3		L2.01	1.2	L2: Sponsor review and sign-off on project charter	0%	0 days	Fri 11/5/10
4			1.3	[-] Develop Requirements Document	0%	2 days?	Mon 11/8/10
5			1.3.1	Define requirements	0%	1 day?	Mon 11/8/10
6			1.3.2	Conduct requirements review	0%	1 day?	Tue 11/9/10
7		L2.02	1.3.3	L2: Sponsor review and sign-off on requirements	0%	0 days	Tue 11/9/10
8			1.4	[-] Develop Acceptance Criteria	0%	3 days?	Wed 11/10/10
9			1.4.1	Define acceptance criteria	0%	1 day?	Wed 11/10/10
10			1.4.2	Define acceptance test plans	0%	1 day?	Thu 11/11/10
11			1.4.3	Conduct review of acceptance criteria	0%	1 day?	Fri 11/12/10
12		L2.03	1.4.4	L2: Sponsor review and sign-off on acceptance criteria	0%	0 days	Fri 11/12/10
13			1.5	Create WBS	0%	1 day?	Fri 11/5/10
14			1.6	Develop Project Schedule	0%	1 day?	Mon 11/8/10
15			1.7	Develop Budget	0%	1 day?	Tue 11/9/10
16			1.8	Develop Risk Register	0%	1 day?	Wed 11/10/10
17			1.9	[-] Develop Project Management Plan	0%	9 days?	Thu 11/11/10
18			1.9.1	Define management & oversight structure	0%	1 day?	Thu 11/11/10
19			1.9.2	Define Risk Management Plan	0%	1 day?	Fri 11/12/10
20			1.9.3	[-] Define Cyber Security Management Plan	0%	2 days?	Mon 11/15/10
21			1.9.3.1	Review computer security issues	0%	1 day?	Mon 11/15/10
22			1.9.3.2	Update cyber security plan	0%	1 day?	Tue 11/16/10
23			1.9.4	Define Communications Plan	0%	1 day?	Wed 11/17/10
24			1.9.5	Define Transition-to-Operations Plan	0%	1 day?	Thu 11/18/10
25			1.9.6	Document training strategy and develop plan	0%	1 day?	Fri 11/19/10
26			1.9.7	Define project change control process	0%	1 day?	Mon 11/22/10
27			1.9.8	Define project status reporting process	0%	1 day?	Tue 11/23/10
28			1.10	Conduct scope, schedule, and budget review	0%	1 day?	Wed 11/10/10
29			1.14	[-] Service Management	0%	1 day?	Thu 11/11/10
30			1.14.1	Create Service Level Agreement (SLA)	0%	1 day?	Thu 11/11/10
31			1.14.2	Create Availability and Continuity Plan	0%	1 day?	Thu 11/11/10
32			1.14.3	Create Capacity Plan	0%	1 day?	Thu 11/11/10
33		L2.04	1.11	L2: Sponsor sign-off on project planning documents	0%	0 days	Thu 11/11/10

# Standardized Project SharePoint Site Template

Project Site Template - Home - Windows Internet Explorer

https://intranet-int.fnal.gov/project/template/SitePages/Home.aspx

File Edit View Favorites Tools Help

SharePoint >...> Project Site Template

Site Actions > Browse Page

William N Boroski

This is an Integration server W2 To be used for testing only!!!

Project Site Template > Home

Project Site Template Search Center Search project-templ...

**Libraries**

- Site Pages
- Shared Documents
- Project Documents
- Project Internal
- Project Deliverables
- Communications

**Lists**

- Acronym Dictionary
- Action Items
- Calendar
- Decision Log
- Issues Log
- Risk Register
- Tasks

**Discussions**

- Team Discussion

Recycle Bin

All Site Content

## Name of the Project; Example: Exchange Migration

**Project Description:** Project Description goes here. Not a lot of information, but basics regarding the need for the project and the major deliverable. This text is just a place holder to review the look and feel a lengthy description will have on the site.

**Project Sponsor:**  
**Project Manager:**  
**Technical Lead:**

### Project Documents

<input type="checkbox"/> Type	Name	Modified	<input type="checkbox"/> Modified By
	Meeting Agendas	4/7/2011 8:35 AM	Melissa A. Tanner
	Meeting Minutes	4/7/2011 8:35 AM	Melissa A. Tanner
	Project Charter	4/7/2011 8:35 AM	Melissa A. Tanner
	Project Management Documents	4/7/2011 8:36 AM	Melissa A. Tanner
	Project Schedule	4/7/2011 8:35 AM	Melissa A. Tanner
	Status Reports	4/18/2011 9:09 AM	Melissa A. Tanner

[Add document](#)

### Shared Documents

<input type="checkbox"/> Type	Name	Modified	<input type="checkbox"/> Modified By
	Design Documents	3/21/2011 9:34 AM	Melissa A. Tanner
	Initiation	3/21/2011 9:34 AM	Melissa A. Tanner
	Requirements and Use Cases	3/21/2011 9:34 AM	Melissa A. Tanner
	Technical Documents	3/21/2011 9:36 AM	Melissa A. Tanner

[Add document](#)

## Fermilab

### Issues Log

<input type="checkbox"/> Issue ID	Issue Description	Owner
There are no items to show in this view of the "Issues Log" list. To add a new item, click "New".		

[Add new item](#)

### Action Items

<input type="checkbox"/> ID	Action Item	<input type="checkbox"/> Owner	Status
There are no items to show in this view of the "Action Items" list. To add a new item, click "New".			

[Add new item](#)

### Calendar

There are currently no upcoming events. To add a new event, click "Add new event".

[Add new event](#)

# Readily-Available Standardized Document Templates

The screenshot shows a Windows Internet Explorer browser window displaying a SharePoint site titled "Project Site Template - Home". The address bar shows the URL: <https://intranet-int.fnrl.gov/project/template/SitePages/Home.aspx?RootFolder=%2FProject%2FTemplate%2FProject%20Documents%2FProject%20Charter&FolderCTID=0x01200087379DD9947D6E4EB52D85D808158542&View={ADD8E6B9}>. The browser's Favorites bar includes links to "Project Management Sandb...", "Home - Office of Project Ma...", "Information Systems Proj...", "Computing Projects - Home", "DOE Annual Progress Revie...", "Fermi Webmail", "Fermi Phone Directory", "Fermi Service Desk", and "Kronos WORKFORCE CENT...".

The SharePoint interface features a "Library Tools" ribbon with tabs for "Documents" and "Library". The "Documents" tab is active, showing a ribbon with options like "New Document", "Upload Document", "New Folder", "Edit Document", "Check Out", "Check In", "Discard Check Out", "View Properties", "Edit Properties", "Delete Document", "E-mail a Link", "Alert Me", "Download a Copy", "Go To Source", "Workflows", "Publish", "Unpublish", "Approve/Reject", "Cancel Approval", "I Like It", and "Tags & Notes".

A red circle highlights the "New Document" dropdown menu, which lists the following templates:

- Document
- Decision Document
- Template Decision Document
- Lessons Learned
- Template for Lessons Learned
- Meeting Agenda
- Template for Meeting Agenda
- Meeting Notes
- Template for Meeting Notes
- Project Change Request
- Template for Project Change Request
- Project Charter
- Template for Project Charter
- Project Management Workbook
- Project Management Workbook
- Project Schedule
- Template for Project Schedule
- Status Report
- Template for Status Report

The main content area displays a page titled "the Project; Example: Exchange Migration". It includes a "Documents" table with the following data:

Name	Modified	Modified By
Design Documents	3/21/2011 9:34 AM	Melissa A. Tanner
Initiation	3/21/2011 9:34 AM	Melissa A. Tanner
Requirements and Use Cases	3/21/2011 9:34 AM	Melissa A. Tanner
Technical Documents	3/21/2011 9:36 AM	Melissa A. Tanner

Below this table is a "Project Internal" section with another table:

Type	Name	Modified	Modified By
	Budget	4/7/2011 8:36 AM	Melissa A. Tanner
	Request for Proposal-RFP	4/7/2011 8:36 AM	Melissa A. Tanner
	Statement of Work-SOW	4/7/2011 8:36 AM	Melissa A. Tanner

The right sidebar contains the Fermilab logo, an "Issues Log" section (empty), an "Action Items" section (empty), and a "Calendar" section (empty). The Windows taskbar at the bottom shows the Start button, Internet Explorer, and other applications, with the system clock displaying 3:18 PM on 6/13/2011.

# Project Performance Dashboard

Computing Projects - Home - Windows Internet Explorer

https://sharepoint.fnl.gov/cd/lp/projects/SitePages/Home.aspx?InitialTabId=Ribbon%2EListItem&VisibilityContext=WSSTabPersistence&View={678fb464-07bf-451a-84f4-c9dcd02e0f0f}&SortField=Phase&SortDir=Desc

SharePoint > Computing Projects

William N Boroski

Site Actions: New Item, New Folder, View Item, Edit Item, Delete Item, Attach File, Change Item Order, Alert Me, Workflows, Approve/Reject, I Like It, Tags & Notes

Documents: Site Pages, Drop Off Library, Lists, Computing Projects, Discussions, Sites, People and Groups, Recycle Bin, All Site Content

Portfolio	Project Name	Phase	Phase End Date	Sched	Scope	Rsrc	Risk	Overall	1 wk ago	2 wks ago	3 wks ago	4 wks ago	Last Modified
Core IT	EBS r12 Upgrade Project	Planning		●	●	●	●	●	●	●	●	●	5/27/11
Core IT	Computer Security Compliance FY11	Planning		●	●	●	●	●	●	●	●	●	6/10/11
Core IT	Identity Management Project	Execution		●	●	●	●	●	●	●	●	●	5/27/11
Core IT	Exchange Migration Project	Execution		●	●	●	●	●	●	●	●	●	6/13/11
Info Systems	FermiDash	Execution		●	●	●	●	●	●	●	●	●	6/13/11
Info Systems	Teamcenter Implementation Project	Execution		●	●	●	●	●	●	●	●	●	6/10/11
Core IT	Windows 7 Deployment Project	Execution		●	●	●	●	●	●	●	●	●	6/13/11
Core IT	Service Now	Execution		●	●	●	●	●	●	●	●	●	6/10/2011
Info Systems	PeopleSoft Upgrade Project	Close out	6/16/2011	●	●	●	●	●	●	●	●	●	6/13/11

Information Systems Projects: URL, Notes, Teamcenter Implementation, Identity Management, HRMS/Peoplesoft Upgrade

Core IT Projects: URL, Notes, Exchange Migration, VOIP IB3A Implementation, Indico Conference Project

Internal CD Projects: URL, Notes, Worker Node Evaluation, Unified Communications Project, Effort Reporting Conversion

Completed Projects: URL, Project Type, Notes, Project Type: Core (2), Project Type: Enterprise (2)

# Project Status Reports

- Progress on portfolio-level projects is reported on a weekly basis through written status reports.
- High-level summary, typically 3-4 pages in length.
- Status reports are presented by PMs at weekly progress meeting.
  - Typically 5-7 min per report.
  - High-level briefing for senior mgmt, line mgmt, and other interested parties.

Fermilab	Computing Division	Project Name	
Project Name	Project Manager	Project Sponsor	Reporting Period
			Month DD, YYYY
Project Description			

Current Status: **Execution Phase** (Select from Definition, Planning, Execution, Closeout)

Overall Project Rating: Project Trending: Trending Reason: Enter text here...



<b>Red (R)</b>	Causing direct project impact and needs immediate attention
<b>Amber (A)</b>	Potential or minor project impact and needs attention. Will go Red if not addressed.
<b>Green (G)</b>	On Track

Top Issues: (include comments for non-green dashboard items)

No.	Description	Owner	Action Plan/Resolution	Target Date

Weekly Progress Report from This Week

- Activity
- Activity
- Etc.

Planned Activities for Next Week

- Activity
- Activity
- Etc.

Other Issues, Risks, or Concerns:

- Description here...
- 

Top Issues Table:

- The "Top Issues" table should include explanations for all non-green elements in the dashboard. For example, if Schedule goes Yellow, the reason should be described in the "issues" table, along with the planned corrective action.
- When describing Corrective Actions, include a sentence that clearly describes what action is necessary to move the project from the current dashboard state towards a "green" state.
- If a target date is missed, use the strike-through feature to cross out the missed date and then add the new target date below the crossed-out date. This will provide visibility into issues that are taking longer than anticipated to complete.

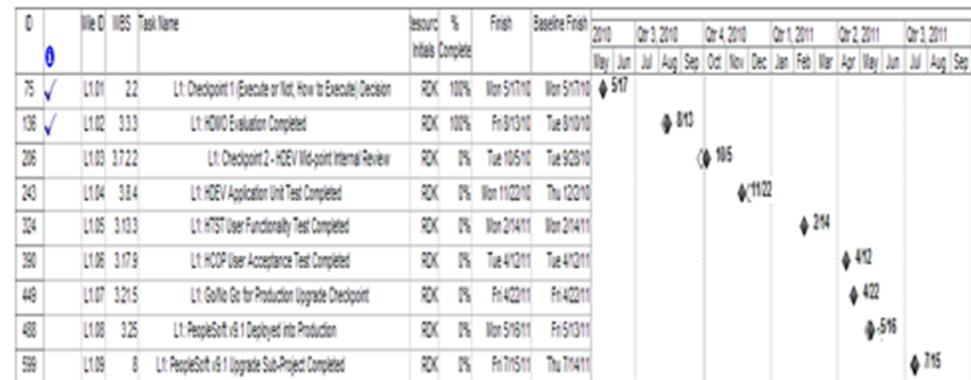
Stoplight Graphic:

- The overall rating should reflect the highest sub-element rating. For example, the overall should be yellow if at least one sub-element is yellow, and should be red if at least one sub-element is red. The PM can always choose to elevate the overall rating to a higher level to highlight a concern. If this occurs, the reason for this should be described in the "Top Issues" table.

# Project Status Reports (2)

- Status reports include sections to show progress against Level-1 and Level-2 milestones
- Intent is to quickly show progress and current forecast against baseline plan.
- Status reports are proving to be an effective mechanism for communicating project status and highlighting issues requiring attention.

Fermilab		Computing Division				
<b>Level 1 Milestone Overview:</b> 1. Item 2. Item 3. Item 4. Etc.				Level-1 milestones are oriented towards reporting to Sponsors and Senior Management.  Level-2 milestones are oriented towards reporting to the project team and functional leaders. They are at a lower level of granularity and help track project progress.  The milestone tables and graphics should be exported from the MS Project file.		
Level 1 Milestones						
ID	WBS	Name	Owner	Done	Finish	Baseline
L1.01	2.2	L1: Checkpoint 1 (Execute or Not, How to Execute) Decision	RDK	100%	Mon 5/17/10	Mon 5/17/10
L1.02	3.3.3	L1: HDMO Evaluation Completed	RDK	100%	Fri 8/13/10	Tue 8/10/10
L1.03	3.7.2	L1: HDEV Mid-point Checkpoint	RDK	0%	Tue 10/5/10	Tue 9/28/10
L1.04	3.8.4	L1: HDEV Application Unit Test Completed	RDK	0%	Mon 11/22/10	Thu 12/2/10
L1.05	3.13.3	L1: HTST User Functionality Test Completed	RDK	0%	Mon 2/14/11	Mon 2/14/11
L1.06	3.17.9	L1: HCOP User Acceptance Test Completed	RDK	0%	Tue 4/12/11	Tue 4/12/11
L1.07	3.21.5	L1: Go/No Go for Production Upgrade Checkpoint	RDK	0%	Fri 4/22/11	Fri 4/22/11
L1.08	3.25	L1: PeopleSoft v9.1 Deployed into Production	RDK	0%	Mon 5/16/11	Fri 5/13/11
L1.09	8	L1: HRMS/PeopleSoft Upgrade Project Completed	RDK	0%	Fri 7/15/11	Thu 7/14/11



## Summary

- ✿ We are in the process of implementing IT governance at Fermilab
- ✿ Good progress is being made on project portfolio management implementation
  - ✦ We are developing processes and learning what works in our environment
  - ✦ We are getting good buy-in and support at the laboratory senior management level
- ✿ Good progress is also being made on developing and implementing a project management methodology tailored to meet our needs
- ✿ There is still much work to do....