



**National Aeronautics and Space Administration**

***Goddard Space Flight Center***

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**Program Integration & Management  
Division (PIMD) – Code 740**

**Business Plan**

**Version 2.0**

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# PIMD Business Plan

## Document History

Version	Description	Changes Prompted By	Date
1.0	Initial Release	N/A	February 2012
1.1	Administrative updates to 1) extend timeline from 2014 to 2015 based on a complete, fully scoped schedule 2) Added the PSR as a governance body, 3) added NPR 7150.2 as a requirement, 4) updated the code 700 organizational structure, 5) added the latest information relating to the PIMD schedule, and 6) updated the PIMD organization chart	External and internal changes	March 2013
2.0	Updated to reflect fiscal 2014 resources and latest plans	Reduction in budget, progress made to previous version of plan	October 2013
2.0	Updated to reflect code 740 and code 700 comments.	See comments spreadsheet for details	December 2013





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# Introduction

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## Purpose

The purpose of the Program Integration and Management Division (PIMD) Business Plan is to set the direction for PIMD and facilitate moving the PIMD organization into a new paradigm of how business will be conducted now and through 2016.

## Overview

This plan aligns with the Project Management Office (PMO) as described in Goddard's Strategic Plan for IT.

The plan provides a case for continued change describes the primary PIMD stakeholders, outlines four critical mission areas including goals and objectives for each, and provides an overview of PIMD operations and communications.

This plan may be changed based on both internal and external factors and PIMD is poised to make those updates.



# Case for Change

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## Background

PIMD is transforming into an IT project management Center of Excellence delivering results that enable mission success. PIMD is turning its attention towards elevating the level of IT services and solutions that are delivered to its customers, better enabling executive decision making, instituting a professional development framework, and improving organizational alignment and coordination.

This case for continued change provides background on the PIMD organization, highlights some opportunities and challenges that exist in the as-is environment which serve as drivers for change, presents critical success factors that are required to enable the change discussed in the plan, and provides some high-level benefits of a successful PIMD transformation.

PIMD falls within the Information Technology & Communications Directorate (ITCD), as displayed in [Figure 1: The ITCD / Code 700 Organization](#), and is primarily responsible for running the IT PMO and managing its associated projects. To do this successfully, PIMD must closely coordinate with other ITCD organizations. For example, PIMD participates heavily with the Governance, Business & Investment Management Office (BIMO) and Enterprise Architecture (EA) group in the Capital Planning and Investment Control (CPIC) process and coordinates closely with Enterprise Architecture, Information Security, IT Operations, and IT Governance throughout the project management lifecycle.

Although the IT PMO has direct report staff that manage some of ITCD's projects, IT projects are also managed by other Divisions within ITCD and other Directorates across the Center. All ITCD projects, regardless of the Division, are governed by either the PMO's Project Status Review or Agency or Center-level governance boards and are guided by a number of NASA and Goddard policies and procedures, such as NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements (NPR 7120.7) and NASA Software Engineering Requirements (NPR 7150.2). All IT projects in other Directorates are governed by their governance structure and are guided by NASA Program and Project Management Processes and Requirements (NPR 7120.5), NASA Research and Technology Program and Project Management Requirements (NPR 7120.8), or NASA Systems Engineering Processes and Requirements (NPR 7123.1).

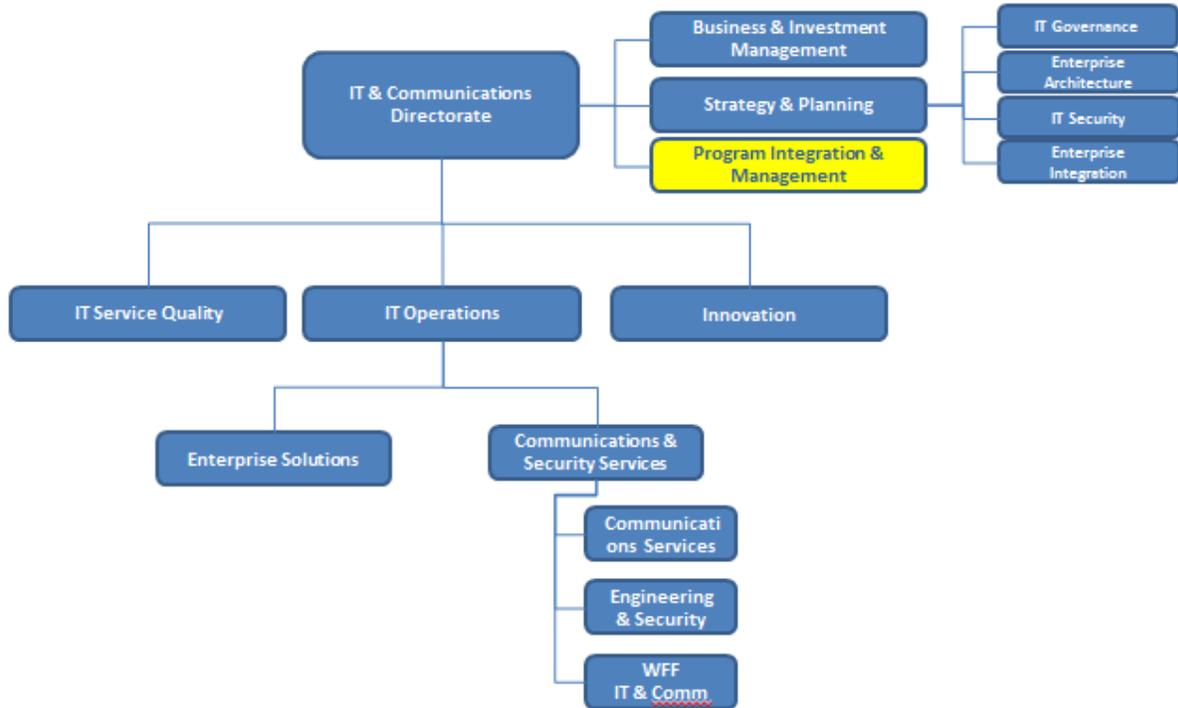


Figure 1: The ITCD / Code 700 Organization



## As-Is Environment

The environment in which PIMD operates is complex and poses some significant opportunities and challenges that serve as drivers for change, some of which are outlined below:

- NASA has expertise in project management (PM) and a wealth of resources that can be leveraged by PIMD
- PMO data collection and tools need to be modernized; there are opportunities to better organize data and improve performance tracking and executive reporting;
- Center IT Governance organization is currently undergoing change and PIMD must align to the changes
- Project management processes and practices exist across Center; PIMD has adopted many of these practices
- Not all projects managers think the more mature practices are a good idea
- Most oversight organizations (Information Security, Enterprise Architecture) have yet to document their plans and procedures; this practice inhibits information sharing and standardization of shared and common practices
- ITCD operational divisions lack integration of project management practices in the acquisition management activities
- A shortage of project managers and those with project manager skills within the workforce makes it difficult to support every project. The ITCD method used for allocating project management resources is random and does not relate to project demand. The PIMD resource levels have been dramatically reduced for both civil servants and contractors since the start of this effort in June 2011.

## Critical Success Factors

There are a number of critical success factors that are essential to enabling a successful implementation of this plan. Most pressing among them are:

**Demonstrated Leadership Support and Sponsorship.** Due to the Directorate- and Center-wide nature of this effort, PIMD requires visible support and active participation from Directorate-level leadership Center-wide to encourage stakeholder buy-in that PIMD is the authority on IT project management for the Center

**Organizational Authority.** PIMD needs the authority to enforce adherence to standards and changes to processes

**Alignment and Coordination.** PIMD must be properly aligned and must closely coordinate with other PMO organizations across the Center and with parallel activities across the Directorate, such as CPIC and EA

**Professional Development.** IT Project Managers must have the skills and competencies required to deliver projects that meet or exceed customer expectations

**Performance Measurement.** PIMD must be able to demonstrate and communicate success and value-add, both for projects and for the PMO, through a performance metrics capability



**Outreach and Communication.** Many of the activities in this plan require stakeholder outreach and information sharing. Strong emphasis will be put on executing a comprehensive outreach and communications plan throughout the implementation of the Business Plan.

## Stakeholder Benefits

Through the implementation of this plan, PIMD will deliver the following benefits to its stakeholders:

- Increased customer engagement to ensure their IT requirements are understood and met
- An enhanced IT project management infrastructure that utilizes best practices from the Center, Agency, and industry to enable more consistent delivery of project results
- IT Project managers that are better informed and therefore more capable of delivering improved project performance
- Increased visibility into IT projects across the Center to improve executive-level decision-making on what IT efforts best serve the Center
- Increased ability to determine and report project performance; greater visibility into project management lessons learned, root cause analysis, and corrective actions to reuse for present and future projects
- An engaged project management community through an ongoing project management community of practice and a project manager portal that will allow for knowledge sharing through one-stop-shopping of project management practices, tools, and training
- An IT project management function that coordinates with and aligns to Governance, Enterprise Architecture, Information Security, and Investment Management making it easier for customers to demonstrate project progress and performance
- A smoother transition from a project to an operational service resulting in ideally no impact to customers



# Vision, Mission, Values & Tenets

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## Vision Statement

The following statement outlines the vision:

*PIMD provides successful implementation of IT projects where customers are extremely satisfied with the outcome and results and where IT Operations is included from the beginning to ensure a successful transition.*

*PIMD has a strong partnership with the rest of the Goddard project management community, where everyone works together from a central body of knowledge for project management best practices and use of tools. PIMD provides the Goddard Chief Information Officer (CIO) and other executive leaders with project information needed to successfully manage the Goddard IT portfolio.*

*PIMD partners with Investment Management and Enterprise Architecture (EA) to develop a linkage to, and understanding of, Goddard's IT portfolio at all levels (EA, investment, and project). PIMD partners with Information Security to help ensure appropriate security measures have been taken for projects. PIMD provides a project management service to the IT & Communication Directorate (ITCD), and to other Directorates in need, that is well respected and appreciated.*

## The Mission

As part of the ITCD organization where “*Our mission is to enable yours,*” the focal mission of PIMD is to support and enable space and scientific discovery by creating, maximizing, and extending the value of IT projects.

More specifically, the mission of PIMD is to:

1. Improve IT service management through the use of mature project management practices
2. Support Executive Level IT Investment decision making
3. Ensure capable project management teams are provided to successfully complete IT projects
4. Develop a performance measurement capability for projects and IT PMO

## Values

Core values define what is important for a given organization. PIMD values:



**P**roject Management Excellence

**I**ntegration and Collaboration with Partners and Stakeholders

**M**ission Enabling Services and Solutions

**D**edication to Customers

## Tenets

Tenets provide a method of operation to work on the mission and ultimately realize the vision. PIMD's role is one of extreme importance to demonstrating worth and customer satisfaction. The following tenets are considered essential to the success of PIMD:

**Customer First.** Without our customers there is no need for PIMD. PIMD will strive to understand and address stakeholder requirements and concerns and will strive to enable the mission of GSFC through all activities.

**Solution Orientation.** Focus on solutions. Problems are easy to find; make the impossible possible!

**Internal and External Communications.** We need to stay on the same page internally and talk to, and with, our customers daily.

**Be Flexible.** Make changes when warranted based on new information; look at each project as unique. Listen to our customer!

**Be Open to a New Way.** Learn from others, and apply it to what we do.

**Short-term Progress towards the Larger Goal.** Iterative progress shows results much more quickly versus using the Big Bang approach; keep the focus on forward progress.



# Stakeholders & Partners

## Stakeholders

As depicted in *Figure 2: Stakeholders*, PIMD conveys that the IT PMO provides support and services to three primary stakeholder groups:

1. Goddard’s IT PMO Customers
2. Goddard’s IT Project Managers
3. The Center CIO and Executive-level Management and Leadership

PIMD recognizes that each of these groups has unique needs and that the services provided must reflect an understanding of these needs to deliver value to each group.

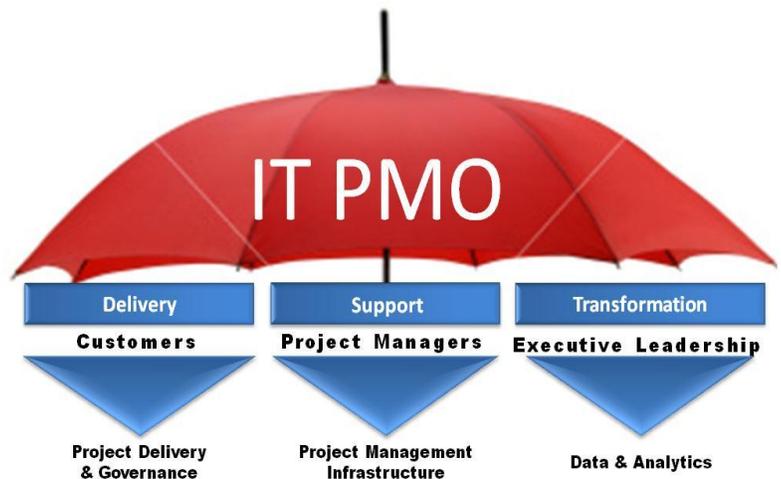


Figure 2: Stakeholders

### Goddard’s IT PMO Customers

Goddard’s IT PMO customer community is as diverse as our IT environment. It ranges from Goddard’s highly educated end user community to the Agency OCIO’s Office. From a project management perspective, their most basic needs are the same; they need IT projects to meet their expressed requirements and to have those requirements met in a timely manner, with little or no disruption to ongoing business.

The challenge for the IT PMO is to clearly understand customer’s requirements and to facilitate successful delivery of IT projects while effectively managing the triple constraints of cost, schedule, and scope/quality.

### Goddard’s IT Project Managers

IT initiatives, projects, and activities at Goddard are diverse in scope, size, and complexity and are reflective of this Center’s non-homogenous, decentralized, federated IT environment. The individuals assigned to delivering results from these initiatives are also diverse in subject matter expertise, project management experience, capabilities, and strengths.

The challenge for the IT PMO is to provide the right information, tools, development opportunities, and accountability so that adequate project management practices occur for IT projects.

### The Center CIO and Executive Leadership

Goddard’s CIO has responsibility for the success of the IT portfolio and therefore needs visibility into the return on investment, including timely understanding of the current status of related initiatives and an understanding of



accurate predictive status that conveys a measure of the future success of these IT investments. IT projects are a part of the investments that make up the IT portfolio.

The challenge for the IT PMO is to provide the needed visibility, transparency, data, and business intelligence related to status and success of Goddard's IT projects to adequately meet the informational needs that form the basis of effective executive management and leadership for Goddard.

## Partners

As depicted in [Figure 3: Partners](#), PIMD understands and recognizes the need to collaborate and create lasting partnerships with Goddard's Investment Management community, and with the other IT Discipline areas in ITCD, namely EA and Information Security. These partnerships better enable the IT PMO to support PIMD's three primary customers: Goddard's IT PMO customers, IT project managers, and executive leadership.

PIMD will enable successful IT project delivery for Goddard's customers and support maturation and transformation of Goddard's IT portfolio, by supporting increased visibility and transparency and improved data quality necessary for informed decisions by executive leadership. To do so, PIMD will work closely with the Investment Management and EA during the CPIC process. PIMD will also continue to leverage existing partnerships with Enterprise Architecture and Information Security to improve IT project success, compliance, and governance, for Goddard's IT investments.

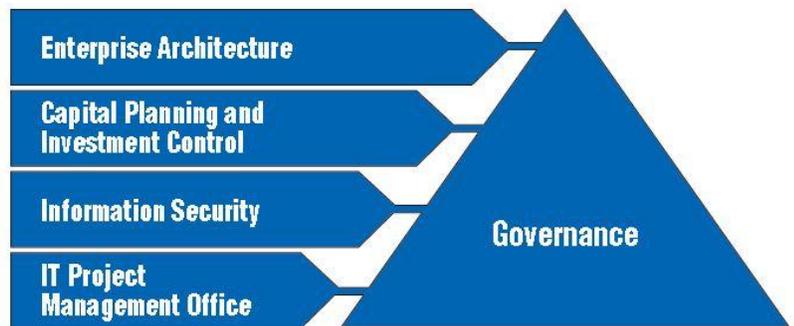


Figure 3: Partners

## Additional PIMD Stakeholders

In addition to working with the primary stakeholders and partners, PIMD must also recognize and team with other Goddard stakeholders, other Centers, the NASA Office of the CIO (OCIO), and the Private and Public sectors (see stakeholder list in [Appendix A](#)) to become an IT project management center of excellence for ITCD and Goddard. Specifically, PIMD recognizes that GSFC's Flight Project Directorate (Code 400) is the Center's project management center of excellence and PIMD will reach out to them as part of the outreach effort.

PIMD provides project support to most of the divisions within the Directorate and is accountable to include IT Operations staff to ensure a successful transition from a project event to an operational model. The Office of Management and Budget (OMB), Government Accountability Office (GAO), and National Institute of Science and Technology (NIST) largely set the Federal IT direction and mandates that must be incorporated into the overall PIMD strategy. The Project Management Institute (PMI), Software Engineering Institute (SEI), and Federal Acquisition Institute (FAI) set the standards and best practices relating to project management, system lifecycle development and service provider activities.

Successfully planning for and managing IT is a challenging and difficult task which will require flexibility and quick action to institute change or necessary course corrections to meet the requirements of the various



stakeholders. PIMD completed a stakeholder analysis in 2012 and performed significant outreach and communication activities in 2012 and 2013; PIMD continues to execute the comprehensive Outreach and Communications Plan that addresses and responds to identified stakeholder needs.



## Implementation Approach

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To achieve the PIMD vision and mission, parallel efforts will occur across four mission areas:

**Mission Area 1:** Improve IT service management through the use of mature project management practices

**Mission Area 2:** Support executive level IT Investment decision making

**Mission Area 3:** Ensure capable project management teams are provided to successfully complete IT projects

**Mission Area 4:** Develop a performance measurement capability for projects and IT PMO

These mission areas with their associated goals and objectives are provided within the subsequent section: [Four Mission Areas](#). As discussed in the [Implementation Schedule](#) section, a schedule of activities is ongoing for each mission area of the Business Plan. The schedule is updated regularly and will be updated following ITCD / Code 700 leadership approval of this revised Business Plan.

Organizational and enterprise changes do not occur overnight, however, over time small incremental improvements will be visible across all mission areas and progress will ultimately be measured and communicated through the activities in [Mission Area 4](#).

As described in the [Critical Success Factors](#) section, outreach and communications are essential to successful implementation of this plan. PIMD outreach and communication activities will be closely tied to Business Plan activities and will occur throughout the implementation of the plan. The [Outreach & Communications](#) section provides further details on the PIMD approach for engaging stakeholders.



## Four Mission Areas

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The goals and objectives associated with each of the four mission areas are intended to ensure that PIMD and Goddard's IT project teams have:

- Access to mature IT project management practices
- The impetus to establish greater visibility for project performance and improve decision-making capabilities
- The support, capabilities, and resources required to be successful
- The capability to measure IT project and IT PMO performance



### **Mission Area 1: Improve IT Service Management through the use of Mature Project Management Practices**

*Key Concept: Mature project management practices create the foundation that enables the IT PMO to deliver optimal project performance to customers.*

### **Goal 1: Develop Associated Activities for Maturing Project Management Practices**

*Objective 1: Identify and communicate additional highest priority practices*

Initially five priority practices were identified for implementation: risk, scheduling, configuration management, requirements, and stakeholder analysis/communications. To provide the guidance necessary to fully clarify the lifecycle the remaining practices must be defined and implemented: lessons learned, transition to operations, project planning, alternative analysis, and testing. Artifacts and procedures for these practices will be developed, reviewed and agreed to by ITCB / Code 700 project managers and leadership prior to Directorate adoption and use. These practices will align with and take advantage of best practices already in existence within Goddard.

*Objective 2: Define the project management directives, procedures, and practices using the formal documentation process*

In all cases the formal process will be used to document the activities and requirements for project management. The NASA and Goddard directive systems will be canvassed for existing directives, procedures, and practices and will be used when applicable.



### *Objective 3: Conduct and/or verify lessons learned sessions are held to assist in improving practices*

One Code 700 project will be selected initially and a Lessons Learned session will be held and documented after the completion of each project life cycle phase. The activity will be completed after the lessons learned practice is defined (*Mission Area 1, Goal 1, Objective 2*). The findings will be shared with project managers and ITCD / Code 700 leadership. Consideration will be given to sharing the results through the PM Community of Events (Mission Area 1, Goal 2, Objective 1). Lessons learned will be stored in the Goddard lessons learned system.

### *Objective 4: Hold and/or verify root cause analysis and corrective action reviews are occurring for 'in trouble' projects*

Root cause analysis and corrective action reviews will be defined using formal documents and existing practices where available. One ITCD / Code 700 project will be selected initially and a root cause analysis and corrective action review will be held. The findings will be shared with project managers and ITCD / Code 700 leadership. Consideration will be given to sharing the results through the PM Community of Events (*Mission Area 1, Goal 2, Objective 1*) and incorporating them into the lessons learned process.

### *Objective 5: Identify and begin implementation of the best project management tool set for Goddard project management use*

Both the tools discovered during outreach and the tools defined for use for the high priority practices will be taken into consideration through an alternatives analysis which will identify the standard tool set. In the interim, tools identified for high priority practices will be put into operation with ongoing IT projects. Recommendations will ultimately be made to ITCD / Code 700 leadership.

## **Goal 2: Share PM Best Practices, Experiences and Training Aids**

### *Objective 1: Hold Center-wide Project Management Community Events*

Hold various events to share project management practices and overall PMO progress. Communicate the 'Year in Review' to promote and advertise all the PMO accomplishments to date. Hold workshops and the PMO Open Forum. As the training plan (*Mission 3, Goal 1, Objective 1*) is rolled out include all interested Center participants in outreach and learning/sharing events. Including other Directorates will allow ITCD / Code 700 to establish a relationship with project managers serving all Center disciplines. These sessions provide a venue to share experiences, aid in solving problems, and will begin to allow a commonality in project management practices.

### *Objective 2: Establish Center-wide portal that acts as a one-stop shop for Center project managers to increase communication, collaboration, and knowledge management/knowledge transfer*

Moving from project management practices being introduced project-by-project to widely communicating project management resources will allow the Goddard project management community to share their knowledge, skills, and practices. To reach the Directorate project managers the SharePoint site will be updated to allow intuitive access to current content and to archive outdated content. To reach other Directorates, improvements will be made to the ITCD / Code 700 project management portion of the ITCD website, providing more resources and assistance to project managers.



### *Objective 3: Stay informed and share Agency project management best practices*

There is a need to become more engaged in project management activities across the Agency and to share best practices and lessons learned. The PMO will have an active member in the Agency PMO workgroup and associated activities.

### *Objective 4: Share private industry and federal project management development opportunities, tools, and best practices*

There is a wealth of information available in both the private and public sector to assist with project management practices. Part of the PIMD role will be to research and bring these ideas to the PM community at-large through SharePoint and ITCD website postings and outreach events. Reaching out to others to learn about how they are successfully completing their work is often faster, easier, and less expensive while still rendering very mature results.

## **Goal 3: Create a Viable Goddard Project Portfolio for Ongoing Project Performance Reviews**

Collecting, analyzing, and reporting project performance data is a necessary component to delivering successful project outcomes. Analyzing project performance data facilitates the root cause analysis and corrective action process and allows for productive lessons learned discussions. The current state of the IT project data is that it is collected manually (via PowerPoint) and the data is not contained within a structured environment. The current data collection will be reviewed to determine if additional data is required to support mature performance reviews. Consideration will be given to how to structure and store the data to support PMO data analysis and reporting across IT projects. Work will continue with Investment Management to look for a combined usage opportunity through use of a portfolio management tool.

### *Objective 1: Improve Project Status Review content*

The content requirements of the project status review template will be reviewed for completeness and accuracy to determine what additional data is required to sufficiently assess and report on the performance of the projects. A structured solution will be developed to analyze and provide consolidated reporting across all IT projects.

### *Objective 2: Create and provide views and reports that facilitate project management activities*

Based on the monthly data collection through the PSR, views and reports are created and used to provide a more accurate view of project status, progress, and issues. Views and reports will be shared with project managers and ITCD leadership.

### *Objective 3: Continue holding monthly project status reviews*

A monthly project status review will continue to be planned and facilitated by PIMD. The purpose of the meeting is to share ITCD / Code 700 project progress and results and to identify risks and issues. Course corrections are a likely outcome of these reviews for some projects. Meeting outcomes will be shared with ITCD / Code 700 leadership.



*Objective 4: Consolidate data collections among other management framework entities (EA, Governance, Investment Management, Information Security)*

Coordination will continue with all IT oversight groups to try to achieve a single solution to contain all data.



## **Mission Area 2: Support Executive Level IT Investment Decision Making**

*Key Concept: IT executive management requires visibility into all Goddard IT projects to make effective strategic decisions for the IT Portfolio.*

### **Goal 1: Hold or Verify the Completion of Project Stage-Gate Reviews to Ensure Project Performance is Acceptable**

Periodic structured project reviews by the PMO are a necessary method to help ensure that projects are progressing as planned. Reviews can help identify the need for corrective action and in fewer instances the need to terminate the project. Outcomes of reviews will be reported to the appropriate governance group(s) and ITCB / Code 700 leadership. The critical review times within the project life cycle will be identified for reviews, a review process will be defined and documented, and reviews will be conducted for those projects deemed the most critical based on scope, cost, and time. It is fully expected that, as IT projects across the Center are added to the IT portfolio, similar reviews may be conducted within that given Directorate and only verified by the IT PMO.

#### *Objective 1: Define review group within a charter*

A charter will be created that defines the membership and operation of the review group. A charter is required by *Goddard Procedural Requirement (GPR) 1060.3, The Goddard Governance System.*

#### *Objective 2: Define review types and check-points during reviews*

A proposal of what reviews will be performed and the associated activities and documentation required for confirmation will be developed and agreed to by IT leadership. Review levels will more closely align with a system development life cycle review process for IT projects.

#### *Objective 3: Schedule and hold review sessions*

Review sessions will be held to verify if 1) The project is performing acceptably, 2) Course corrections need to be made, or 3) The project needs to temporarily stop work or be canceled.

#### *Objective 4: Share review outcomes with Goddard IT Review Board or equivalent*

The outcome of reviews will be documented and shared with the next level governance board through the Investment Management process for reporting consideration directly to the board.

### **Goal 2: Create a Viable Goddard Project Portfolio for use in Executive Decision-making**

Collecting, analyzing, and reporting project performance data is a necessary component to provide what is needed to support executive decisions on the IT portfolio. Analyzing project performance data facilitates the root cause analysis and corrective action process and allows for productive lessons learned discussions. The current state of the IT project and program data is that it is collected manually (via PowerPoint) and the data are not contained within a structured environment. Current data collection will be reviewed to determine if additional data is



required to support executive decision-making. Consideration will be given to how to structure and store the data to support ITCD and PMO data analysis and reporting across IT programs and projects. Work will continue with Investment Management to look for a combined usage opportunity through use of a portfolio management tool.

#### *Objective 1: Improve Directorate and Project Status Review Content*

The content requirements of the Directorate and Project Status Review template will be reviewed for completeness and accuracy to determine what additional data is required to sufficiently assess and report on the performance of programs and projects. A structured solution will be developed to analyze and provide consolidated reporting across all IT programs and projects.

#### *Objective 2: Create and provide views and reports that facilitate executive decision making*

Based on the monthly data collection through the Directorate Status Review (DSR) and Project Status Review (PSR), views and reports are created and used to provide a more accurate view of program and project status, progress, and issues. Views and reports will be shared with ITCD / Code 700 leadership.

#### *Objective 3: Continue holding monthly project status reviews*

A monthly project status review will continue to be planned and facilitated by PIMD. The purpose of the meeting is to share ITCD / Code 700 project progress and results and to identify risks and issues. Course corrections are a likely outcome of these reviews for some projects. Meeting outcomes will be shared with ITCD / Code 700 leadership.

#### *Objective 4: Consolidate data collections among other management framework entities (EA, Governance, Investment Management, Information Security)*

Coordination will continue with all IT oversight groups to try to achieve a single solution to contain all data.

### **Goal 3: Participate in Governance Reviews to Assist Investment Owners with Project Management Practices and to Support Executive Decision-making**

#### *Objective 1: Participate in Goddard IT Governance Board reviews to assist with go/no-go decisions*

PIMD has a primary role in reviewing IT investments and providing assistance to help ensure that the proper project management practices are being applied. A PIMD representative will attend all governance board reviews and provide input as a non-voting member.

#### *Objective 2: Participate in Investment Management reviews to assist investment owners with project management practices*

PIMD provides review criteria, evaluates, and scores all IT business cases in advance of Investment Management review sessions. PIMD will provide project management expertise to assist investment owners with successfully managing their investment. A PIMD representative will attend Investment Management review sessions and lend their expertise during those sessions.



## **Mission Area 3: Ensure Capable Project Management Teams are Provided to Successfully Complete IT Projects**

*Key Concept: Project teams must be appropriately aligned within the organization and be staffed with resources that have the skills sets and competencies required for successful project management.*

### **Goal 1: Provide Project Managers with Professional Development Opportunities**

*Objective 1: Develop and implement a project manager training and mentoring plan*

Project managers within the existing workforce are at different levels of maturity in terms of their knowledge, education, and applied project management practices within Goddard. To improve the maturity of our project management expertise, training will be recommended and provided using several different training mediums. The initial focus will be on the high priority project management practices (risk, scheduling, requirements, configuration management, and stakeholder analysis/communications) and life cycle management process that have been identified and defined within the Goddard Directives Management System (GDMS). As part of the mentoring effort, participation will be solicited for seasoned project managers to mentor up-and-coming project managers, providing a neutral environment to discuss challenges, seek advice, and get help.

*Objective 2: Create recognition and award program for project managers*

PIMD will facilitate the definition of competency and recognition based awards for project managers and consider award execution on a routine basis; e.g., annually.

### **Goal 2: Consider Specific Performance Requirements for Project Managers**

With the development of a mature IT PMO there is the expectation that project management practices and performance will improve. Methods to help solidify these improvements include both certification and continuing education requirements and the consideration for a project management performance element to be contained within the performance plans of those performing that specific role. These types of incentives must be done in the proper way and in the proper time to have the desired effect. Project manager performance improvements will be measured against individual baselines, as described above, to best support growth. The development and implementation of incentives and awards encourage progress in this area. As the efforts of PIMD to implement this plan progress and performance improvements are gauged, ITCD / Code 700 leadership consideration will be given to how and when to address formulating and implementing these requirements.

### **Goal 3: Propose Charge-Back Model for Project Management Services**

Project management needs to be a required and resourced element for the most critical IT projects. A charge-back model will be proposed as a method for obtaining and sustaining project management services for IT projects. While the model is being developed and proposed, methods for extending the ability of project managers to manage multiple projects will be determined and implemented.



## **Mission Area 4: Develop a Performance Measurement Capability for Projects and IT PMO**

*Key Concept: The only way to ensure that project performance is meeting customer expectations and that PIMD is adding value to the organization is to measure progress.*

### **Goal 1: Baseline and Monitor Project Performance and Customer Satisfaction**

#### *Objective 1: Baseline and monitor project performance*

Project performance will be measured by creating performance metrics that allow assessment of project performance. The baseline for this assessment will be gauged by what information is currently available about the project. This information will be used to establish a baseline score for each project. As additional data is available for projects, the criteria for evaluating project performance will mature over time based on a common set of performance metrics, including the comparison of baseline and actual cost and schedule. Performance will initially be baselined and measured for ITCD projects and will be extended over time as additional IT projects are identified in the portfolio.

#### *Objective 2: Implement a customer survey to quantify customer satisfaction*

PIMD will conduct project customer surveys for projects at project close-out to quantify customer satisfaction. A standardized questionnaire was developed to include both multiple choice and textual responses. Multiple choice responses allow for quantification of customer satisfaction. Textual responses allow for feedback in areas not otherwise covered in the questionnaire and the opportunity to provide examples of project performance associated with individual multiple choice questions. The outcome of these surveys will be incorporated into the project performance scorecard ([\*developed in Mission 4, Goal 1, Objective 1\*](#)) and the PMO will hold a survey results session with the project manager to assist them with developing a list of lessons learned actions for future projects.

### **Goal 2: Monitor PMO Performance**

PIMD accomplishments will be measured by how successfully the Business Plan goals and objectives are implemented. As the PMO matures, PMO success will be measured by improvement in project performance. Measurements will be created and tracked based on expected Business Plan delivery and reported on a quarterly basis.



## Implementation Schedule

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The implementation schedule will be aligned with the Business Plan updates and will be rebaselined following ITCD / code 700 leadership approval.



# Organization & Operations

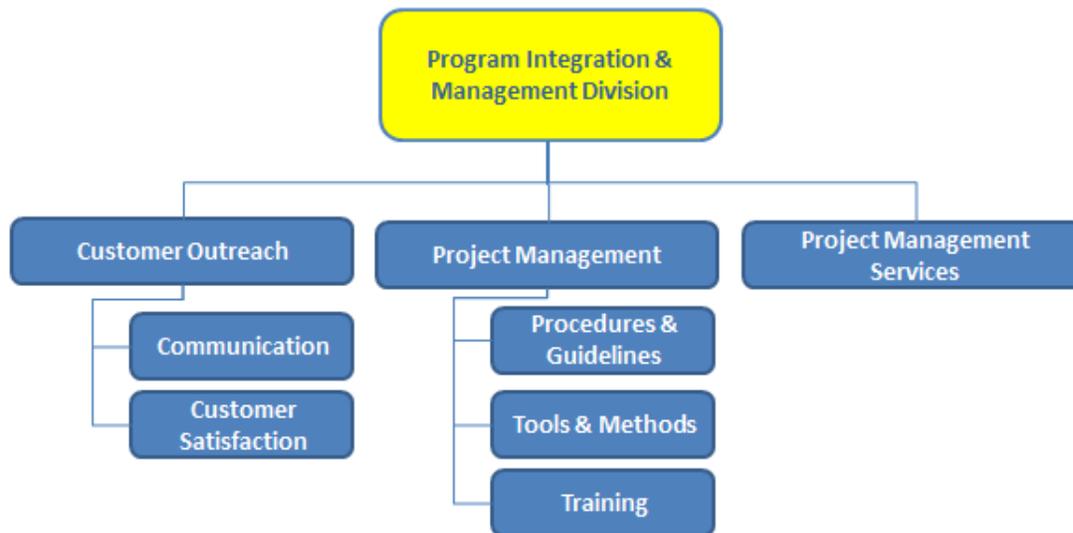
## Organization

The PIMD is organized into two main groups:

- Project managers and project support specialists that manage, consult, and/or assist with projects
- Project management experts defining, implementing and operating the IT PMO activities

Highlighted in *Figure 4: PIMD's Functional Organizational View*, are the major activities performed by the division. Project managers are within the division and matrixed in from other parts of the ITCD organization to manage IT projects.

Figure 4: PIMD Functional Organizational View





## Operations

Formal directives, procedures, and practices are being developed to define PIMD operating requirements, guidelines, and procedures. The current NASA and Goddard Directive systems are reviewed to identify existing documents that can be reused and/or tailored to meet our stakeholders' needs.

PIMD is following project management procedures and practices throughout the implementation of this plan. Any Business Plan activities that qualify as projects will be run accordingly.



## Outreach & Communications

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Communications and outreach are a deliverable for any change effort, allowing the organization to get informed and engaged before, during, and after the change. It is important for stakeholders to receive timely and meaningful information to accept the change. The more stakeholders know about and understand why and how changes are happening the more engaged they will be in the change process, and the more likely they will be to commit to change.

As PIMD works to mature the IT PMO into an organization that is recognized across the Center as a partner and a provider of best practice IT project management, PIMD will engage and work closely with stakeholders across the organization. The PIMD vision, mission, goals and objectives, must be clearly articulated. As part of the communications effort, stakeholders must be engaged to better understand their needs and seek out project management practices and tools that can be incorporated into the solutions that will be implemented.

The PIMD Outreach and Communications Strategy and Plan provides an approach and detailed plan for how PIMD will engage and communicate with stakeholders throughout the implementation of this plan. The Outreach and Communications Strategy and Plan are intended to be living document that will be updated to reflect stakeholder feedback.



## Appendix A: Additional Stakeholders

PIMD’s stakeholders include, but are not limited to, those identified in the body of the document and listed within the following table.

Stakeholder	Role
Goddard Center Director	Direction, Strategy, Budget
All Goddard Center Directorates	Alignment, Partnering
NASA Office of the Chief Information Officer	Direction, Alignment, Budget, Partnering
Goddard Chief Information Officer (CIO)	Direction, Strategy, Budget
Goddard Deputy CIO	Direction, Strategy, Budget
AMES PMO (and other Centers)	Partnering
Chief, Business and Investment Management	Budget, Alignment
Chief, Enterprise Solutions Division	Project Support, Transition to IT Operations
Chief, Communications and Security Service	Project Support, Transition to IT Operations
Chief, Strategy and Planning	Alignment
Enterprise Architecture	Alignment
Security	Compliance
Associate Director of Innovation	Project Support
Goddard IT Managers	Communication, Coordination
Associate Director of IT Service and Service Quality	Project Support, Alignment
Associate Director of IT Operations	Project Support, Transition to IT Operations
IT Governance	Alignment
IT Investment Owners / Responsible Management Officials (RMOs)	Partnering, Alignment
Various Goddard Governance Bodies & Decision Authorities	Partnering, Oversight, Compliance
Goddard Community End Users	Customers / Consumers, Users
Office of Management and Budget (OMB)	Budget, CIO Council, A-11 (CPIC), FISMA, Privacy, Section 508
Government Accountability Office (GAO)	Standards, Guidance
National Institute for Standards & Technology (NIST)	Standards, Guidance
Project Management Institute (PMI)	Standards, Best Practices
Software Engineering Institute (SEI)	Standards, Best Practices



Stakeholder	Role
Federal Acquisition Institute (FAI)	Standards, Best Practices



## Appendix B: Additional References & Resources

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Federal Acquisition Institute, Program and Project Managers (<http://www.fai.gov/certification/management.asp>)

Government Accountability Office Cost Estimating and Assessment Guide, March 2, 2009

(<http://www.gao.gov/products/GAO-09-3SP>)

Goddard Procedural Requirements (GPR) 2800.2, CPIC: Information Technology Investment Management & Reporting Process

National Institute of Standards and Technology (NIST) Information Technology Portal

(<http://www.nist.gov/information-technology-portal.cfm>)

NASA Procedure Requirements (NPR) 2800.1B, Managing Information Technology

NPR 7120.7, NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements

NPR 7120.5, Program and Project Management Processes and Requirements

NPR 7120.8, NASA Research and Technology Program and Project Management Requirements

NPR 7123.1, NASA Systems Engineering Processes and Requirements

NPR 7150.2A, NASA Software Engineering Requirements

Office of Management and Budget, OMB Circular A-11

([http://www.whitehouse.gov/omb/circulars\\_a11\\_current\\_year\\_a11\\_toc/](http://www.whitehouse.gov/omb/circulars_a11_current_year_a11_toc/))

Office of Management and Budget, OMB Circular A-130

([http://www.whitehouse.gov/omb/circulars\\_a130\\_a130trans4](http://www.whitehouse.gov/omb/circulars_a130_a130trans4))

Project Management Institute (PMI), A Guide to the Project Management Body of Knowledge (PMBOK), Fourth Edition

Software Engineering Institute/Carnegie Mellon, Capability Maturity Model – Integrated (CMMI)

(<http://www.sei.cmu.edu/cmmi>)

Strategic Plan for IT at Goddard Space Flight Center, October 2011 (<http://itcd.Goddard.nasa.gov/SAC/>)



## Appendix C: Acronym List

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Acronym	Definition
<b>BIMO</b>	Business Investment & Management Office
<b>CIO</b>	Chief Information Officer
<b>CIOTAC</b>	Chief Information Officer Technical Advisory Committee
<b>CMMI</b>	Capability Maturity Model
<b>CPIC</b>	Capital Planning & Investment Control
<b>EA</b>	Enterprise Architect / Enterprise Architecture (team)
<b>FAI</b>	Federal Acquisition Institute
<b>GAO</b>	Government Accountability Office
<b>Goddard</b>	NASA Goddard Space Flight Center
<b>GPD</b>	Goddard Procedural Directive
<b>GPR</b>	Goddard Procedural Requirement
<b>GSFC</b>	Goddard Space Flight Center
<b>IT</b>	Information Technology
<b>IT PMO</b>	IT Project Management Office
<b>ITCD</b>	Information Technology & Communications Directorate
<b>ITIL</b>	IT Infrastructure Library
<b>ITRB</b>	IT Review Board
<b>NASA</b>	National Aeronautics and Space Administration
<b>NEAT</b>	Network Evolution & Architecture Transformation (Goddard Working Group)
<b>NIST</b>	National Institute of Science & Technology
<b>NPR</b>	NASA Procedural Requirement
<b>OCIO</b>	Office of the CIO
<b>OMB</b>	Office of Management & Budget



Acronym	Definition
<b>PCB</b>	Program Control Board
<b>PIMD</b>	Program Integration & Management Division
<b>PM</b>	Project Management, Project Manager (also: Program Management, Program Manager)
<b>PMBOK</b>	Project Management Book of Knowledge
<b>PMI</b>	Project Management Institute
<b>PMP</b>	Project Management Professional
<b>RMO</b>	Responsible Management Office / Official
<b>SEI</b>	Software Engineering Institute (Carnegie Mellon)
<b>SME</b>	Subject Matter Expert
<b>TBA</b>	To Be Announced
<b>TBD</b>	To Be Determined