

# Major Facility Recipient Core Competencies

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Large Facilities Webinar  
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# Today's Agenda

- History and Drivers
- Approach to Recipient Core Competencies
- Latest Terms & Conditions & 2021 MFG
- Next Steps & Key Take-aways
- Discussion

# History and Drivers

- NAPA Report – December 2015

*6.8 - NSF should require award recipient project managers be certified in project management. NSF should also specify the minimum project management experience thresholds for project positions in the programmatic terms and conditions of the cooperative agreement.*



- Program Management Improvement and Accountability Act (PMIAA) – December 2016
  - Non-Defense Agency Staff (**Federal employees**)
  - Principles for Program & Project Management > Accountability for Federal Funds
  - Focused on 0340 Job Series (Program Manager)
  - Flexible implementation starting with large acquisitions

# PMIAA Program/Project Management Principles (OMB M-18-19)

Area	
Change Management	Performance Management
Communications Planning, Stakeholder Engagement, and Coalition Building	Portfolio Management
Contracting and Acquisition Management	Process Improvement
Customer Service	Project Management
Evaluation	Requirements Development and Management
Financial Management	Risk Management
Human Capital Management	Strategic Planning
Information Management	

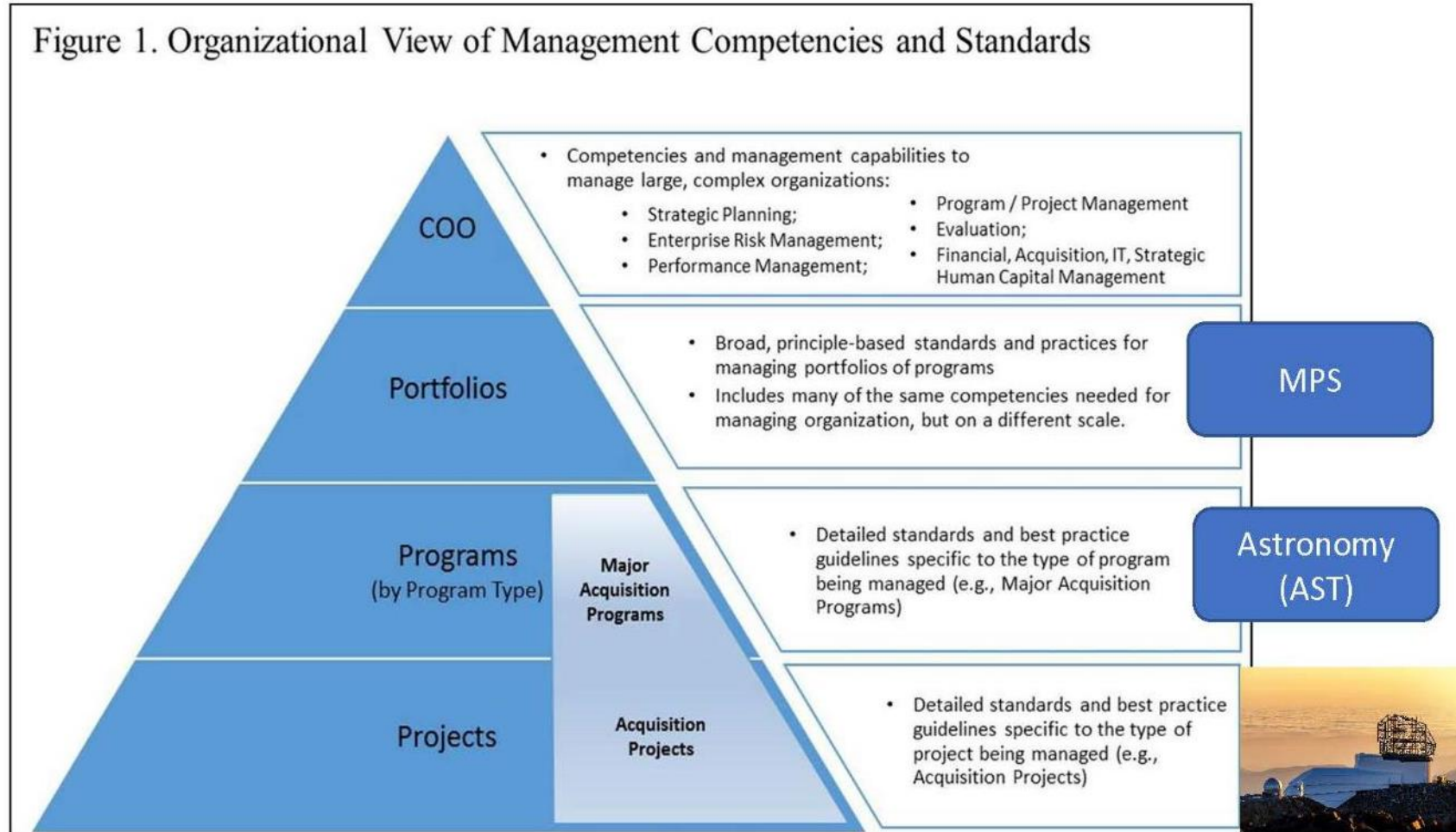
# How did NSF approach PMIAA?

- Construction projects >\$100M Total Project Cost using complex cooperative agreements to be “major acquisitions”:
  - High dollar value
  - High visibility
- No “Federal Project Manager” on site:
  - Recipient does day-to-day project/operations management
  - NSF does oversight through “*substantial government involvement*”
- **Program Manager (Officer) appointed based on scientific background**
- “Core” Integrated Project Team (IPT) approach to meeting the PMIAA competencies as opposed to a single individual





# NSF Portfolios, Program and Project Example



# History and Drivers

- GAO-19-227 Recommendations:

*The Director of NSF should assess the **agency's large facilities oversight workforce** to identify any project management competency gaps, develop a plan to address them and time frames for doing so, and monitor progress in closing them.*

*The Director of NSF should establish criteria for the **project management expertise of large facilities project recipients** and incorporate the **criteria in project requirements and external panel reviews**.*

- Community Discussion & Input:

- Large Facilities Workshop Sessions in 2018 and 2019
- Individual input on MFG draft from community volunteers



# 2020 Major Facility/FFRDC Supplemental Terms & Conditions

## *78. Project Personnel and Competencies*

*NSF major facilities requires skilled people that collectively possess a broad range of professional competencies. The minimum set of competencies NSF considers essential for managing its major facilities are detailed in NSF's Major Facilities Guide, section 4.6.*





# 2021 Major Facilities Guide

## Section 4.6.6 – *Project Personnel & Competencies*

- Under Section 4.6 – *Requirements for NSF Performance Oversight, Reviews, Audits and Reporting*
- Similar philosophy to NSF staff:
  - *As a group*, some combination of individuals identified as either **Key Personnel** or **Project Team** members is responsible for possessing the suite of competencies listed in Section 4.6.6.3 and the full breadth of necessary knowledge, skills, and experience.
- Required competencies vary by life cycle stage
- Evaluated during review (CDR-PDR-FDR, Annual Construction or O&M) **upon request by NSF** in accordance with the panel charge



# 2021 Major Facilities Guide

## Section 4.6.6 – *Project Personnel & Competencies*

- Key Personnel:
  - Principal Investigator & Project Director (**minimum for all NSF awards**, may be same individual)
  - Project Manager (Construction) or Operations Manager (O&M) – **Essential!**
  - Others may be proposed by managing organization
  - Competencies held by Key Personnel identified and maintained over time
  - Subject to NSF review and approval
- Project Team:
  - Individuals (i.e. EVMS consultant)
  - Organizational units (i.e. Sponsored Research Office)
  - No NSF approval, notification of any “significant” changes



# Competency Requirements by Life Cycle Stage

**Table 4.6.6.3-2 Competency Resource Assignment Requirements**

Competency	Assigned Resource per Life cycle Stage				
	Development	Design	Construction	Operations	Divestment
Project Management	Optional	KP	KP	Optional	Optional
Program Management	Optional	Optional	Optional	KP	Optional
Earned Value Management	Optional	Optional	KP or PT	Optional	Optional
Risk Management	Optional	Optional	KP or PT	KP or PT	Optional
Cost Estimating	Optional	KP or PT	KP or PT	KP or PT	Optional
Business Process Reengineering	Optional	Optional	Optional	KP or PT	Optional
Compliance	KP or PT	KP or PT	KP or PT	KP or PT	KP or PT
Contracting and Acquisition	Optional	KP or PT	KP or PT	KP or PT	Optional
Financial Management	Optional	KP or PT	KP or PT	KP or PT	Optional
Data Management	Optional	Optional	KP or PT	KP or PT	Optional
Information Technology	Optional	KP or PT	KP or PT	KP or PT	Optional
Workforce Management	Optional	Optional	KP or PT	KP or PT	Optional
Stakeholder Management	Optional	KP or PT	KP or PT	KP or PT	Optional

*Resources indicated as Key Personnel (KP) or Project Team (PT)*



# Competency Descriptions

Table 4.6.6.3-3 Competency Descriptions

Competency	Description
Project Management	<ul style="list-style-type: none"><li>• Demonstrates general and specialized knowledge of the principles, methods, and tools for project management, with “project” defined as a temporary endeavor with a defined scope, cost, and completion date. A project may be part of a larger program or portfolio.</li><li>• Demonstrates knowledge of the strategies, techniques, and processes used to plan, monitor, and control project scope; includes collecting requirements, defining scope, creating a work breakdown structure, validating scope, and controlling scope to ensure project deliverables meet requirements.</li><li>• Demonstrates knowledge of the strategies, techniques, and processes used to plan, develop, and control project schedules and track project milestones, activities, and deliverables, including timeframes and assigned resources.</li><li>• Demonstrates knowledge of the principles and methods to identify, solicit, analyze, specify, design, and manage requirements, and able to systematically assess how well a project is working to achieve intended outcomes.</li><li>• Skilled in the use of project management controls to analyze project budget and schedule information and to generate reports with the</li></ul>



# Next Steps and Key Take-aways

- 2021 Major Facilities Guide posted in Federal Register – **Please comment!**

<https://www.federalregister.gov/documents/2021/02/02/2021-02140/agency-information-collection-activities-comment-request-national-science-foundation-major>

[https://www.nsf.gov/bfa/lfo/docs/Major\\_Facilities\\_Guide\\_Draft\\_For\\_Public\\_Comment\\_December\\_2020.pdf](https://www.nsf.gov/bfa/lfo/docs/Major_Facilities_Guide_Draft_For_Public_Comment_December_2020.pdf)

- Major Facilities Recipients **should be prepared** to document how their Key Personnel and Support Teams meet the required competencies as part of future reviews



**Thanks!**

**Questions, comments or concerns?**

