



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
**National Institutes of Health**  
**Office of the NIH CIO**

# **Operational Analysis – What Does It Mean To The Project Manager?**

**NIH Project Management Community of Excellence**

» **December 14, 2011**



# Today's Objectives

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- » **Establish a mutual understand of Operational Analysis**
  - What it is
  - What it isn't
  - Why we do it
  
- » **Understand how to leverage the NIH Operational Analysis Management Framework (NIH OAMF)**
  
- » **Understand the relationship between Project Management and Operational Analysis**

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## OPERATIONAL ANALYSIS

# WHY DO IT?

# Operational Analysis

## Measuring Performance . . . An Open Discussion

### » How do you measure performance?



Financial Investment?



A Project?



### » Why Measure Performance?

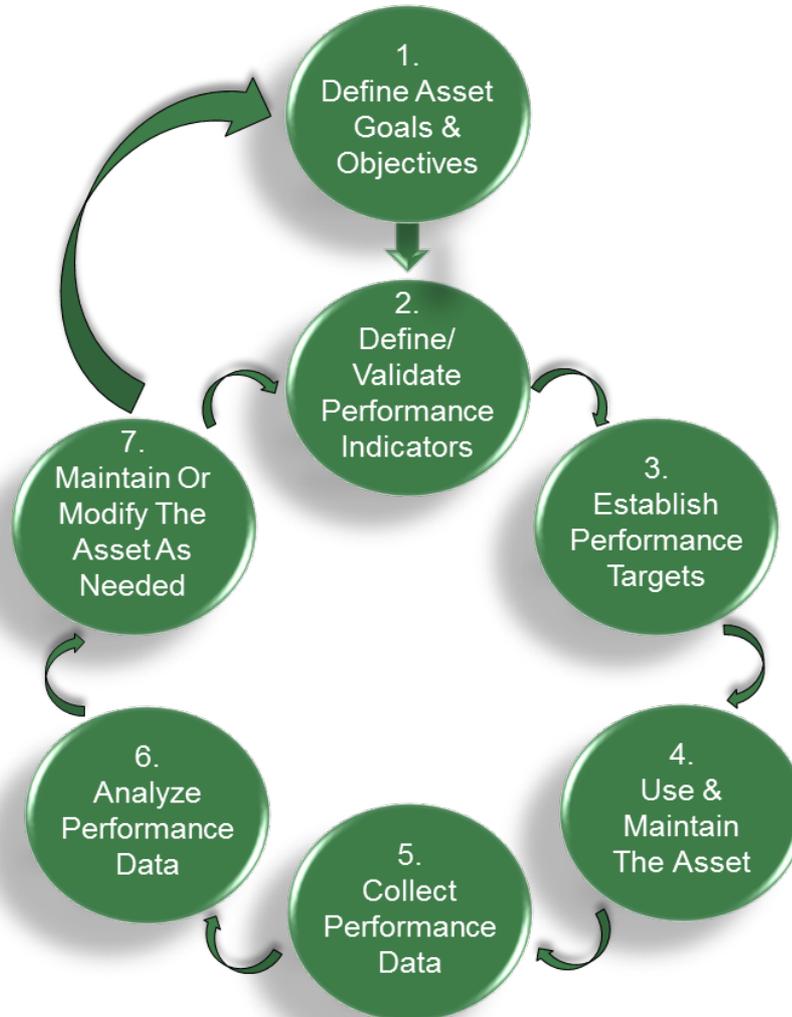
### » Performance Measurement Vs. Performance Management

- Measurement – knowing what you got, *based on facts . . . “it is what it is”*
- Management – acting upon what you got . . . “should I do anything differently”?

# Operational Analysis

## What is it?

- » A Performance Management discipline for measuring, monitoring, and responding to the ongoing performance of an operational asset.



# Operational Analysis

## Why Do It?

- » The primary objective of performing an OA is to determine if an investment is still delivering value, and if the cost to maintain it is appropriate
  - Are we realizing the benefits we expected to achieve? . . . *this is why we funded it!*
  - Does the investment still meet our needs? . . . *is it doing what it's supposed to do?*
  - Is it performing at required operational performance levels?
  - Is risk under control?
  - Are we spending more than we should? Is it time to retire and/or replace?
  
- » This is achieved through actual, objective performance data to inform ***both*** ongoing life cycle investment management ***and*** operations management decisions.
  - Determine what changes, ***if any***, are needed in order to keep the asset aligned with organization or program priorities and needs.
    - Stay the course?
    - Course correct?
    - Develop a retirement/replacement strategy and plan?
    - Address other non-IT related programmatic issues?

# Operational Analysis

## Why Do It? (Cont'd)

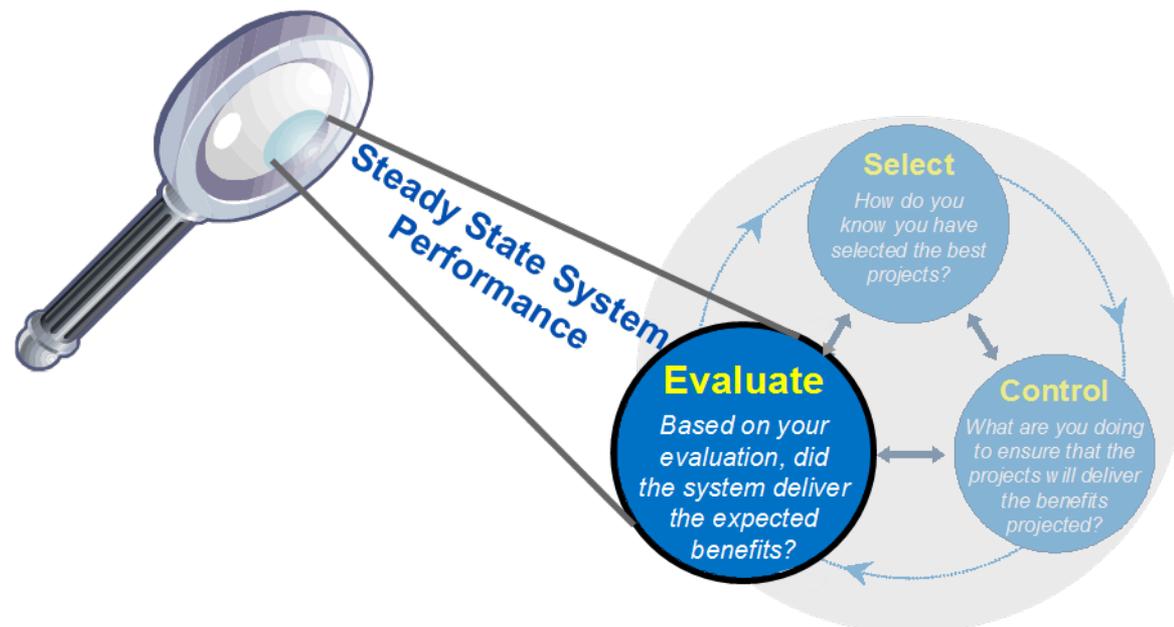
### » There are collateral benefits as well:

- Asset owners are able to communicate system performance in terms of value as opposed to only cost
- Presents the information needed to determine where management attention is needed most
- As it pertains to federal IT management, it keeps agencies compliant with OMB, Department (HHS), and other agency IT management requirements (e.g., EPLC, and CPIC)

#### ➤ OMB defines OA as:

A method of examining the ongoing performance of an operating asset investment and measuring that performance against an established set of cost, schedule, and performance goals.

- OMB, *Capital Programming Guide, V2.0, Supplement to OMB Circular A-11, Part 7: Planning, Budgeting, and Acquisition of Capital Assets*, p. 54.



# Operational Analysis

## Why Do It? (Cont'd)

- » In terms of IT Management, Operational Analysis promotes a **balanced IT investment portfolio** and **system performance** levels in line with user requirements and/or SLAs.



### IT Portfolio & Investment Managers (Business Owners and Executive Resource Managers)

- » Ongoing alignment to business priorities and needs (is the operation it enables still a priority?)
- » Value it returns to business operations (effectiveness and efficiency)
- » User satisfaction
- » Cost
- » Still the best solution?

### Operations Managers

- » User satisfaction
- » Operational performance (required functionality)
- » Technical operations performance (uptime, problem resolution, etc.)
- » Maintainability
- » Cost

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## The NIH Operational Analysis Management Framework

# NIH OAMF



# The NIH OAMF

## Overview

- » In an effort to promote OA process effectiveness and efficiency the NIH OCIO introduced a management framework, the *NIH Operational Analysis Management Framework (NIH OAMF)*.
  - Ensure project teams provide IT investment and operations managers with the information they need to make the most informed management decisions
  - Ensure performance reporting consistency across NIH IT investments
  - Promote process efficiency
  - Promote a “collect once – respond to many” philosophy (i.e., multiple data calls)
  
- » The NIH OAMF’s three components achieve these objectives.
  - 1) **PERFORMANCE** – defines what information to report . . . *What metrics?*
  - 2) **PROCESS** – provides OA execution guidance . . . *How to perform?*
  - 3) **TOOLS** – provide OA execution facilitation . . . *How to promote consistency, efficiency and effectiveness?*

# The NIH OAMF

## Performance Component

### » 5 Dimensions of Performance

DIMENSION	PURPOSE	OMB A-11 ALIGNMENT	EXHIBIT 300 ALIGNMENT
Stakeholder Satisfaction	Measures <u>user perceptions</u> of how well the system delivers the products or services it was designed to deliver. Examples include how satisfied users are with the system's availability, responsiveness, capabilities, and usefulness; or system administrators' level of satisfaction with the system's maintainability.	Customer Satisfaction	<ul style="list-style-type: none"> <li>• Customer Results</li> <li>• Processes &amp; Activities</li> <li>• Technology</li> </ul>
Strategic and Business Results	Measures the impact the system has on the NIH itself, and how well it contributes to achieving NIH's strategic objectives. Examples include alignment with mission priorities and workload volume.	Strategic & Business Results	<ul style="list-style-type: none"> <li>• All Four Measurement Areas</li> </ul>
Technical Operations Performance	Measures the performance of aspects of the IT system's technical operations. Examples include availability, responsiveness, and problem management.	N/A	<ul style="list-style-type: none"> <li>• Technology</li> </ul>
Financial Performance	Compares current financial performance with a pre-established cost baseline and other economic indicators, and reviews the system for cost reasonableness and efficiency. Financial performance is expressed in terms of planned expenditures, actual expenditures, and various comparative ratios.	Financial Performance	<ul style="list-style-type: none"> <li>• Processes &amp; Activities</li> <li>• Technology</li> </ul>
Investment Health	Provides an overall objective qualitative assessment of the system's ongoing value and stability in terms of its strategic and operational fit, technical sustainability, scalability, and risk. This assessment is informed by the results of the first four dimensions and considers past performance, innovation activities, and environmental and market data.	Innovation	<ul style="list-style-type: none"> <li>• Mission &amp; Business Results</li> <li>• Processes &amp; Activities</li> <li>• Technology</li> </ul>

# The NIH OAMF

## Performance Component (Cont'd)

» Each Performance Dimension is further broken down to Measurement Areas as follows

### » Stake Holder

- » *User Satisfaction.* User satisfaction with functionality, availability, responsiveness, etc.
- » *Tech Staff Satisfaction.* Administrators' satisfaction with system maintainability.

### » Strategic & Business Results

- » *Strategic.* Alignment with NIH strategic priorities, goals, and objectives.
- » *Workload.* Amount of "NIH work" enabled and associated business outcomes.

### » Technical Operations Performance

- » *Incident Management.* Responsiveness in addressing incidents and restoring normal service.
- » *Problem Management.* Responsiveness in eliminating root causes of reported incidents.
- » *Service Level Management.* System's adherence to established performance targets.
- » *Availability Management.* System uptime & availability.

### » Financial Performance

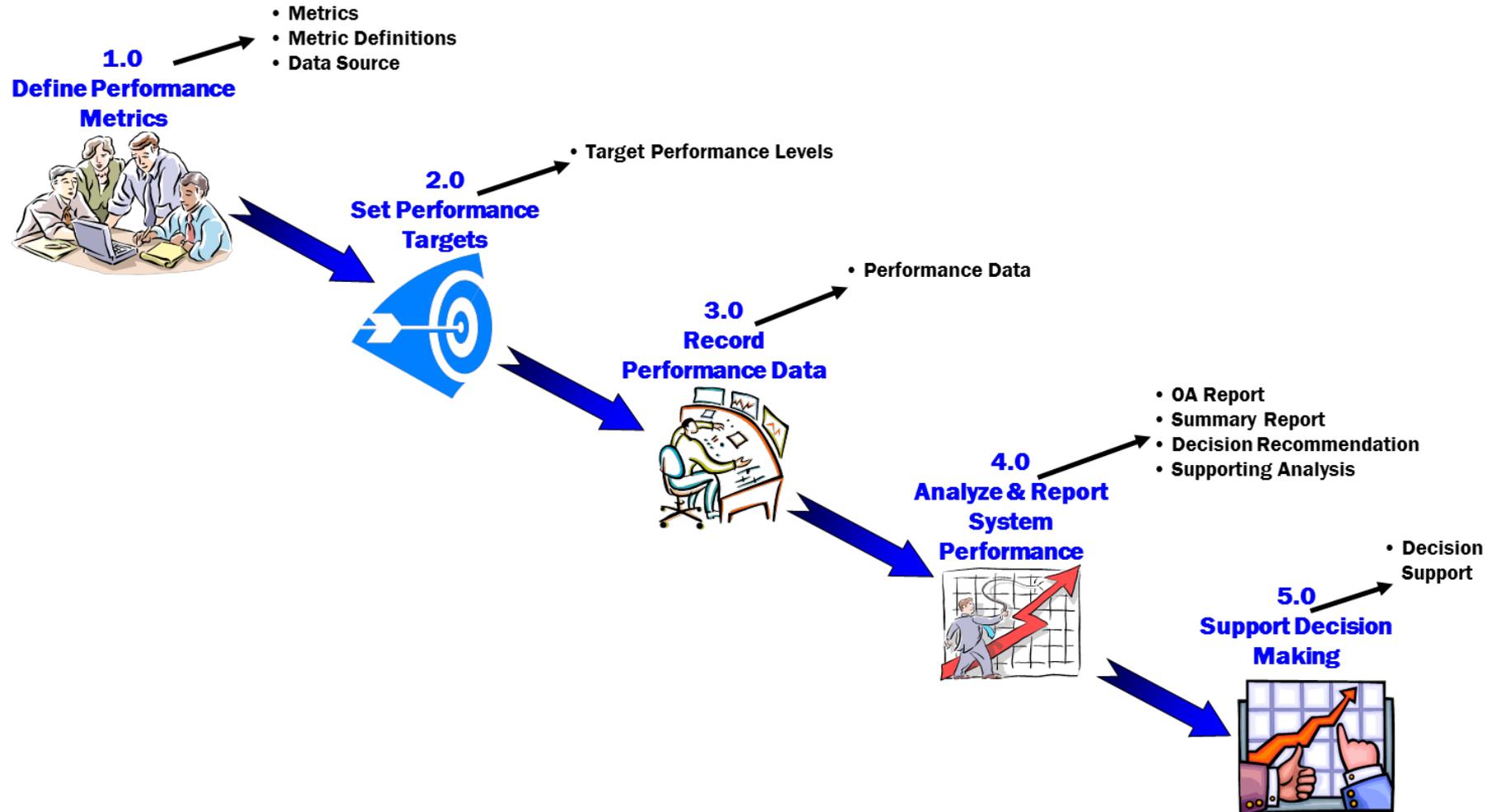
- » *Quantitative.* Absolute funding levels associated with maintaining system operations.
- » *Comparative.* Ratios that illustrate relationships between Quantitative metrics.

### » Investment Health

- » Overall system stability in terms of strategic alignment, operational fit, risk, and technical stability.

# The NIH OAMF

## Process Component Overview



# The NIH OAMF

## Tools

» Various tools are available to promote OA process efficiency and effectiveness and reporting consistency.

<b>Template/Checklist</b>	<b>Sub-Process Enabled</b>
<b>Metric Definition Template</b>	<b>1.0 Define Performance Metrics 2.0 Set Performance Targets</b>
<b>Satisfaction Survey Checklists</b>	<b>3.0 Record Performance Data</b>
<b>Investment Health Assessment Checklist</b>	<b>4.0 Analyze &amp; Report System Performance</b>
<b>Operational Analysis Report Template</b>	<b>4.0 Analyze &amp; Report System Performance</b>
<b>Operational Analysis Summary Report Template</b>	<b>4.0 Analyze &amp; Report System Performance</b>
<b>Operational Analysis Performance Results Package Checklist</b>	<b>5.0 Support Decision Making</b>

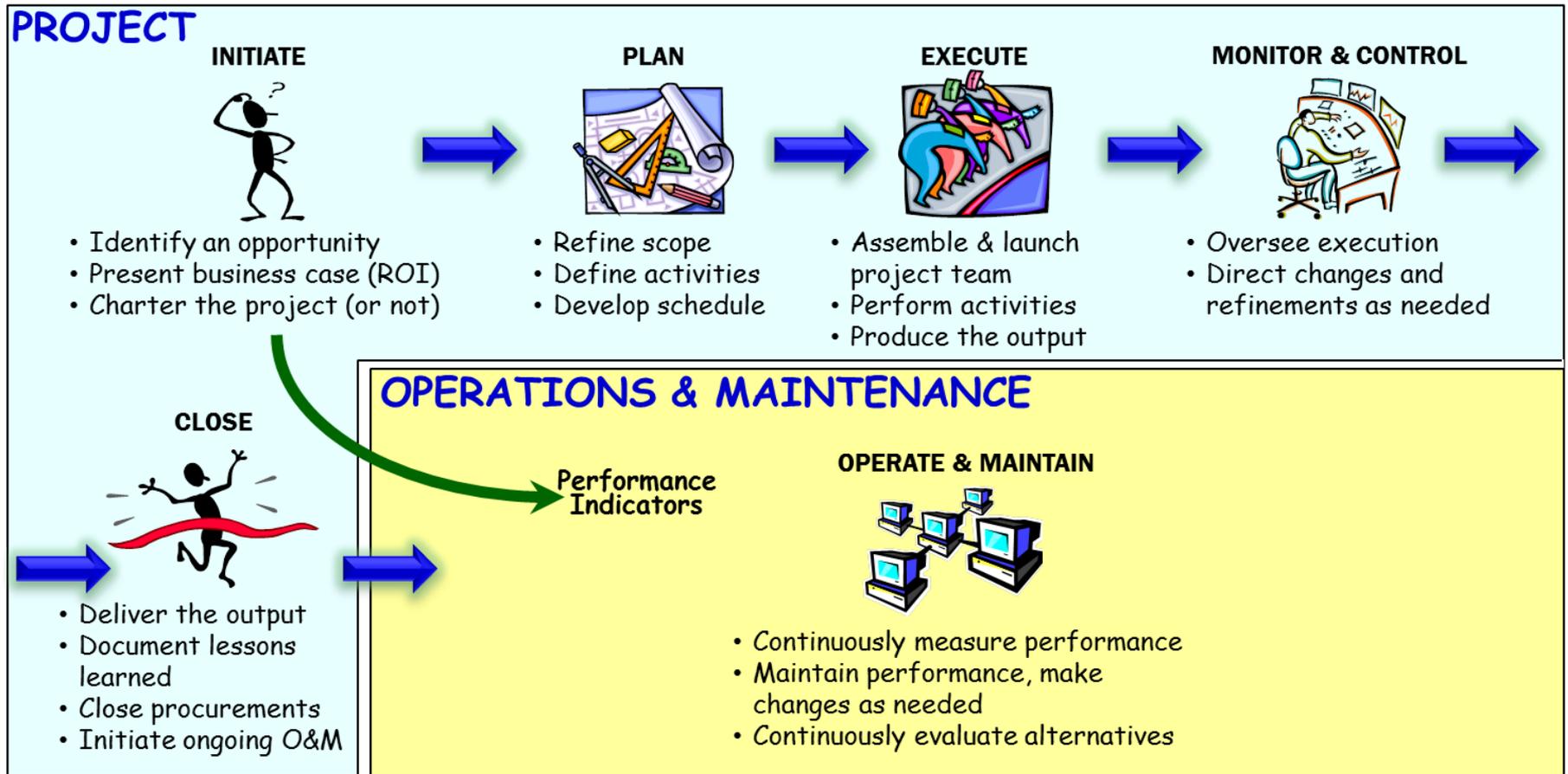
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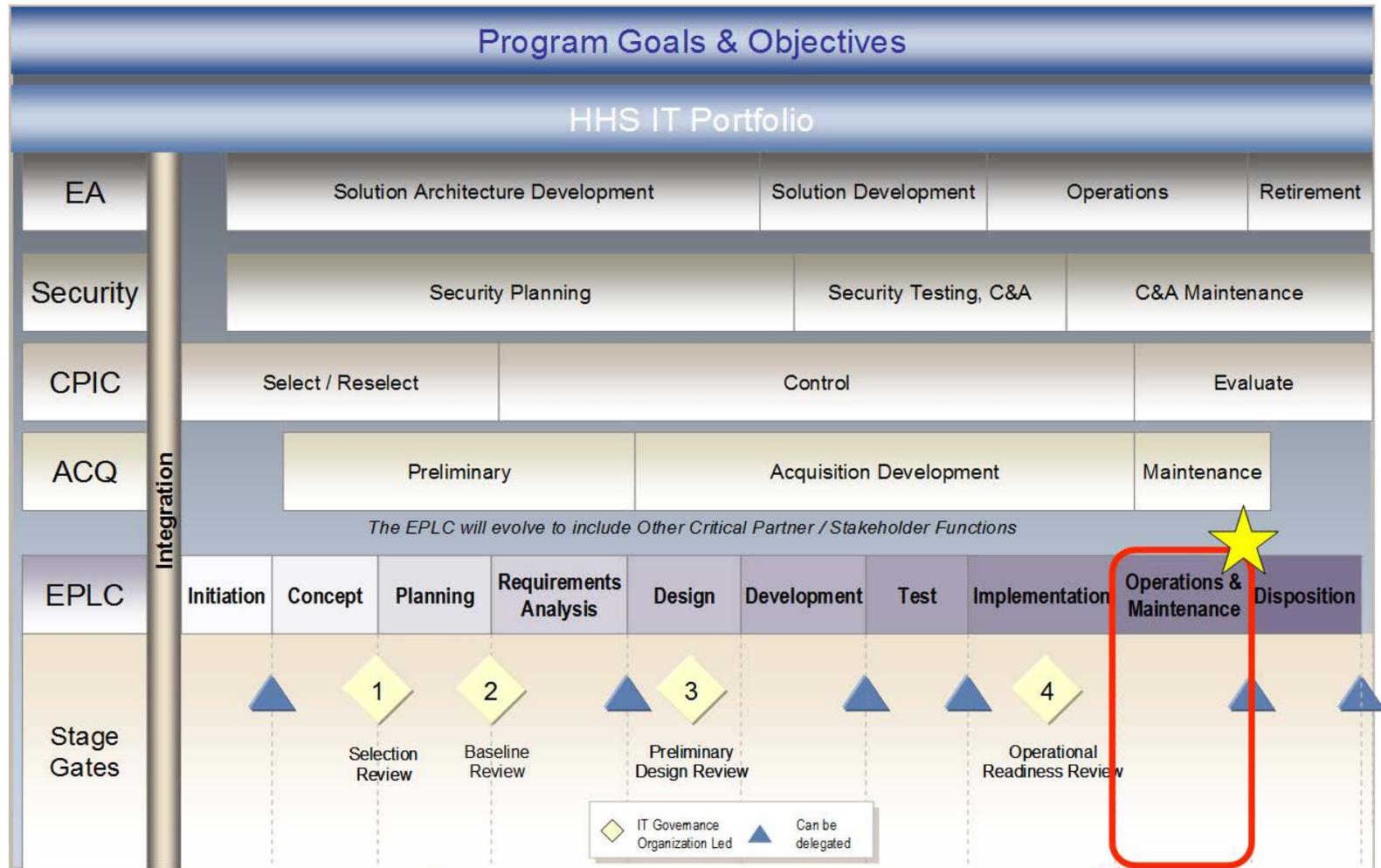
## Project Management & Operational Analysis

# WHERE'S THE LINK?

# OA . . . It Begins With The Project



# OA . . . It Begins With The Project (Cont'd)



Target performance levels

# Successful OA

## **Key Roles & Responsibilities**

### » Project Manager

- Coordinate resources needed to collect performance data and report performance results
- Provide information that Business Owners and other investment management bodies need to make informed investment management decisions
- Provide information that Operations Managers need to maintain ongoing performance at required performance levels

### » Business Owners\*

- Review, provide feedback to, and approve metrics and performance targets
- Review OA results and determine if any changes to the investment are needed (in coordination with other investment governance entities as applicable)
- Refine information requirements on an ongoing basis

\* This includes other governance entities as applicable.



# Open Discussion

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# Key Information

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## » [NIH Operational Analysis Framework](#)

### » E-mail

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