



# Building Excellence in Project Execution Integrated Project Management

James "Jamie" Schlosser  
Space and Naval Warfare Systems Center Pacific

▼ Reduced Defense Budgets, Alignment of Better Buying Power at the Program level drives projects that support those programs to become more effective and efficient.



### Better Buying Power 3.0

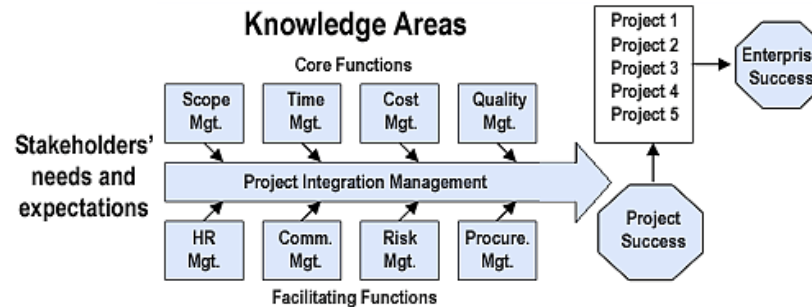
Achieving Dominant Capabilities through Technical Excellence and Innovation

- Achieve Affordable Programs**
  - Continue to set and enforce affordability caps
- Achieve Dominant Capabilities While Controlling Lifecycle Costs**
  - Strengthen and expand "should cost" based cost management
  - Anticipate and plan for responsive and emerging threats by building stronger partnerships of acquisition, requirements and intelligence communities
  - Institutionalize stronger DoD level Long Range R&D Program Plans
  - Strengthen cybersecurity throughout the product lifecycle
- Incentivize Productivity in Industry and Government**
  - Align profitability more tightly with Department goals
  - Employ appropriate contract types, but increase the use of incentive type contracts
  - Expand the superior supplier incentive program
  - Ensure effective use of Performance-Based Logistics
  - Remove barriers to commercial technology utilization
  - Improve the return on investment in DoD laboratories
  - Increase the productivity of corporate R&D
- Incentivize Innovation in Industry and Government**
  - Increase the use of prototyping and experimentation
  - Emphasize technology insertion and refresh in program planning
  - Use Modular Open Systems Architecture to stimulate innovation
  - Increase the return on and access to small business research and development
  - Provide draft technical requirements to industry early and involve industry in funded concept definition
  - Provide clear and objective "best value" definitions to industry
- Eliminate Unproductive Processes and Bureaucracy**
  - Emphasize acquisition chain of command responsibility, authority and accountability
  - Reduce cycle times while ensuring sound investments
  - Streamline documentation requirements and staff reviews
  - Remove unproductive requirements imposed on industry
- Promote Effective Competition**
  - Create and maintain competitive environments
  - Improve DoD outreach for technology and products from global markets
  - Increase small business participation, including more effective use of market research
- Improve Tradecraft in Acquisition of Services**
  - Strengthen contract management outside the normal acquisition chain – installations, etc.
  - Improve requirements definition for services
  - Improve the effectiveness and productivity of contracted engineering and technical services
- Improve the Professionalism of the Total Acquisition Workforce**
  - Establish higher standards for key leadership positions
  - Establish stronger professional qualification requirements for all acquisition specialties
  - Strengthen organic engineering capabilities
  - Ensure development program leadership is technically qualified to manage R&D activities
  - Improve our leaders' ability to understand and mitigate technical risk
  - Increase DoD support for STEM education

**Continue Strengthening Our Culture of:  
Cost Consciousness, Professionalism, and Technical Excellence**

Attachment 1

▼ Integrated Project Management provides better insight into project execution across the lifecycle.



# Project / Integrated Project Management Defined

## ▼ The Typical Project

**PMI Definition - a temporary endeavor undertaken to create a unique product, service or result**

## ▼ What about this "Integrated Project Management"

### PMI Defined

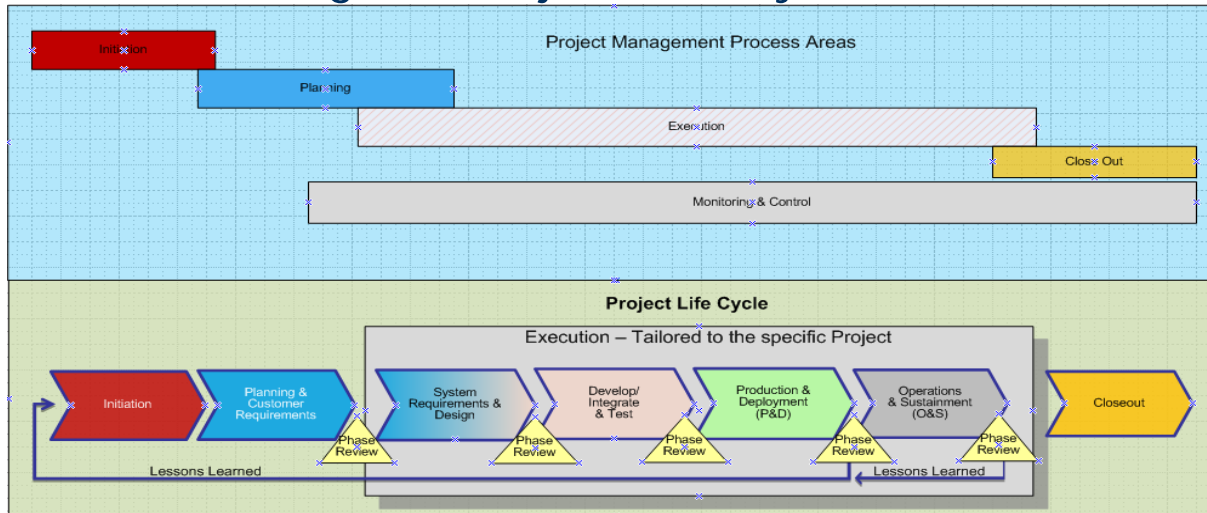
"Project Integration Management includes the processes and activities needed to **identify, define, combine, unify, and coordinate** the various processes and activities with the project management process groups. In the project management context, integration includes characteristics of **unification, consolidation, communication** and integrative actions that are crucial to **controlled project execution through completion**, successfully managing stakeholder expectations and meeting requirements

### Capability Maturity Mode Integration (CMMI) Defined

The **integrated process** for the project management which is tailored from the organization's standard process of project management"

# Project Life Cycle

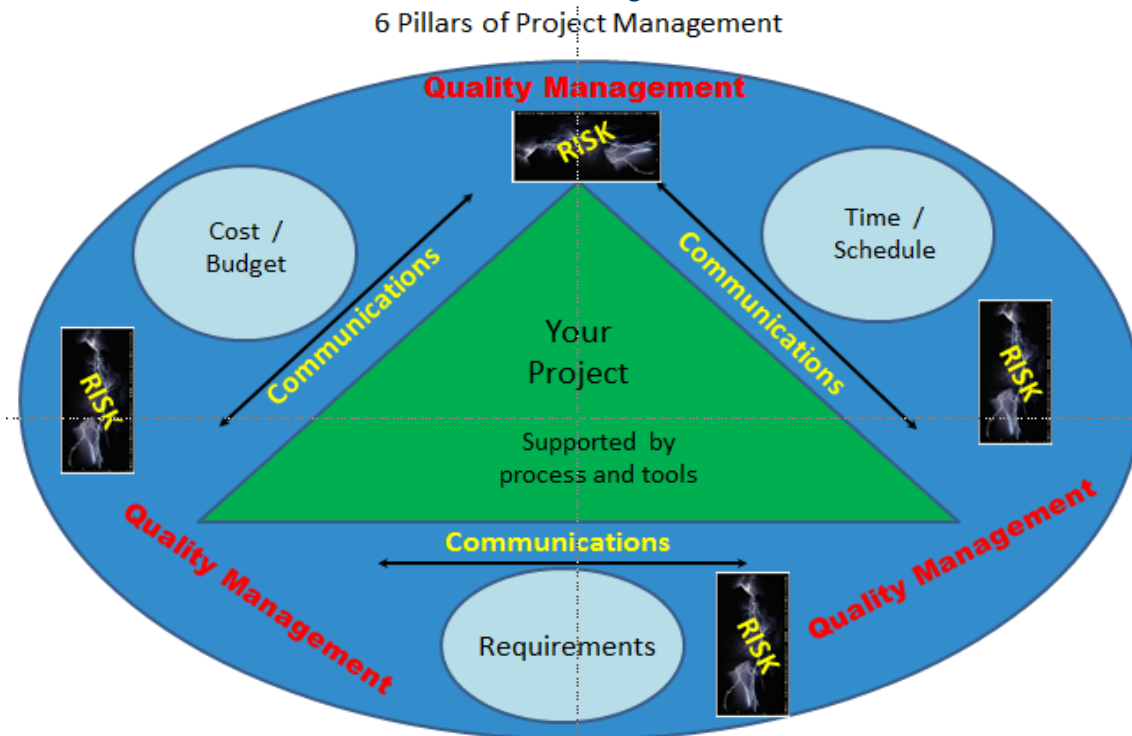
## ▼ Understanding the Project Life Cycle and Process Flow



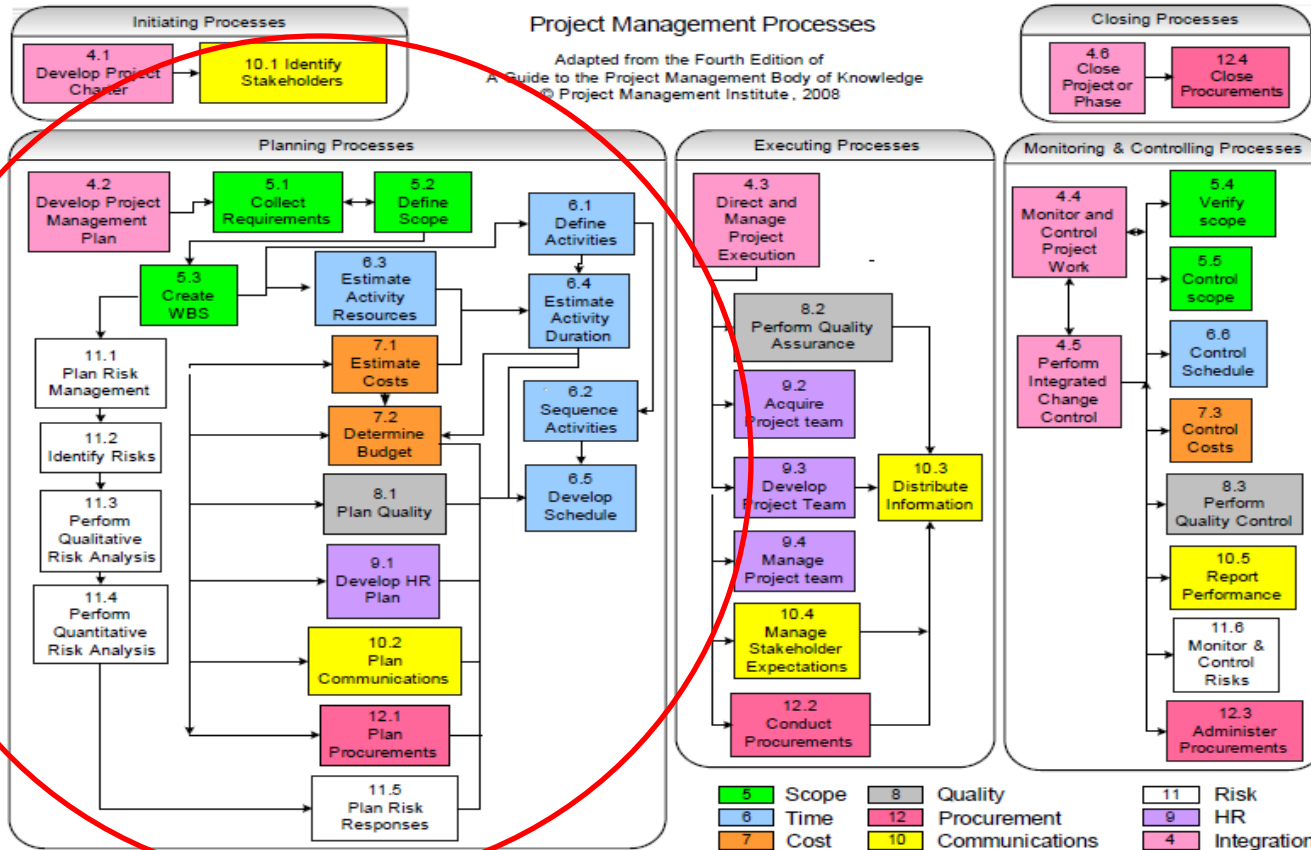
- ▼ Tailoring the Execution Phase
- ▼ Processes are intertwined and cyclical
- ▼ What about the project manager that “just wants to get the job done”

# Integrated Project Management

- ▼ Cost / Schedule / Technical Performance = Core Pillars
- ▼ Quality Management / Risk / Communications = Support Pillars
- ▼ Planning Criticality
- ▼ Implementation Across the Life Cycle



# Integrated Project Management



# Determining SCOPE – Core Pillars

## ▼ Requirements Foundation

- Requirements Document
    - Clarity (needs, wants, outcomes)
    - Unknown Requirements
- Derived Requirements

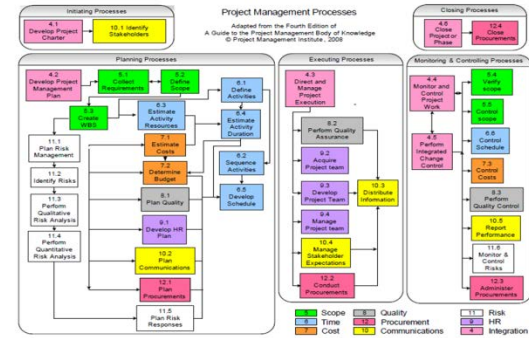
Derived requirements are definitized through requirements analysis as part of the overall systems engineering process (SEP) and are part of the allocated baseline” DAU Glossary Terms

- Breaking Down Requirements – Create the WBS
  - Getting the sequence right
  - Depth of Sequencing
  - Level of skills required for each work package

WBS Defined - a hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables

**Scope = Performance Level (Requirements) + Budget Constraints (Cost) + Time**

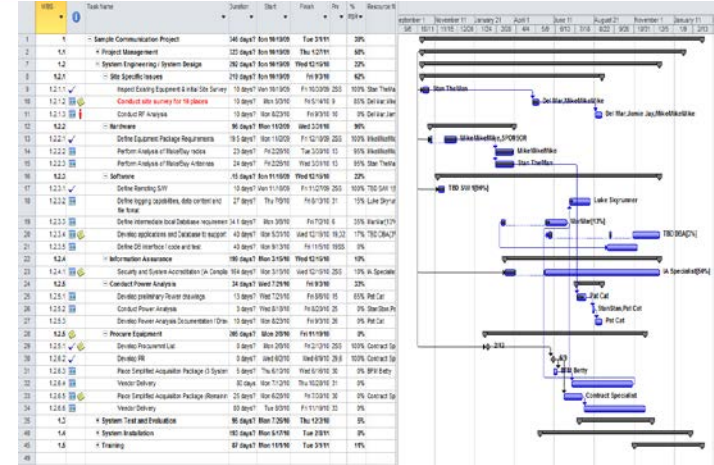
**Work Package = a detailed short-span job or material item, identified for accomplishing work required**





# Determining Scope – Core Pillars

- ▼ From Sequence to Schedule
  - Only the beginning
    - Size / Complexity Matters
    - Make / Buy
    - Level of Effort Activities
  - Risk factors
  - Quality as a factor
  - Traceability to Requirements (testing)
- ▼ Resourcing
- ▼ Cost



**Critical Path = the sequence of activities that represents the longest path through a project, which determines the shortest possible project duration**



# Supporting Pillars – Risk Management

## ▼ Why worry about Risk?

- Early and Often saves \$\$\$\$'s
- Risk can be a benefit (opportunity)

## ▼ All hands evolution

- Regular and often reviews – Build into Schedule
- If/Then statements
- Preparation for issues / Contingencies

## ▼ Risk Comes with a Cost

- Risk Analysis
- Qualitative (*High/Med/Low*) vs Quantitative (*probability & regression*)



**Risk Management= Early risk analysis has an impact to the core pillars of the project; cost, schedule, and performance.**

# Supporting Pillars – Quality Management

## ▼ What is Quality Management

- Quality Planning – Plan of How
- Quality Assurance – Execution Processes
- Quality Control – Measuring progress via Metrics
- Independent Verification/Validation – Look from outside

## ▼ Meeting the Requirements – more than just testing

- Plan, Requirements Matrix, coordination, Documentation, reviews

## ▼ Build into the Schedule



**Quality = the degree to which a set of inherent characteristics fulfills requirements**

# Supporting Pillars – Communication

- ▼ Grounding Element of a Program/Project
- ▼ Stakeholder engagement / Expectation Management
- ▼ Must be planned (Who, What, Where, Why, How)
  - Appropriate Level @ Appropriate Time
- ▼ Changes with lifecycle advances

| WBS Element        | Project Team Members |          |          |          |          | Other Stakeholders |          |          |
|--------------------|----------------------|----------|----------|----------|----------|--------------------|----------|----------|
|                    | I.B.You              | M. Jones | R. Smith | H. Baker | F. Drake | Sponsor            | Clnt Mgt | Func Mgt |
| I.0.1.1 Activity A | N                    |          |          |          | R        |                    |          |          |
| I.0.1.2 Activity B |                      | R        | C        |          |          |                    |          |          |
| I.0.1.3 Activity C | R                    |          | S        |          |          | A                  |          | G        |
| I.0.2 Activity D   |                      |          | R        |          | S        |                    |          | A        |
| I.0.3.1 Activity E |                      |          | R        |          |          | N                  |          |          |
| I.0.3.2 Activity F |                      |          |          | R        |          |                    |          |          |
| I.0.3.3 Activity G | R                    |          |          | S        |          | A                  | A        |          |
| I.0.4 Activity H   |                      | R        |          |          | C        | N                  |          |          |

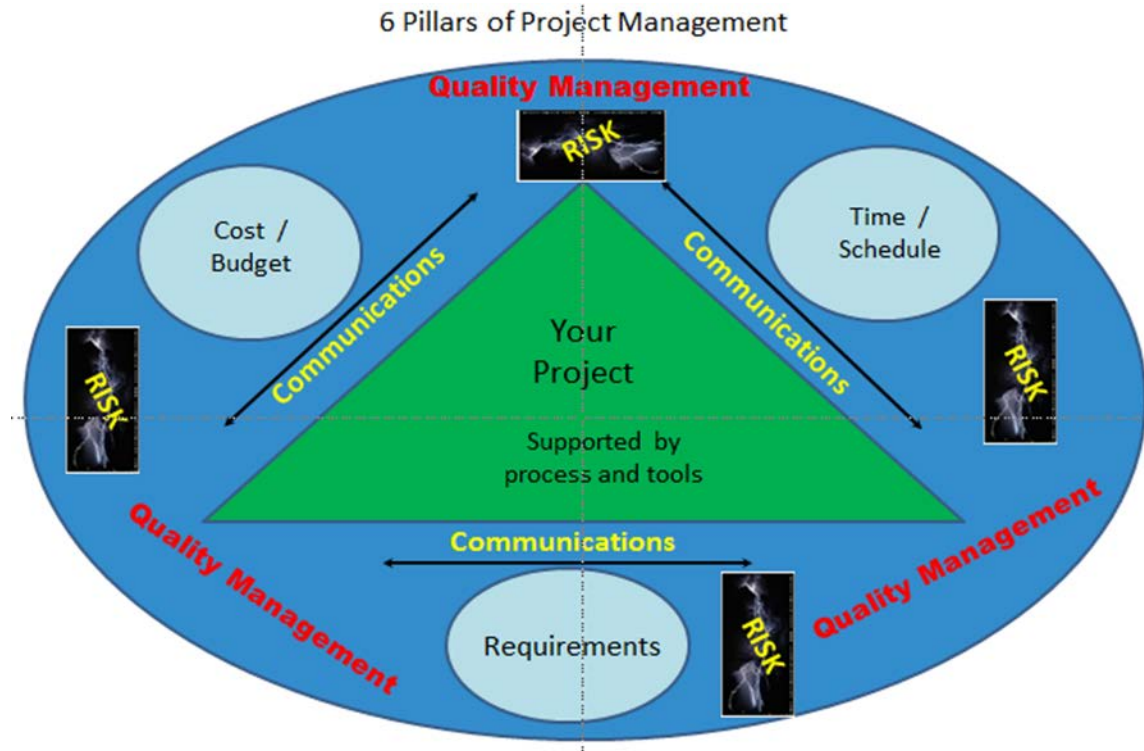
**Key:** R = Responsible, S = Support Required, C = Must Be Consulted, N = Must Be Notified, A = Approval Required, G = Gate Reviewer

# Execute the Project

- ▼ Planning laid out the Project Roadmap
  - Schedule / Critical Path are known
- ▼ Comprehensive Requirements Understanding
  - Assemble the team – right people to right work, right time
  - What processes executed IAW Plan
- ▼ Continuous Risk Management
- ▼ Quality Control is active
  - Early defect detection
  - Requirements verification/validation
- ▼ Monitoring and Control
- ▼ Project Close out

# Six Pillars of Project Management

## ▼ It all Starts with the Plan



- ▼ Plan guides the Project Lifecycle activities
- ▼ Supports Better Buying Power through efficient & effective execution