

# Project Management Lecture 4



# Project Integration Management

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## Project Management Process and Knowledge Area Mapping

Knowledge	Project Management Process				
Areas	Initiating	Planning	Executing	Monitoring & Control	Closing
4. Integration	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase

#### Project Integration Management

□ Project Integration Management includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process.

#### Project Integration Management



## Project Management Process and Knowledge Area Mapping

Process	Knowledge Areas
Initiating	4.1 Develop Project Charter
Planning	4.2 Develop Project Management Plan
Executing	4.3 Direct and Manage Project Work
Monitoring & Control	4.4 Monitor and Control Project Work
Monitoring & Control	4.5 Perform Integrated Change Control
Closing	4.6 Close Project or Phase

## Project Management Process and Knowledge Area Mapping

Process	Knowledge Areas
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Develop Project Charter is the process of developing a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities.

Dr Mohamed Loey

- ✓ Project Name
- ✓ Project purpose
- ✓ Summary budget
- ✓ Cost
- ✓ Project Duration
- ✓ Project Manager/ Authorities
- ✓ High level Risk
- ✓ Stakeholders
- ✓ Project success criteria
- ✓ Assumptions and constraints

Project Charter / Business Case			
Name	Function	Date	Signature
	Project Manager		
	Proposed End Date		
Frequency	Who		
	Project Team + PM		
		***	
	Sponsor, Steering Comm	ittee	
	Name	Frequency Who Steering Co. + PM Project Team + PM Sponsor, Steering Comm.	Name Function Date Project Manager Project Sponsor  Proposed End Date  Proposed End Date  Proposed End Date  Frequency Who  Steering Co. + PM

☐ The key benefit of this process is a well-defied project start and project boundaries, creation of a formal record of the project, and a direct way for senior management to formally accept and commit to the project.

- Business case
- Project Statement of Work
- Agreements
- Enterprise environmental factors
- Organizational process assets

Inputs

# Tools and Techniques

- Expert judgment
- Facilitation techniques

Project charter

**Outputs** 

- Business case
- Project Statement of Work
- Agreements
- Enterprise environmental factors
- Organizational process assets

Inputs

# Tools and Techniques

- Expert judgment
- Facilitation techniques

Project charter

**Outputs** 

1) Business Case is a document that describes the necessary information from a business standpoint to determine whether or not the project is worth the required investment.

☐ It is commonly used for decision making by managers

☐ The business case is created as a result of market demand (e.g., a car company authorizing a project to build more fuel-efficient cars

in response to gasoline shortages)



2) Project Statement of Work (or SOW) is a formal document that defines the entire scope of the project.

□ SOW written by sponsor or customer

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#### PROJECT STATEMENT OF WORK EXAMPLE

**Project Name: Patient Experience Routing Process** 

Project Sponsor:

**Project Start Date:** 

#### Description of Project:

The purpose of this project is to create a system-wide complaints routing process for the XYZ organization.

#### Project Scope:

The project will include analysis of the current process, mapping of future processes, personnel recommendations and implementation of the process agreed upon by the steering committee. This project does not include creating the OI process that will be used for investigating unusual occurrences.

#### Project Objectives:

1.	Establish a system for feeding complaint information that can be forwarded to a central point and
	trended on a regular basis.
2.	Identify the current barriers to closing complaints.
3	Create a system that allows feedback to flow to close complaints.
4.	Identify the activities that need to happen on a regular basis to maintain the flow of information to be
	trended and the feedback of information to close complaints
5.	Eliminate unnecessary time spent on long complaint-write ups.
6.	Create a training system for intake people that teaches them how to discern a type of complaint, how
	to route the complaint, how to follow-up to close the complaint and how to appropriately report
	trendable information.
7.	Eliminate duplicate work on a single complaint.
8.	Design a system that empowers front-line people to actively participate in providing education and/or
1	assistance to patients with a complaint.

#### Project Success Measures:

1. Reduction in the amount of complaints that are inappropriately escalated to senior administrators.



3) Agreements may take the form of contracts, memorandums of understanding (MOUs), service level agreements (SLA), letter of agreements, letters of intent, verbal agreements, email, or other written agreements.

#### 4) Enterprise Environmental Factors:

- Governmental standards
- Industry standards
- Marketplace conditions
- Quality standards

NO. 122-A MAY 1995

# Governmental Accounting Standards Series

Statement No. 28 of the Governmental Accounting Standards Board

Accounting and Financial Reporting for Securities Lending Transactions



Governmental Accounting Standards Board

#### 5) Organizational Process Assets:

- Templates (e.g., project charter template)
- Historical information and lessons learned knowledge base

- Business case
- Project Statement of Work
- Agreements
- Enterprise environmental factors
- Organizational process assets

Inputs

# Tools and Techniques

- Expert judgment
- Facilitation techniques

Project charter

**Outputs** 

### 4.1.2 Develop Project Charter: tools and techniques

1) Expert Judgment: is often used to assess the inputs used to develop the project charter.

#### 2) Facilitation techniques:

Brainstorming, problem solving, and meeting management are examples of key techniques used by facilitators

- Business case
- Project Statement of Work
- Agreements
- Enterprise environmental factors
- Organizational process assets

Inputs

# Tools and Techniques

- Expert judgment
- Facilitation techniques

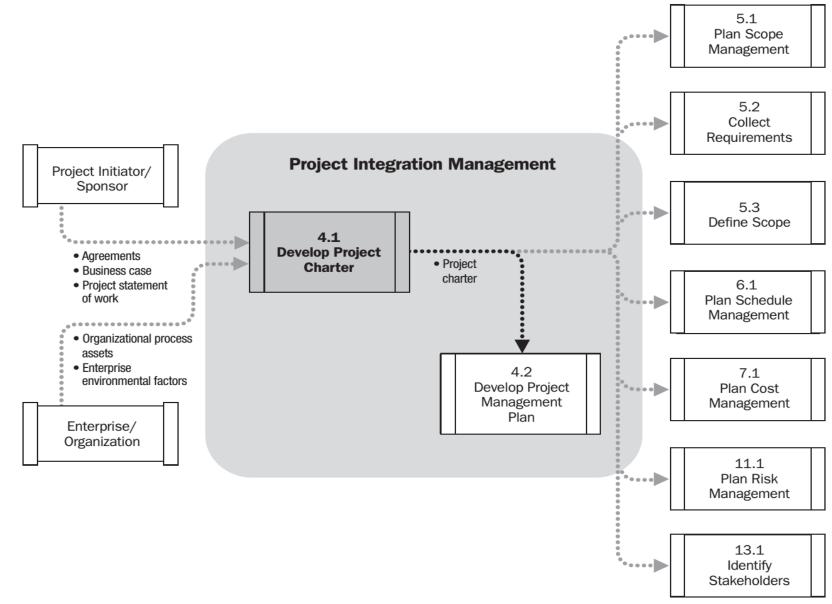
Project charter

**Outputs** 

#### 1) Project Charter



#### Develop Project Charter Data Flow Diagram



## Project Management Process and Knowledge Area Mapping

Process	Knowledge Areas
Initiating	4.1 Develop Project Charter
Planning	4.2 Develop Project Management Plan
Executing	4.3 Direct and Manage Project Work
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Monitoring & Control	4.5 Perform Integrated Change Control
Closing	4.6 Close Project or Phase

## 4.2 Develop Project Management Plan

□ Develop Project Management Plan is the process of defining, preparing, and coordinating all subsidiary plans and integrating them into a comprehensive project management plan.

☐ The key benefit of this process is a central document that defines the basis of all project work.

#### 4.2 Develop Project Management Plan



#### 4.2 Develop Project Management Plan



#### **Inputs**

- 1- Project charter
- 2- Outputs from other processes
- 3- Enterprise environmental factors
- 4- Organizational process assets



#### **Tools and**

#### **Techniques**

- 1- Expert judgment
- 2- Facilitation techniques



#### **Outputs**

1- Project management plan



#### Inputs

- 1- Project charter
- 2- Outputs from other processes
- 3- Enterprise environmental factors
- 4- Organizational process assets



#### **Tools and**

#### **Techniques**

- 1- Expert judgment
- 2- Facilitation techniques



#### **Outputs**

1- Project management plan

1) Project Charter: Described in Section 4.1.3



- The project manager uses project charter as the starting point for his initial planning
- □ Project Charter Example
  - □Time = 3 Years + 2 Months
  - $\Box$ Cost = 1 Million EGP +/- 25%



- 2) Outputs from other processes
- 3) Enterprise environmental factors
  - Governmental standards
  - Industry standards
- 4) Organizational process assets
  - Templates (e.g., project charter template)
  - Historical information and lessons learned knowledge base

## 4.2.2 Develop Project Management Plan



#### Inputs

- 1- Project charter
- 2- Outputs from other processes
- 3- Enterprise environmental factors
- 4- Organizational process assets



#### **Tools and**

#### **Techniques**

- 1- Expert judgment
- 2- Facilitation techniques



### **Outputs**

1- Project management plan

#### 4.1.2 Develop Project Charter: tools and techniques

1) Expert Judgment: is often used to assess the inputs used to develop the project charter.

#### 2) Facilitation techniques:

Brainstorming, problem solving, and meeting management are examples of key techniques used by facilitators

### 4.2.3 Develop Project Management Plan



#### **Inputs**

- 1- Project charter
- 2- Outputs from other processes
- 3- Enterprise environmental factors
- 4- Organizational process assets



#### **Tools and**

#### **Techniques**

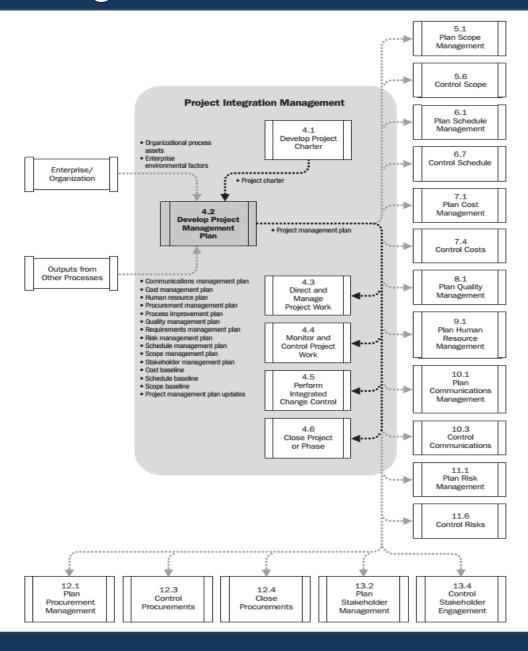
- 1- Expert judgment
- 2- Facilitation techniques



#### Outputs

1- Project management plan

#### Develop Project Management Plan data Flow diagram



## Project Management Process and Knowledge Area Mapping

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□ Direct and Manage Project Work is the process of leading and performing the work defined in the project management plan and implementing approved changes to achieve the project's objectives.

☐ The key benefit of this process is that it provides overall management of the project work.

- Project management plan
- Approved change requests
- Enterprise environmental factors
- Organizational process assets

Inputs

# Tools and Techniques

- Expert judgment
- Project management information system
- Meetings

- Deliverables
- Work performance data
- Change requests
- Project management plan updates
- Project documents updates

**Outputs** 

- Project management plan
- Approved change requests
- Enterprise environmental factors
- Organizational process assets

Inputs

# Tools and Techniques

- Expert judgment
- Project management information system
- Meetings

- Deliverables
- Work performance data
- Change requests
- Project management plan updates
- Project documents updates

**Outputs** 

- 1) Project management plan: Described in Section 4.2.3
- 2) Approved change requests are an output of the Perform Integrated Change Control process, and include those requests reviewed and approved for implementation by the change control board (CCB).
- 3) Enterprise environmental factors
- 4) Organizational process assets

- Project management plan
- Approved change requests
- Enterprise environmental factors
- Organizational process assets

Inputs

# Tools and Techniques

- Expert judgment
- Project management information system
- Meetings

- Deliverables
- Work performance data
- Change requests
- Project management plan updates
- Project documents updates

**Outputs** 

# 4.3 Direct and Manage Project Work: tools and techniques

- 1) Expert judgment is used to assess the inputs needed to direct and manage execution of the project management plan.
- 2) Project management information system is a tools and techniques used to gather and integrate the output of project management system.
- 3) Meetings are used to discuss and address pertinent topics of the project.

# 4.3 Direct and Manage Project Work: tools and techniques

□ Meeting

- □Well define agenda
- **Imeeting documented**
- □ Each attendance should have define function (role)



- Project management plan
- Approved change requests
- Enterprise environmental factors
- Organizational process assets

Inputs

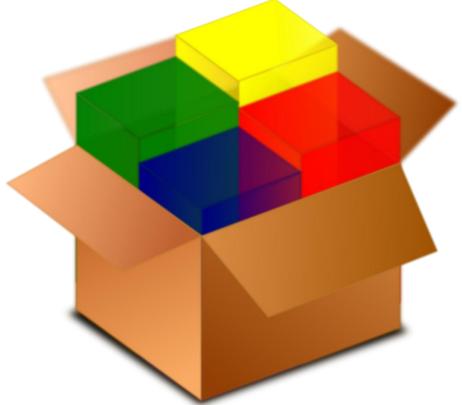
# Tools and Techniques

- Expert judgment
- Project management information system
- Meetings

- Deliverables
- Work performance data
- Change requests
- Project management plan updates
- Project documents updates

**Outputs** 

1) Deliverable is any unique and verifiable product, result or capability to perform a service that is required to be produced to complete a process.



2) Work performance data are the raw observations and measurements identified during activities being performed to carry out the project work.

□ Examples of work performance data include work completed, key performance indicators, technical performance measures, start and finish dates of schedule activities, number of change requests, number of defects, actual costs, and actual durations

3) Change requests is a formal proposal to modify any document, deliverable, or baseline.

# Change requests

**Corrective** action

**Preventive** action

Defect repair

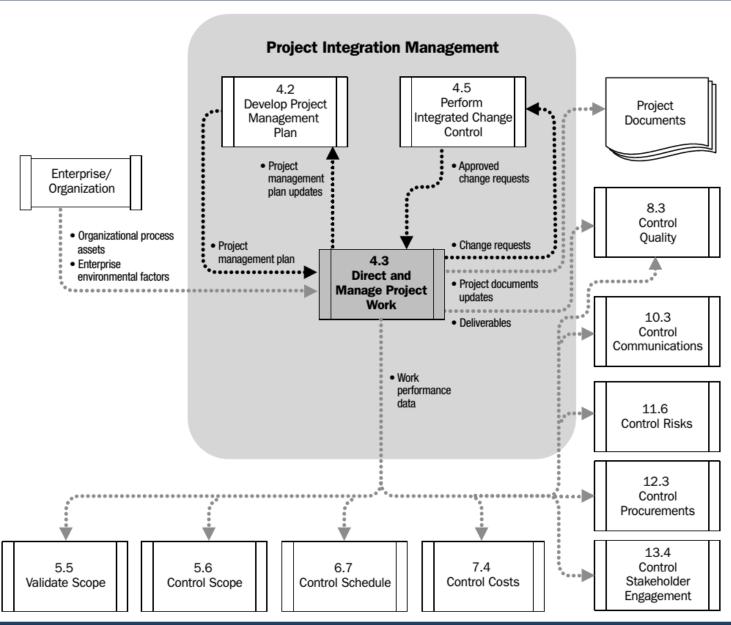
**Updates** 

4) Project management plan updates

- 5) Project documents updates:
  - □ Requirements documentation
  - □Stakeholder register
  - Risk



### Direct and Manage Project Work Data Flow Diagram



# Project Management Process and Knowledge Area Mapping

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☐ Monitor and Control Project Work is the process of tracking, reviewing, and reporting the progress to meet the performance objectives defied in the project management plan.

☐ The key benefit of this process is that it allows stakeholders to understand the current state of the project, the steps taken, and budget, schedule, and scope forecasts.

### Inputs

**Project management plan** 

**Schedule forecasts** 

**Cost forecasts** 

**Validated changes** 

**Work performance information** 

**Enterprise environmental factors** 

**Organizational process assets** 

#### **Tools and**

**Techniques** 

**Expert judgment** 

**Analytical techniques** 

**Project management information system** 

Meetings

#### **Outputs**

**Change requests** 

**Work performance reports** 

Project management plan updates

**Project documents updates** 

### Inputs

**Project management plan** 

**Schedule forecasts** 

**Cost forecasts** 

**Validated changes** 

**Work performance information** 

**Enterprise environmental factors** 

**Organizational process assets** 

#### **Tools and**

**Techniques** 

**Expert judgment** 

**Analytical techniques** 

**Project management information system** 

Meetings

#### **Outputs**

**Change requests** 

**Work performance reports** 

Project management plan updates

**Project documents updates** 

# 4.4 Monitor and Control Project Work: Inputs

- 1) Project Management Plan Described in Section 4.2.3
- 2) Schedule Forecasts are derived from progress against the schedule baseline and computed time estimate to complete (ETC).
- 3) Cost Forecasts are derived from progress against the cost baseline and computed estimates to complete (ETC)
- 4) Validated changes Approved changes that result from the Perform Integrated Change Control process require validation to ensure that the change was appropriately implemented

# 4.4 Monitor and Control Project Work: Inputs

- 5) Work performance information is the performance data collected from various controlling processes, analyzed in context, and integrated based on relationships across areas.
- 6) Enterprise Environmental Factors
- 7) Organizational Process Assets

### Inputs

**Project management plan** 

**Schedule forecasts** 

**Cost forecasts** 

**Validated changes** 

**Work performance information** 

**Enterprise environmental factors** 

**Organizational process assets** 

#### **Tools and**

#### **Techniques**

**Expert judgment** 

**Analytical techniques** 

Project management information system

Meetings

#### **Outputs**

**Change requests** 

**Work performance reports** 

Project management plan updates

**Project documents updates** 

# 4.4 Monitor and Control Project Work: Tools and Techniques

- 1) Expert Judgment
- 2) Analytical techniques are applied in project management to forecast potential outcomes, ex: Regression analysis
- 3) Project Management Information System is tools that gather and provides access to automated tools, such as scheduling, cost, and resourcing tools
- 4) Meetings

### Inputs

**Project management plan** 

**Schedule forecasts** 

**Cost forecasts** 

**Validated changes** 

**Work performance information** 

**Enterprise environmental factors** 

**Organizational process assets** 

#### **Tools and**

**Techniques** 

**Expert judgment** 

**Analytical techniques** 

**Project management information system** 

Meetings

#### **Outputs**

**Change requests** 

**Work performance reports** 

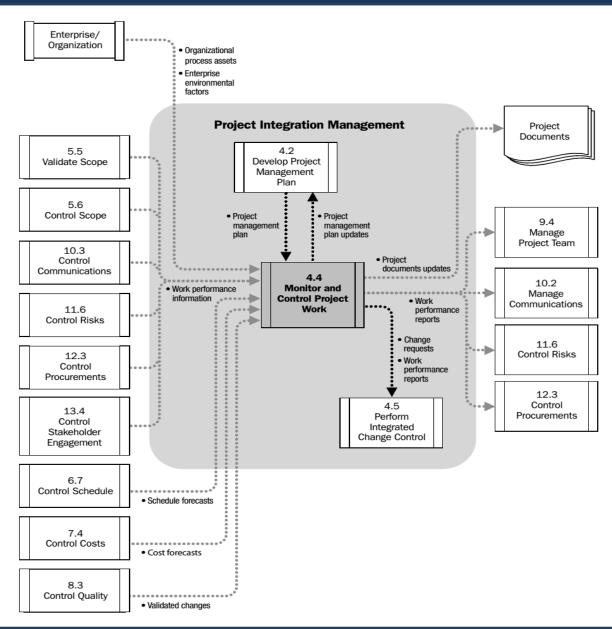
Project management plan updates

**Project documents updates** 

# 4.4 Monitor and Control Project Work: Outputs

- 1) Change requests
- 2) Work performance reports
- 3) Project management plan updates
- 4) Project documents updates

# Monitor and Control Project Work Data Flow Diagram



# Project Management Process and Knowledge Area Mapping

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- □ Perform Integrated Change Control is the process of reviewing all change requests; approving changes and managing changes to deliverables, organizational process assets, project documents, and the project management plan; and communicating their disposition.
- ☐ The key benefit of this process is that it allows for documented changes within the project to be considered in an integrated fashion while reducing project risk, which often arises from changes made without consideration to the overall project objectives or plans.

Inputs

Tools and Techniques

**Outputs** 

- Project management plan
- Work performance reports
- Change requests
- Enterprise environmental factors
- Organizational process assets

- Expert judgment
- Meetings
- Change control tools

- Approved change requests
- Change log
- Project management plan updates
- Project documents updates

**Inputs** 

Tools and Techniques

**Outputs** 

- Project management plan
- Work performance reports
- Change requests
- Enterprise environmental factors
- Organizational process assets

- Expert judgment
- Meetings
- Change control tools

- Approved change requests
- Change log
- Project management plan updates
- Project documents updates

# 4.5 Perform Integrated Change Control: Inputs

- 1) Project management plan Described in Section 4.2.3
- 2) Work performance reports
- 3) Change requests
- 4) Enterprise environmental factors
- 5) Organizational process assets

Inputs

Tools and Techniques

**Outputs** 

- Project management plan
- Work performance reports
- Change requests
- Enterprise environmental factors
- Organizational process assets

- Expert judgment
- Meetings
- Change control tools

- Approved change requests
- Change log
- Project management plan updates
- Project documents updates

# 4.5 Perform Integrated Change Control: Tools and Techniques

- 1) Expert judgment
- 2) Meetings
- 3) Change control tools

### Inputs

Tools and Techniques

### **Outputs**

- Project management plan
- Work performance reports
- Change requests
- Enterprise environmental factors
- Organizational process assets

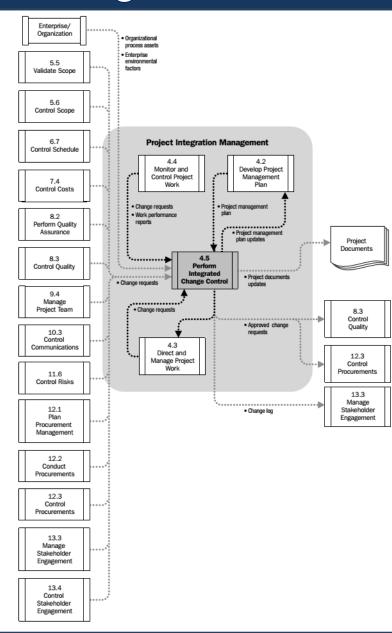
- Expert judgment
- Meetings
- Change control tools

- Approved change requests
- Change log
- Project management plan updates
- Project documents updates

# 4.5 Perform Integrated Change Control: Outputs

- 1) Approved change requests
- 2) Change log
- 3) Project management plan updates
- 4) Project documents updates

# Perform Integrated Change Control Data Flow Diagram



# Project Management Process and Knowledge Area Mapping

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# 4.6 Close Project or Phase

□ Close Project or Phase is the process of finalizing all activities across all of the Project Management Process to formally complete the project or phase.

☐ The key benefit of this process is that it provides lessons learned, the formal ending of project work, and the release of organization resources to pursue new endeavors.

# 4.6 Close Project or Phase

**Project Organizational** Accepted Inputs management process deliverables plan assets **Tools and Expert Analytical** Meetings techniques judgment **Techniques** Final product, **Organizational Outputs** service, or process assets result transition updates

# 4.6.1 Close Project or Phase

Inputs

Project management plan

Accepted deliverables

Organizational process assets

Tools and Techniques

Expert judgment

Meetings

Analytical techniques

**Outputs** 

Final product, service, or result transition

Organizational process assets updates

### 4.6.1 Close Project or Phase: Inputs

- 1) Project management plan
- 2) Accepted deliverables
- 3) Organizational process assets

# 4.6.2 Close Project or Phase

**Project Organizational Accepted** Inputs management process deliverables plan assets **Tools and Analytical Expert** Meetings techniques judgment **Techniques** Final product, **Organizational** Outputs service, or process assets result transition updates

# 4.6.2 Close Project or Phase: Tools & Techniques

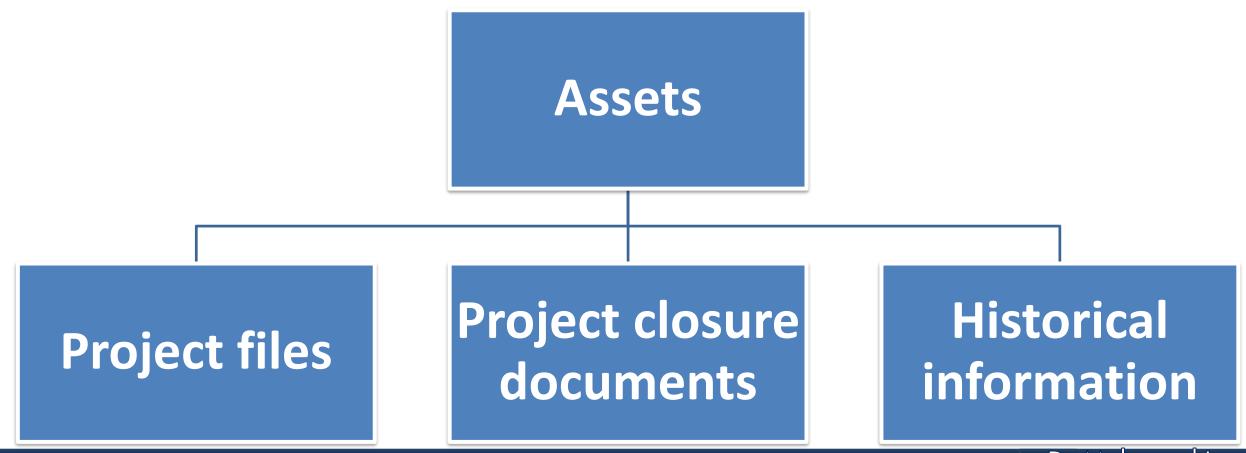
- 1) Expert judgment
- 2) Meetings
- 3) Analytical techniques

# 4.6.3 Close Project or Phase

**Project Organizational Accepted** Inputs management process deliverables plan assets **Tools and Expert Analytical** Meetings techniques judgment **Techniques** Final product, **Organizational** Outputs service, or process assets result transition updates

# 4.6.3 Close Project or Phase: Output

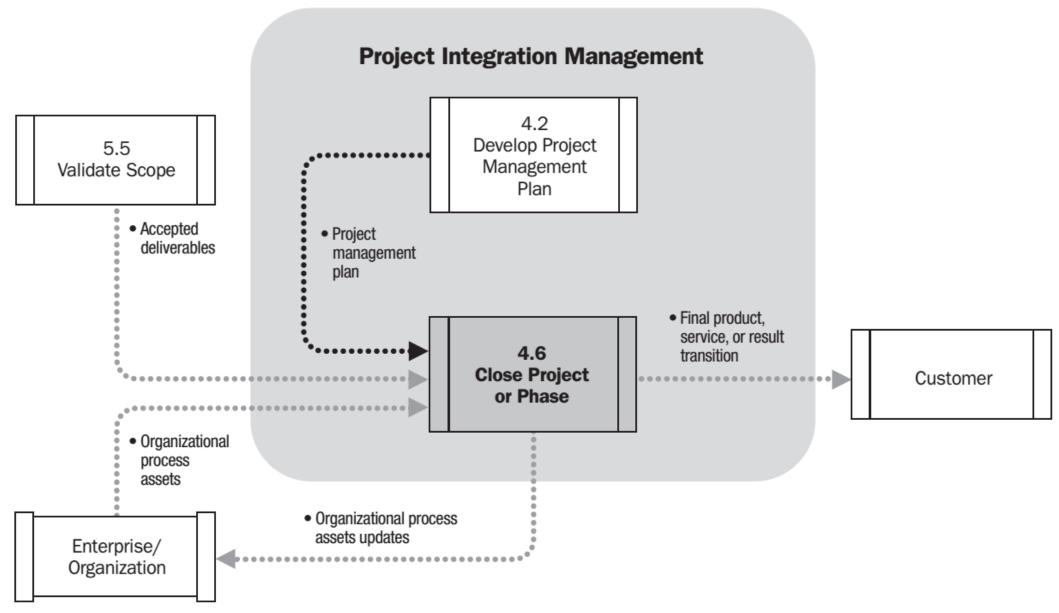
- 1) Final product, service, or result transition
- 2) Organizational process assets updates



**Project Integration Management** 

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# Close Project or Phase Data Flow Diagram



### Contact Me

