

**Project Management Institute. New Jersey**

**Construction LCI**

### Interface Management: Keys to Effective Construction Project Delivery

📅 Saturday, April 5, 2025  
🕒 12:00 p.m. - 1:00 p.m.  
🌐 <https://www.pminj.org>



**Tony Jacob**  
PMP, PMI-CP, CM-Lean, LCI-CPC  
General Manager, Constask  
Management Consultancy FZCO, UAE  
& Construction Ambassador, Project Management Institute (PMI)



1

## Interface Management: Keys to Effective Construction Project Delivery



**PMI Construction Ambassador  
(Volunteer)**

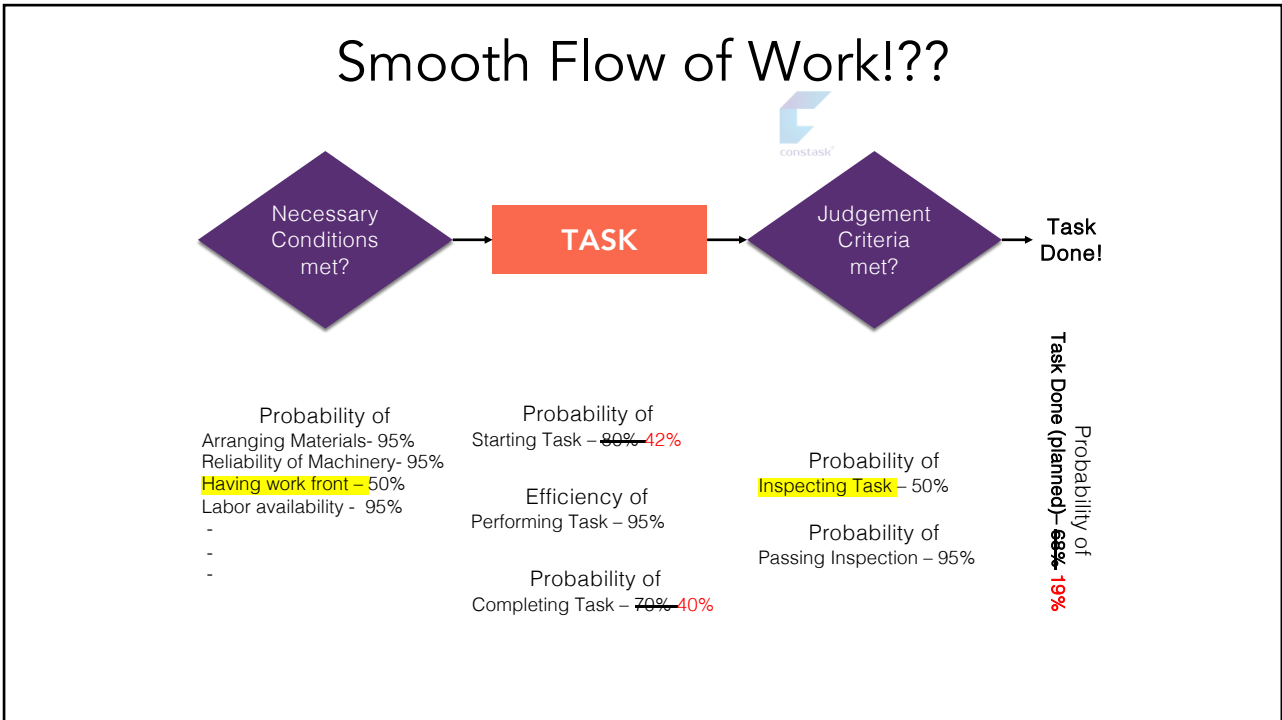


**General Manager**




**Tony Jacob,**  
PMP®, PMI-CP, PMI-PBA, PMI-SCP, CM-Lean, LCI-CPC

2



3

## What is Interface Management



*IM first emerged in 1967 on an aerospace & electric power pool project, as a way of analyzing the contact points between interacting project parties & identifying the corresponding interorganizational issues.*

Interface Management (IM) is the appropriate **management of communications, relationships & deliverables** among two or more interface stakeholders.

*Effective IM is integral to project success.*

The objective of IM is to create awareness and effective management of the **potential risks** that exist between the handoffs and **responsibilities** of two or more entities in the project.

Construction Interface Management Course  
Project Management Institute, Inc.

4

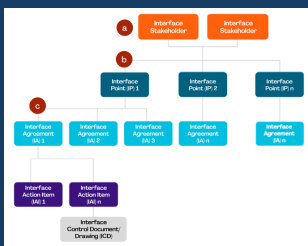
*“Megaprojects using mature IM systems experienced a 4% increase in costs, while similar projects without mature IM systems experienced an 18% increase”*

from the Construction Industry Institute (CII) research (2014)  
on impact of adopting IM across 45 megaprojects

Construction Interface Management Course  
Project Management Institute, Inc.

5

## Interface Management (Classification)



*A major part of communication takes place between stakeholders within the scope of a project*

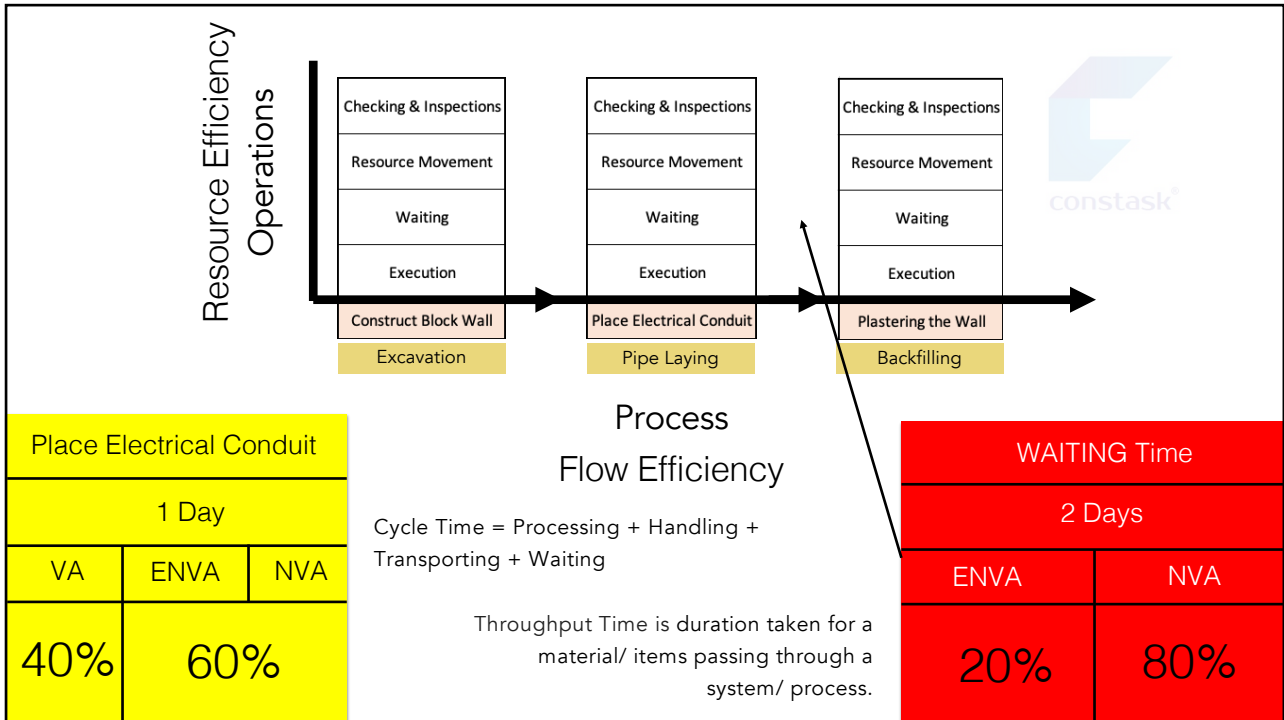
**Inter-project interfaces** - Between different stakeholders directly involved in project planning and execution (Ex owner-contractor-consultant).

**Intra-project interfaces** - Within the organization of each independent stakeholder involved in a project (Ex, Engineering & Procurement of a contractor, or between subcontractors of a contractor).

**Extra-project interfaces** - Between the project stakeholders and other organizations that are not directly involved in project execution. (Ex, government permits & approvals).

Construction Interface Management Course  
Project Management Institute, Inc.

6



7

## Interface Types

The Construction Industry Institute (CII) defines interfaces or interface points (IP) as:

“... a soft and/or hard contact point between two interdependent interface stakeholders. An IP is also a part of the project’s scope as defined by project documents, in which the responsibility passes from one interface stakeholder to another.”

(Construction Industry Institute, 2014, p. 5)

- **Soft Interface** - Typically involves the exchange of information such as design criteria, clearance requirements etc between internal/ external stakeholders.
- **Hard Interface** - Represents physical connections between two or more components or systems.
- **Internal Interface**- Identified within a single scope of work.
- **External Interface**- Identified between two or more scopes of work.

Construction Interface Management Course  
Project Management Institute, Inc.

8

## Interface Categories

*Interfaces categorized in a way that is more specific and purpose*

An interface agreement form (IAF) is a recommended and simple way to document an interface.

It is good practice to implement a centralized interface data register (IDR) for the whole project.

<h3>Physical</h3> <p>Outer skin of building to the structural steel or RCC</p>	<h3>Functional</h3> <p>HVAC system interface with Electrical &amp; BMS</p>	<h3>Contractual</h3> <p>Obligations under GC &amp; Subcontractor agreement</p>
<h3>Organizations</h3> <p>Point of interaction between Client, Consultant, Contractor</p>	<h3>Knowledge</h3> <p>Integration of information, expertise &amp; lessons learned.</p>	<h3>Resources</h3> <p>Crane or Hoist shared by contractors for Materials</p>
<h3>Social</h3> <p>Project &amp; surrounding community (Urban Area)</p>	<h3>Static</h3> <p>Inherent, unchanging physical or design- Foundation to Steel</p>	<h3>Dynamic</h3> <p>Change &amp; evolve throughout lifecycle (MEP Coordination)</p>

Construction Interface Management Course  
Project Management Institute, Inc.

9

## Commitment Based Management (CbM)

```

    graph LR
      C[Customer] -- "Request" --> P[Performer]
      P -- "Negotiation" --> C
      P -- "Performance" --> C
      C -- "Satisfaction" --> P
      C --- R1["I request."]
      P --- R2["I promise."]
      P --- R3["I am done."]
      C --- R4["I am satisfied."]
  
```

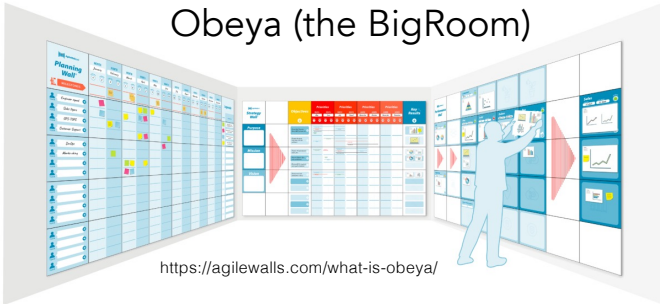
- **Preparation-** Customer requests something of the performer.
- **Negotiation-** The customer and performer obtain a **common & realistic understanding**.
- **Performance-** Performer executing (The customer and performer continue **interpreting and reinterpreting** their agreement)
- **Feedback -** This is when the customer declares whether they are happy or not.

The commitment loop (Denning and Medina-Mora, 1995)  
[https://www.researchgate.net/figure/The-commitment-loop-Denning-and-Medina-Mora-1995\\_fig1\\_242354261](https://www.researchgate.net/figure/The-commitment-loop-Denning-and-Medina-Mora-1995_fig1_242354261)

Construction Project Communications  
Project Management Institute, Inc.

10

### Obeya (the BigRoom)



<https://agilewalls.com/what-is-obeya/>

**PROJECT CHARTER**

**MEETING STANDARDS**

**LAST PLANNER**

**RESOURCE PLANNING BOARD**

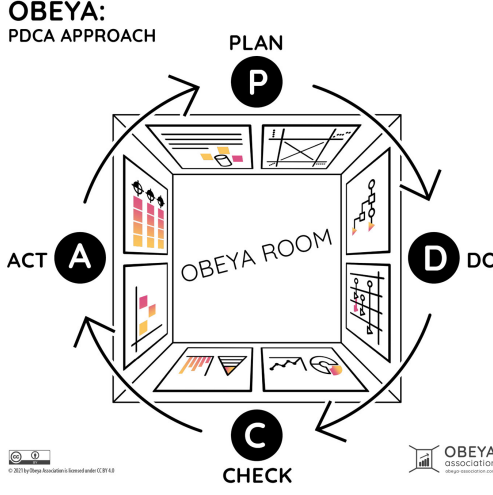
**KPIs**

**DECISION/DESIGN REVIEW**

**RISK & OPPORTUNITY MATRIX**

<https://kaizen.com/insights/project-management-obeya-control/>

### OBEYA: PDCA APPROACH



<https://obeya-association.com/about-obeya/what-is-an-obeya/>

11

## Key Benefits of Effective Interface Management Implementation

*Research conducted by the Construction Industry Institute (CII) (Nootboom, 2004):*

- **Increased stakeholder alignment** - All interface stakeholders are working toward common goals reducing and effectively managing conflicts.
- **Facilitated communication across the project**- Creating a formalized framework to effectively share and distribute information - how to communicate, what information should be communicated, to whom, and when.
- **Improved real-time visibility and oversight**- Defining clear roles and responsibilities, agreeing upon deadlines to provide interface-related deliverables, accessing real-time project information
- **Proactive risk mitigation**- Increases alignment, coordination, early identification & a common understanding of interfaces, deliverables, and their associated deadlines - effectively share and distribute the related risk- reduced project redundancies, uncertainties, and surprises for all parties.

Construction Interface Management Course  
Project Management Institute, Inc.

12

## Interface Management Maturity Model



*The CII IM Maturity model*

- **Business processes.** The way in which Interface Management is implemented on projects.
- **Enabling tools and systems.** Tools and systems that support the Interface Management processes implemented on a project.
- **Qualified people and practitioners.** The skilled and experienced people who utilize the work processes and systems that create an effective Interface Management environment on a project.
- **Sustaining culture.** The sustaining organization and behavior that establishes Interface Management as a routine part of the organization’s project execution practice.

Construction Interface Management Course  
Project Management Institute, Inc.

13

## Interface Management Maturity Model

*Enabling Tools and Systems  
Stages of Maturity for Enabling Tools*

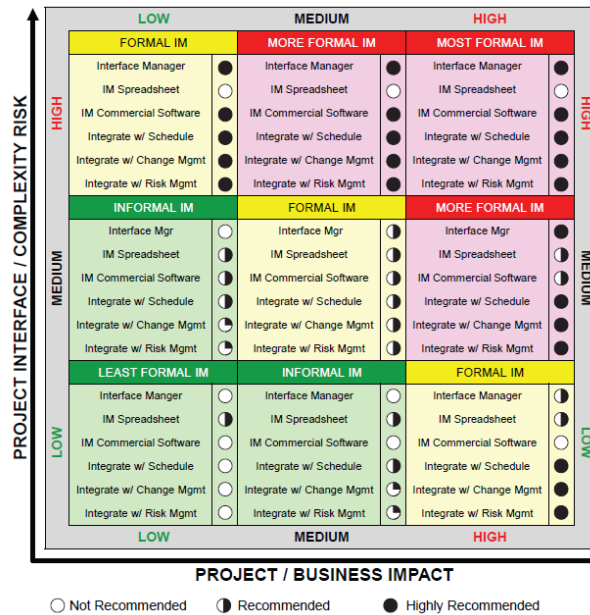
Stage 0	Stage 1	Stage 2	Stage 3	Stage 4
Use <b>traditional means</b> to communicate and track issues and related agreements. Examples: emails, file folders, and lists.	Manually track agreements and action items using spreadsheets and databases.	Deploy a tool or system with a <b>fundamental degree of automation</b> and workflow.	Use a stand-alone and <b>fully automated system</b> with workflow and status tracking.	Implement a <b>fully automated system that shares key common data</b> with project schedule, change management, and risk management systems.

Construction Interface Management Course  
Project Management Institute, Inc.

14

# Project Interface Risk Impact (PIRI) Matrix

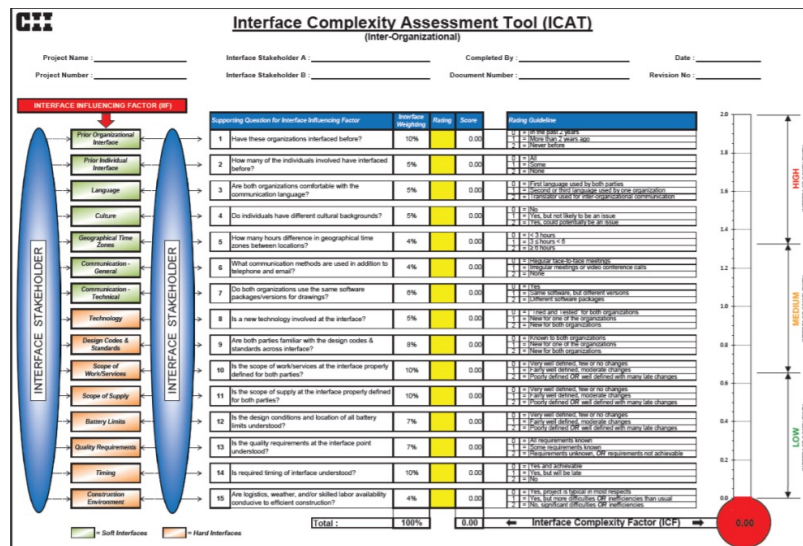
CII project interface risk impact (PIRI) matrix - high level decision-making guide enables project professionals to identify the extent of Interface Management implementation required for a specific project.



Construction Interface Management Course  
Project Management Institute, Inc.

# Interface Complexity Assessment Tool (ICAT)

While the ICAT is a lower-level tool used to assess and prioritize interface points from the project perspective, PIRI is a higher-level qualitative analytical tool that supports IM implementation from an organizational perspective.



Construction Interface Management Course  
Project Management Institute, Inc.



## Interface Management System (IMS)

An interface management system (IMS) is defined as a systematic approach to effectively identify and handle interfaces—especially critical ones—through the project life cycle.

This facilitates the alignment between stakeholders by defining the interface characteristics, responsibilities of involved parties, and the due date of deliverables.

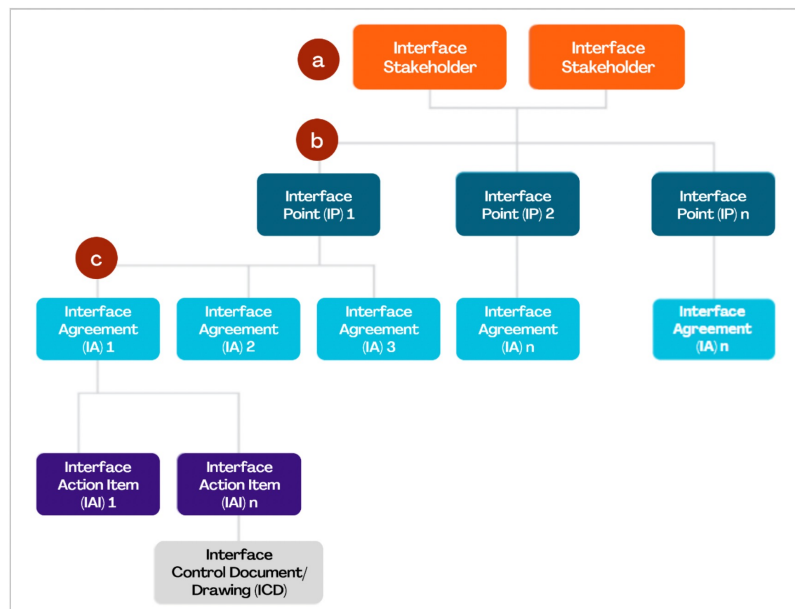
- *Interface Identification*
- *Interface Documentation*
- *Interface Transferring/Package Issuing*
- *Interface Communication*
- *Monitoring and Control*
- *Interface Closing*

Implementing this IM framework in the early stages of a project will improve performance in terms of quality, cost, time, and safety.

Construction Interface Management Course  
Project Management Institute, Inc.

17

## Hierarchy & Relationship of Interface Management System (IMS)



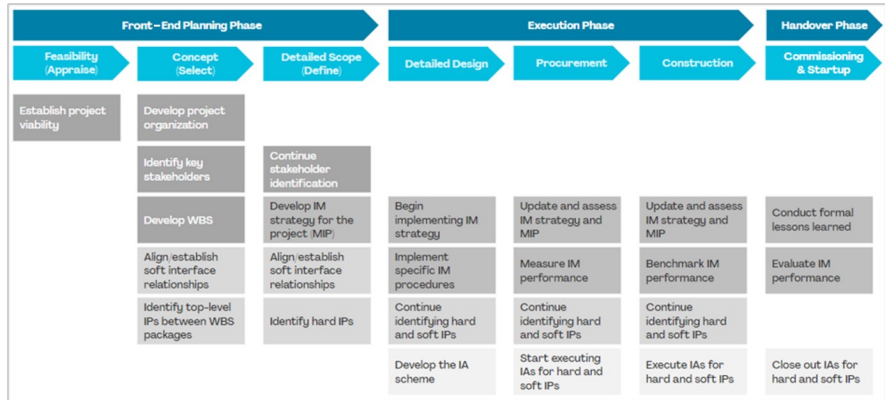
Construction Interface Management Course  
Project Management Institute, Inc.

18

# Project Level Implementation (Roadmap)

Interface Management implementation is appropriate at any stage of the project life cycle.

However, teams will see diminishing returns and potentially marginal benefits if they do not implement IM until the later stages of the project.



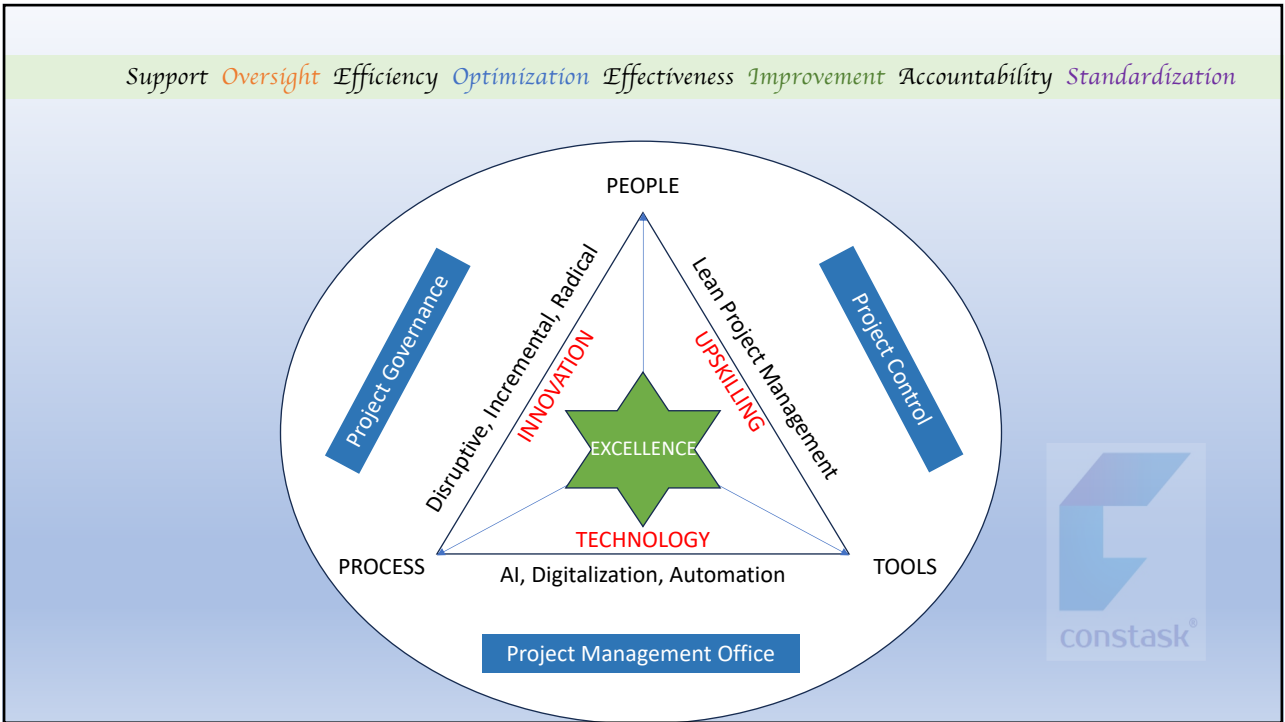
Construction Interface Management Course  
Project Management Institute, Inc.

## Construction Interface Management Course

- 1 Demonstrate a deep understanding of **interface management (IM)**.
- 2 Represent the **benefits and importance** of IM.
- 3 **Employ IM effectively** throughout the project.
- 4 **Predict and prepare** for IM in projects.
- 5 Leverage **tools, techniques, and processes** for IM.
- 6 **Implement and staff IM strategies** for successful outcomes.



Copyright ©2023 Project Management Institute, Inc. All rights reserved. This material is being provided as part of a PMI course.



21

## Join the PMI-CP™ Community

Q&A

PMI-CP™  
Professional Certification

PMI CONSTRUCTION  
PROFESSIONAL

PMI Construction Professional  
(PMI-CP)™  
LinkedIn Group

PMI

22