



# **PMP® EXAM PREP**

## PMI Authorized Training Partner

# **BOOTCAMP**

# **Session 3**

### **Attendance Alert**

**Percipio Users:** Name is based  
on your information in  
**Percipio**

**Using Zoom:** Enter your first  
and last name

- **PMP® Exam Prep**
- This course will assist learners in preparing for PMI's PMP Exam (2021 Update)

# Scheduled Breaks



Session

Periodic breaks

For attendance purposes, please stay logged in during all breaks.



# House Keeping

- If you haven't attended the first or second session, please do the following.
- Please use the Q&A **only** to get help with technical issues, to locate your resources or recordings for the sessions, to ask about attendance requirements and how to get the PMP Learner Kit, to ask questions about the content, or for any other questions. As the session comes to an end the survey link can be provided in the Q&A.
- Use the chat before the session starts for salutations. Once the session begins the chat may be closed throughout the session to minimize disruptions and to provide important information. The chat will be opened periodically to respond to the instructor's questions. As the session comes to an end the survey link can be provided in the chat. The chat may be opened to allow for goodbyes.

# IS LIVE ATTENDANCE REQUIRED?

- **YES**, if you are taking this training to register for the PMP exam live attendance is required.
- However, this is the exception rule for the 8 Day Bootcamp – **You are allowed to miss up to two sessions if you make up the sessions by watching their replays.**
- **A missed session means** you are logged out of a session for **more than 15mins**.
- If you miss more than 15 mins at any time (including during breaks) beyond the two sessions allowed, you will need to make it/them up by attending the live session(s) in a different 8-day cohort\*.

- \*Please see the Bootcamp calendar at <http://calendar.skillsoft.com/> for information about upcoming sessions.



# IN CASE OF ABSENCE

You can access a replay online for a previous session by following these steps 24 to 48 hours after the session ends.

Step 1. Go to: <https://github.com/Skillsoft-Content/PMPReplay>

Step 2. Click on the PMP Replay Zoom Links file for the year you attended the Bootcamp. And then click the Download option.

Step 3. When the file opens, and you are prompted enter the following password. Those are zero's not the letter O. The password is case sensitive.

pmpB00tcampReplay!

Step 4. Locate the worksheet that corresponds with the Cohort you attended and use the provided link and passcode on the worksheet for the replay.

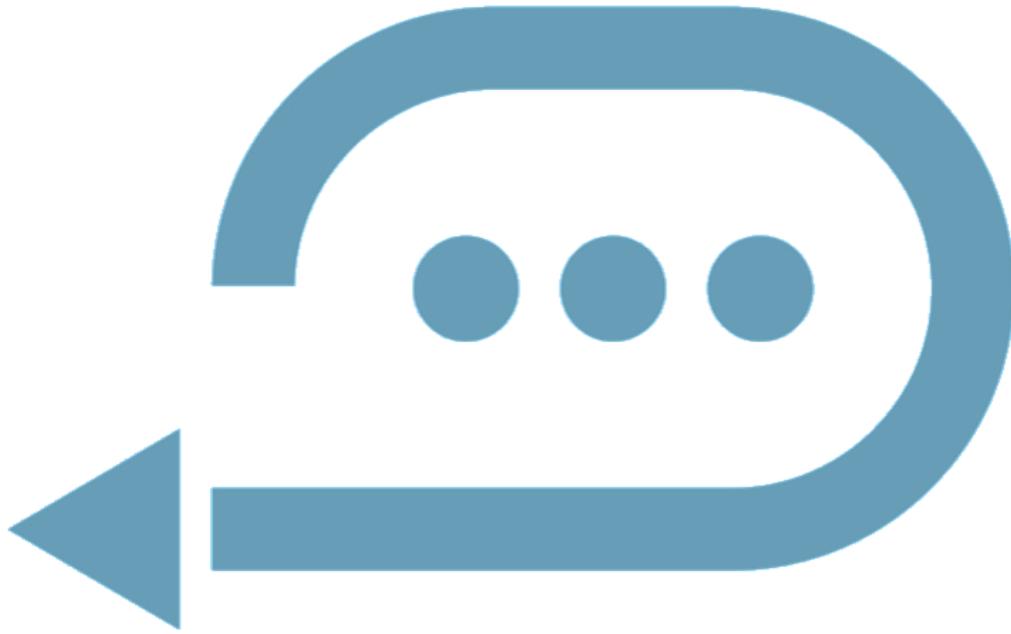
Note: The password to open the Excel file is NOT the passcode to access the replay.

**\*Replays will be available for 1 year. They are not available for download.**

## NO LIMIT FOR REPLAYS:

For the Bootcamp you are attending, there is no limit on requesting the replays for study purposes.

## Recap Session 2



# Mapping this course to the Student Workbook

	<b>Business Environment Lesson 1</b>	<b>Start the Project Lesson 2</b>	<b>Plan the Project Lesson 3</b>	<b>Lead the Project Team Lesson 4</b>	<b>Support Project Team Performance Lesson 5</b>	<b>Close the Project/Phase Lesson 6</b>
Topic A	(1A) Foundation	(2A) Identify and Engage Stakeholders	<b>(3A) Planning Projects</b>	(4A) Craft Your Leadership Skills	(5A) Implement Ongoing Improvements	(6A) Project Phase/Closure
Topic B	(1B) Strategic Alignment	(2B) Form the Team	<b>(3B) Scope</b>	(4B) Create a Collaborative Project Team Environment	(5B) Support Performance	(6B) Benefits Realization
Topic C	(1C) Project Benefits and Value	<b>(2C) Build Shared Understanding</b>	(3C) Schedule	(4C) Empower the Team	(5C) Evaluate Project Progress	(6C) Knowledge Transfer
Topic D	(1D) Organizational Culture and Change Management	<b>(2D) Project Approach</b>	(3D) Resources	(4D) Support Team Member Performance	(5D) Manage Project Issues and Impediments	
Topic E	(1E) Project Governance		(3E) Budget	(4E) Communicate and Collaborate with Stakeholders	(5E) Manage Project Changes	
Topic F	(1F) Project Compliance		(3F) Risks	(4F) Training, Coaching and Mentoring		
Topic G			(3G) Quality	(4G) Manage Conflict		
Topic H			(3H) Integrate Plans			

LESSON 2

# START THE PROJECT

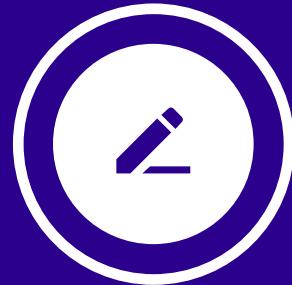
- Identify and Engage Stakeholders
- Form the Team
- Build Shared Understanding
- Project Approach



# Learning Objectives

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- Define and discuss stakeholders and the most effective ways to communicate with them.
- Explain the best ways to form a team.
- **Describe how to build the most effective understanding of a project and how doing so relates to executing a project successfully.**
- **Explain how predictive and adaptive project life cycles work; explain what a hybrid development approach is.**
  - **Decide which kind of development approach or life cycle is best suited for work.**



# Build Shared Understanding

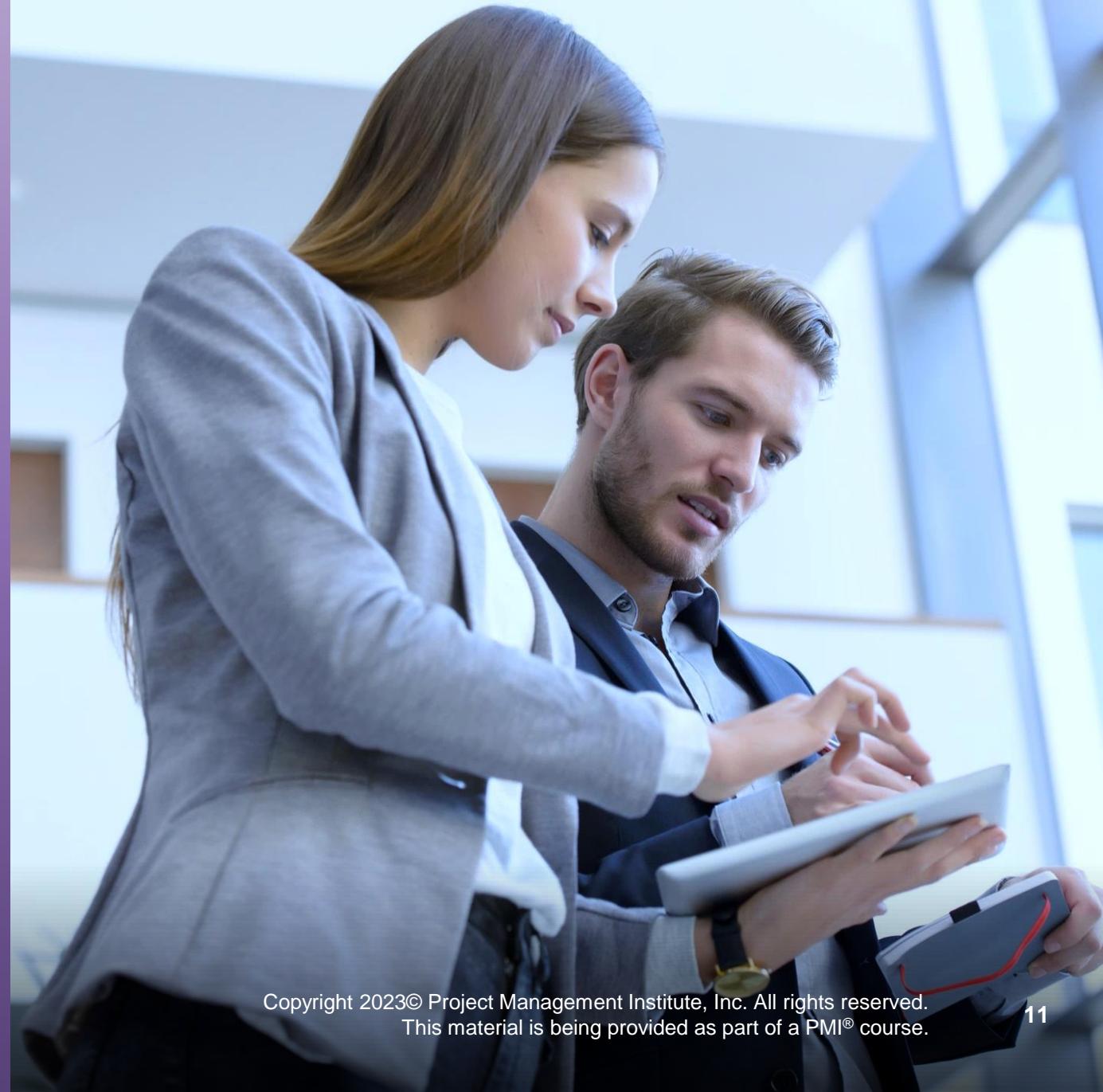
TOPIC C

# Seek Consensus for the Project Among the Team and Stakeholders

- Demonstrate leadership behaviors
- Focus on value
- Be a diligent, respectful and caring steward
- Navigate complexity
- Embrace adaptability and resiliency

Create artifacts:

- Project charter
- Project vision statement



# Building a Shared Understanding

## Guidelines

- 
- **Share** the project agreements (vision statement and project charter) with stakeholders and the team
  - **Agree or negotiate** to reach agreement and “buy-in”:
    - Project agreements — stakeholders
    - Roles and responsibilities, priorities and assignments — team
  - **Uphold** the agreements throughout the project



*Use open and reliable communication methods and your leadership “power skills”*

# Project Vision Statement

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- Created by project sponsor or executive
- Includes a **clear vision of the desired objectives and alignment with the organization's strategic goals**
- Refer to it throughout the project to maintain alignment

# Holistic Understanding of the Project

## Negotiation Goals

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### First, find out...

- The boundaries of negotiation for the project agreement
  - What, if anything, is eligible for discussion or troubleshooting
- The desired objectives of the project

### Then:

- Apply critical thinking and business acumen
- Discover how the project fits in the organizational landscape and business objectives

# How to Create a Holistic Understanding of the Project

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- Ask **stakeholders** to elaborate and clarify their vision or inputs, including asking the sponsor to clarify the vision statement!
- Existing **agreements** may contain initial intentions for, or describe, a project:
  - Contracts with external parties
  - Memorandums of understanding (MOUs)
  - Service-level agreements (SLAs)
  - Letters of agreement or intent
  - Verbal agreements
  - Communication (especially emails) between key stakeholders
  - Statements of work (SOW)

# Refer to Business Case and Business Needs

## **Business case:**

- A documented economic feasibility study
- Establishes benefits of project work
- Provides a basis for authorization of further project activities

## **Business needs documents:**

- Identifies high-level deliverables
- A prerequisite of a formal business case
- Describes requirements — what needs creating and/or performing

# Negotiate and Agree on Project Success Criteria

- Interview **stakeholders**
- Gather **expert judgment** on technical success criteria
- Check:
  - Organizational (program, operations) **key performance indicators (KPIs)**
  - Lessons learned and historical data
  - Quality policy
  - User acceptance testing (UAT) requirements



- *Reporting and verification criteria for objectives*
- *Identification of deliverable and objective **acceptance criteria** for each*



- *A **definition of done (DoD)** may be specified for the project, in addition to iteration outputs*

# Help Everyone Understand the Vision Guidelines



- Use interpersonal and leadership “power skills” and open communication channels with stakeholders and team members
- Get creative with agile methods!
  - A **product box exercise** to internalize the vision from the customer’s point of view and emphasize product/project value
    - **Example:** Here is why Oasestown residents will choose to spend their time and money at SLC (*followed by explanation of what it offers to customers*)
  - The **XP metaphor** technique explains a complex idea in simple, familiar terms, using common language and vocabulary
    - **Example:** SLC is the living room of Oasestown!

# Got Agreement on the Project Agreements?



*There is no single way to create a **project charter**, but every project needs to have one!*



# Project Charter\*

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## What it does and why it's important:

- Authorizes project
- Enables project manager to apply resources to project work
- Defines rationale and business need
- Verifies alignment with strategic goals
- Keeps everyone focused on a clear project vision



*Usually created by project sponsor or project manager with executive/stakeholder approval. Sometimes a statement of work can serve as project charter.*



# Project Charter

## Contents

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### What's included:

- **Names** - project sponsor, project manager, key stakeholders
- **Project description**, including preliminary requirements, measurable objectives
- **Business needs**, including financial goals or milestones
- Summary **schedule** and **milestones**
- **Assumptions, boundaries and constraints**, including overall risk, approval requirements and approved budget
- Information from the **business case**, including success and exit criteria

# Project Charter: Example



 <b>PROJECT CHARTER</b>		
PROJECT NAME		
Shawpe Lifestyle Center (SLC)		
PROJECT MANAGER		
Ang Fen		
PROJECT SPONSOR		
Eugene Lowe		
EMAIL		
ang.fen@shawpe.com		
PHONE		
000.000.0000		
ORGANIZATIONAL UNIT		
Executive		
ESTIMATED COSTS		
\$10 Million		
EXPECTED SAVINGS		
\$0		
EXPECTED START DATE		
Jan 20XX		
EXPECTED COMPLETION		
Dec 20XX+2		
PROJECT OVERVIEW		
PROBLEM OR ISSUE	Rehabilitate commercial property in downtown Oasestown	
PURPOSE OF PROJECT	Establish a profitable commercial development and community partnership in Oasestown	
BUSINESS CASE	Attached. Approved by E. Lowe and BOD at Oct 20XX meeting.	
GOALS / METRICS	Building code and other local government compliance with historic district construction	
EXPECTED DELIVERABLES	'Rehabilitate 128,000 sq metre indoor/outdoor space to meet municipality standards and compliance with National Heritage & Conservation Board (NHC) standards / Property management entity established with Oasestown partner / Secure 14-18 highly reputable commercial tenants'	
RISK - CONSTRAINTS, ASSUMPTIONS	1. Site in historical conservation zone 2. New vendors for specialist glasswork and masonry 3. Physical retail market stability 4. Resistant key stakeholder 5. Phase 3 financing dependent on success of Phases 1 and 2"	
PROJECT SCOPE		
WITHIN SCOPE	1. Manage construction contractors and site development; 2. Create marketing and advertising to secure 14-18 high quality tenants to anchor commercial space; 3. Work with community partners to establish socially beneficial community spaces and programs 4. Manage project budget (funded by external grant) within compliance	
OUTSIDE OF SCOPE	1. architectural work - interior and exterior - Oases Architects 2. building work - XYZ General Contractors, ZYX specialist contractors 3. External grant fund management	
TENTATIVE SCHEDULE		
KEY MILESTONE	START	FINISH
Form Project Team / Preliminary Review / Scope	00/00/0000	00/00/0000
Finalize Project Plan / Charter / Kick Off	00/00/0000	00/00/0000
Phase 1 Design and build interior	00/00/0000	00/00/0000
Create contract with community groups	00/00/0000	00/00/0000
Recruit 14-18 tenants	00/00/0000	00/00/0000
Phase 2 Design and build outdoor spaces	00/00/0000	00/00/0000
Install community programs	00/00/0000	00/00/0000
Secure \$5M revenue in annual commercial rents	00/00/0000	00/00/0000
Phase 3 Finalize all construction	00/00/0000	00/00/0000
Train SLC property management staff	00/00/0000	00/00/0000

# Kickoff Meeting

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## Purpose

- Establishes project context
- Assists in team formation
- Aligns team and stakeholders with project vision

## Organizational/Public

- Announce project initiation
- Share understanding of high-level vision, purpose and value
- Identify sponsor, key stakeholders and project manager
- Include high-level items from the project charter

## Internal/Team – *held after agreements are finalized*

- Give project charter overview
- Clarify team member roles and responsibilities (may include the initial team charter)



- Present results of planning efforts

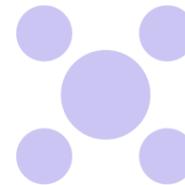


- Initiate product backlog



- Present product roadmap

# ECO Coverage



## 1.2 Lead a team

- Set a clear vision and mission (1.2.1)

## 1.8 Negotiate project agreements

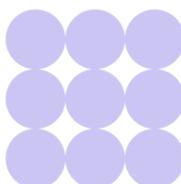
- Analyze the bounds of the negotiation for agreement (1.8.1)
- Assess priorities and determine ultimate objective(s) (1.8.2)
- Participate in agreement negotiations (1.8.4)
- Determine a negotiation strategy (1.8.5)

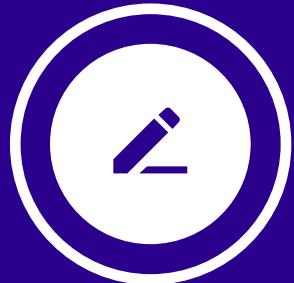
## 1.10 Build shared understanding

- Survey all necessary parties to reach consensus (1.10.2)
- Support outcome of parties' agreement (1.10.3)

## 1.12 Define team ground rules

- Communicate organizational principles with team and external stakeholders (1.12.1)
- Establish an environment that fosters adherence to ground rules (1.12.2)





# Project Approach

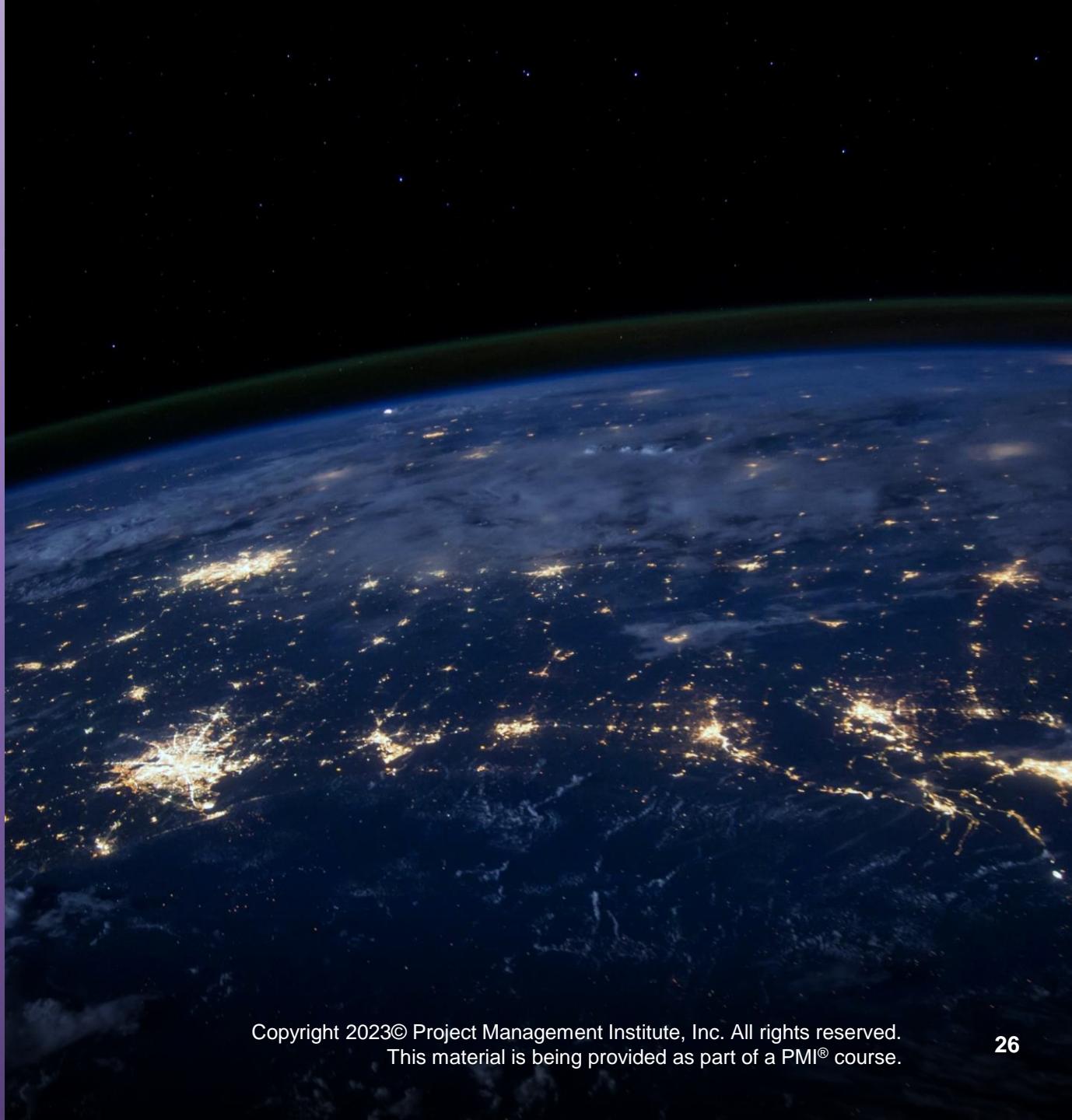
## TOPIC D

# First, Understand How and Why Approaches Differ

- Changing perceptions of value — e.g., sustainability, customer-centricity
- Dynamic and perpetual global change
- Increasing complexity and risk
- Need to innovate and be dynamic



*Which project management frameworks do you use?  
Do you have a preference?*



# Tailored Development Approaches

- Support **dynamic work environments**
- Discover **value delivery requirements** early
- Put stakeholders and the team in close collaboration

Advantages:

- Provide better feature or capability assessment — continuous improvement and quality
- Improve organizational tolerance for change



*Servant leaders influence projects and encourage the organization to think differently.*

# Project Management Development Approaches

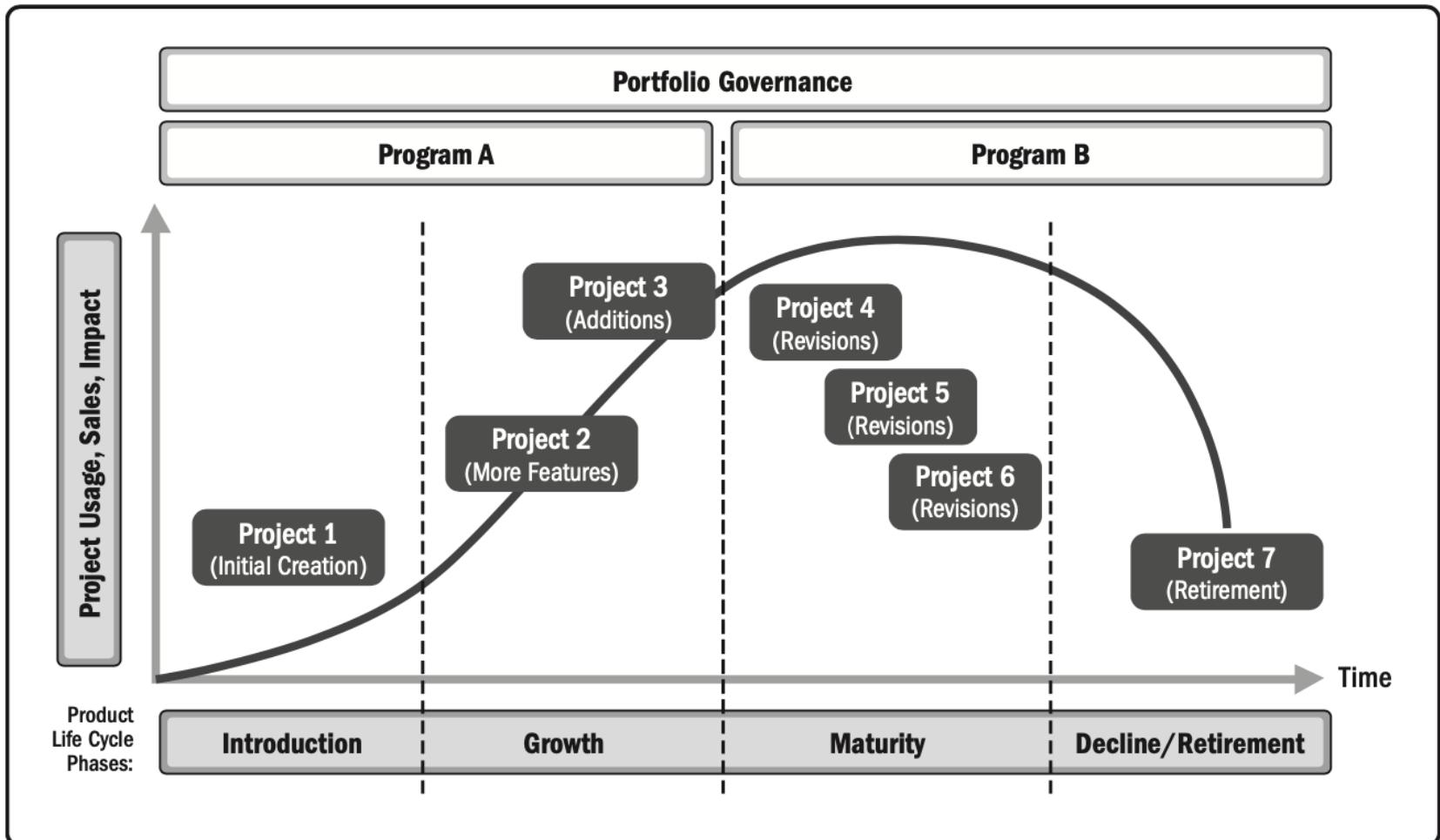
Characteristics	Certainty About Requirements	Change and Risk
 <ul style="list-style-type: none"><li>• Plan-driven</li><li>• Linear sequence of activities, in phases</li><li>• Phase completion governed by phase gates</li></ul>	High, from beginning	<ul style="list-style-type: none"><li>• Change possible, but controlled</li><li>• Risks carefully studied and managed</li></ul>
 <ul style="list-style-type: none"><li>• Change-driven</li><li>• Iterative or incremental</li><li>• Timeboxed cadence (iterations/sprints) or continuous flow</li></ul>	Unclear or customer-driven, so needs further discovery	<ul style="list-style-type: none"><li>• Built on assumption of high degree of change</li><li>• High tolerance of risk with guardrails for risk management</li></ul>
 Tailored development approach, combining these elements		

# Project or Product?

A product is part of a project; products have their own **life cycles**.

**Product management** represents a **key integration point** within program and project management.

**Product owners** are responsible for maximizing the value of the product and accountable for the end product.



*Can you explain why projects often have both a project manager and a product owner?*

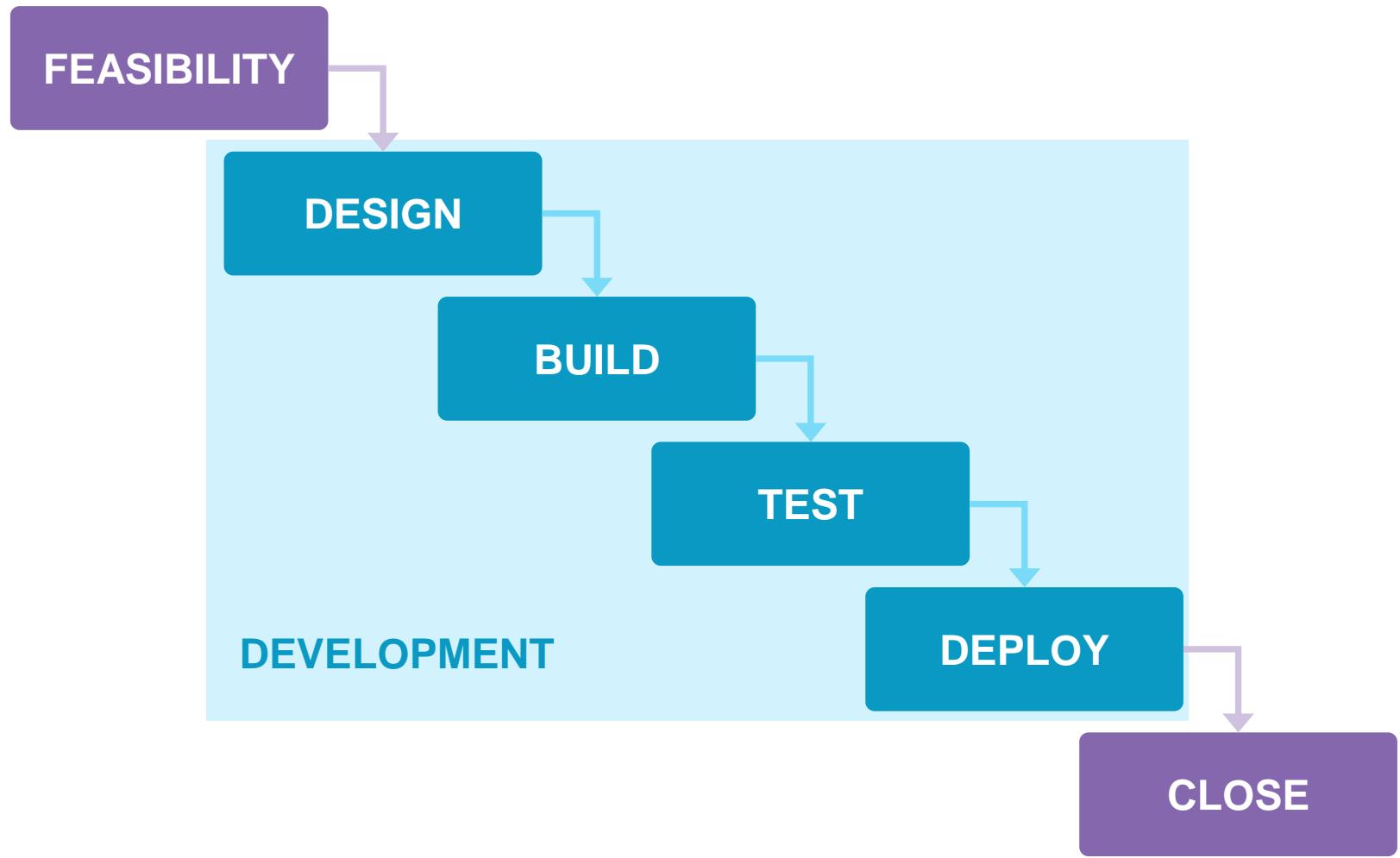
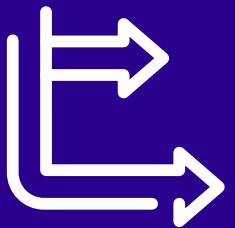
# Life Cycle and Development Approach



*Which type of life cycle is depicted here?*



# Predictive Life Cycle Visual

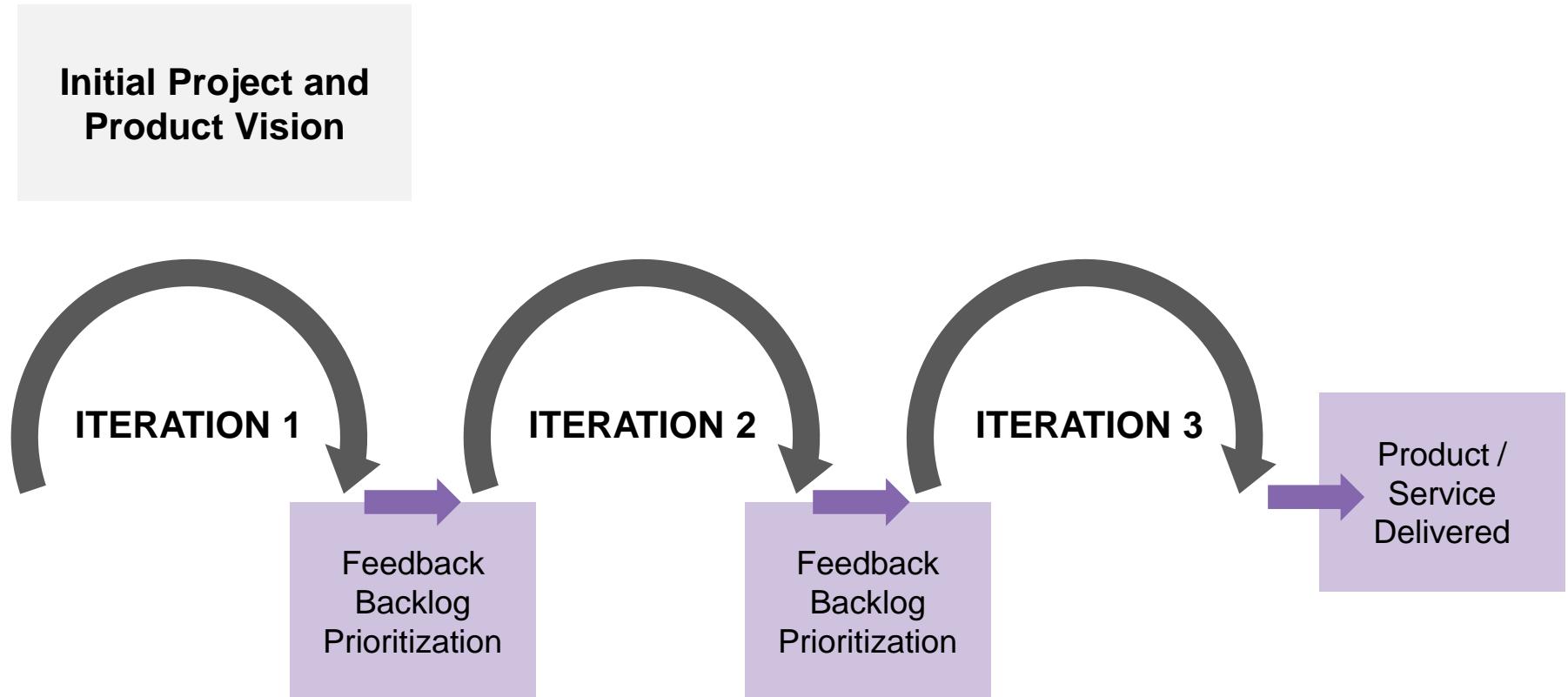
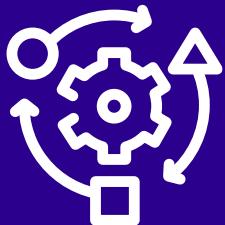


# Adaptive Life Cycle

## Example



Note the *iterations* on the graphic, then describe how this life cycle uses an *incremental* approach.



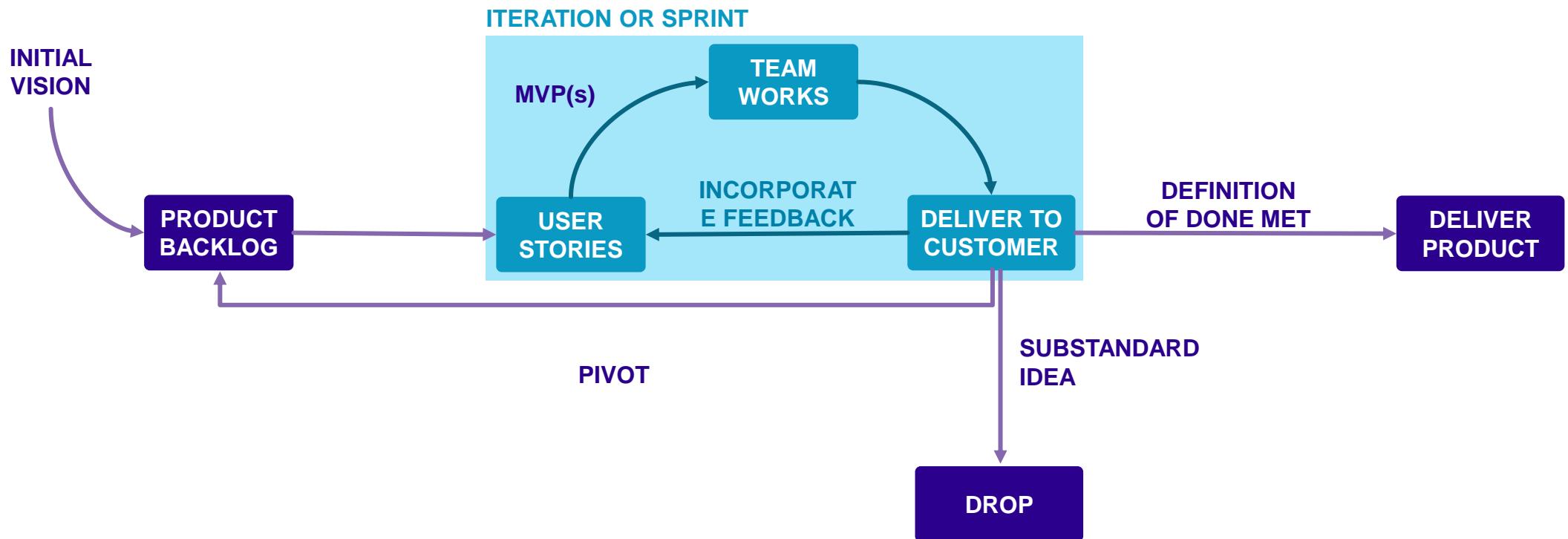
# Cadence

Refers to the timing and frequency of delivery of project deliverables.

- **Single:** One delivery at the end of the project
- **Multiple:** Delivery separated into parts, not necessarily sequentially
- **Periodic:** Like multiple deliveries, but on a fixed schedule — e.g., monthly or bimonthly



# Adaptive Development Approaches



*Cadence can be time-boxed with sprints/iterations or a continuous flow.*

# Development Approach and Life Cycle Terminology Quiz

- Deliverable
- Development approach
- Phases
- Life cycle



Project professionals use a development approach or method, which can be predictive, iterative, incremental, adaptive, or hybrid, to create and evolve a deliverable, which is a unique and verifiable product, result, or capability to perform a service.

A project passes through a series of logically related activities, called phases from its start to its completion. This entire process is called a life cycle.

Acceptance of a deliverable is required to complete a process, phase, or project.

# Hybrid Life Cycle and Development Approach

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- Accomplished by tailoring
- Combines adaptive and predictive life cycles and/or development approaches
- Useful when requirements are uncertain or risky
- Also useful when deliverables can be modularized, or when deliverables can be developed by different project teams
- Uses iterative and incremental development

# Hybrid Project Approaches: Examples

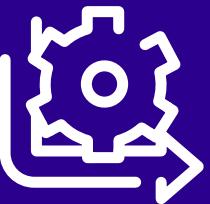
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- Use agile or iterative practices within a predictive framework
- Use predictive artifacts or processes within an adaptive life cycle
- Business analysis techniques assist with requirements management
- New tools help identify complex elements in projects
- Organizational change management methods prepare for transitioning project outputs into the organization

# What Can Be Tailored?

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- Project life cycle
- Development life cycle components
- Way of working (WoW)
- Knowledge management
- Change management
- Project governance
- Benefits management

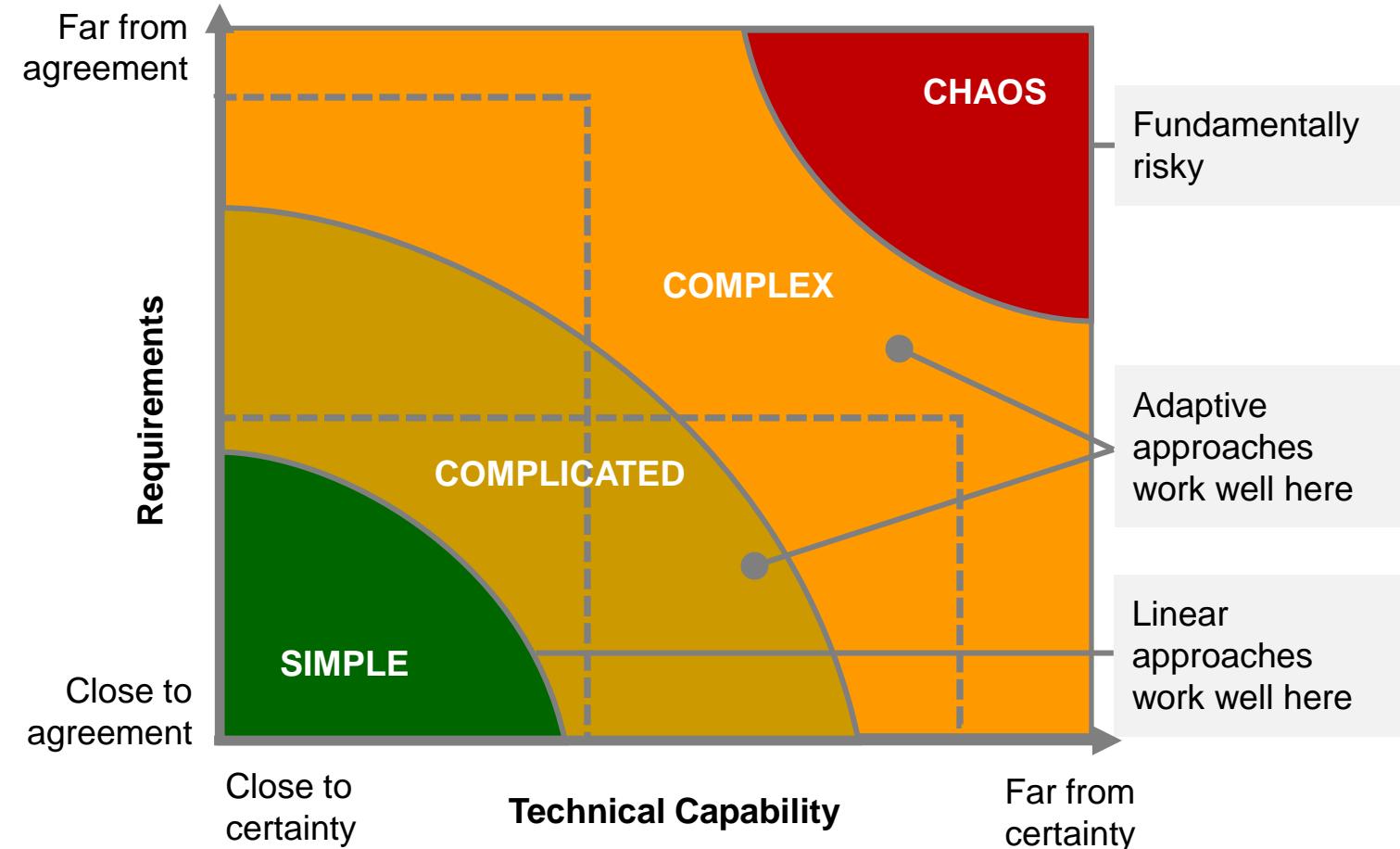
# Development Approaches

## Guidance and Probing Questions

- 
- Deliverable type and the **development approach** influence the **number and cadence** for project deliveries.
  - The development approach and the desired delivery cadence determine the **project life cycle** and its **phases**.
  
  - How much unplanned work?
  - How does the team prefer to work?
  - What cadence suits our work?
  - What does the customer want? Is incremental value delivery even important to them?
  - What's our schedule? Do we want a steadier, building approach or a faster pace?
  - What's our risk appetite/threshold?
  - Are sprints helpful?

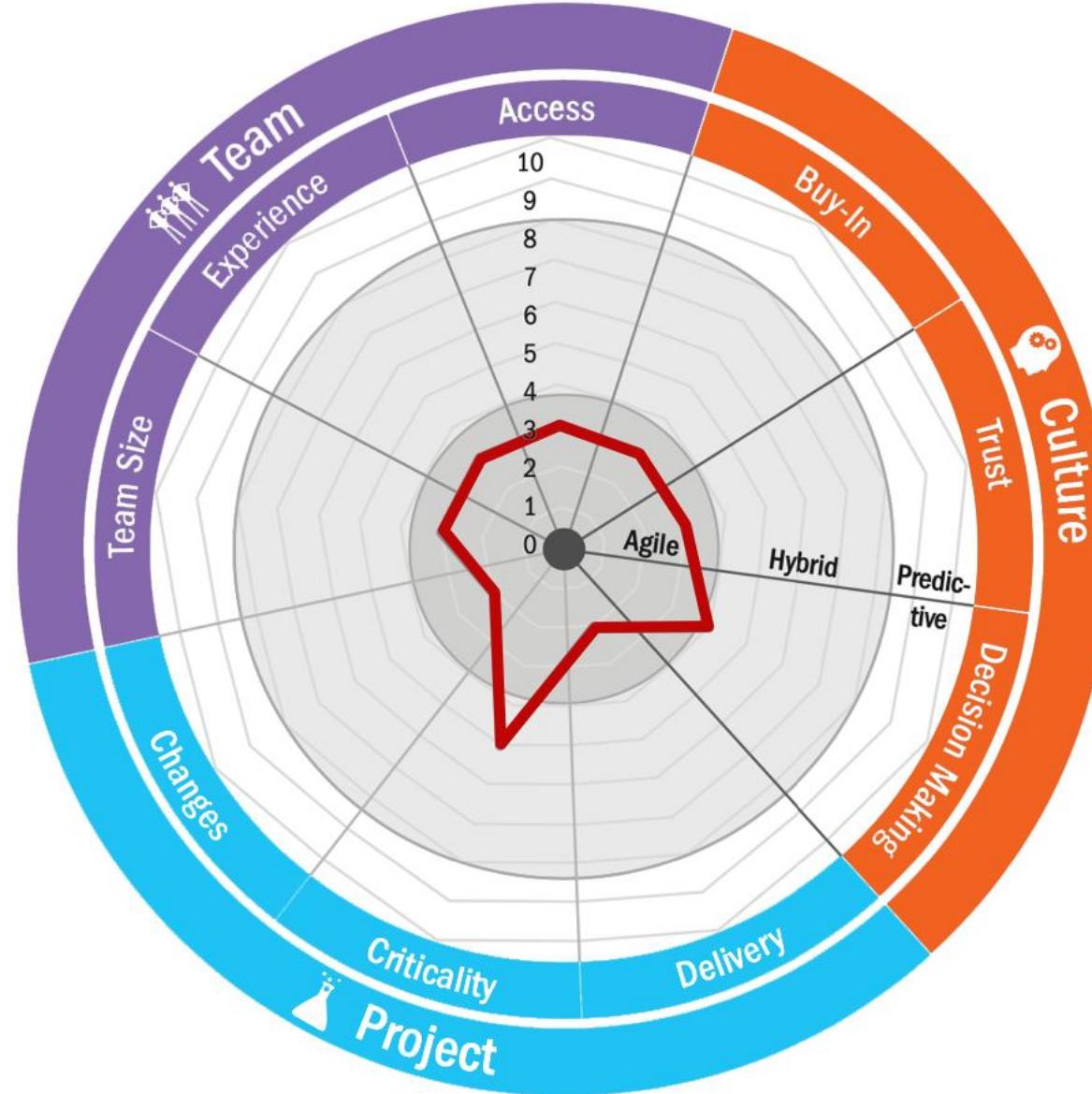
# Assess Complexity: The Stacey Complexity Model

-Ralph D. Stacey

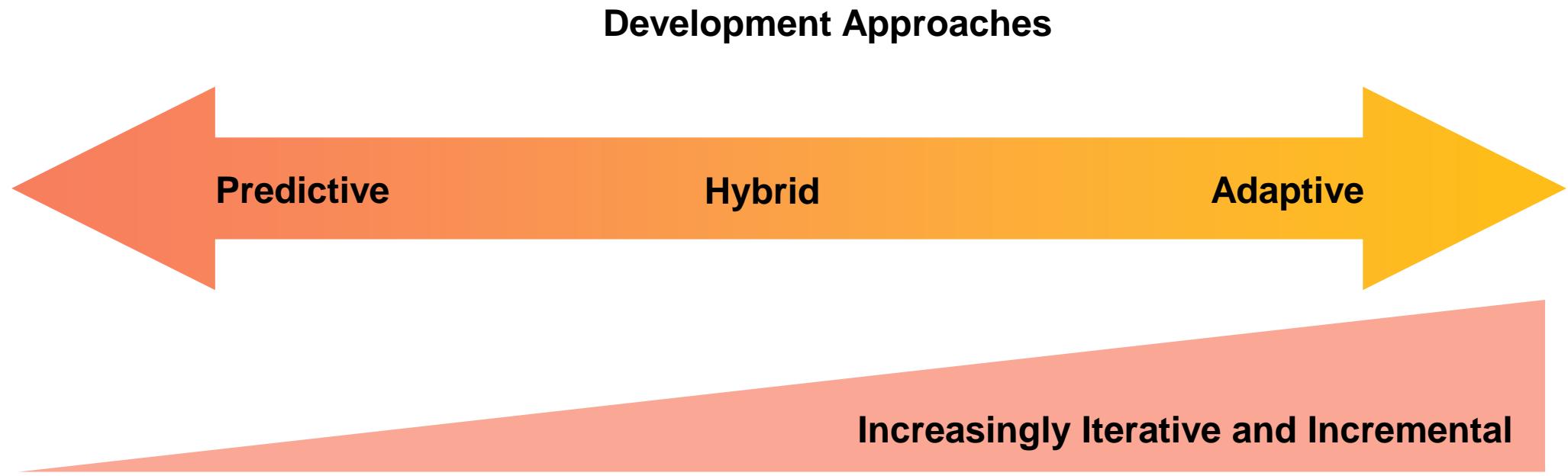


# Suitability Filter

A Diagnostic Visual Based on Survey Data



# Iterative and Incremental: Overview



- Compatible with each other
  - Used in hybrid and adaptive projects
  - Break down development cycle to enable early value delivery

# Iterative Way of Working: Video



# Scrum



- 
- This is a commonly used agile framework that offers suggestions for how work can be organized to maximize value to the end user.
  - Scrum is implemented at a product development team level.
  - Roles include a **scrum master/senior scrum master** who facilitates ceremonies (meetings); iterations are called **sprints**.



*Remember that Agile frameworks focus on influencing the entire organization, including leadership and company culture.*

# Scrum Ceremonies Overview



- **Sprint planning**
  - Team collaborates with product owner to plan work for current sprint
  - Scrum master/senior scrum master facilitates
- **Daily scrum**
  - Short, daily meeting of team only
  - Team members describe work, ask for help, consider progress toward goal
  - **Not** a status meeting
- **Sprint review – can include Demo**
  - Held at end of sprint
  - Team, product owner and stakeholders attend, or customers review progress and give feedback to adapt product
- **Sprint retrospective**
  - Team identifies improvements to performance and collaboration

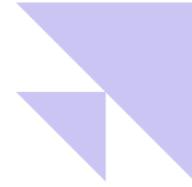
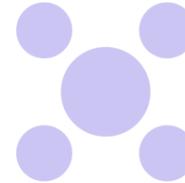
# Agile Ceremonies



*We've discussed the ceremonies over the last few slides. Do you use them in your organization? How effective do they seem to be to you?*

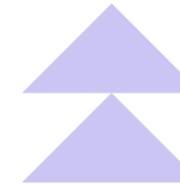
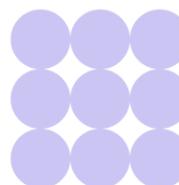
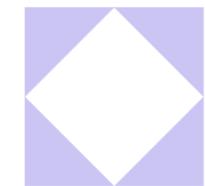
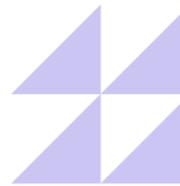
- **Product strategy meeting** – product owner shares product vision
- **Daily standup or standup**
  - Team status meeting
  - 5 to 15 minutes, timeboxed
  - Not necessarily daily
- **Backlog refinement**
  - Product owner prioritizes items on backlog
- **Project retrospective**
  - Held at the end of a project to review work and processes
  - Like lessons learned

# ECO Coverage

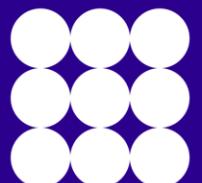
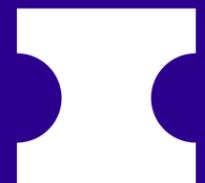
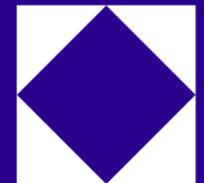
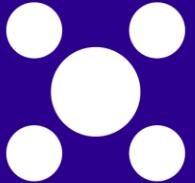
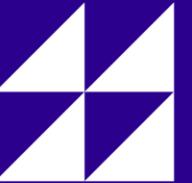


## 2.13 Determine appropriate project methodology/ methods and practices

- Assess project needs, complexity and magnitude (2.13.1)
- Recommend project execution strategy (e.g., contracting, financing) (2.13.2)
- Recommend a project methodology/approach (i.e., predictive, adaptive, hybrid) (2.13.3)



# End of Lesson 2



LESSON 3

# PLAN THE PROJECT

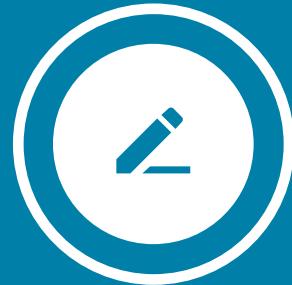
- Planning Projects
- Scope
- Schedule
- Resources
- Budget
- Risks
- Quality
- Integrate Plans



# Learning Objectives

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- Explain the importance of a project management plan.
- Provide an overview of scope planning in both predictive and adaptive projects.
- Provide an overview of schedule planning in both predictive and adaptive projects.
- Discuss resource planning for a project, including human and physical resources and the role of procurement.
- Determine the budgeting structure/method for a project
- Explain the importance of tailoring a budget.
- Identify strategies for dealing with risks and risk planning.
- Assemble a toolkit of possible responses to risks.
- Define quality and how it relates to the outcomes and deliveries for a project.
- Discuss the importance of integrating project management plans and tailoring a change management process.



# Planning Projects

## TOPIC A

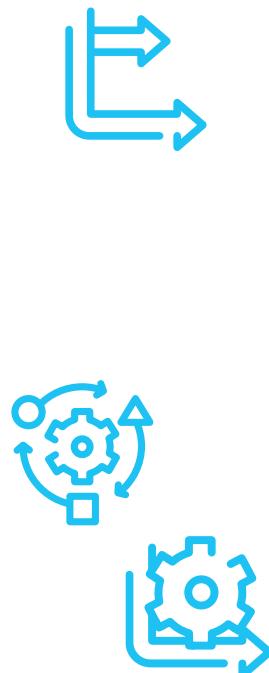
# Planning Starts with a Project Management Plan

The document that describes how the project will be executed, monitored and controlled, and closed.

It includes:

- **Subsidiary plans**
- **Baselines**
- **Additional components**

 \*See definition tab for list



Enables project managers to ....

- Execute
- Monitor
- Control
- Close

- Establishes guardrails to maintain controls, so ....
- Teams can tailor their way of working and act quickly and flexibly!

# Project Documents\*

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Documentation and content created by the team to plan and manage the project effectively

Some documents are project **artifacts**, which need to be maintained and then archived at the end of the project.



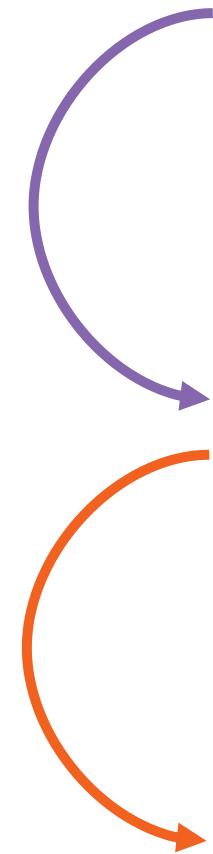
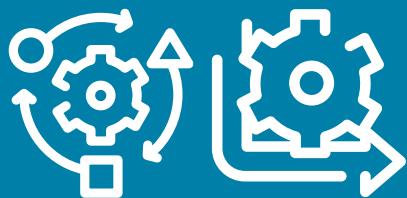
*They are not components of the project management plan.*



\*See definition tab for list

# Collaborative Planning

## Adaptive and Hybrid Development Approaches



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Product owner decides objectives according to customer needs/wants; team executes work and helps product owner **plan the work**

---

Team members are local domain experts in integration management — how **work will be planned** and completed

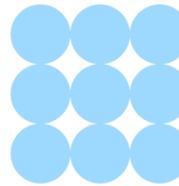
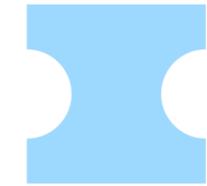
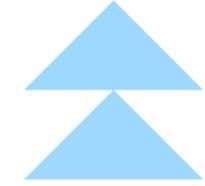
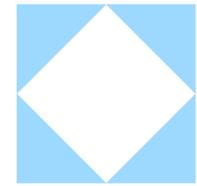
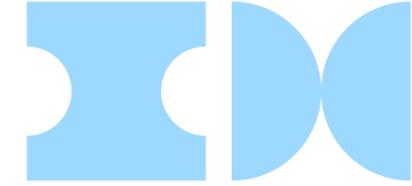
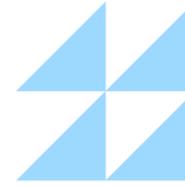
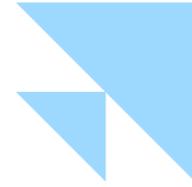
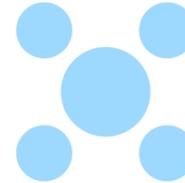
---

Project manager, team lead or scrum master helps focus the team to **execute the planned work**

# Planning Across Life Cycles

	Predictive 	Hybrid 	Adaptive 
<b>Requirements specification</b>	Defined in specific terms before development	Elaborated periodically during delivery	Elaborated frequently during delivery
<b>Outcome(s)</b>	Delivered at the end of the project	Can be divided into pieces (incremental)	Delivered after each iteration according to stakeholder-desired value
<b>Change</b>	Constrained as much as possible	Incorporated at periodic intervals	Incorporated in real time during delivery
<b>Stakeholder Involvement</b>	At specific milestones	Regularly	Continuously
<b>Risk and cost controls</b>	Through detailed planning of mostly known consideration	Through progressive elaboration of plans	Done as requirements and constraints emerge

# Topic Coverage





# Scope

## TOPIC B

# Scope

---

Click me!



- Project scope or product scope?
- Is it fixed or flexible?



LIFESTYLE CENTRE

*Let's use the Shawpe Lifestyle Centre project—the independent case study part of this course—to understand these terms better.*

PROJECT  
SCOPE

PRODUCT  
SCOPE

FIXED

FLEXIBLE



# Adaptability and Resilience in Planning

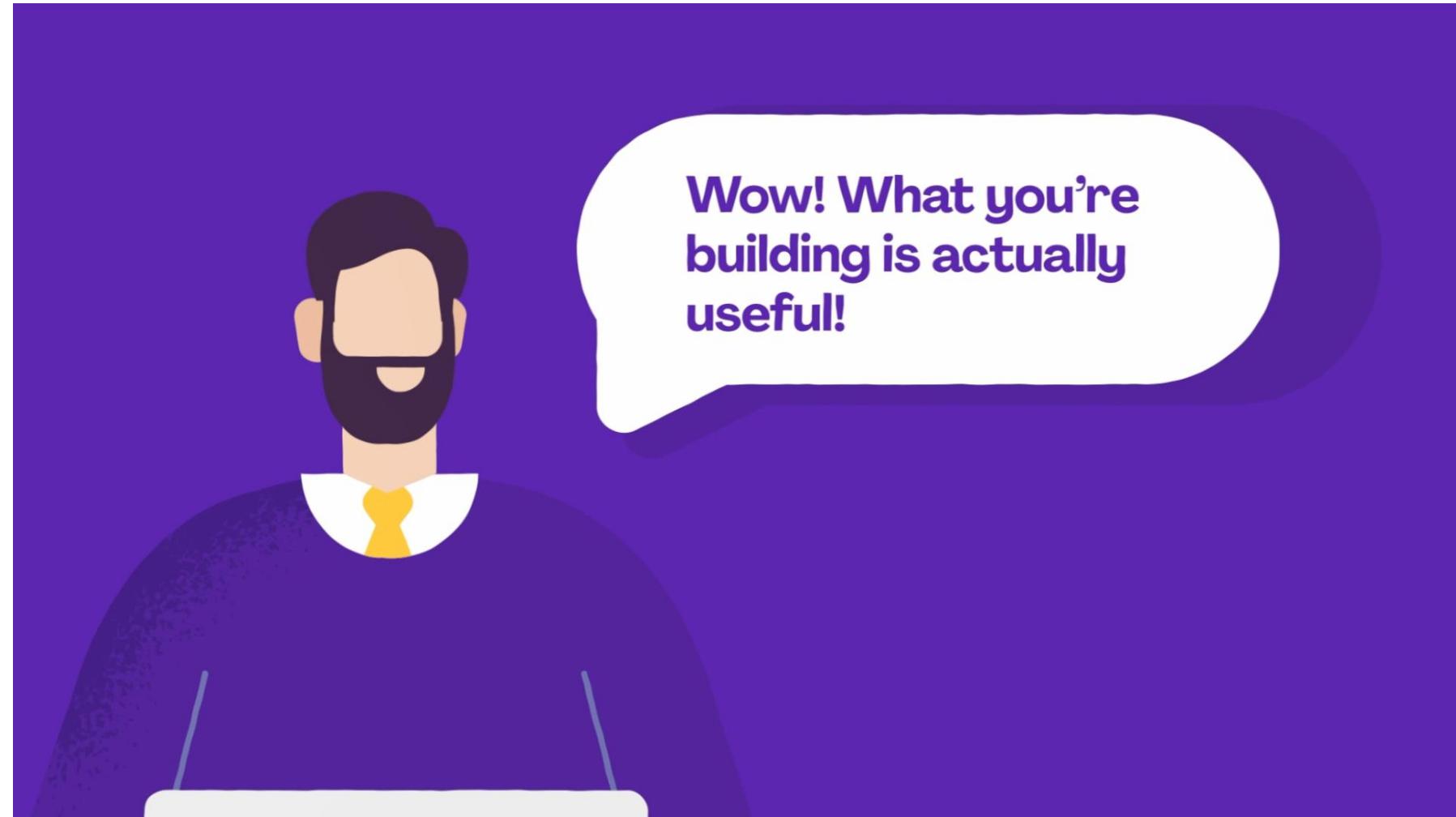
## Rolling Wave Planning

- A form of **progressive elaboration** applied to work packages, planning packages and release planning
- Used in adaptive or predictive approaches



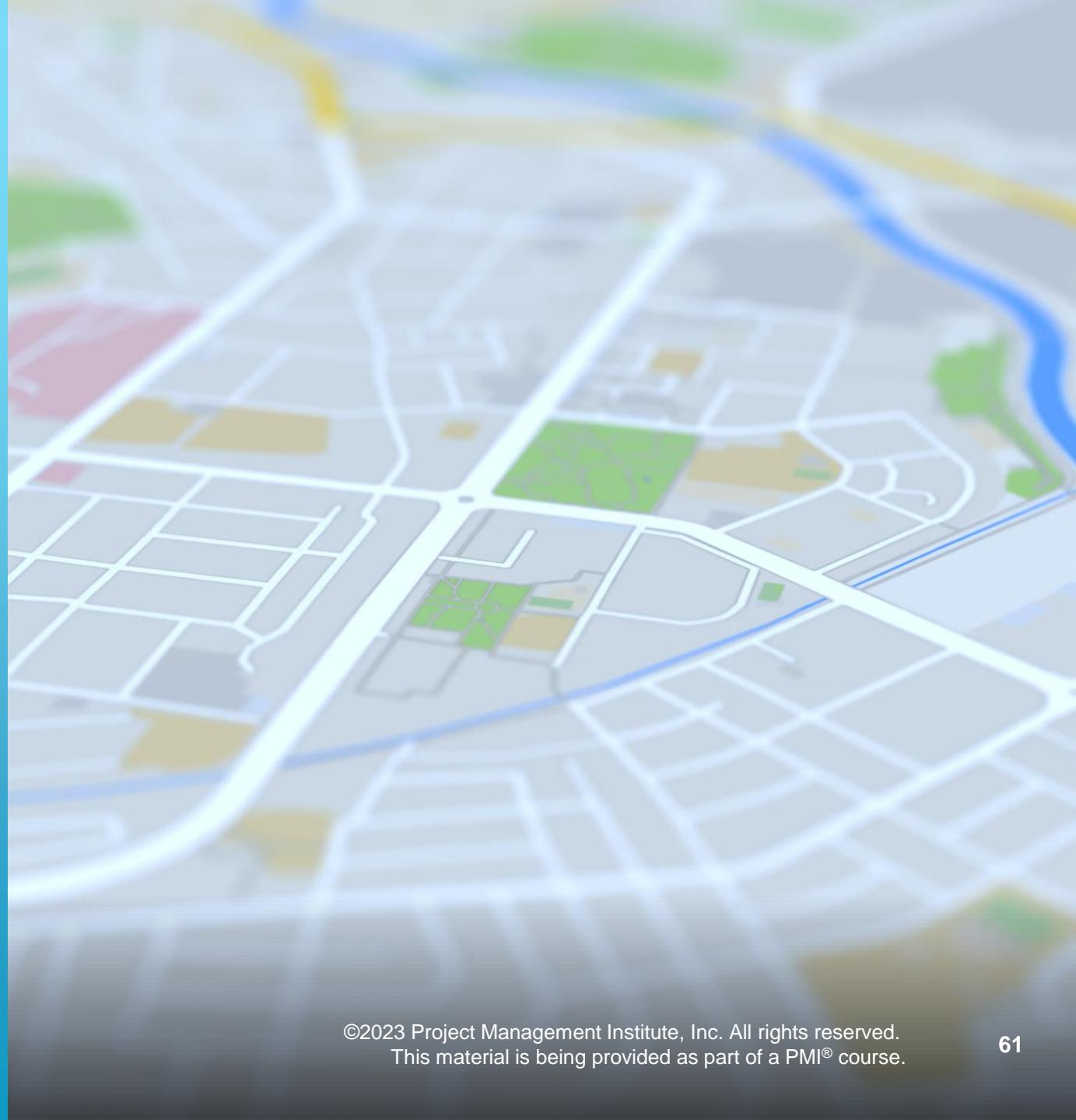
# MVP or MBI?

Planning for  
Work  
Incrementally



# Product Roadmap\*

- Envisions and plans the “big picture”
- Displays product strategy and direction and the value to be delivered
- Leads with the overarching product vision and uses progressive elaboration to refine vision
- Uses themes (goals) to provide structure and associations
- Provides short-term and long-term visualization



# Milestones\*

- **Markers** for big events, reviews, due dates, payments or decision-making
- **Prompts** for reporting requirements or sponsor/customer approval
- **Created by** project managers, customers or both

A **milestone list** identifies all milestones and indicates which are:

- Mandatory - required by contract, or
- Optional (estimated on historical information)



# Scope Planning

## Comparison of Processes

### PROJECT MANAGER



- Facilitates the **Collect Requirements Process**
- **Documents requirements** in a:
  - Scope statement (text/document)
  - Work breakdown structure (WBS) – (visual)
- Develops schedule, budget, resource and quality plans to deliver requirements



*What might a hybrid scope planning process look like?*

### PRODUCT OWNER



- Creates and refines release backlog for iteration planning meeting
- Explains each prioritized **user story** in detail to the team

### TEAM

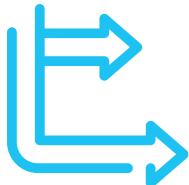
- Estimates effort required and creates the iteration baseline, selecting stories to meet the expected velocity for the iteration.
- Places user stories from product backlog into release backlog to support identified features and functions
- Uses a story map to sequence and prioritize user stories in the release backlog

# Get Started with Requirements?



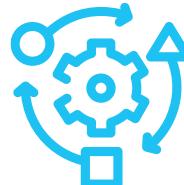
*Does this kind of project start with requirements?*

*Click each button!*



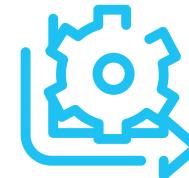
**Yes!**

In predictive projects, requirements are elicited and set at the beginning of the project.



**Sort of...**

User stories are a different way of thinking about the requirements process.

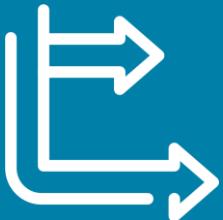


**Maybe!**

Hybrid projects may elicit and refine requirements or compose user stories.

# Requirements

## What Are They and Why Do We Need Them?



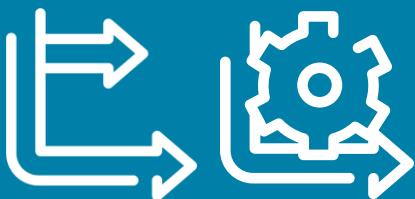
### ***Guidelines for use:***

- *Start at a high level before providing details*
- *Must be unambiguous (measurable and testable), traceable, complete, consistent and acceptable to key stakeholders*



# Document Requirements

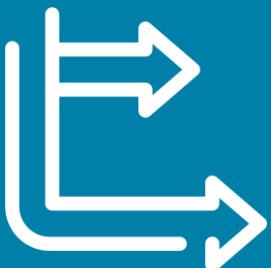
- A simple format — e.g., a document listing all requirements, categorized by stakeholder and priority, OR
- More elaborate — e.g., executive summary, detailed descriptions, attachments
- **Requirements traceability matrix**



Requirements Traceability Matrix									
Project Name:									
Cost Center:									
Project Description:									
ID	Associate ID	Requirements Description	Business Needs, Opportunities, Goals, Objectives	Project Objectives	WBS Deliverables	Product Design	Product Development	Test Cases	
001	1.0								
	1.1								
	1.2								
	1.2.1								
002	2.0								
	2.1								
	2.1.1								
003	3.0								
	3.1								
	3.2								
004	4.0								
005	5.0								

# Requirements Management Plan

## Plan, Track and Report on Requirements Activities

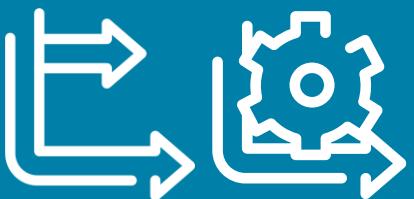


- 
- Configuration management activities:
    - Version control rules
    - Impact analysis - tracing, tracking and reporting
  - Required authorization levels for change approval
  - Prioritization criteria/process
  - Product metrics and accompanying rationale
  - Traceability structure, including requirement attributes

# Types of Requirements

Type	Describes the...
<b>Project</b>	Actions, processes and conditions the project must meet
<b>Product</b>	Features and characteristics of the product, service or result that will meet the business and stakeholder requirements <ul style="list-style-type: none"><li>• Functional – Product features</li><li>• Nonfunctional - Supplemental environmental conditions/qualities that make the product effective</li></ul>
<b>Quality</b>	Conditions or criteria needed to validate the successful completion of a project deliverable or fulfilment of other project requirements
<b>Business</b>	Higher-level organizational needs, reasons for the project
<b>Stakeholder</b>	Stakeholder (or stakeholder group) needs —aka “Reporting requirements”
<b>Transition/ Readiness</b>	Temporary capabilities needed to transition successfully to the desired future state

# Collect Requirements Process



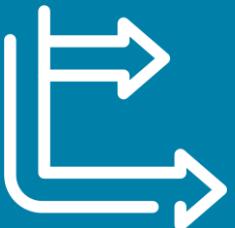
- Expert Judgment
- Interpersonal/Team Skills
  - Nominal group technique
  - Observation
  - Facilitation
- Data Gathering
  - Brainstorming
  - Interviews
  - Focus groups
  - Questionnaires and surveys
  - Benchmarking
- Data Analysis
  - Document analysis
  - Alternatives analysis
  - Product analysis (if deliverable is a product)
- Decision-Making Techniques
  - Voting
  - Multi-criteria decision analysis
- Data Representation
  - Mind mapping
  - Affinity diagram
  - Context or use case diagram
- Prototyping — e.g., storyboarding

# Scope Planning: How to Collect Requirements



	Interviews	Questionnaires/Surveys	Observations	Focus Groups	Facilitated Workshops
Characteristics	<ul style="list-style-type: none"> <li>Identify/define features and functions of deliverables</li> <li>Can be structured, unstructured or asynchronous</li> </ul>	<ul style="list-style-type: none"> <li>Written format</li> <li>Captures information from large groups</li> <li>Yields quantitative data</li> </ul>	<ul style="list-style-type: none"> <li>Physical technique used learn about a specific job role, task or function</li> </ul>	<ul style="list-style-type: none"> <li>Casual/interactive information-sharing</li> <li>Moderator-guided</li> <li>Includes stakeholders and SMEs</li> <li>Yields qualitative data</li> </ul>	<ul style="list-style-type: none"> <li>Sessions organized by project managers to determine requirements and enable stakeholder agreement on project outcomes</li> </ul>
Advantages	<ul style="list-style-type: none"> <li>Handles sensitive/confidential information</li> <li>Helps identify stakeholder requirements, goals or expectations</li> </ul>	<ul style="list-style-type: none"> <li>Quick turnaround</li> <li>Effective with varied and geographically dispersed respondents</li> <li>Yields quantifiable data for statistical analysis</li> </ul>	<ul style="list-style-type: none"> <li>Team can understand where changes might be beneficial</li> </ul>	<ul style="list-style-type: none"> <li>Pre-selected participants for varied opinions</li> <li>Small group for focused approach and gathering specific information</li> </ul>	<ul style="list-style-type: none"> <li>Team can capture requirements</li> <li>Stakeholders can understand the concerns and requirements of others</li> </ul>
Considerations (potential drawbacks)	<ul style="list-style-type: none"> <li>Captures only a single point of view</li> </ul>	<ul style="list-style-type: none"> <li>Time consuming</li> <li>Answer/ data quality depends on question quality</li> </ul>		<ul style="list-style-type: none"> <li>Must prequalify stakeholders</li> <li>SMEs and facilitation are essential</li> </ul>	<ul style="list-style-type: none"> <li>Facilitation is essential</li> </ul>

# Data Gathering



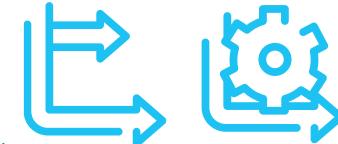
Use **Benchmarks** to generate product requirements

- Requires best practices to make comparisons
- Evaluates and compares an organization's or project's practices with others
- Identifies best practices in order to meet or exceed them



- *Can you remember the other methods for data gathering?*
- *Why do you think benchmarking is effective in gathering data for scope planning?*
- *Why would you choose it instead of the other methods?*

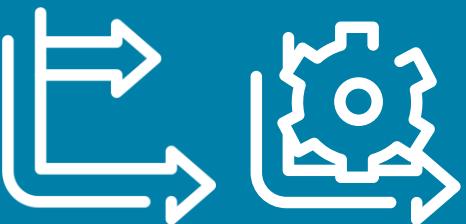
# Scope Planning – Requirements Prioritization



Tool or Technique	Description	Benefits
<b>MoSCoW Analysis</b> <i>(developed by Dai Clegg)</i>	<p>Used to reach a common understanding with stakeholders on the importance of each requirement. They indicate:</p> <ul style="list-style-type: none"><li>• M - Must have</li><li>• S - Should have</li><li>• C - Could have</li><li>• W - Won't have (for now)</li></ul>	<ul style="list-style-type: none"><li>• Compares several points of view</li><li>• Used with timeboxing to focus on the most important requirements</li><li>• Common in agile software development, Scrum, RAD and DSDM</li></ul>
<b>Kano Model</b> <i>(Product management technique)</i> <i>(developed by Noriaki Kano)</i>	<p>Understand and classify all potential customer requirements or features into four categories of need:</p> <ul style="list-style-type: none"><li>• Delighters/exciters</li><li>• Satisfiers</li><li>• Dissatisfiers</li><li>• Indifferent</li></ul>	<ul style="list-style-type: none"><li>• Development efforts can then be prioritized by the things that most influence customer satisfaction and loyalty.</li></ul>
<b>Paired Comparison Analysis</b> <i>(developed by LL Thurston)</i>	<p>Rate and rank alternatives by comparing one against the other</p>	<ul style="list-style-type: none"><li>• Good for small range of subjective requirements</li></ul>
<b>100 Points Method</b> <i>(aka fixed sum or fixed allocation method)</i> <i>(developed by Dean Leffingwell and Don Widrig)</i>	<p>Vote for importance of requirements in a list; stakeholders distribute 100 points in any way they wish (Like "Monopoly money" method)</p>	<ul style="list-style-type: none"><li>• Good for any size group, even large ones</li><li>• Gives priority to stakeholder decision-making because they must exercise depth of thought</li></ul>

# Represent Data

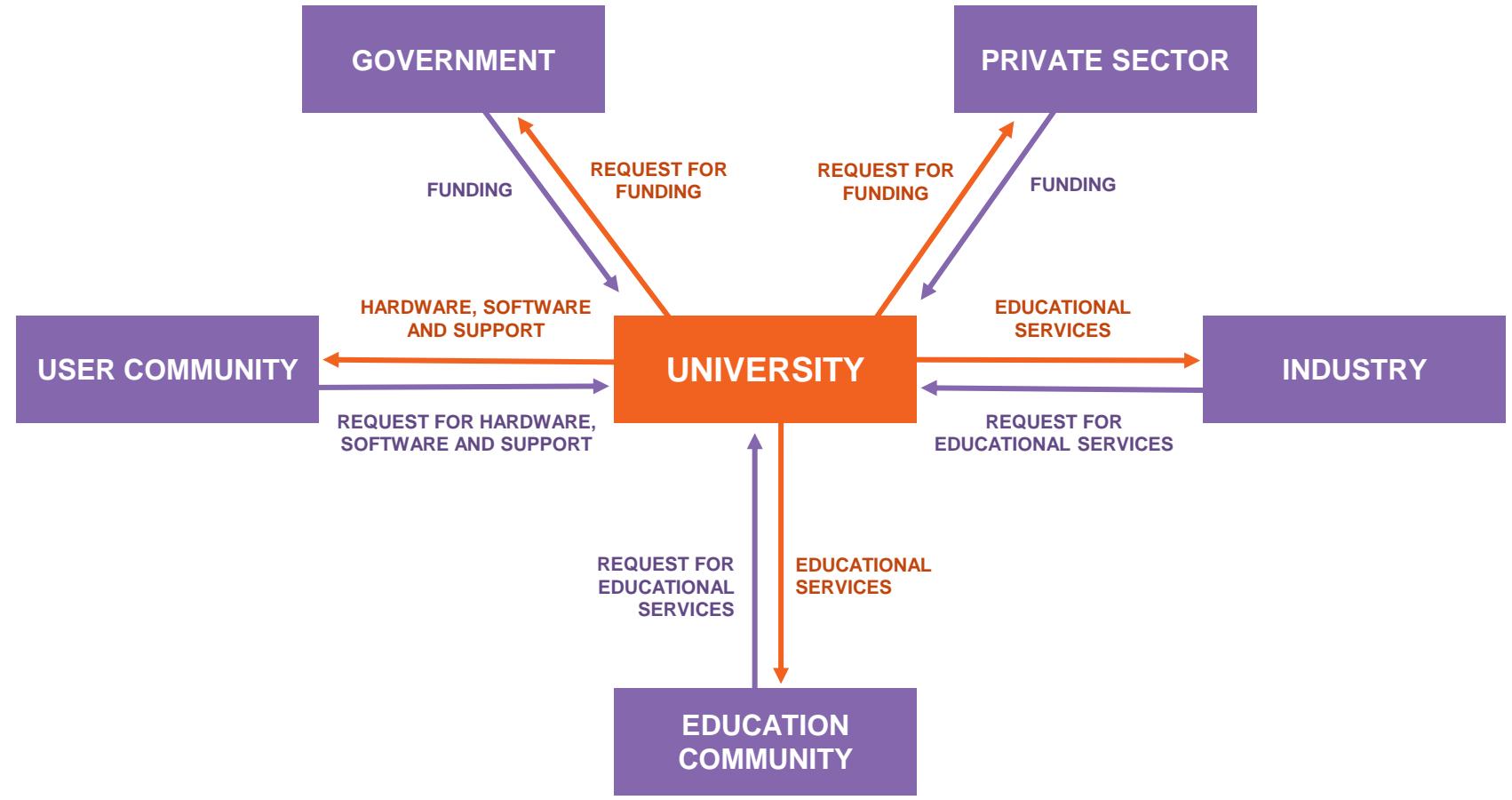
- **Mind Mapping** – Consolidate ideas created through individual brainstorming sessions into a single map to reflect commonality and differences in understanding and to generate new ideas
- **Affinity Diagram** – Allows large numbers of ideas to be classified for review and analysis



# Context Diagrams\*



Business Context Diagram Example



# Prototyping

- **Evaluation and experimentation tool**
- Enables early feedback for further development and **to develop a detailed list of project requirements**
- **Storyboarding** is a type of **prototyping** that uses visuals or images to illustrate a process or represent a project outcome.



# DAILY PMP BOOTCAMP SURVEY



LOOK FOR THE SURVEY LINK IN THE CHAT

- Our goal is to provide the best possible Bootcamp experience for a live streaming webinar, with hundreds of participants.
- For each Bootcamp session,
  - Let us know **what you liked** about the experience – your comments really matter.
    - Please include a thank you **to the mentor(s)** working off camera.
  - If you have **recommendations**, share those too!

**We sincerely value your opinion!**

# Survey Scale

This Scale: 0 not at all likely- 10 extremely likely



On a scale of 0-10, how likely are you to recommend this bootcamp to someone else?

This Scale: 0 not at all likely - 10 extremely likely



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## KEY PERFORMANCE INDICATORS (KPIs)

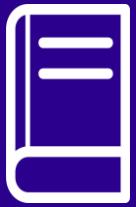
A set metric used to evaluate a project, an organizational unit, or a project team's performance against the project vision and objectives. KPIs can be time bound.



---

## PRODUCT BOX EXERCISE

A technique used to explain a desired solution or outcome. Stakeholders try to describe aspects of a solution in the same way a marketer might describe product features and benefits on a box.



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## XP METAPHOR

A common Extreme Programming (XP) technique that describes a common vision of how a program works.



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## PROJECT CHARTER

A document issued by the project initiator or sponsor that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities.



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## PRODUCT MANAGEMENT

The integration of people, data, processes, and business systems to create, maintain, and evolve a product or service throughout its life cycle.



---

## PROJECT MANAGEMENT PLAN COMPONENTS

### SUBSIDIARY MANAGEMENT PLANS

- Scope management plan
- Requirements management plan
- Schedule management plan
- Cost management plan
- Quality management plan
- Resource management plan
- Communications management plan
- Risk management plan
- Procurement management plan
- Stakeholder engagement plan



---

## PROJECT MANAGEMENT PLAN COMPONENTS

### BASELINES

- Scope baseline
- Schedule baseline
- Cost baseline



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## PROJECT MANAGEMENT PLAN COMPONENTS

### ADDITIONAL COMPONENTS

- Change management plan
- Configuration management plan
- Performance measurement baseline
- Project life cycle
- Development approach
- Management reviews



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## PROJECT DOCUMENTS

Any documents that are prepared in support of a project – for example, requirements, specifications, contracts with vendors, design documents, test plans, and publications that will be delivered to the client along with the final product.



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## PROJECT SCOPE

The features, functions, and works that characterize the delivery of a product, service, and/or result.



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## PRODUCT SCOPE

The functions and features that characterize a product or a service.



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## ROLLING WAVE PLANNING

An iterative planning technique in which the work to be accomplished in the near term is planned in detail, while the work in the future is planned at a higher level.



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## PROGRESSIVE ELABORATION

The iterative process of increasing the level of detail in a project management plan as greater amounts of information and more accurate estimates become available.



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## PRODUCT ROADMAP

A high-level visual summary of the product or products of the project that includes goals, milestones, and potential deliverables.



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## MILESTONE

A specific point within a project life cycle used as a measure in the progress toward the ultimate goal. A milestone marks a specific point along a project timeline. The point may signal anchors such as a project start and end date, a need for external review, or input and budget check. It is represented as a task of zero duration and is displayed as an important achievement in a project.



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## COLLECT REQUIREMENTS PROCESS

The process in which requirements documentation is developed. Precedes the Define Scope process.



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## REQUIREMENTS DOCUMENTATION

A description of how individual requirements meet the business need for the project.



## USER STORY

An informal, general explanation of a product, service, or software feature written from the perspective of the end user. Its purpose is to articulate how the feature will provide value to the customer.



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## NOMINAL GROUP TECHNIQUE

A technique that enhances brainstorming with a voting process used to rank the most useful ideas for further brainstorming or for prioritization.



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## MULTI-CRITERIA DECISION ANALYSIS

A technique that utilizes a decision matrix to provide a systematic, analytical approach for establishing criteria, such as risk levels, uncertainty, and valuation, to evaluate and rank many ideas.



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## BENCHMARKING

The comparison of actual or planned products, processes, and practices to those of comparable organizations to identify best practices, generate ideas for improvement, and provide a basis for measuring performance.



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## CONTEXT DIAGRAM

Visual depiction of product scope, showing a business system (process, equipment, computer system, etc.) and how people and other systems interact with it.



---

## STORYBOARDING

The prototyping method that uses visuals or images to illustrate a process or represent a project outcome. Storyboards are useful to illustrate how a product, service, or application will function or operate when it is complete.



---

## PROTOTYPES

A method of obtaining early feedback on user requirements by building a working model of the expected product. Prototypes can be used to solicit aesthetics, functionalities etc. Several iterations maybe displayed.