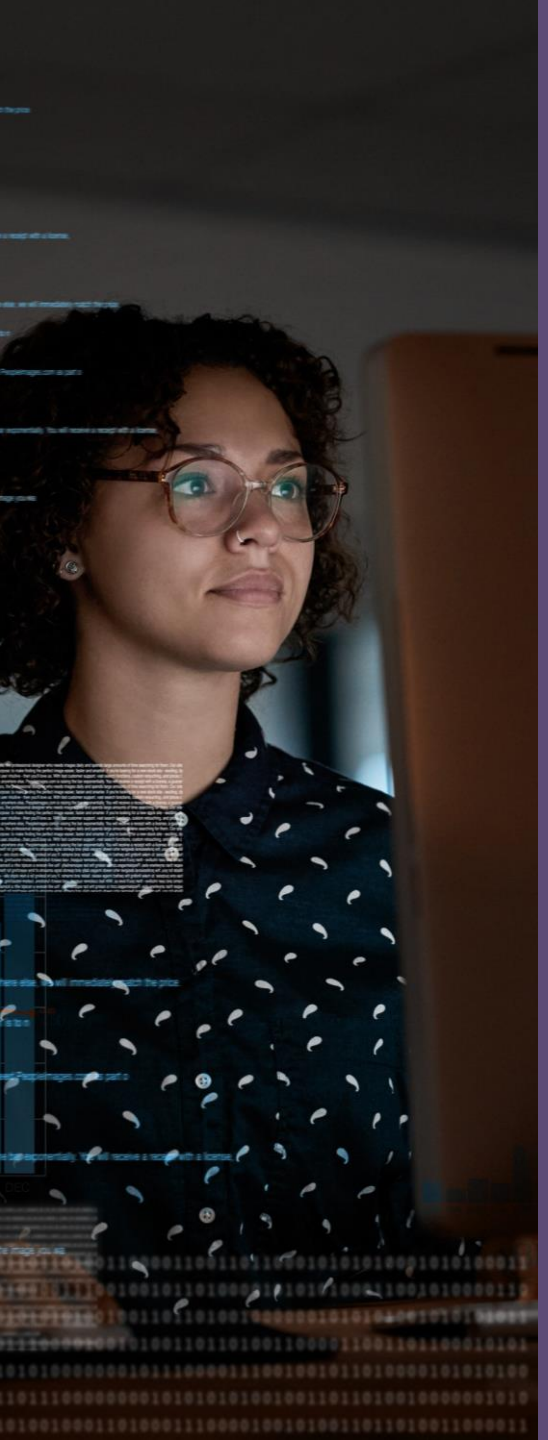


PMP® EXAM PREP
PMI Authorized Training Partner
BOOTCAMP
Session 5

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

Part 1	Periodic breaks
1 –hour break	At the 3.5 Hour Mark
Part 2	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 5 Day Bootcamp – **You are allowed to miss one session if you make up the session by watching the replay.**
- 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 during any additional sessions (including during breaks) beyond the one session allowed, you will need to make it/them up by attending the live session(s) in a different 5-day cohort*.

*Please see the Bootcamp calendar
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 to access the Replay through your browser.

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 accessing the replays for study purposes.

Important Information: Official Certificate

Percipio Users: To help ensure Percipio auto generates the certificate at the end: Always login through Percipio, even if you are simultaneously logged in through Zoom directly as a backup.

- Your certificate will not auto-generate after the last session ends, if either of the following situations happen:
  - You don't log into the Bootcamp through Percipio for one or more sessions.
  - You miss too much time in one or more sessions. So, barring technical issues, stay logged into each session in its entirety through Percipio.

Non-Percipio Users and **Percipio users** who don't have the certificate auto-generated: You will need to manually request your official certificate.

- Review the instructions in your Attendance Tracker .docx file.
- Review the **PMP ATP Certificates of Completion** video available in the Bootcamp channel (Percipio users) or in GitHub (Any user), which explains the certificate process.

Recap Session 4

Mapping this course to the Student Workbook

	Business Environment Lesson 1	Start the Project Lesson 2	Plan the Project Lesson 3	Lead the Project Team Lesson 4	Support Project Team Performance Lesson 5	Close the Project/Phase Lesson 6
Topic A	(1A) Foundation	(2A) Identify and Engage Stakeholders	(3A) Planning Projects	(4A) Craft Your Leadership Skills	(5A) Implement Ongoing Improvements	(6A) Project Phase/Closure
Topic B	(1B) Strategic Alignment	(2B) Form the Team	(3B) Scope	(4B) Create a Collaborative Project Team Environment	(5B) Support Performance	(6B) Benefits Realization
Topic C	(1C) Project Benefits and Value	(2C) Build Shared Understanding	(3C) Schedule	(4C) Empower the Team	(5C) Evaluate Project Progress	(6C) Knowledge Transfer
Topic D	(1D) Organizational Culture and Change Management	(2D) Project Approach	(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 4

LEAD THE PROJECT TEAM

- Craft Your Leadership Skills
- Create a Collaborative Project Team Environment
- Empower the Team
- Support Team Member Performance
- Communicate and Collaborate with Stakeholders
- Training, Coaching and Mentoring
- Manage Conflict

Version 3.2 | 2023 Release

Learning Objectives

- Discuss the guidelines for developing leadership competencies and skills.
  - Address leadership styles, and the components of leading a successful team, either in person or virtually.
- Describe artifacts and the strategies for their use.
- Identify the characteristics and core functions of empowered teams.
- Explain strategies and forms of communication for collaborating in a project team environment.
- Learn the value of training, coaching and mentoring for a team.
- Explain the importance of conflict management.
- **Discuss the causes and levels of conflict and their outcomes.**

Manage Conflict

TOPIC G

Why Conflict Management Matters

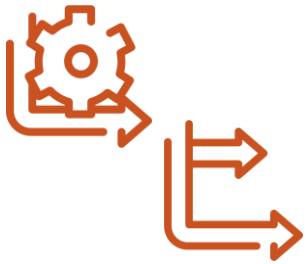
Ineffective conflict management leads to:

- Destructive behavior
- Animosity
- Poor performance
- Reduced productivity

Effective conflict management leads to:

- Improved understanding
- Better performance
- Higher productivity

Conflict Management
Roles



All team members and stakeholders are responsible for managing conflict

Project managers **influence the direction and handling of conflict** through **interpersonal skills** and **servant leadership**

The team is empowered to resolve conflicts; the team lead can facilitate resolution.

Causes of Conflict

Context

- Competition
- Differences in objectives, values, and perceptions — this can be ideological
- Disagreements about role requirements, work activities and individual approaches
- Communication breakdowns
- Projects are unique and team members not worked together before

Conflict as Part of Team Culture

In a **psychologically safe** work environment:

- View disruption and innovation as connected
- Encourage exchanges and disagreement
- Prevent escalation to conflict

How to Handle Conflict

Use preferred ways of managing conflict from the **team charter** and **ground rules**. Provide guidance and resources to help the team.

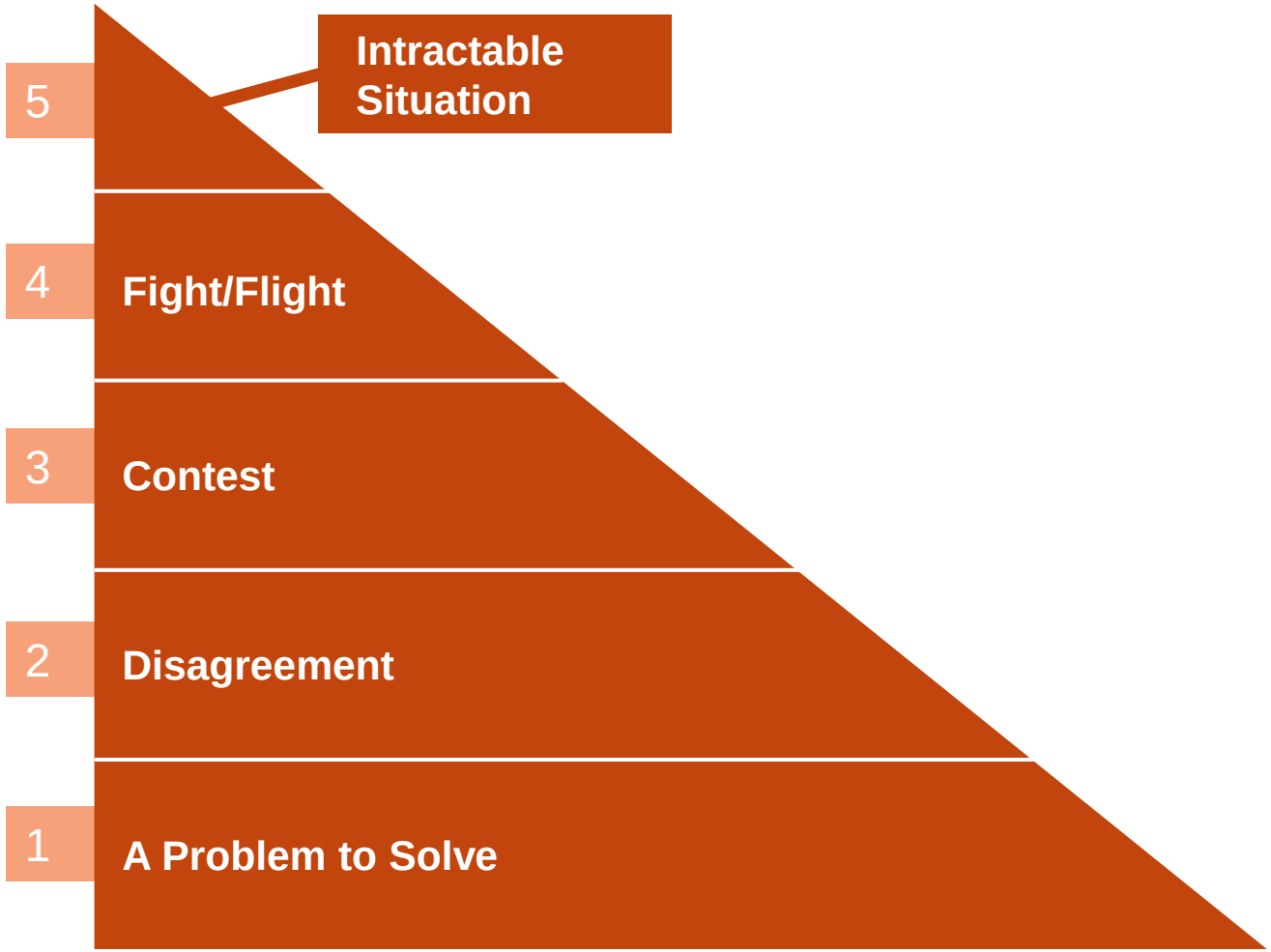
Agile teams include conflict management strategies in their way of working (WoW) and are supported by a culture of trust.

Focus on the issues and not on individuals.

Use Leas' Levels of Conflict

Conflict intensifies from level 1 to 5

From task-orientated with possible resolution to a personal or relationship orientation, where **the focus on issues is lost**.



Conflict Model by Speed B. Leas (2012)

Use Interpersonal Skills to Manage Conflict

Emotional Intelligence	Use empathy to understand and diffuse situations
Influencing	Persuade parties to reconsider or change their tone, approach, or mindset
Leadership	Steer others in a more positive direction
Decision-Making	Offer a solution to move the situation forward
Active Listening	Listen for personalized, accusing language and bitter or caustic tone, defensive or aggressive physical postures

Conflict Management Approaches

Smooth/ Accommodate	• Emphasize areas of agreement • Concede position to maintain harmony and relationships
Withdraw/ Avoid	• Retreat from the situation • Postpone the issue
Compromise/ Reconcile	• Incorporate multiple viewpoints • Enable cooperative attitudes/open dialogue to reach consensus and commitment
Force/Direct	• Pursue your viewpoint at the expense of others • Offer only win/lose solutions
Collaborate/ Problem Solve	• Incorporate several viewpoints and insights from varying perspectives • Requires cooperative attitude and open dialogue • Search for solutions that typically lead to consensus and commitment

*Root cause analysis – **5 Whys Method***

ECO Coverage

1.1 Manage conflict

- Interpret the source and stage of the conflict (1.1.1)
- Analyze the context for the conflict (1.1.2)
- Evaluate/recommend/reconcile the appropriate conflict resolution solution (1.1.3)

1.12 Define team ground rules

- Discuss and rectify ground rule violations (1.12.3)

1.10 Build shared understanding

- Investigate potential misunderstandings (1.10.4)
- Break down situations to identify the root cause of a misunderstanding (1.10.1)

End of Lesson 4

Project Management Institute.

LESSON 5

SUPPORT PROJECT TEAM PERFORMANCE

- Implement Ongoing Improvements
- Support Performance
- Evaluate Project Progress
- Manage Issues and Impediments
- Manage Changes

Version 3.2 | 2023 Release

Learning Objectives

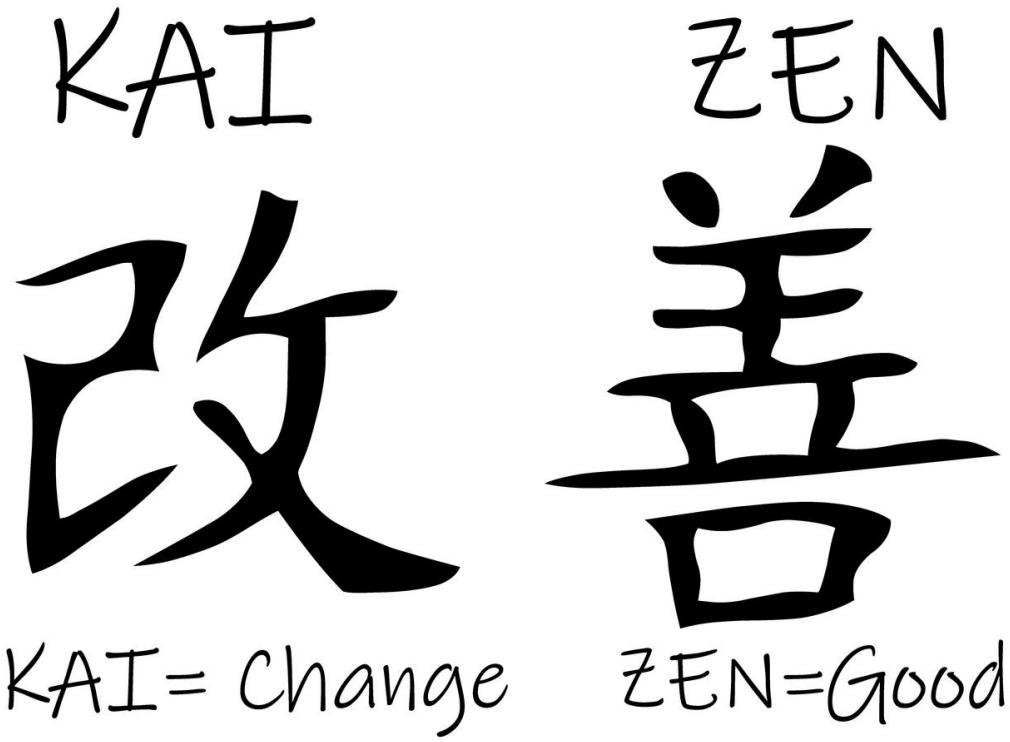
- Explain the various methods for implementing improvement.
- Explain the various methods for performance measurement.
- Compare these methods with a focus on communication and accountability.
- Identify the methods for implementing a project and the issues and impediments that arise during a project.
- Describe the methods for implementing changes during a project.

Implement Ongoing Improvements

TOPIC A

Continuous Improvement (CI)

- An ongoing effort to improve products, services or processes through small, incremental improvements or large breakthroughs
- A business strategy developed at the organizational level for projects to adopt and use
- Typically implemented by an organization's PMO and/or a "structured learning" approach or CI framework such as Agile or Six Sigma



Kaizen

Assess Current CI Methods

How well are the team and organization equipped for CI?

- Is the **lessons learned register** up to date? Is the team having regular **retrospectives**? Are team members **Lean Six Sigma** or certified in an **agile** method**?**
- Do they know about **Kaizen, Lean**, **Crystal Methods** or **Capability Maturity Model Integration (CMMI)**?
- Also check the **process improvement plan** and the **project management plan!**

Use the risk register to assess current CI measures. It includes how the team is prepared to act to address threats to project quality, so it can be a helpful way of assessing current CI measures.

Conduct Retrospectives

Review and Improve Methods

- Prepare topics for inspiration
- On a board, make two columns
- Ask attendees to add items to these lists
- Allow each participant to identify the reason for the improvement
- Decide common items that need improvement and mark them
- Narrow the list to improvement areas that will bring value in the next sprint
- Get team consensus on the plan improvement
- Update these tasks on the backlog after a discussion with the product owner
- Implement changes

Went Well	Need to Improve
• On-time completion	• Retrospective method • Keep workspace tidy

Improve Your Improvement Methods

In addition to using the **lessons learned register** and **retrospectives** properly, try:

Experiments

- Use **A/B testing** and team **feedback** to identify improvements
- **Experiments** provide a way to improve team efficiency and effectiveness
- Apply controls — do them one at a time — to isolate the results

Pareto chart, or the **80/20 rule**

- Directs efforts where they can make the biggest impact
- Takes a big problem and breaks it down into smaller pieces

Update Processes and Standards

Use what you learned from successful experimentation to fashion and recommend CI steps

Can lessons learned at the project level apply to the organization's continuous improvement process?

If so, escalate these lessons as an opportunity for adoption at the organizational level

Interactive/Discussion

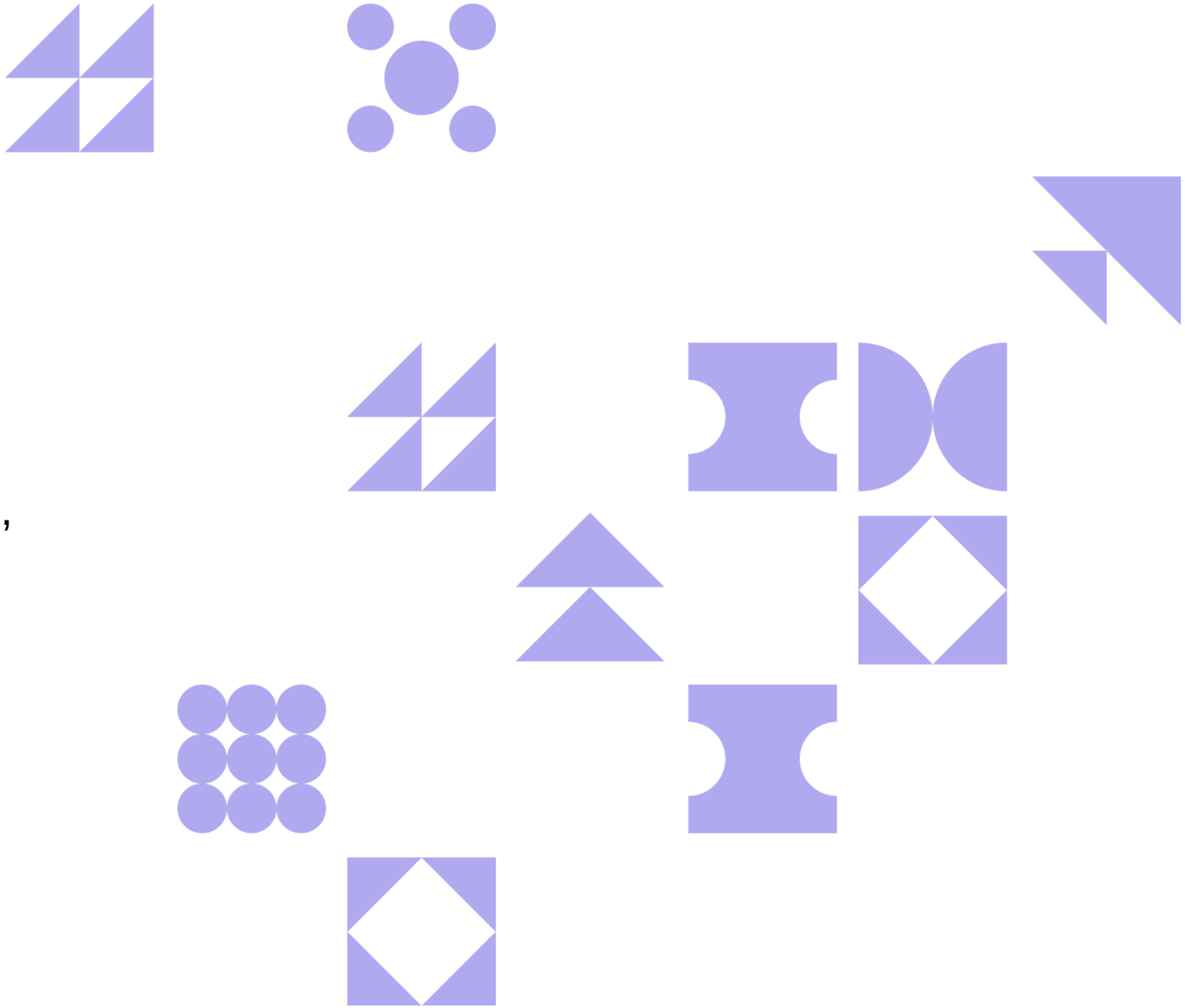
What are improvement procedures in your organization?

What methods do you use?

Lead With an Improvement Mindset

- Educate yourself
- Encourage a “fail fast” mindset
- Identify material improvements, training, processes or equipment
- Measure the effect of any change
- Then repeat!

Topics Covered



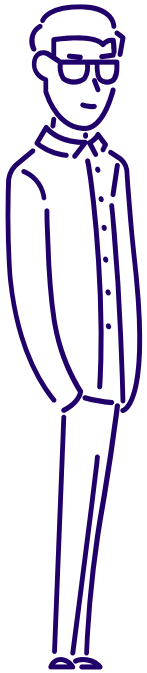
Continuous Improvement

- Plan continuous improvement methods, procedures and tools
- Assess CI framework
- Plan CI methods, procedures, tools
- Recommend/Execute CI steps

Support Performance

TOPIC B

Project Team Leadership Objectives



Communicate (and re-communicate) the project's objectives

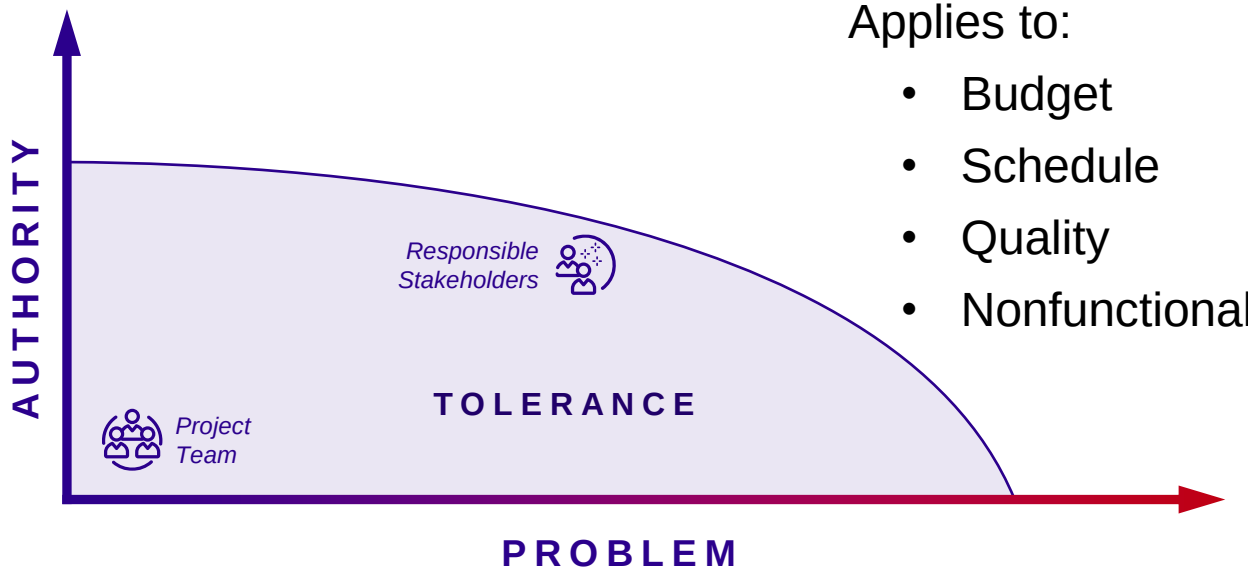
Ensure fluid knowledge-sharing, a continued healthy dynamic on the team, welcome new team members, realign the team.

Focus the team on delivering value

Manage with Objectives, Tolerances, Thresholds

Use clear and effective communication with clear **objectives** throughout the life cycle for a more productive and driven team.

Know the **thresholds** and **tolerance** levels that enable you to effectively manage a variation without needing to escalate.



Applies to:

- Budget
- Schedule
- Quality
- Nonfunctional requirements

The Project Manager's Role

Centralized Model

ANGFEN
PROJECT
MANAGER

- Ensures alignment of due dates — project deliverables, project life cycle and benefits realization plan
- Provides a project management plan
- Ensures creation and use of appropriate knowledge to/from the project
- Manages project performance and changes to project activities
- Makes integrated decisions about key changes that impact the project
- Measures and monitors progress, and takes appropriate action
- Collects, analyzes and communicates project information to relevant stakeholders
- Ensures completion of all project work and formally closes each phase, contract and the project as a whole
- Manages phase transitions when necessary

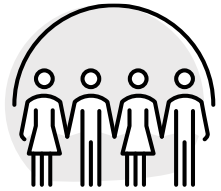
These tasks cannot be delegated.

Team Roles and Responsibilities to Support Performance

Review Exercise

ANGFEN

PROJECT MANAGER



TEAM

GREER

SCRUM MASTER / AGILE COACH

HELEN

PRODUCT OWNER

In this hybrid project, the __**project manager**__ oversees project management plan integration, but delegates control of detailed product planning and delivery to the __**product owner**__.

The __**project manager**__ focuses on building a cross-functional team, a collaborative decision-making environment and ensuring the team can respond to changes.

The process role of __**scrum master/agile coach**__ helps the team to understand the agile mindset and use scrum processes. To develop the SLC product, the __**team**__ is the local domain expert that plans how to do the work and the __**product owner**__ looks after value creation.

Optimize Communication

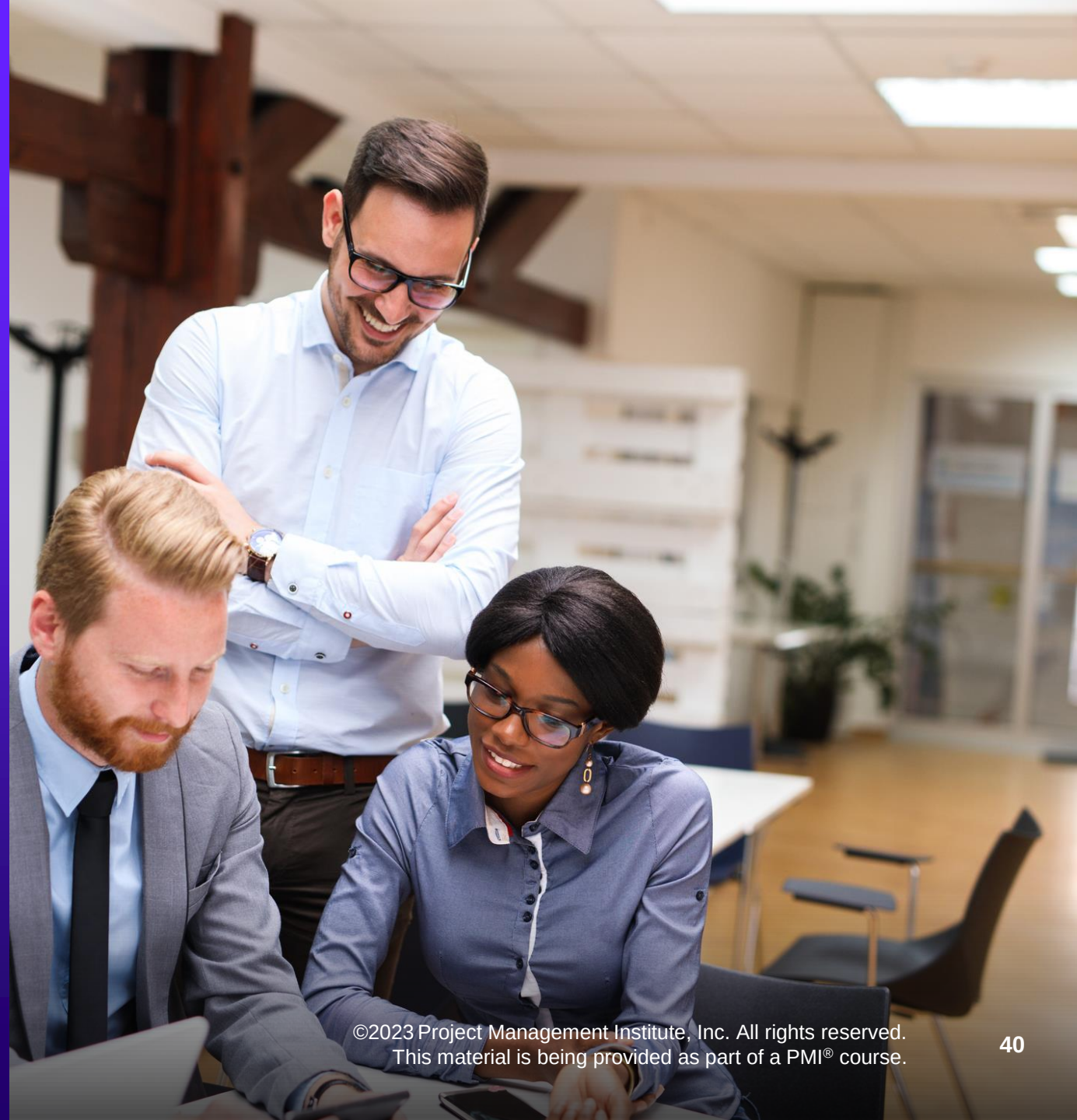
- Use **retrospectives** purposefully — discuss how to improve ways of working
- Communicate in both group and face-to-face settings — especially important for remote or virtual teams
- Make communication positive and regular with **internal** and **external** team members and stakeholders
- Use technology and tools; get **feedback** about them and tailor for optimization

Where did the team record expectations about communication?

*In the **team charter**!*

Use Feedback to Support High Performance

- Feedback is crucial for any team, using any method, in any environment
- Communicate in detail about technical and “soft” performance aspects
- Use appropriate methods — e.g., public or private, individual or group, written or verbal
- Give feedback in a timely manner
- Request feedback regularly, as and when needed



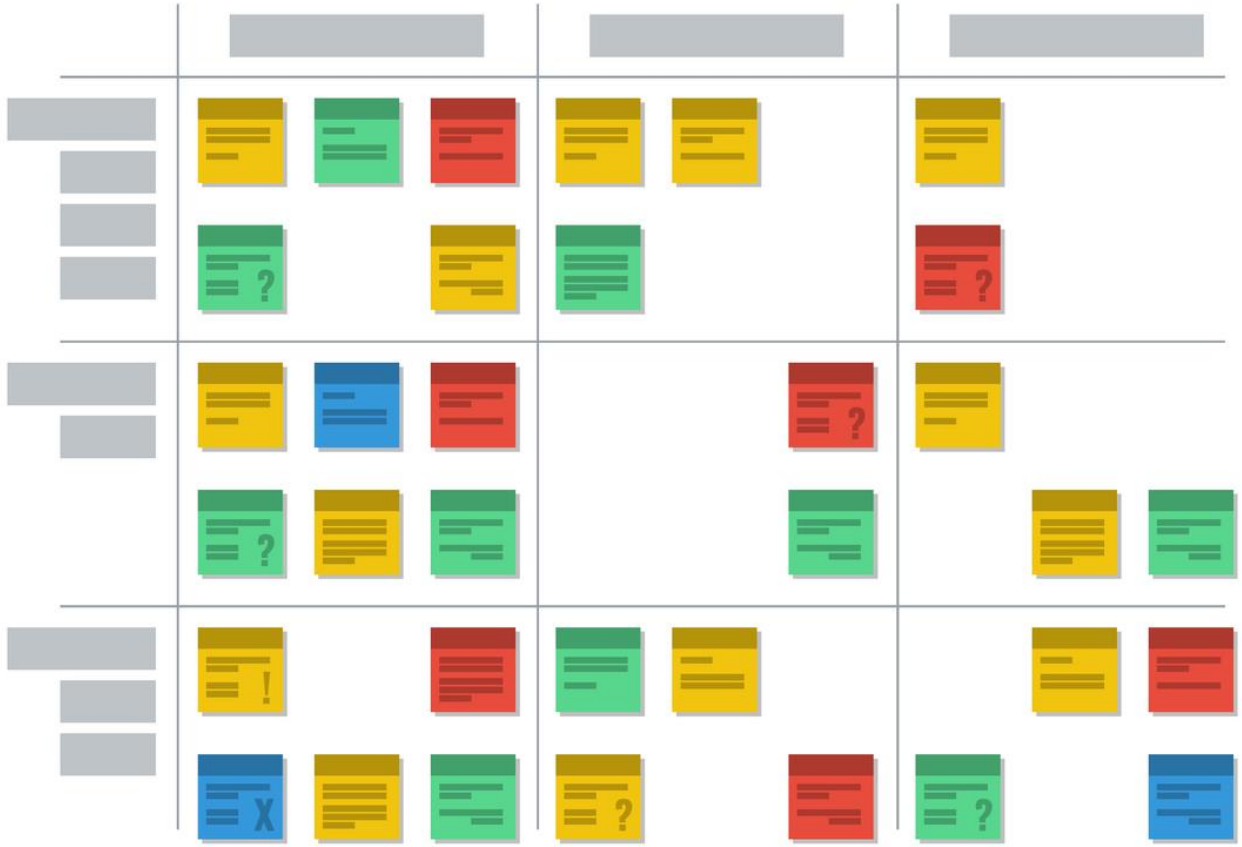
Support Team Task Accountability

Encourage team members to self-organize in determining:

- What work needs to be done
- How to perform the work
- Who should perform it

Use kanban boards to promote visibility and collaboration.

Agile teams commit to performing work listed on a backlog during an iteration.



Show Roles and Responsibilities

RAM/RACI

Some accountabilities are set and nontransferable, even on agile teams. Can anyone give an example?

Responsibility assignment matrix (RAM):

- Describes participation by various project roles in completing work or deliverables
- Clarifies roles and responsibilities

Uses **RACI** nomenclature:

- **R**esponsible: Does the work
- **A**ccountable: Approves completion
- **C**onsulted: Gives expert opinion
- **I**nformed: Kept up to date

Project manager creates RAM/RACI.

Project manager or team lead works with team to make decisions about roles and responsibilities.

Curate Knowledge as an Asset

Document **explicit knowledge** for archival and sharing.

Encourage individuals to share **tacit knowledge** and collaborate.

Treat knowledge as an asset to the team and organization.

Incorporate Knowledge Transfer Opportunities

- Networking
- Special interest groups — e.g., **Communities of Practice**
- Meetings, seminars or other in-person and virtual events
- Training
- **Work/job shadowing**

Knowledge Management

Three Levels

Individual *What do team members need to know to perform project work?*	Acquire required knowledge through research and collaboration with other team members
Project *What's required to achieve project goals?*	Transfer knowledge from other projects and consult the project management office (PMO)
Organization *What's required to manage programs or portfolios?*	Adapt knowledge from other programs/portfolios and tailor

Learn the Right Way to Motivate Your Team

DO

- Inspire and motivate yourself and the team – provide opportunities, not obligations
- Give virtual teams constant and regular contact
- Provide appropriate training opportunities
- Try self-assessment and reflective moments for professional growth

DON'T

- Overwhelm with meetings and work interruptions
- Distract with non-project work
- Force group activities

Continuously Realign Team Efforts with Value Delivery

Tuckman's ladder

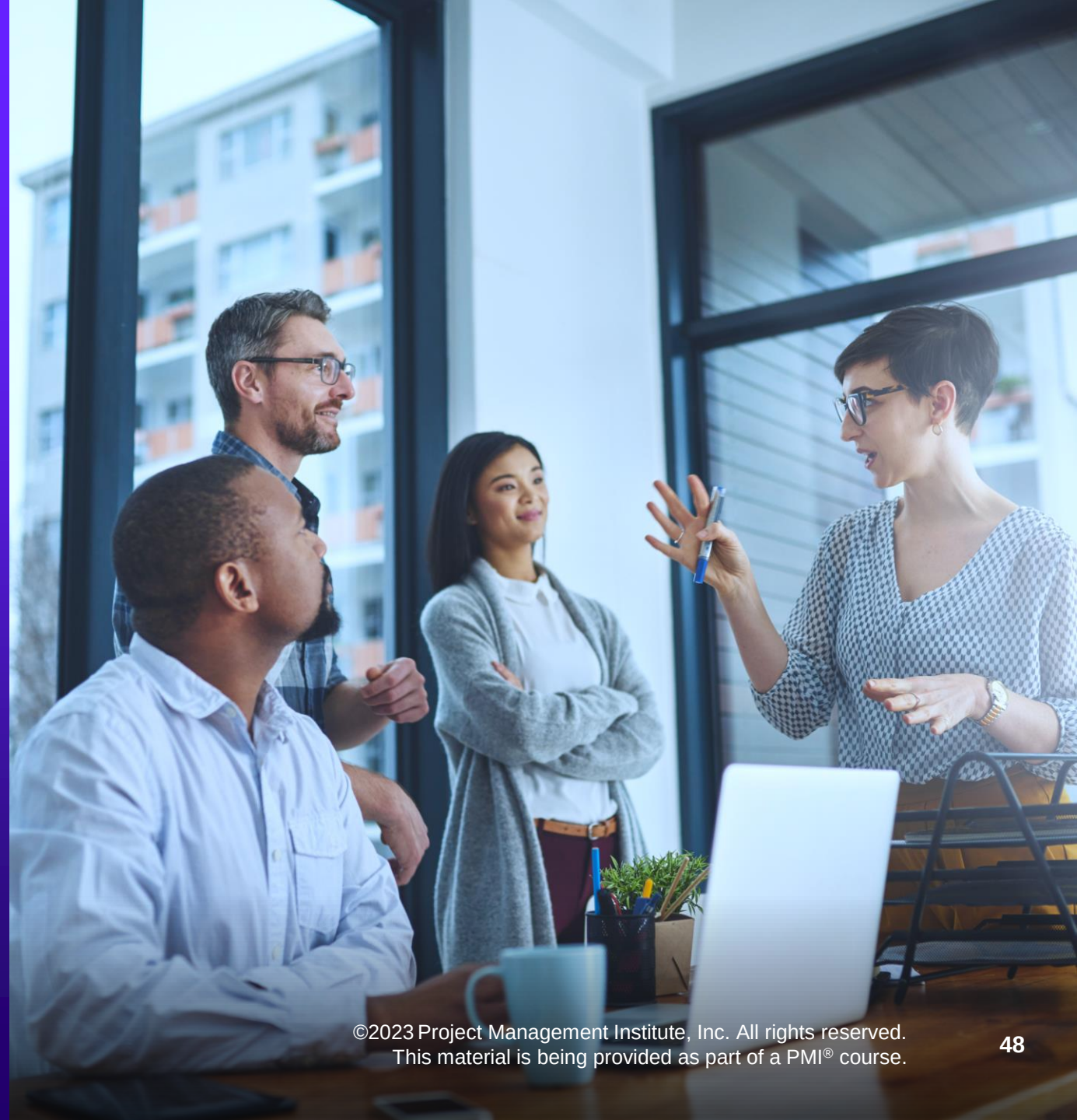
Prioritize team cohesion and focus on value delivery

As team members or external parties join or depart, or during change or disruption, support the team as it realigns itself

- Welcome each new member as a potential **source of new knowledge** and **motivation**
- Ensure **shared understanding** of project goals and agreements
- Collaborate to find out how they can **add value**
- Navigate disruptions and conflict constructively

Check on Artifact Maintenance

- Make it part of regular quality checks
- Keep file storage organized and versioned
- Ensure compliance with data protection and security mandates
- Maintain artifacts in preparation for archiving during project closure



ECO Coverage

2.2 Manage communications

- Communicate project information and updates effectively (2.2.3)
- Confirm communication is understood and feedback is received (2.2.4)

1.4 Empower team members and stakeholders

- Support team task accountability (1.4.2)
- Evaluate demonstration of task accountability (1.4.3)

1.6 Build a team

- Continuously assess and refresh team skills to meet project needs (1.6.3)
- Maintain team and knowledge transfer (1.6.4)

1.11 Engage and support virtual teams

- Continually evaluate effectiveness of virtual team member engagement (1.11.4)

2.11 Manage project artifacts

- Continually assess the effectiveness of the management of the project artifacts (2.12.3)

2.13 Determine appropriate project methodology/methods and practices

- Use iterative, incremental practices throughout the project life cycle (e.g., lessons learned, key stakeholder engagement, risk) (2.13.4)

Evaluate Project Progress

TOPIC C

Guidelines to Measuring Performance

"Only Measure What Matters"

- John Doerr

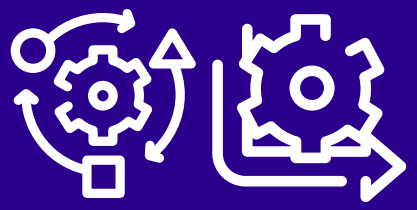
Tailor performance measurement to the project context and stakeholders:

- **Scope**
  - Percentage of work completed
  - Change requests
- **Schedule**
  - Actual duration of work against projected start and finish dates
- **Budget**
  - Actual costs
  - Check procurements are sufficient for needs
- **Resources**
  - Team allocations/availability/procurement
  - Performance appraisals – team, including vendors
  - Contract management
- **Quality**
  - Technical performance
  - Defects
- **Risk**
  - Risk register

Report on Performance

Tailor If Required

Milestone schedule	High-level visualization of progress on work against planned dates
Quality reports	Charts and reports based on the quality metrics collected
Earned value management (EVM) reports	Graphs and values based on EVM equations
Variance analysis reports	Graphs and their analysis comparing actual results to expected results.
Work performance reports	Physical or electronic representation of work performance information compiled in project documents, intended to generate decisions, actions, or awareness.
Dashboards	Physical or electronic progress summaries, usually with visuals or graphics to represent the larger data set



Monitor Scope

	Description of Scope	Method
	Scope baseline is: • Approved version of the project scope statement • Work breakdown structure (**WBS**) • Associated **WBS dictionary**	**Measure completion** of **project scope** against the **scope baseline**.
	Scope evolves from: • Initial product roadmap to • Release backlog to • Iteration backlogs **Backlogs** (including product features and functions and user stories) reflect identified, updated and reprioritized product needs	Check **user stories** and **DoD** against **customer feedback** and **product requirements**
	Any combination of the above	

Scope Validation

Customer Accepts Completed Deliverables

Acceptance criteria

- Definition of ready (DoR)
- Definition of done (DoD)
- Acceptance criteria
- Iteration reviews

Any combination of the above

In a predictive development approach, which artifact helps determine the acceptance criteria?

a. Responsibility traceability matrix
b. Scope statement
c. Team charter
d. Stakeholder engagement plan

In an adaptive development approach, what helps determine that the acceptance criteria for user stories has been met?

a. Product roadmap
b. Definition of done
c. Release plan
d. Kanban board

Measure Schedule Performance

Methods

Gantt charts: Schedule performance tracking over time

Earned value: Cost and effort performance tracking against planned value (PV)

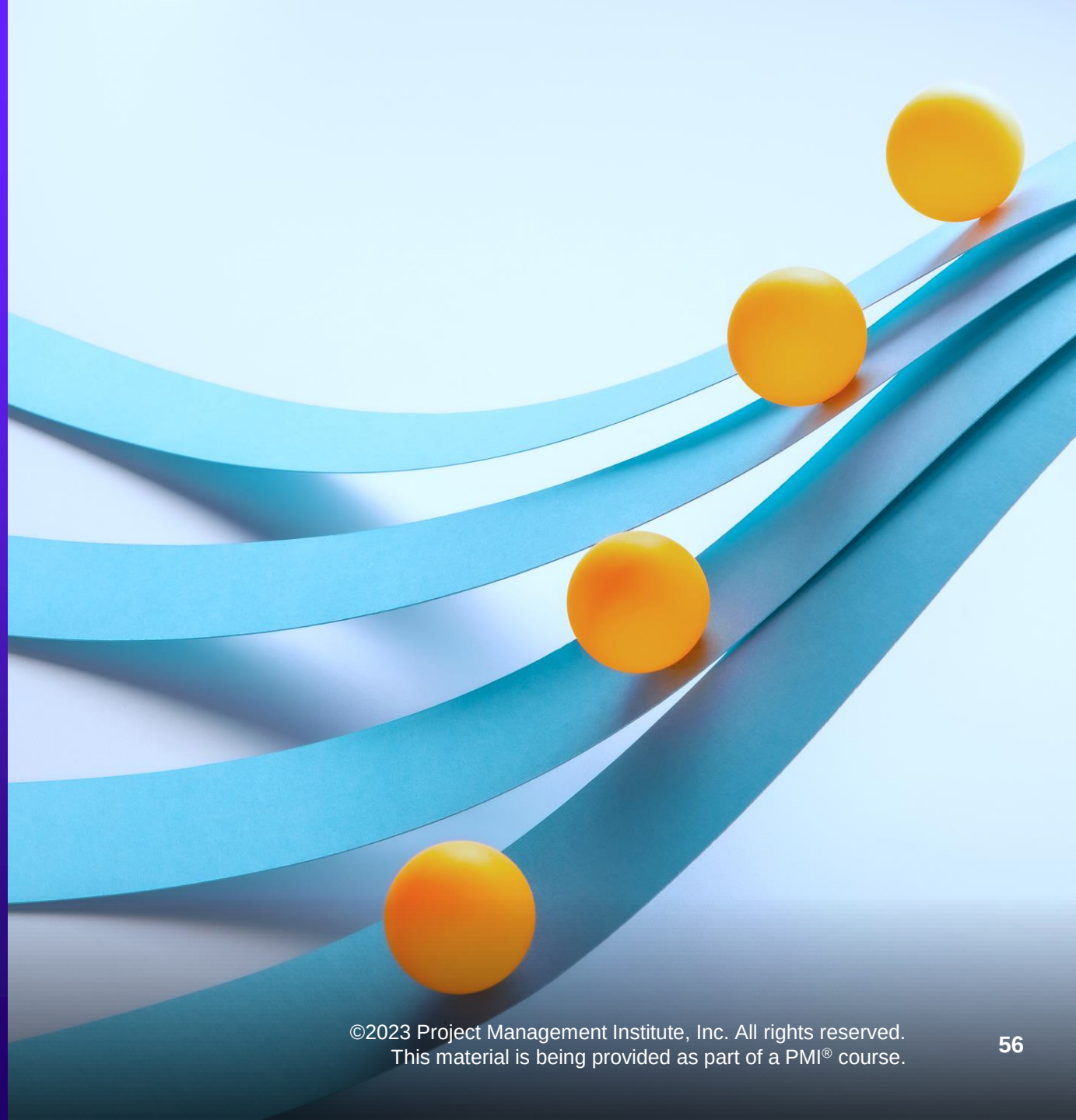
Quality metrics: Track quality deliverables, defects and acceptable output

Variance analysis: Shows where the project is against where it should be

- Compare work delivered and accepted to estimations for the current iteration/sprint
- Review completed work in regular sprint demos
- Determine production, validation, and acceptance rates for deliverables in **retrospectives**
- Conduct scheduled reviews to record retrospective discoveries

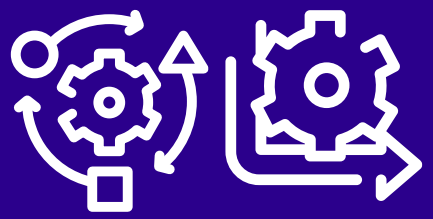
Schedule Management Tools

- Adjust schedule to reflect resource supply/demand
- Use smoothing and leveling
- Use schedule compression techniques, including fast tracking and crashing



Visualize Performance

Show committed versus completed work



- Display visuals or graphics on team dashboards (electronic or physical)
- Show product backlog progress on **burndown** and **burnup** charts
- Display project data and progress on graphic **information radiators** in prominent places
- Measure performance with lead and cycle times with a **cumulative flow diagram**

  - Agile approaches may use **kanban** or **task boards** to visualize project work
  - Continuous flow approaches include **throughput**, **cycle time** and **lead time**
  - Timeboxed approaches include **velocity**

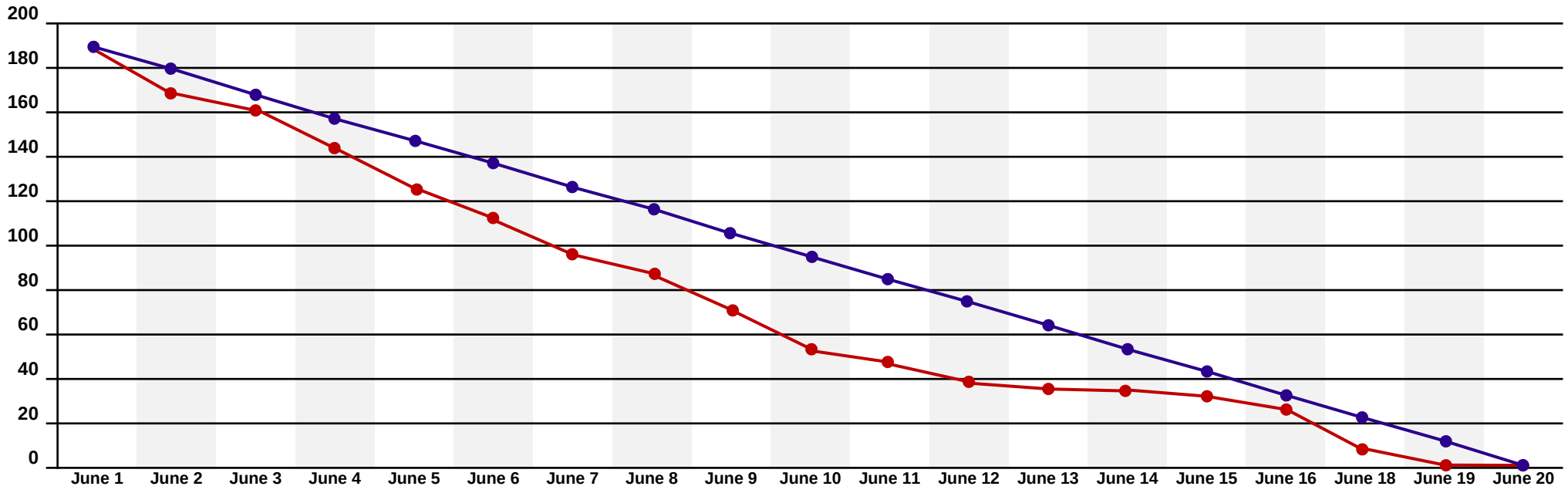
Information Radiators

Burn Charts

Burndown (Iteration)

- Tracks the work to be completed in the iteration
- Used to analyze variance to ideal burndown of work committed to during planning

Diagonal line is ideal burndown against which daily actual remaining is charted.

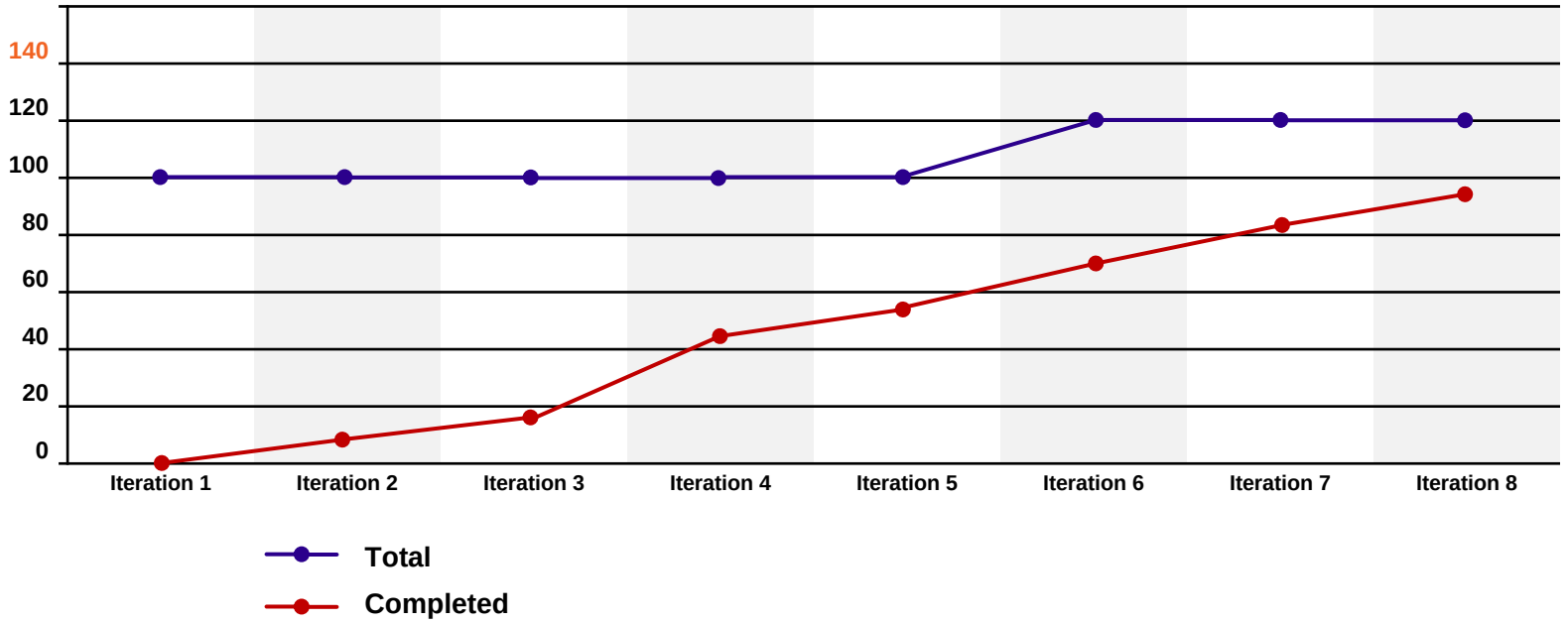


Burn Charts

Burnup (Release)

aka Feature Complete Graph
in feature-driven development (FDD)

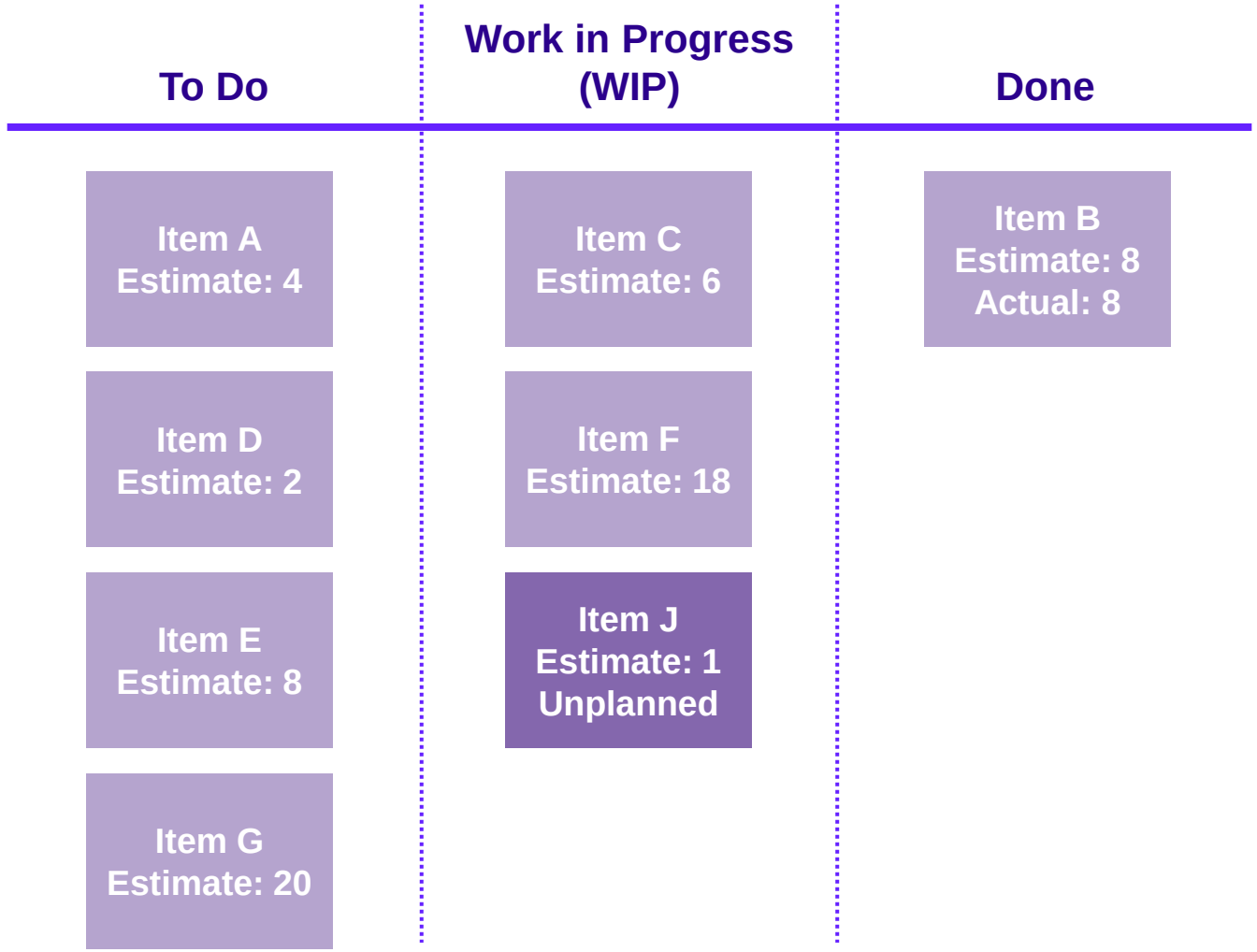
- Show accumulated progress of completed work
- Update after each iteration



Task Board

- Organize work into tasks on cards
- Display task information at every stage of the workflow
- Tailor your task board workflow stages

Task board types include Kanban, to-do lists, procedure checklists and scrum boards

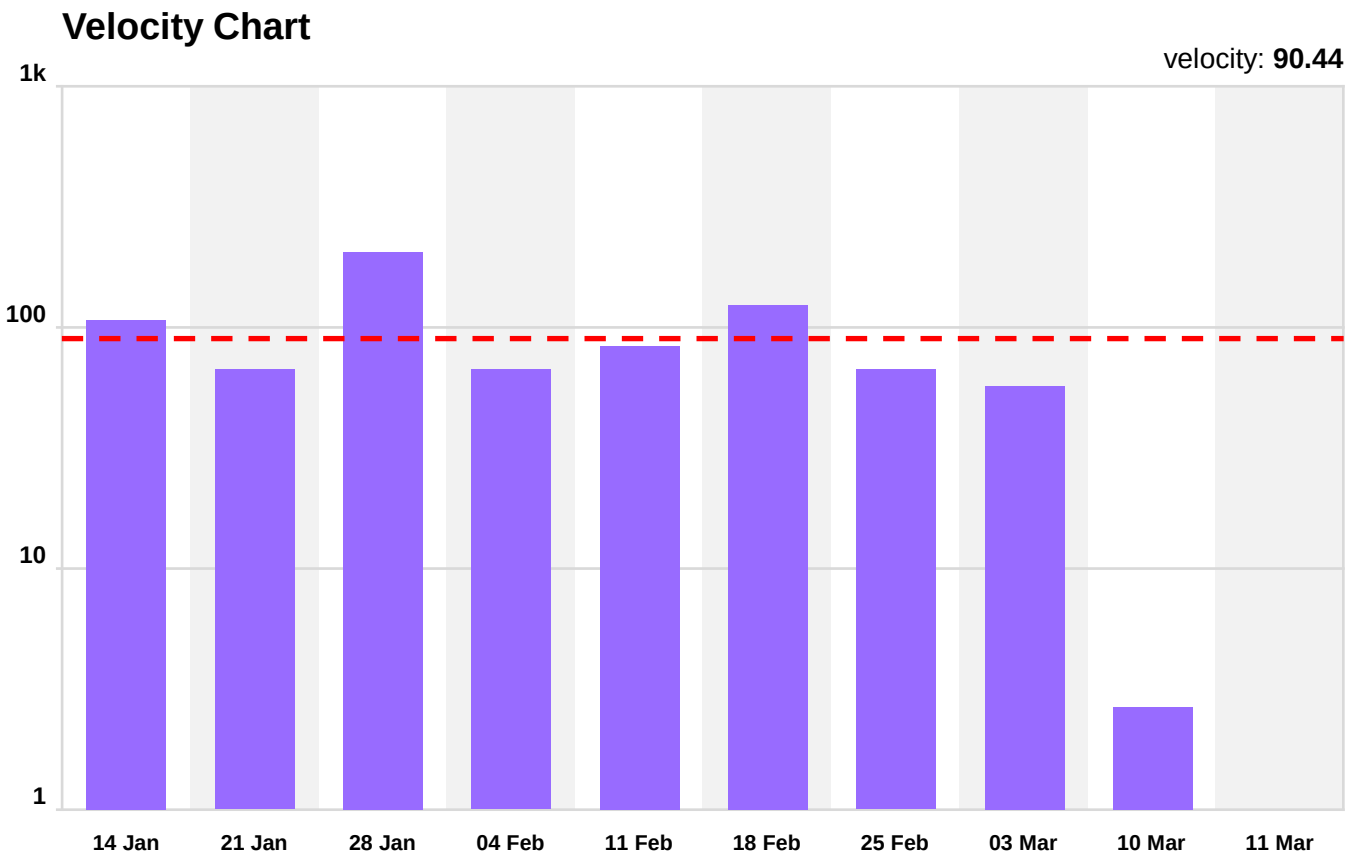


Estimate Velocity

Aim for Constant Rate (with optional discussion)

- Team's estimated rate of progress of completed work
- Calculate by estimating number of story points that can be completed during an iteration
- Then modify during subsequent iterations
- Goal: Achieve constant velocity from one iteration to the next

Velocity is a unique metric to a project; it can't be used to compare the performance of teams.

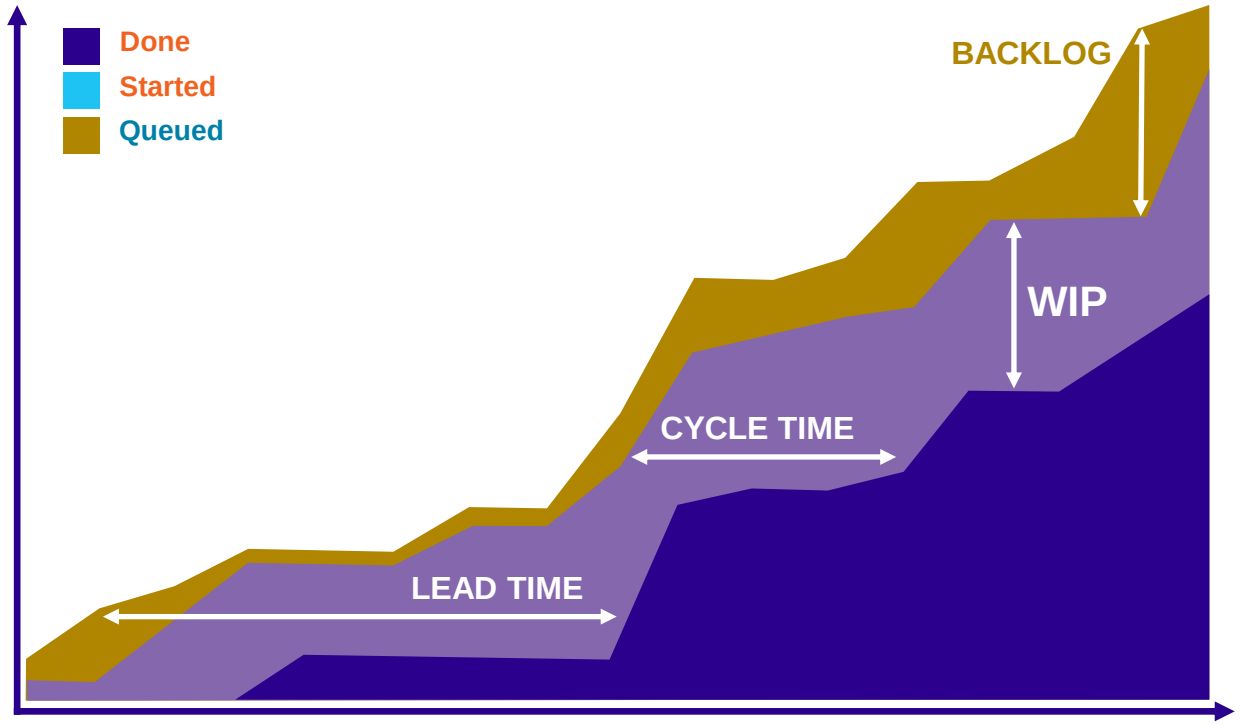


Continuous Flow Approaches

Measure Throughput, Lead and Cycle Time

- **WIP -** Measure of work in progress but not completed
- **Lead time -** Length of time work item goes through entire process
- **Cycle time -** Length of time work item is being worked on
- **Throughput -** Number of items entering or exiting the system

The **C**umulative **F**low **D**iagram



Budget Challenges

- New/changed project requirements
- New risks, or changes to the probabilities or impacts of existing risks
- Changes to cost estimates

Earned Value Management (EVM)

- Measure project progress by comparing actual schedule and cost performance against planned performance, per the schedule and cost baselines
- Evaluate progress of schedule and budget
- Prevent further degradation of budget or schedule

Earned Value Management (EVM)

Visual

VARIABLES

PV

Planned Value

The authorized budget assigned to scheduled work

EV

Earned Value

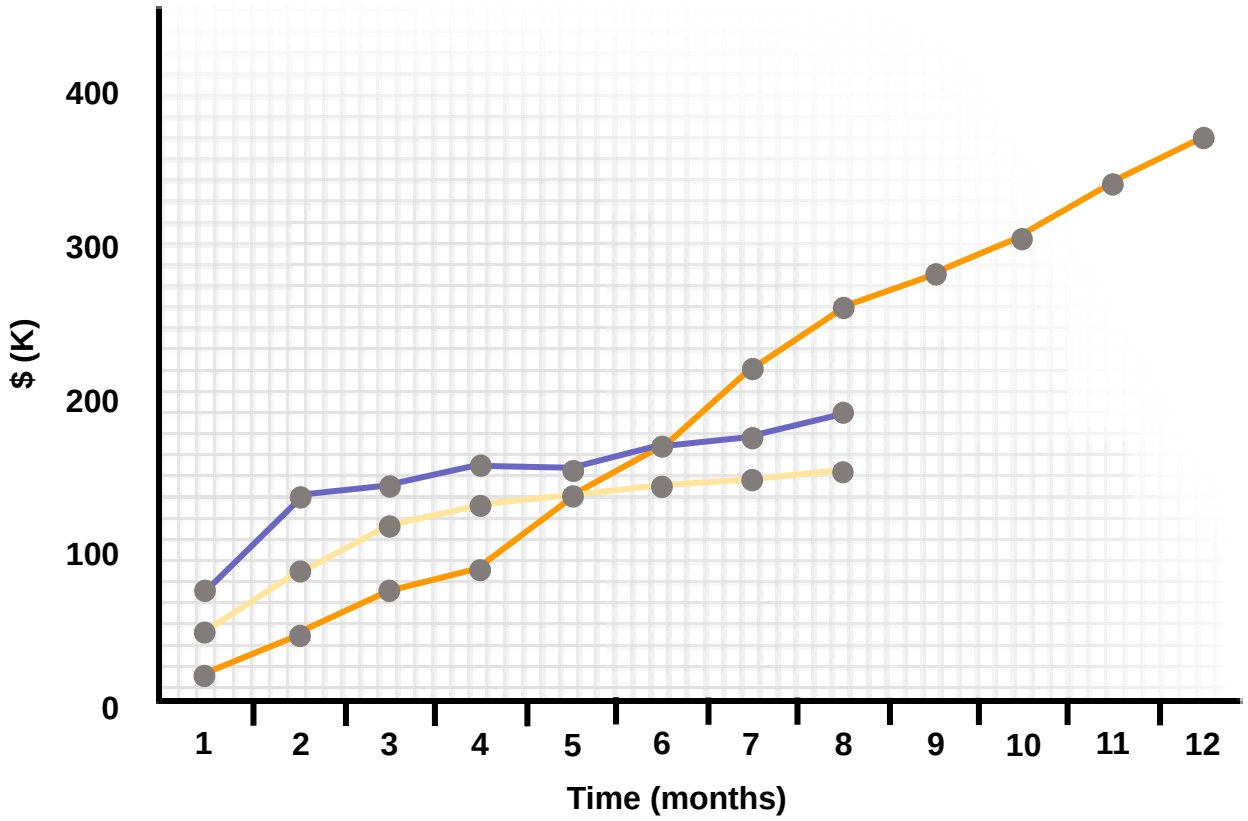
The measure of work performed expressed in terms of the budget authorized for that work

AC

Actual Cost

The realized cost incurred for the work performed on an activity during a specific time period

EV = % work complete to date x budgeted cost

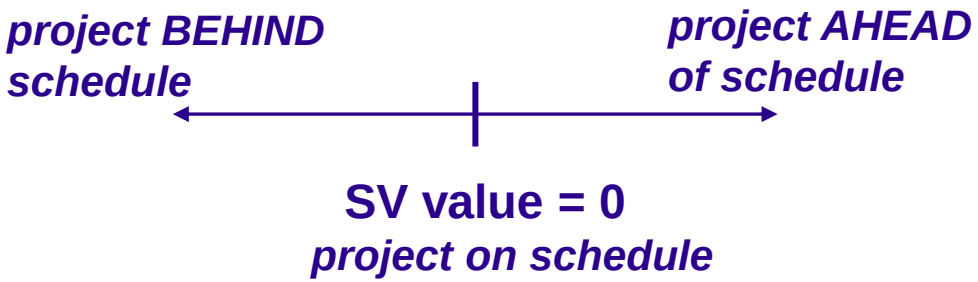


EVM Measures for Schedule Control

Is the project progressing on schedule?

Schedule variance *measures performance – by calculating the difference between EV and PV*

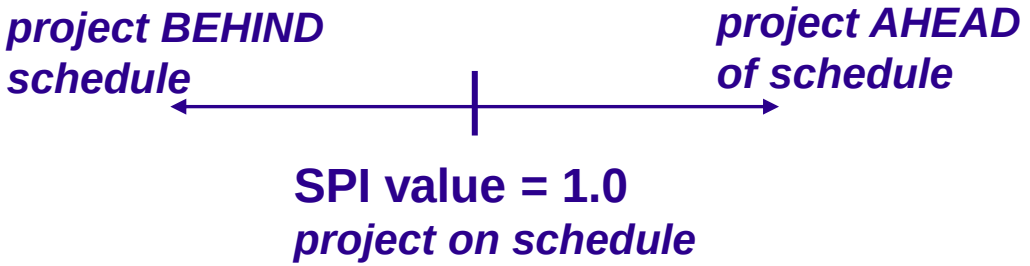
SV = EV - PV



How efficiently is the team working?

Schedule performance index *measures efficiency by calculating the ratio of EV to PV*

SPI = EV / PV

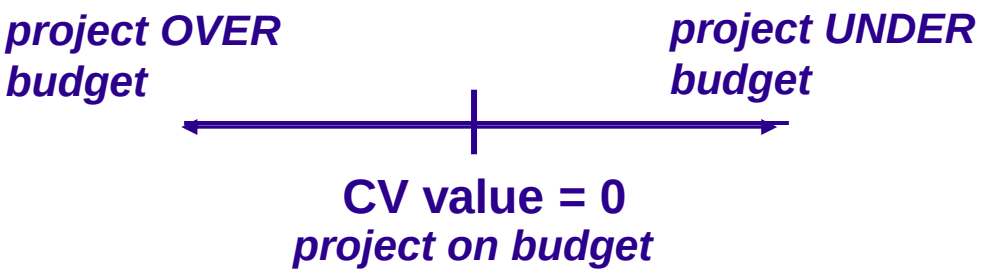


EVM Measures for Cost Control

Is the project on budget?

Calculate **cost variance (CV)** to find the current amount of budget deficit/surplus

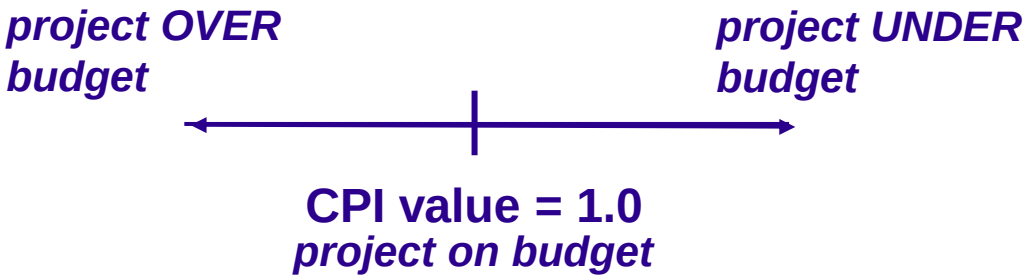
CV = EV - AC



How efficient is my project?

Calculate **cost performance index (CPI)** to measure the cost efficiency of budgeted resources

(CPI = EV / AC)



EAC/ETC Analysis

Are more funds required?

What will the project cost in total?

Use **Estimate At Completion (EAC)**

Based on:

- CPI: current spending efficiency
- BAC: budget at completion

Formula

$$EAC = \frac{BAC}{CPI}$$

How much more cost is required to complete the remainder of the project?

Use **Estimate To Complete (ETC)**

Based on:

- CPI
- AC – actual cost

Formula

$$ETC = EAC - AC$$

EVM

Enables comparison of release plan against the actual work done

Helps teams spot any problem areas and ensure they stay on schedule and within budget.

Example Process:

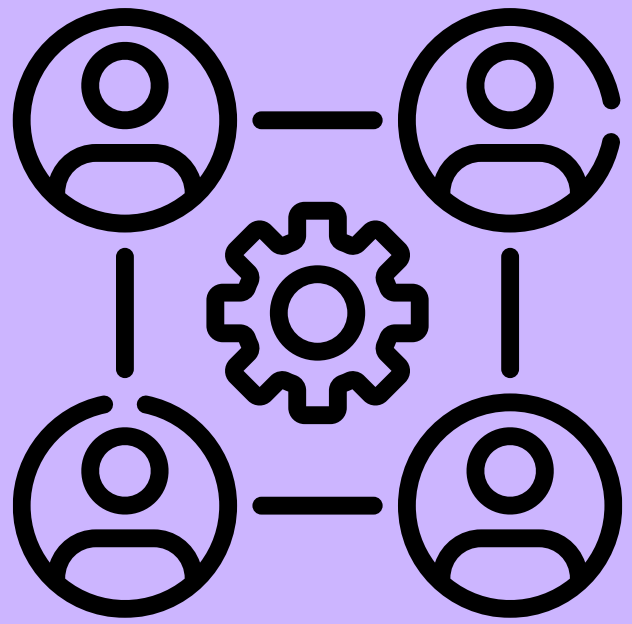
1. Establish a performance measurement baseline (PMB) to create a reference point for the metric

2. Answer three questions:
   - How many iterations are planned?
   - How many story points are there?
   - What is the release budget?

3. Collect data at the end of every iteration:
   - **Planned value (PV):** Budget for planned work in an iteration
   - **Earned value (EV):** Budget for completed work in an iteration
   - **Actual cost (AC):** Actual cost incurred to complete an iteration deliverable

Manage and Lead Resources

- Include team and external contractors
- Monitor for risks — e.g., cost overruns, schedule delays or potential disputes
- Conduct checks on contracts:
  - Procurement process compliance
  - Periodic progress or activity reports
  - Required advance notification and acknowledgment to suppliers
  - Formal acceptance of contracted deliverables
- Notify accounts payable of completed work so that payments can be made



Consult the communications management plan and contract terms and conditions for vendor/supplier working provisions.

Physical Resource Management

- Means physical resources (not human)
  - Equipment
  - Materials
  - Facilities
  - Infrastructure
- Ensures assigned resources are available “just in time” (JIT) and released when no longer needed
- Ensures physical resources assigned are available as planned
- Monitors planned vs actual utilization of resources
- Performs processes throughout the project

Update Resource Allocation

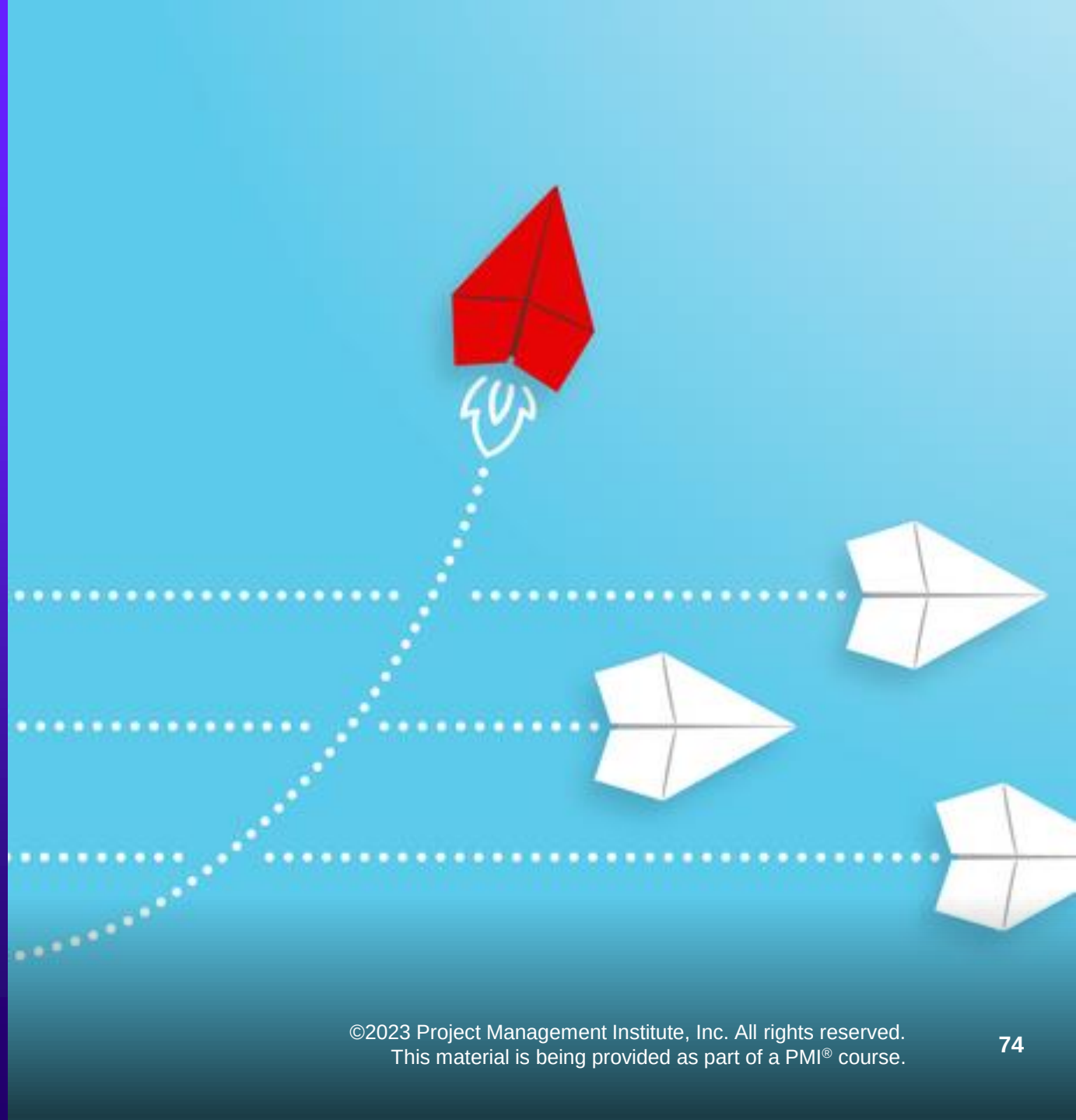
- What has been used to date?
- What is still needed?
- Review performance usage to date, including:
  - Monitoring expenditures
  - Identifying and dealing with resource shortage/surplus in a timely manner
  - Ensuring resource use and release
  - Informing stakeholders of issues with relevant resources
  - Influencing factors that can create changes in resource utilization
  - Managing changes as they occur
- Changes that impact schedule or cost baselines must be approved through Perform Integrated Change Control.

Handle Changes and Contract Disputes

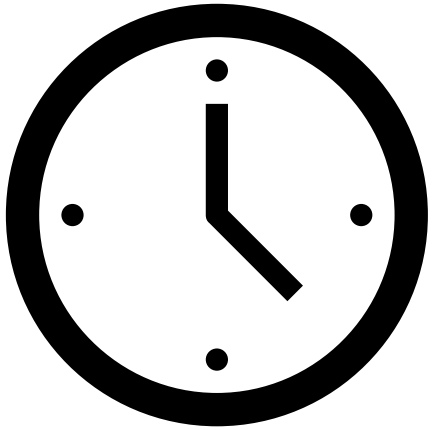
When change is required, follow your project's change process:

- Perform Integrated Change Control
- Backlog reprioritization

For contract disputes, consult OPAs and the contractual agreement first



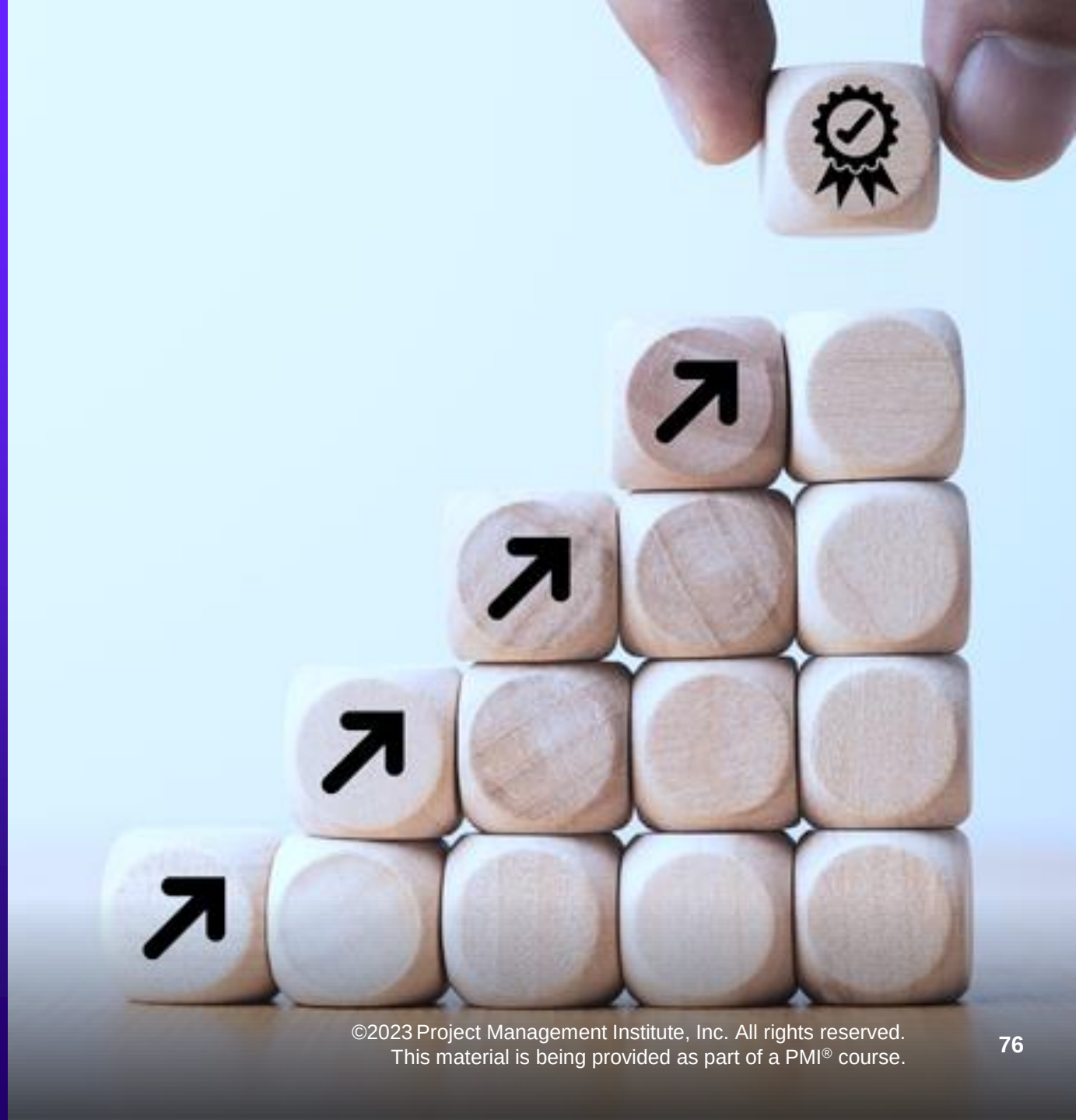
1-Hour Break!



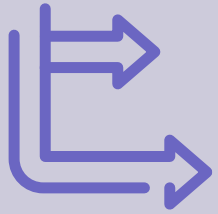
See you back after one hour!

Quality Management Guidelines

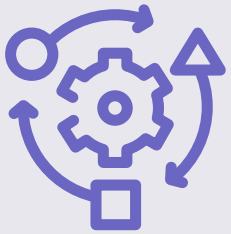
- Assess quality of project approaches and activities
- Evaluate deliverable quality through inspection and testing
- Evaluate quality of project activities and processes through reviews and audits
- Focus on detecting and preventing errors and defects



Evaluate and Manage Quality



- Project manager uses Control Quality process to:
  - **Verify** that deliverables meet functional and nonfunctional requirements
  - **Identify** and **suggest improvements**
  - **Verify alignment** with compliance requirements
  - **Give feedback** on any identified variances
  - **Identify potential approaches** to cure defects or other noncompliance
- And continuously monitors quality **reports** and **recommendations**!



- Team, customer and product owner are responsible for setting and meeting quality goals and metrics
- Feedback from iterations continuously monitor quality
- Measure performance of quality with:
  - Service-level agreements (SLAs)
  - KPIs
  - Contractual measures
  - Quality methods/frameworks — e.g., Lean Six Sigma

Quality Audit*

May be scheduled or conducted ad hoc

Topics include:

- Quality management policy
- Collection and use of information
- Analytical methods
- Cost of quality
- Quality process design

Use audits to enhance or formalize the quality management complement in adaptive development approaches.

Control Quality Tools

Data gathering

- Checklists/check sheets
- Statistical sampling
- Questionnaires and surveys

Data analysis

- Performance reviews
- Root cause analysis

Data representation

- Cause-and-effect diagram
- Scatter diagrams
- Control charts
- Histograms
- Pareto chart

Control Quality Process

Example

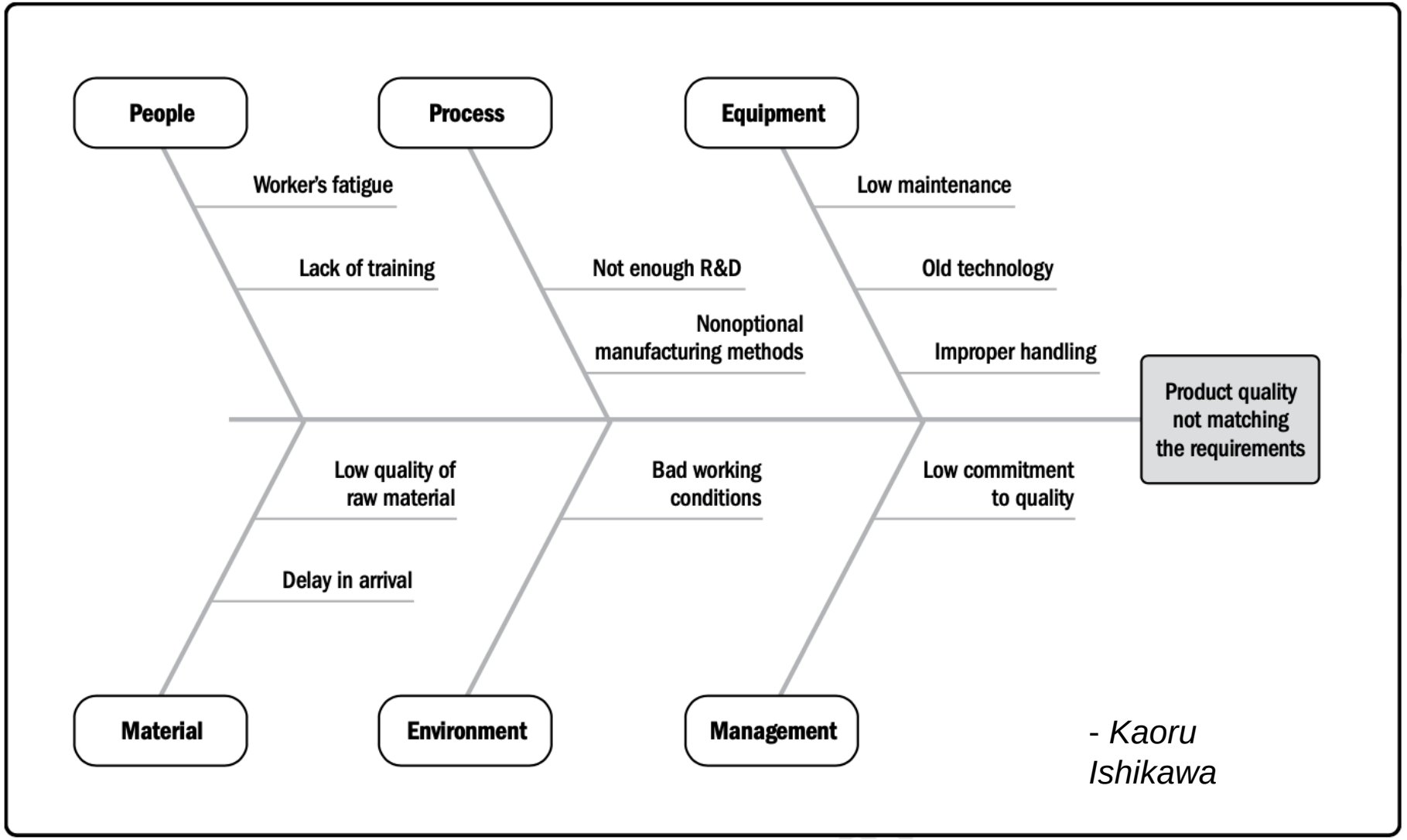
1. Use check sheets to collect data
2. Plot data on a histogram
3. Understand the significant ones using the Pareto chart (80/20 rule)
4. Use the cause-and-effect analysis on the chosen problems/solutions
5. Finally, perform a scatter analysis to understand the correlation

Data Visualization

Quality Tool - Cause and Effect Diagram

Break down the problem statement to identify causes in discrete branches

Keep asking “why” to help identify the main or root cause of the problem



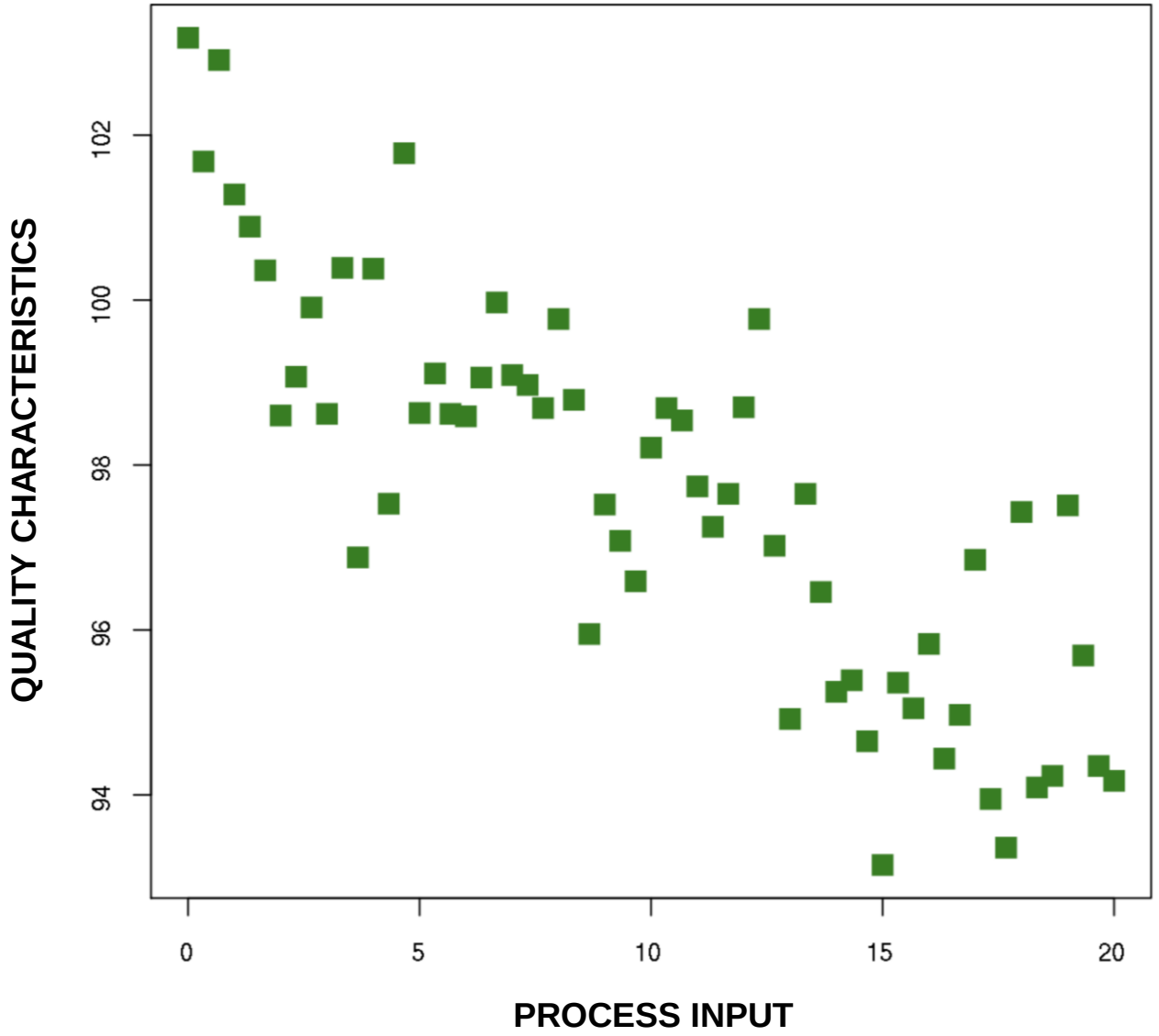
***Example** fishbone diagram (aka Ishikawa or Why-Why)*

Data Visualization Quality Tool

Scatter Diagram

Shows the relationship between two variables

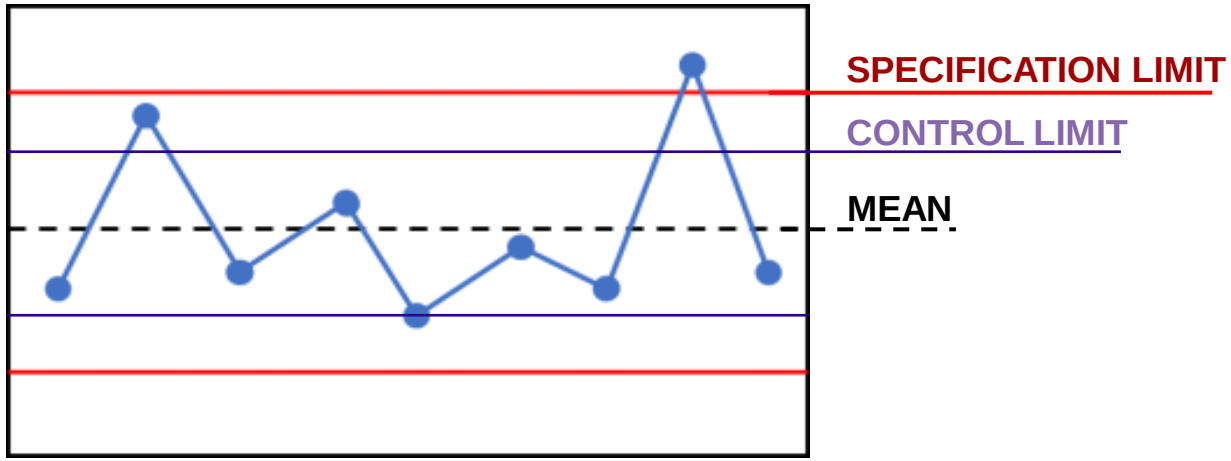
Demonstrates relationships among any element of a process, environment, or activity on one axis and a quality defect on the other



Data Visualization Quality Tool

Control Chart

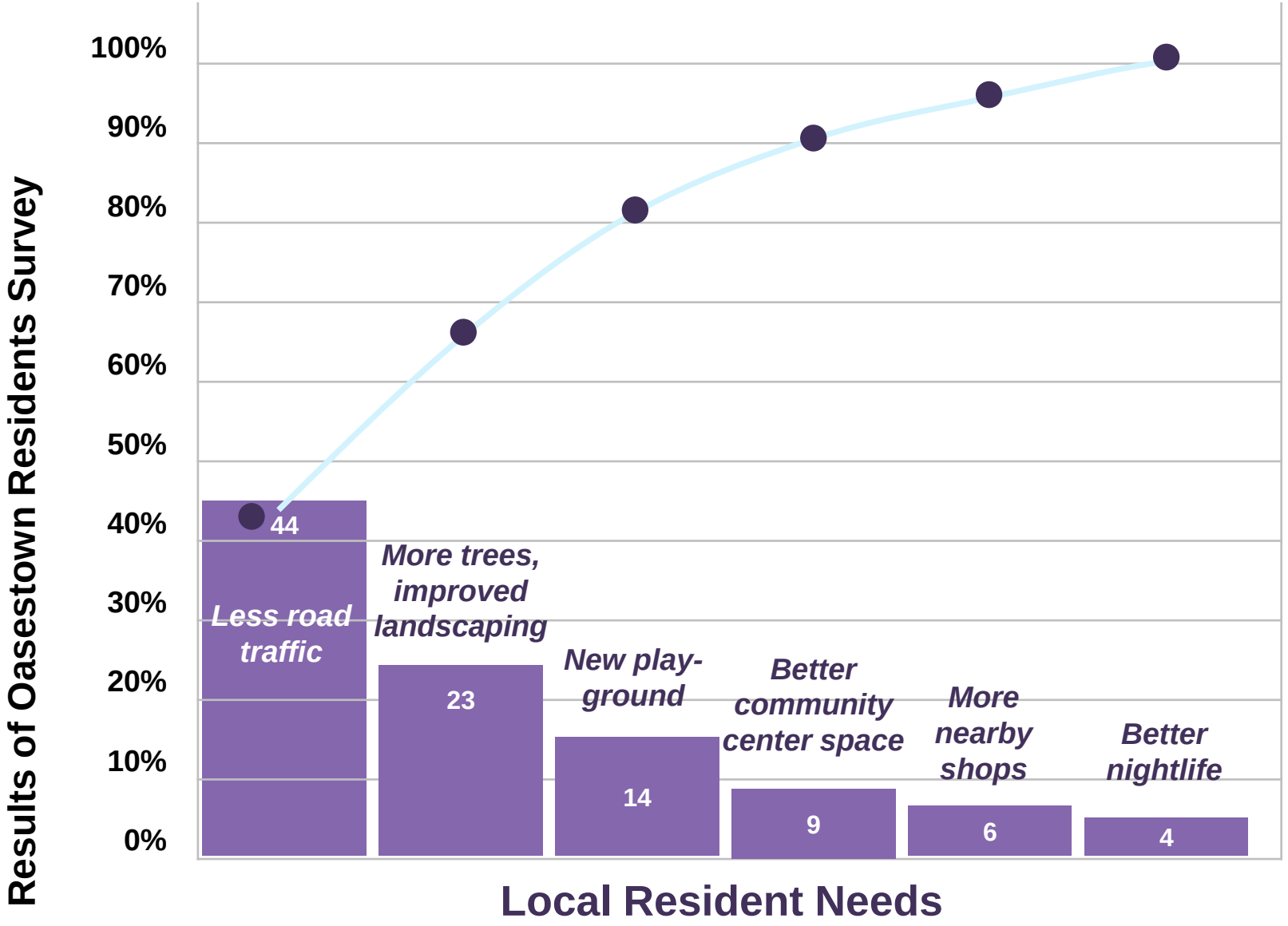
- A tool used to determine the predictability, behavior and stability of a process over time
- Ideal for repetitive processes with predictable results
- Shows a **mean** and established **control limits** and **specification limits**
- Follow the “rule of seven” = investigate increases/decreases of seven consecutive points, indicating a trend/potential issue



Data Visualization Quality Tools

Histogram and Pareto Chart

- A Pareto chart is a type of **histogram**
- Uses **80/20 rule**
- Demonstrates frequency of problem occurrence
- Analyzes data sets related to a specific problem or issue, but does not define the root cause of a problem



Ensure Quality of Processes and Product

Quality is closely linked to the product acceptance criteria, as described in the statement of work (SOW) or other design documents.

Update these criteria as experimentation and prioritization occur and then validate them as part of the acceptance process.

Verify Deliverables

- Project team verifies deliverables based on quality standards and requirements:
  - Quality metrics
  - Tolerance
- The verified deliverables are presented to and accepted (validated) by the customer – resulting in accepted deliverables
- Measure products and outputs against the project's quality standards
- Implement corrections and controls when quality standards are neither met nor within acceptable ranges
  - Iteration H (agile) – quality assurance cycle
  - Sprint/iteration review in Scrum

Evaluate and Manage Risk

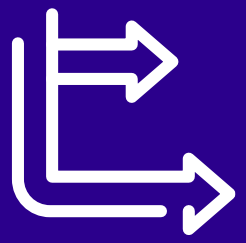
Adaptive development approaches incorporate risk management in iterative and incremental practices.

Predictive risk management approaches are methodical.

(Optional)

Can you identify some typical risk management practices or use cases for each approach?

Monitor Risks



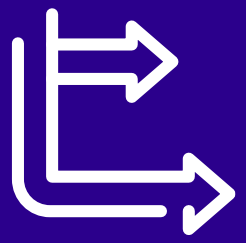
GUIDELINES

- Enable decision-making based on current information about overall risk exposure and individual risks
- Continuously monitor status, probability and impact
- Identify new risks
- Reassess current risks
- Close outdated risks
- Perform on a regular basis
- Continuously improve risk effectiveness

QUESTIONS TO ASK

- Are project assumptions still valid?
- Have risks changed or been retired?
- Are risk management policies and procedures being followed?
- Have contingency reserves been modified?
- Do we need a risk audit?

Review your Reserves



Reserve analysis:

- Establishes the amount of contingency and management reserves needed
- Is performed throughout the project
- Compares amount remaining to determine if adequate
- May be communicated with a burndown chart

Risk Register

- Add risks raised during status meetings, standups or daily scrums, iteration reviews, retrospectives – or even informally – to the risk register
- Update newly identified and existing risks based on the current knowledge and situation

Agile teams may use a risk list or log, similar to a risk register

Interactive/Discussion

When you think about risks in a project, which do you think are the most serious?

How do you know?

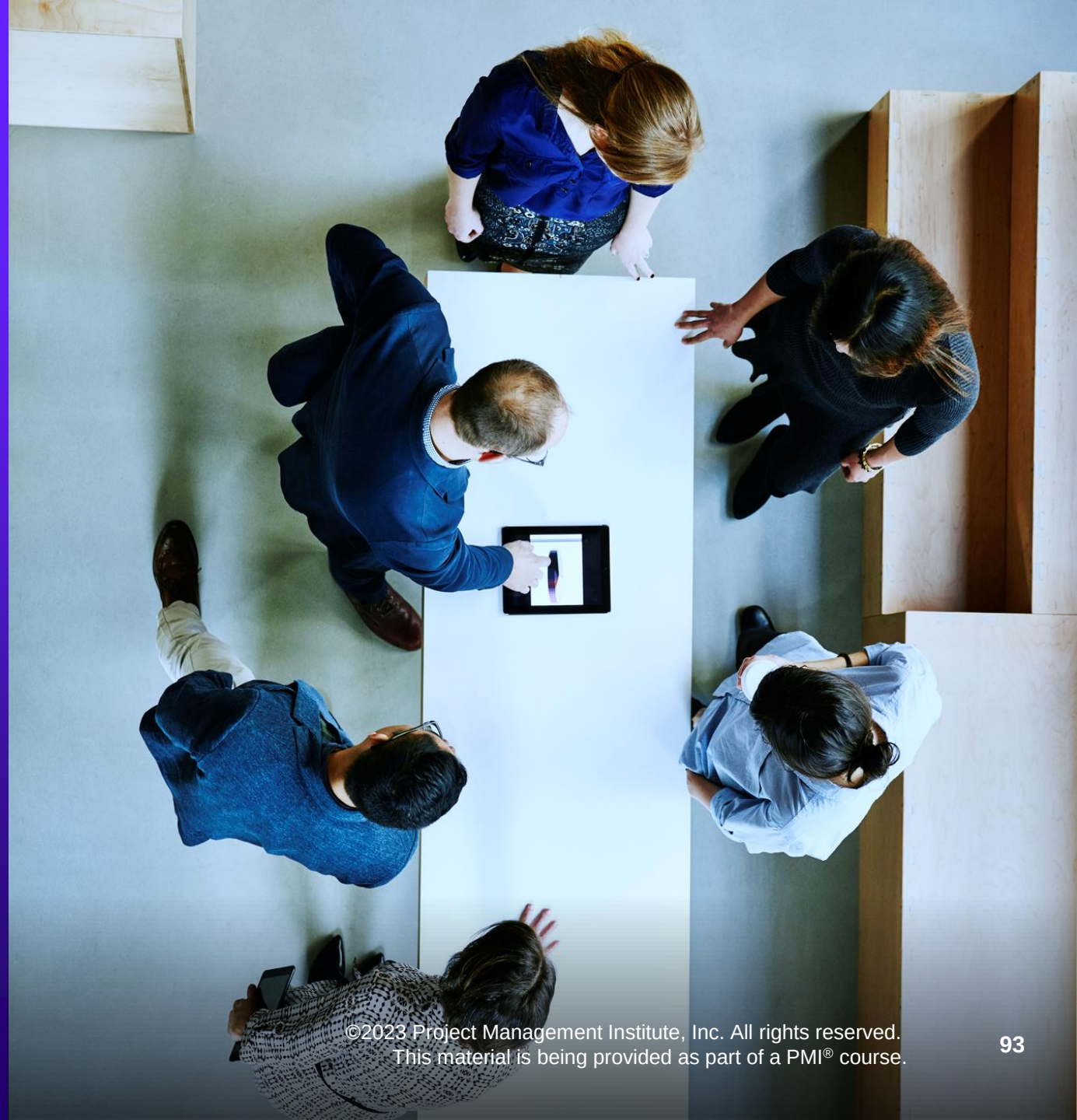
Manage Compliance as the Highest Priority

- Test and validate deliverables (continuously and at project/ phase end)
- Identify authorized stakeholders to approve
- Remediate compliance issues to avoid:
  - Negative impact on the timeline
  - Cost overruns
  - Increased risks
- Benefits of compliance sign-off:
  - Early warning of potential threats to compliance
  - Ability to capture variances and take action

Examine Business Value

- Connects Ways of Working with Business Acumen
- Tailor work processes, approaches and tools along with leadership skills to examine and improve value delivery

How often and how well does your project team really focus efforts on examining the business value of the project?



ECO Coverage

2.8 Plan and manage scope

- Monitor and validate scope (2.8.3)

2.6 Plan and manage schedule

- Measure ongoing progress based on methodology (2.6.4)
- Modify schedule, as needed, based on methodology (2.6.5)
- Coordinate with other projects and other operations (2.6.6)

2.5 Plan and manage budget and resources

- Monitor budget variations and work with governance process to adjust as necessary (2.5.3)

2.1 Execute project with the urgency required to deliver business value

- Examine the business value throughout the project (2.1.2)

2.7 Plan and manage quality of products/deliverables

- Continually survey project deliverable quality (2.7.3)
- Recommend options for improvement based on quality gaps (2.7.2)

Manage Project Issues and Impediments

TOPIC D

Problem Vocabulary

Impediments, Obstacles and Blockers

Obstacle removal. Since it is the project team who generates the majority of business value, a critical role for the servant leader is to maximize delivery by removing **impediments** to their progress. This includes solving **problems** and removing **obstacles** that may be hampering the project team's work. By solving or easing these **impediments**, the project team can deliver value to the business faster.

Remove obstacles *(Step 5 in the Process for Leading Change)*

All change comes with **obstacles**. Sometimes the **obstacles** are outdated processes, sometimes they are based on the organizational structure, and sometimes they are people resistant to change. Regardless, all **obstacles** need to be addressed.

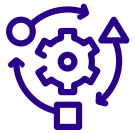
- PMBOK® Guide – 7th Edition

*'Impediment' and 'blocker' are synonyms; they both mean, "an **obstacle** that prevents the team from achieving its objectives."*

Issue or Impediment? Just Solve the Problem!

- **Issue**: A condition or situation that may have an impact on the project objectives.
- **Impediment**: An obstacle that prevents the team from achieving its objectives. Also known as a blocker.

Predictive teams use the term issue log



Adaptive teams tend to use an impediment log.

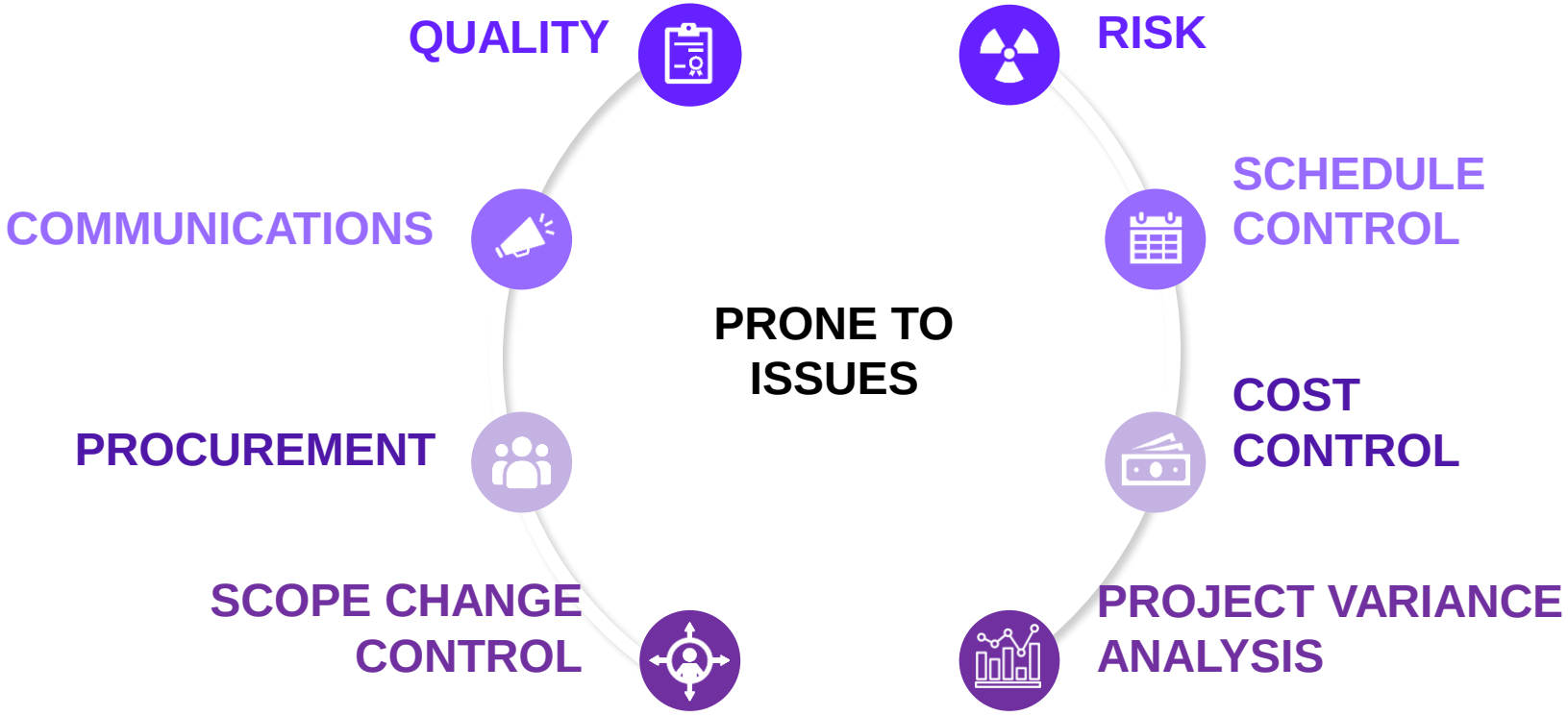
This term is related to Scrum.

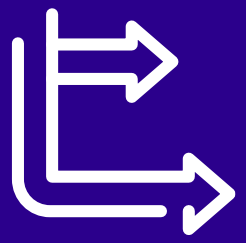
Risks and Issues

- Focused on the future
- Can be positive or negative
- Are documented in the risk register
- Response is called a “risk response”

- Focused on the present
- Will always be negative
- Are documented in the issue log
- Response is called a “workaround”

Issues

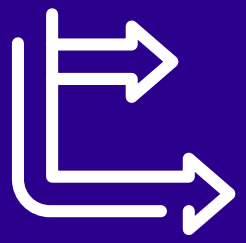




Issue Resolution

Guidelines

Track problems, inconsistencies or conflicts and conduct investigation towards resolution



- As issues arise, promptly add them to the **issue log**.
- Assign an owner to each issue
- Give realistic due dates
- Discuss issues at every status meeting
- Limit open issues to a manageable number
- Don't hesitate to escalate if effects are major!

ID	Description	Opened	Due Date	Priority	Owner	Response	Status	Comments
25	Truck strike	15 Jan 20xx	01 Feb 20xx	High	A. Fen	TBD	Open	Tasks are on the critical path
26	Glazing service down	15 Jan 20XX	01 Feb 20xx	Med	Gen Contractor	working	open	Looking into another supplier
27	Josie Bynoe dissatisfied	15 Jan 20xx	01 Feb 20xx	High	A. Fen	working	open	Risks board withholding operating funds

Discover and Solve Impediments Using Scrum

Steps:

- Discover the problem/cause
- Solve it. The scrum master is responsible for finding a resolution with concerned parties:
  - Often involves dealing with conflict somewhere in the organization
  - Resolution can help the organization grow in agility

Remove Impediments

Overview

- Track impediments
- Reprioritize product backlog
- Use daily standup meeting
- Be a servant leader

Discussion

How does your team solve problems?

ECO Coverage

2.15 Manage project issues

- Recognize when a risk becomes an issue (2.15.1)
- Attack the issue with the optimal actions to achieve project success (2.15.2)
- Collaborate with relevant stakeholders on the approach to resolve the issues (2.15.3)

1.7 Address and remove impediments, obstacles, and blockers for the team

- Determine critical impediments, obstacles, and blockers for the team (1.7.1)
- Prioritize critical impediments, obstacles, and blockers for the team (1.7.2)
- Use network to implement solutions to remove impediments, obstacles, and blockers for the team (1.7.3)
- Re-assess continually to ensure impediments, obstacles and blockers for the team are being addressed (1.7.4)

Manage Project Changes

TOPIC E

Interactive/Discussion

- *What constitutes a change in a project?*
- *Can a change can come from anywhere?*
- *How does the life cycle and development approach affect our response to change?*

Causes of Project Changes

- Inaccurate initial estimates
- New regulations
- Missed requirements
- Specification changes

Are any of these also causes of changes in adaptive projects?

Be a Changemaker and a Change Leader

Which of the project management principles deal with the subject of change?

a. Be a diligent, respectful and caring steward
b. Recognize, evaluate and respond to system interactions
c. Navigate complexity
d. Create a collaborative project team environment
e. Demonstrate leadership behaviors
f. Optimize risk responses
g. Effectively engage with stakeholders
h. Tailor based on context
i. Embrace adaptability and resiliency
j. Focus on value
k. Build quality into processes and deliverables
l. Enable change to achieve the envisioned future state

Monitor the External Business Environment

Change can bring negatives as well as positives, such as opportunities to add or extend value!

- Monitor the external environment
- Remain vigilant for threats
- Constantly update the risk register and thresholds
- Use tools

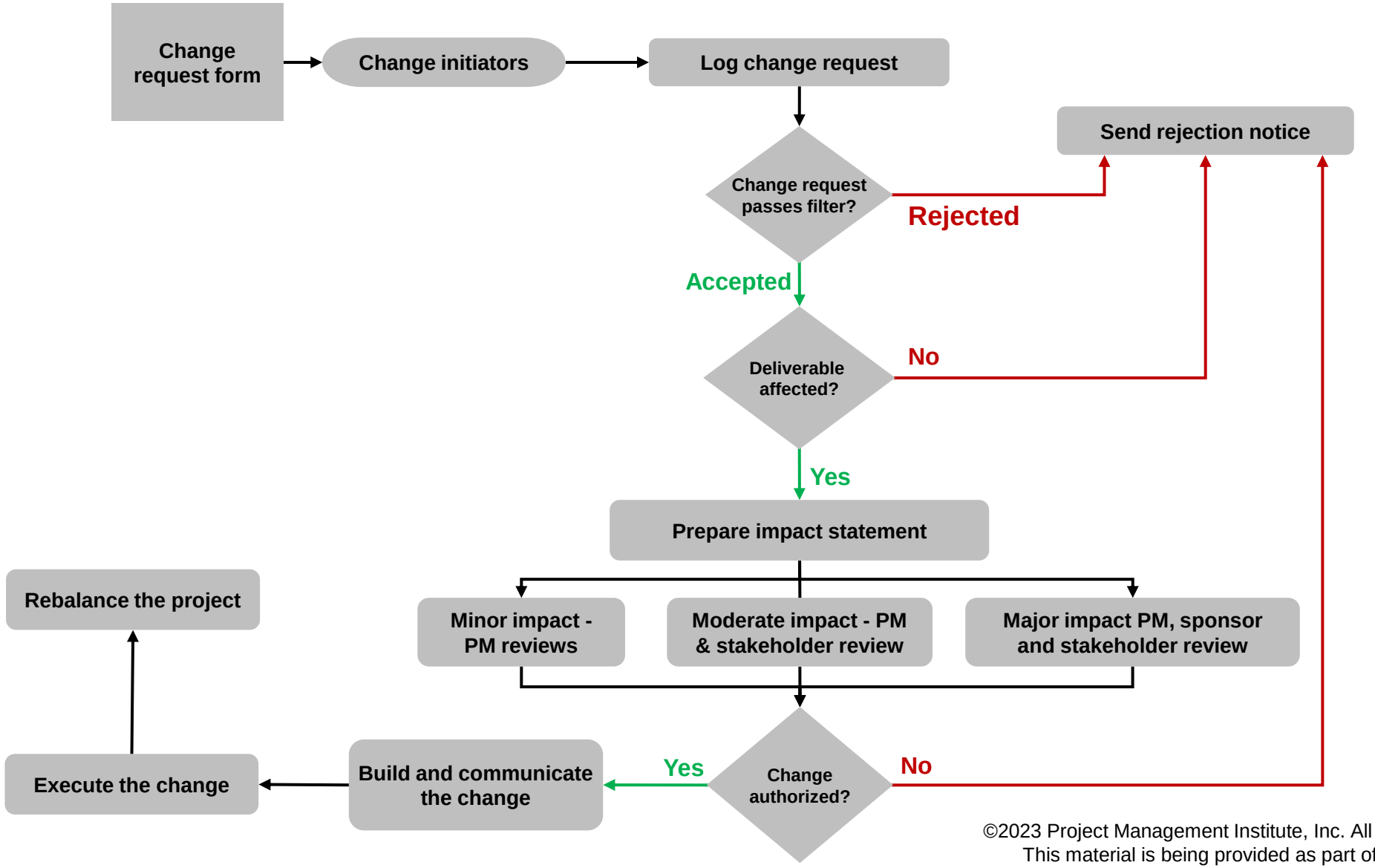
- **PESTLE**
- **TECOP**
- **VUCA**

Manage Change

Overview and Controls

Overview	Controls
Perform Integrated Change Control linear **process** 	• Perform Integrated Change Control process • Change request process • Change control board (CCB) • Artifact management (updates)
Feedback and development **cycle** 	• Product owner role - key decision maker and runs backlog • Everyone participates in backlog refinement • Use demos to understand requirements • No changes allowed during a sprint
Any of the above 	

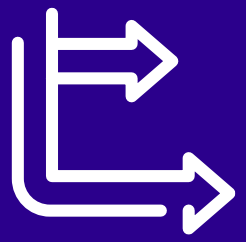
Change Management Process Flowchart



Change Requests

Four Types

Can you think of examples of each kind for the Shawpe project?



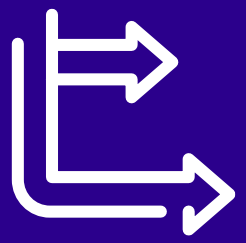
- **Corrective action** - Adjusts the performance of the project work with the project management plan
- **Preventive action** - Ensures future performance of the project work with the project management plan
- **Defect repair** - Modifies a nonconformance within the project
- **A change** - Modifies a project baseline

Change Control Systems

Change Control Board

Forms, tracking methods, processes, and approval levels required for authorizing or rejecting requested changes.

One approval level may be the **Change control board (CCB)** which handles *some* change requests based on the approval levels documented in the change management plan.

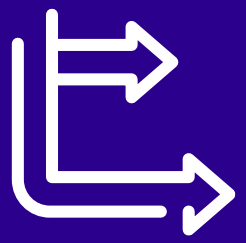


Manage Contract Changes and Resolve Problems

- Work with the vendor to manage contract changes
- Work with partners in the organization (procurement, finance, functional departments) and take action within the project manager's or team's domain/threshold
- Legal problems that are serious enough to cause issues may need expert help

Contract Change Control System

The system used to collect, track, adjudicate and communicate changes to a contract



- Might be a component of the integrated change control or a separate organizational system
- Specifically dedicated to control contract changes
- Specifies contract change
- Includes documentation, dispute-resolution processes and approval levels

Types of Contract Changes

Which kinds of changes do you think are more likely to cause conflict? Why? How can these be avoided?

Component	Description
Administrative changes	Non-substantive changes, usually about contract administration method
Contract modification	Substantive change to contract requirements or product requirements
Supplemental agreement	An additional agreement related to the contract but negotiated separately
Constructive changes	Changes made by the buyer through action or inaction
Termination of contract	Vendor default or buyer's need changes

Legal Concepts When Managing Disputes

Seek legal advice if the terms of a contract have not been met.

Negotiate settlements to arrive at a final equitable settlement of all outstanding issues, claims, and disputes by negotiation.

Legal Issue	Description
Warranty	A promise, explicit or implied, that goods or services will meet a pre-determined standard. The standard may cover reliability, fitness for use, and safety.
Waiver	A legally binding provision in which one party in a contract agrees to forfeit a claim without the other party becoming liable, even inadvertently.
Breach of contract	Failure to meet some or all the obligations of a contract. It may result in damages paid to the injured party, litigation or other ramifications.
Cease and desist (C&D) letter	A letter sent to an individual or a business to stop (cease) allegedly illegal activities and to not undertake them again (desist). Often used as a warning of impending legal action if it is ignored.

Process, Adjudicate and Communicate Claims

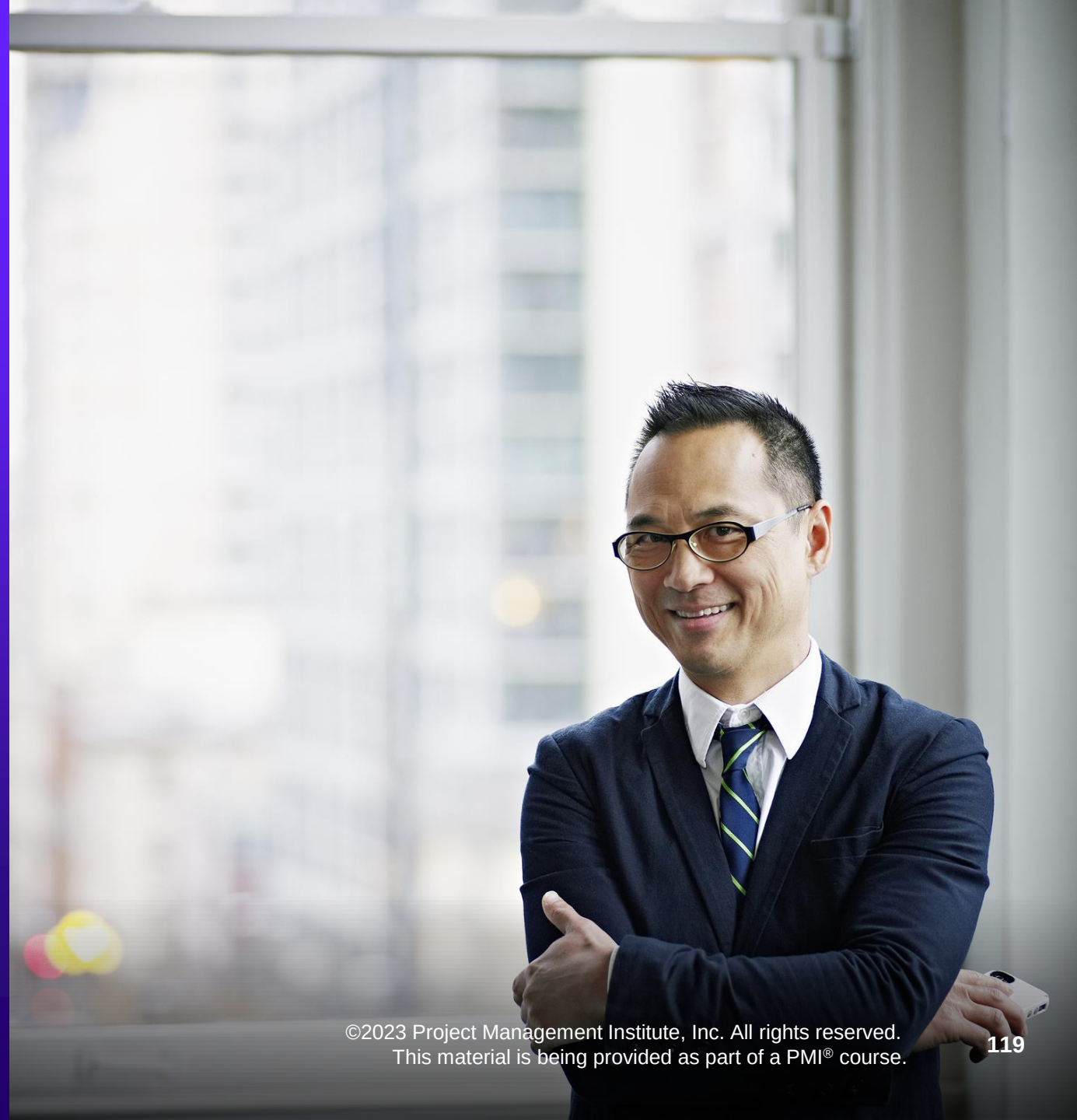
- Contested changes and potential constructive changes, including:
  - Lack of agreement on compensation for change
  - Lack of agreement that change occurred
- If not resolved, handle through alternative dispute resolution (ADR) established in contract
- Settlement through negotiation is preferred
- The ”last resort” is litigation

Update Project Management Plan

Based on the scope of changes, you may need to update:

- Scope
- Timelines
- Work packages
- Team member assignments

Agile teams might remove lower-value deliverables from the scope to make room for the change.

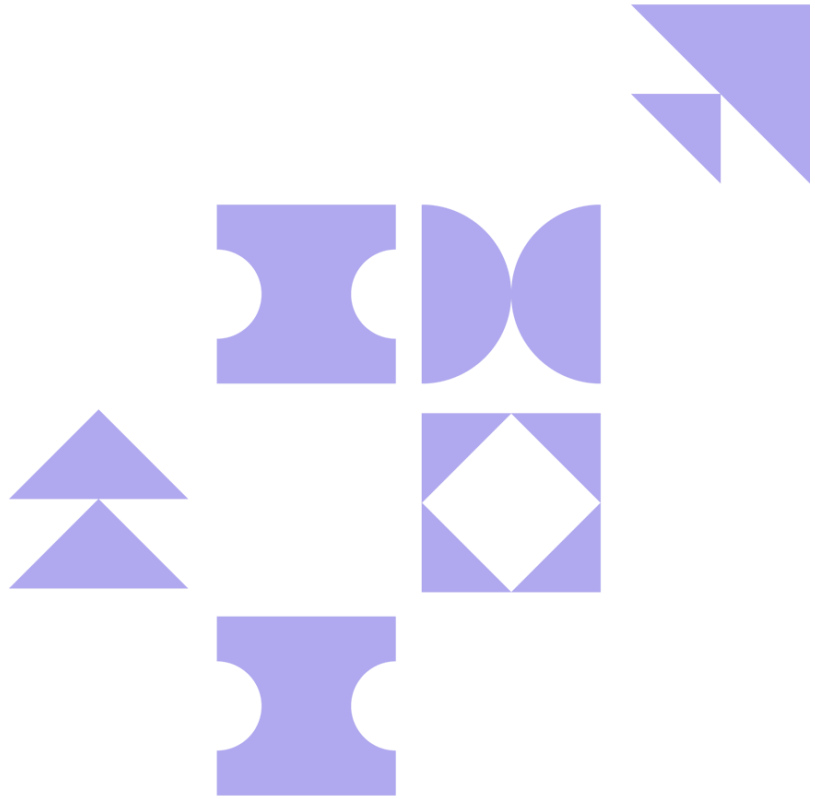


ECO Coverage

3.3 Evaluate and address external business

environment changes for impact on scope

- Survey changes to external business environment (e.g., regulations, technology, geopolitical, market) (3.3.1)
- Assess and prioritize impact on project scope/backlog based on changes in external business environment (3.3.2)
- Recommend options for scope/backlog options (e.g., schedule, cost changes) (3.3.3)
- Continually review external business environment for impacts on project scope/backlog (3.3.4)



2.10 Manage project changes

- Anticipate and embrace the need for change (e.g., follow change management practices (2.10.1)
- Execute change management strategy according to the methodology (2.10.3)
- Determine a change response to move the project forward (2.10.4)

End of Lesson 5

LESSON 6

CLOSE THE PROJECT/PHASE

- Project/Phase Closure
- Benefits Realization
- Knowledge Transfer

Version 3.2 | 2023 Release

Learning Objectives

- Define the reasons and activities related to the closure of a phase or a project.
- Explain the benefits gained from a project or phase, and how they are managed, sustained, etc.
- Examine the reasons for knowledge transfers and how they relate to the closure of a phase or project.

Project/Phase Closure

TOPIC A

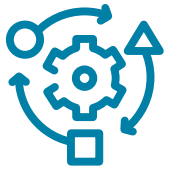
Why Projects or Phases Close

Fulfillment

Stakeholders accept deliverables based on **acceptance criteria** established at the beginning of the project in the **project management plan**

Acceptance criteria may be modified during a project life cycle

Use the **requirements traceability matrix** to ensure completion and approval of all requirements



At the end of an iteration, the team and stakeholders assess the product/service against their mutually agreed **definition of done (DoD)**

Final acceptance occurs prior to product release.

Acceptance criteria *and* ***definition of done (DoD)*** *express the same status of stakeholder satisfaction with the product. Teams may use the terms interchangeably.*

Why Projects or Phases Close

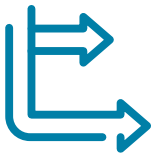
Premature or Forced Closure

Can anyone share an example of a forced project or phase closure?

- Requirements/needs change
  - Project/deliverable is no longer feasible
    - (Internal) Organization makes a change to the business case.
    - (External) A legal or regulatory change prohibits progress.
  - Project/deliverable is no longer desirable
- Impediment encountered
  - Financial support is not available to complete the requirements
  - Risks with significant consequences make successful completion impossible

Close Project or Phase Activities

- Acceptance of deliverables or product by customer
- Transition of deliverables or product to customer
- Notify enterprise and organizational functions; update OPAs
- Prepare **final report**
- Conclude external obligations, including legal, regulatory, contractual — e.g., transfer of liability, closure of all accounts in financial system
- Archive project information
- Release resources (human, financial and physical assets)



These activities are part of the Close Project or Phase process and are typically included in the project management plan and in the WBS, under the project management function.

Transitions
(Handovers)

- Some organizations use a rollout or transition plan.
- *This is **not** a project management plan component.*

Deliverables are handed to the customer or owner. Transition/handover specifications for deliverables are in the **project management plan**.

A tailored solution that delivers value — most likely in an incremental way — to the organization.

Every iteration output is handed to the product owner.

Transition / Handover Readiness

Ensure your customer is ready for change and success!

Readiness may require additional change management activities to **ensure adoption** and **overcome resistance.**

Especially critical if an existing product or service is being upgraded.

Assess the readiness of all parties:

End Users

The Business

Project Team

Support Staff

Transition / Handover Activities

Effective transitions or handovers of deliverables or products enable end-user awareness, increasing the likelihood of successful adoption and, therefore, of **benefits realization**.

Transition requirements can include:

- Training on the new product or service
- Documentation for the product/deliverable
- Effective communication between the project team and the organization
- Post-implementation support (aka “hypercare”)

Where are the transition requirements recorded in a predictive project?

Interactive / Activity

*Do you remember the difference between **explicit** and **tacit** knowledge?*

Discuss the importance of transferring both kinds of knowledge from the project team to the customer.

Give an example of how your team has done it in the past.

Paying and Closing Contracts

DO

- Notify the appropriate entity (usually accounts payable) when work has been fulfilled and contracts can be paid
- Pay suppliers or vendors in accordance with contract terms

Some payments may have been made during the project and the contract may have been closed

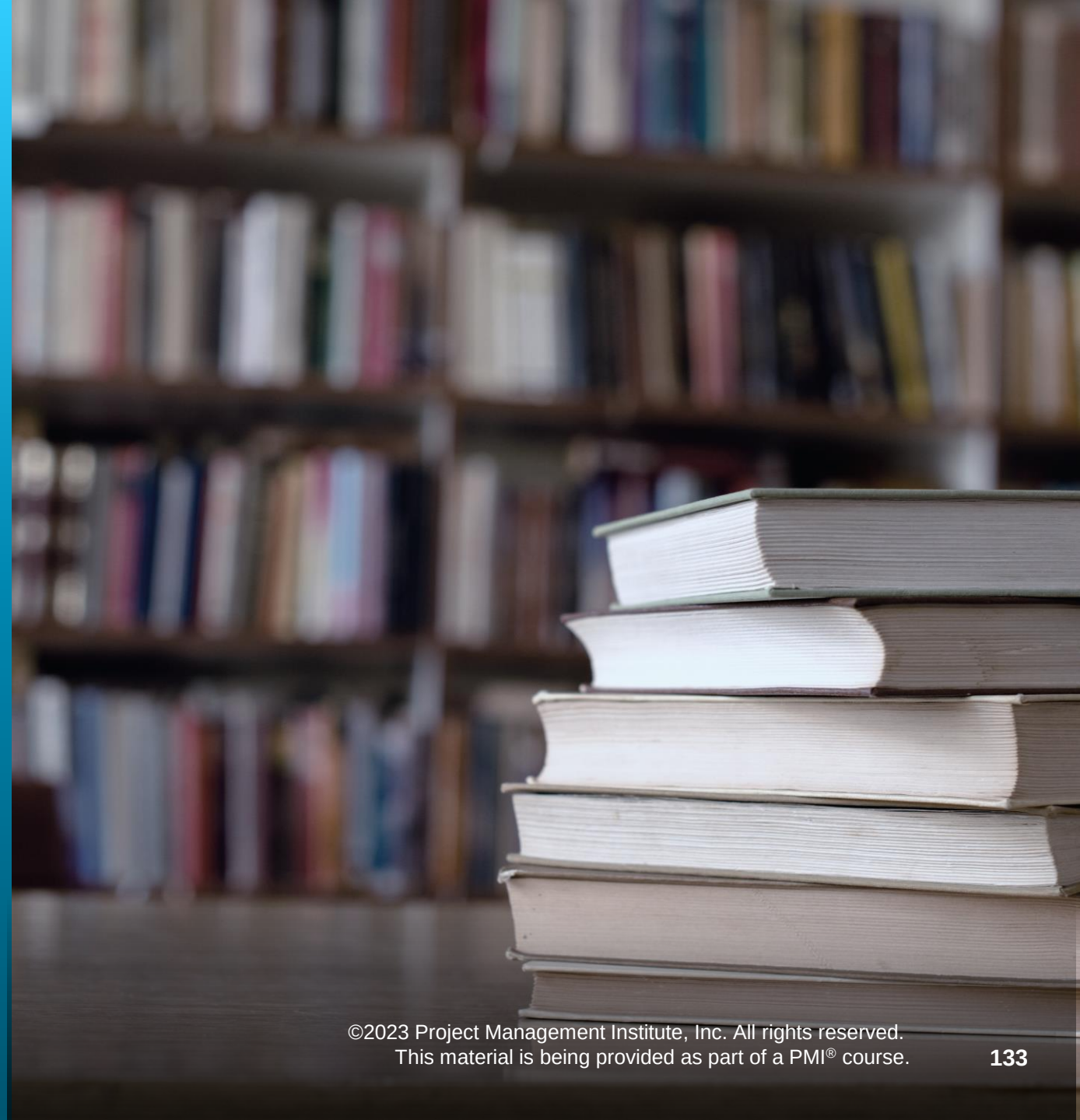
DON'T

- Delay payments until project or phase closure, unless specified in the contract

Finalizing Contracts

Archiving contracts means collecting, indexing and filing:

- Contract schedule
- Scope
- Quality
- Cost performance
- Contract change documentation
- Payment records and financial documents
- Inspection results
- “As-built” or “as-developed” documents, manuals, troubleshooting and technical documentation



ECO Coverage

1.8 Negotiate project agreements

- Verify objective(s) of the project agreement is met (1.8.3)

2.17 Plan and manage project/phase closure or transitions

- Validate readiness for transition (e.g., operations team or next phase) (2.17.2)
- Conclude activities to close out project or phase (e.g., final lessons learned, retrospectives, procurement, financial, resources) (2.17.3)

Benefits Realization

TOPIC B

Early and Long-Term Benefits Realization

Some benefits are immediate while others could take a few months to years!

Benefits accrue at various stages depending on:

- Project life cycle used
- Nature of the project work
- Intended outcomes

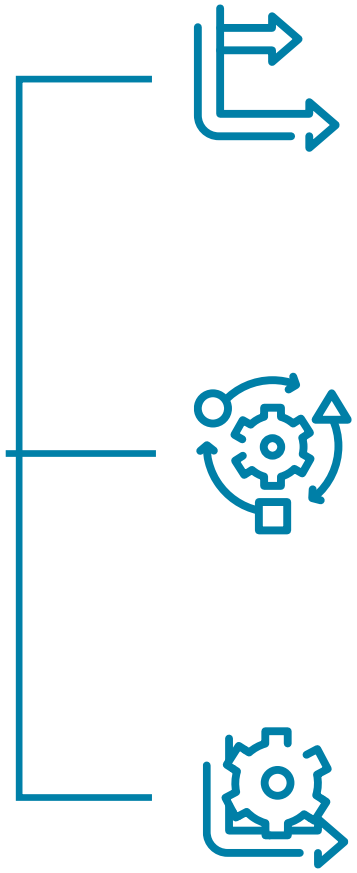
Can you identify a type of project in which value is delivered very early?

And a project in which value is delivered months or even years after transition?

Benefits Transition and Sustainment

Responsibilities

- Handover/transition
- Review of the **benefits management plan**



Any improvement or modification to delivered benefits is a new project

Any improvements or modifications to delivered benefits are proposed as work for the next/future iteration and placed/reprioritized on the backlog

Organizations and teams tailor solutions for benefits realization and sustainment — e.g., post-implementation support (aka “**DevOps**” or “hypercare”)

Benefits Transition and Sustainment

An Explanation

Project Team	Customer 	Product Owner or Project Manager  
Delivers benefits to customer organization	• Ensures continued generation of improvements and delivered benefits • Captures additional customer inputs	Works with customer to identify work required for desired improvements
Provides planned performance data	Compares actual performance to planned performance, including KPIs	Uses metrics chosen with team to measure performance
Works with business owner to suggest benefits realization metrics, including frequency and monitoring responsibilities	Implements benefits realization metrics at suitable intervals, tailored to needs	Collaborates with team to determine suitable metrics
Determines if any remaining risks might prevent benefit achievement	• Identifies risks, processes and tools needed to ensure continued benefits realization • Monitors risks affecting delivered benefits	Monitors risks on impediments log and collaborates with team about response
Provides technical information required to use the product or service	Updates technical information – e.g., FAQs	Collaborates with team to update technical information

Benefits Management Plan

A **business document** developed by the organization to define potential benefits from the project effort

- Is a major input to authorizing the project
- Examines the requested benefits and determines if both the tangible and intangible business value will be realized from the project
- Determines the time frame for short- and long-term benefits realization
- Identifies a benefits owner responsible for achieving the benefits, including:
  - Metrics or measurements to be used
  - Which individuals or groups measure results

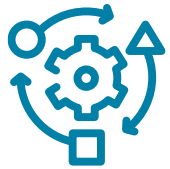
In the plan, determine whether any remaining project risks might prevent benefit achievement.

When key stakeholders are identifying desired project benefits, let them suggest how the benefits should be measured.

Benefits Owner

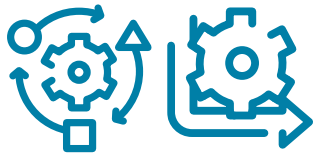
- Works with project manager/team lead during the project to ensure planned benefits are managed as they are delivered
- Assists in transitioning the requested benefits to the receiving organization
- Ensures that measurement metrics and methods are established and monitored
- Reports to management on the realized results (value) of the delivered benefits

A benefits owner may be a business analyst, sponsor or operations manager.

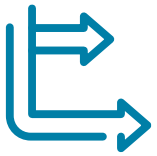


The product owner is responsible for making sure project work reaps benefits for the organization.

Verify Benefits Realization



- Using the chosen metrics, the product owner reports on progress for each tangible benefit
- For intangible benefits, a subjective (qualitative) determination may be more useful
- Reporting should include:
  - For tangible benefits—progress toward being met
  - Any benefits at risk of not being realized as planned
  - Any resulting negative impact on strategic objectives
  - Potential ending of the project team's support



In a predictive project, once the transition is complete, who is responsible for verifying that benefits are realized?

ECO Coverage

3.2 Evaluate and deliver project benefits and value

- Document agreement on ownership for ongoing benefit realization (3.2.2)
- Verify measurement system is in place to track benefits (3.2.3)

Knowledge Transfer

TOPIC C

Knowledge Management During Closing

- **Conduct retrospectives** or final **lessons learned** meetings
- **Archive** all project information
- **Finalize** **lessons learned register**
- **Add** the lessons learned to the knowledge management/**lessons learned repository**
- **Transition** knowledge from project team to the customer

Conduct Project Retrospective

- Internalize learning about the work product and process
- Capture key successes and challenges
- Consider qualitative (people's feelings) and quantitative (measurements) data
- Use data to find root causes, design countermeasures, and develop action plans for next time
- Praise, congratulate and motivate the team

An agile team might conduct a final retrospective, while a project manager holds a final "all-hands" meeting for the team in a predictive life cycle. These are similar ceremonies for closing a project or phase.

Finalize Lessons Learned

Include the following topics from the project's lessons learned register in the final report:

- Scope changes
- Schedule impacts
- Risks and issues
- Stakeholder relationships
- Vendor relationships
- Artifacts
- Recommendations

Consolidating Lessons Learned

The following categories of lessons learned information are especially important at the end of a project:

- Scheduling
- Conflict management
- Sellers
- Customers
- Strategic
- Tactical

Transfer these into the **lessons learned repository.**

Final Report: Summary of project/phase performance result

Description	Describe activity undertaken, including deliverables or milestones
Scope objectives	Document scope evaluation criteria and give evidence of met completion criteria
Quality objectives	Describe evaluation criteria for project and product quality. Verify objectives are met, give actual milestone delivery dates and reasons for any variances
Cost objectives	Restate acceptable cost range, give actual costs and reasons for any variances
Validation information	Include required approvals for final product, service or result—e.g., user satisfaction survey results
Schedule objectives	Verify project objectives were completed on time; report on any variance and effects of the variance
Benefits realization	State how the final product, service or result achieved the business needs and expected benefits; if partial, give details of variance and fulfillment schedule
Risks or issues encountered	List risks and issues and state how they were addressed

ECO Coverage

2.16 Ensure knowledge transfer for project continuity

- Confirm approach for knowledge transfers (2.16.3)

End of Lesson 6

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,

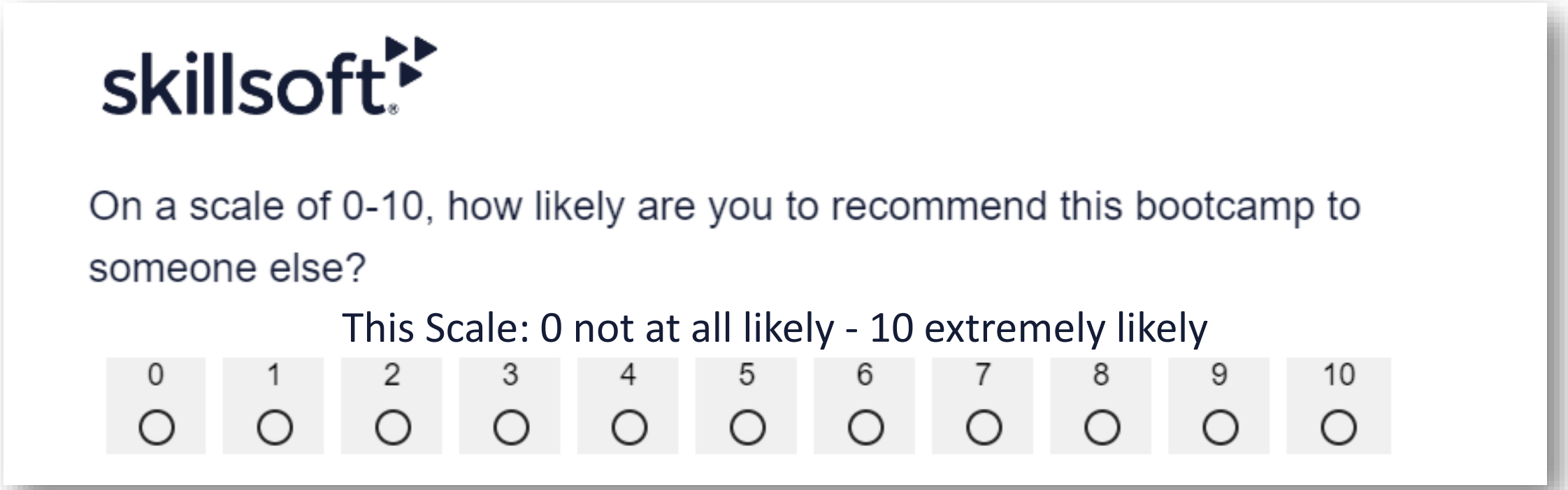
- Let us know **what you liked** about the experience – your comments really matter.
  - Please include a thank you **to the mentor(s)** working off camera.

- If you have **recommendations**, share those too!

We sincerely value your opinion!

Survey Scale

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



LEAN SIX SIGMA

LEAN SIX SIGMA

A collaborative team method that provides an enhanced ability to target customer needs and measure performance during project execution and monitoring. It was introduced by American engineer Bill Smith while working at Motorola in 1986.

A/B TESTING

A/B TESTING

A marketing approach used to determine user preferences by showing different sets of users' similar services—an ‘Alpha’ and a ‘Beta’ version—with one independent variable.

PARETO CHART

PARETO CHART

A histogram that is used to rank causes of problems in a hierarchical format. See also “80/20 Rule”.

80/20 RULE

80/20 RULE

A general guideline with many applications; in terms of controlling processes, it contends that a relatively large number of problems or defects, typically 80%, are commonly due to a relatively small number of causes, typically 20%. See also “Pareto Chart”.

EXPLICIT KNOWLEDGE

EXPLICIT KNOWLEDGE

Knowledge that can be codified using symbols such as words, numbers, and pictures. This type of knowledge can be easily documented and shared with others.

TACIT KNOWLEDGE

TACIT KNOWLEDGE

Personal knowledge that can be difficult to articulate and share such as beliefs, experience, and insights.

COMMUNITY OF PRACTICE (COP)

COMMUNITY OF PRACTICE (COP)

As described by E. Wenger in his book, Cultivating Communities of Practice, the CoP uses the same basic idea as used by Shell in their off-shore drilling platforms to establish local forums of “experts” with the specific mandate to create an arena in which project managers would feel comfortable sharing their findings and learnings from their projects.

WORK SHADOWING

WORK SHADOWING

An on-the-job technique that enables someone to learn about and perform a job while observing and working with another, more experienced person.

EARNED VALUE (EV)

EARNED VALUE (EV)

A measure of work performed expressed in terms of the budget authorized for that work.

QUALITY METRIC

QUALITY METRIC

A description of a project or product attribute and how to measure it.

VARIANCE ANALYSIS

VARIANCE ANALYSIS

A technique for determining the cause and degree of difference between the baseline and the actual performance.

QUALITY AUDIT

QUALITY AUDIT

A structured, independent process to determine if project activities comply with organizational and project policies, processes, and procedures.

HISTOGRAM

HISTOGRAM

A bar or column chart that graphically represents numerical data—for example, the number of defects per deliverable, a ranking of the cause of defects, the number of times each process is noncompliant, or other representations of project or product defects.

80/20 RULE

80/20 RULE

A general guideline with many applications; in terms of controlling processes, it contends that a relatively large number of problems or defects, typically 80%, are commonly due to a relatively small number of causes, typically 20%. See also “Pareto Chart”.

RESERVE ANALYSIS

RESERVE ANALYSIS

A method used to evaluate the amount of risk on the project and the amount of schedule and budget reserve to determine whether the reserve is sufficient for the remaining risk.

ISSUE LOG

ISSUE LOG

An issue is a current condition or situation that may have an impact on the project objectives. An issue log is used to record and monitor information on active issues. Issues are assigned to a responsible party for follow up and resolution.

CHANGE CONTROL BOARD (CCB)

CHANGE CONTROL BOARD (CCB)

A formally chartered group responsible for reviewing, evaluating, approving, delaying, or rejecting changes to the project and for recording and communicating such decisions.

ACCEPTANCE CRITERIA

ACCEPTANCE CRITERIA

A set of conditions that is required to be met before deliverables are accepted.

DEFINITION OF DONE (DoD)

DEFINITION OF DONE (DoD)

A team’s checklist of all the criteria required to be met so that a deliverable can be considered ready for customer use.

FINAL REPORT

FINAL REPORT

A summary of the project’s information on performance, scope, schedule, quality, cost, and risks.

BENEFITS MANAGEMENT PLAN

BENEFITS MANAGEMENT PLAN

The documented explanation defining the processes for creating, maximizing, and sustaining the benefits provided by a project or program. It also describes how and when the benefits of a project will be derived and measured. Both the business case and the benefits management plan are developed with the benefits owner prior to the project being initiated. Additionally, both documents are referenced after the project has been completed. Therefore, they are considered business documents rather than project documents or components of the project management plan.

DevOps

DevOps

A collection of practices for creating a smooth flow of delivery by improving collaboration between development and operations staff.

BUSINESS DOCUMENT

BUSINESS DOCUMENT

An artifact developed prior to the project, used as part of the business case, and which is reviewed periodically by a project professional to verify benefit delivery.

LESSONS LEARNED REGISTER

LESSONS LEARNED REGISTER

A project document used to record knowledge gained during a project. The knowledge attained can be used in the current project and entered into the lessons-learned repository for subsequent use.

LESSONS LEARNED REPOSITORY

LESSONS LEARNED REPOSITORY

A central store of historical lessons learned information from various projects across jurisdictions.