



PMP® EXAM PREP

PMI Authorized Training Partner

BOOTCAMP

Session 7

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.



Accessing Your Bootcamp Resources – Percipio Users

Check Your Specific Bootcamp Channel for Your Resources

- Project Management Professional (PMP) ATP Bootcamp: 5 Day Cohort
- Project Management Professional (PMP) ATP Bootcamp: 8 Day UK Cohort
- Project Management Professional (PMP) ATP: 8 Day NA Cohort
- Project Management Professional (PMP) ATP: 8 Day Australia Cohort

This screenshot shows a learning platform interface for a Project Management Professional (PMP) ATP bootcamp. At the top, there is a banner with the text: "This Bootcamp provides Project Managers with the knowledge and skills needed to attain the Project Management Professional (PMP) certification. This course meets the 35-hour classroom requirement for...". Below the banner is a "View More" button.

The main navigation bar includes tabs for "Courses" (highlighted with a yellow box), "Books", "TestPrep", "Register and Join Sessions", "Watch" (highlighted with a red box), "Read", "Practice", and "Attend".

A sidebar on the right contains links for "Bootcamp Documents and Other Files" and "Resources".

The central content area features a course titled "PMP ATP Attendance 5-Day and 8-Day" with a duration of "8m 33s". A callout box titled "Best Practices for attendance!" provides instructions for PMI attendance requirements, mentioning "live attendance" and "First and last name".

Accessing Your Bootcamp Resources - All Other Users

Check Your Learning Portal for any Available Courses, Books or TestPrep exam

Check the Specific GitHub Link for Your Bootcamp Documents and Other Files

- Attending a 5-Day Bootcamp
- <https://github.com/Skillsoft-Content/PMP5Day>
- Attending an 8 Day Bootcamp
- <https://github.com/Skillsoft-Content/PMP8Day>

*Archive Resources Aug to Dec 2022	Add files via upload	3 days ago
*Archive Resources July 2022	Add files via upload	last week
5-Day Attendance and Certificates of...	Add files via upload	last week
Class Links	Add files via upload	last week
Documents (Syllabus, Exam Content ...)	Add files via upload	yesterday
Lunch Break Videos	Delete Placeholder	1 minute ago
PMP Learner Kit Information	Delete PMP ATP Learner Kit Info Jan 6 2023.pdf	3 days ago
Slide Decks	Delete Placeholder	yesterday
Vocabulary Slides	Delete Placeholder	yesterday
5-Day		Current Bootcamp Docs and Other Files
*Archive Resources Aug to Dec 2022	Delete Placeholder	3 days ago
*NA Cohort Aug Sep Oct 2022 Bootc...	Delete Test.txt	4 months ago
*NA Cohort Jun Jul Aug 2022 Bootca...	Delete Test	4 months ago
*UK and APAC Cohort Jul Aug Sep 20...	Delete Test.txt	4 months ago
8-Day Attendance and Certificates of...	Delete Placeholder	3 days ago
Class Links	Add files via upload	4 days ago
Documents (Syllabus, Exam Content ...)	Add files via upload	4 days ago
PMP Learner Kit Information	Delete Placeholder	3 days ago
Slide Decks	Create Placeholder	3 days ago
Vocabulary Slides	Create Placeholder	3 days ago
8-Day		Current Bootcamp Documents and Other Files

Logging In with Correct Name for Attendance is Your Responsibility

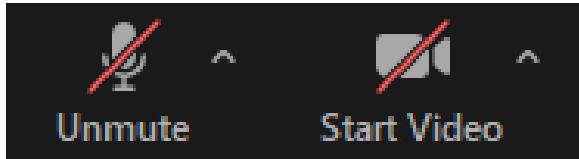
- Your name should be the same as in your Learning Platform (EX: Percipio, Skillport, etc.), Zoom account when joining through the Zoom app or client, or the name you input before joining directly using the Zoom link.
- Joining from Learning Portal: Check to make sure your first and last name is correct in your Learning Portal. If it is not, please reach out to Skillsoft Support for further assistance support@skillsoft.com in order to find out how it can be corrected.
- Joining through Zoom: Please use your first and last name.
- If you are not sure if your name is correct, you can send a “test” message to the Q&A, just to see your own name. “Test” messages will not be answered.

Issues With Staying Connected

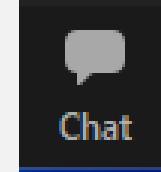
- If you are having issues with Percipio or Skillport with being disconnected from the session, please contact Customer Support directly <https://support.skillsoft.com/bootcamps> for assistance.
- There is no need to notify us during the session that you have rejoined the session after being disconnected or that you have missed time. These messages will be dismissed if you have no question.
- If being disconnected is a regular occurrence, please ask for the Zoom details in the session through the Q&A so you can join directly through Zoom. These details are the same for all the sessions. So please make note of them in a file so you only need to ask once.
- Review the instructions in the **PMP Bootcamp 5-Day and 8-Day Attendance Tracker and Certificate Request Process.docx** file to track each time you join and leave the session for whatever reason.

Ways to Participate in a Webinar

We are saving everyone's bandwidth usage by disabling cameras and microphones



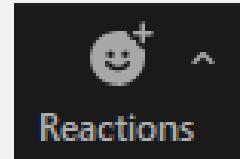
Find the Chat option in your Zoom command bar



Change the To: choice in the blue box to everyone.

To: Everyone ▾

Explore the Reactions option in your Zoom command bar



This is a fun way to provide quick and easy feedback

Using Zoom: Chat vs. Q&A

Please use the **Chat** to:

- Respond to instructor's questions
- Share your preferred tools and techniques
- Communicate with other participants
- Questions do not go in the chat
- The chat may be slowed as needed, to minimize disruptions

Please use the **Q&A** for:

- Technical assistance – Begin with: Percipio or Non-Percipio student
- Guidance on how to access course material – Begin with: Percipio or Non-Percipio
- Clarification and questions on lecture points, if not answered by instructor

Please be very patient, the support team responds to many inquiries per session.

Upvoting in the Q&A

- Questions will be visible to all participants
- Do you like a particular question? Click to upvote!
- Sort by “most upvotes” to see most popular questions
- Look at existing questions before typing a new one, to avoid duplicates
- Top questions will be selected and answered live (with instructor discretion)
- Priority will be given to managing technical issues.
- Not every question will be answered.

Great questions:

- are related to the course content
- include topics that everyone would benefit from learning
- are not spread across multiple posts

The screenshot shows a digital interface for a Q&A session. At the top, there are three colored circles (red, yellow, green) followed by the text "Q&A". Below this, there are two tabs: "All questions (3)" (which is blue and highlighted) and "My questions (2)". To the right of these tabs is a button labeled "Most Upvotes" with a dropdown arrow, which is circled in yellow. The main area displays three questions listed vertically. The first question is from "Lena Oxton" at 9:14 AM, asking if anyone has used all the new webinar features, with a blue thumbs-up icon and the number "2" indicating it has been upvoted twice. The second question is from "David Lu" at 9:10 AM, asking how many people can watch the webinar, with a blue thumbs-up icon and the number "1" indicating it has been upvoted once. The third question is from "Ana Amari" at 9:13 AM, asking if the webinar is being recorded, with a blue thumbs-up icon and no numerical count shown. At the bottom of the screen is a light gray input field with the placeholder text "Type your question here...".

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.
- 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*.
- Check your Bootcamp documents for the PMP Bootcamp 5-Day and 8-Day Attendance Tracker and Certificate Request Process file that explains manually tracking your attendance and how to get your PDU Certificate.

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



IN CASE OF ABSENCE

You can request a replay for a previous session by asking in the Q&A or for a past/current session by emailing the Mentoring Team 48 hours after the session ends using the email address mentoring@skillsoft.com

Please indicate the following in your request:

- The Bootcamp Cohort you are attending
- The Session Number
- The Date and Time Attended in New York Time Zone

5-Day Example:

PMP ATP Bootcamp: 5 Day NA Cohort Jan 2023
Session 1 Recording
Jan 16, 2023, 10:00 AM New York Time

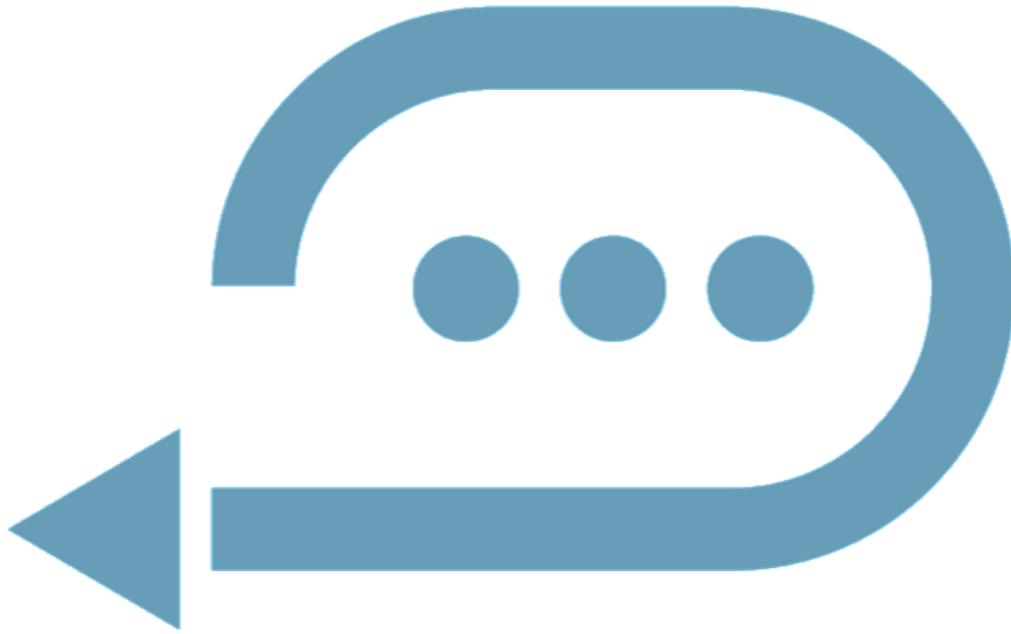
8-Day Example:

PMP ATP Bootcamp: 8 Day UK Cohort Jan/Feb/Mar 2023
Session 1 Recording
Jan 17, 2023, 4:00 AM New York Time

NO LIMIT FOR REPLAYS:

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

Recap Session 6



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
Topic B	(1B) Strategic Alignment	(2B) Form the Team	(3B) Scope	(4B) Create a Collaborative Project Team Environment	(5B) Support Performance
Topic C	(1C) Project Benefits and Value	(2C) Build Shared Understanding	(3C) Schedule	(4C) Empower the Team	(5C) Evaluate Project Progress
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 5

SUPPORT PROJECT TEAM PERFORMANCE

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

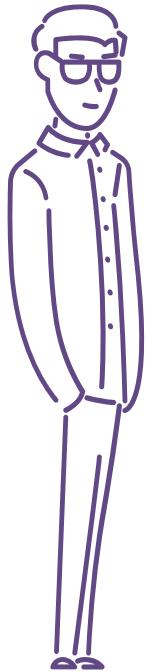




Support Performance

TOPIC B

Project Team Leadership Objectives



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

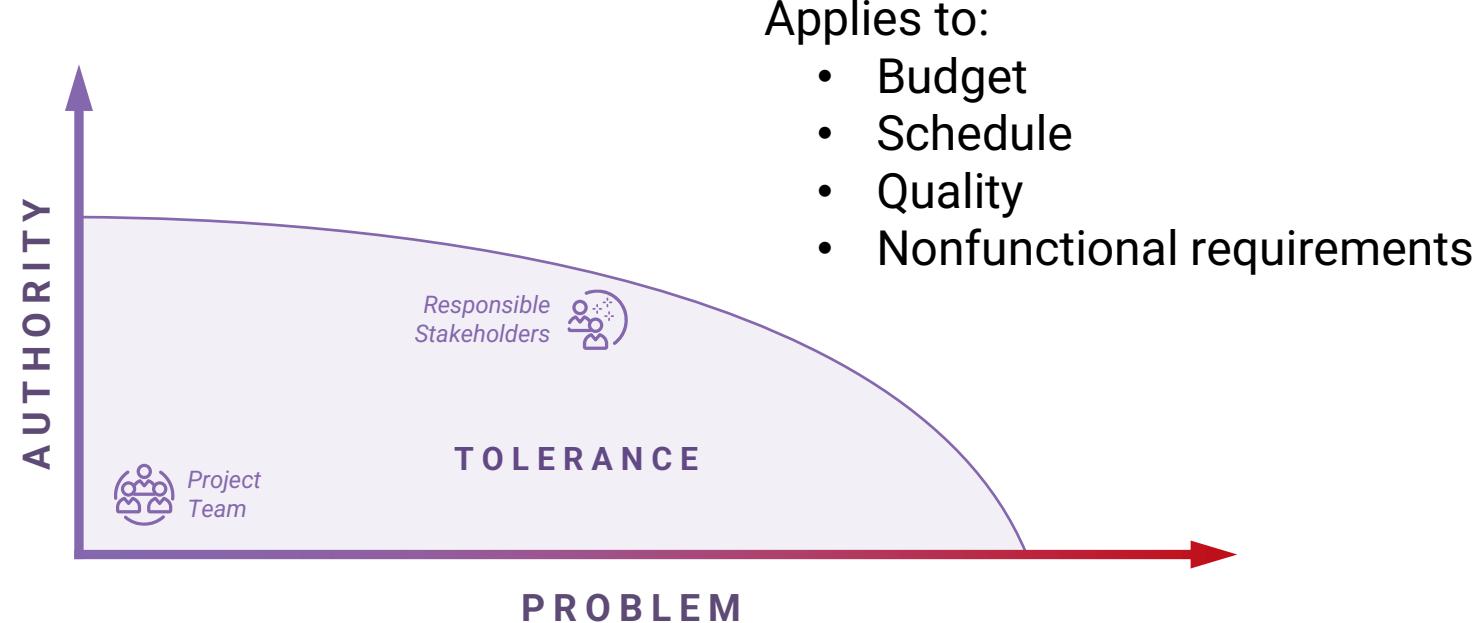
Ensure fluid knowledge-sharing, a continued healthy dynamic on the team, welcome new team members, realign the team.

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.



The Project Manager's Role

Centralized Model



ANG FEN
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



PROJECT
MANAGER



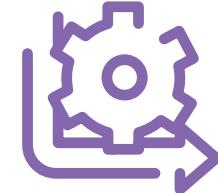
TEAM



SCRUM MASTER
/ AGILE COACH



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



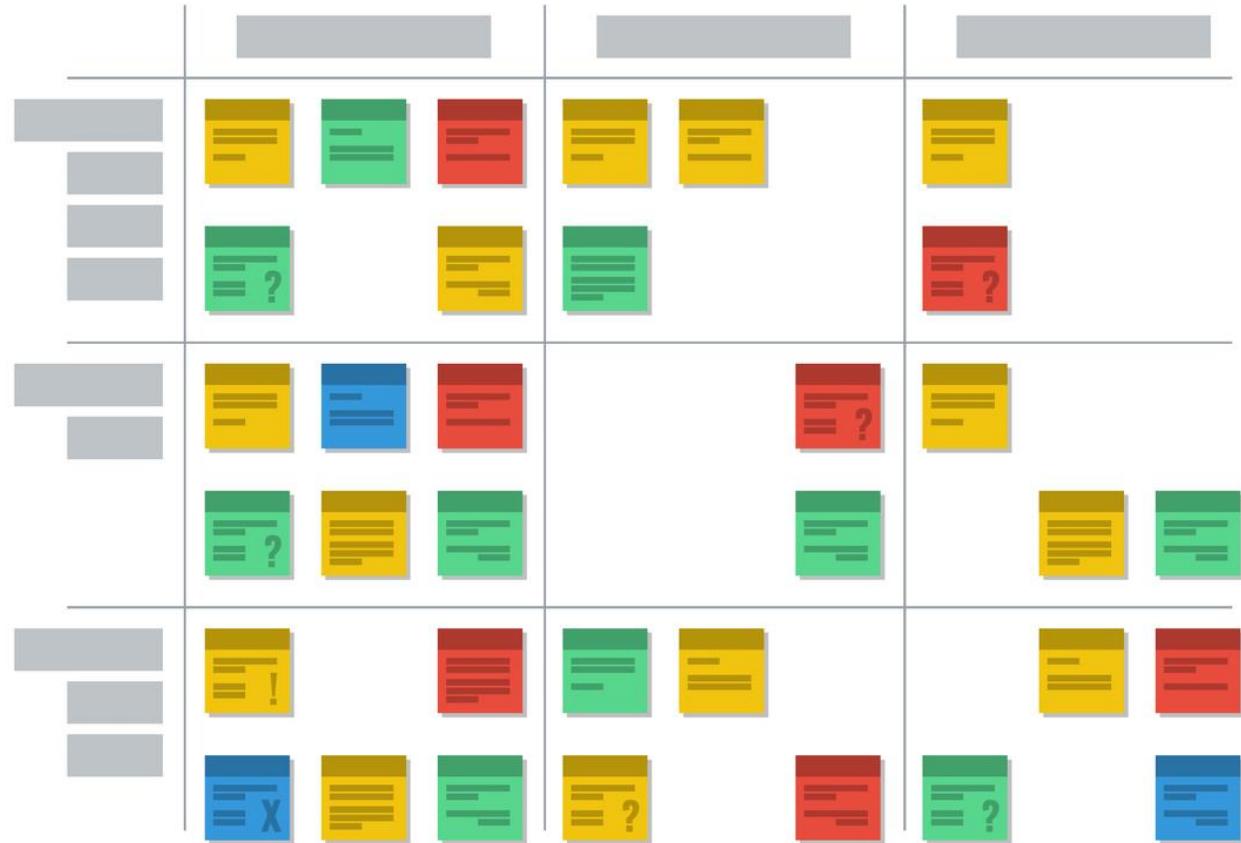
Support Team Task Accountability

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:

- **Responsible:** Does the work
- **Accountable:** Approves completion
- **Consult:** Gives expert opinion
- **Inform:** 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?

Project

What's required to achieve project goals?

Organization

What's required to manage programs or portfolios?

Acquire required knowledge through research and collaboration with other team members

Transfer knowledge from other projects and consult the project management office (PMO)

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

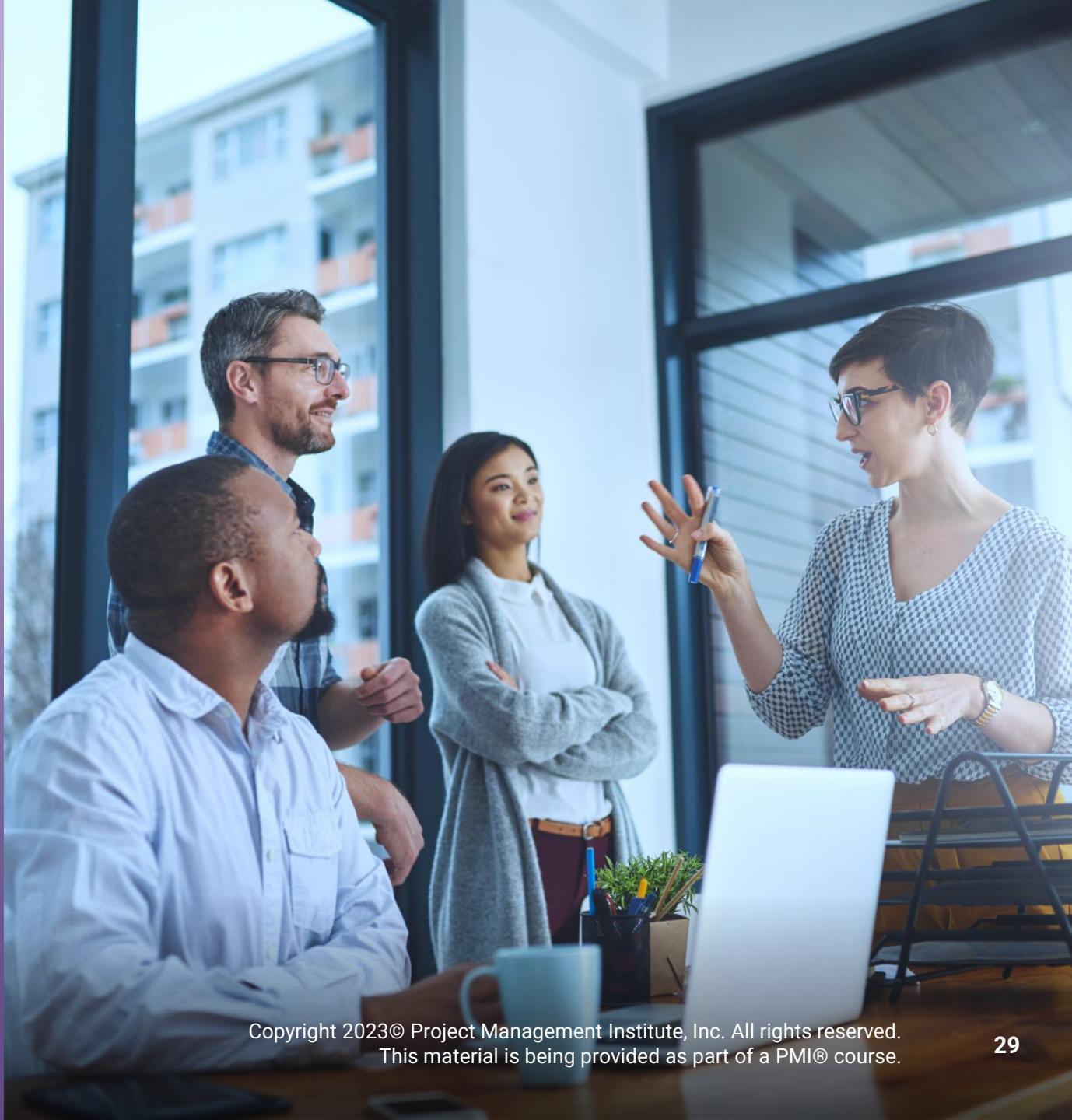
Prioritize team cohesion and focus on value delivery

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

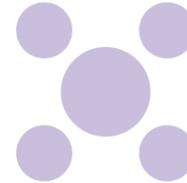
- Welcome each new member as a potential **source of new knowledge and motivation**
- Ensure **shared understanding** of project goals and agreements
- Collaborate to find out how they can **add value**
- Navigate disruptions and conflict constructively

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)

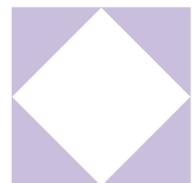
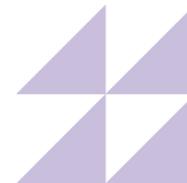
1.4 Empower team members and stakeholders

Support team task accountability (1.4.2)

- Evaluate demonstration of task accountability (1.4.3)

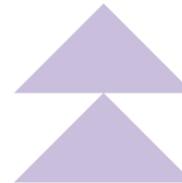
1.6 Build a team

- 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

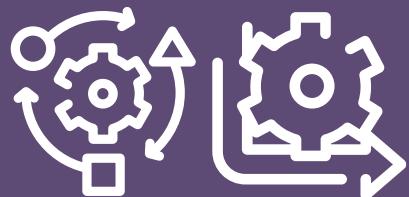


Tailor performance measurement to the project context and stakeholders:

- **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
 <p>Scope baseline is:</p> <ul style="list-style-type: none">Approved version of the project scope statementWork breakdown structure (WBS)Associated WBS dictionary	Measure completion of project scope against the scope baseline.
 <p>Scope evolves from:</p> <ul style="list-style-type: none">Initial product roadmap toRelease backlog toIteration backlogs <p>Backlogs (including product features and functions and user stories) reflect identified, updated and reprioritized product needs</p>	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



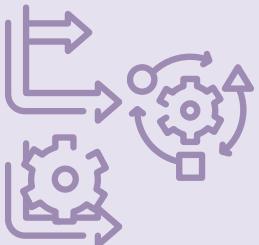
In an adaptive development approach, what helps determine that the acceptance criteria for user stories has been met?

- 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

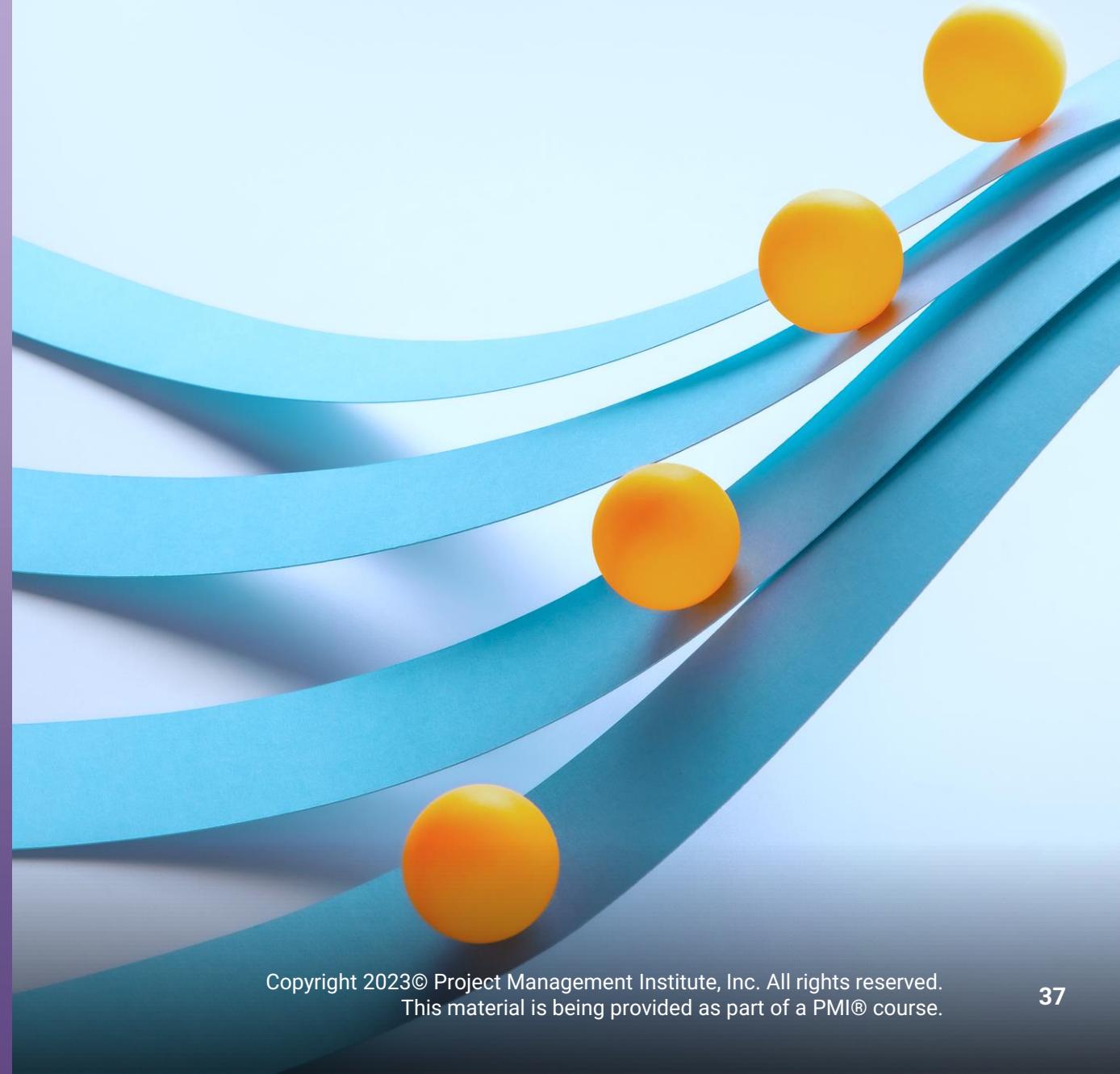
Variance analysis: Shows where the project is against where it should be

- 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**
 - All agile approaches use Kanban boards
 - Continuous flow approaches include **throughput**, **cycle time** and **lead time**
 - Timeboxed approaches include **velocity**

Information Radiators



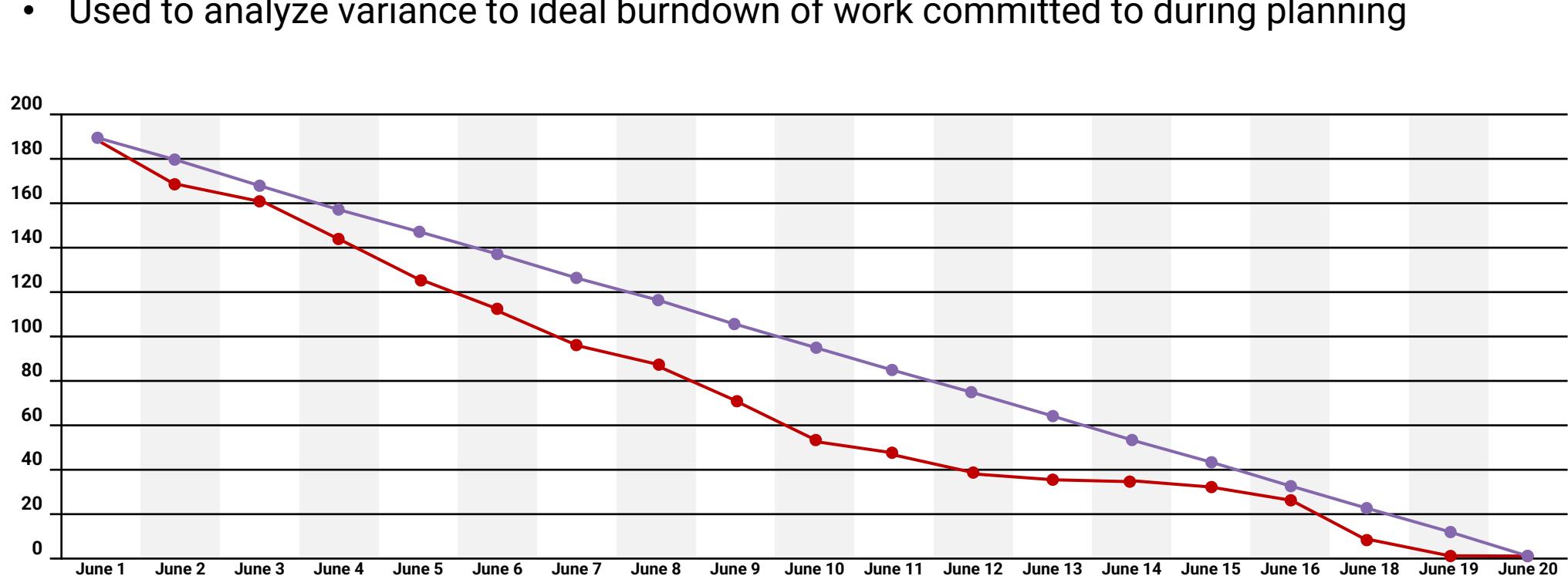


Burn Charts

Burndown (Iteration)



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



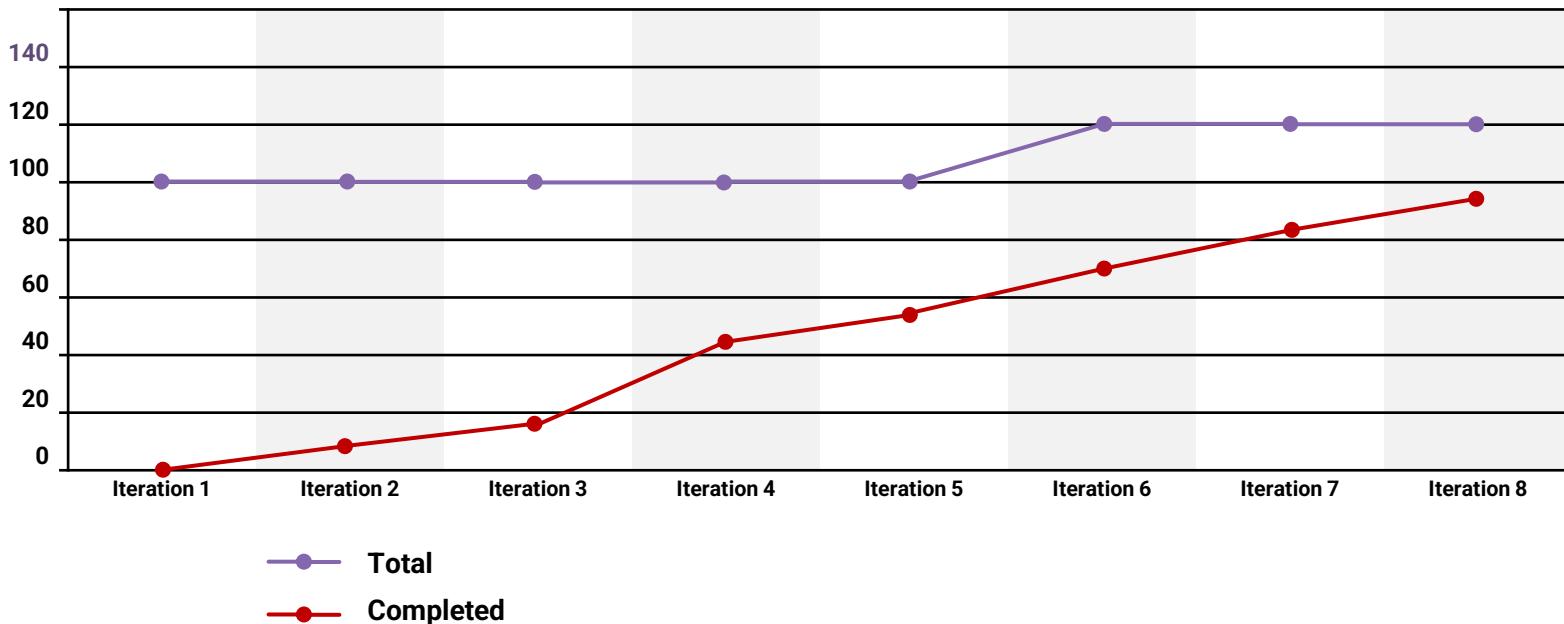
Burn Charts

Burnup (Release)



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

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

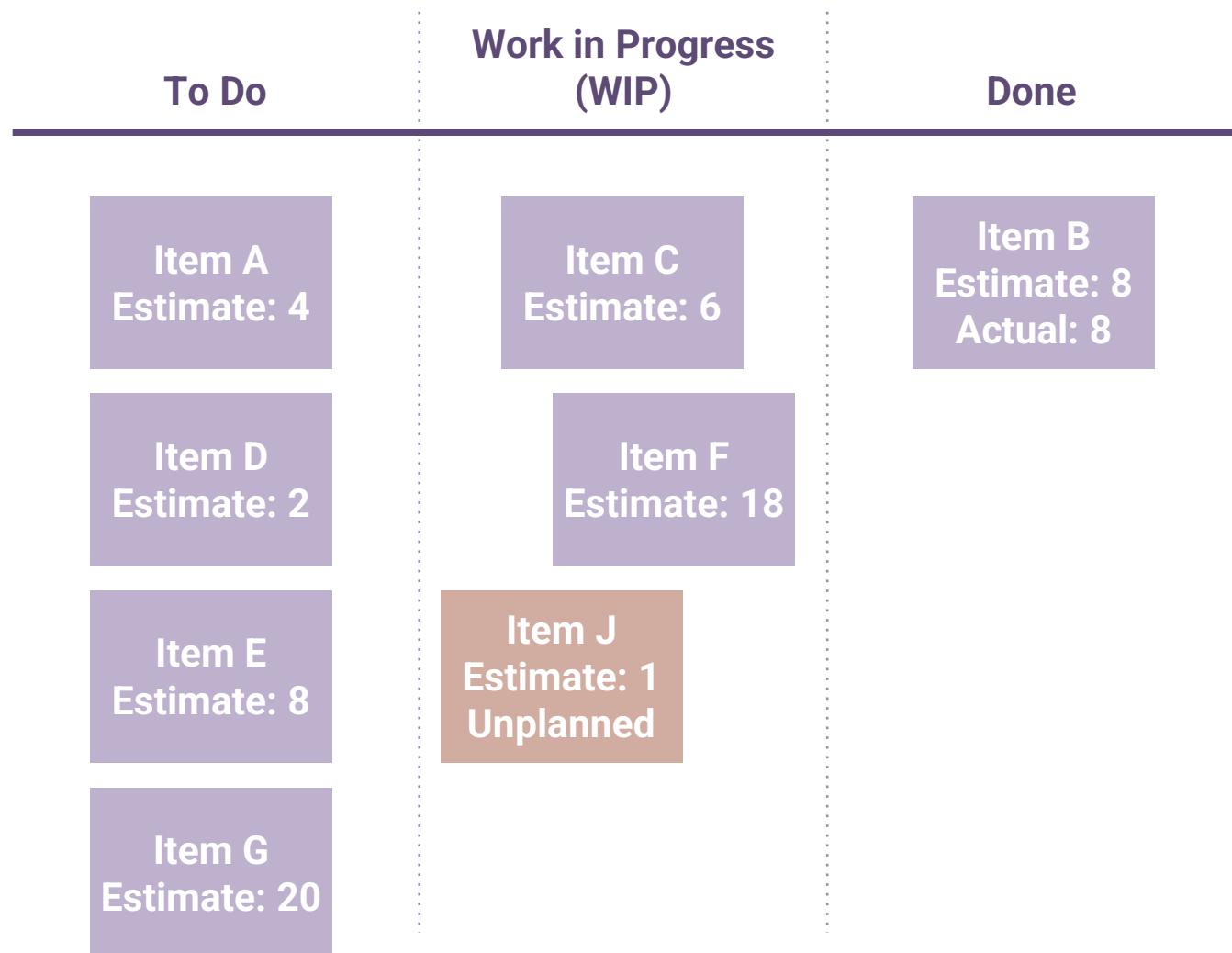


Task Board

- 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



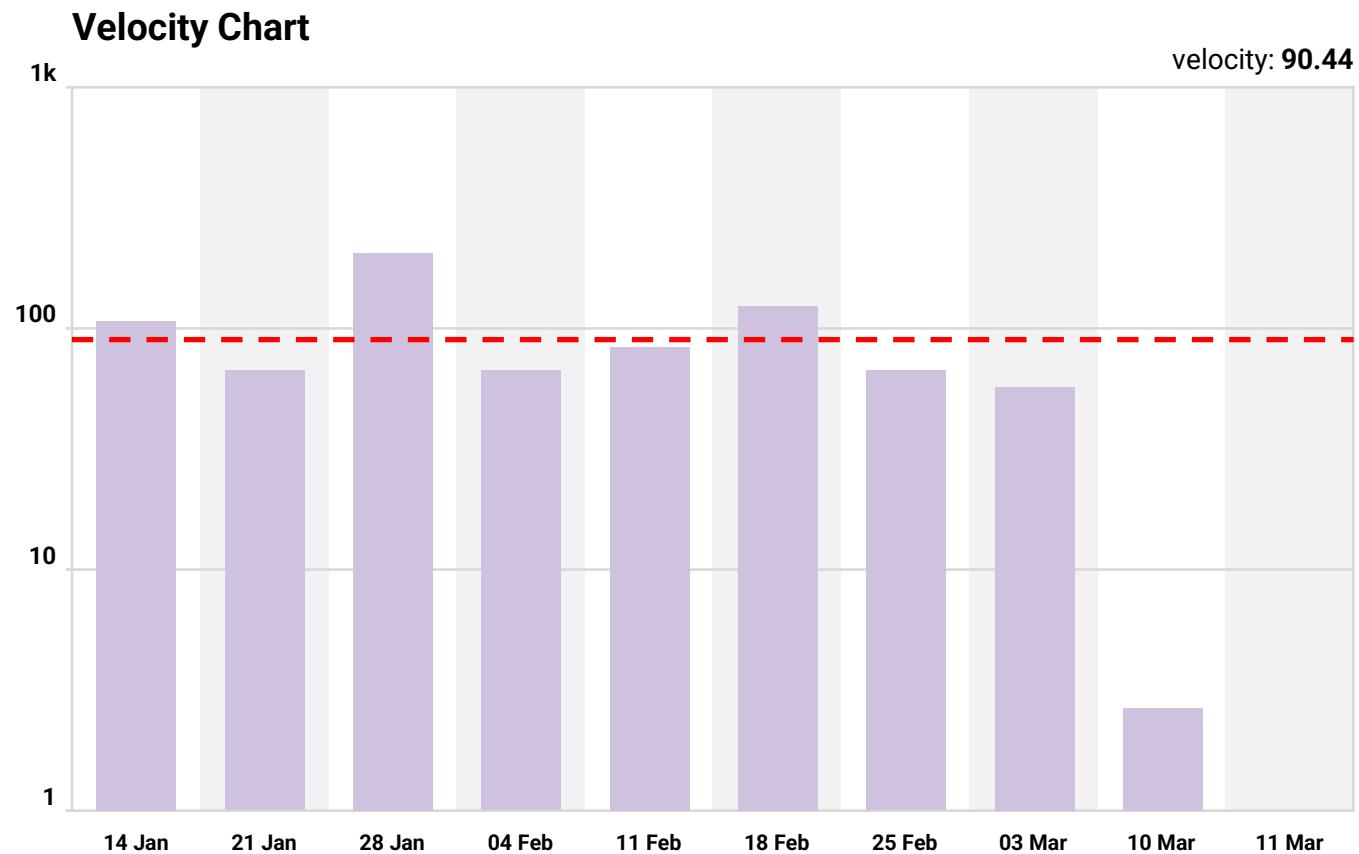
Estimate Velocity

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.

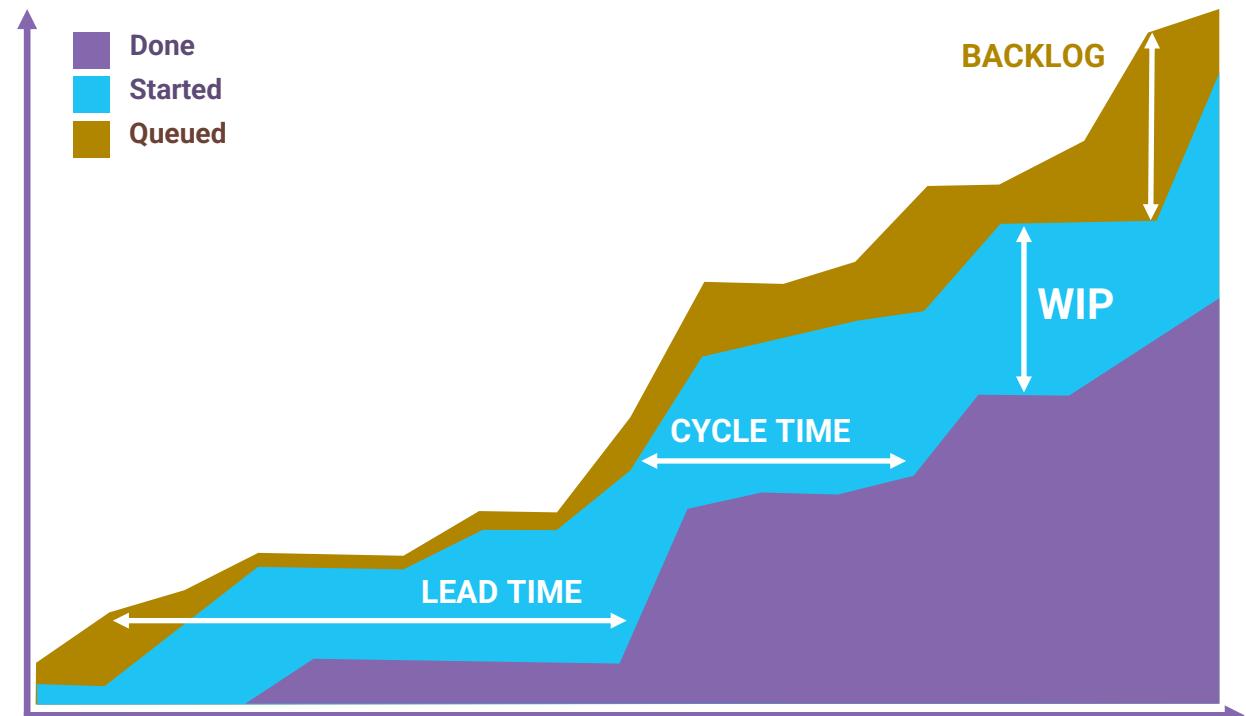


Continuous Flow Diagram

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 Cumulative Flow Diagram



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



Planned Value

The authorized budget assigned to scheduled work



Earned Value

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

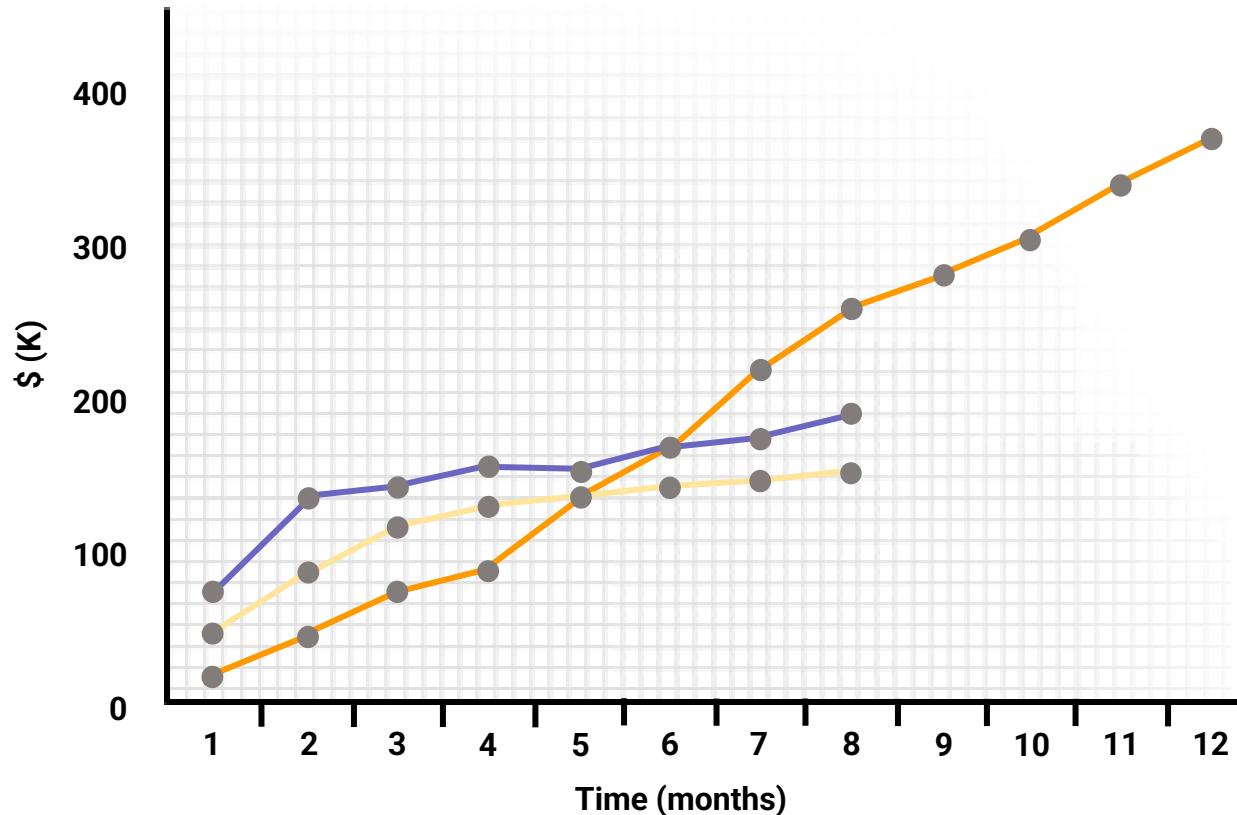


Actual Cost

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

- Planned Value (PV)
- Earned Value (EV)
- Actual Cost (AC)

$$EV = \% \text{ work complete to date} \times \text{budgeted cost}$$

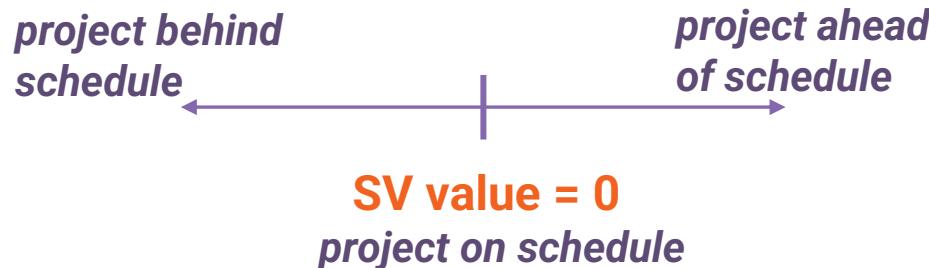


EVM Measures for Schedule Control

Is the project progressing on schedule?

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

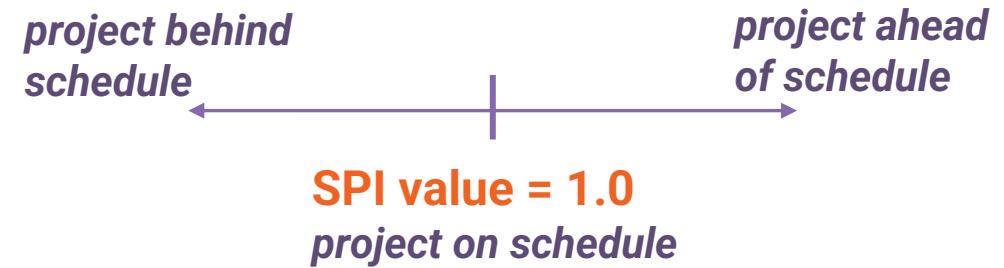
$$SV = EV - PV$$



How efficiently is the team working?

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

$$SPI = EV / PV$$

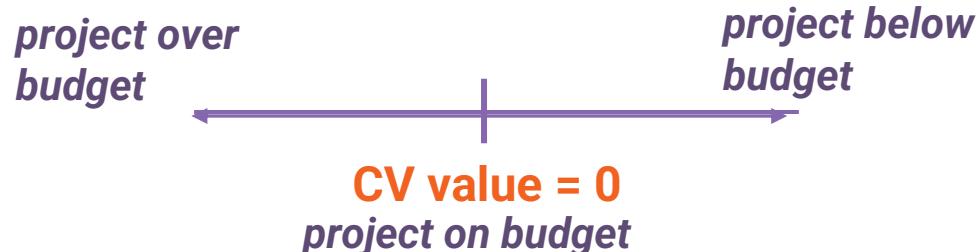


EVM Measures for Cost Control

Is the project on budget?

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

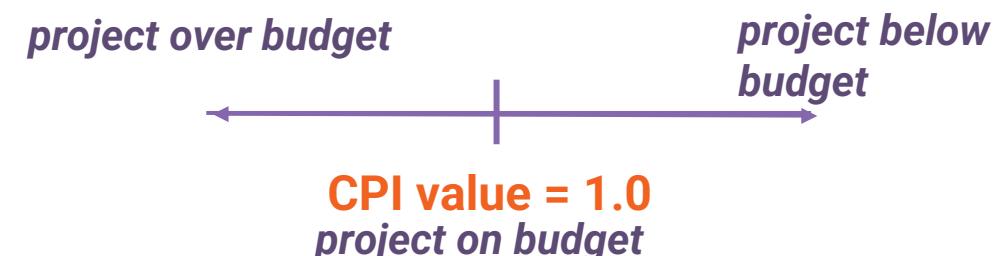
$$CV = EV - AC$$



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

$$ETC = EAC - AC$$

Enables comparison of release plan against the actual work done



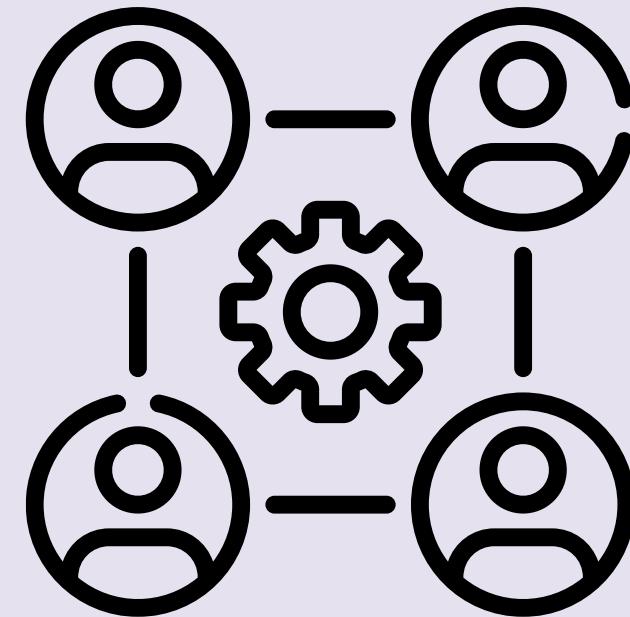
Helps teams spot any problem areas and ensure they stay on schedule and within budget.

Example Process:

1. Establish a performance measurement baseline (PMB) to creates 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



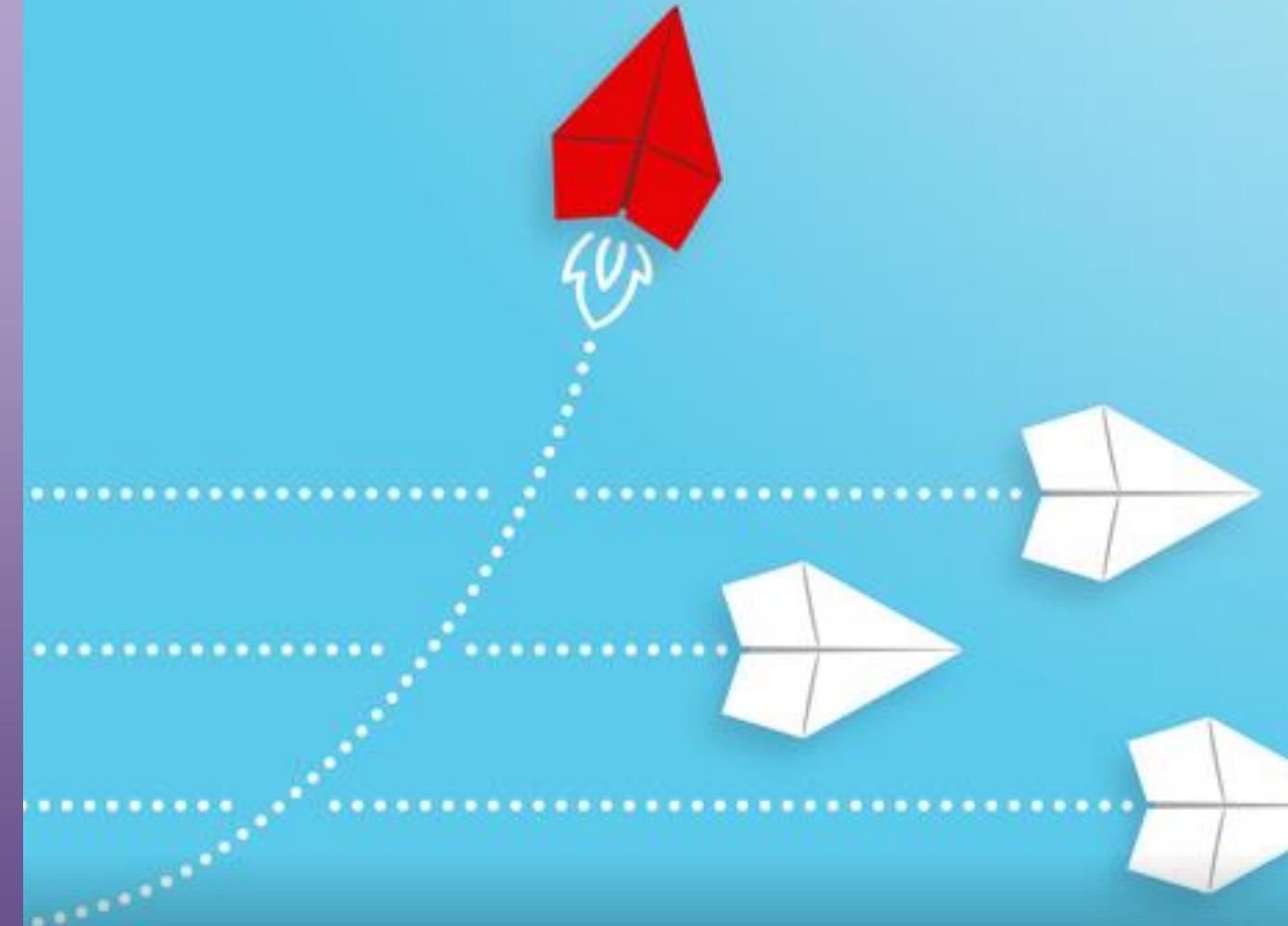
- What has been used to date?
- What is still needed?
- Review performance usage to date, including:
 - Monitoring expenditures
 - Identifying and dealing with resource shortage/surplus in a timely manner
 - Ensuring resource use and release
 - Informing stakeholders of issues with relevant resources
 - 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 Contract Changes and Disputes

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

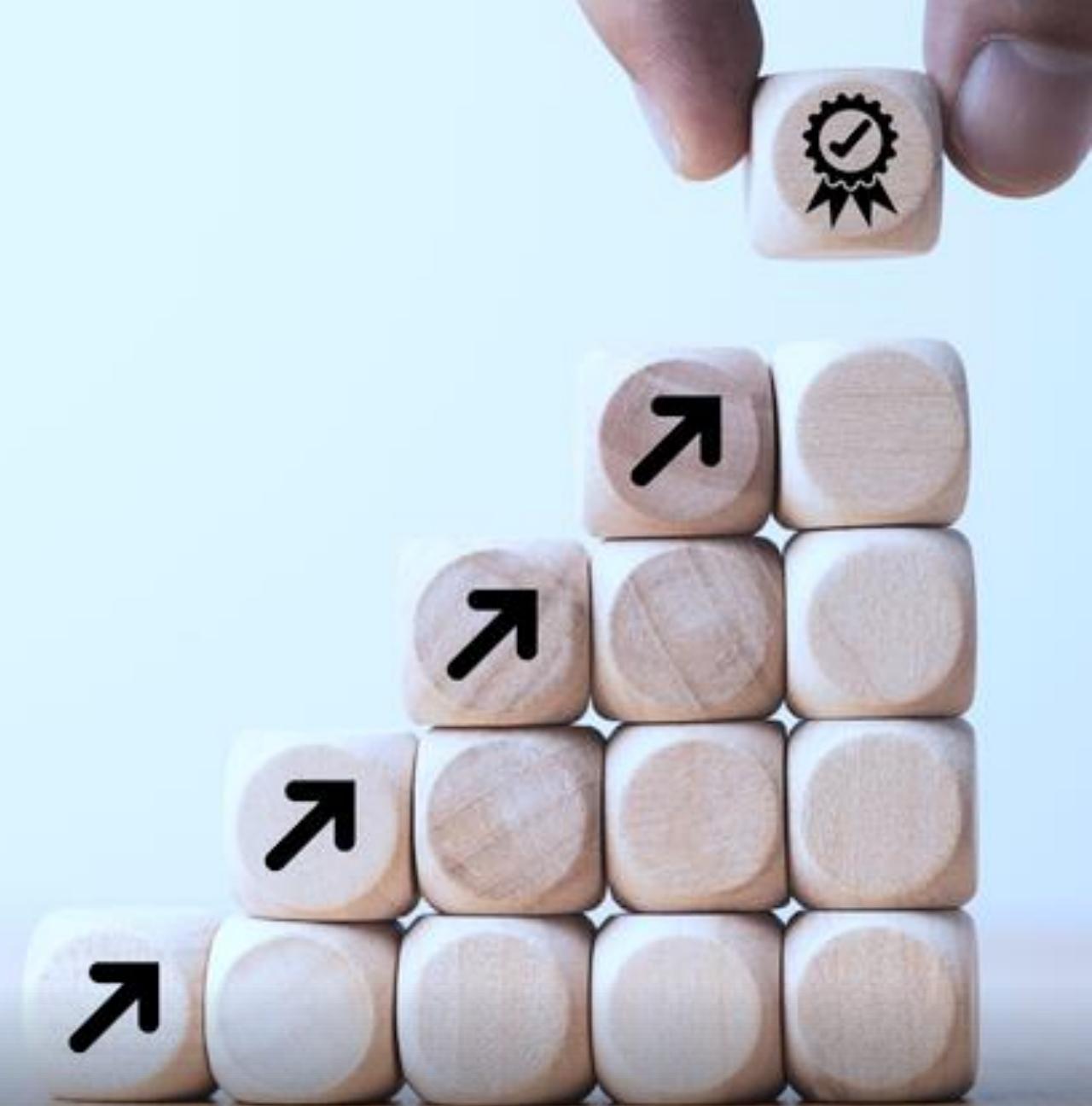
- ➡ Perform Integrated Change Control
- ➡ Backlog reprioritization

For contract disputes, consult OPAs and the contractual agreement first

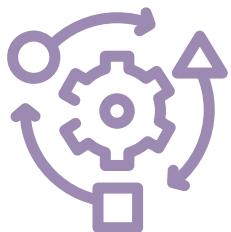
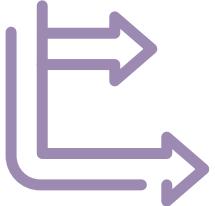


Quality Management Guidelines

- 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

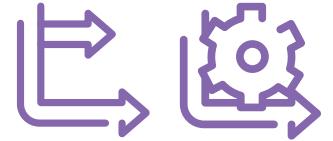
Topics include:

- 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

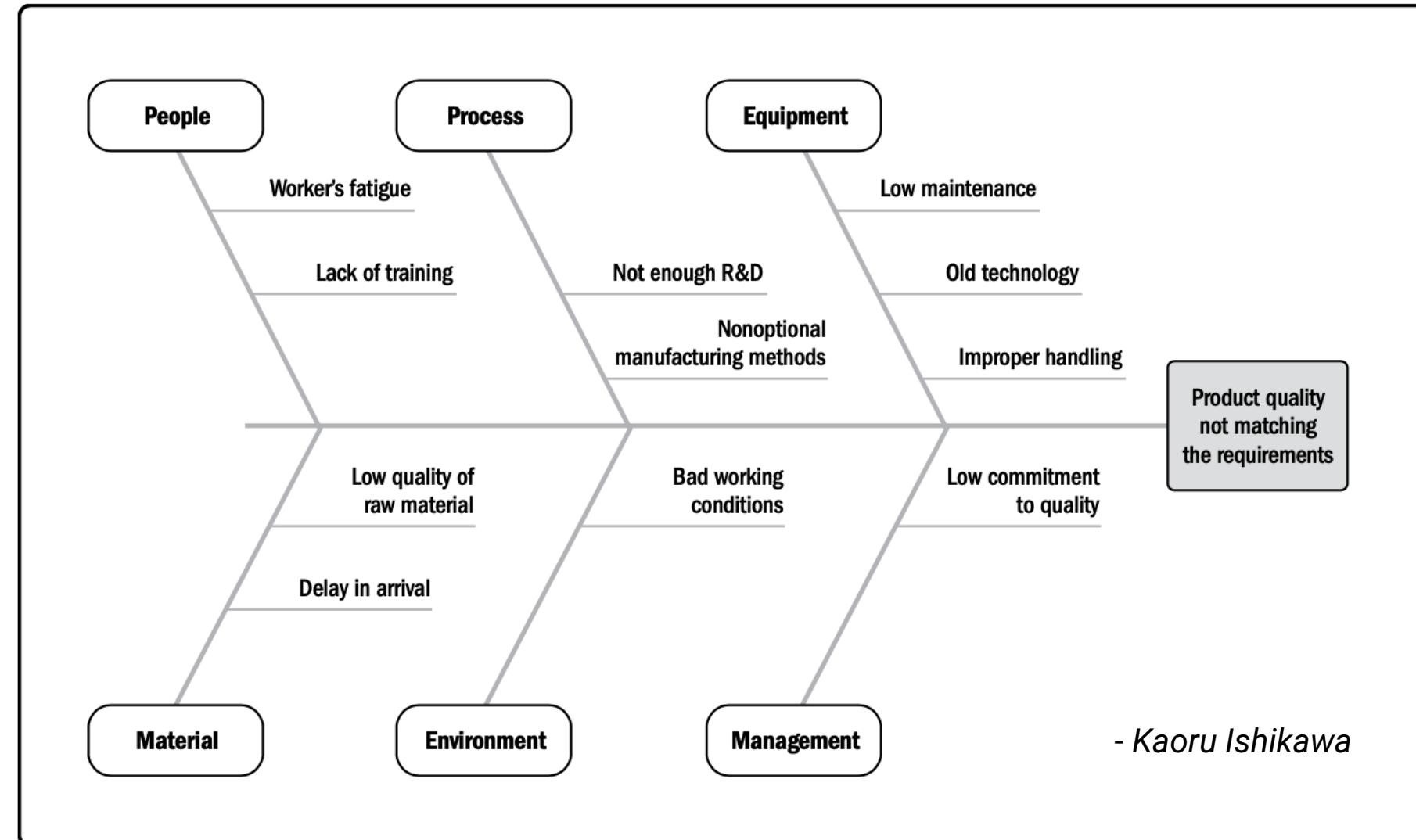


Data Visualization

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



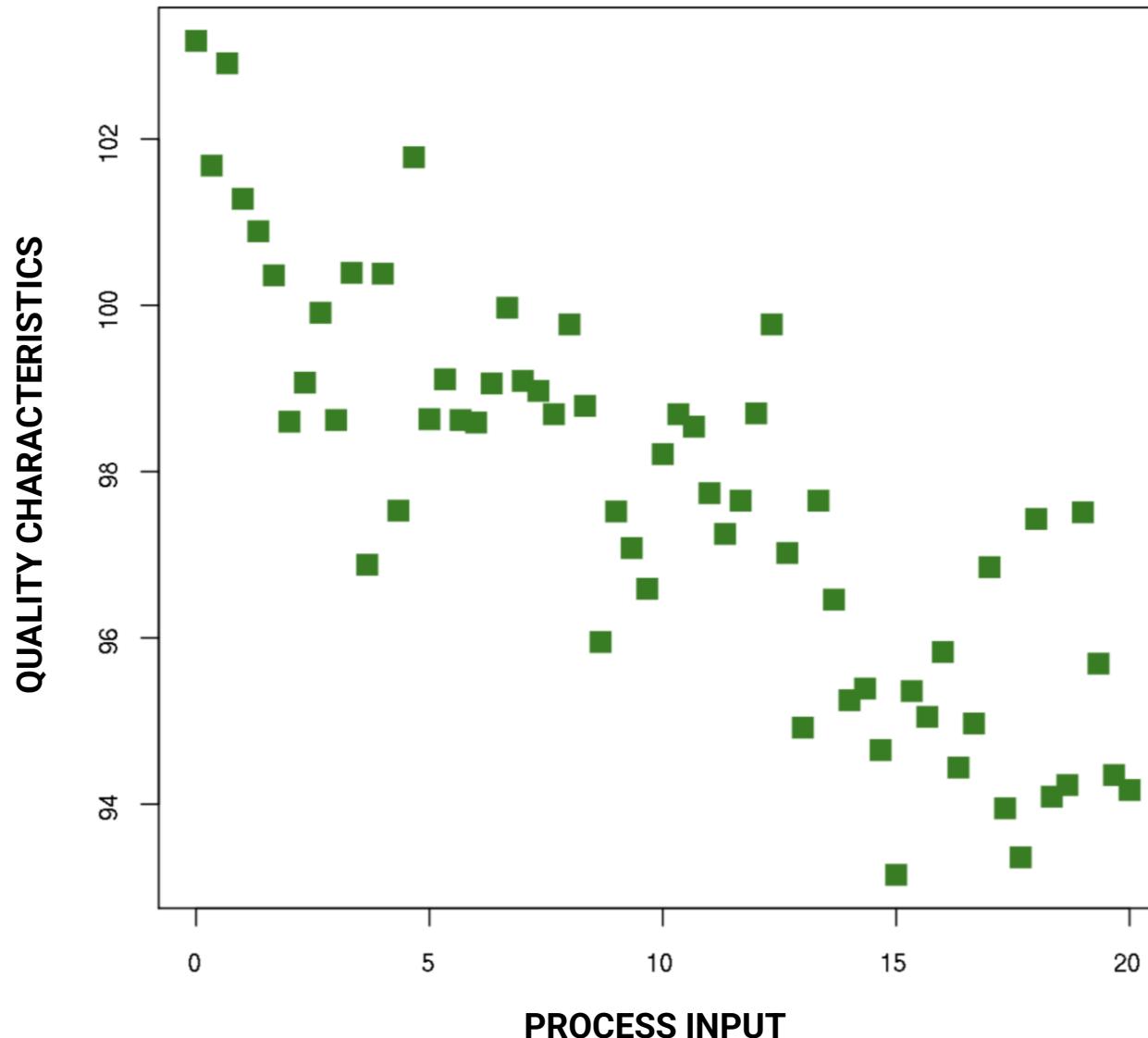
Example fishbone diagram (aka Ishikawa or Why-Why)

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

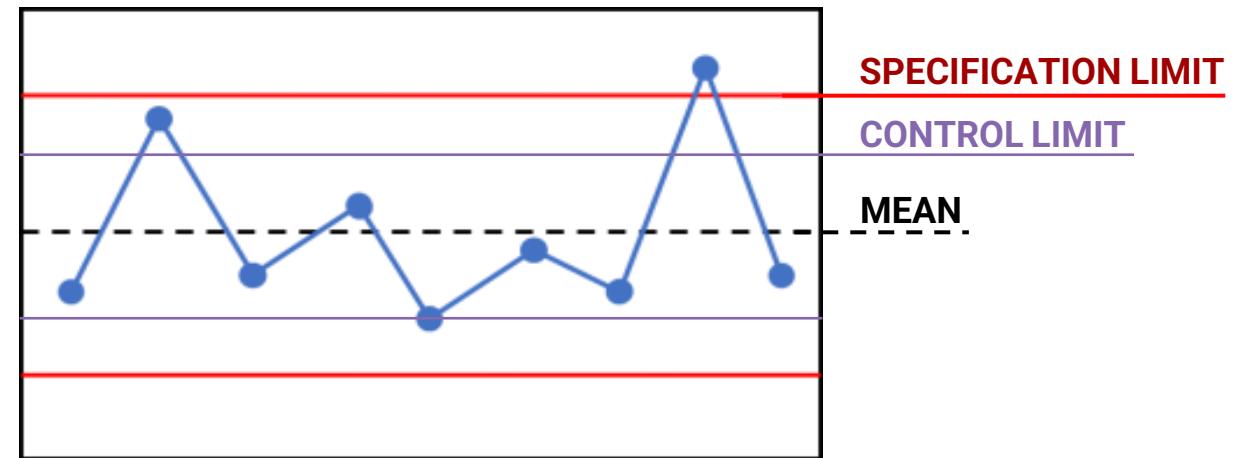


Data Visualization Quality

Tool

Control Chart

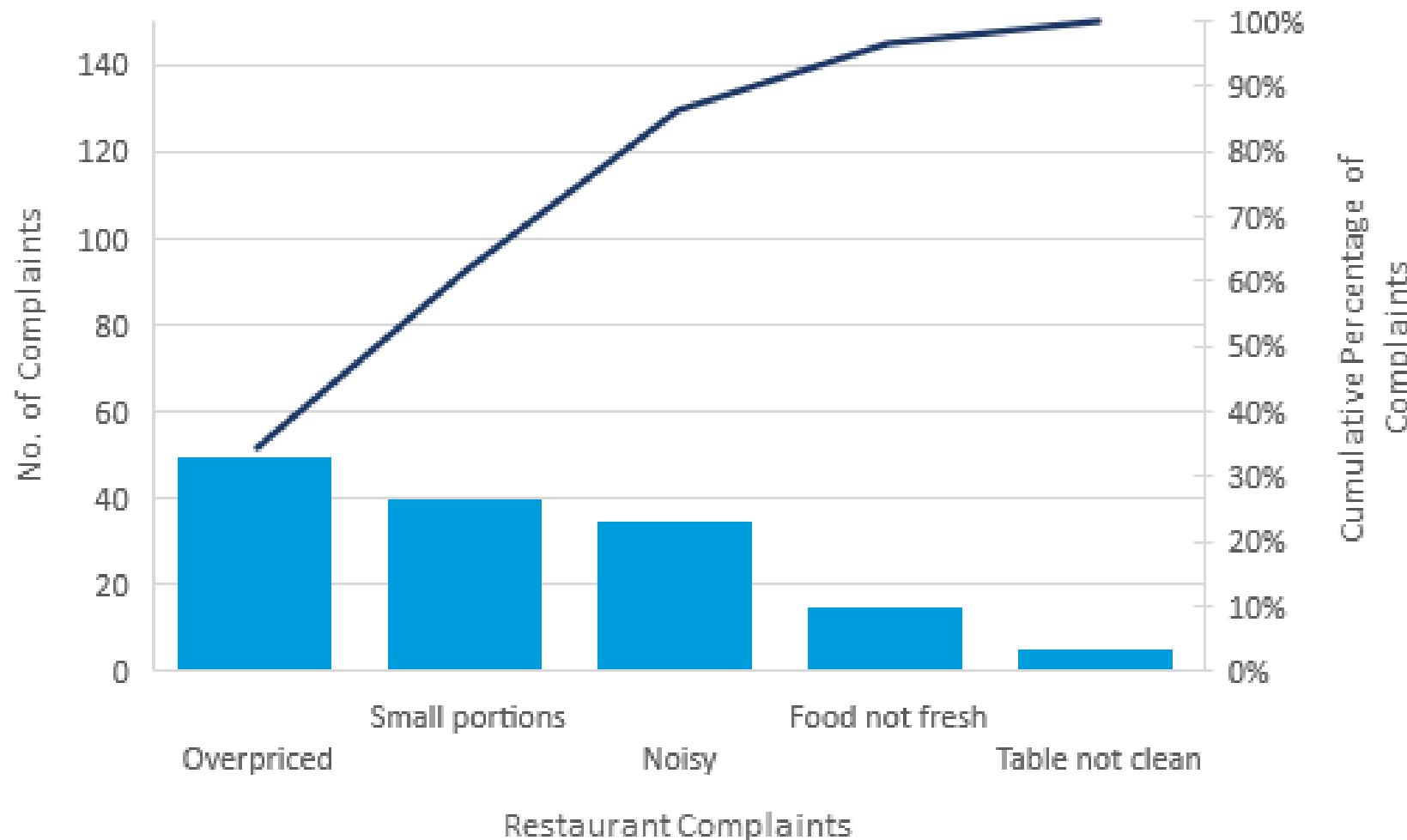
- A tool used to determine the predictability, behavior and stability of a process over time
- Ideal for repetitive processes with predictable results
- Shows a **mean** and established **control limits** and **specification limits**
- Follow the “rule of seven” = investigate increases/decreases of seven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



Data Visualization Quality Tools

Histogram and Pareto Chart

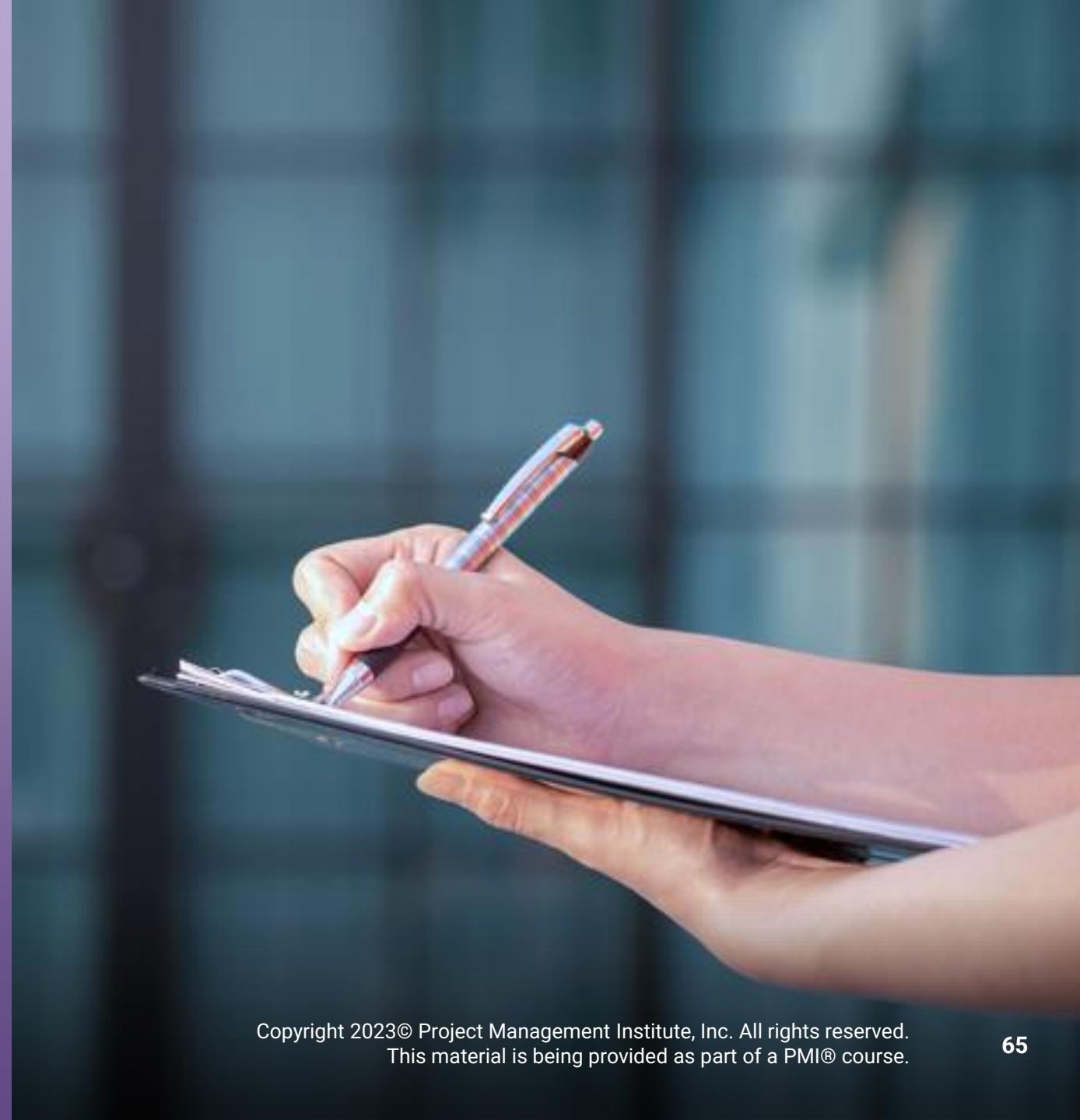
- A Pareto chart is a type of **histogram**
- Uses **80/20 rule**
- Demonstrates frequency of problem occurrence
- Analyzes data sets related to a specific problem or issue, but does not define the root cause of a problem



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.

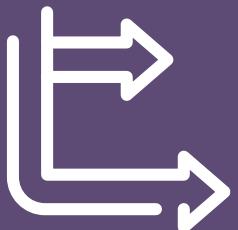


(Optional)

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

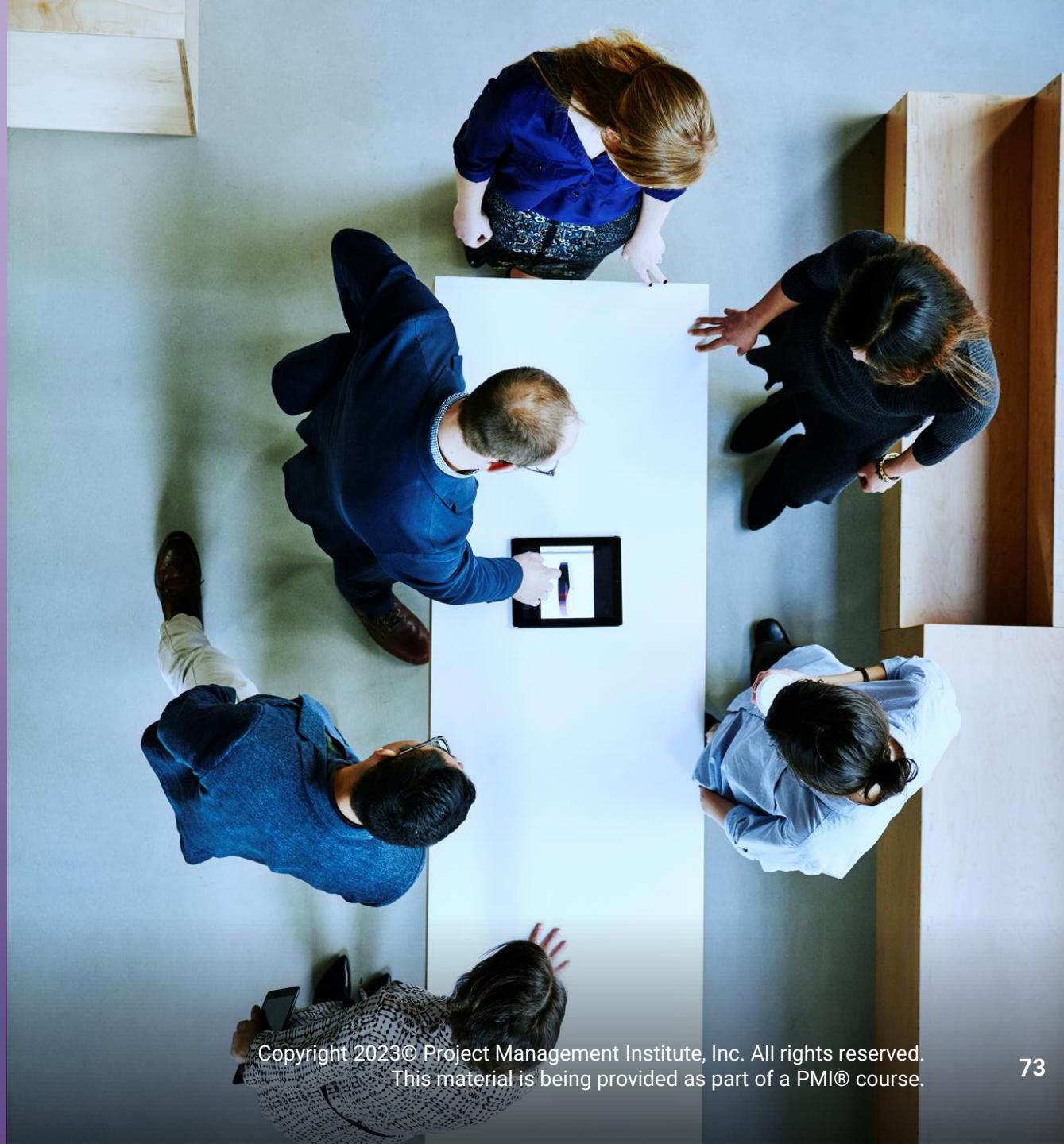
- Test and validate deliverables (continuously and at project/ phase end)
- Identify authorized stakeholders to approve
- Remediate compliance issues to avoid:
 - Negative impact on the timeline
 - Cost overruns
 - Increased risks
- Benefits of compliance sign-off:
 - Early warning of potential threats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

Examine Business Value

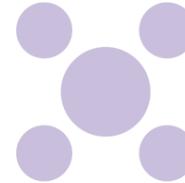
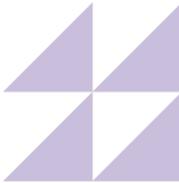
- Connects Ways of Working with Business Acumen
- Tailor work processes, approaches and tools along with leadership skills to examine and improve value delivery



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

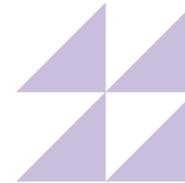
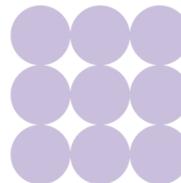
- Monitor budget variations and work with governance process to adjust as necessary (2.5.3)

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)



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

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.