Agile Software Project Management

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Agile Tracking & Reporting

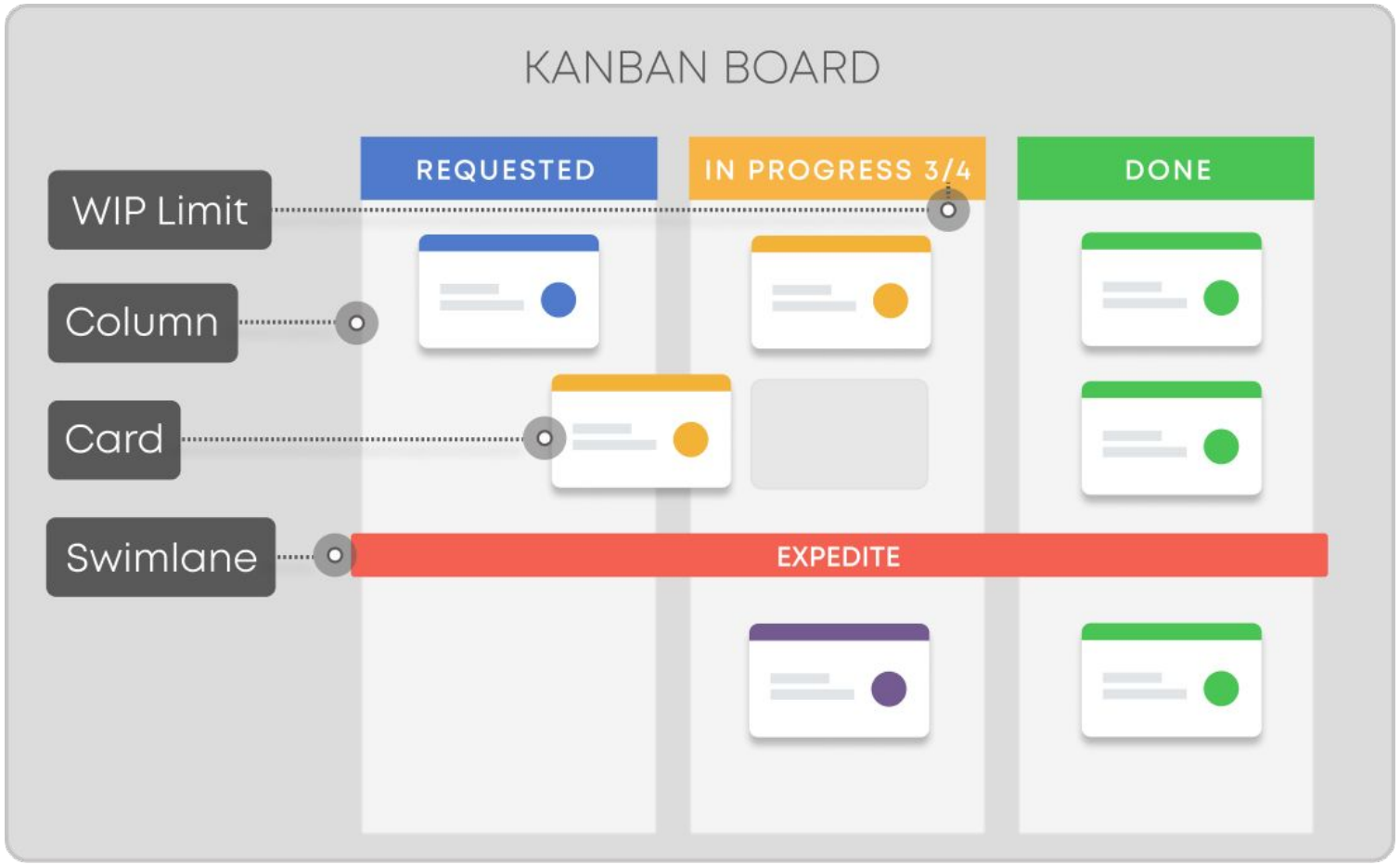
Chapter 7

Introduction to Agile Tracking and Reporting

- Agile tracking focuses on progress visibility and early issue detection.
- Emphasizes working software over detailed reports.
- Uses real-time updates and collaboration tools.

Kanban for Agile Tracking

- Visual management system to track work items.
- Uses columns for different work stages (To Do, In Progress, Done).
- Reduces waste and improves efficiency by limiting WIP.



Kanban for Agile Tracking

Kanban for Agile Tracking

Kanban Cards: This is the visual representation of tasks. Each card contains information about the task and its status, such as deadline, assignee, description, etc.

Kanban Columns: Each column on the board represents a different stage of your workflow. The cards go through the workflow until their full completion.

Work-in-Progress Limits: They restrict the maximum amount of tasks in the different stages of the workflow. Limiting WIP allows you to finish work items faster by helping your team focus only on current tasks.

Kanban Swimlanes: These are horizontal lanes that can be used to separate different activities, teams, classes of service, and more.

Commitment Point: A commitment marks a point in the work process where a work item is ready to be pulled into the system.

Delivery Point: The point in the workflow where work items are considered finished.

Burnup and Burndown Charts

- Burndown Charts show remaining work over time.
- Burnup Charts display work completed against total scope.
- Helps teams track progress and adjust workloads accordingly.

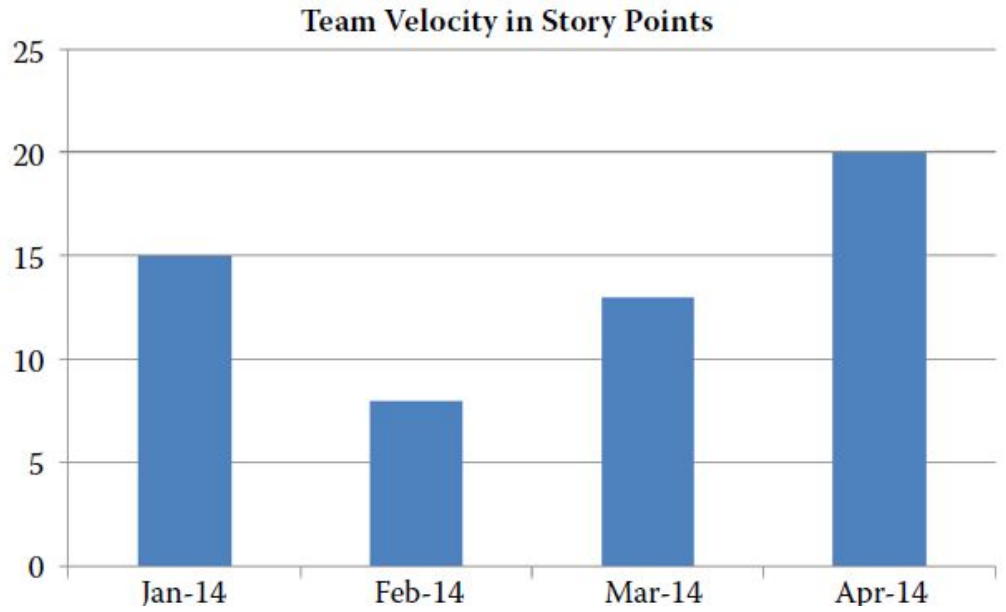
Velocity Tracking

- Measures team productivity over iterations.
- Helps estimate how much work can be completed in future sprints.
- Guides release planning and stakeholder expectations.

Velocity Tracking

For example:

- If a team has an average of 40 story points per iteration
- The product backlog has 400 story points remaining
- Then we divide 400/40 and we get 10.
- This means that in 10 additional iterations, the project is expected to be completed.

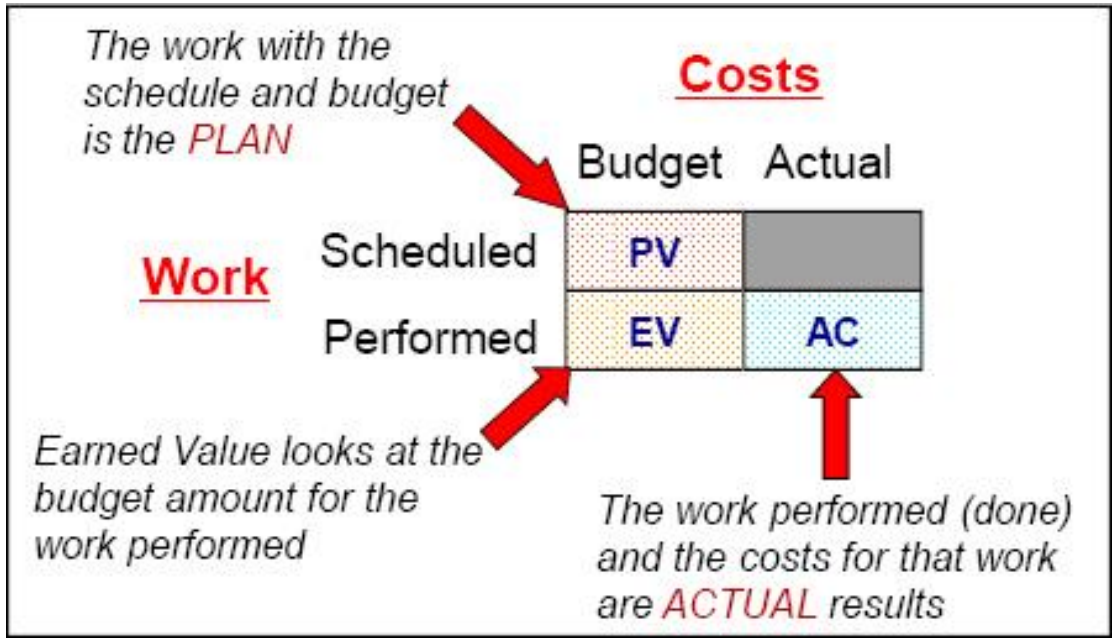


Earned Value on Agile Projects

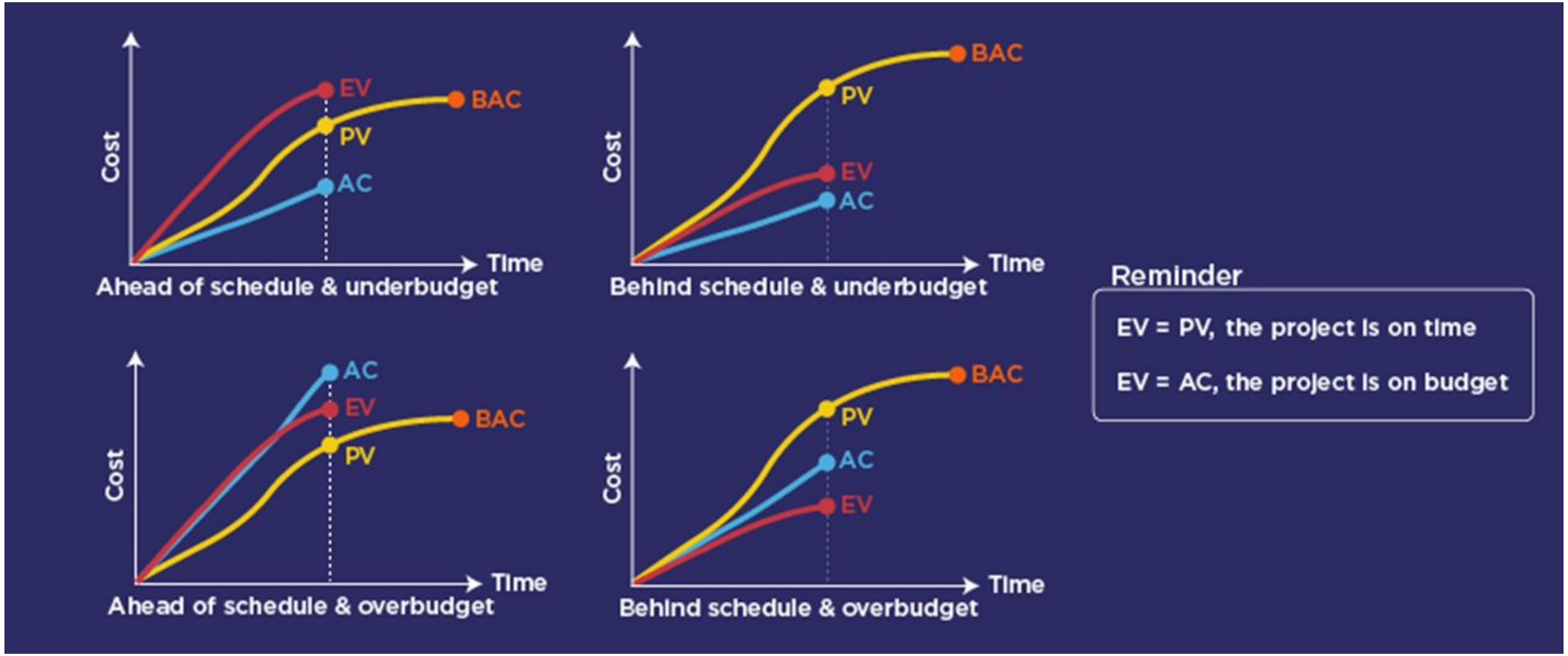
- Traditional Earned Value Management (EVM) does not fully align with Agile.
- Agile EVM focuses on value delivered rather than detailed cost tracking.
- Helps measure progress and budget utilization in Agile projects.

Earned Value on Agile Projects

- **Planned Value (PV):** The approved budget for the scheduled work.
- **Earned Value (EV):** The measure of the work performed based on the approved budget.
- **Actual Cost (AC):** The actual costs incurred for the work that has been performed on an activity during an explicit time period.



Earned Value on Agile Projects



Earned Value on Agile Projects

- **Schedule Variance (SV):** A measure of the schedule performance calculated as the difference between the earned value and the planned value.
- **Formula: SV = EV – PV**
  - Interpretation of results:
    - Positive = Ahead of schedule (good)
    - Neutral (0) = On schedule (okay)
    - Negative = Behind schedule (not good)

Earned Value on Agile Projects

- **Cost Variance (CV):** The amount of budget shortfall or leftover at a specific point in time calculated as the difference between earned value and the actual cost.
- **Formula: CV = EV – AC**
  - Interpretation of results:
    - Positive = Under planned costs (good)
    - Neutral (0) = At planned costs (okay)
    - Negative = Over planned costs (not good)

Earned Value on Agile Projects

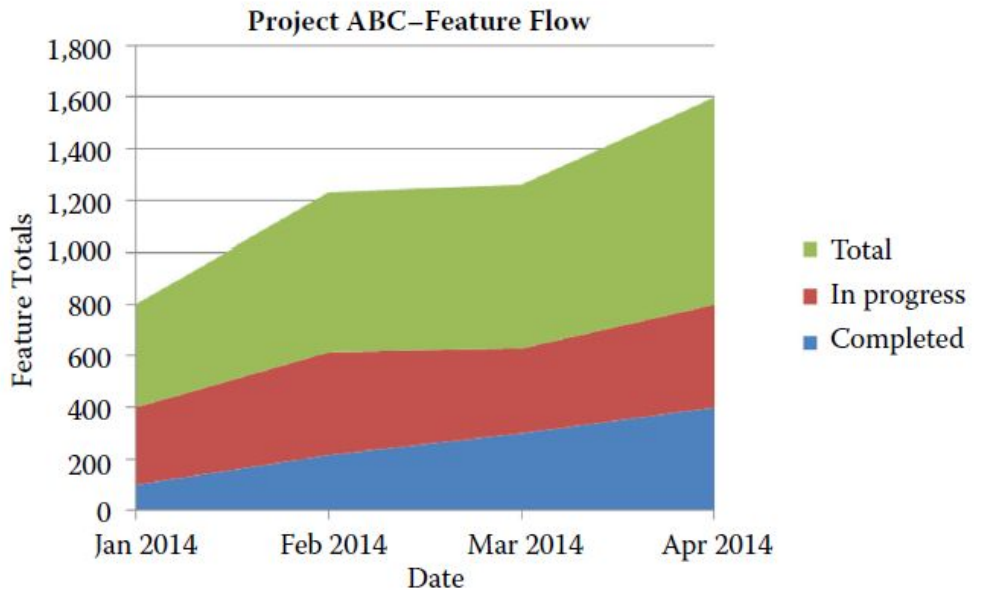
- **Schedule Performance Index (SPI):** A measure of the schedule efficiency calculated as the ratio of earned value to planned value.
- **Formula: SPI = EV/PV**
  - Interpretation of results:
    - >1.0 = Ahead of schedule (good)
    - Exactly 1.0 = On schedule (okay)
    - Less than 1.0 = Behind schedule (not good)

Earned Value on Agile Projects

- **Cost Performance Index (CPI):** A measure of the cost efficiency of the budgeted resources calculated as a ratio of earned value to actual cost.
- **Formula: CPI = EV/AC**
  - Interpretation of results:
    - >1.0 = Under planned costs (good)
    - Exactly 1.0 = At planned costs (okay)
    - <1.0 = Over planned costs (not good)

Cumulative Flow Diagrams

- Graphical representation of work progress over time.
- Shows work in different stages (e.g., backlog, in progress, completed).
- Helps teams identify bottlenecks and optimize workflow.



Work in Progress (WIP)

- Agile limits work in progress (WIP) to avoid overloading teams.
- Encourages focus on completing tasks before starting new ones.
- Used in Kanban to manage flow and optimize efficiency.

Agile Dashboards and Reporting Tools

Tools like JIRA, Trello, and Azure DevOps offer real-time insights.

Provide custom reports, metrics, and data visualization.

Helps Agile teams and stakeholders track progress effectively.

Stakeholder Communication in Agile

- Frequent progress updates ensure transparency.
- Sprint reviews and demos showcase completed work.
- Information radiators (dashboards, charts) provide instant visibility.

Chapter Summary

- Agile tracking focuses on value, efficiency, and progress visibility.
- Uses tools like burndown charts, Kanban, and dashboards.
- Ensures continuous feedback and stakeholder alignment.