

AGILE PRINCIPLES AND MINDSET

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Introduction



Agile, Agile Manifesto, Guiding Principles and Frameworks



Leading Effectively in an Agile Environment



Role of Project Manager in an Agile Environment



Hybrid Approaches and Concerns about Agile



Agile approaches to PM Knowledge Areas



Project work ranges from definable work to high uncertainty work



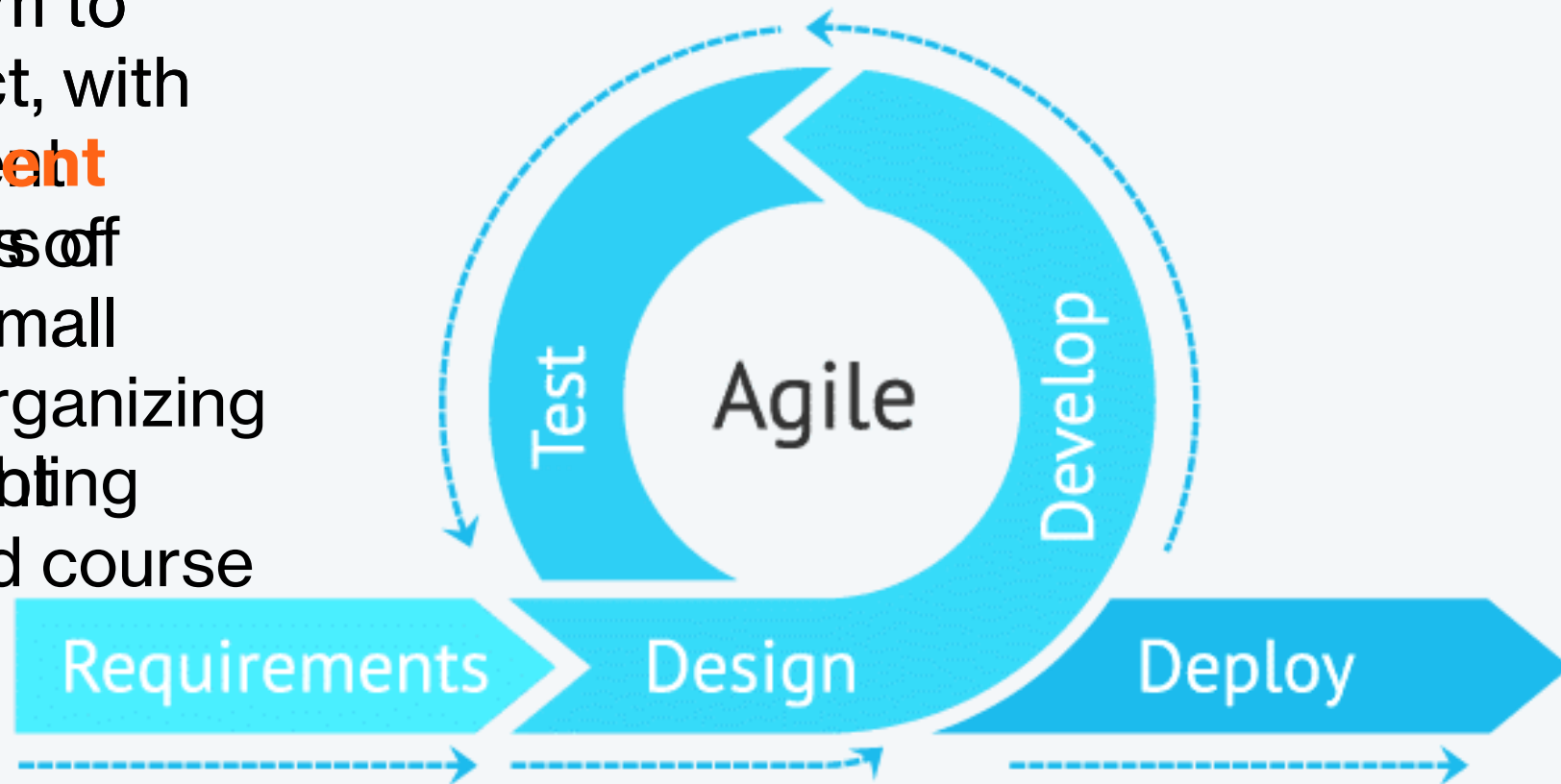
Predictive life cycle: a more traditional approach with the bulk of planning occurring upfront, then executing in a single pass, a sequential process



Introduction



Agile methodologies aim to deliver the right product, with **incremental and frequent delivery** of small chunks of functionality, through small **cross-functional self-organizing teams**, enabling **frequent customer feedback** and **course correction** as needed





The goal of predictive approach is to manage cost whilst agile is to maximize **value** via frequent releases and frequent feedback



Iterative life cycle:

An approach that allows for feedback for unfinished work to improve and modify that work.



Incremental life cycle:

An approach that provides finished deliverables that the customer may be able to use immediately



Agile life cycle:

An approach that is both iterative and incremental to refine work items and deliver frequently



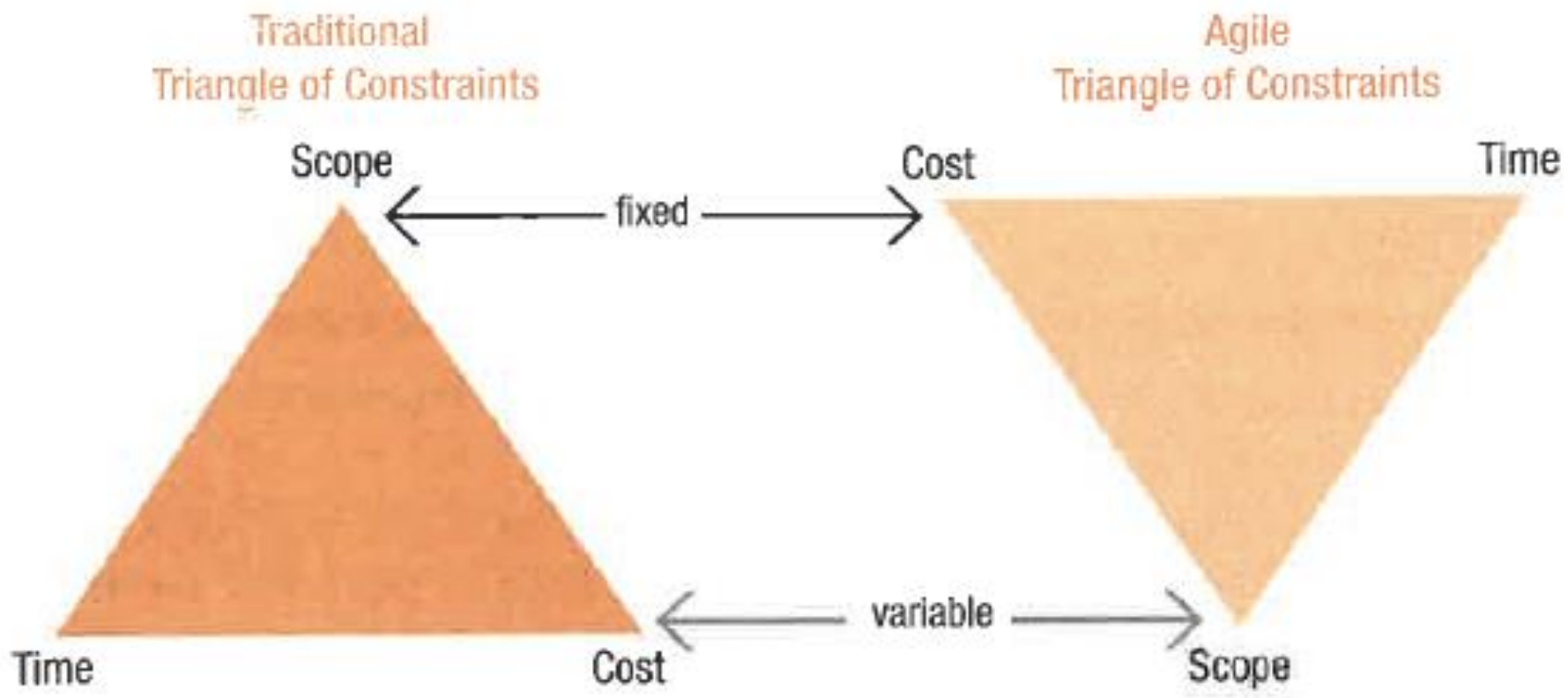
Agile was developed for Software projects, but it is a methodology that can be used on all project types



- 1 Agile builds in increments vs. as a whole
- 2 Agile does planning throughout vs. done all at once
- 3 Agile delivers products over time vs. all at once
- 4 Customer sees value faster vs. at the end
- 5 Agile welcomes changes vs. discouraging changes



Agile Triangle of Constraints





Why Agile Project Management?

Outline



Greater stakeholder engagement and collaboration



High Project Quality



High customer satisfaction



Reduced Risk



Agile ensures that the customer gets value sooner than at the end of the project



Why Agile Project Management?

Outline



When teams deliver small increments, they are better able to understand the true customer requirements faster and more accurately



Incremental funding



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We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- 1 **Individuals and interactions** over processes and tools
- 2 **Working software** over comprehensive documentation
- 3 **Customer collaboration** over contract negotiation
- 4 **Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

1 Individuals and Interactions Over Processes and Tools



While processes and tools will likely be necessary on our projects, we should focus the team's attention on the individuals and interactions involved.



Projects are undertaken by people, not tools



Problems get solved by people, not processes



Projects are ultimately about people

2

Working Software Over Comprehensive Documentation



Focus on the delivering value vs. paperwork.



Agile documents should be barely sufficient



Agile simplifies the administrative paperwork

3

Customer Collaboration Over Contract Negotiation



Being flexible and accommodating, instead of fixed and uncooperative



Welcome changes, don't suppress change



Shared definition of "done"



Collaborate on best way forward together, rather than to view each other as adversaries



Work closely and communicate with customers frequently

4

Responding To Change Over Following A Plan



Welcome changes






A project plan must be flexible enough to change, as the situation demands.






Changes are a reality in Software development(project), a reality that your Software(project) process should reflect

- ① Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- ① Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- ① Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

- Business people and developers must work together daily throughout the project.
- Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation

-  Working software is the primary measure of progress.
-  Agile processes promote sustainable development. The sponsors, developers and users should be able to maintain a constant pace indefinitely.
-  Continuous attention to technical excellence and good design enhances agility.

-  Simplicity; the art of maximizing the amount of work not done is essential.
-  The best architectures, requirements and designs emerge from self-organizing teams.
-  At regular intervals, the team reflects on how to become more effective then tunes and adjusts its behavior accordingly.



Scrum:

an agile framework that helps teams work together. It encourages teams to learn through experiences, self-organize while working on a problem, and reflect on their wins and losses to continuously improve.



Extreme Programming (XP):

an agile framework that supports frequent releases in short development cycles to improve software quality and allow developers to respond to changing customer requirement



Lean development:

agile framework based on optimizing development time and resources, eliminating waste, and ultimately delivering only what the customer needs



Kanban:

Agile Kanban Framework focuses on visualizing the entire project on boards in order to increase project transparency and collaboration between team members.



Product Owner:

Designated person that represents the customer on the project



Agile Project Manager/Scrum Master:

Manages the agile project



Product Backlog:

Prioritized project requirements from the stakeholders



Sprint Planning Meeting:

Meeting done by the agile team to determine what features will be done in the next sprint



Sprint Backlog:

Work the team selects to get done in the next sprint



Sprint/iteration:

A short time-period where the project teams work to complete the work in the sprint backlog, (1-4 weeks typical).



Daily Stand Up Meeting:

A quick meeting each day to discuss project work.
Usually 15 minutes



Sprint Review:

inspection done at the end of the sprint by the customers



Retrospective:

Meeting done to determine what went wrong during the sprint and what when right. Lessons learned for the sprint.



Release:

Several Sprints worth of work directed to operations for possible rollout and testing



User story:

end user or customer requirements

In agile, three common roles are used:

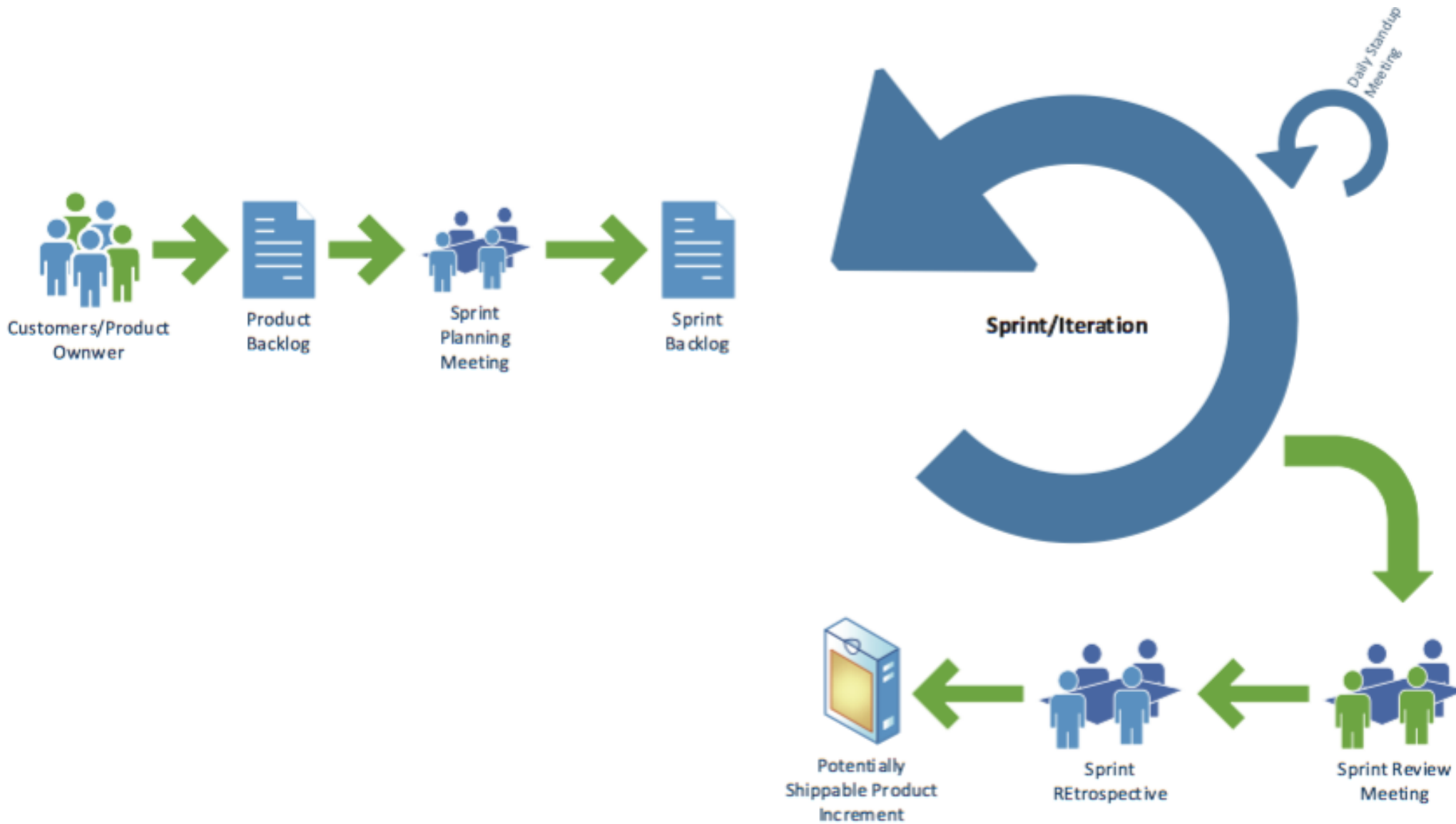
1 Cross-functional team members

2 Product owner, and

3 Team facilitator



Agile Process



🔄 Sprints

- 🔄 A sprint is a **timeboxed** (time-limited) iteration of 1-4 weeks to build a potentially releasable product
- 🔄 Each sprint includes a sprint planning meeting, daily Scrum, the actual work, a sprint review meeting, and the sprint retrospective
- 🔄 During the sprint, no changes are made that would affect the sprint
- 🔄 The development team members are kept the same throughout the sprint



Daily Scrum Or Stand Up



A 15-minute time-boxed activity for the development team to synchronize activities and create a plan for the next 24 hours



Should be held at the same time and place each day



Each team member should answer 3 questions:

1. What did you do yesterday?
2. What will you do today?
3. Are there any impediments in your way?



Standups are for realizing there are problems – not for solving them

Sprint Review



Takes place at the end of the Sprint



Designed to gather feedback from stakeholders on what the team has completed in the sprint



Team demonstrates work that was completed during the sprint



To create a conversation between the team and the stakeholders about how to make the product better



Should be time boxed to no more than an hour

Sprint Retrospective



Opportunity for the Team to inspect and create a plan for improvements to be done during the next sprint.



Team discusses: What went well, What went wrong ,
What to do more of, and What to do less of.



Should have a 2-hour time limit



Retrospective is not about blame



Sprint Retrospective

Retrospective stages

- 1 Set Stage – 5 Minutes
- 2 Gather Data – 40 Minutes
- 3 Generate Insights – 35 Minutes
- 4 Decide What to Do – 20 Minutes
- 5 Close Retrospective – 20 Minutes







User Story

For Example


As a participant of this program, I want to understand agile, so that I can be able to use it in my organization


Product Backlog

-  Prioritized list of all work that needs to be done to complete the product
-  List is dynamic, it evolves as more work is added and prioritized
-  Items are prioritized by the product owner and is sorted by value
-  Most valuable items are listed first





Product Backlog


-  Constantly being refined as more work is added to it.

-  Team and product owner will “groom the backlog”.

Sprint Backlog

-  The sprint backlog is the set of items from the product backlog that were selected for a specific sprint.

-  The sprint backlog is accompanied by a plan of how to achieve the sprint goal.

-  It is a highly visible view of the work being undertaken and may only be updated by the development team

Value Prioritization



Valued based prioritization is the one of core practices in agile planning



Features are prioritized on the basis of business value, risk and dependencies



Some of prioritization techniques used:

- Simple Scheme
- MoSCoW Prioritization
- Monopoly Money
- 100-point Method
- Dot Voting or Multi-voting
- Kano Analysis

- Agile approaches emphasize servant leadership which is the practice of leading through service to the team
- Servant leaders approach project work in the following order; Purpose, People, Process
- Emphasis shifts from “managing coordination” to “facilitating collaboration.”





Leading Effectively In An Agile Environment



- Shield team from interruptions
- Remove impediments to progress
- (Re)Communicate project vision
- Educate stakeholders around why and how to be agile and celebrate team successes





Role of Project Manager in an Agile Environment

Self-Organizing

Self-Directing

Small teams with fewer than 12 members

Traditional Teams



Agile Teams





In practice, the most effective agile teams tend to range in size from three to nine members



Agile teams are co-located in a team space.



Team members are 100% dedicated to the teams



Agile encourages self-organising teams





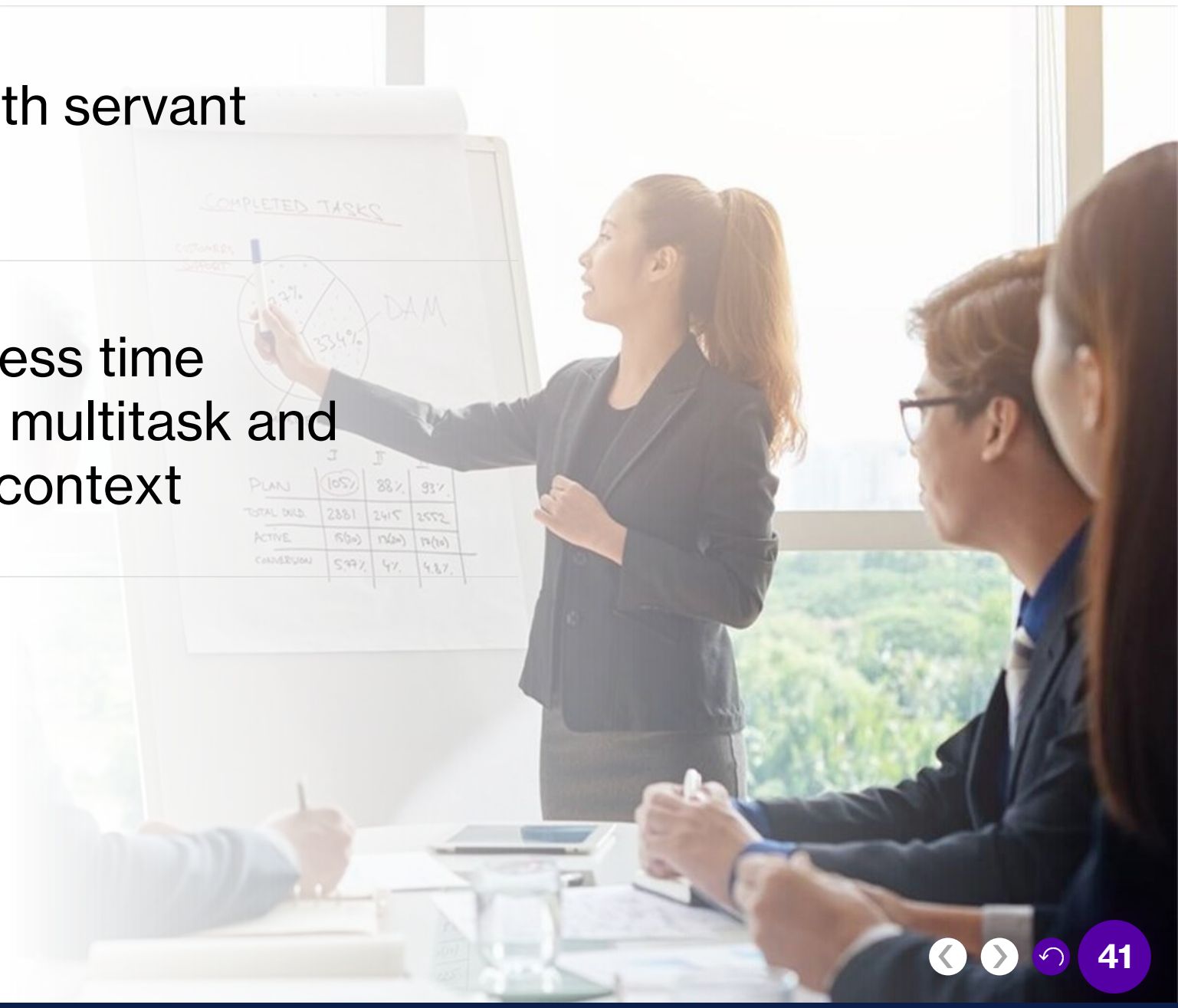
Agile teams thrive with servant leadership



Teams waste much less time because they do not multitask and have to re-establish context



Cross-functional





Agile teams require team norms and an understanding of how to work together



The goal of the team charter is to create an agile environment in which team members can work to the best of their ability as a team.

The team charter may include:



Team values, such as sustainable pace and core hours









Working agreements, such as what “ready” means so the team can take in work; what “done” means so the team can judge completeness consistently; respecting the timebox; or the use of work-in-process limits;

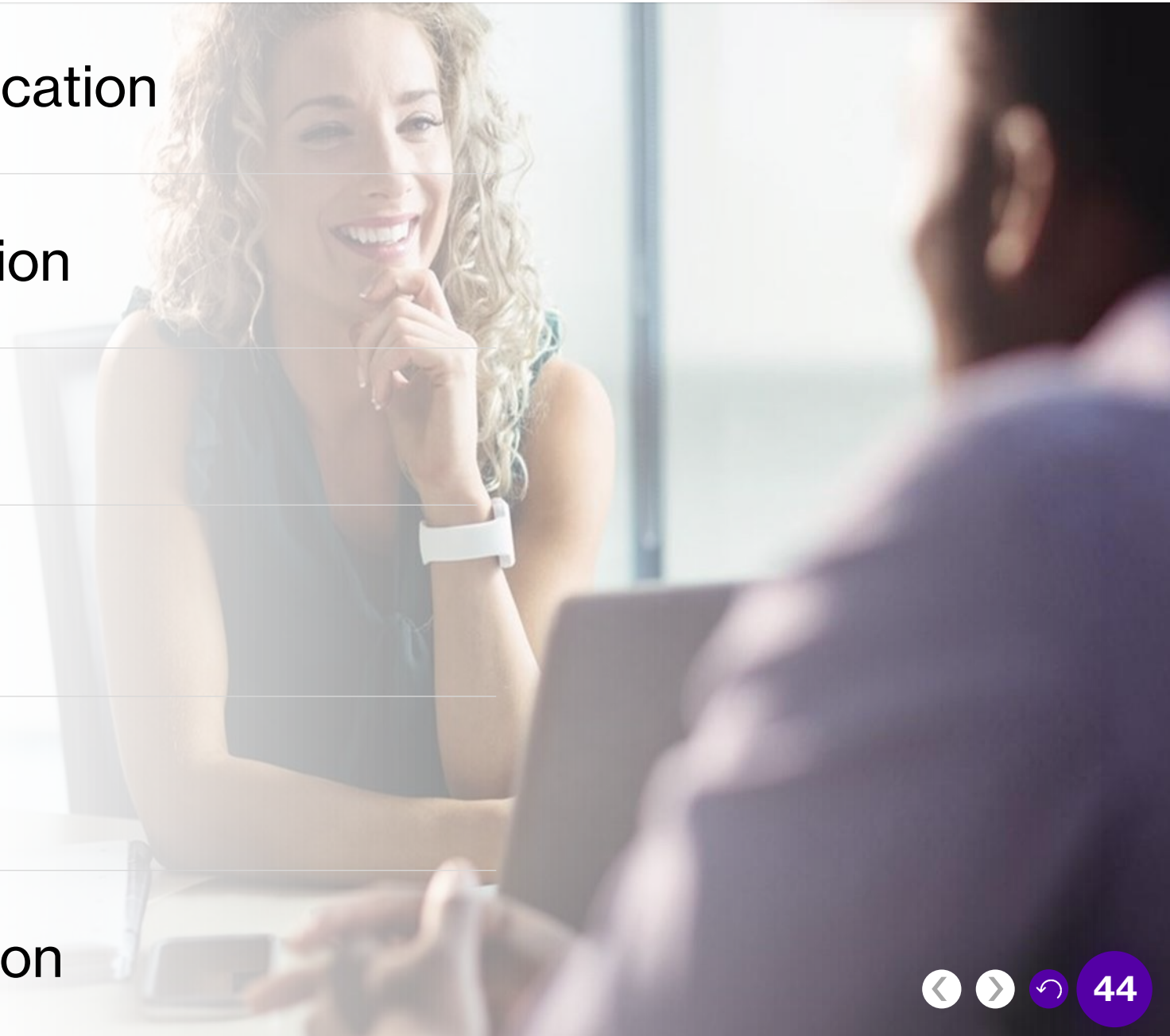


Ground rules, such as one person talking in a meeting; and



Group norms, such as how the team treats meeting times.

-  Face to face communication
-  Two-way communication
-  Knowledge sharing
-  Information Radiators
-  Social Media
-  Osmotic Communication





Measurements In Agile Projects

Outline



Burn-up charts



Burn-down charts



Velocity charts





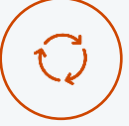



Changes associated with accelerated delivery



Changes associated with agile approaches





-  Implementing a new hybrid or agile approach, it is recommended to undertake the work incrementally
-  A common practice is to treat the change process as an agile project with its own backlog of changes that could be introduced and prioritized by the team
-  Use Kanban boards to track progress, showing the new approaches already in use as “done,” those being tried as “in progress,” and those still waiting to be introduced as “to do
-  Rolling out changes in a transparent and appealing way improves the likelihood of success.



A combination of two or more agile and non-agile elements, having a non-agile end result



Agile development followed by a predictive rollout



A combined agile and predictive approach used simultaneously



A largely predictive approach with agile components



A largely agile approach with a predictive component



Tools for Agile Projects

Outline ▶



Low-tech, high-touch over computer models



Use card, charts, whiteboards, and walls promote communication and collaboration



Kanban/Task Board; An "information radiator" - ensures efficient diffusion of information





Senior management and sponsor:

They are worried about the risk of failing



Managers:

fear the loss of control



Project team:

resist agile methods



Users:

might not get all features





Agile Approaches to PM Knowledge Areas



Knowledge Area	Agile Approach
Project Integration Management	PM facilitates collaboration
Project Scope Management	Evolves during the project
Project Schedule Management	Short cycles to undertake work
Project Cost Management	Detailed estimates are reserved for short-term planning horizons in a just-in-time fashion.
Project Quality Management	Frequent quality and review steps built in throughout the project rather than toward the end of the project
Project Resource Management	Self-organizing teams with generalizing specialists
Project Communications Management	Communicate evolving and emerging details more frequently and quickly, regular stakeholder reviews, Face- to- Face



Agile Approaches to PM Knowledge Areas



Knowledge Area	Agile Approach
Project Risk Management	Frequent reviews of incremental work, Risk adjusted backlog, risk-based spikes, risk burndown chart, and risks will also be identified, analyzed, and managed during each iteration. Regular interactions mitigate risks
Project Procurement Management	Shared risk procurement model where both the buyer and the seller share in the risk and rewards associated with a project
Project Stakeholder Management	Agile methods promote aggressive transparency. Stakeholders engaged directly. Stakeholders exchange information in a dynamic co-creative process.

When the organization cannot deliver intermediate value, agile approaches may not be useful. That is okay – agile for the sake of agile is not the goal



Project
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Outline ▶



Thank You.

E n d o f P r e s e n t a t i o n

