Agile, Scrum, Kanban





Agile (upper case 'A') is mostly concerned with the method an organization uses to deliver new products, services or outputs, whereas agile (with a lower case 'a') is a description of the mindset an organization adopts when undertaking this work.

A Guide to Agile Shift AXELOS Limited

Agile History

Agile is not new – discussed as early as 1970

Popularized in software development as an alternative to traditional 'waterfall' approaches to project management

Focuses on Iterative development and Continuous customer involvement

Originally known as *lean PM* or *rolling wave planning*



AGILE CORE VALUES

Individual and Team Interactions over processes and tools.

Working software over comprehensive documentation.

Customer collaboration over contract negotiation.

Responding to change over following a plan.



Signs to go Agile

Change requests are constantly made for your projects

Work is consistently being added to or removed from to the project

Customer engagement needs to be throughout the project

Your project seems to restart when you reach the end after delivering the project to the customer



PROJECT MANAGEMENT METHODOLOGIES



A potential trap

Sometimes organizational leadership won't know how to pivot so they'll say things like "It's time to get back to the basics."

While this may sound like it'll make life easier, it's likely going to drive problems and confusion due to critical steps not being properly evaluated or even removed.



Agile in brief

Agile is a set of methods and methodologies optimized to help teams with specific problems.

These methods are intentionally kept as simple as possible so they are straightforward to implement. It is NOT limited to software development

It is NOT a lack of planning or documentation

It is NOT devoted to improving everything at once

Waterfall vs Agile

TRADITIONAL (WATERFALL)

Delivers stakeholder requirements as a single project

Plan is updated in response to changing environments

MYTH: Waterfall projects cope poorly with opportunity realization



ITERATIVE (AGILE)

Delivers stakeholder requirements in small successive mini-projects

Requirements updated in response to iterative feedback

MYTH: You must choose either Waterfall or Agile

Agile and "Waterfall": THE Key Difference



Agile:

In planning: **RESOURCES AND TIME** are fixed and REQUIREMENTS/FEATURES are **ESTIMATED**

Agile Solutions

For... (target customers / stakeholders)

Who are dissatisfied with... (the current situation / alternative)

Our project will... (project outcome)

Our project provides... (key benefit / compelling reason to buy or use / solution to a problem)

Unlike... (the alternative / current state / competitor option)







Features and User Stories

FEATURES

Also called outputs or initiatives – directly relate to the project vision

Includes new features, changes to existing features and bug fixes

Defined by end-users (not by the project team)

USER STORIES Short, simple descriptions of a feature

Told from the perspective of the person who desires the new capability

For example: As a <type of user>, I want <some goal> so that <some reason>



USER STORIES

The 4 Elements



User Stories Criteria: INVEST

Story ID: Story Title:	
User Story:	Importance:
Asa: <role></role>	
I want: <some goal=""></some>	
	Estimate:
So that: <some reason=""></some>	
Acceptance Criteria	Type:
And I know I am done when:	Search
	□ Workflow
	Manage Dat
	Payment
	Report/ View

INDEPENDENT Each User Story stands on its own. **NEGOTIABLE** Details are worked out collaboratively by the team. VALUABLE Must bring value to the customer. **ESTIMATABLE** Teams are able to define the effort to deliver the story. SIZED The story can be completed within the sprint. **TESTABLE** The work can be verified.

Agile and Change Management

When the team delivers outputs early and often to the end users of the project there is a greater chance to find needed changes and make them early - when they are much easier to make.



Backlog and Product Backlog

The Backlog is a list of tasks waiting to be worked on.

The Product Backlog is the comprehensive Work Breakdown Structure (WBS)

Every item in the Product Backlog has 4 pieces of information:

Order (think WBS identifier) Description Estimated effort Value

≡	Editing: Actual	≎ –	• -	
₩ 🗉	Title	Effort	Duration	Assigned
	 1) Initiate 	3d	3d	
	1.1) PCC Completed	1d	1d	Angus Peacock
	 1.2) PCC Signed (Charter) 	0h		Scott Kinder
	 1.3) PM Named 	0h		Scott Kinder
	 1.4) Planning Budget Confirmed 	2d	2d	Heather Kuhns
	 Planning 	2w 1d 6h	4d	
	2.1) Caterer Found	2d	2d	Angus Peacock
	• 2.2) Caterer RFP	4h	1d	Genevieve Nystrom
	2.3) Caterer Booked	2h	1d	Genevieve Nystrom
	2.4) Trophy Winners Identified	4d	4d	Scott Kinder, Angus Peacock
	 2.5) Trophies Ordered 	0h		Angus Peacock
	 2.6) Trophies Received 	0h		4
	2.7) Party Date Established	1d	1d	
	• 2.8) Venue RFP	3d	3d	Angus Peacock
	2.9) Venue Locked	0h		Angus Peacock
	• 2.10) Entertainment RFP	3d	3d	Genevieve Nystrom
	 2.11) Entertainment Locked 	0h		Genevieve Nystrom
	 2.12) Party Announcement Created 	1d	1d	Heather Kuhns

Scrum

Scrum is the most popular approach to Agile

Every Scrum project follows the same pattern of behavior, which is defined by a series of time-boxed events that always happen in the same order.

Every Scrum project is organized into time-boxed iterations called Sprints. Many teams use 30-day Sprints, but it's pretty common to see two-week Sprints



A scrum team typically consists of around seven people who work together in short, sustainable bursts of activity called sprints, with plenty of time for review and reflection built in. One of the mantras of scrum is "inspect and adapt," and scrum teams are characterized by an intense focus on continuous improvement—of their process, but also of the product.

Scrum Chris Sims, Hillary Louise Johnson

SCRUM Pillars and Values





Product Owner

Product Owners work with the users and customers to understand what outcomes they seek from the project.

In Agile - one of the highest priorities is in satisfying the customer through early and continuous delivery of project outputs.

EARLY DELIVERY + CONTINUOUS DELIVERY = SATISFIED \SERS

Iterations and Timeboxed

Iteration: repeatedly performing all project activities to constantly deliver project outputs

Timeboxed: setting a hard deadline for an activity to be completed and adjusting the scope of that activity to meet the deadline.

Any item that hasn't been included in an interaction is able to be changed by users or the Product Owner



Sprints

Sprints are 1-4 week iterations.

When planning a Sprint – the Sprint Backlog are the tasks pulled from the Product Backlog that the team feels they can accomplish during the upcoming 2-4 week Sprint.

Each Sprint starts with Sprint planning, a timeboxed meeting used to decided which features will be included in the Sprint Backlog.

NOTE: during Sprint Planning Teams do not decompose tasks to their lowest level. Instead they use a commonly understood Definition of Done (DOD).



Self-Organizing Teams

The whole Scrum team works together to plan the project.

The whole team decides together how they'll meet project goals.

These teams constantly adapt their plan by checking in with each other at the Daily Scrum: each person tells the whole team what they're planning on doing next to meet the goals they decided on during Sprint Planning.

If a teammate sees a problem with the approach, they'll work together that day to fix it.



Generally Accepted Scrum Practices (GASPs)

Scrum teams plan their projects together so that everybody on the team commits to each sprint's goal.

Planning, estimating, and tracking need to be simple and easy for the whole team to do as a group.

From user stories to burndown charts, Scrum teams always know what they've done and what's left to do.



Burndown Charts

Everyone on the team can see how much work has been done and how much is left.

It is a great tool for identifying how much work is left to do, or if the team will finish all of the work planned for the Sprint.



Retrospectives

At the end of each sprint, the team reflects and works together to fix any identified issues.

Retrospectives focus on how things are going and stay focused on making things better with each sprint.





Daily SCRUM Agenda

Time Boxed at 90 seconds per person the team briefs (in random order)

> Yesterday Today Blockers



Closing the Sprint - Reviews

Inspect

New functionality presented to product owner (*handover*)

What has been done?

What has not been done?

What was added / removed?

User acceptance test (UAT)



Closing the Sprint - Retrospective

Adapt

Post-mortem reflection

What should we...

...start doing?

...stop doing?

...continue doing?



Scrum: Critical Success Factors

1: Effective when used to capture information

2: No sensitivities when named as the blocker

3: Focus on removal of blockers with follow on meetings as needed.





Kanban Overview

Iterative, not incremental

Work in progress is limited by a number of concurrent tasks

Tasks are added only after one that is already in progress has been completed

Improvement is evolutionary



Kanban Roles

Kanban does not prescribe roles

Roles you may see

Service Delivery Manager

Similar to but not the same as a Scrum master

Service Request Manager

Similar to but not the same as a Product Owner



Kanban Daily Standup

Unlike Scrum, the standup is focused on what needs to be discussed, rather than a prescribed formula

Like Scrum it should be limited to 15 minutes

These are not required, and should not be held if they are not value add



Highly Visual Scheduling Technique



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Limits Work in Progress (WIP)



Highly Visual Scheduling Technique

Limits Work in Progress (WIP)

Teams expected to jump in and clear others' bottlenecks when they have excess capacity

Next Lip	in Progress	Bucked -	Falad Testing	Ready for Testing	Testing
Looking for work, lask no further	Currently being worked on	Sometring's get stuck.	Occupel Try harder next time	Al done, please test	Test met Test me
Provide Services content	Create assets for News	Configure Rested Services new	Add a card	Byte Main ray	Alt+Let.,
Provide About th page context	Contractor (control Contra assets for Stor-cases	Add + Sant		Change About Lik Stock beckground image	
By's Showcases detail page = () 19	Partice Body Container Dr. or Sub- Service pages			Pasche Ger in Touch Stock parales affect	
Dye Dog hat page	Billion Contraction			Provide Privacy & Convex Policy content	
Byte About page	Alf 4 tant			· ·	
Style About Us page form				- <u>R</u>	
Pyle Centers page				Papate Series core	
Style field dat in Touch parent				Populate Transat By block	
Bryle Rrid Latest Related News & Cur Related Drowcases Stock				Papate Secar Medie Secar	
10000	*			Cristian Resident Dirowcasale unaverbaces	
Add a case				Add a last	1.1

Highly Visual Scheduling Technique

Limits Work in Progress (WIP)

Teams expected to jump in and clear others' bottlenecks when they have excess capacity

Dependencies not explicit



Highly Visual Scheduling Technique

Limits Work in Progress (WIP)

Teams expected to jump in and clear others' bottlenecks when they have excess capacity

Dependencies not explicit

Great tool for managing stakeholder expectations



What *should* our Kanban board look like on Day 10?







Answer



KANBAN

Limits WIP

Incremental

"Gradual"

Scrum Vs Kanban

SCRUM

Limits Time

Iterative

"Radical"

Empowers Teams To Self-Manage

KANBAN

Limits WIP

Incremental

"Gradual"

Respects Current Processes and Roles

Agile Critical Success Factors

Strong business case – clearly defined and measurable outcomes

Acceptance of uncertainty

Effective risk management

High levels of intra-team communication and collaboration Co-location is best (but not required)

Full focus (no business as usual tasks or other projects)

Good cultural fit





Take-aways from Agile, Scrum and Kanban



You don't have to choose Agile or Waterfall – they both have pros and cons.

Scrum and Kanban are great tools to use in your projects.

Questions?





