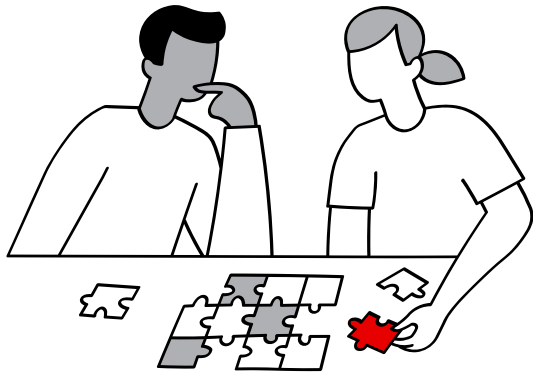


Introduction to Agile Project Management

March 13, 2024

Agenda

Session goal: Provide an overview of the fundamental Agile principles, methodologies, roles and responsibilities, and practises and techniques of agile project management.



Expectation: By the end of the lecture, attendees should have a solid understanding of the basic concepts of agile project management, including the Agile Manifesto and common practises. They should also be able to appreciate the importance of embracing an agile mindset.

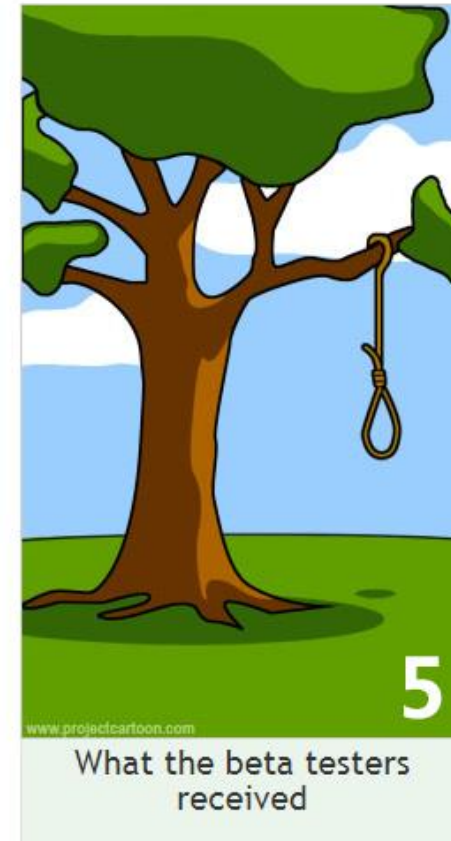
Lecture Structure

1. Introduction
2. Agile Principles
3. Agile vs Waterfall
4. Agile Frameworks
5. Agile Roles And Responsibilities
6. Agile Practises and Techniques



Introduction

Tree swing analogy was used in different versions since 1970s to visualize implementation of the requirements on example of tree swing development.



Introduction



Project management is the use of specific knowledge, skills, tools and techniques to deliver something of value to people. The development of software for an improved business process, the construction of a building, the relief effort after a natural disaster, the expansion of sales into a new geographic market—these are all examples of projects.

Project Management Institute (<https://www.pmi.org/>)

Agile project management is an iterative and incremental approach to managing project that emphasizes flexibility, collaboration, and customer satisfaction. It involves breaking down a project into smaller, manageable chunks called sprints or iterations, and continuously delivering working software or products to the customer.

The agile methodology is based on a series of four core development values that are part of the Agile Manifesto.

agilemanifesto.org

Agile Principles

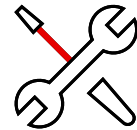
Agile Manifesto. We are in 2001 in Aspen Colorado where a conference meeting took place called 'lightweight methods', the outcome was published: **Manifesto with Agile principles** with 17 software development leaders as authors.

Four core values of Agile by the Agile Manifesto (2001)



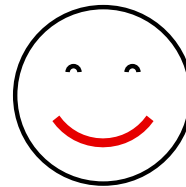
Individuals and interactions over processes and tools

Instead of focusing on project management processes and delivery tools focus is on individual teams that are drivers.



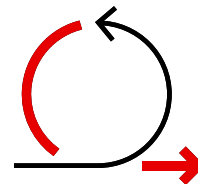
Working software over comprehensive documentation

Instead of focusing on preparing detailed technical specification more focus is on actual living product.



Customer collaboration over contract negotiations

Instead of focusing on contract and detailed negotiations before and during the project focus is on involving customer to provide an input through the product lifecycle.



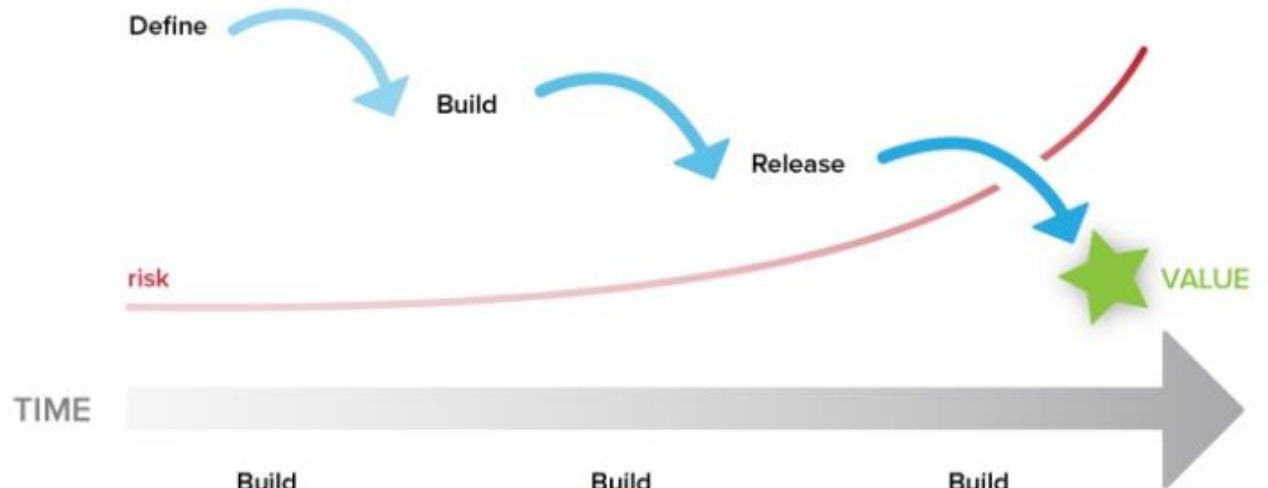
Responding to change over following a plan

Instead of focusing on following the initial plan the more focus is on real-time input that can influence and shape next steps.

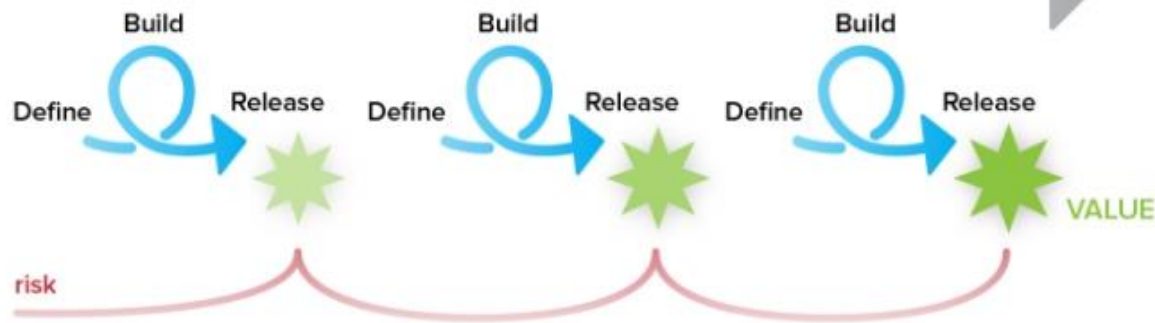


Agile vs Waterfall

WATERFALL



AGILE



| | Agile | Waterfall |
|--------------------|---|---|
| Approach | Frequent stakeholder interaction (Agile ceremonies) | Hands-off; goals and outcome established from the beginning |
| Flexibility | High, as built-in to the Agile Method, with the Stakeholder feedback after each iteration | Low, as phases are planned up front and need be completed first before feedback |
| Requires | Team initiative and short-term deadlines | Completing deliverables to progress to the next phase |
| Timeline | Flexible/experimental/adapting | Fixed with mapped stages |
| Client involvement | Fundamental at every stage accordingly to Agile Manifesto saying: [...] highest priority is to satisfy the customer [...] | Only on specific check-ins and then end goal is established/delivered |
| Budget | Flexible, open to adaptation | Fixed, less room for changes to budget during the project |

Agile Frameworks

Scrum

Scrum teams, Iterative, incremental, self-organizing, sprints, product backlog, daily stand-up meetings.

Lean

Lean manufacturing, efficient & value at production, workflow, improvement, fast,

Crystal

Flexibility, tailored process, lightweight, delivers as per the **criticality not the priority of backlog**.

Kanban

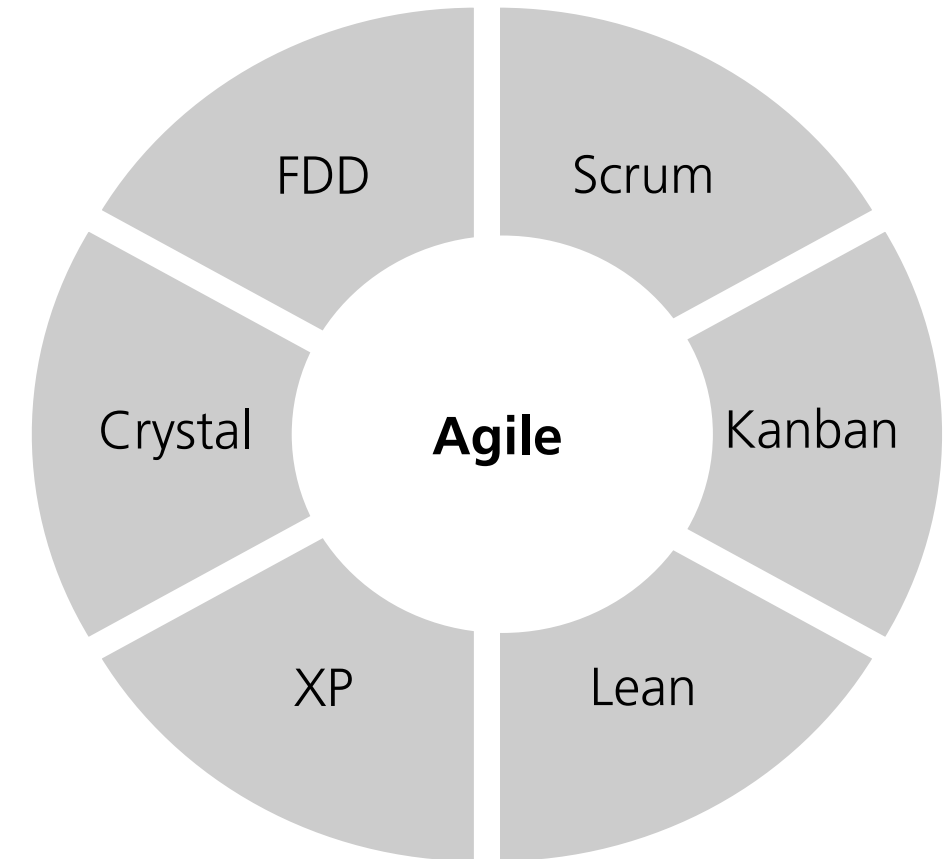
Continuous delivery (software development), flow of work, **visual board**, work-in-progress (WIP) limits, lean principles.

Extreme Programming (XP)

Software development, continuous integration, automated testing, pair programming, **frequent releases, short development cycles**.

Feature-Driven Development (FDD)

Feature-driven (2-10 days for delivery), iterative, incremental, short iterations, feature list.



Agile Roles And Responsibilities

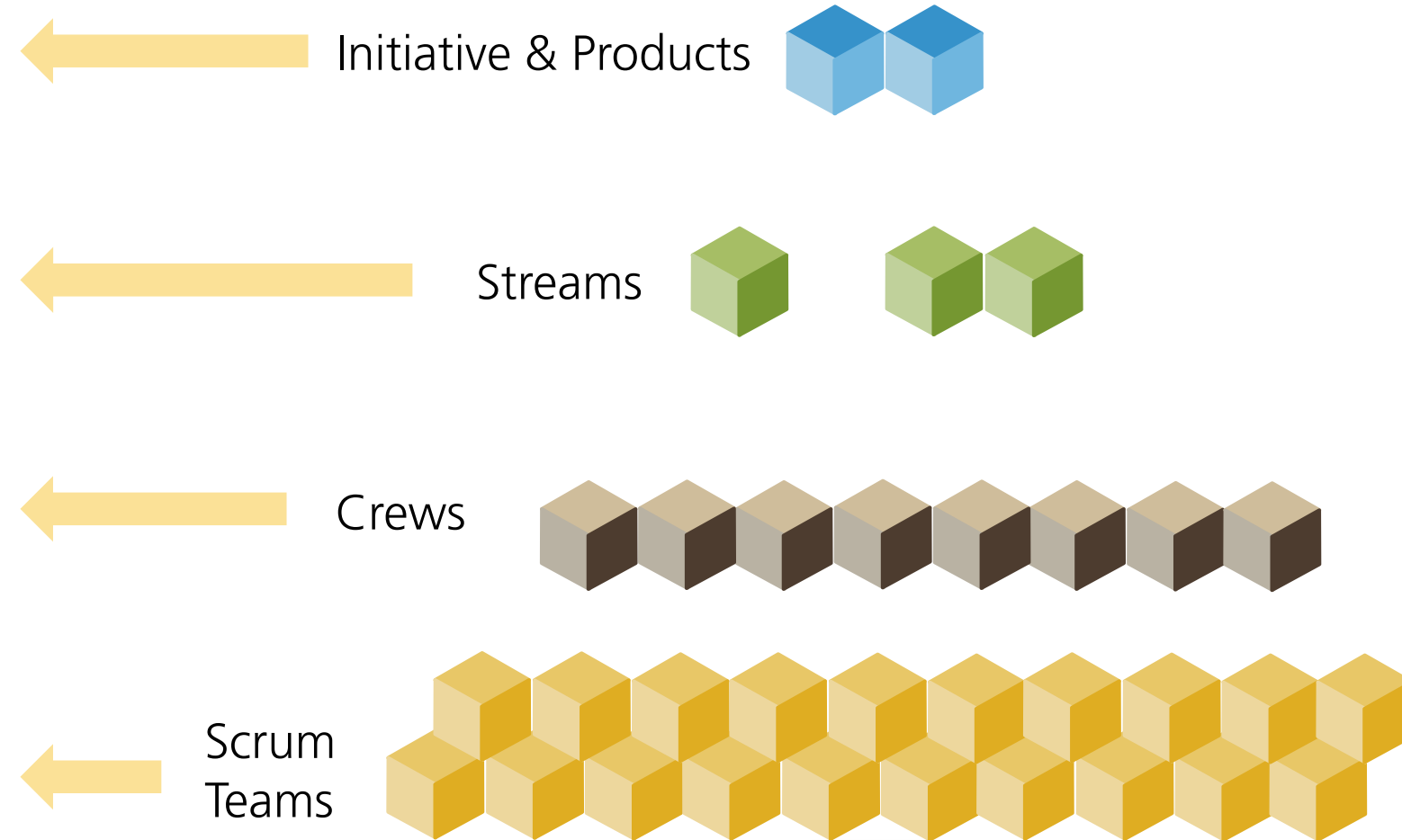
Initiative is a bigger project across streams perhaps a big regulatory project, that have definitive start and end date. Product is a more long-standing project: system, device, service, software application or a combination of these. Products can contribute to multiple Initiatives.

Composition of 4-9 Crews appropriate for large business division.

Composition of PODs when a scale of work is larger than POD. Crew events help to coordinate work across PODs.

Typically, composition of team 5-9 members focused on clear goal (for example product delivery), responsible for delivering the product increment in each sprint.

The underlying building blocks



Scrum team Roles

Product Owner

The person responsible for defining and prioritizing the product backlog, so that the product meets the business and customer needs.



Stakeholders

Any individual or group with an interest in the product or project, including customers, users, sponsors, and any others who may influence the product or its development.

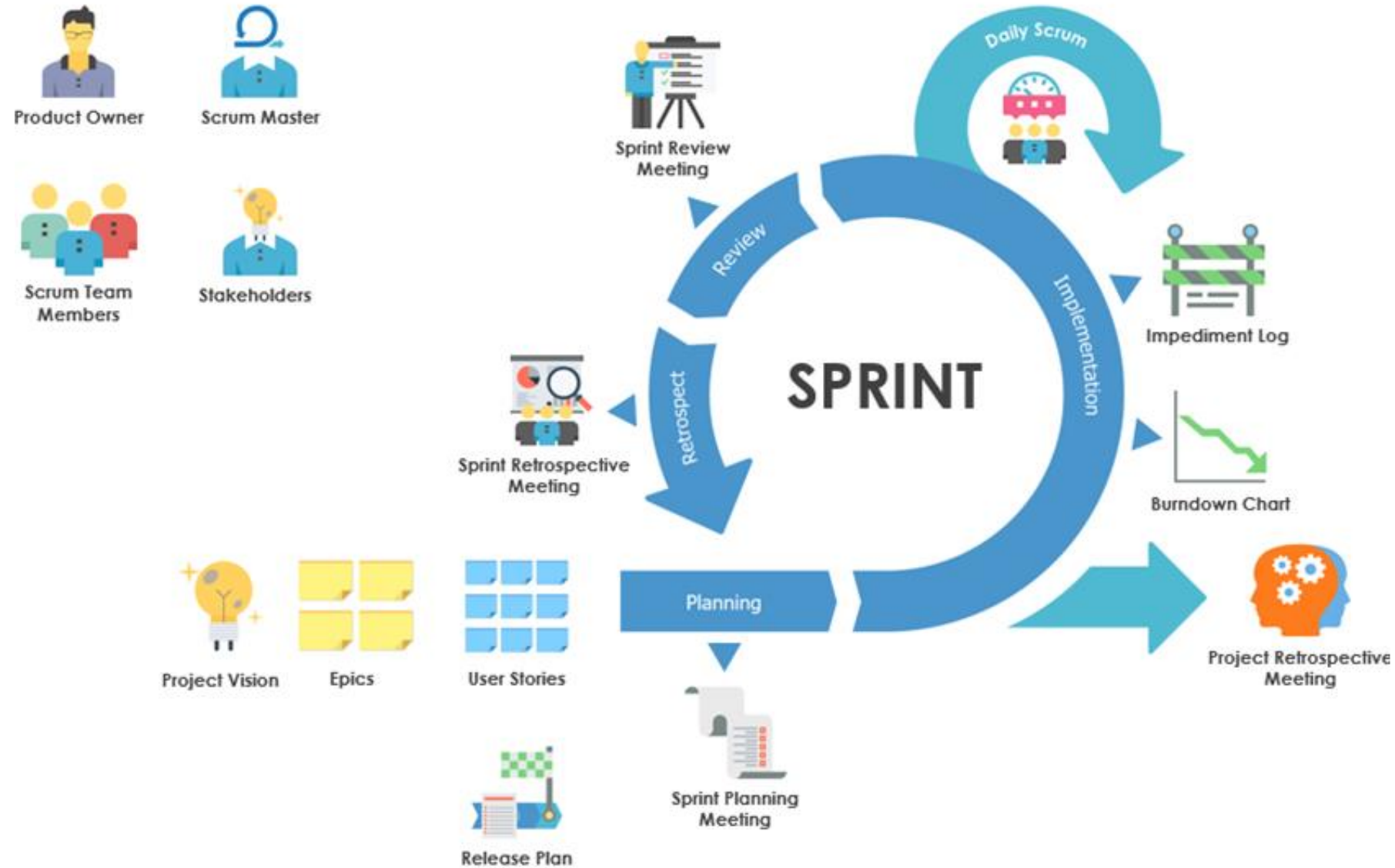
Development team

A self-organizing and cross-functional group of individuals who are developing a specific product/delivery.

Scrum Master

The facilitator of the Scrum process, ensuring that the team follows the Scrum framework and removes any impediments which are preventing the team from delivering value.

Agile Practises and Techniques



Thank *you*