EXPLORE AI ACADEMY

Ways of work

What is Agile?

Ways of work

Agile and data science

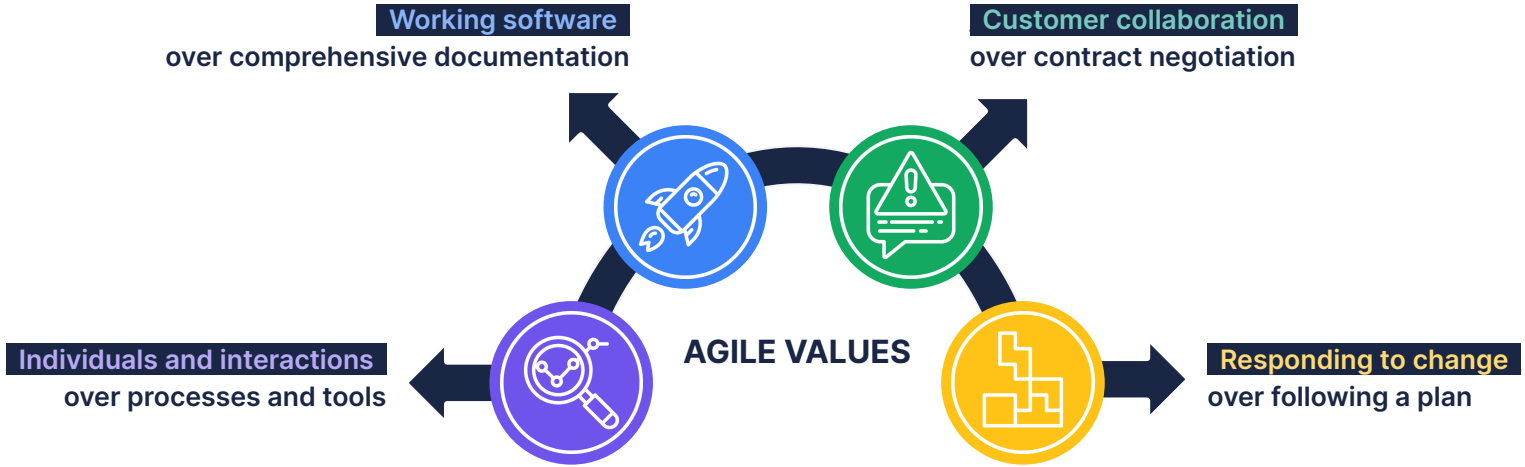
In the **dynamic** realm of **data science**, where **adaptability** and **collaboration** are key, **Agile** methodologies offer a **structured approach** to **managing projects** efficiently.

Agile is an **iterative framework** prioritising **adaptive planning** and **continuous improvement** for more efficient and valuable **project delivery**.

Agile teams respond well to **change**, **collaborate**, and quickly and effectively **achieve project outcomes** by focusing on delivering **incremental** and **data-driven results**.

Agile values

> The **four Agile values**, originating from a software development approach, are centred around **quality**. While Agile initially focused on software, **various industries** now adopt it to design products and services that effectively meet consumers' needs and expectations.



Ways of work

The Scrum framework for project teams

> **Scrum** is an **Agile project management framework** that helps teams structure and manage their work through a set of values, principles, and practices.

Iterative development	Scrum uses **iterative cycles** called **sprints**, usually one to three weeks long. Each sprint delivers a potentially **shippable product** increment for ongoing evaluation and adjustment.
Collaborative roles	Scrum defines **specific roles** that work **collaboratively** to ensure efficient communication, alignment, and the delivery of valuable outcomes.
Transparent ceremonies	Scrum **ceremonies** provide opportunities for **regular communication** and **improvement**, ensuring **transparency** throughout the project.

Ways of work

Scrum roles

Product owner

The product owner **represents the business interest**.

They are the **voice** of the **client**, set the **vision**, and **translate requirements into work packages** for the development team.

Scrum master

The Scrum master or delivery lead **oversees** and **manages** the development process.

They **set the pace**, **facilitate** improvements, and make sure team members have everything they need to get the job done.

Technical lead

The technical lead is a contributing member of the development team.

They help their team with the **technical aspects** of the job. They perform **technical reviews** to ensure the work is technically sound and may control what **makes it into the final product**.

Development team

The team works **autonomously** with each member contributing and collaborating to **deliver the product**.

They are **transparent** about the work they are doing and **vocal** about where they need help from the technical or delivery leads.

Ways of work

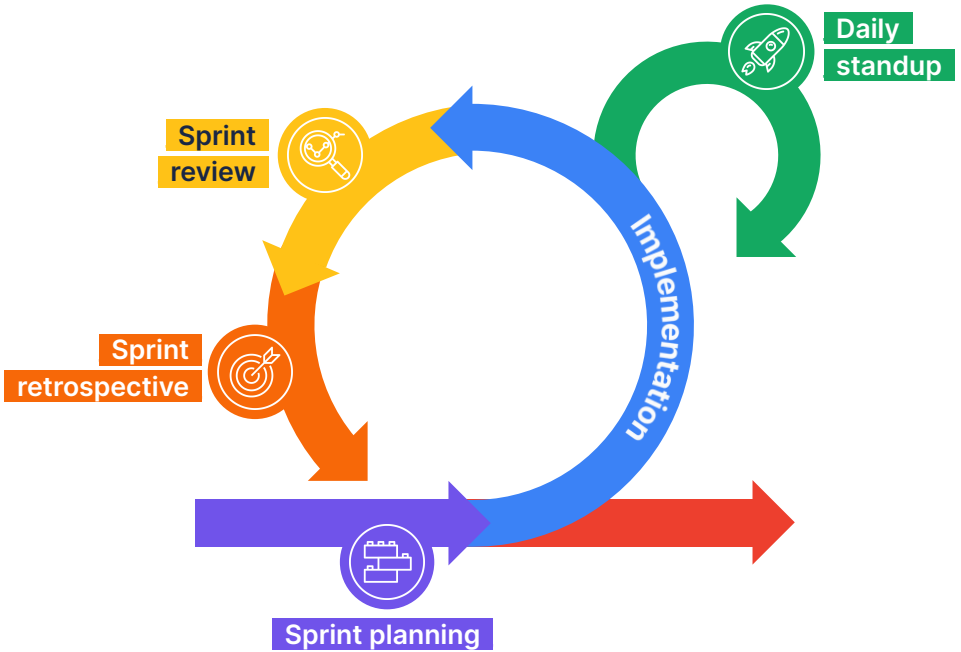
Scrum ceremonies

> Scrum ceremonies are **crucial milestones** within Agile project management. They play a pivotal role in structuring work, promoting collaboration, and ensuring consistent progress.

There are **four key** Scrum ceremonies:

- **Sprint planning:** Goal-setting and task selection.
- **Daily standup:** Daily sync and progress update.
- **Sprint review:** Feedback and presentation.
- **Sprint retrospective:** Process reflection and improvement.

Next, let's see **how** the Scrum ceremonies fit into the **complete Scrum process**.



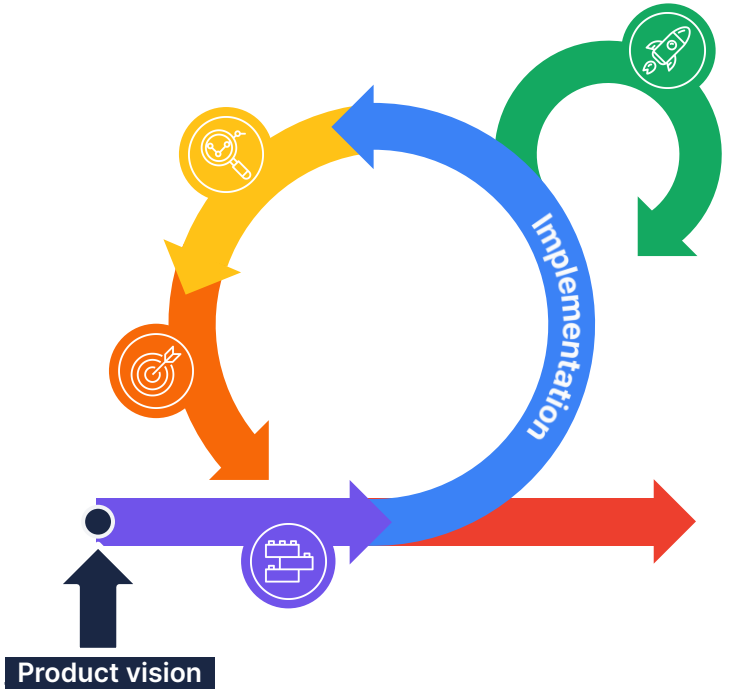
Scrum ceremonies in context

Product vision

At the start of the project the **product vision**, **strategy**, **direction**, and **objectives** are set.

It is important to understand and align on:

- Why are we building this product?



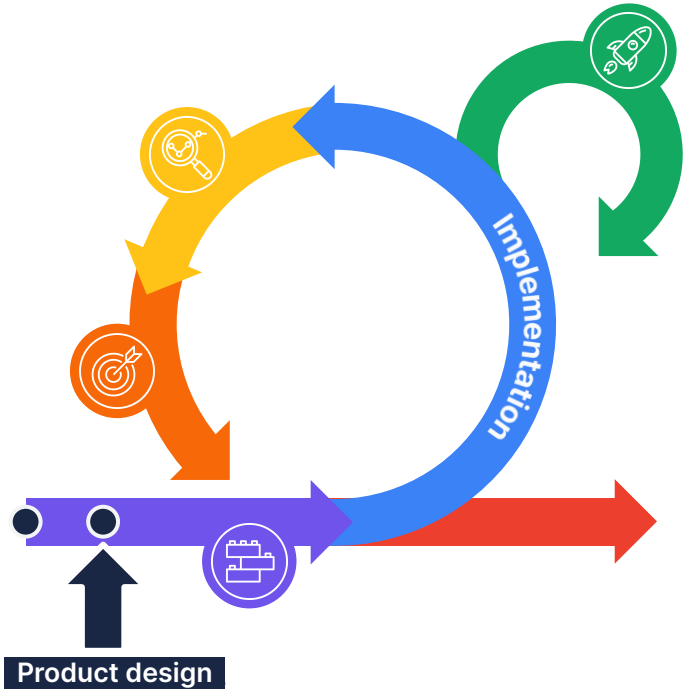
Scrum ceremonies in context

Product design

The **problem statement** and **design** are refined. We need to **understand** the various **features** and **design parameters**.

Here, it is important that we clearly understand:

- What are the user stories?
- Who will use this?
- What will they do with it?
- What is the product roadmap?



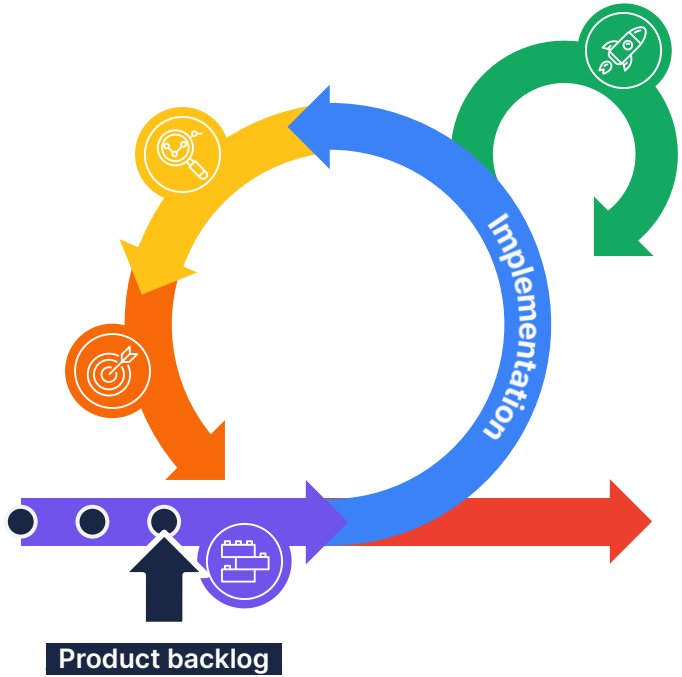
Scrum ceremonies in context

Product backlog

An **initiative** or **task backlog** is created to **address specific design features** and **user stories**.

The backlog is a **prioritised list of work** with **detailed requirements** that the development team need to complete.

The most **important tasks** are at the **top of the list** so the team can pull the most valuable work into scope when there is capacity for it.



Scrum ceremonies in context

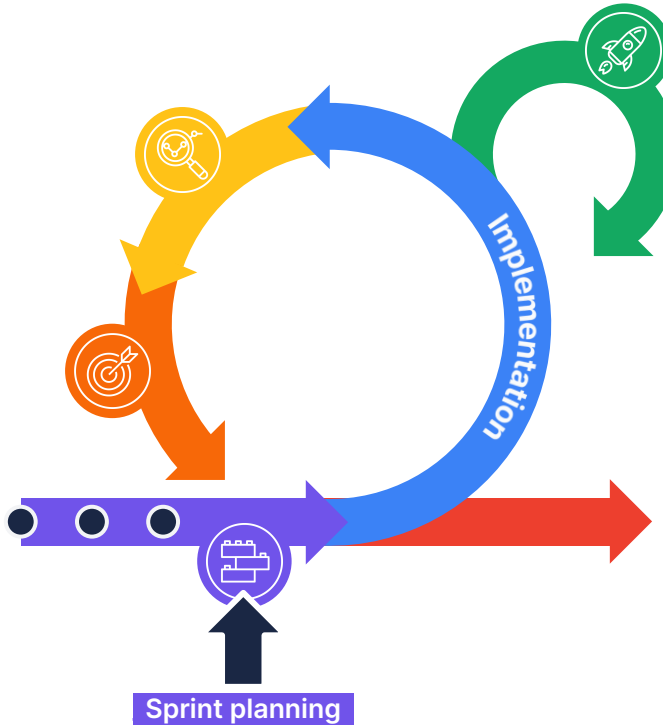
Sprint planning

Sprint planning **initiates** the typically short **delivery cycles** between one and four weeks.

The team discuss the most **important backlog items** and how they **contribute** to the **overall objective.**

The team align on:

- Why is this sprint valuable?
- What can be done in this sprint?
- How will the work get done?



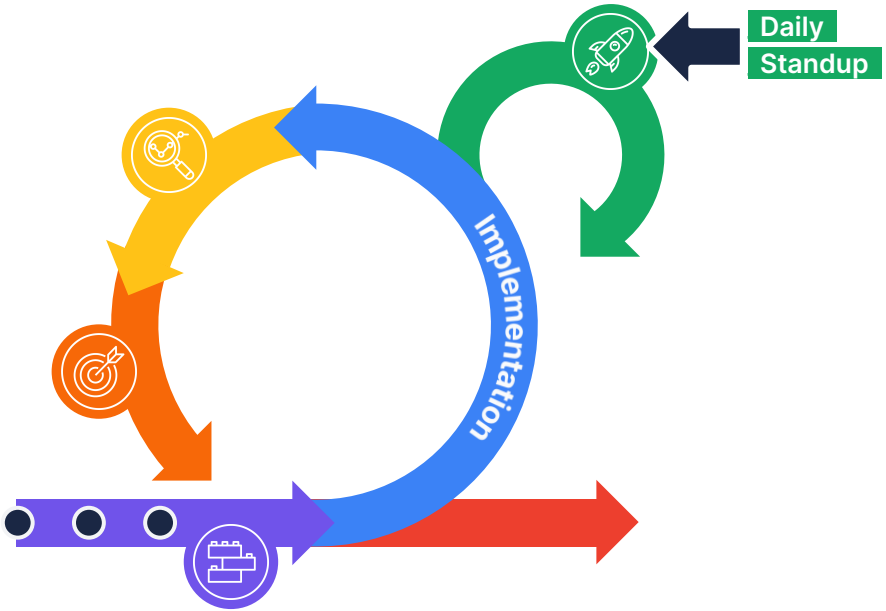
Scrum ceremonies in context

Daily standup

Standups may be daily or at some other **regular** cadence set by the team. These **short**, **focused meetings** highlight progress and raise flags so the team can **address issues quickly**.

Each team member should be able to answer:

- What did I do yesterday?
- What am I working on today?
- What issues are blocking my progress?



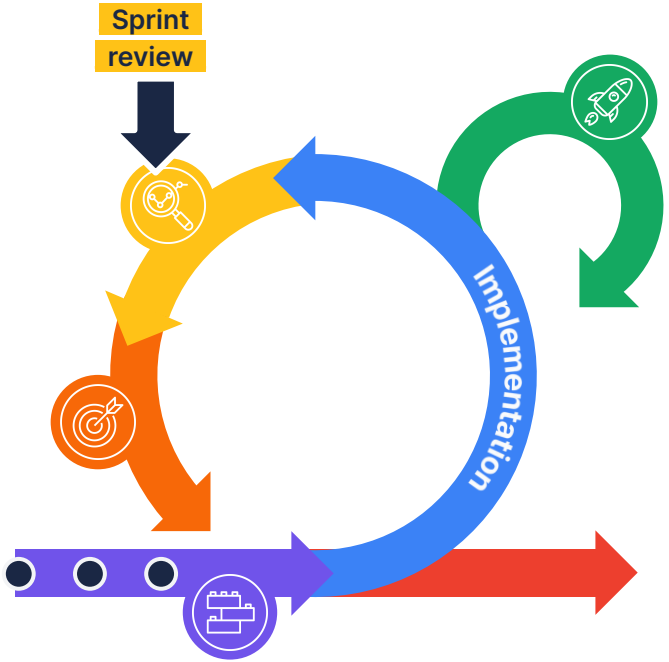
Scrum ceremonies in context

Sprint review

Sprint reviews are about **demonstrating** and **celebrating** the **hard work** of the entire team.

Great reviews:

- Have **data-driven discussions** around success and missing, meeting, or exceeding the sprint goal.
- Build morale and team motivation.



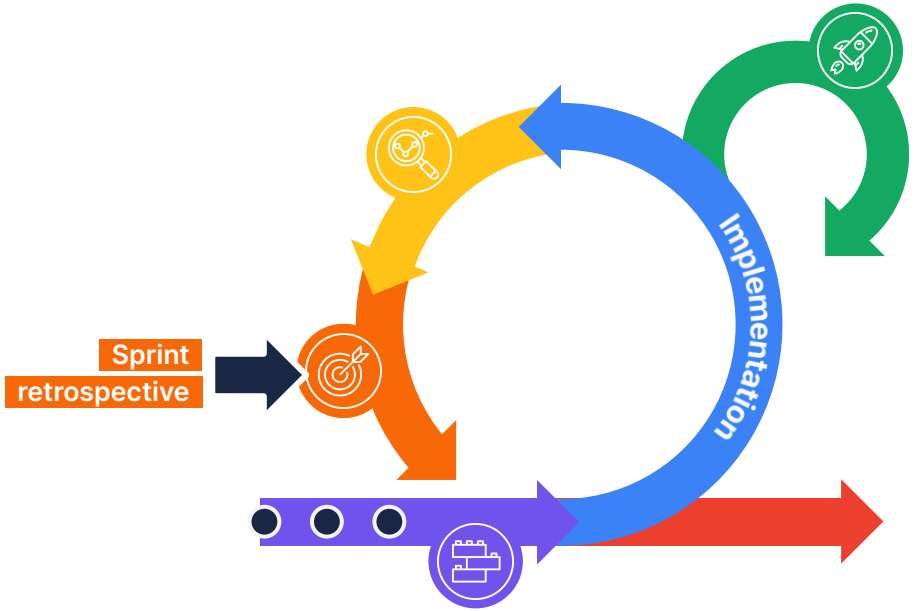
Scrum ceremonies in context

Sprint retrospective

Sprint retrospectives are a safe space to **share feedback** and nurture a culture of **continuous learning** and **incremental improvement**.

It is essentially focused on discussion and experiences around:

- What did we do well?
- What can we do better?

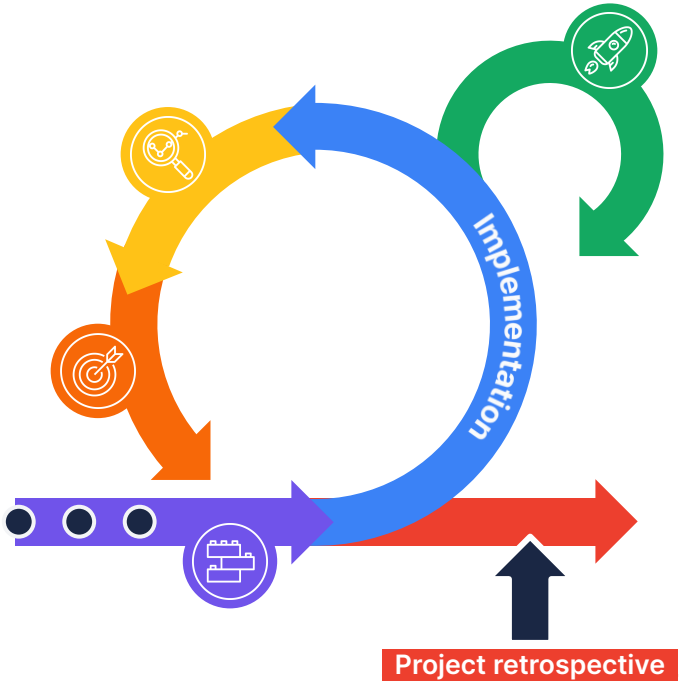


Scrum ceremonies in context

Project retrospective

Once the **minimum viable product** (MVP), product iteration, or final product is delivered, the team can **reflect** on the project as a whole.

Use team, business, and client feedback to determine ways in which the team and process may be **improved** for future projects.



Ways of work

The twelve agile principles

1

Customer satisfaction
By early and continuous delivery of valuable software.

2

Welcome change
Welcome changing requirements, even in late development.

3

Deliver frequently
Deliver working software frequently (weeks rather than months). Focus on the minimum viable product (MVP) and iterations.

4

Working together
Close, daily cooperation between business people and developers.

5

Motivated team
Projects are built around motivated individuals, who should be trusted.

6

Face to face
Face to face is the best form of communication.

The twelve agile principles

7

Working software
Working software is the primary measure of progress.

8

Constant pace
Sustainable development, able to maintain a constant pace.

9

Good design
Continuous attention to technical excellence and good design.

10

Simplicity
Simplicity – the art of maximising the amount of work not done – is essential.

11

Self-organisation
The best architectures, requirements, and designs emerge from self-organising teams.

12

Reflect and adjust
The team regularly reflect on how to become more effective and adjusts accordingly.

Ways of work

Scrum ≠ Agile

Scrum is just **one of the many Agile methodologies**, it is not the only one.

Following Scrum will not necessarily lead to agility. Agile is **more than** just a set of **principles** or **methodologies** – it's a **mindset**.

You won't necessarily follow a Scrum process in an Agile team, it could be **Kanban** or a **Lean Software Development** approach, for example. However it is important to remember, at the **heart of Agile** lies **collaboration**, **delivery**, **reflection,** and **improvement**.