

Agile / Scrum / Kanban intro

Scrum

Portnov Computer School

Topics

- ▶ **Definition of Scrum**
- ▶ **Scrum Theory**
- ▶ **Scrum Values**
- ▶ **Scrum Team Roles**
- ▶ **Scrum Events**
- ▶ **Scrum Artifacts**
- ▶ **Practice**

Scrum

The background features a series of overlapping, semi-transparent geometric shapes in various shades of blue and teal. These shapes, including triangles and polygons, are layered to create a sense of depth and movement, primarily concentrated on the right side of the frame. The overall aesthetic is clean and modern.

Definition of Scrum

Scrum (n): A **framework** within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value.

- ▶ Lightweight
- ▶ Simple to understand
- ▶ Difficult to master

The Scrum Guide, by Ken Schwaber and Jeff Sutherland

Scrum Theory

- ▶ Scrum is founded on empirical process control theory.
- ▶ Implementation of empirical process control:
 - ▶ Transparency
 - ▶ Inspection
 - ▶ Adaptation

Values

The background features a series of overlapping, semi-transparent geometric shapes in various shades of teal and blue. These shapes are primarily located on the right side of the frame, creating a layered, abstract effect. The colors range from light, airy blues to deep, saturated teals. The overall composition is clean and modern, with the word 'Values' positioned on the left side of the white background.

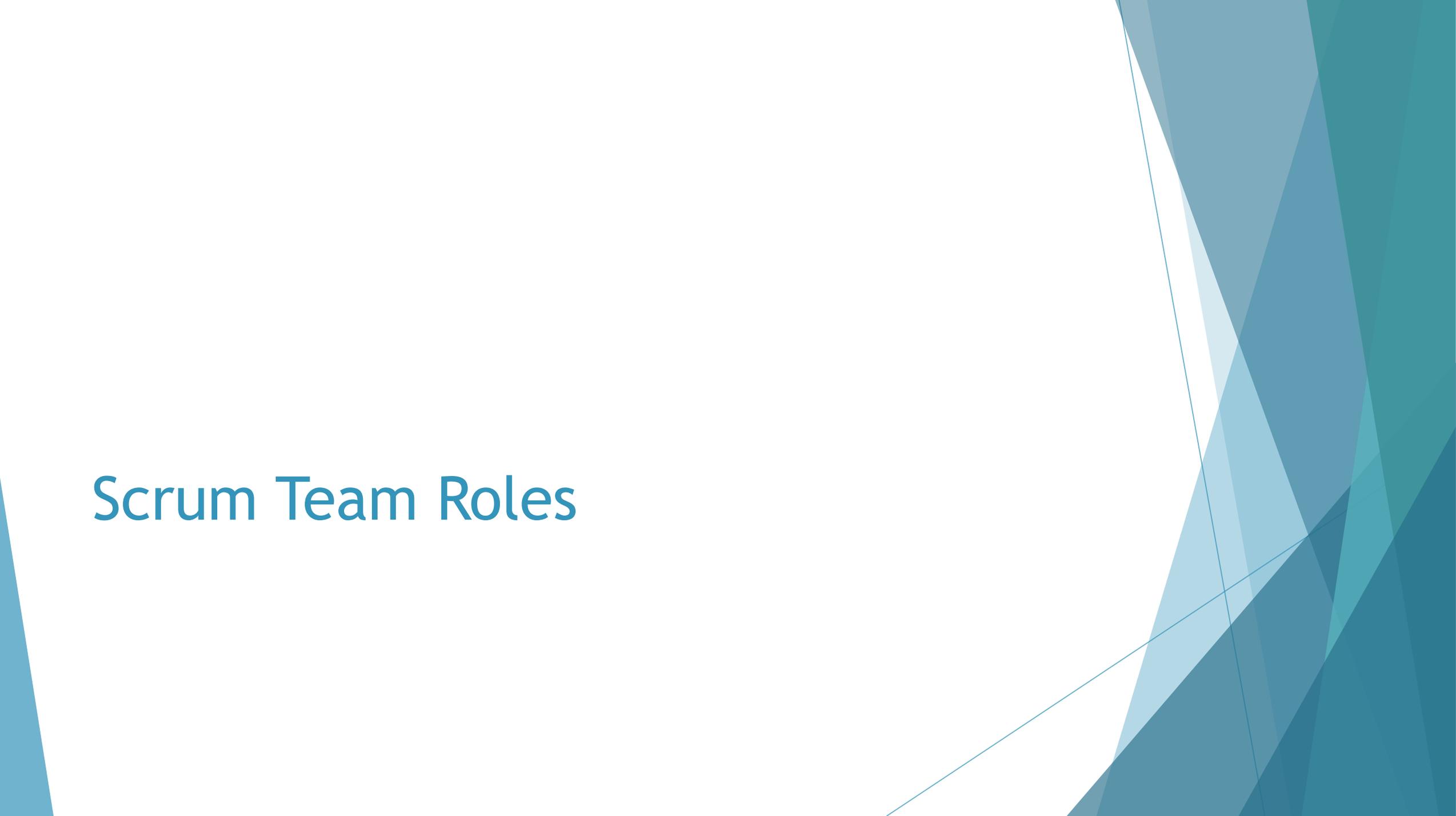
5 Values

- ▶ Commitment
- ▶ Courage
- ▶ Focus
- ▶ Openness
- ▶ Respect

Scrum

- ▶ Scrum incorporates the structure and discipline of more traditional software development methodologies with the flexibility and iterative practices of modern Agile
- ▶ An iterative and incremental approach
- ▶ Teams should collaborate heavily and daily
- ▶ It requires self-organization and self-management
- ▶ Team members break down end goals into smaller goals at the beginning and work through them using fixed-length iterations - **sprints**

Scrum Team Roles



Scrum team roles

- ▶ **Product owner:** Product expert who represents the stakeholders, and is the voice of the customer.
- ▶ **Developers:** Group of professionals who deliver the product (developers, SQA, designers, etc.).
- ▶ **Scrum master:** Organized servant-leader who ensures the understanding and execution of Scrum is followed.

Scrum Events

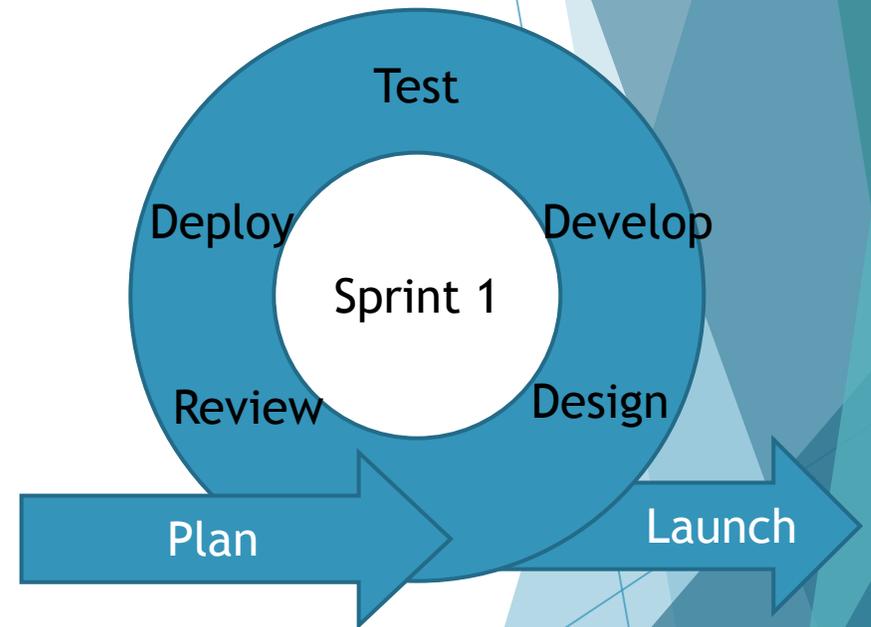
The background features a series of overlapping, semi-transparent geometric shapes in various shades of blue and teal. These shapes are primarily located on the right side of the frame, creating a modern, layered effect. The text 'Scrum Events' is positioned on the left side of the image, set against a plain white background.

Events

- ▶ **Sprint:** Iterative timeboxes where a goal is accomplished. Time frame does not exceed one calendar month and is consistent throughout the development process.
- ▶ **Sprint planning:** Where the entire Scrum team gets together—at the beginning of every Sprint—to plan the upcoming sprint.
- ▶ **Daily Scrum:** 15 minute time boxed meeting held at the same time, every day of the Sprint, where the previous day's achievements are discussed, as well as the expectations for the following one.
- ▶ **Sprint review:** An informal meeting held at the end of every Sprint where the Scrum team present their Increment to the stakeholders, and discuss feedback.
- ▶ **Sprint retrospective:** A meeting where the Scrum team reflects on the proceedings of the previous Sprint and establishes improvements for the next Sprint.

Sprint

- ▶ Sprints contain and consist of the Sprint Planning, Daily Scrums, the development work, the Sprint Review, and the Sprint Retrospective.
- ▶ During the Sprint:
 - ▶ No changes are made that would endanger the Sprint Goal
 - ▶ Quality goals do not decrease
 - ▶ Scope may be clarified and re-negotiated between the Product Owner and Developers as more is learned.



Sprint Planning

- ▶ The work to be performed in the Sprint is planned at the Sprint Planning
- ▶ Sprint Planning answers the following:
 - ▶ What can be delivered in the Increment resulting from the upcoming Sprint?
 - ▶ How will the work needed to deliver the Increment be achieved?

Daily Scrum

- ▶ The Daily Scrum is a 15-minute time-boxed event for the Developers
- ▶ The Daily Scrum is held every day of the Sprint
- ▶ At it, the Developers plans work for the next 24 hours.
- ▶ Example:
 - ▶ What did I do yesterday that helped the Team meet the Sprint Goal?
 - ▶ What will I do today to help the Team meet the Sprint Goal?
 - ▶ Do I see any impediment that prevents me or the Team from meeting the Sprint Goal?

Sprint Review

- ▶ A Sprint Review is held at the end of the Sprint to inspect the Increment and adapt the Product Backlog if needed
- ▶ The Product Owner explains what Product Backlog items have been “Done” and what has not been “Done”
- ▶ The Team discusses what went well during the Sprint, what problems it ran into, and how those problems were solved
- ▶ Review of the timeline, budget, potential capabilities, and marketplace for the next anticipated releases of functionality or capability of the product
- ▶ The result of the Sprint Review is a revised Product Backlog that defines the probable Product Backlog items for the next Sprint
- ▶ Etc.

Sprint Retrospective

- ▶ The Sprint Retrospective is an opportunity for the Scrum Team to inspect itself and create a plan for improvements to be enacted during the next Sprint
- ▶ The purpose of the Sprint Retrospective is to:
 - ▶ Inspect how the last Sprint went with regards to people, relationships, process, and tools
 - ▶ Identify and order the major items that went well and potential improvements; and
 - ▶ Create a plan for implementing improvements to the way the Scrum Team does its work

Scrum Artifacts



Scrum Artifacts

Scrum's artifacts represent work or value to provide transparency and opportunities for inspection and adaptation.

- ▶ **Product backlog**
- ▶ **Sprint backlog**
- ▶ **Increment**

Product Backlog

- ▶ The Product Backlog is an ordered list of everything that is known to be needed in the product
- ▶ The Product Backlog lists all features, functions, requirements, enhancements, and fixes that constitute the changes to be made to the product in future releases
- ▶ The Product Owner is responsible for the Product Backlog, including its content, availability, and ordering
- ▶ Product Backlog refinement is the act of adding detail, estimates, and order to items in the Product Backlog
- ▶ The Developers are responsible for all estimates

Sprint Backlog

- ▶ The Sprint Backlog is the set of Product Backlog items selected for the Sprint, plus a plan for delivering the product Increment and realizing the Sprint Goal
- ▶ As new work is required, the Developers add it to the Sprint Backlog
- ▶ As work is performed or completed, the estimated remaining work is updated
- ▶ Only the Developers can change its Sprint Backlog during a Sprint

Increment

- ▶ The increment is the sum of all the Product Backlog items completed during a Sprint and the value of the increments of all previous Sprints
- ▶ The increment is a step toward a vision or goal
- ▶ At the end of a Sprint, the new Increment must be “Done”
- ▶ The increment must be in useable condition regardless of whether the Product Owner decides to release it

Definition of “Done”

- ▶ When a Product Backlog item or an Increment is described as “Done”, everyone must understand what “Done” means
- ▶ This may vary significantly per Scrum Team
- ▶ It is used to assess when work is complete on the product Increment.
- ▶ Developers of the Scrum Team must define a definition of “Done” appropriate for the product