

### Scrum Definition

Scrum is a framework (*Lightweight, Simple to understand, and Difficult to master*) to develop complex product.

Scrum is founded on empirical process control theory which has 3 pillars:

- 1. Transparency** - Those performing the work and those accepting the work product must share a common definition of "Done".
- 2. Inspection** - Scrum users must frequently inspect Scrum artifacts and progress toward a Sprint Goal to detect undesirable variances.
- 3. Adaptation** - If an inspector determines that one or more aspects of a process deviate outside acceptable limits, and that the resulting product will be unacceptable, the process or the material being processed must be adjusted. An adjustment must be made as soon as possible to minimize further deviation.

### Scrum Events

- 1. Sprint Planning** - The work to be performed in the Sprint is planned at the Sprint Planning. Sprint Planning is time-boxed to a maximum of 8 hours for a one-month Sprint.
- 2. Daily Scrum** - The Daily Scrum is a 15 min time-boxed event for the Development Team to synchronize activities and create a plan for the next 24 hours. This is done by inspecting the work since the last Daily Scrum and forecasting the work that could be done before the next one.
- 3. Sprint Review** - A Sprint Review is held at the end of the Sprint to inspect the Increment and adapt the Product Backlog if needed. During the Sprint Review, the Scrum Team and stakeholders collaborate about what was done in the Sprint.
- 4. 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 Product Owner

The Product Owner is responsible for maximizing the value of the product and the work of the Development Team.

The PO is the sole person responsible for managing the Product Backlog. Product Backlog management includes:

- Clearly expressing Product Backlog items

### The Product Owner (cont)

- Ordering the items in the Product Backlog to best achieve goals and missions
- Ensuring that the Product Backlog is visible, transparent, and clear to all, and shows what the Scrum Team will work on next
- Ensuring the Development Team understands items in the Product Backlog to the level needed

### The Scrum Team

The Scrum Team consists of a **Product Owner**, the **Development Team**, and a **Scrum Master**.

It's a self-organizing and cross-functional team with all competencies needed to accomplish the work without depending on others not part of the team.

Scrum Teams deliver products iteratively and incrementally, maximizing opportunities for feedback.

### The Development Team

The Development Team consists of professionals who do the work of delivering a potentially releasable Increment of "Done" product at the end of each Sprint.

Development Teams have the following characteristics:

- They are self-organizing. No one (not even the Scrum Master) tells the Development Team how to turn Product Backlog into Increments of potentially releasable functionality
- Development Teams are cross-functional, with all of the skills as a team necessary to create a product Increment;
- Scrum recognizes no titles for Development Team members other than Developer, regardless of the work being performed by the person
- Scrum recognizes no sub-teams in the Development Team, regardless of particular domains that need to be addressed like testing or business analysis
- Individual Development Team members may have specialized skills and areas of focus, but accountability belongs to the Development Team as a whole

### The Scrum Master

The Scrum Master is responsible for ensuring Scrum is understood and enacted. Scrum Masters do this by ensuring that the Scrum Team adheres to Scrum theory, practices, and rules.

The SM is a servant-leader for the Scrum Team.

#### Scrum Master Service to the Product Owner

- Finding techniques for effective Product Backlog management
- Helping the Scrum Team understand the need for clear and concise Product Backlog items
- Understanding product planning in an empirical environment
- Ensuring the Product Owner knows how to arrange the Product Backlog to maximize value
- Understanding and practicing agility
- Facilitating Scrum events as requested or needed

#### Scrum Master Service to the Development Team

- Coaching the Development Team in self-organization and cross-functionality
- Helping the Development Team to create high-value products
- Removing impediments to the Development Team's progress
- Facilitating Scrum events as requested or needed
- Coaching the Development Team in organizational environments in which Scrum is not yet fully adopted and understood

