### Scrum Definition

Scrum is a lightweight framework that helps people, teams and organizations generate value through adaptive solutions for complex problems.

In a nutshell, Scrum requires a Scrum Master to foster an environment where:

- 1. A Product Owner orders the work for a complex problem into a Product Backlog.
- 2. The Scrum Team turns a selection of the work into an Increment of value during a Sprint.
- 3. The Scrum Team and its stakeholders inspect the results and adjust for the next Sprint.
- 4. Repeat

Scrum is simple. Try it as is and determine if its philosophy, theory, and structure help to achieve goals and create value. The Scrum framework is purposefully incomplete, only defining the parts required to implement Scrum theory. Scrum is built upon by the collective intelligence of the people using it. Rather than provide people with detailed instructions, the rules of Scrum guide their relationships and interactions.

Various processes, techniques and methods can be employed within the framework. Scrum wraps around existing practices or renders them unnecessary. Scrum makes visible the relative efficacy of current management, environment, and work techniques, so that improvements can be made.

# **Scrum Theory**

Scrum is founded on empiricism and lean thinking. Empiricism asserts that knowledge comes from experience and making decisions based on what is observed. Lean thinking reduces waste and focuses on the essentials.

Scrum employs an iterative, incremental approach to optimize predictability and to control risk. Scrum engages groups of people who collectively have all the skills and expertise to do the work and share or acquire such skills as needed.

Scrum combines four formal events for inspection and adaptation within a containing event, the Sprint. These events work because they implement the empirical Scrum pillars of transparency, inspection, and adaptation.

## **Transparency**

The emergent process and work must be visible to those performing the work as well as those receiving the work. With Scrum, important decisions are based on the perceived state of its three formal artifacts. Artifacts that have low transparency can lead to decisions that diminish value and increase risk.

Transparency enables inspection. Inspection without transparency is misleading and wasteful.

### Inspection

The Scrum artifacts and the progress toward agreed goals must be inspected frequently and diligently to detect potentially undesirable variances or problems. To help with inspection, Scrum provides cadence in the form of its five events.

Inspection enables adaptation. Inspection without adaptation is considered pointless. Scrum events are designed to provoke change.

### Adaptation

If any aspects of a process deviate outside acceptable limits or if the resulting product is unacceptable, the process being applied or the materials being produced must be adjusted. The adjustment must be made as soon as possible to minimize further deviation.

Adaptation becomes more difficult when the people involved are not empowered or self-managing. A Scrum Team is expected to adapt the moment it learns anything new through inspection.

# Scrum Values

Successful use of Scrum depends on people becoming more proficient in living five values:

#### Commitment, Focus, Openness, Respect, and Courage

The Scrum Team commits to achieving its goals and to supporting each other. Their primary focus is on the work of the Sprint to make the best possible progress toward these goals. The Scrum Team and its stakeholders are open about the work and the challenges. Scrum Team members respect each other to be capable, independent people, and are respected as such by the people with whom they work. The Scrum Team members have the courage to do the right thing, to work on tough problems.

These values give direction to the Scrum Team with regard to their work, actions, and behavior. The decisions that are made, the steps taken, and the way Scrum is used should reinforce these values, not diminish or undermine them. The Scrum Team members learn and explore the values as they work with the Scrum events and artifacts. When these values are embodied by the Scrum Team and the people they work with, the empirical Scrum pillars of transparency, inspection, and adaptation come to life building trust.

### Scrum Team

The fundamental unit of Scrum is a small team of people, a Scrum Team. The Scrum Team consists of one Scrum Master, one Product Owner, and Developers. Within a Scrum Team, there are no sub-teams or hierarchies. It is a cohesive unit of professionals focused on one objective at a time, the Product Goal.

Scrum Teams are cross-functional, meaning the members have all the skills necessary to create value each Sprint. They are also self-managing, meaning they internally decide who does what, when, and how.

The Scrum Team is small enough to remain nimble and large enough to complete significant work within a Sprint, typically 10 or fewer people. In general, we have found that smaller teams communicate better and are more productive. If Scrum Teams become too large, they should consider reorganizing into multiple cohesive Scrum Teams, each focused on the same product. Therefore, they should share the same Product Goal, Product Backlog, and Product Owner.

The Scrum Team is responsible for all product-related activities from stakeholder collaboration, verification, maintenance, operation, experimentation, research and development, and anything else that might be required. They are structured and empowered by the organization to manage their own work. Working in Sprints at a sustainable pace improves the Scrum Team's focus and consistency.

The entire Scrum Team is accountable for creating a valuable, useful Increment every Sprint. Scrum defines three specific accountabilities within the Scrum Team: the Developers, the Product Owner, and the Scrum Master.

### **Developers**

Developers are the people in the Scrum Team that are committed to creating any aspect of a usable Increment each Sprint.

The specific skills needed by the Developers are often broad and will vary with the domain of work. However, the Developers are always accountable for:

- Creating a plan for the Sprint, the Sprint Backlog;
- Instilling quality by adhering to a Definition of Done;
- Adapting their plan each day toward the Sprint Goal; and,
- Holding each other accountable as professionals.

#### **Product Owner**

The Product Owner is accountable for maximizing the value of the product resulting from the work of the Scrum Team. How this is done may vary widely across organizations, Scrum Teams, and individuals.

The Product Owner is also accountable for effective Product Backlog management, which includes:

- Developing and explicitly communicating the Product Goal;
- Creating and clearly communicating Product Backlog items;
- Ordering Product Backlog items; and,
- Ensuring that the Product Backlog is transparent, visible and understood.

The Product Owner may do the above work or may delegate the responsibility to others. Regardless, the Product Owner remains accountable.

For Product Owners to succeed, the entire organization must respect their decisions. These decisions are visible in the content and ordering of the Product Backlog, and through the inspectable Increment at the Sprint Review.

The Product Owner is one person, not a committee. The Product Owner may represent the needs of many stakeholders in the Product Backlog. Those wanting to change the Product Backlog can do so by trying to convince the Product Owner.

#### Scrum Master

The Scrum Master is accountable for establishing Scrum as defined in the Scrum Guide. They do this by helping everyone understand Scrum theory and practice, both within the Scrum Team and the organization.

The Scrum Master is accountable for the Scrum Team's effectiveness. They do this by enabling the Scrum Team to improve its practices, within the Scrum framework.

Scrum Masters are true leaders who serve the Scrum Team and the larger organization.

The Scrum Master serves the Scrum Team in several ways, including:

- Coaching the team members in self-management and cross-functionality;
- Helping the Scrum Team focus on creating high-value Increments that meet the Definition of Done;
- Causing the removal of impediments to the Scrum Team's progress; and,
- Ensuring that all Scrum events take place and are positive, productive, and kept within the timebox.

The Scrum Master serves the Product Owner in several ways, including: