

SCRUM

in five minutes



THERE IS A LOT OF TALK ABOUT SCRUM AND AGILE DEVELOPMENT METHODS

"A simple framework for managing complex projects ..."

'Traditional methods concentrate on sticking to the plan. Scrum concentrates on delivering business value.'

'The market is changing ever more rapidly, the world is becoming increasingly complex – Scrum makes it possible to adapt ...'

"... a hyper-productivity tool!"

"It has been documented to dramatically improve effectiveness in teams previously paralyzed by heavier methodologies ..."

"Embrace change, release creativity, increase productivity"

'Scrum focuses on the people in a project, not the technology ...'

'A smart combination of proven methods – this is Scrum in a nutshell.'

ASK YOURSELF

1

Would you like to manage changing requirements more effectively, motivate your developers and improve communication between clients and projects?

2

Are you ready to introduce a new leadership culture by changing roles and working methods and shifting some responsibilities from managers to project teams?

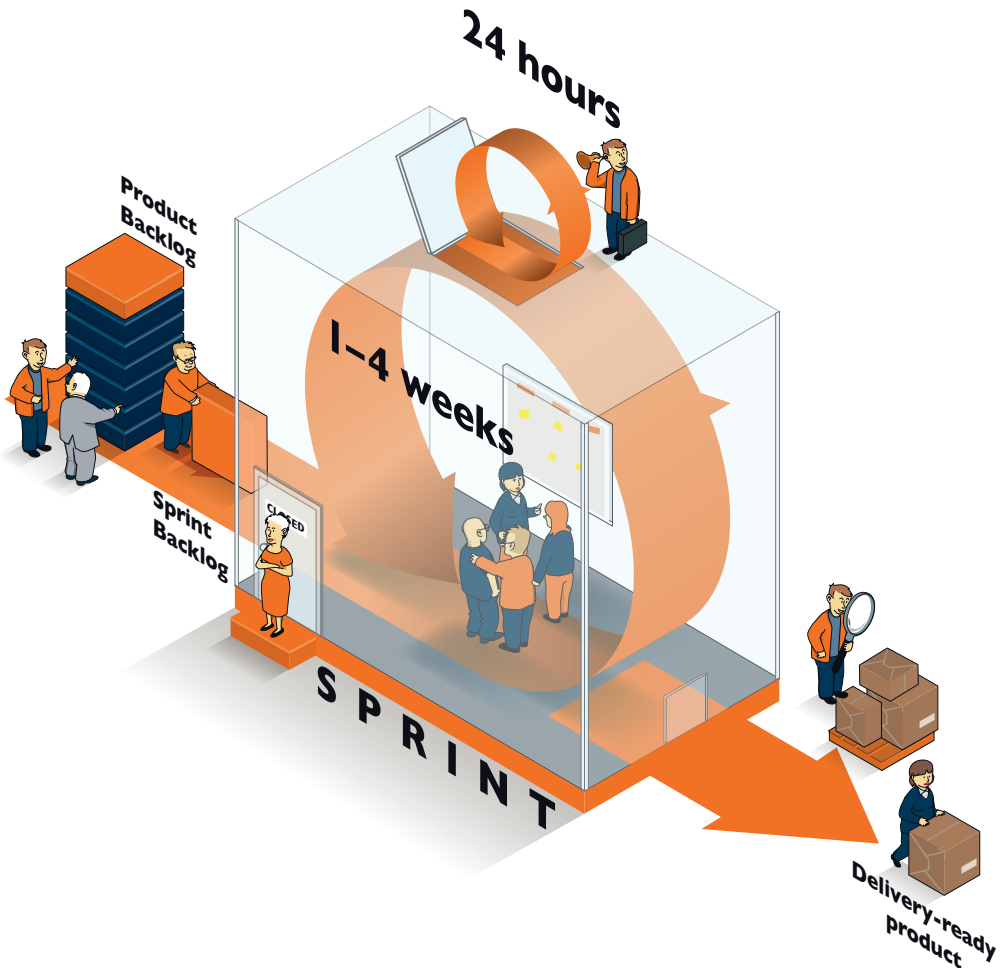
3

Do you want to follow in the footsteps of other successful companies who renewed their forms of software development, e.g. LinkedIn, Logitech and Wells Fargo?

IF YOU ANSWERED 'YES',
THEN YOU DEFINITELY
SHOULD CONTINUE
READING

SCRUM – AN OVERVIEW

Scrum's building block is called a **Sprint**. A Sprint is a timebox of one to four weeks where the development team is focused on achieving clearly established targets. Each Sprint ends with a Sprint Review (review meeting) where functional outcomes are demonstrated.



A **Product Owner** compiles all the changes that the product will undergo and prioritizes possible functionality. The result of the Product Owner's effort is a **Product Backlog** – a to-do list that is constantly amassing new priorities. During the Sprint Planning of each **Sprint**, the highest prioritized objectives are transferred to a **Sprint Backlog**.

The Development Team is cross-functional. It plus the Product Owner and Scrum Master form the **Scrum Team**. An agreement is reached with the Product Owner regarding the primary aims of the Sprint, and prioritized functions are broken down into detailed tasks. The self-organized, three to nine-member Development Team share responsibility for the outcome.

A **Scrum Master** assists the Development Team and the Product Owner to ensure that the project is constantly propelled forward toward the established goals.

All Sprints aim to increase the product's market value, bringing new features and enhancements that could potentially be delivered to the customer.

ROLES



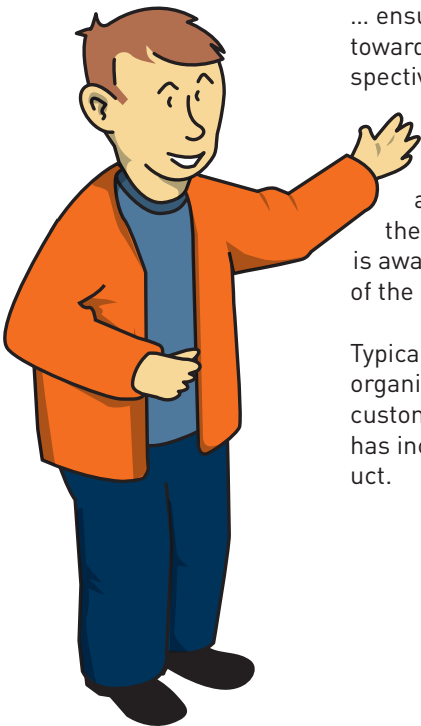
THE DEVELOPMENT TEAM

... are the actual designers and problem-solvers. Normally, the team consists of 3–9 people – a group size that is optimal for this type of job according to experience and research. Task allocation and information distribution is determined by the team members themselves.

The team lacks firm project roles. This means that all the expertise needed to deliver the product concerned exists within the team. Every member of the development team is responsible for the Sprint's outcome. This does not however prevent individual members from specializing in an area.

THE PRODUCT OWNER

... ensures that the Development Team is working toward appropriate targets from a business perspective. The Product Owner manages the Product Backlog – an alterable to-do list where all product demands and requirements are recorded according to how profitable they are deemed to be. The Backlog is available to the entire organization ensuring that everyone is aware of what can be expected in future releases of the product.



Typically, the Product Owner is a member of the organization, but he/she can also be an external customer. It is preferable that the Product Owner has income and expenditure oversight of the product.

THE SCRUM MASTER

... is a combination of coach, fixer and gate-keeper. Most importantly, the Scrum Master coaches and trains the Development Team and Product Owner to ensure that they have the very best conditions to succeed.

The Scrum Master holds brief meetings each day – Daily Scrums. In cases where someone outside the project has important issues to discuss with the team, the Scrum Master intervenes to ensure that developers are distracted as little as possible from their work.

There is a constant focus on providing the team the best possible conditions to reach the Sprint goal.

The Scrum Master is also responsible for coaching the organization outside of the team in a successful use of Scrum and help make change happen.



THE SCRUM TEAM

The Development Team, the Product Owner and the Scrum Master compose the Scrum Team. All members share responsibility for the delivery of a complete and quality product.



APPROACH

CREATING A BACKLOG

The Product Owner compiles all the requests and requirements forming the basis for product modification, e.g. new features and bug fixes. Once objectives have been defined, the whole is divided into parts which on the one hand create value, on the other are feasible.

The Product Owner decides on prioritization at the same time. In what order should the modifications be implemented and delivered? The result is a to-do list arranged according to market demands and customer requirements changing over time.

BACKLOG REFINEMENT

The Backlog must be properly maintained by the Scrum Team for Sprint Planning to run smoothly. Maintenance consists of, for example, estimation and breakdown of requirements so falling within a Sprint. It may be helpful to set aside a specific time each week for Backlog refinement, favourably at the same time and place in order to facilitate planning.

THE SPRINT

A Sprint is a time-boxed period of work focused on delivering a potentially releasable product increment based on the chosen items from the Product Backlog. The Sprints are of a consistent duration and a new Sprint starts immediately after the ending of the previous Sprint.

DAILY SCRUM

Every day at the same time and place, the Scrum Team holds a meeting time-boxed to 15 minutes – a Daily Scrum. Its purpose is to synchronize progress and identify and solve possible problems hindering the team from completing its job. Each and every team member should answer the following questions:

- What have you done since the last meeting?
- What are you planning on doing before the next meeting?
- Is there anything preventing you from doing the work you have planned?

Answers to the first two questions provide participants insight into project progress and to decide who is going to do what during the day. The third question provides a basis for solving problems, anything from technical issues to disruptive external elements.

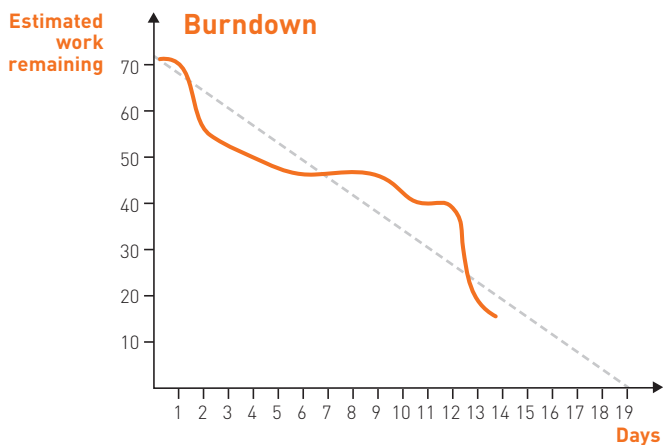
Anyone is welcome to attend the meeting, but only the Scrum Master and Development Team speak.

SPRINT REVIEW

Each Sprint ends with a demonstration in which functional programs are run before a larger group that may include the Product Owner, users, customers and company management.

SPRINT RETROSPECTIVE

In the Sprint Retrospective the Scrum Team reflect on how things have been going in the Sprint and decides improvement actions. The improvements are usually implemented in next Sprint.



How much work left in scheduled tasks is marked daily on a burndown chart. The chart clearly depicts the rate at which the hours of the Sprint are 'burned'.

AGILE DEVELOPMENT METHODS

Scrum is part of the agile software development framework, a collection of methods and toolboxes with the aim of:

- **improving the ability to respond quickly to the needs and wishes of the market**
- **reducing waste and waiting periods**
- **decreasing employee stress while increasing productivity.**

Enthusiasm is high among those who work with agile methods. It is no exaggeration to say that agile development is becoming the de facto standard in global IT. A summary of its philosophy follows with the most important concepts in bold:

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

(Manifesto for Agile Software Development <http://agilemanifesto.org/>)

These agile methods are a reaction to processes that look good in theory, but that do not hold true in practice. Agile methods are therefore described as empirical – they are based entirely on practical experiences and practices that are proven to work.

A central concept of agile methods is adapting to a changing environment. Where older methods try to be predictive and try to anticipate future needs, agile methods are adaptive and adjust quickly to new demands. 'Embrace change!' is the agile method motto. A working end-product is the only measure of success.

Another important principle is simplicity and lean thinking. According to agile thinking, a heavy workload is not a goal in and of itself – it is more important to avoid unnecessary work. For example, avoid spending time writing documentation no one will read. The project framework will create optimal conditions for fast communication.

OTHER AGILE METHODS

In addition to Scrum, there is Kanban, the most well-known agile method. Kanban is a powerful tool for organizations or teams who want to streamline their workflows. Kanban charts on-going workflows. Regard a visualized workflow as a tool to discover and remove bottlenecks by reducing the amount work in progress thereby increasing throughput and shortening lead times to supplied value.

Extreme Programming (XP) takes a different approach – it is more a project working method. It has twelve procedures called practices at its core. Two examples are pair programming and test-driven development. Since Scrum is a framework and does not describe how to carry out tasks, it is common to combine Scrum and XP.

Another agile method is Lean Software Development which has its roots in lean and just-in-time production in the manufacturing industry. Lean Development is more about how to organize the company's development at the management level.

One can therefore see how agile methods complement each other:

- Kanban addresses efficient flow
- Lean Software Development addresses overarching principles that apply to the entire development organization
- Scrum addresses how projects are organized and planned
- XP is an operating method containing 12 core practices

COMMON QUESTIONS ABOUT SCRUM AND AGILE

Is there not a risk that Scrum is very 'wild west' with everyone doing as little as they please?

Experience from a wide range of businesses demonstrates that this is not the case. The reasons are twofold. First, the principles are straightforward and easy to understand. Second, a sole person, the Product Owner, dictates what to develop. The shared responsibility of all parts of the code also encourages Development Team members to follow certain rules and practices.

Is Scrum only applicable to smaller projects?

No, the method can be scaled up by combining several small projects into one larger one. A so-called Scrum of Scrums can be used to synchronize multiple Scrum Teams.

How does one get started?

The best way is to enlist the help of an Agile Coach who can train and support teams during one or several sprints. Although Scrum looks simple, it is not always easy to create a good Product Backlog, plan a Sprint or become a high performing, self-organizing team with strong commitment to results and continuous improvements.

What happens if you do not finish?

In Scrum, the schedule is never adjusted! If something is not completed within a Sprint, this unfinished task is moved to the Product Backlog. On the other hand, if tasks are being completed ahead of schedule, the Product Owner can allocate more work.

Must all Sprints have the same duration?

Yes, they must. By establishing a development team's delivery history, 'timeboxed' Sprints facilitate planning. Varying Sprint timeboxes also make it more difficult to establish a steady work rhythm.

Is there no Project Manager role in Scrum?

In Scrum, the traditional project manager's responsibility is shared across three roles. The Product Owner is responsible for product planning and prioritization; the Development Team is responsible for quality and delivery; and Scrum Master is responsible for method compliance and success. It is common for a traditional Project Leader to take on the role of either Scrum Master or Product Owner.

Is Scrum just a method of software development?

Not at all! The method can be adapted to all types of projects such as within publishing or medical technology development. We have seen Scrum used successfully in everything from book authorship and board game development to vacation planning.

Where does the word Scrum come from?

Scrum is a rugby term referring to the dense shoulder-to-shoulder formation a team deploys to jointly move the ball forward. It was first used in a management context by Takeuchi and Nonaka in a famous Harvard Business Review article in which they described an exceptionally successful product development project in Japan.

Is the Scrum Master responsible for delivery?

The responsibility for delivery is shouldered by the Scrum Team as a whole. Because they are accustomed to assigning such responsibility to a Project Leader, it is not uncommon for organizations to allocate delivery responsibility to the Scrum Master. However, it is important that the Scrum Master not bear this responsibility because it complicates the self-organization of the Development Team.

Can a person hold two Scrum roles?

Unfortunately, it is common to try to combine a developing or testing role with the role of Scrum Master. This is not advisable for many reasons, the main one being that it is difficult to coach and help a team when you have tasks to complete as part of the delivery.

GLOSSARY

Adaptive – project goals or schedules are adjusted in line with how external conditions change.

Agile Development – a methodology for software development which emphasizes adaptability, the shortest timeframe between ideas and implementation and simplified forms of communication. Examples of Agile Development Methods are Extreme Programming (XP) and Scrum.

Backlog refinement – the continuous effort in maintaining the Product Backlog.

Burndown Chart – a chart that monitors how much work remains before the implementation of Sprint-developed software.

Daily Scrum – a brief (max 15 minutes), daily meeting with the Scrum Team with the aim of removing possible obstacles and maintaining work fluidity.

Development Team – the ‘workforce’; in this case, software developers, testers, etc. within a Scrum project. Lacks a formal group manager, therefore self-organizing.

Predictive – foresight; for example, project goals and schedules are based on a forecast of external factors made at the project’s start.

Product Backlog – a living ‘to do’ list that contains the project’s objectives and priorities. Managed by the Product Owner.

Product Owner – the person responsible for the product’s Product Backlog and who sees that the project is focused on the right tasks from a business perspective.

Release Backlog – same as a Product Backlog, but limited to a release of the product.

Scrum Master – the ‘Team Leader’ for the Scrum Team.

Scrum Team – a team composed of the Development Team, the Scrum Master and the Product Owner.

Self-organization – the team itself will determine how work will be performed and by whom. It does not mean that the team can decide what to do or who may be involved in a team.

Sprint – a work session of one to four weeks where the Scrum Team is focused on achieving the objectives defined by the project's current Sprint Backlog.

Sprint Backlog – a 'to do' list for a Sprint. It includes the tasks that the Product Owner defined as high priority. Is finalized on the Sprint's first day during a meeting between the Product Owner and the Development Team.

Sprint Retrospective – a meeting held after each Sprint. The Scrum Team reviews what went well and what should be improved upon in the next Sprint.

Sprint Review – an informal meeting towards the end of a Sprint where the team presents (and possibly demonstrates) what has been created during a Sprint to company management, customers and the Product Owner.

Timebox – a time period in which something should be implemented. A Sprint is a result of timebox thinking. Deadlines may not be exceeded. Instead, parts of content are deleted.

MORE INFORMATION

More information regarding Scrum and Agile Development can be found at www.softhouse.se

SCRUM – SMARTER PROJECT MANAGEMENT

Scrum is a framework for project management that has become increasingly common in the software industry. Small teams with a maximum of five to nine people divide their project into smaller, one to four week units in which to process a limited number of detailed tasks.

Where traditional methods focus on prediction and sticking to the schedule, Scrum, like other Agile Development Methods, focuses on adaptation to change and consistently supplying business value.

Softhouse Consulting

Stockholm

Tegnérgatan 37
SE-111 61 Stockholm
Phone: +46 8 410 929 50
info.stockholm@softhouse.se

Göteborg

Kungsgatan 19
SE-411 19 Göteborg
Phone: +46 31 760 99 00
info.goteborg@softhouse.se

Malmö

Stormgatan 14
SE-211 20 Malmö
Phone: +46 40 664 39 00
info.malmo@softhouse.se

Karlskrona

Campus Gräsvik 3A
SE-371 75 Karlskrona
Phone: +46 455 61 87 00
info.karlskrona@softhouse.se

www.softhouse.se