SCRUM

Scrum is a management framework that is becoming increasingly more common in the software industry. Where traditional methods focus on staying on track, Scrum is aimed at – like other **Agile methods** - delivering business value. Scrum provides a platform for people to work together effectively and relentlessly makes visible every problem that gets in its way.

Manifesto for Agile Software Development:
Individuals and interactions **over** processes and tools
Working software **over** comprehensive documentation
Customer collaboration **over** contract negotiation
Responding to change **over** following a plan

The essence of Scrum is:
- The team is given clear goals
- The team organises itself around the work
- The team regularly delivers the most valuable features
- The team receives feedback from people outside it
- The team reflects on its way of working in order to improve
- The entire organisation has visibility into the team's progress
- The team and management honestly communicate about progress and risks

Product Owner (PO)
Roles

Responsible for Product backlog creation and prioritizing

- Creates Product backlog
- Prioritizes Product backlog
- Manages Releases
- Describes features to the Team
- Accepts or rejects work results

Scrum Master (SM)
Roles

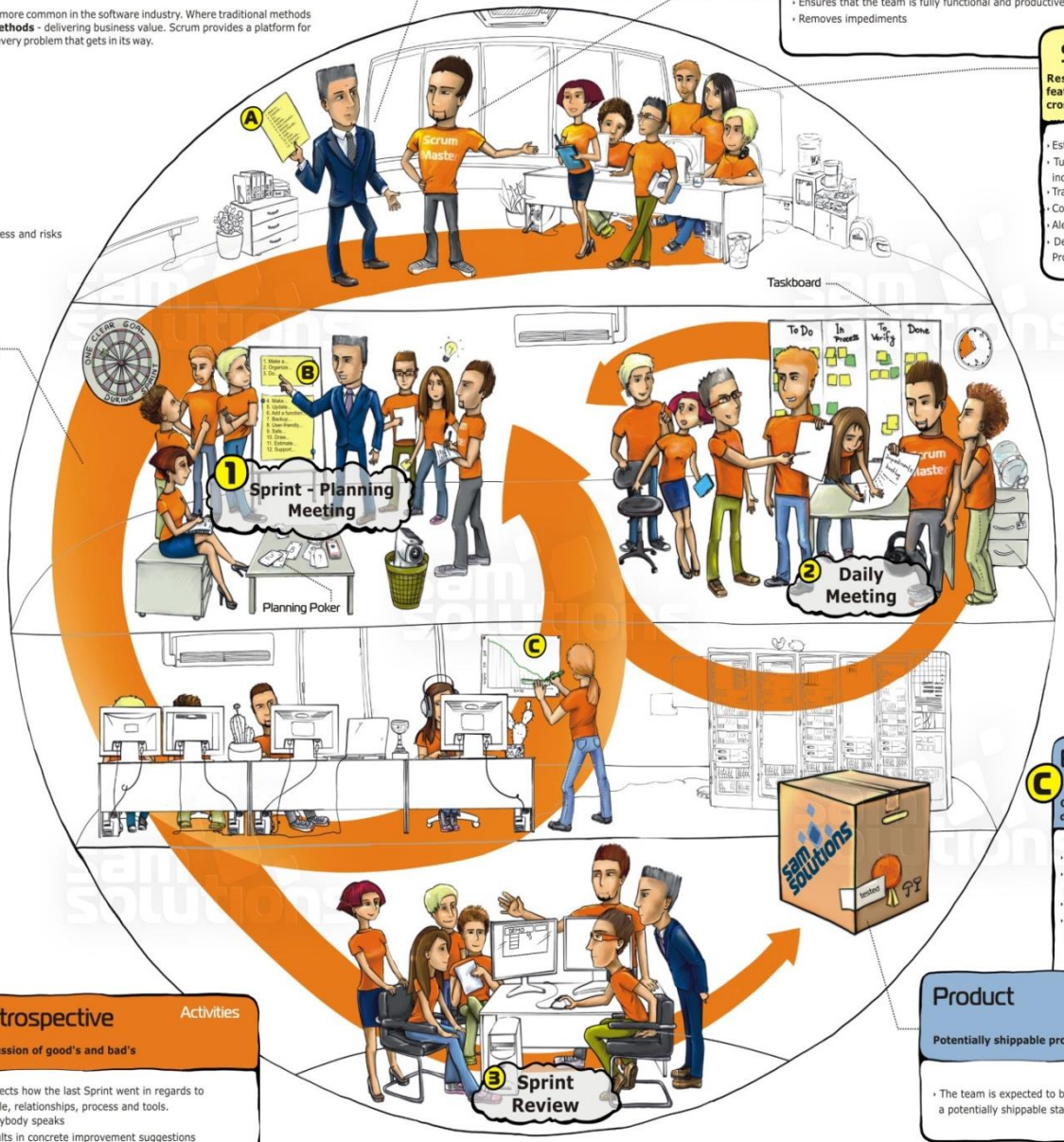
Responsible for team to follow scrum values

- Runs Sprint Planning and Daily Scrum meetings
- Ensures that the team is fully functional and productive
- Removes impediments

Scrum Team
Roles

Responsible for estimation and implementing features. Highly motivated, self organized and have cross functional skills

- Estimates size of Sprint backlog items (Planning Poker)
- Turns Srpint backlog list into Potentially shippable product increment
- Tracks work progress every day (Daily Scrum Meeting)
- Communicates with product owner regularly
- Alerts when there are problems
- Demonstrates Potentially shippable product increment to Product owner



Sprint
Activities

2-4 week period of work on new features of Product

- Team uses appropriate best engineering practices during sprint
- Team delivers something after each sprint

1 Sprint Planning Meeting
Activities

Selecting, discussion, and estimation of features for current sprint

- Selecting, analyzing, and estimating Product Backlog for Sprint
- Product owner describes the details of the features to the Team
- Product owner answers the questions from the Team
- The Team plays Planning Poker and estimates the features
- All team members commit to them

2 Daily Scrum Meeting
Activities

Status of work progress meeting

- Same time, same place every day, lasts 15 minutes.
- Everybody answers the 3 questions:
  1. What have I done?
  2. What am I going to do?
  3. What problems do I have?
- Team members address each other not Scrum Master

Sprint Review
Activities

Demonstration of implemented features on working product

3
- Demo is done after each sprint
- All stakeholders and other teams can be invited to the demo
- Demo shows working product
- Product owner makes a decision whether team has achieved the goal of the sprint

Retrospective
Activities

Discussion of good's and bad's

- Inspects how the last Sprint went in regards to people, relationships, process and tools.
- Everybody speaks
- Results in concrete improvement suggestions

A Product Backlog
Artifacts

A list of features to be implemented in Product

- Contains User Stories, Issues, Bugs or Technical Tasks
- All the items are prioritized by Product Owner
- All the items are regularly updated by Product Owner

B Sprint Backlog
Artifacts

A list of features to be implemented in current Sprint

- Features are selected from Product Backlog by Team on the basis of their priorities
- The features which are planned to be implemented in Sprint are selected
- No features can be added during Sprint

C Burndown Chart
Artifacts

Graph representation of work done and left to be done in Sprint

- Team must have a burndown chart
- Burndown chart is a highly visible representation of work status
- Burndown chart is updated every day
- Team takes corrective actions when burndown is too high/low

Product
Artifacts

Potentially shippable product increment

- The team is expected to bring the product or system to a potentially shippable state at the end of each sprint