AGILE (SCRUM)

What is Agile?

What is Scrum?

Agile Manifesto

Agile Principle

Sprint

Scrum Role

Scrum Ceremonies
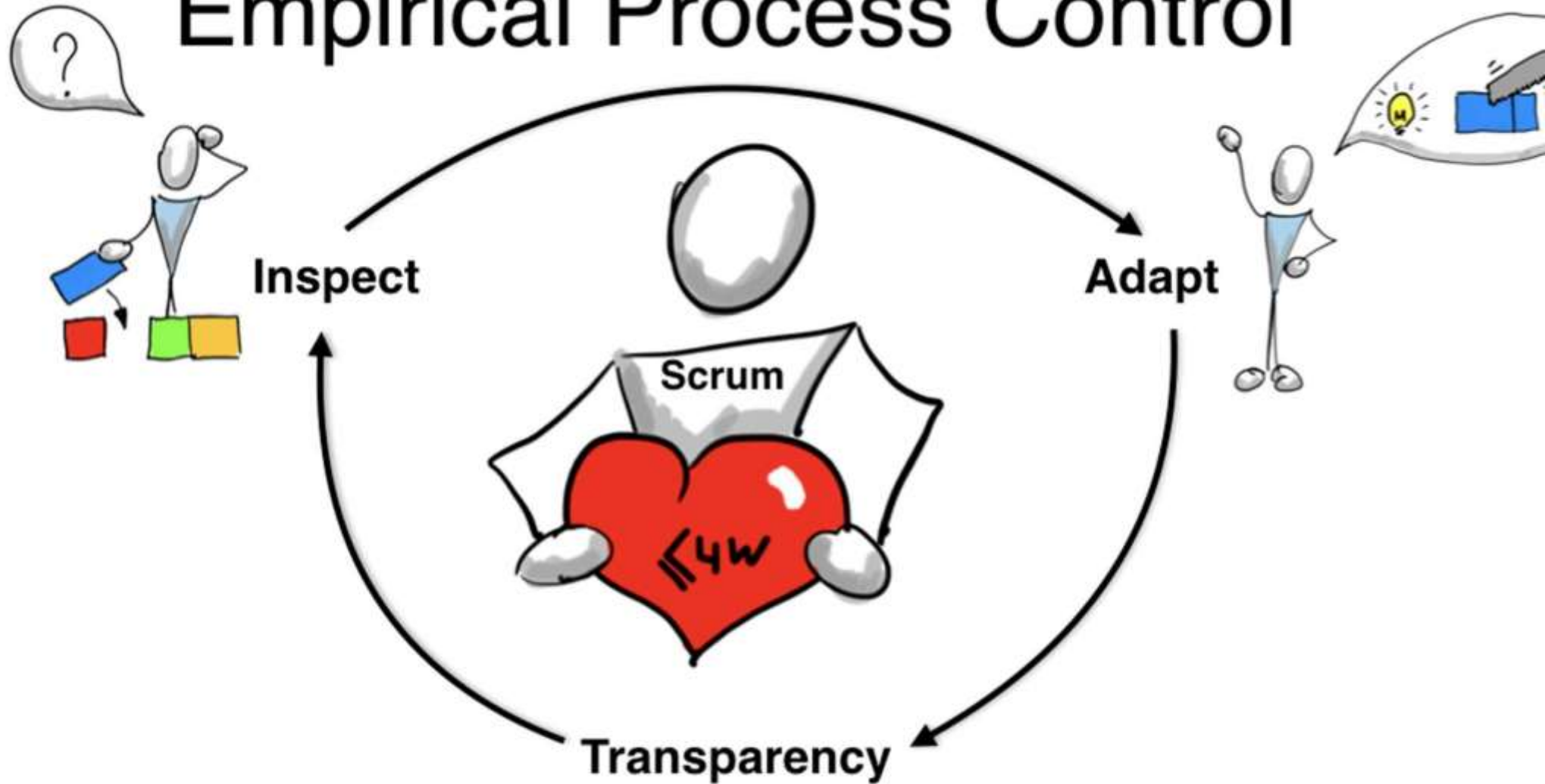
Scrum Master Services
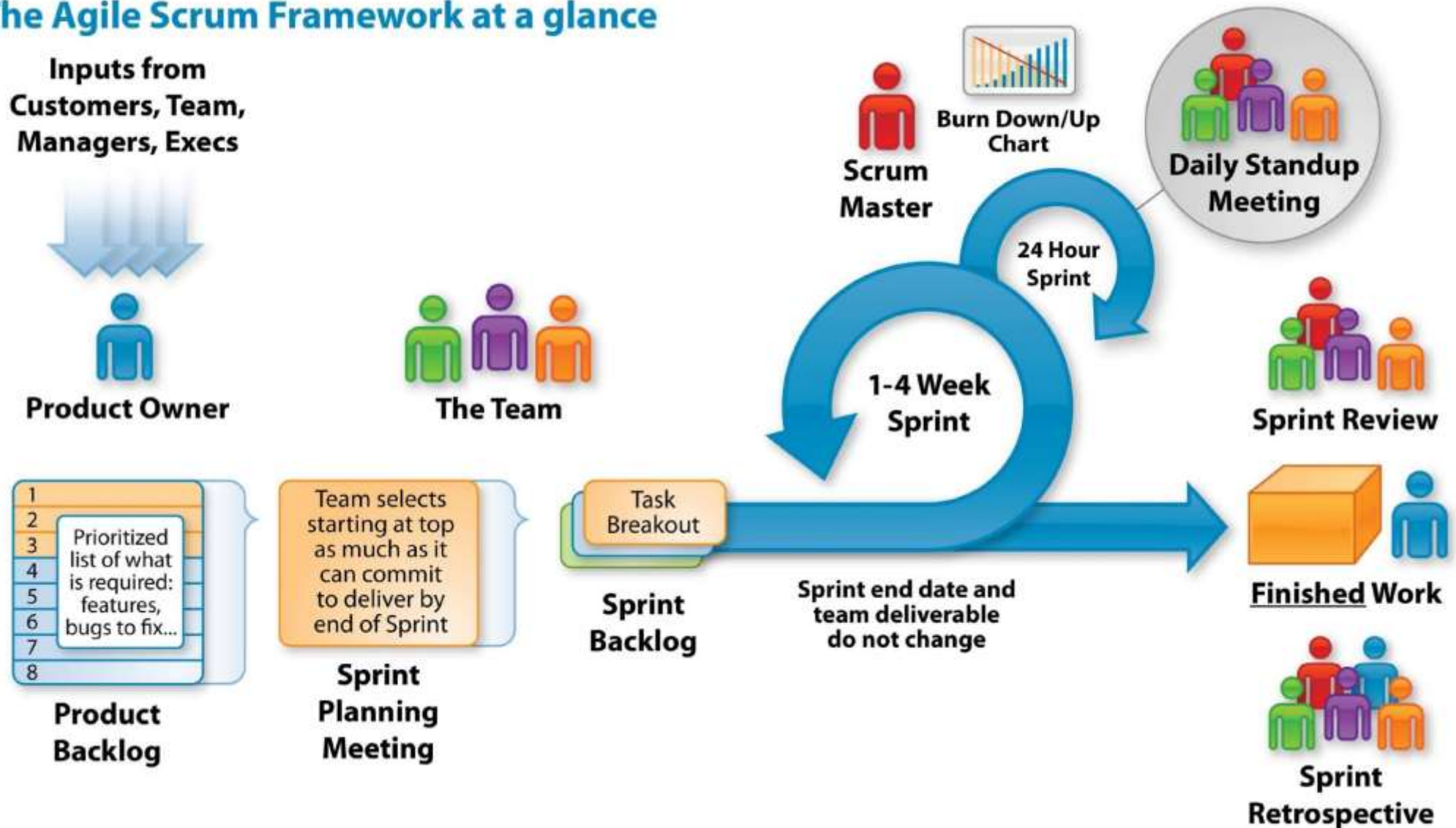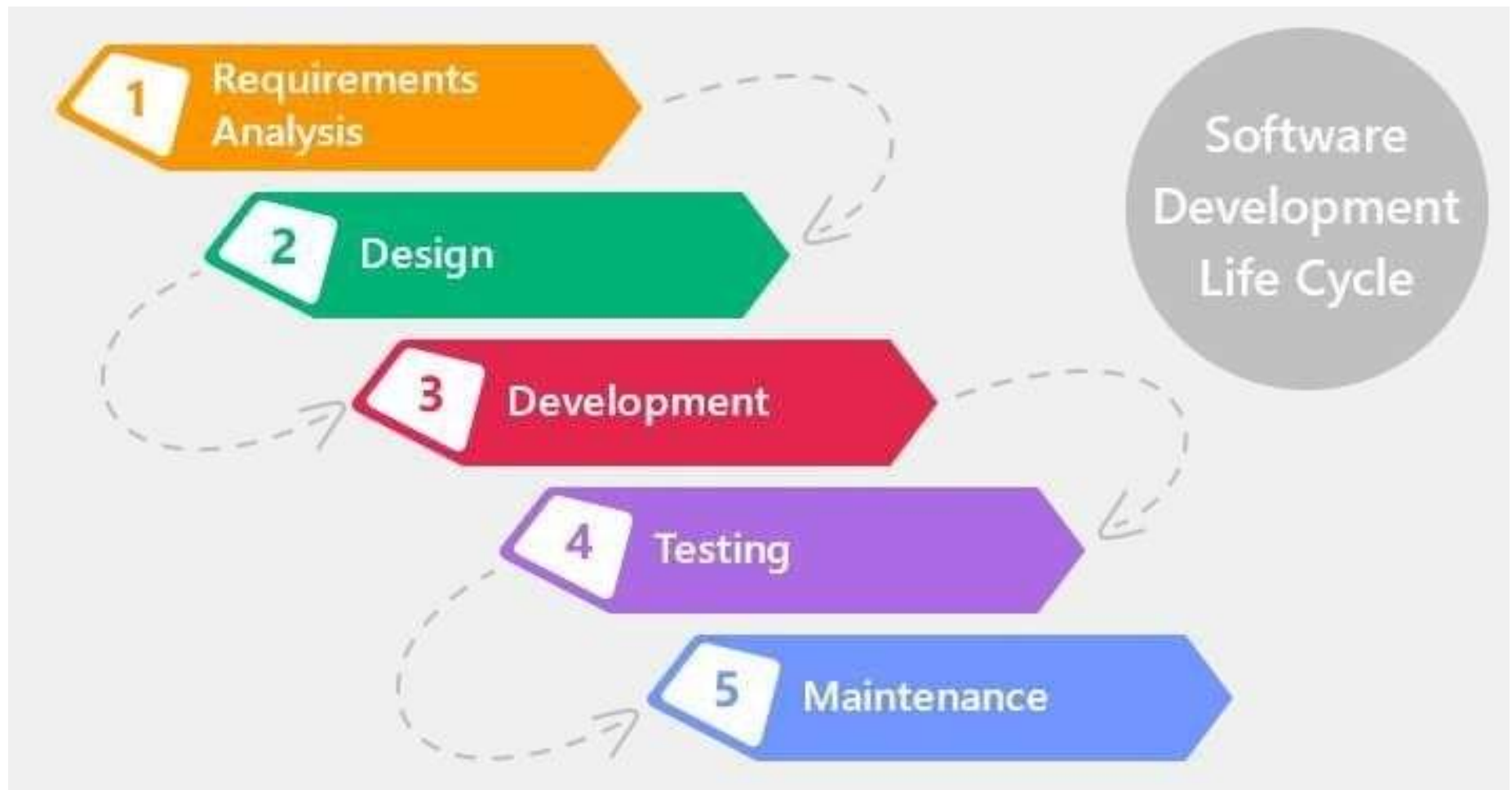
Scrum Metrices

The Agile Scrum Framework at a glance

Inputs from Customers, Team, Managers, Execs

Product Owner

The Team

Scrum Master

Burn Down/Up Chart

Daily Standup Meeting

24 Hour Sprint

1-4 Week Sprint

Sprint Review

Product Backlog

Prioritized list of what is required: features, bugs to fix...

Sprint Planning Meeting

Team selects starting at top as much as it can commit to deliver by end of Sprint

Task Breakout

Sprint Backlog

Sprint end date and team deliverable do not change

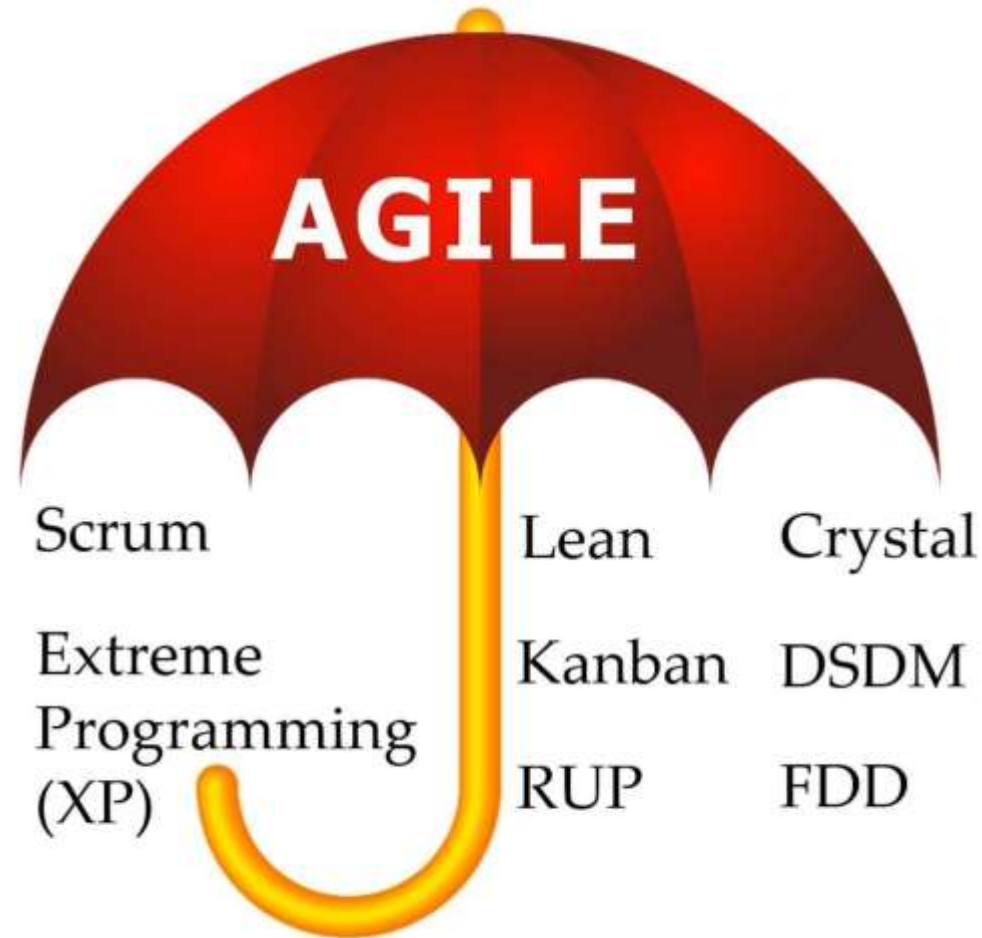**Finished Work**

Sprint Retrospective

AGILE

- Agile is an iterative approach to project management and software development that helps teams deliver value to their customers faster and with fewer headaches. Instead of betting everything on a "big bang" launch, an agile team delivers work in small, but consumable, increments. Requirements, plans, and results are evaluated continuously so teams have a natural mechanism for responding to change quickly.
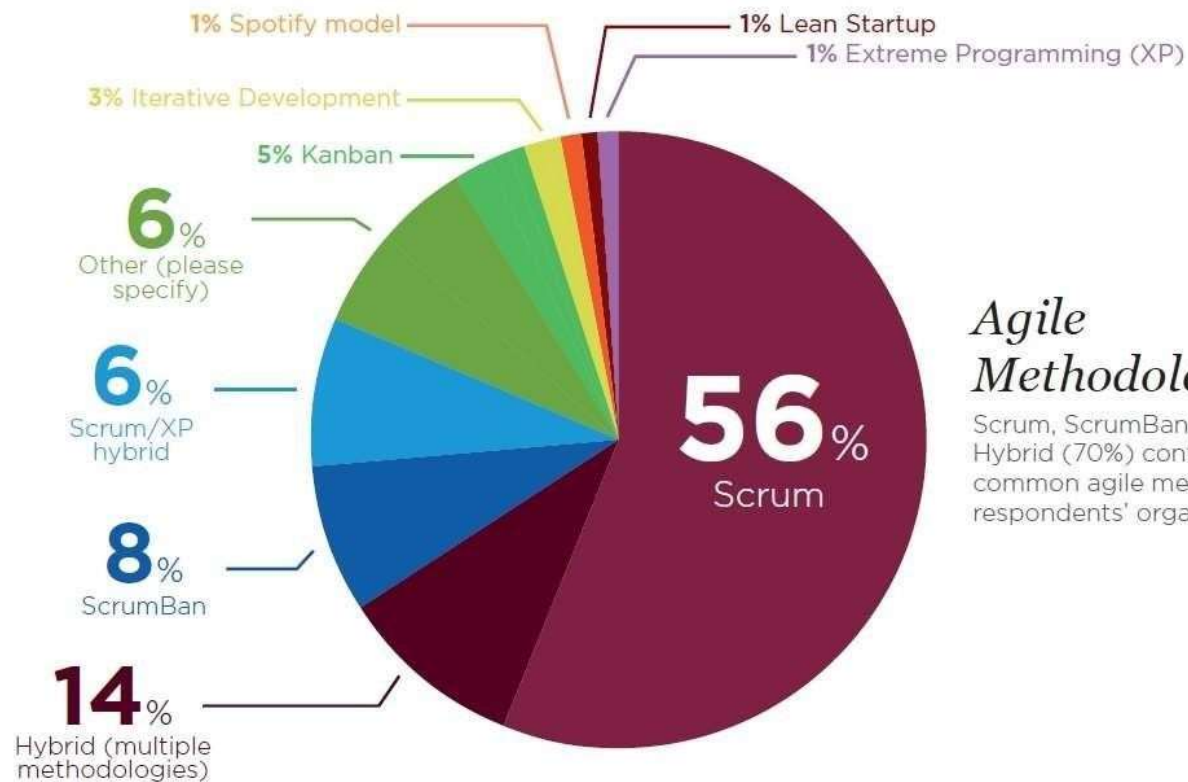
AGILE METHODS AND PRACTICES

1% Spotify model

1% Lean Startup
1% Extreme Programming (XP)

3% Iterative Development

5% Kanban

6% Other (please specify)

6% Scrum/XP hybrid

8% ScrumBan

14% Hybrid (multiple methodologies)

56% Scrum

Agile Methodologies Used

Scrum, ScrumBan and Scrum/XP Hybrid (70%) continue to be the most common agile methodologies used by respondents' organizations.

WHAT IS SCRUM?

- *Definition of Scrum – Scrum Framework*

- *Scrum is a framework in which the team solves complex problems and comes-up with productive & innovative solutions that are of the highest possible quality. It is a framework that assists the smooth & productive way to deliver end products & helps in building agile principles.*

- *Scrum is:*
  - *Lightweight*
  - *Simple to understand*
  - *Difficult to master*

ScrumValues

- **Commitment** –This means dedication to providing high quality, working software with active collaboration.

- **Courage** –Means to accommodate client's new requirements & to deliver high-quality products every time, in every iteration.

- **Focus** –Means to concentrate on current priorities irrespective of their changeability.

- **Openness** –Means transparency in doing work with stakeholders, consistency within the team, openness to accept the new features.

- **Respect** –Means respecting the roles, norms, needs & expectations of various scrum partners.

AGILE MANIFESTO

12 AGILE PRINCIPLES

Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

Business people and developers must work together daily throughout the project.

Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

12 AGILE PRINCIPLES

Working software is the primary measure of progress.

Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

Continuous attention to technical excellence and good design enhances agility.

Simplicity — the art of maximizing the amount of work not done — is essential.

The best architectures, requirements, and designs emerge from self-organizing teams.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

SCRUM ROLES

Dev Team

- Self Organizing
- Cross Functional
- Responsible for quality & Design of product
- Ideally Co-located & Fully allocated to the project
- Ideal team size 6±3
- Owns and manages Sprint backlog
- Participates in all Scrum events
- Estimates items in product backlog
 Helps product owner in product backlog refinement

SCRUM ROLES

Product Owner

- A person, Not a committee or group
- Have product vision
- Responsible for success of the project
- Owns Product Backlog and does prioritization
- Ensure PB is visible, transparent, and clear to all
- Ensure Dev Team understand PBI
- Available everyday to answer Dev team queries
- Strive to maximize the value delivered by Dev team in every sprint.
- Has authority to cancel the sprint
- Accepts/Rejects Dev Team work
- Represent Business to Dev Team
- Represents scrum team to stakeholders
- Make decision on when to release the product
- Participates in scrum events as needed.

SCRUM ROLES
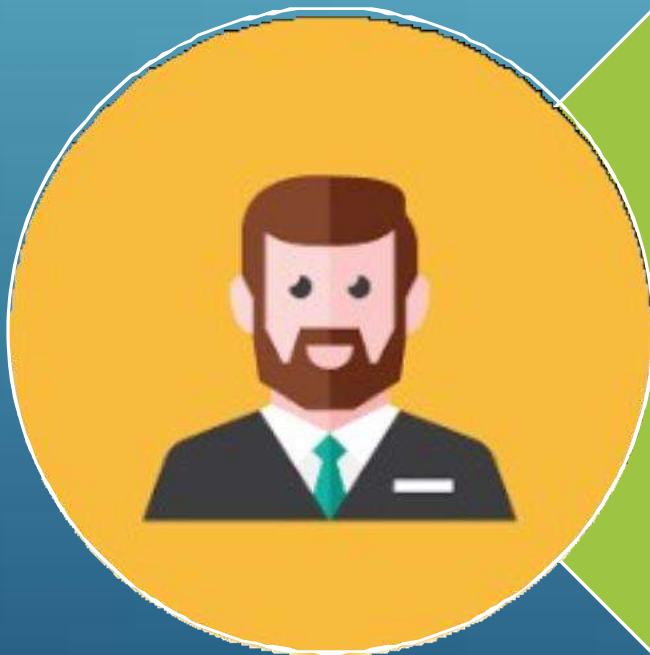
Scrum Master

- Servant Leader
- Not a manager (Can't take decision on behalf of PO or Dev Team)
- Focus on People development than on getting result.
- Process Owner: Responsible for implementing Scrum Values.

- Services to Dev Team
- Teaches Scrum values and ensure that the Dev team members understands and adhere to Scrum theory, practices and rules.
- Protect from external disturbances
- Facilitate scrum events.
- Coaches team
- Remove Impendent.
- Resolve Conflicts

SCRUM ROLES

Scrum Master

- **Services to the PO**
- Teaches Scrum values and ensure that the PO understands and adhere to Scrum theory, practices and rules.
- Helps the PO understands how to create and maintain PB efficiently
- Helps the PO understands how to prioritize PBI to maximize value.
- Coaches PO in writing clear, concise PBI.

- **Services to the Organization:**
  - Working with other SM to increase the effectiveness of Scrum in organization.
  - Coaching organization on Scrum
  - Be a change agent and create environment , culture of Empirical process development

PRODUCT BACKLOG

- Ordered and emergent List

- Live Document

- Different level of details, On top small task, Clear

- Final authority with PO

- 1 Product Backlog, for 1 Product multiple teams
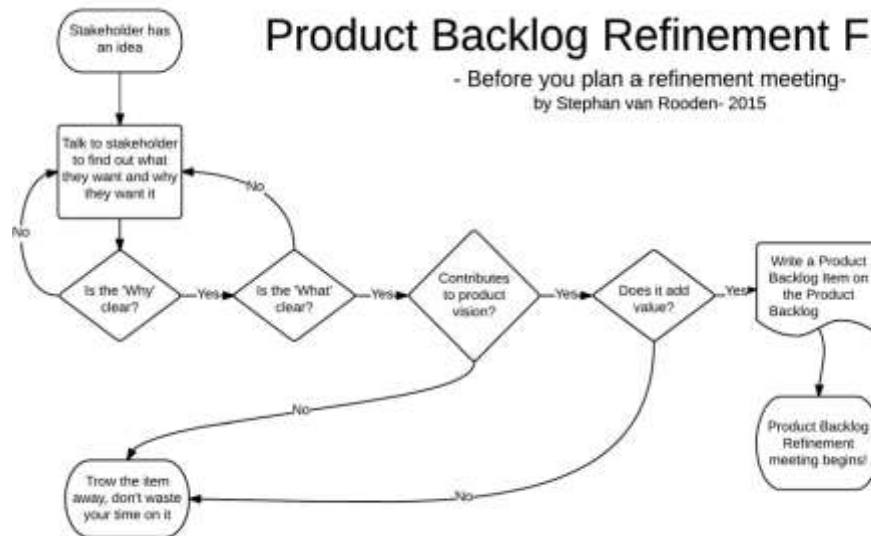
PRODUCT BACKLOG REFINEMENT

IMPORTANCE OF PBR

- Increased efficiency

- Reduces time for Sprint Planning

- Easy to estimate and do the planning

- Knowledge sharing among team members

HOW TO MAKE PBR MEETING EFFECTIVE?

- Backlog refinement meeting should be considered as the first part of Sprint Planning.
- The backlog items' list should be well understood by the PO, or development team member to work well in the meeting. Make sure that the set of predefined acceptance tests are present.
- Keep an eye on the meeting goals.
- Make sure to assign action items for any unknown thing.
- Do remember that the backlog items are a collaboration between the PO and the team.
- Feel free to break the product backlog items during the meeting.

SPRINT BACKLOG

- During each sprint planning session, the team returns back to product backlog to pick recently prioritized user stories for the sprint.

- Sprint backlog is a subset of product backlog

- Sprint backlog is an output of a sprint planning meeting.

- In Sprint backlog, scrum team works on how the user stories would be implemented in a sprint by dividing it further into tasks and estimating it.

BURN DOWN CHART

- A burndown chart shows the amount of work that has been completed in an epic or sprint, and the total work remaining. Burndown charts are used to predict your team's likelihood of completing their work in the time available. They're also great for keeping the team aware of any scope creep that occurs.

- Burndown charts are useful because they provide insight into how the team works. For example:
  - If you notice that the team consistently finishes work early, this might be a sign that they aren't committing to enough work during sprint planning.
  - If they consistently miss their forecast, this might be a sign that they've committed to too much work.
  - If the burndown chart shows a sharp drop during the sprint, this might be a sign that work has not been estimated accurately or broken down properly.

BURN DOWN CHART
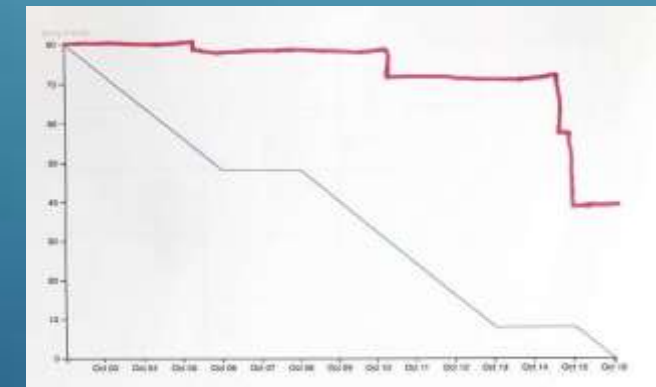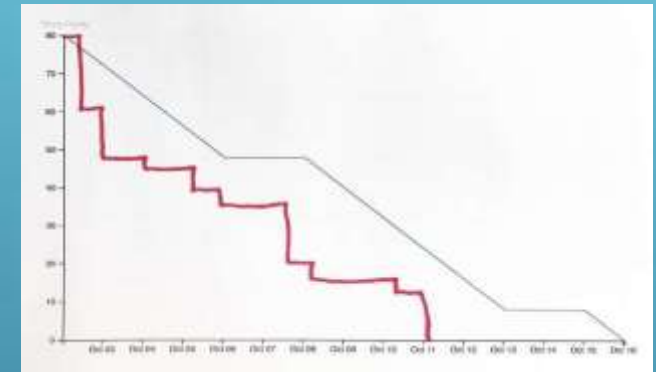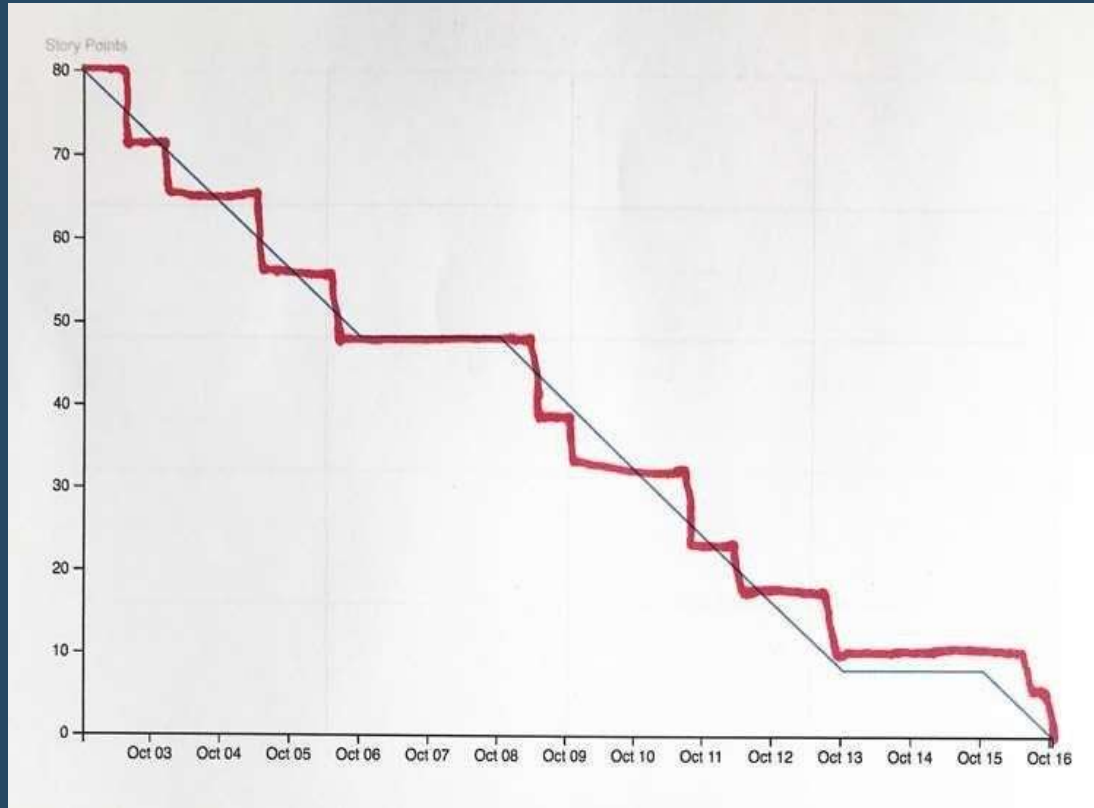
SPRINT PLANNING MEETING

- The work to be performed in the Sprint is planned at the Sprint Planning. This plan is created by the collaborative work of the entire Scrum Team.

- Sprint Planning is time-boxed to a maximum of *eight hours for a one-monthSprint*. For shorter Sprints, the event is usually shorter. The Scrum Master ensures that the event takes place and that attendants understand its purpose.

- 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

- 15-minute time-boxed event for the Development Team

- Everyday

- Same time and place each day to reduce complexity

- Inspect progress toward the Sprint Goal

- Meeting Structure:

  ☐ What I did yesterday ?

  ☐ What will I do today ?

  ☐ Do I see any impediment that prevents me

DAILY SCRUM...

- The Development Team or team members often meet immediately after the Daily Scrum for detailed discussions, or to adapt, or re-plan, the rest of the Sprint'swork.

- The Scrum Master ensures that the Development Team has the meeting, *but the Development Team is responsible for conducting the Daily Scrum.* The Scrum Master teaches the Development Team to keep the Daily Scrum within the 15-minute time-box.

- The Daily Scrum is an internal meeting for the Development Team. If others are present, the Scrum Master ensures that they do not disrupt the meeting.

- Daily Scrums improve communications, eliminate other meetings, identify impediments to development for removal, highlight and promote quick decision-making, and improve the Development Team's level of knowledge. This is a key inspect and adapt meeting.

SPRINT REVIEW

- At most a four-hour meeting for one-month Sprints

- Attendees include the Scrum Team and key stakeholders invited by the ProductOwner;

- The Development Team demonstrates the work that it has "Done" and answers questions about the Increment;

- The ProductOwner discusses the Product Backlog as it stands. He or she projects likely target and delivery dates based on progress to date (if needed);

- The entire group collaborates on what to do next, so that the Sprint Review provides valuable input to subsequent Sprint Planning;

- Review of how the marketplace or potential use of the product might have changed what is the most valuable thing to do next; and,

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 Sprint Retrospective occurs after the Sprint Review and prior to the next Sprint Planning

- 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.