# Contribution to Agile

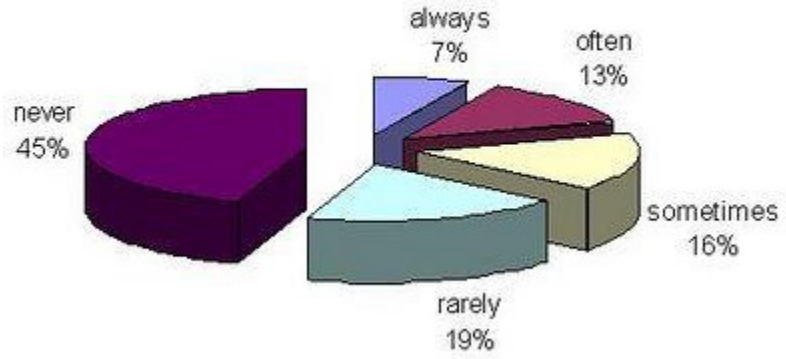
**Lean Principles:**

- Eliminating Waste
- Amplifying Learning
- Deciding as Late as Possible
- Delivering as Fast as Possible
- Empowering the Team
- Building Integrity In
- Seeing the Whole

**Kanban:**

- Visualize what you do today (workflow)
- Limit the amount of work in progress (WIP)

**Actual use of requested feature:**



# SCRUM

A play in Rugby in which the two sets of forwards mass together around the ball and, with their heads down, struggle to gain possession of the ball.

# SCRUM- An Agile Implementation Framework

Scrum (n): A framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value.

Scrum is:

- Lightweight
- Simple to understand
- Difficult to master

Scrum is a framework that has been used to manage complex product development since the early 1990s. Scrum is not a process or a technique for building products; rather, it is a framework within which you can employ various processes and techniques. Scrum makes clear the relative efficacy of your product management and development practices so that you can improve.

# SCRUM: An empirical process

Scrum is based on **Empiricism or the Empirical process control theory**. Empiricism asserts that knowledge comes from experience *and* making decisions based on what is known. Scrum employs an iterative, incremental approach to optimize predictability and control risk.

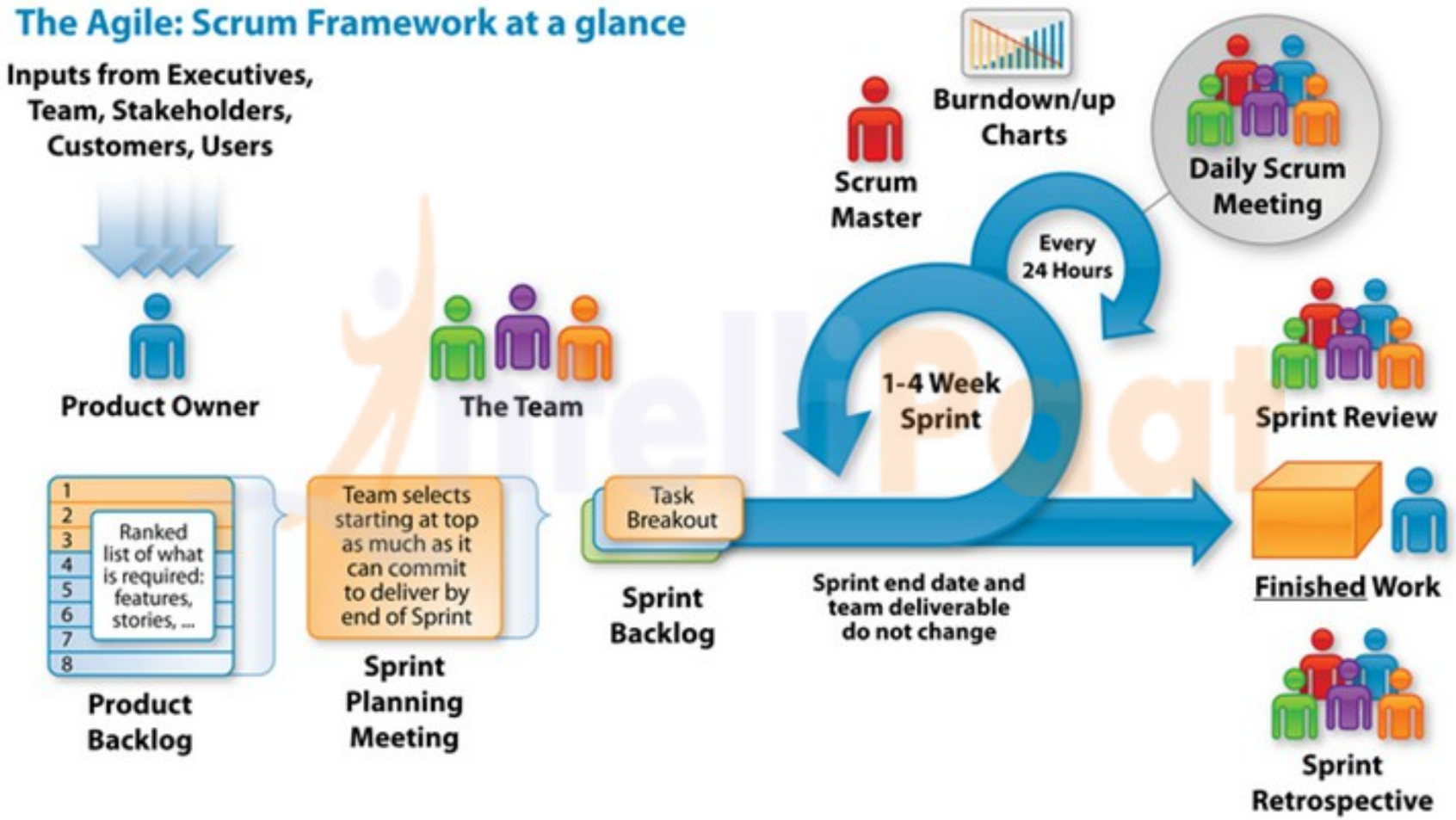
## 3 Pillars of Empirical Process Control:

- ✓ Transparency -outcome must be visible to those controlling
- ✓ Inspection -various aspects must be inspected frequently
- ✓ Adaptation -must be adjusted if one or more aspects of the process are outside acceptable limits

# Scrum Values


- **Openness**: Everything about a project is visible to everyone
- **Courage**: Have courage to commit, to act, to be open and to give and expect respect.
- **Respect**: Individuals are shaped by background and their experience. It is important to respect the people who comprise a team.
- **Focus**: Do your job. Focus all of your efforts and skills on doing the work that you have committed.
- **Commitment**: Be willing to commit to a goal. Scrum provides people all the authority they need to meet their commitment.

# SCRUM Framework



# SCRUM Roles

SCRUM Team:

- Product Owner
- Scrum Master
- Scrum Development Team

Others:

- Management
- Supporting & Facilitating bodies in Organization
- Stakeholders
- Users

# Product Owner

- Define the features of the product
- Decide on release date and content
- Be responsible for the profitability of the product (ROI)
- Prioritize features according to market value
- Adjust features and priority every iteration, as needed
- Accept or reject work results.

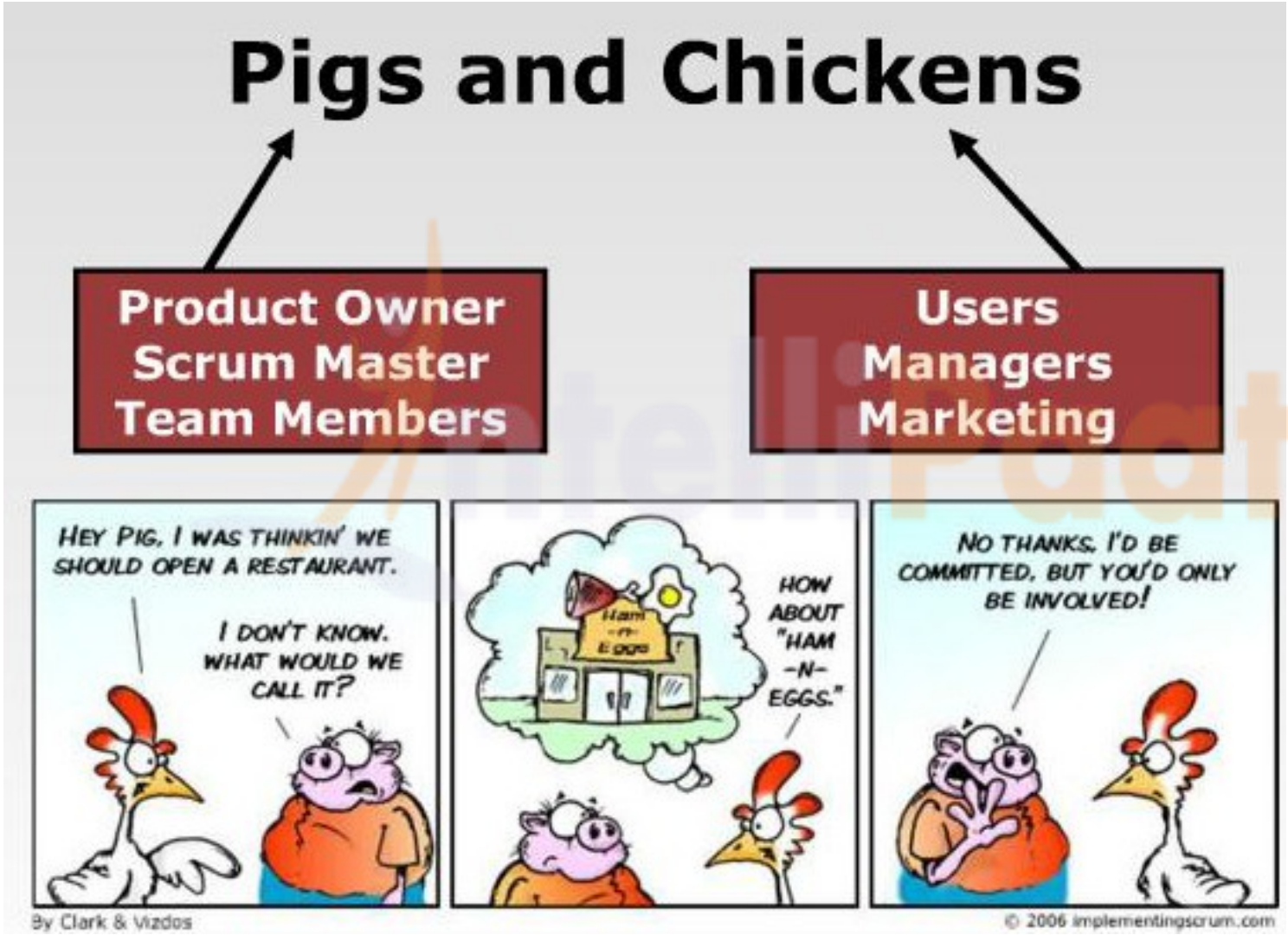
# SCRUM Master

- Represents management to the project
- Responsible for enacting Scrum values and practices
- Removes impediments
- Ensure that the team is fully functional and productive
- Enable close cooperation across all roles and functions
- Shield the team from external interferences

# SCRUM Development Team

- Size: 6 ± 3
- Cross-functional
  - QA, Tester, Programmer, UI Designers, etc.
- Members should be full-time
  - May be exceptions (e.g., System Admin, etc.)
- Teams are self-organizing
  - What to do if a team self-organizes someone off the team??
  - Ideally, no titles but rarely a possibility
- Membership can change only between sprints

# Pigs and Chickens

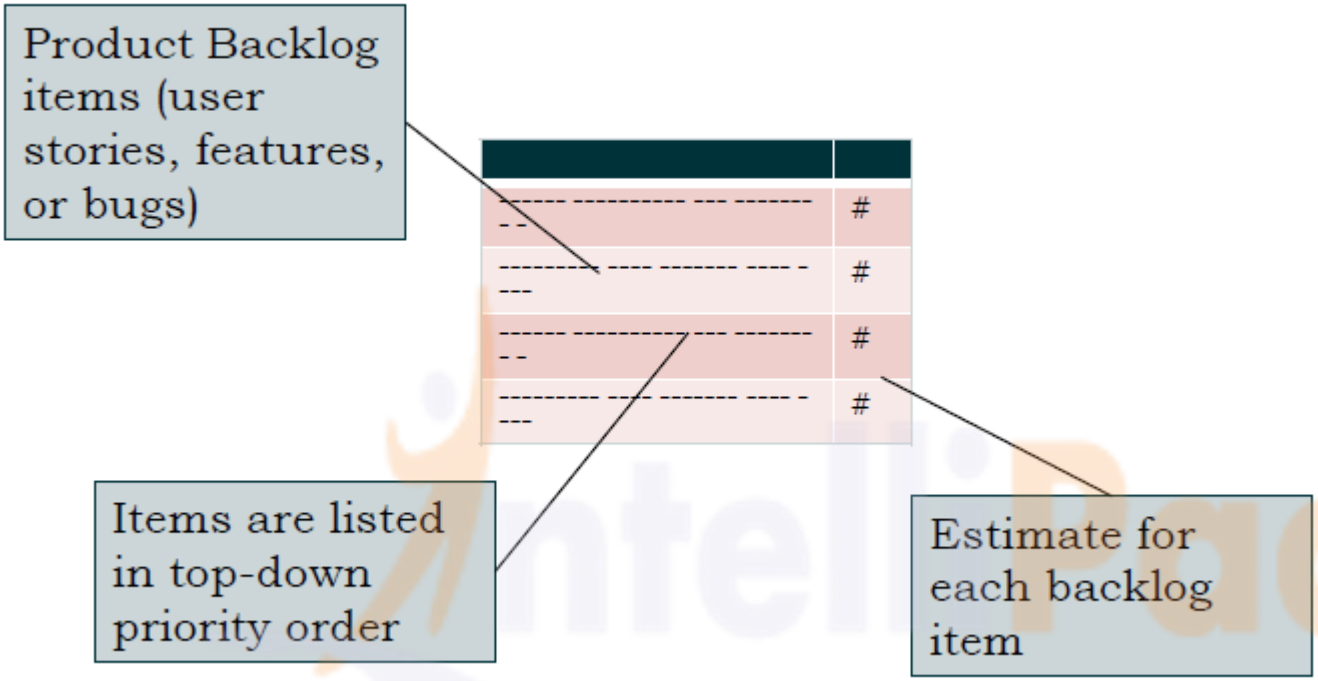


# SCRUM Artifacts

Scrum's artifacts represent work or value to provide transparency and opportunities for inspection and adaptation. Artifacts defined by Scrum are specifically designed to maximize transparency of key information so that everybody has the same understanding of the artifact. Defined Articafts are:

- Product Backlog
- Sprint Backlog
- Increments

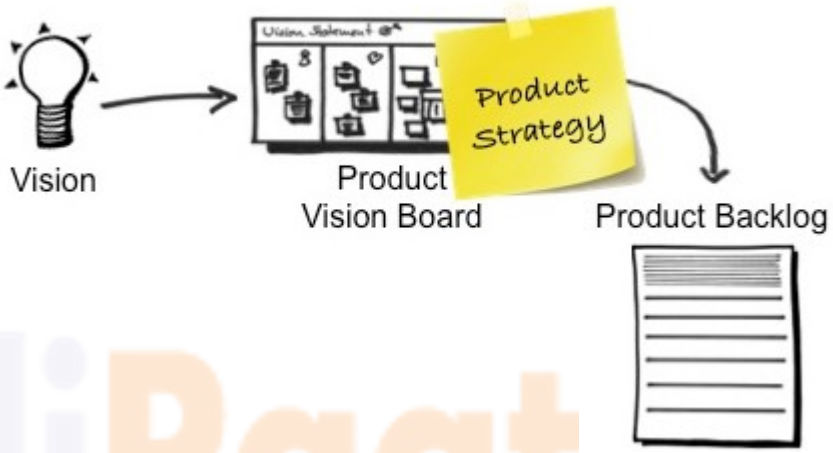
# Product Backlog




| Description | Priority | Estimation |
|---|---|---|
| Feature F | 1 | 4 Story Pts. |
| Feature A | 5 | 5 Story Pts. |
| Feature C | 4 | 3 Story Pts. |
| Feature B | 2 | 5 Story Pts. |

# Product Vision

The product vision paints a picture of the future that draws people in for your Product. It describes who the customers are, what customers need, and how these needs will be met. It captures the essence of the product – the critical information we must know to develop and launch a winning product. Developing an effective product vision entails carefully answering the following questions:



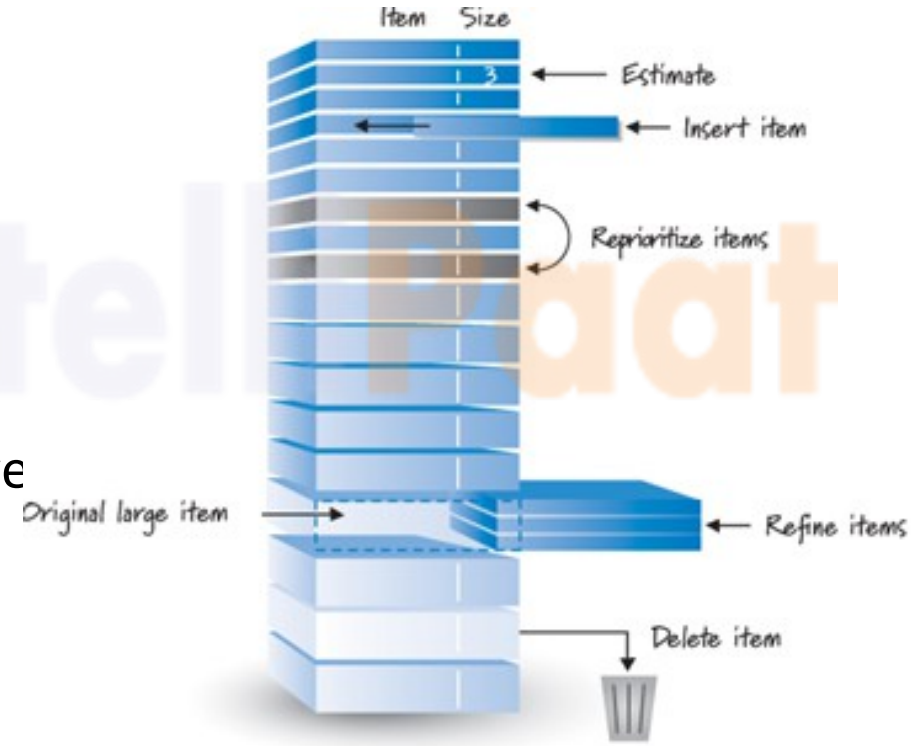

- Who is going to buy the product? Who is the target customer?
- Which customer needs will the product address?
- Which product attributes are critical to satisfy the needs selected, and therefore for the success of the product?
- How does the product compare against existing products, both from competitors and the same company? What are the product's unique selling points?
- What is the target timeframe and budget to develop and launch the product?
- PO is responsible for creating Product Vision.

# Product Backlog Items (PBIs) Characteristics

Each of PBIs should follow I.N.V.E.S.T criteria:

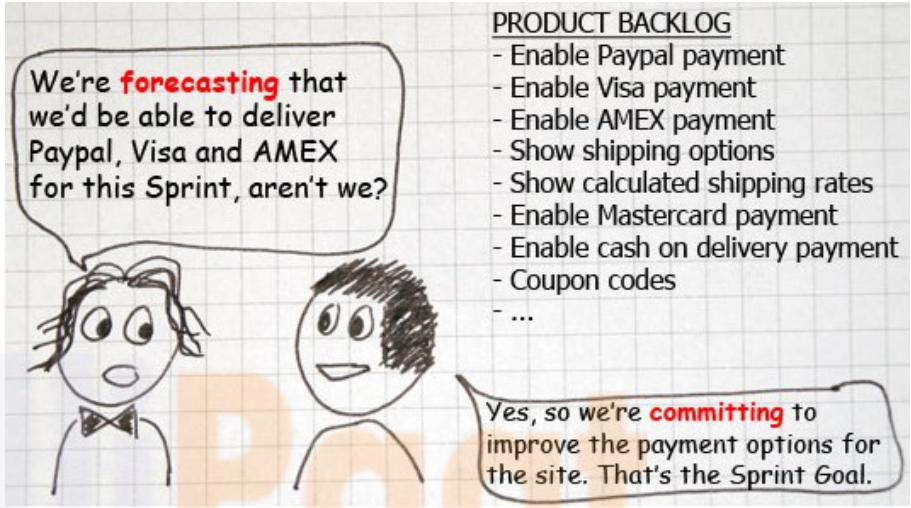
- Independent
- Negotiable
- Valuable
- Estimable
- Small
- Testable

** Team does collaborative grooming



# Sprint Backlog

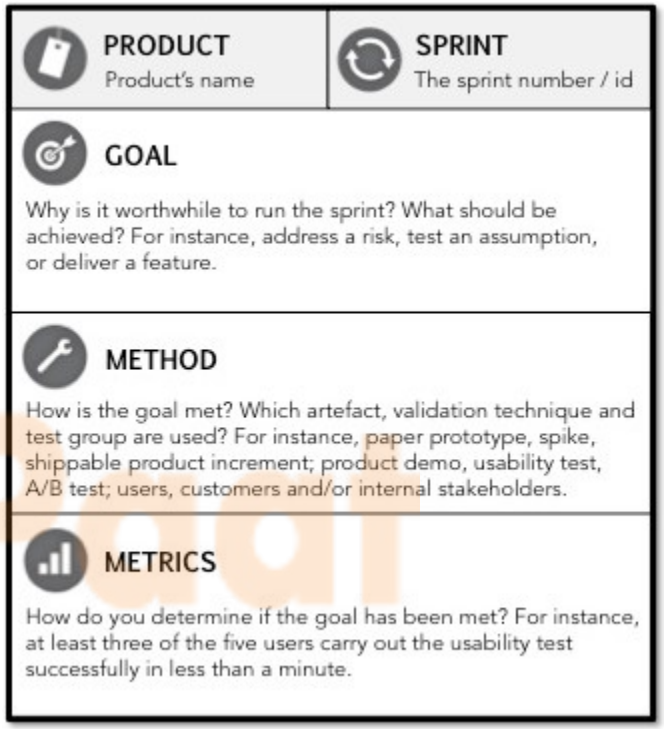
- Set of Product Backlog items selected for the Sprint
- A plan for delivering the product Increment and realizing the **Sprint Goal**.
- A forecast by the Development Team about what functionality will be in the next Increment




- The work needed to deliver above mentioned functionality into a "Done" Increment.
- The Development Team modifies the Sprint Backlog throughout the Sprint

# Sprint Goal

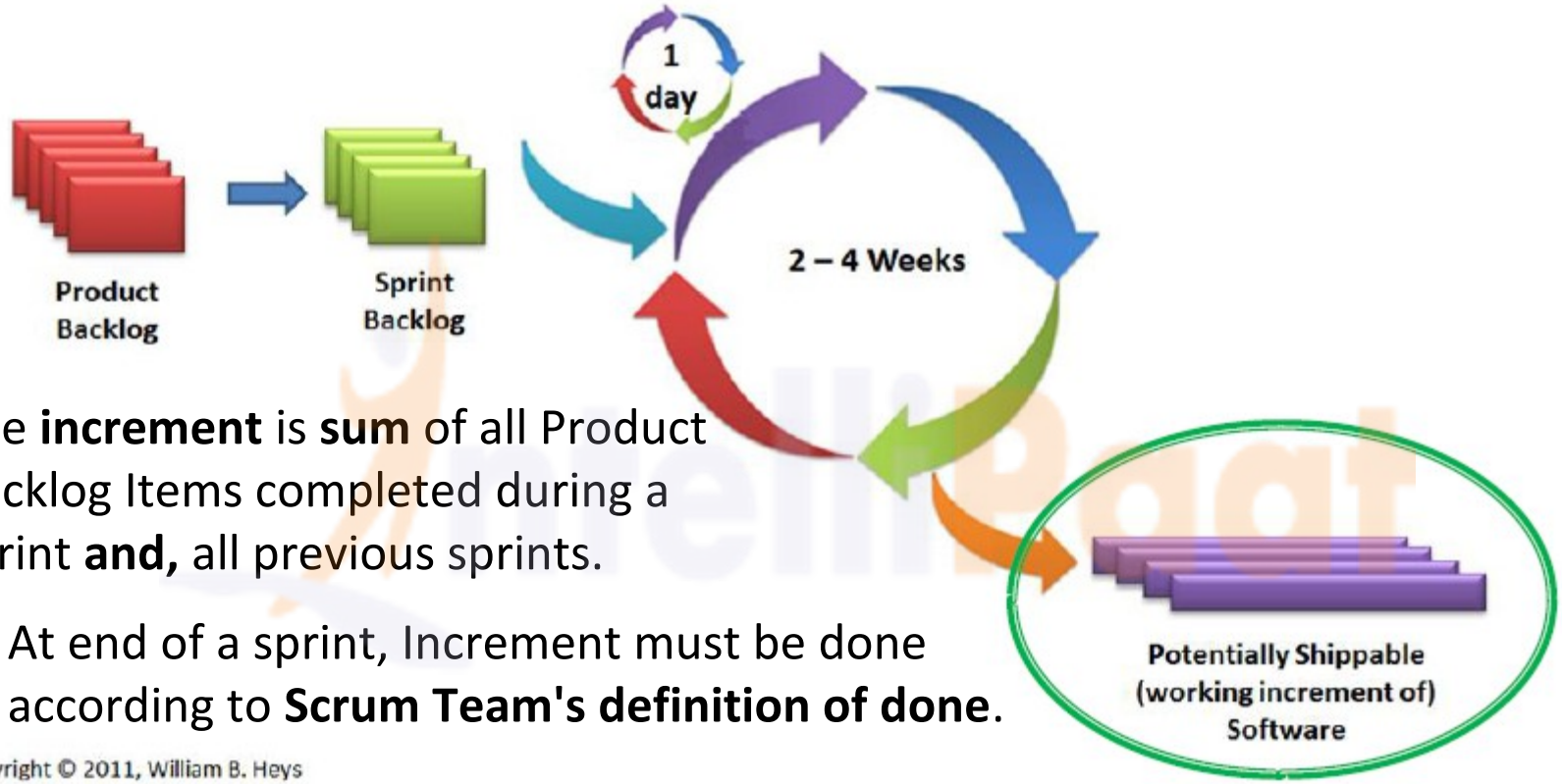
- The Sprint Goal is a ‘short statement’ of WHAT WORK will be FOCUSED on during the Sprint.
- It contains set of selected Product Backlog items which deliver one coherent function.
- The Sprint Goal is that coherence which causes the Development Team to work together.
- Development Team’s, and not individual’s, focus stays on Sprint Goal.




- Sprint Goal gives Development team that flexibility as per which they change Sprint backlog and tasks.

NOTE: If the work turns out to be different than the Development Team expected, they collaborate with the Product Owner to negotiate the scope of Sprint Backlog within the Sprint.

# Increment




- The **increment** is **sum** of all Product Backlog Items completed during a sprint **and,** all previous sprints.
  - At end of a sprint, Increment must be done according to **Scrum Team's definition of done**.



  - The increment must be in **usable condition** regardless of whether the Product Owner decides to actually release it.

# Definition of Done (DoD)

*When a Product Backlog item or an Increment is described as "Done", everyone must understand what "Done" means*

**Purpose:**

- **Enable time estimations.** If you don't know what people mean by *done* asking them for an estimate is pointless.
- **Avoid misunderstandings.** When having conversations about progress, work being done, and so on, shared definitions help avoid misunderstandings and disagreements.
- **Assure quality.** The DoD ensures quality and helps avoid technical debt by including test cases, refactoring, code documentation, and so on.

**Properties:**

- The DoD is dynamic. Evolve with team's learning. Shared with all to ensure transparency.
- If not entirely, a lowest common denominator of the DoD can be the same across teams, in a multi level Scrum implementation.
- The level of sharing also depends on at what level the DoD is used.

# Different Definitions at Different Levels

Ultimately, the decision rests on the answer to the following three questions:

1. Can we do this activity for each feature? If not, then
2. Can we do this activity for each sprint? If not, then
1. We have to do this activity for our release!

# Scrum Ceremonies

Standard Scrum Ceremonies:

- Sprint Planning
- Daily Scrum
- Sprint Review
- Sprint Retrospective

Others:

- Backlog Grooming
- Release Planning

# Sprint Planning

# Daily Standup (Daily SCRUM)

**Goal**

- Enable to team to share progress with each other
- Make visible blocks (impediments) daily for whole team to see

**Everyone stands in a circle and reports 3 things**

- What did I do since the last Daily Scrum Meeting?
- What will I try to do by the next Daily Scrum meeting?
- What are my blockades?

**15 minutes maximum**

**No discussion or debate: listening only**

- After meeting ends, discuss and problem-solving can start

**Team and Scrum Master only**

- Team can invite PO or others if they wish, but it‘s up to the team

**After the meeting, Scrum Master leads the removal of blocks**