Applying PROFESSIONAL SCRUM

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Student Reference Material

Team, Artifacts and Events in the Scrum Framework

Team

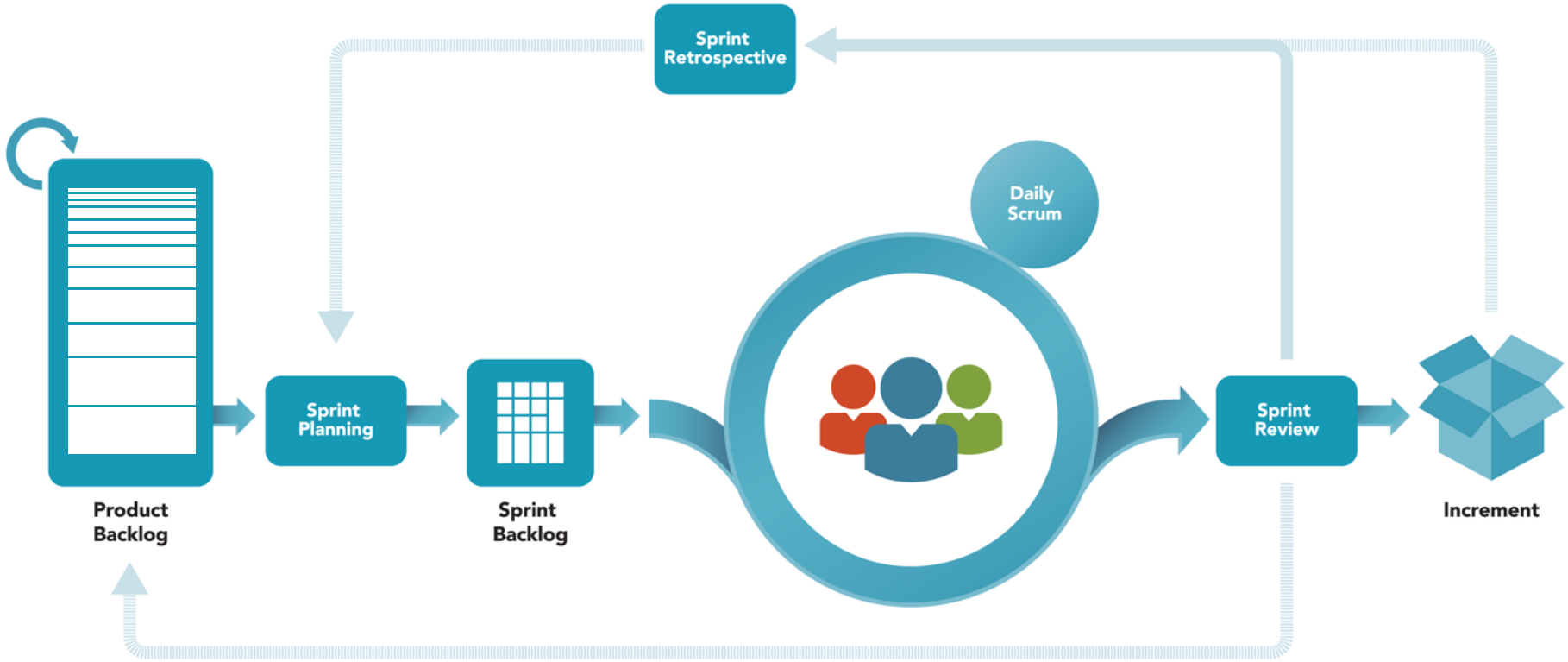
- Product Owner
- Developers
- Scrum Master

Artifacts

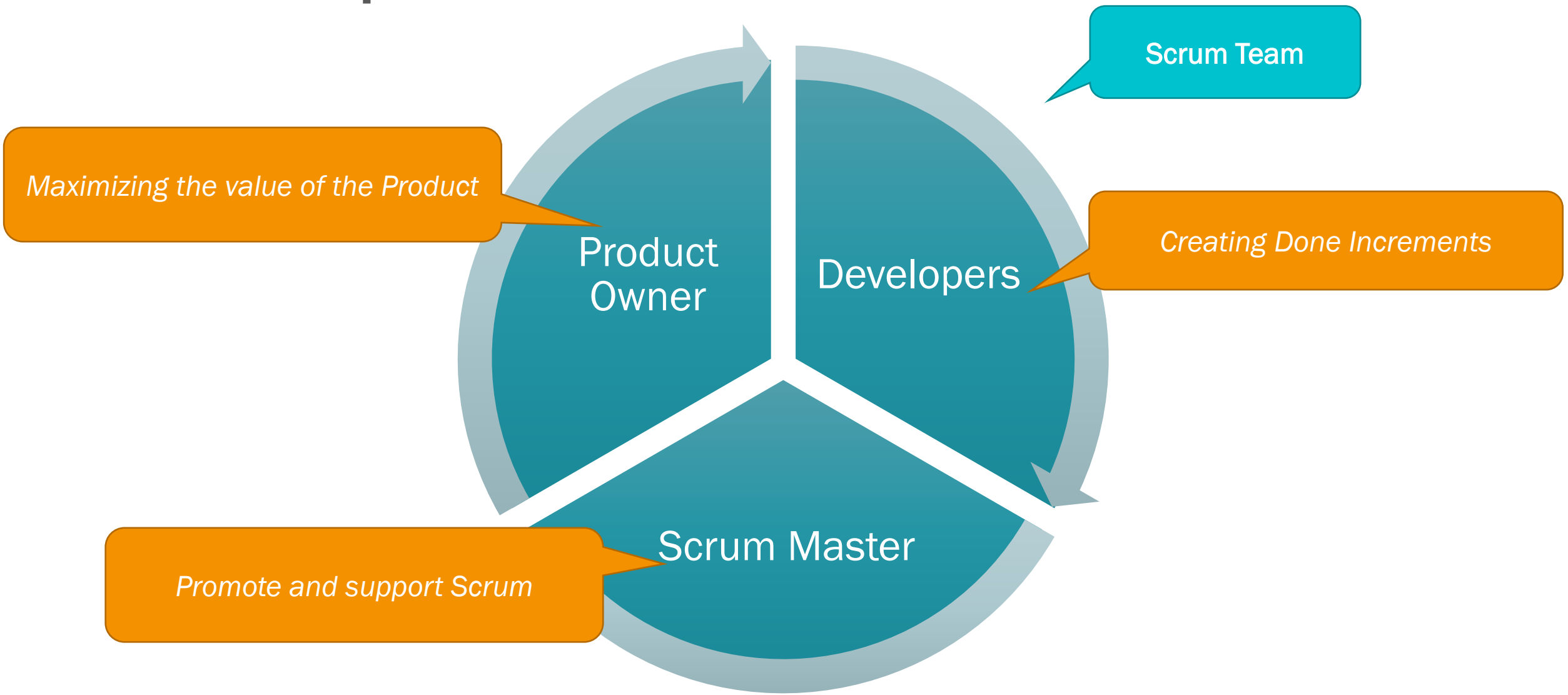
- Product Backlog
- Sprint Backlog
- Increment

Events

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



Scrum Team: Specific Accountabilities



Scrum Team is small enough to remain nimble and large enough to complete significant work within a Sprint, typically 10 or fewer people.

Scrum Team

Must have all the skills it needs to deliver a done Increment – ideally more than one team member has the competency.

Product Owner

- Maximizes the value of the Product
- Manages the Product Backlog
- Chooses what and when to release
- Represents stakeholders and customers to the Developers

Who the Product Owner Is

- Defines features and functionality
  - The level of detail provided will vary
  - Some Product Owners will work closer to implementation details than others
- Has the final word on the content and the ordering of the Product Backlog
- Not the Developers' assistant
  - May have the Developers manage Product Backlog items
  - Spend as much time with the Developers as needed to let them be effective

Developers

- Create the product Increment
- Operate in a series of Sprints
- Manages itself and its work
- Collaborates with Product Owner to maximize value

Scrum Master

- Establishes Scrum as defined in the Scrum Guide
- Helps everyone understand Scrum theory and practice
- Provides guidance and support for the Scrum Team and organization
- Accountable for the Scrum Team's effectiveness by enabling them to improve their practices within the Scrum framework

Scrum Master

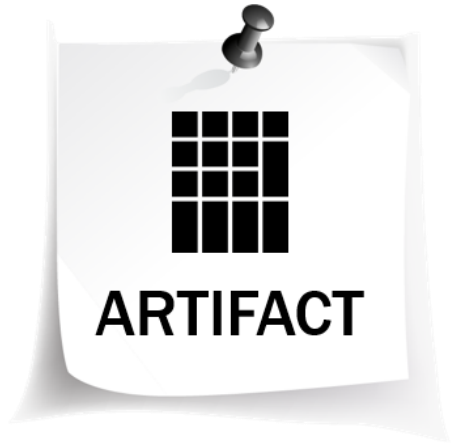
- Manages the adoption of Scrum by the Scrum Team and the organization
  - Facilitates effective self-management
  - Embodies agility for all to see
  - Does NOT “drive” the team by giving tasks or by telling what to do
- Removes impediments to the Scrum Team’s success that they are unable to remove themselves

“Ask Your Team” – The Scrum Master’s motto

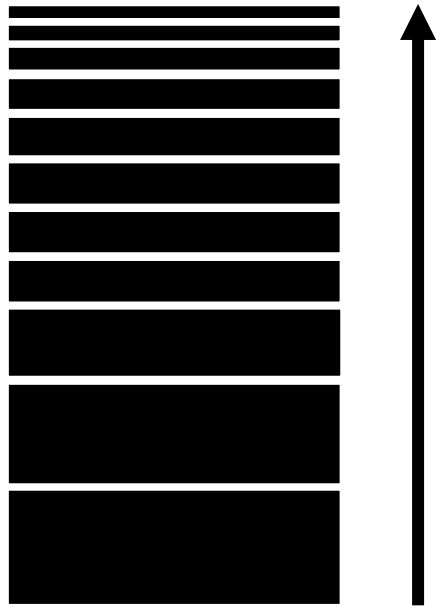
Artifacts: Each One Contains Specific Information

Product Backlog	• Emergent, ordered list of what is needed to improve the product • Managed by the Product Owner • Commitment: Product Goal
Sprint Backlog	• Holds all work for the Sprint Goal • Managed by the Developers • Commitment: Sprint Goal
Increment	• Working addition to the product • Useful and valuable • Commitment: Definition of Done

Product Backlog Holds the Plan for Future Sprints

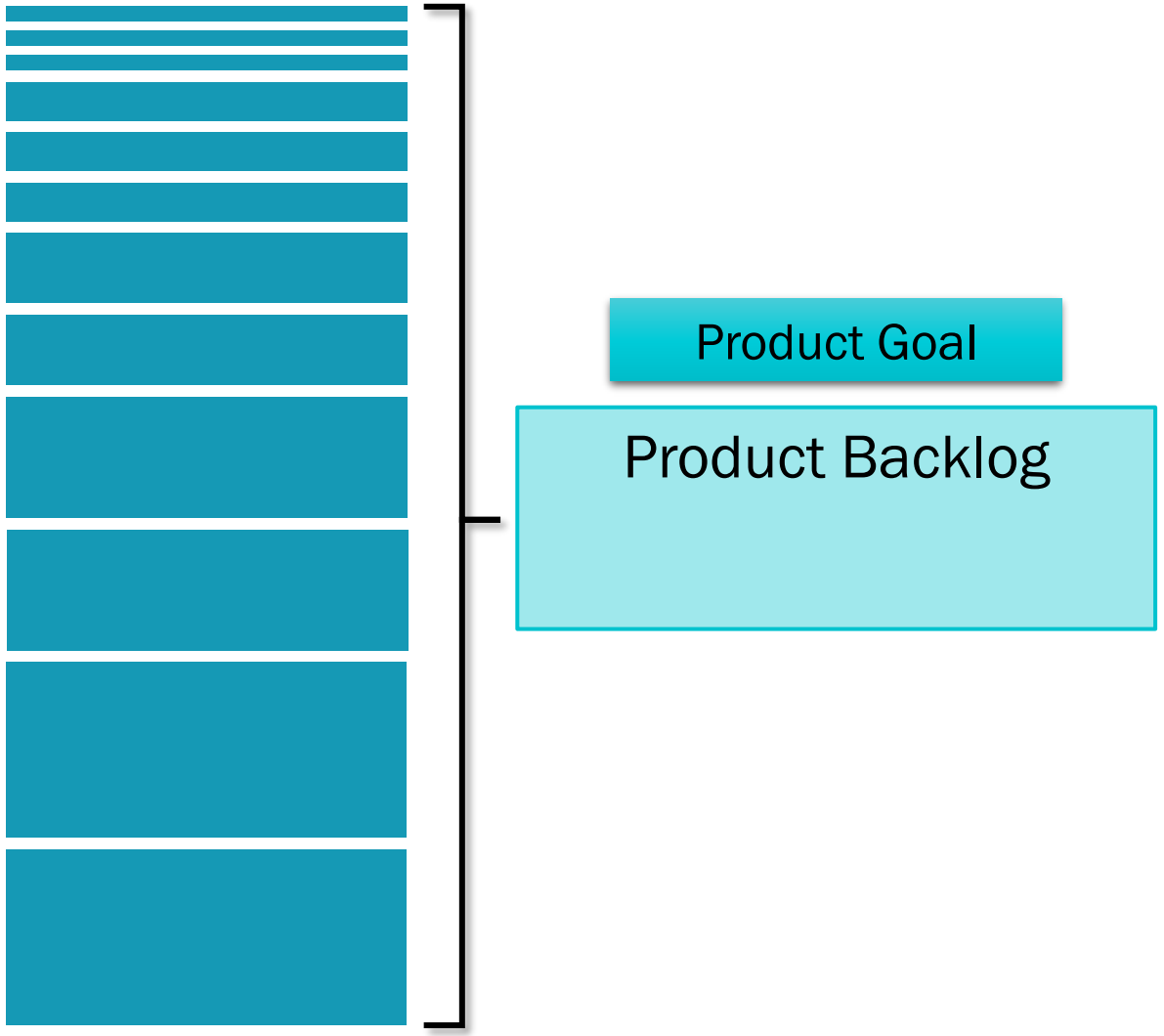


- The single source of truth of ordered potential changes to the product
- Minimal but sufficient
- Owned and managed by the Product Owner
- Public, available and transparent

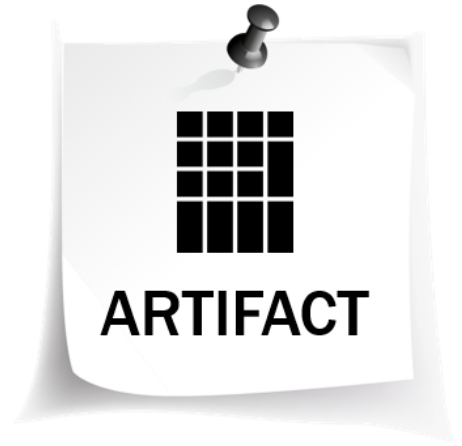


Product Goal

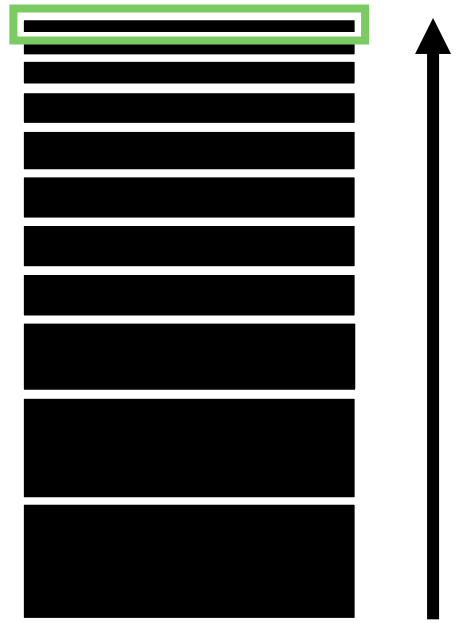
- Product Goal describes a future state of the product to which can serve as a target for the Scrum Team to plan against
- Product Goal is in the Product Backlog
- A long-term objective for the Scrum Team
- The Scrum Team must fulfill (or abandon) one objective before taking on the next



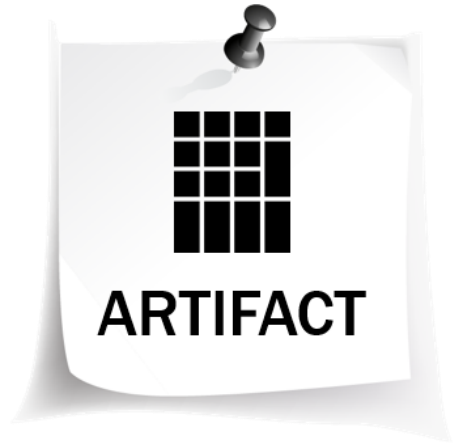
Product Backlog Item (PBI)



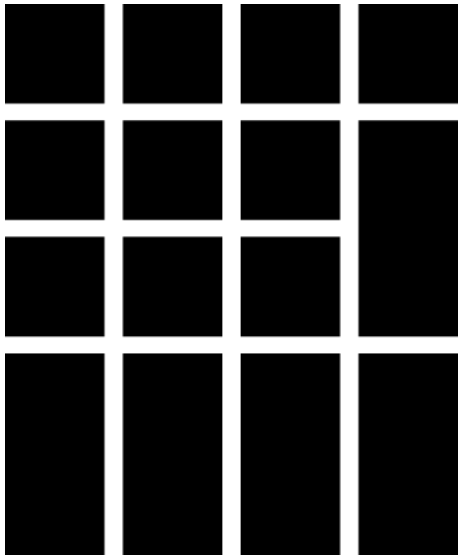
- Transparent unit of deliverable work
- Sized appropriately
  - May be completed within a single Sprint
- Each one is ideally discrete without dependencies
- Contains clear acceptance criteria
  - Answering what will be true when this is usable



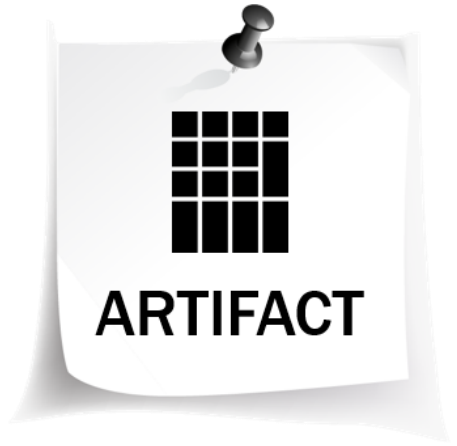
Sprint Backlog Holds the Plan for the Current Sprint



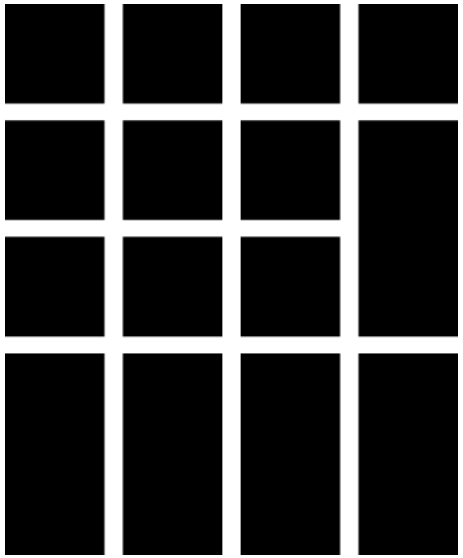
- Progress within the Sprint must be transparent
- Owned and managed by the Developers
  - Process improvements may affect the whole Scrum Team and should be jointly owned
- Adapted by the Developers throughout the Sprint when work emerges



What Goes in a Sprint Backlog?



- The Sprint Goal as the single objective for the Sprint
- The selected Product Backlog items ("forecast") for the Sprint by the Developers in collaboration with the Product Owner
- A plan, often a list of tasks, to deliver an Increment



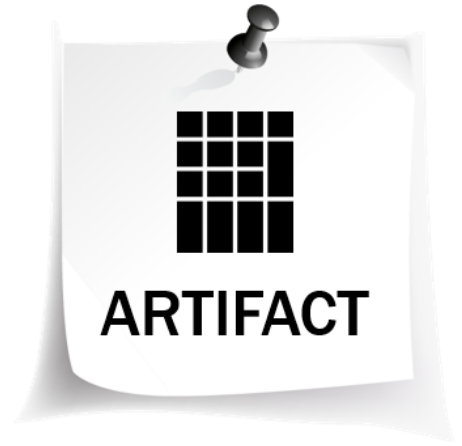
Monitoring Sprint Progress

- Measurement is for the Scrum Team
  - No one else
  - Part of self-managing the Sprint's work
- Measurement is an indication of:
  - Progress in the Sprint
  - When scope should be reviewed
- Measurement is against each artifact:
  - Product Backlog – PO needs to know – What remains to achieve our Product Goal?
  - Sprint Backlog – Developers need to know – What remains to achieve our Sprint Goal?
  - Increment – Scrum Team needs to know – What did we get Done towards our Product Goal?

Sprint Progress Monitoring Cautions

- Can be easily misused
  - To micromanage the Scrum Team
  - To demonstrate false progress
- May change abruptly when
  - New work is added or removed during the Sprint
  - Scope is reviewed with the Product Owner
  - New things are learned about the work of the Sprint

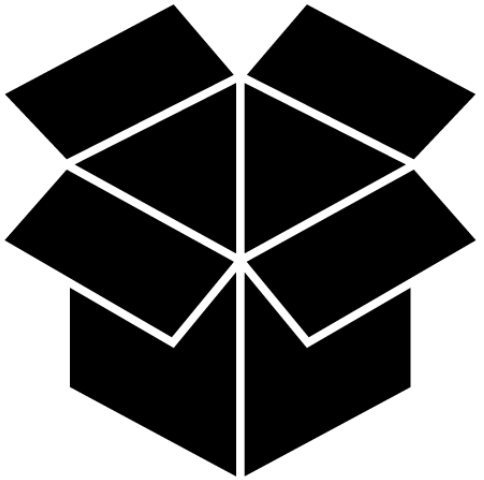
Increment



- The latest usable, valuable version of your product

PBIs meeting the Definition of Done
+
Previous Increments

- Incremental and evolutionary
- Must meet the Definition of Done



About the Definition of Done (DoD)

- The Definition of Done is a shared understanding of completeness and quality
- The Scrum Team uses the Definition of Done to create transparency of the Increment
- The Definition of Done is managed by the Scrum Team

> "The moment a Product Backlog item meets the Definition of Done, an Increment is born."
>
> - Scrum Guide, 2020

Definition of Done Tips

- In general the Definition of Done is for the Increment and all Product Backlog items
- Visit definition of Done in each Retrospective

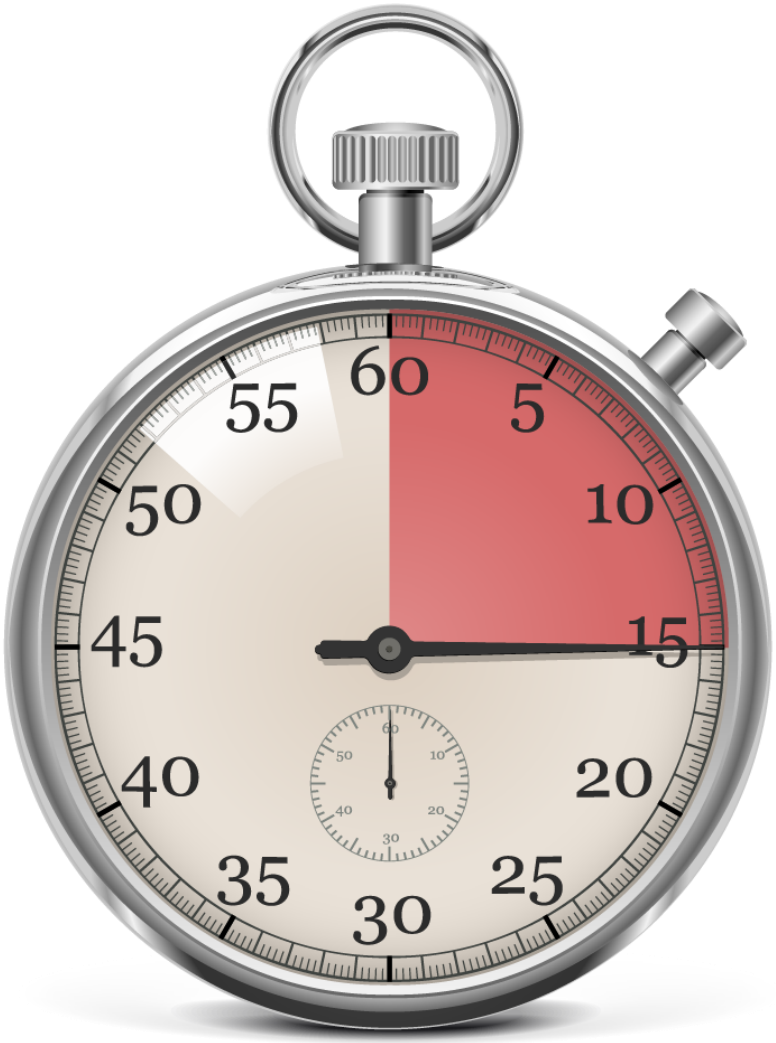
If the development organization does not have a common definition of Done for that product, product family, or system (to reflect product fit for purpose), it defaults to the Developers to define and own.

Events: Each One Has a Specific Purpose

Sprint Planning	• From: Product Backlog • To: Sprint Goal, Sprint Backlog
Daily Scrum	• From: Daily Progress, Sprint Backlog • To: Updated Daily Plan
Sprint Review	• From: Sprint, Increment • To: Updated Product Backlog
Sprint Retrospective	• From: Past Sprint • Improvements For Next Sprint
Sprint	• Container Event • One month, or less, in duration

Time-Boxes

- A time-box is the maximum amount of time allotted to achieving the purpose of an event
- Helps maintain focus
- Helps reduce waste

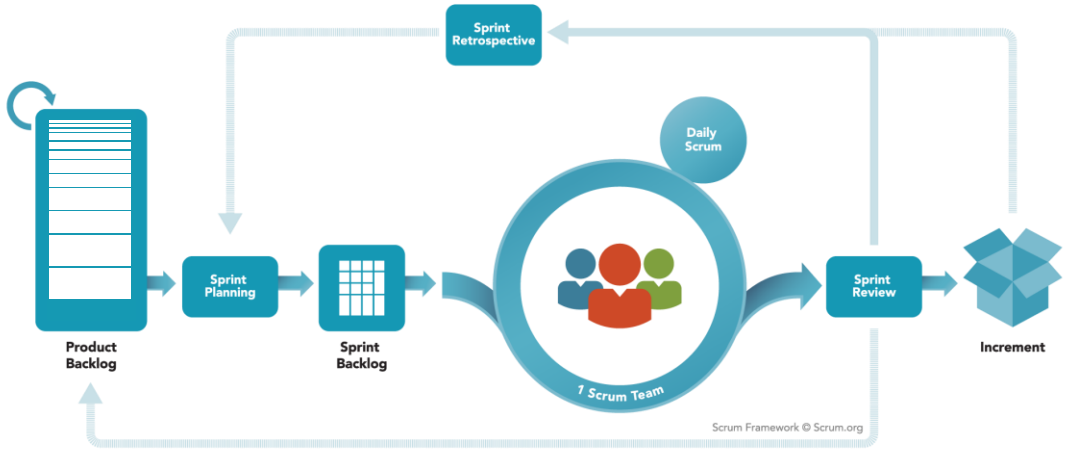


Scrum Event Time-boxes (at most)

Event	One Month	3 Weeks	2 Weeks	1 Week
Sprint Planning	8 hours	*Less than 8 hours* (~6 hours)	*Less than 8 hours* (~4 hours)	*Less than 8 hours* (~2 hours)
Daily Scrum	15 minutes			
Sprint Review	4 hours	*Less than 4 hours* (~3 hours)	*Less than 4 hours* (~2 hours)	*Less than 4 hours* (~1 hour)
Sprint Retrospective	3 hours	*Less than 3 hours* (~2 hours 15 mins)	*Less than 3 hours* (~1 hour 30 mins)	*Less than 3 hours* (~45 mins)

Sprint

- A container for all activities and the other Scrum events
- Focus is on creating a Increment of value towards the Product Goal
- One month or less to enable regular feedback



The Sprint

- Ideally they have consistent durations
- Starts right after the previous one
- Scope is reviewed constantly throughout
  - By the Scrum Team
  - This recognizes uncertainty even within the Sprint
- There are no special Sprints
  - No Sprint 0, Design Sprints, Testing Sprints, Hardening or Planning Sprints

Sprint Planning

- First event in a Sprint
- Product Backlog is inspected
- Discuss the most important Product Backlog items and how they map to the Product Goal
- Sprint Backlog is created
  - Sprint Goal (*Why)*
  - Product Backlog items selected for the Sprint (*What*)
  - Plan for delivering the selected PBIs (*How*)

Sprint Goal

An objective to be met in the Sprint	• Through the implementation of the PBIs selected in Sprint Planning • Providing guidance to the Developers
Allows flexibility in delivering the Increment	• Allows wiggle room for exact implementation of PBIs
Is fixed throughout the Sprint	• As the Developers work, it keeps this goal in mind • The Developers inspect and adapt their plan to meet the Sprint Goal in every Daily Scrum

Some Sprint Goals

Modify the wording of our content to be more appropriate for our users

Improve fuel efficiency of the vehicle by at least 5%

Deliver a minimal set of administration features

Increase find accuracy of misspelled search terms

Daily Scrum

- An opportunity for Developers to:
  - Inspect progress toward the Sprint Goal
  - Create a plan for the next 24 hours
  - Optimize collaboration
- 15 minute daily meeting
- Same time and place
- If the Product Owner or Scrum Master participate, they do so as Developers

Why a Daily Scrum?

- Maximize chances of meeting the Sprint Goal
- Create focus
- Increase and maintain situational awareness

Developers may have many ways of conducting a Daily Scrum to increase collaboration

A Daily Scrum in Microsoft Patterns and Practices

Sprint Review

- A collaborative working session focused on the Increment
- The Scrum Team presents the results of their work to key stakeholders and progress toward the Product Goal is discussed.
- Feedback is heard from all present, used to guide next steps
- Focus on the product, not slides
- The Product Backlog is updated with insights gained from feedback

Discussion Points for a Sprint Review

Product Discussion Points

- The goal of this Sprint
- Progress towards the Product Goal
- What was done
- State of the Product Backlog
- Projections of likely release targets

Work Discussion Points

- The actual Increment of product
- What happened in the Sprint
- How problems were addressed and the effect on the Increment

Feedback Opportunities

- From everyone!
- Questions from Scrum Team for stakeholders
- Thoughts on Increment from stakeholders

Sprint Retrospective

- Last event of the Sprint
- The Scrum Team inspects
  - How the last Sprint went with regards to individuals, interactions, processes and tools
  - Their Definition of Done
- Scrum Team identifies helpful changes to improve its effectiveness

Sprint Retrospective

- A discussion of:
  - The Scrum process
  - Scrum Team member behaviors
  - Tools used and needed
  - The Definition of Done and product quality
  - Are we hiding or ignoring anything?
- Find actionable improvements
  - The Scrum Team can enact next Sprint
  - Adapt common practices and techniques
  - Increase the Definition of Done

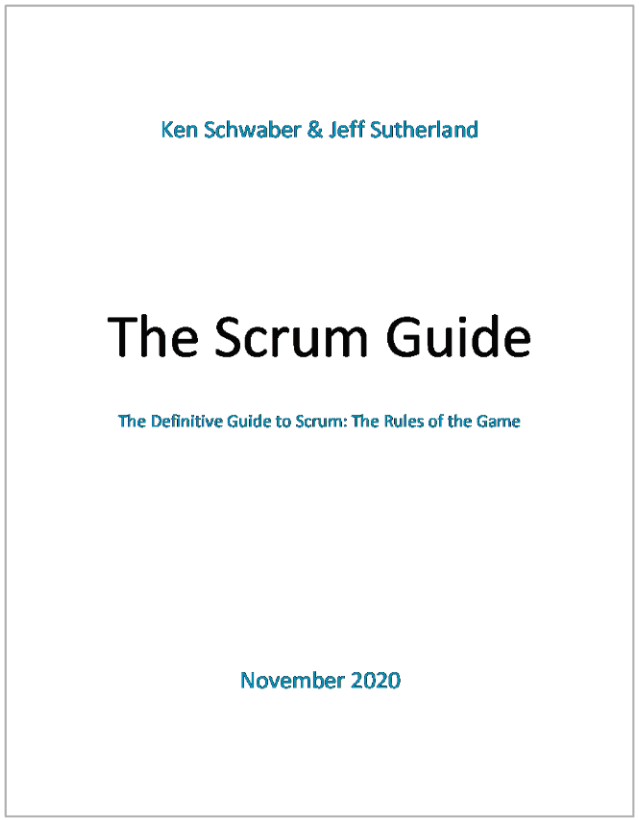
TAKE AWAY

The Scrum Framework

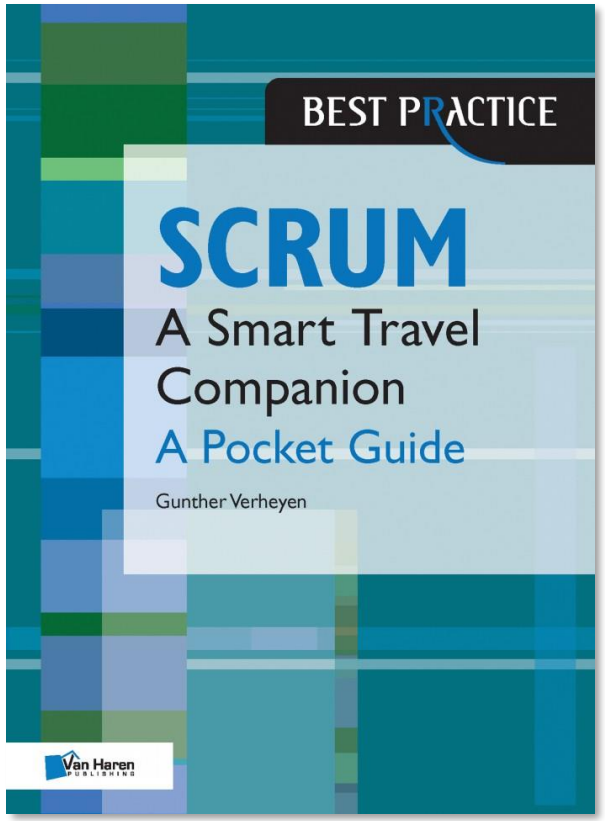
- Scrum implements empiricism in product development
- There are three (3) clear accountabilities on the Scrum Team
- The Scrum artifacts (3) provide transparent information
- All Scrum events (5) serve inspection, adaptation and transparency

Suggested Reading

"The Scrum Guide" (Schwaber, Sutherland)



"Scrum – A Pocket Guide" (Gunther Verheyen)



"Scrum and XP from the trenches" (Henrik Kniberg)