Scrum Guide (2020 Update)

BOOTCAMP

Instructor: Barb Waters, MBA, PMP

Class will begin at 11:00 am Eastern Time

ABOUT KEN SCHWABER AND SCRUM.ORG

Timeline

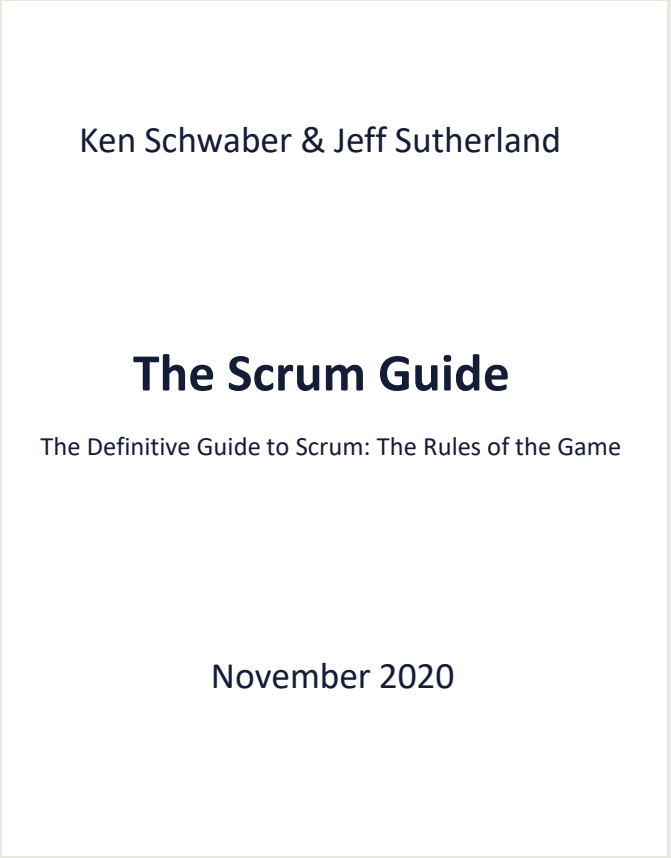
- **Early 1990s:** Co-developed the Scrum Framework with Jeff Sutherland
- **2001:** Signed the Agile Manifesto
- **2002:** Co-founded Scrum Alliance
- **2009:** Founded Scrum.org, co-authored the Scrum Guide with Jeff Sutherland

Purpose of Scrum.org

- Formalize the Scrum body of knowledge
- Improve the quality and consistency of training

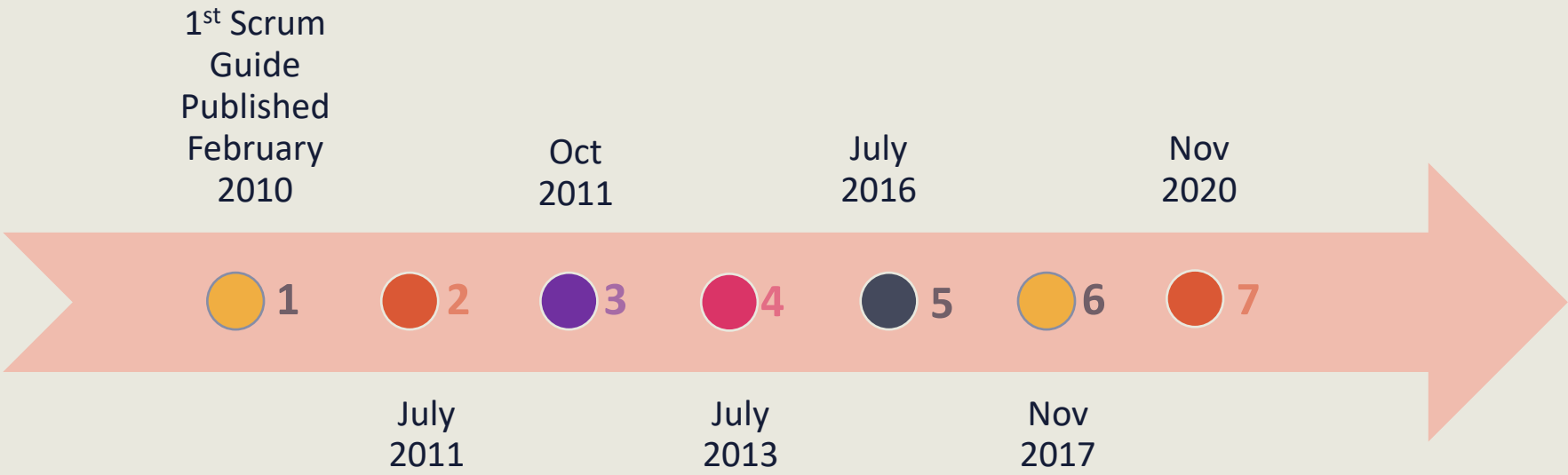
SCRUM GUIDE

BY KEN SCHWABER & JEFF SUTHERLAND



https://www.scrumguides.org/
https://www.scrum.org/resources/2020-scrum-guide-launch-event-recording

Scrum Guide Revisions



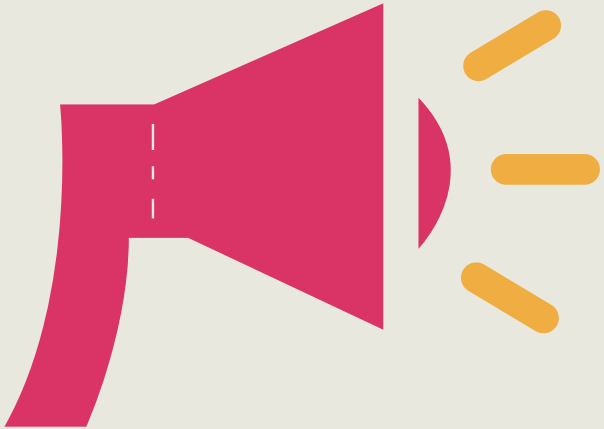
https://www.mitchlacey.com/resources/official-scrum-guide-current-and-past-versions/
https://medium.com/serious-scrum/the-evolution-of-the-scrum-guide-10-to-19-f3ac4d82cfcb

PRIOR TO THE SCRUM GUIDE

Gurus	Books	Contributions
Hirotaka Takeuchi and **Ikujiro Nonaka**	"The New New Product Development Game“, 1986	First used the word Scrum
Taiichi Ohno	“The Machine That Changed the World” (biography)	Inventor of the Toyota Production System

https://hbr.org/1986/01/the-new-new-product-development-game
https://www.scruminc.com/takeuchi-and-nonaka-roots-of-scrum/

Latest Revision



Less Prescriptive

- Fewer Words
- Don’t entangle ideas
- Just as useful for sales teams as software developers
- Minimally sufficient framework

Simplification of Language

- Suitable for a larger audience
- Removes references to IT
- Shortened to 13 pages

AGILE METHODOLOGIES

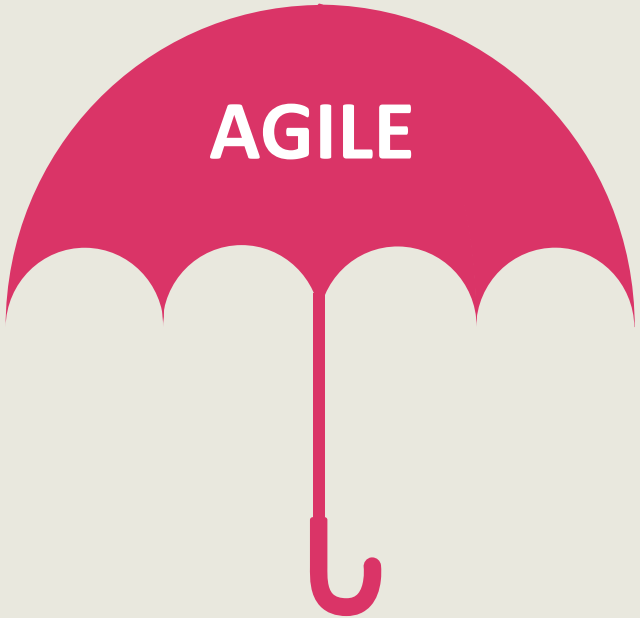
There are over a dozen agile methodologies

No single right way

Can be tailored once a team is experienced

Most common

- Scrum (really a framework)
- Extreme Programming (XP)
- Lean product development
- Kanban
- Feature-driven development (FDD)
- Dynamic Systems Development Method (DSDM)
- Crystal



SCRUM

- Framework rather than a methodology
- Scrum is one of many Agile approaches
- Can be applied to any industry
- Employs various techniques
- High-performing cross functional teams
- Iterative, incremental approach
- Iterations are known as “Sprints”

The term “Scrum” comes from rugby.

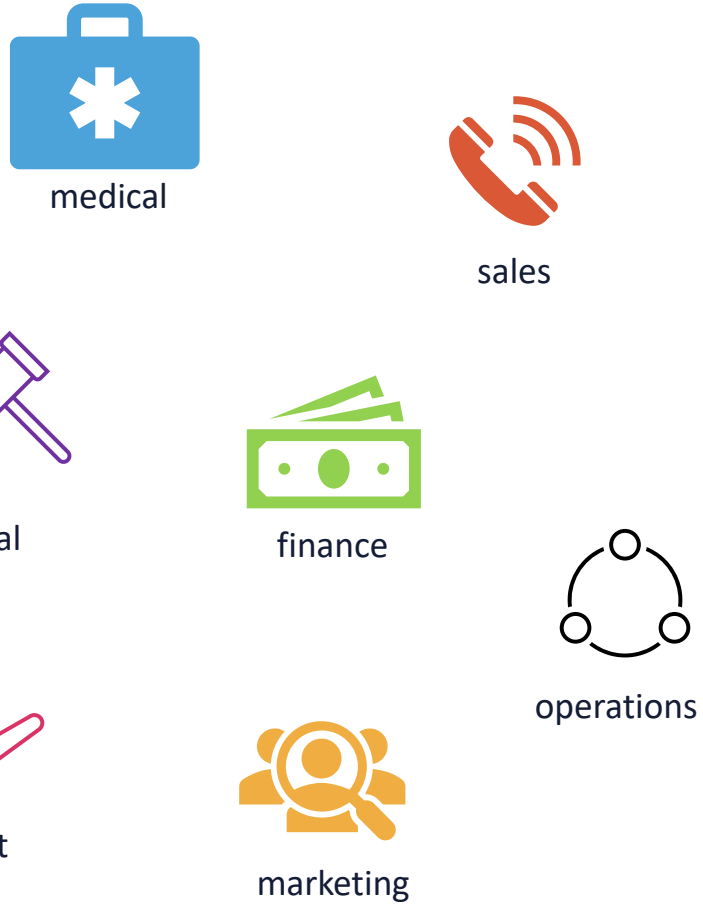
A scrum (short for scrummage) is a method of restarting play. The players pack closely together with their heads down and attempt to gain possession of the ball.

Teams outside of software

All our Scrum teams at Scrum Inc have Product Owners and Scrum Masters fully dedicated to the teams and helping the teams implement the backlog needed to achieve the Sprint Goal.

This is particularly important for teams outside of software - in operations, sales, marketing, support teams, legal teams, finance teams, etc.

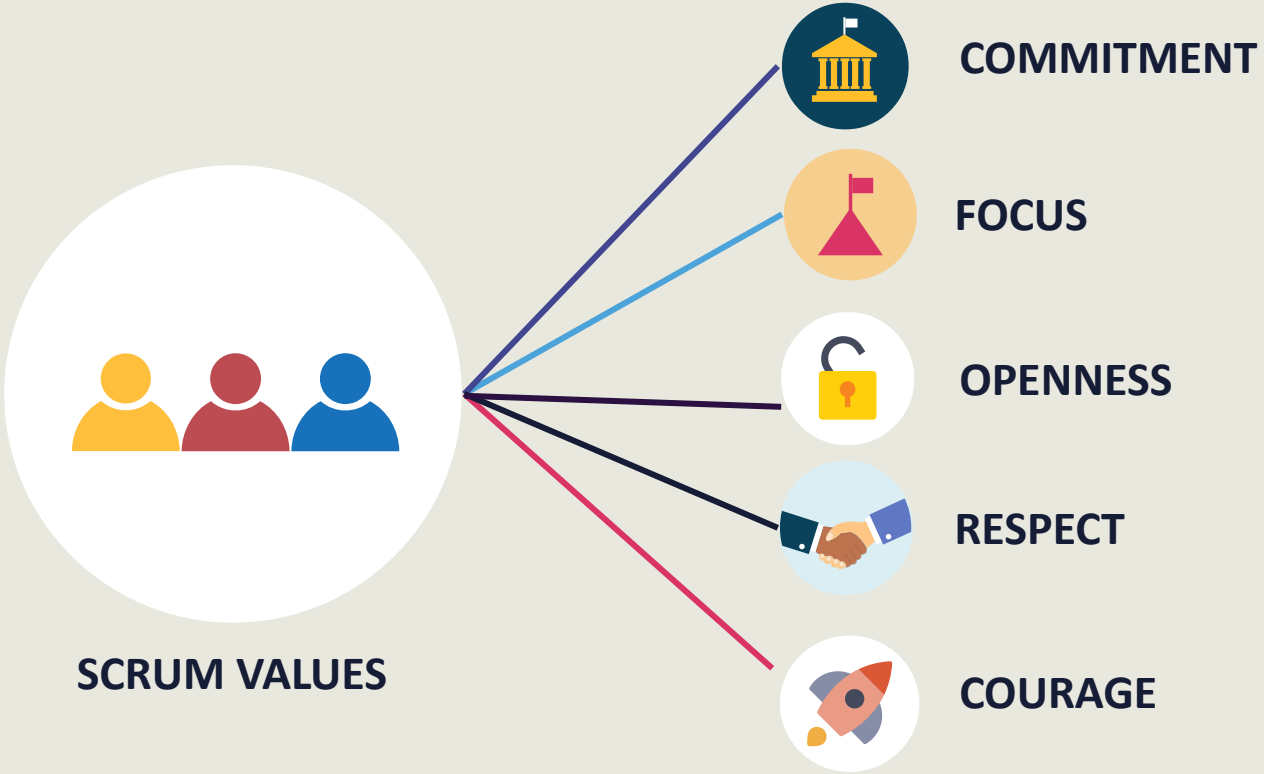
-Jeff Sutherland



THREE PILLARS OF EMPIRICISM

- **Transparency**
  - Discuss product requirements
  - Establish shared product vision
  - Create a Definition of Done
- **Inspection**
  - Assess productivity during Daily Scrum
  - Burn-down chart
  - Demonstrate product increment during Sprint Review
  - Objective assessment based on Acceptance Criteria and Definition of Done
- **Adaptation**
  - Welcome change
  - React quickly to variance in order to meet Sprint goal
  - Sprint Retrospective promotes continuous improvement

SCRUM.ORG



THE SCRUM TEAM

3 Roles

Includes:

Developers

Scrum Master

Product Owner

Developers

Scrum Master

Product Owner

Scrum Guide Update!

From Roles to Accountabilities

Why?

- It’s not a job title
- How you should spend your time, not what you are called
- Your title can be anything

PROBLEM WITH DUAL ACCOUNTABILITIES

- Product owner promotes value delivery and new functionality
- Developers sets realistic expectations and perform the work
- Scrum Master protects the team and promotes governance

Can someone serve as both the Scrum Master and Product Owner?

What if one of these roles is not represented?

PRODUCT OWNER

- Develops product vision
- Serves as voice of the stakeholders (liaison)
- Collects requirements from stakeholders
- Determines value of features
- Prioritizes backlog items based on value
- Controls the budget
- Oversees return on investment
- Validates product quality

Product Owner

Stakeholders

DEVELOPERS

- Also known as the Development Team
- Self-organized
- Builds the product increments during each Sprint
- Estimates the work
- Decides what can be done during each Sprint
- Cross-functional
- Includes all skillsets such as “QA” or “Tester”
- Every necessary skillset is represented

Scrum Guide Update!

The Development Team is now called “Developers”

Why?

- It was too easy to confuse with The Scrum Team
- Team within a team was confusing!
- Now there is one team – The Scrum Team
  - Developers
  - Scrum Master
  - Product Owner

Scrum Guide Update!

Change from self-organizing to self-managing

Why?

- Self-organizing was widely misinterpreted to mean that agile developers do not have to meet commitments
- The team self-manages to deliver on its commitments to meet the goals
- Self-managing means acting more like an intelligent system
- Based on Complex Adaptive System Theory (a framework with simple constraints will cause the team to self-organize into a hyper-productive state)

SCRUM MASTER

- Coaches the team members in self-management and cross-functionality
- Helps the Scrum Team focus on creating high-value Increments that meet the Definition of Done
- Removes impediments to the Scrum Team’s progress
- Ensures that all Scrum events take place and are:
  - positive
  - productive, and
  - adhere to the timebox

Scrum Master

Scrum Masters are true leaders who serve the Scrum Team and the larger organization.

Service to the Product Owner:

- Helps to find techniques to define Product Goal and manage Product Backlog
- Helps the Scrum Team understand the need for clear and concise Product Backlog items
- Facilitates stakeholder collaboration

Service to the Organization:

- Leads, trains, and coaches the organization in Scrum
- Plans and advises Scrum implementations within the organization
- Removes barriers between stakeholders and Scrum Teams

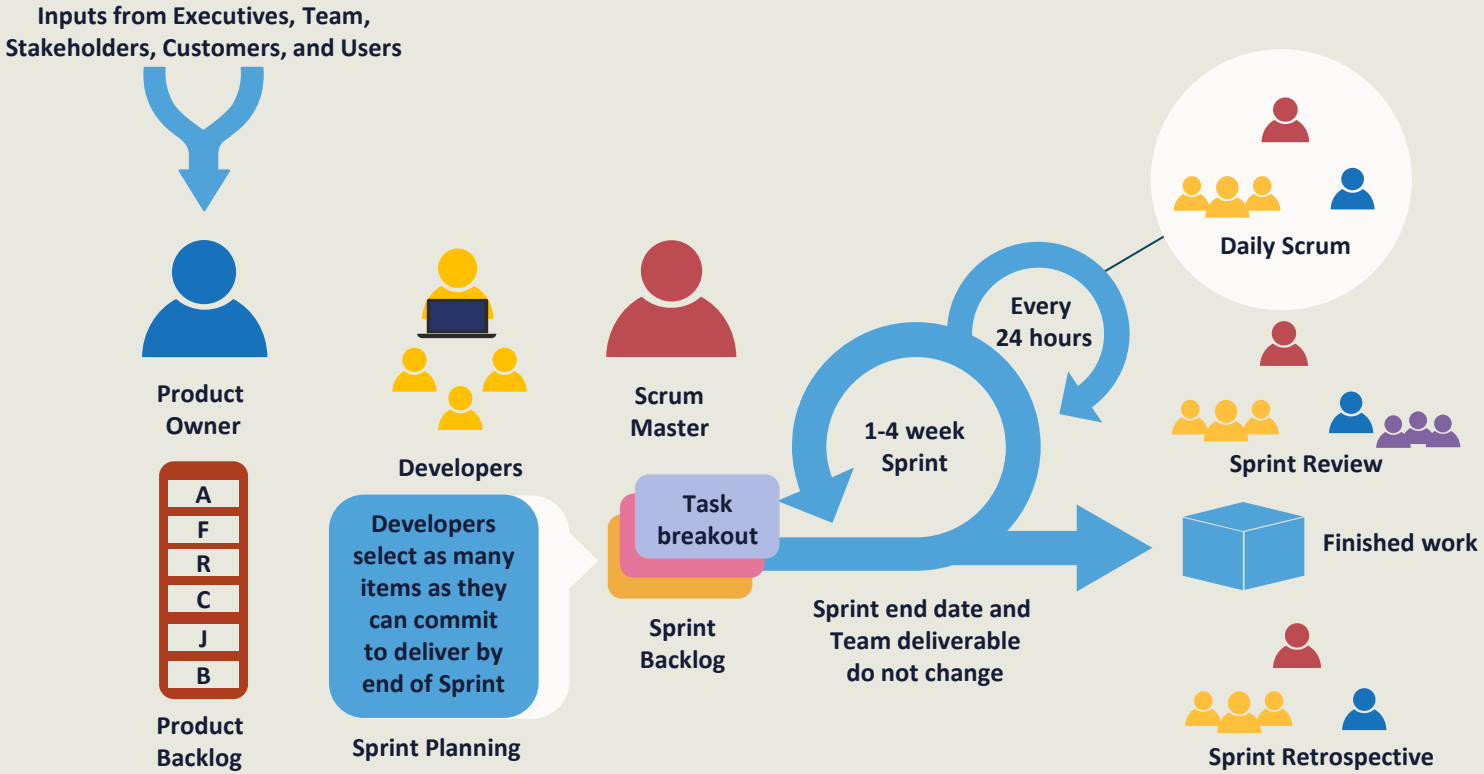
Scrum Guide Update!

The term “Servant Leader” is no longer used.
It is now a “leader who serves”.

Why?

- **Although the term is still valuable, the Scrum Master must be a leader first and a servant second.**
- **The Scrum Master is accountable for the team’s effectiveness, by leading *and* by serving.**

SCRUM FRAMEWORK

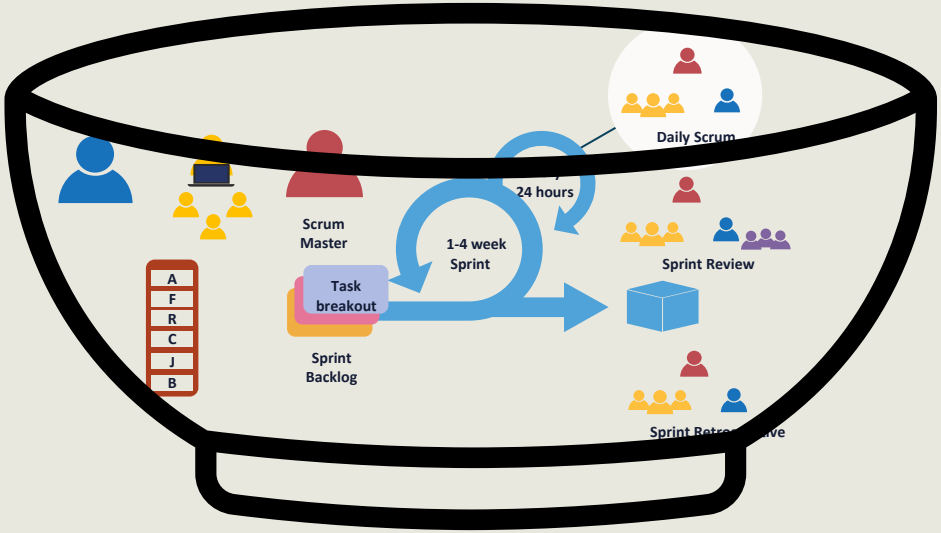


SCRUM EVENTS

- Four formal events
  - Sprint Planning
  - Daily Scrum
  - Sprint Review
  - Sprint Retrospective

- Opportunities for:
  - Inspection
  - Adaptation

The Sprint is a container for all other events



SPRINT CADENCE

Sprints are the heartbeat of Scrum…

- **Sprint durations should be equal**
- **Sprints shouldn’t exceed one month**
- **Determines frequency of stakeholder interaction**

Considerations for a canceled Sprint

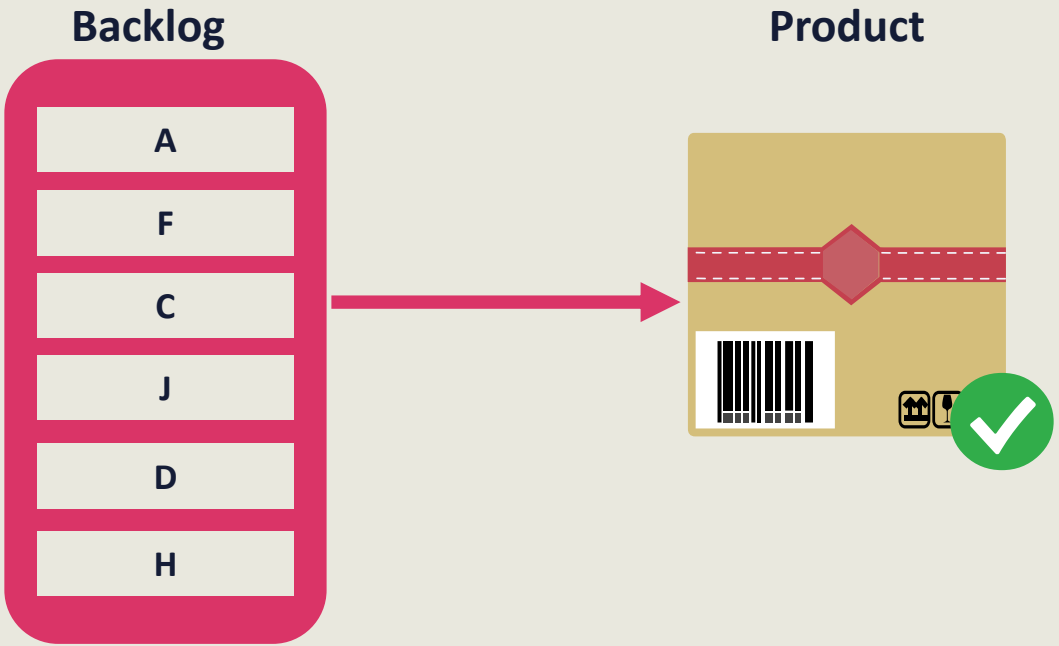
- **Changing the cadence can disrupt the rhythm**
- **Shorten the Sprint by moving up the Sprint Review (if any) and the Retrospective**
- **Easier with shorter Sprints**
- **Product Owner will decide how cancelation impacts the cadence**

SPRINT TO SPRINT

- The Sprint Retrospective concludes the Sprint
- There is no gap in between Sprints
- Start the next Sprint Planning immediately after the Sprint Retrospective
- This continues indefinitely

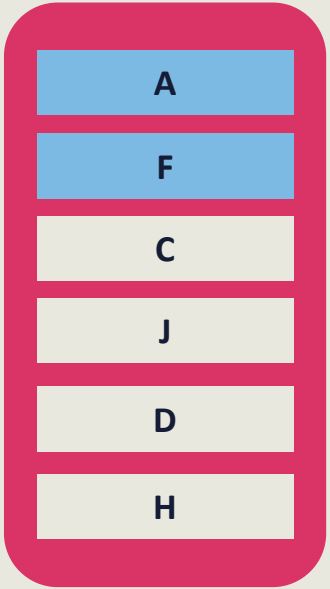
PRODUCT BACKLOG

- Prioritized list of everything that is needed in the product
- All work should be included
  - Bug fixes
  - Security features
  - Changes
- Single source of product requirements
- Scrum Guide calls these product backlog items
- Always changing
- Items are added, dropped, and reprioritized based on value
- The product is built incrementally based on work selected from the backlog



PRODUCT INCREMENT

- The result of the latest sprint
- Demo during sprint review
- Must meet the “definition of done” established during planning
- Incomplete work is not demonstrated

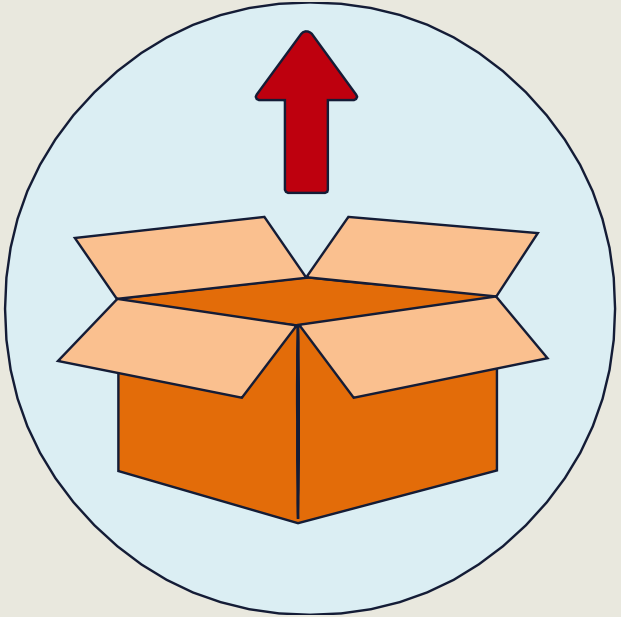


SMALL RELEASES

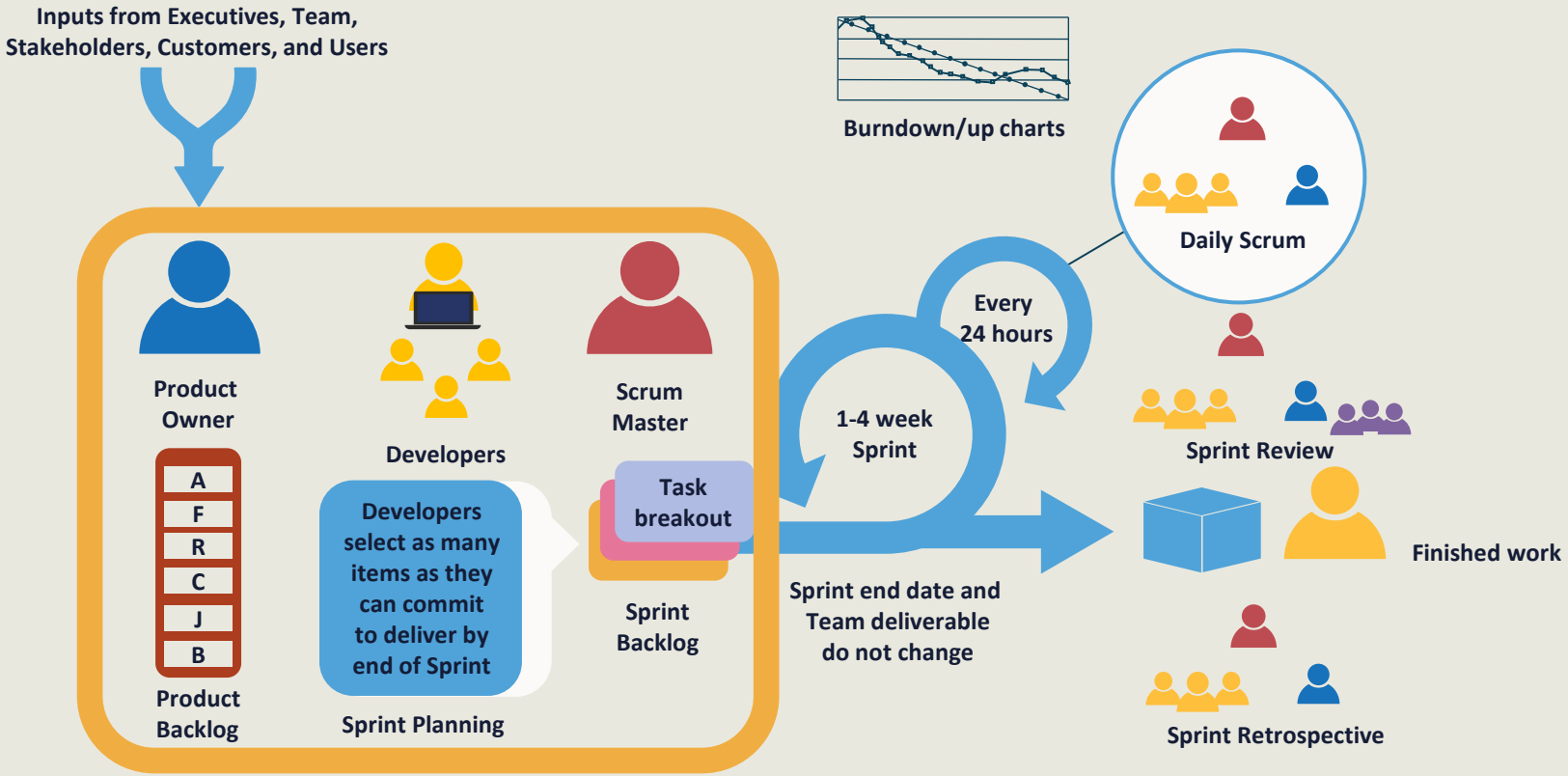
Demonstrates progress

Increases visibility to the customer

Smaller increments means rapid deployments

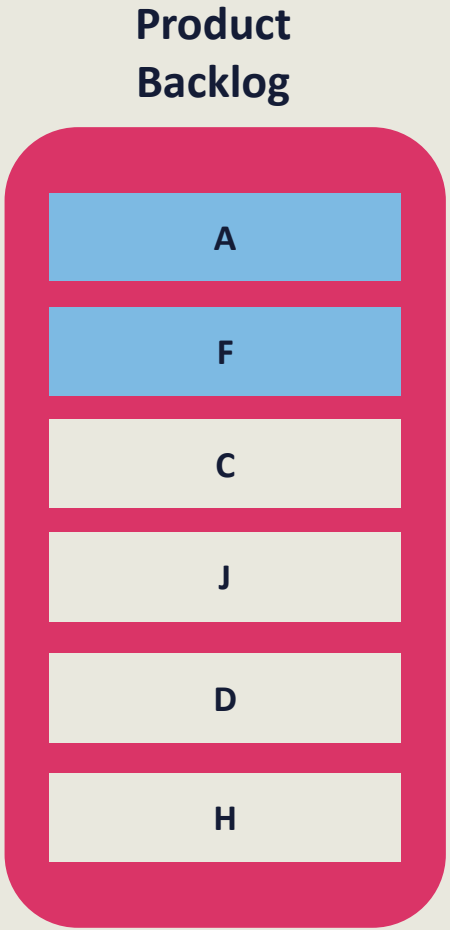


SPRINT PLANNING



SPRINT PLANNING

- Includes all Scrum Team members
- Product Owner presents the updated backlog
- Developers estimate the work
- Work is selected from the product backlog to create the Sprint backlog.
- Developers commit to a set of deliverables for the Sprint
- Establish a “Definition of Done”



Scrum Guide Update!

Old Sprint Planning questions:

- What can be delivered in the Increment resulting from the upcoming Sprint?
- How will the work needed to deliver the Increment be achieved?

New Sprint Planning questions:

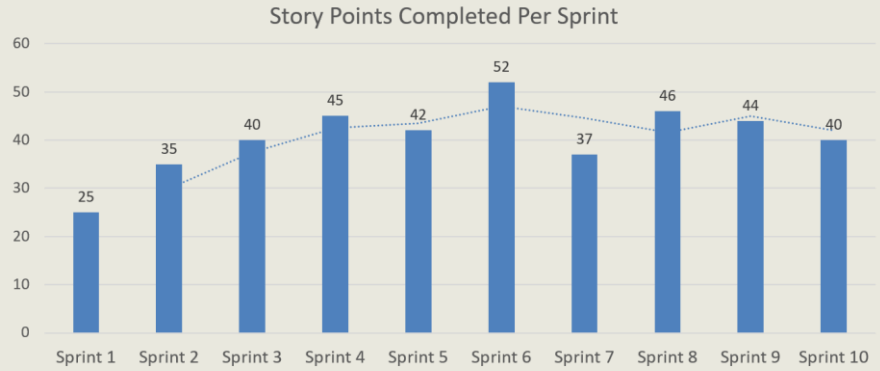
- Why is this Sprint valuable?
- What can be done this Sprint?
- How will the chosen work get done?

Why?

- It expands the focus to include Why? “Why” should be the top question, followed by the others.

WHAT CAN BE DONE THIS SPRINT?

The more the Developers know about their past performance, their upcoming capacity, and their Definition of Done, the more confident they will be in their Sprint forecasts.

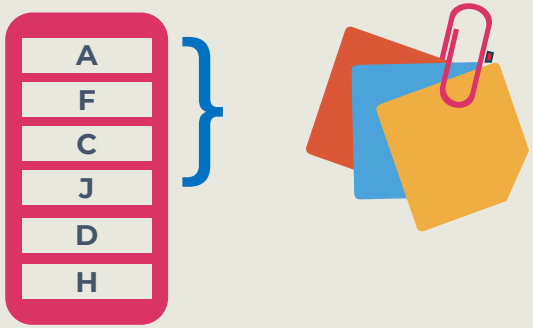


HOW WILL THE CHOSEN WORK GET DONE?

- The Developers will decide how to approach the work
- For each selected Product Backlog item, the Developers plan the work
- They must create an Increment that meets the Definition of Done.
- They often start by decomposing Product Backlog items into smaller work items of one day or less.

Prioritized Features
Product Backlog Items

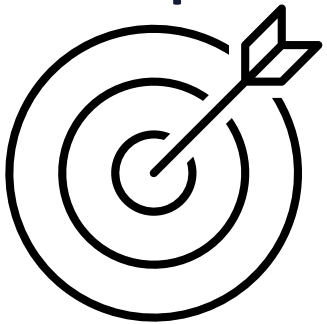
Product backlog



One feature may equal one or more user stories.

Scrum Guide Update!

Why is this Sprint Valuable?



Introducing the Product Goal

Why?

- There was no link between the Sprint and a higher-level vision
- The Sprint was just a bunch of tasks
- Now, every one of the 3 Scrum Artifacts has a commitment
- Product Backlog → Product Goal (overall purpose)
- Sprint Backlog → Sprint Goal
- Increment → Definition of Done

Scrum Guide Update!

The Product Backlog May Be Refined *During* the Sprint

- No changes are made that would endanger the Sprint Goal;
- Quality does not decrease;
- The Product Backlog is refined as needed; and,
- Scope may be clarified and renegotiated with the Product Owner as more is learned.

Why?

- It increases understanding and confidence about what is being developed.

SPRINT GOAL

- Start with high level goal for functionality needed
- Select product backlog items that align with the goal
- Some unrelated but priority backlog items may be included
- Developers will decide if the amount of work is realistic
- The goal is fixed, the Sprint backlog can evolve

Sprint Goal

“Why”

Product Backlog Items

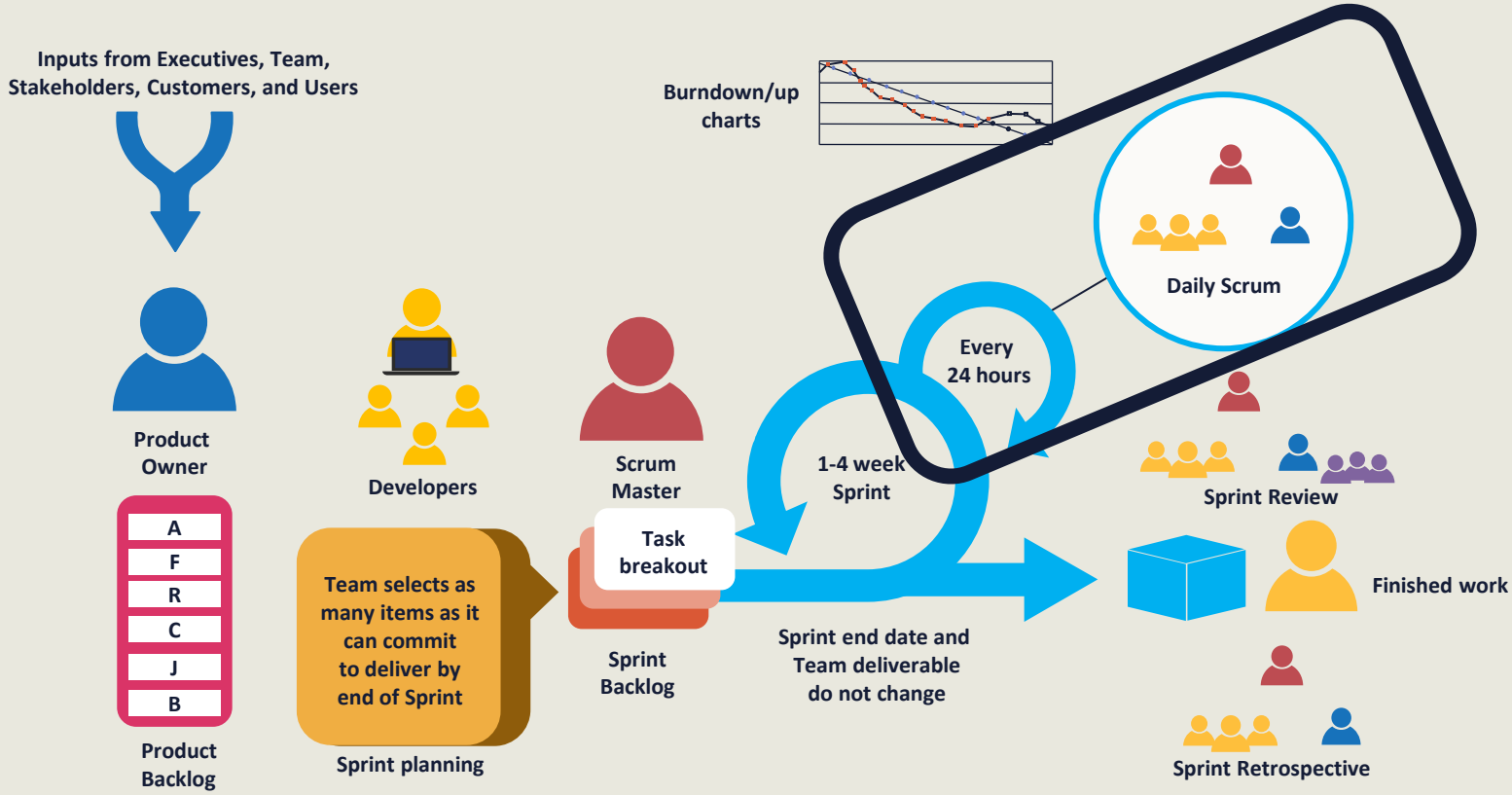
“What”

Action Plan

“How”

WHAT IS IN THE SPRINT BACKLOG?

DAILY SCRUM OR STAND-UP



DAILY SCRUM

“What did I do yesterday?”
“What will I do today?”
“What are my roadblocks?”

- The Daily Scrum is held at the same time and same place each day
- The routine keeps things simple
- Although it is also known as the “Daily Standup”, team members are not required to stand
- Inspect and adapt Sprint backlog
- Identify progress and remaining work against the Sprint goal
- Typically 15 minutes or less
- Reserve off-topic subjects for a separate discussion
- Developers own this event
- Scrum Master and Product Owner presence is helpful but not required

Scrum Guide Update!

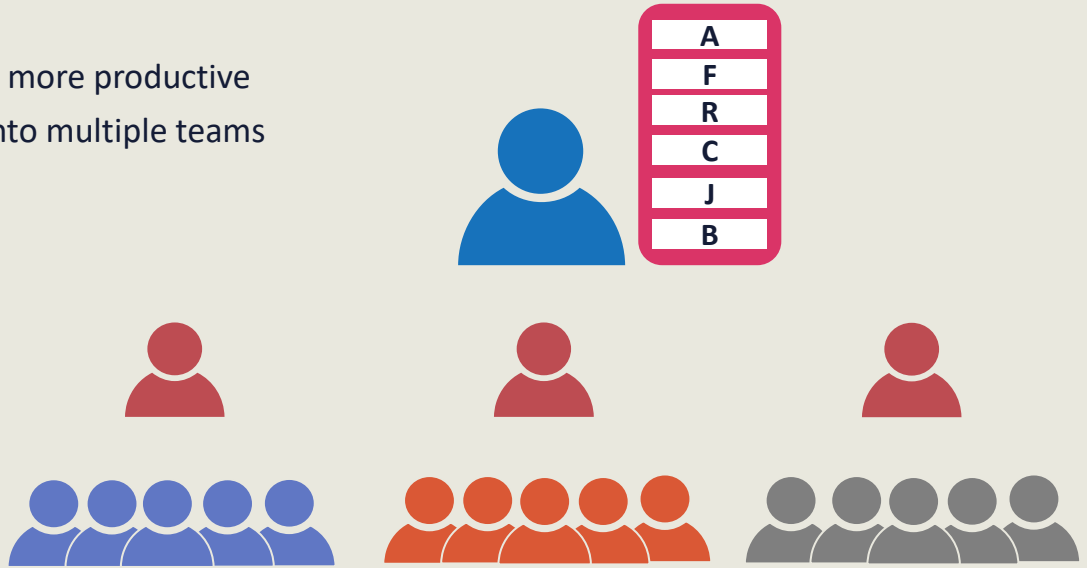
Removed the three questions

Why?

- It was prescriptive
- Not enough cross-collaboration
- It only helped the people who used the questions
- It confused others
- Provides more flexibility for the Daily Scrum

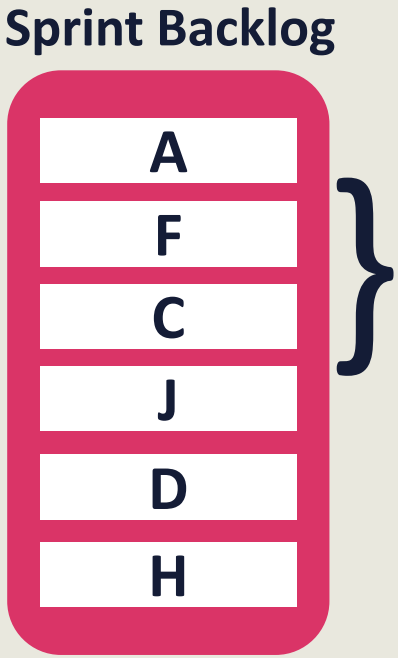
MULTIPLE DEVELOPER TEAMS

- “The Scrum Team should be small enough to remain nimble and large enough to complete significant work within a Sprint”
- 10 or fewer people In general
- Smaller teams communicate better and are more productive
- Large teams should consider reorganizing into multiple teams
- They should share the same:
  - Product Goal
  - Product Backlog, and
  - Product Owner
- Each Developer team has a Scrum Master



SPRINT BACKLOG

- Belongs to the Developers
- Subset of the product backlog
- Used to achieve the goal for the current Sprint
- Highly detailed and visible
- The Developers decide how to approach and select the work
- Developers hold themselves and each other accountable
- Although tasks are divided, each Sprint backlog item is owned by the entire group
- May need to be renegotiated with Product Owner in order to meet the Sprint Goal

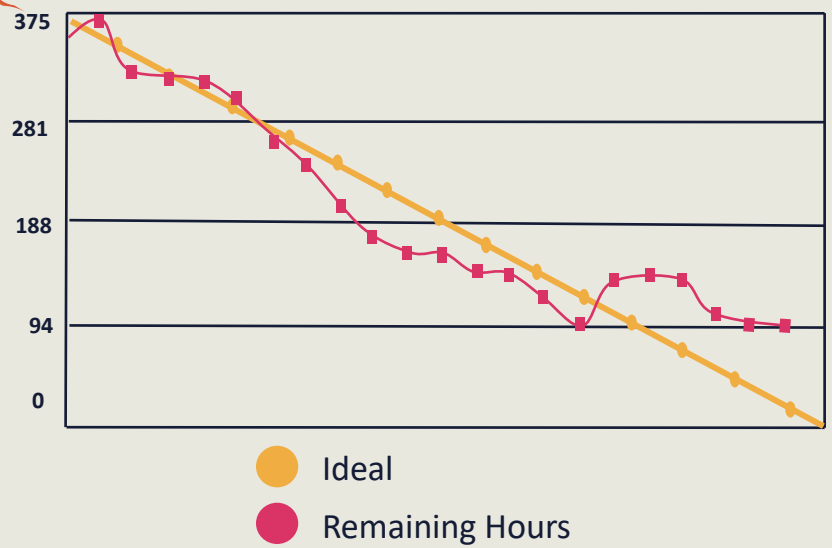


PERFORMANCE TRACKING: BURN CHARTS

Burndown and burnup charts

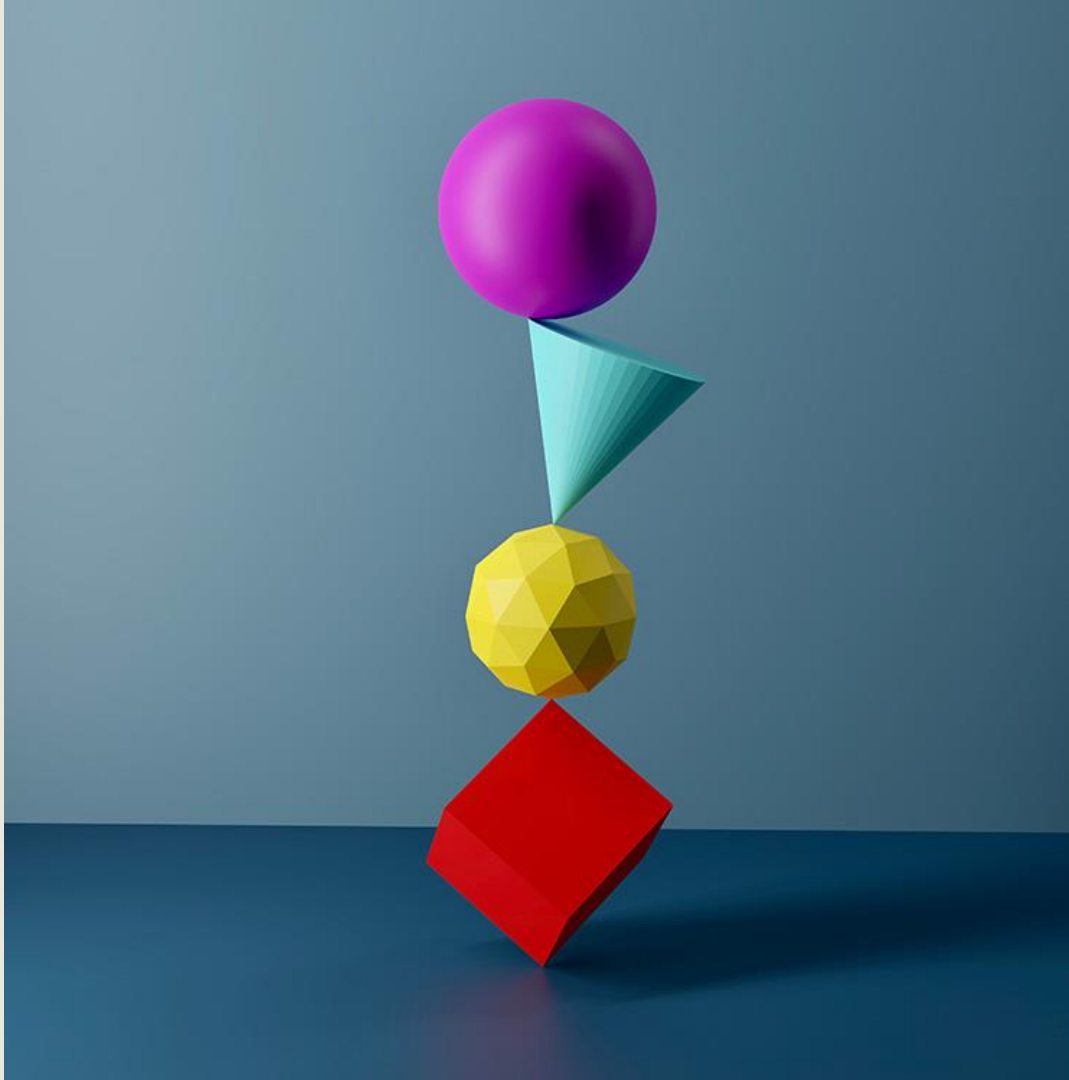
“Information Radiators”

- Generic term for a highly visible information display
- Graphs, charts, data dashboard
- Communication tool
- Shows remaining work for the Sprint
- Trend line shows the running average, and what will likely happen if progress continues at this rate

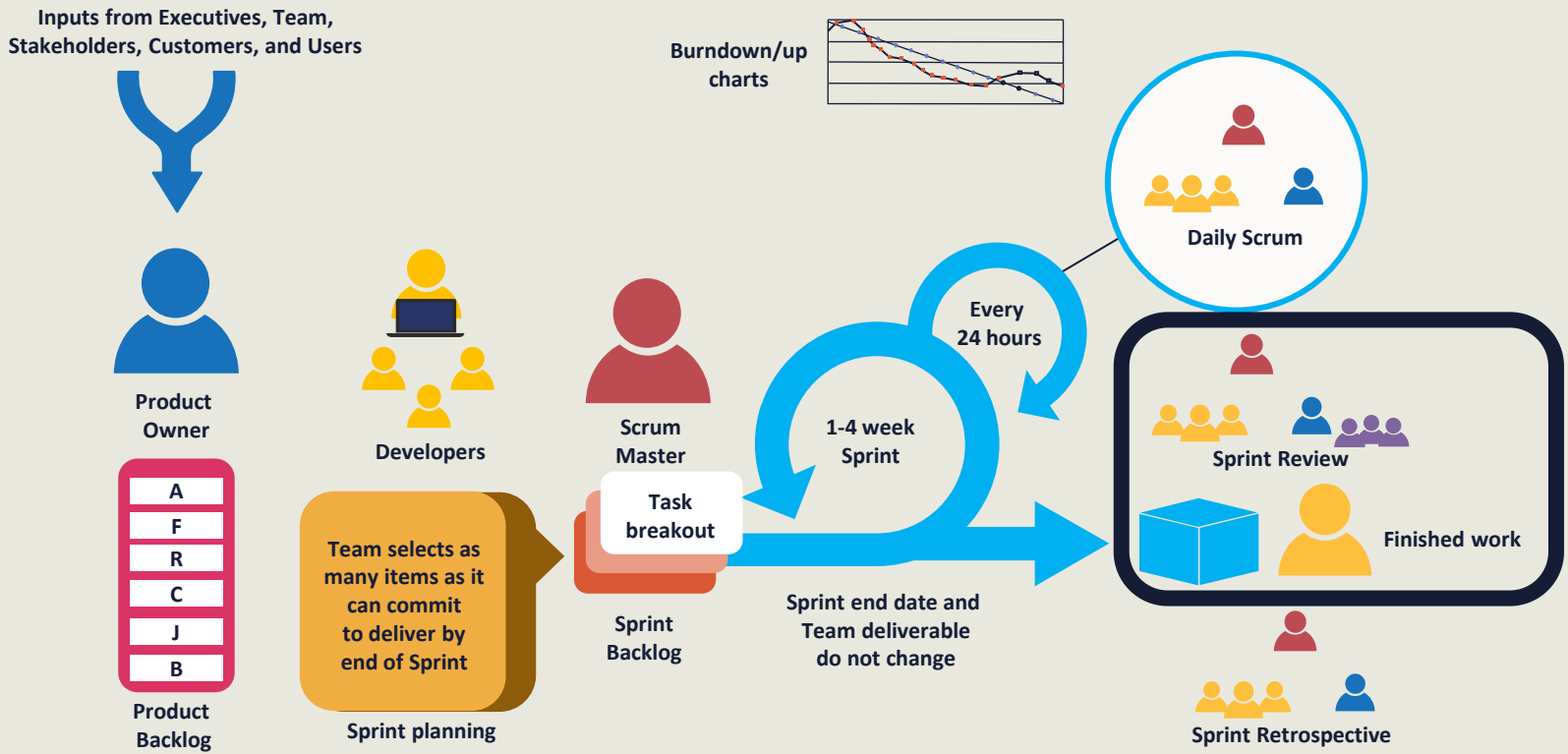


CROSS-FUNCTIONAL DEVELOPMENT TEAM

- There is a balance of skills among the developers
- Every necessary skill and competency is represented
- “Developer” is a generic term. It includes every person who contributes to the “Done” product increment
- Borrowing team members can be disruptive
- Teams are organized around the project
- Team members may change
  - Consider the impact on productivity
  - More of an exception

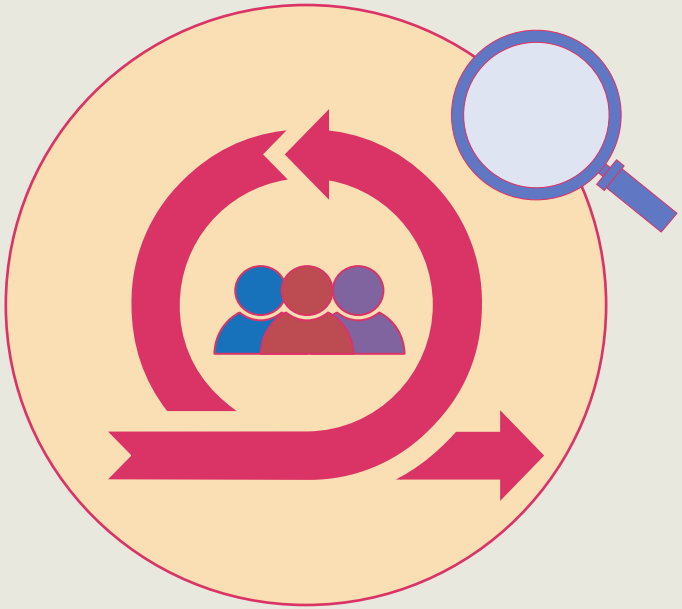


SPRINT REVIEW



SPRINT REVIEW

- Occurs at the end of a Sprint
- Participants
  - Developers
  - Scrum Master
  - Product Owner
  - Stakeholders (invited by Product Owner)
- Developers demos the product to product owner and possibly stakeholders
- Scrum Team and stakeholders inspect deliverables
- Elicit feedback and foster collaboration
- Team and product owner adapt product backlog if necessary



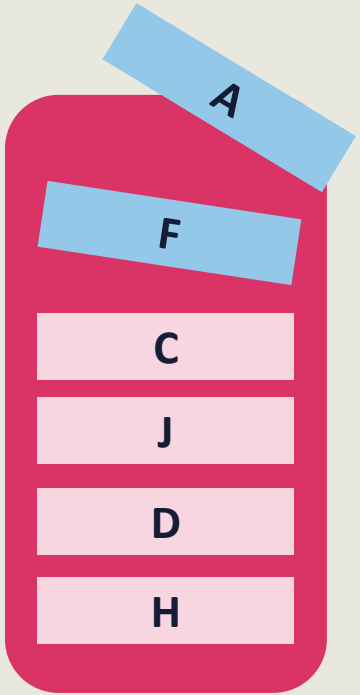
DEFINITION OF DONE

Definition of Done

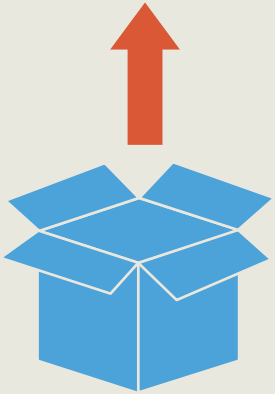
- Formal description of the increment when it meets quality requirements
- Example of transparency, shared understanding
- If DoD is not met, increment is not presented during Sprint Review

PRODUCT INCREMENT

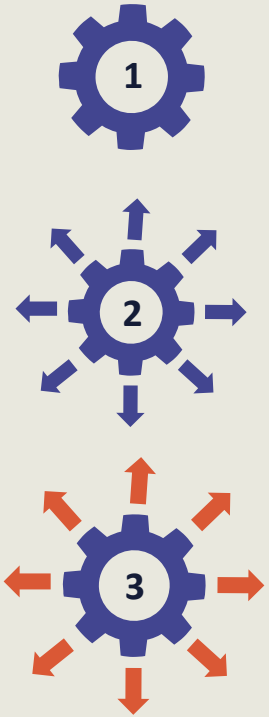
- The result of the latest Sprint
- Demo during Sprint Review
- Must meet the “Definition of Done” established during planning
- “The moment a product backlog item meets the Definition of Done, an increment is born.”



PRODUCT SCOPE EVOLVES



Each Sprint may be considered a short project



SPRINT REVIEW

- Informal gathering
- Elicit feedback
- Does it solve a problem?
- Does it serve a purpose?
- Is it user friendly?

CANCELING A SPRINT

Only the Product Owner can make the decision

- Sprint goal becomes obsolete
- New constraint in the project environment
- Decision is based on value
- Something else is more urgent

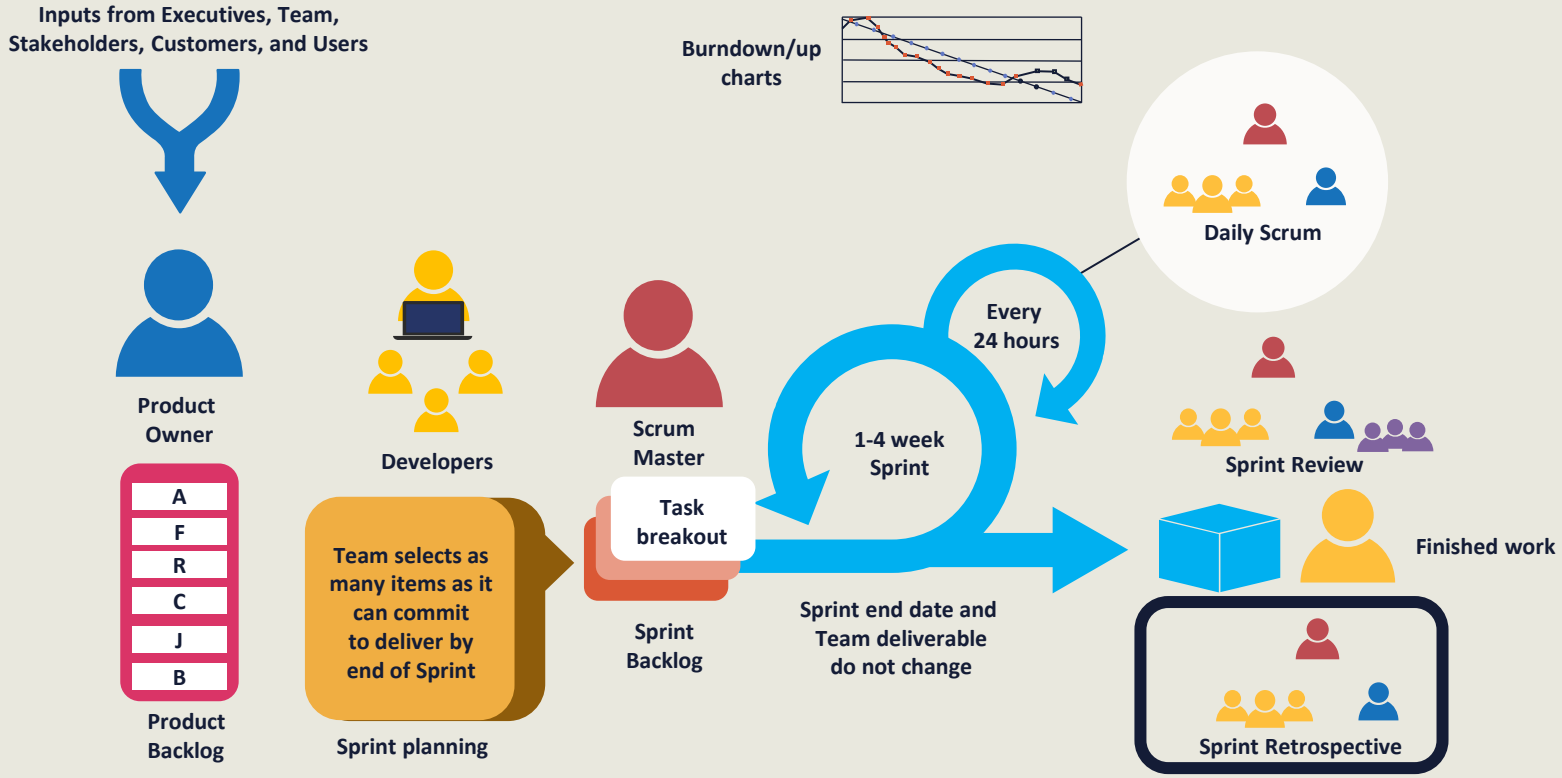
Done Work

- Determine if there is enough for a Sprint Review

Work in Progress (WIP)

- Re-estimate incomplete work and return it to the product backlog

SPRINT RETROSPECTIVE



SPRINT RETROSPECTIVE

Participants

- The Scrum Team
  - Developers
  - Scrum Master
  - Product Owner

Evaluate the last Sprint. How did we do in terms of:

- Individuals
- Interactions
- Processes
- Tools
- Our Definition of Done

Plan improvements for next iteration

Examples:

Do we need to change our Definition of Done?

Are we communicating well?

Do we need to build any of our skills?

TIME BOXING

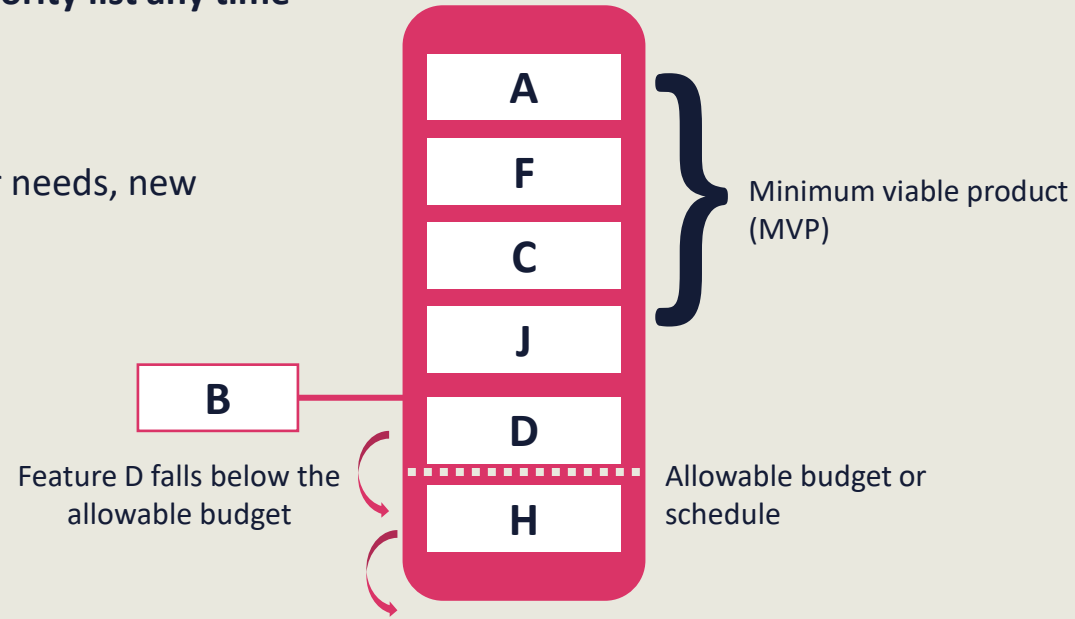
- Each Scrum event has maximum time allotted
- One month Sprint – maximum times
  - Sprint Planning: 8 hours
  - Daily Scrum: 15 minutes
  - Sprint Review: 4 hours
  - Sprint Retrospective 3 hours

- If it doesn’t fit it has to wait
- Shorter Sprints:
  - generate more learning cycles
  - limit risk of cost and effort to a smaller time frame
- Tool for completing work

BACKLOG REFINEMENT

New features can be inserted into the priority list any time

- Not a Scrum event
- Product owner decides priority
- Constantly changes based on customer needs, new learning, and value



ADDITIONAL RESOURCES

Ken Schwaber considers the Scrum Guide one of 4 components

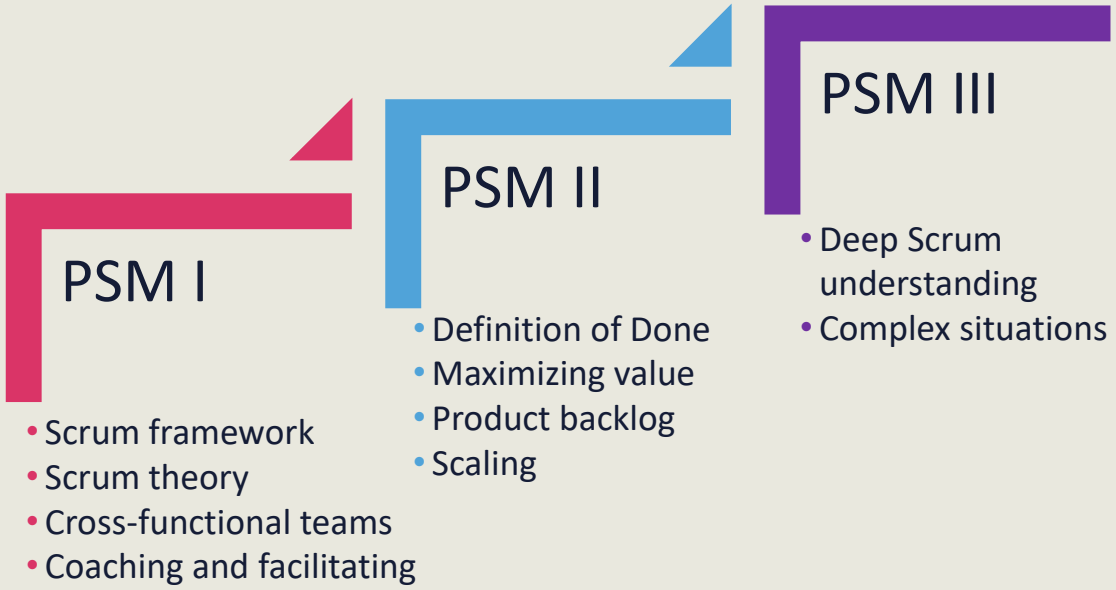
Scrum Guide	Fundamental Lean Tools and Principles
Pattern Language	Scaling Fundamentals

https://www.scruminc.com/pattern-language/

PROFESSIONAL SCRUM MASTER JOURNEY

scrum.org

Progression of certifications



DAILY BOOTCAMP SURVEY

Please share your thoughts.

At the end of each Bootcamp session please let us know how we are doing. Your feedback helps us to offer the best possible Bootcamp experience.

Thank you for attending this Bootcamp!