PSM : Scrum Master

Navesse Course Book (3rd Edition)

Prepared by Serkan Kaya

Agile Coach

According to new Scrum Guide 2020

Professional Scrum Master™ (PSM) Training by SCRUM.ORG

NAVESSE

Founder & PMI Authorized Coach

- **Computer Engineer**
- **Executive MBA**

1 billion $ projects delivery in 30+ countries

Serkan Kaya (Mr. Sergio)
Founder & Coach

CERTIFICATIONS

- PMI-PMP since 2005
- PMI-RMP
- PMI-ACP, PSM, PSPO, SPS
- ITIL4 Strategist

EXPERIENCE

- 25+ years
- 30+ countries
- Project & Program Management
- Nokia, Vodafone, Sumitomo, Nortel Networks…

Authorized Training Partner Instructor badge possess a PMP® certification as well as Agile project experience.

Know my student

NAVESSE

- Name & Graduation ?
- Years of Work Experience ?
- Industry and Position ?
- Why Scrum?

Objectives

Passing the PSM Exam is Our First Goal !!!

1. **Learn Rules of Scrum (R.E.AR 3-5-3)**
2. **Make assessments**
3. **Pay Exam fee in scrumorg via paypal or credit card**
4. **Sit 1h exam from home**

About PSM Exam

- ✓ 1 hour exam
- ✓ 80 Questions
- ✓ 85% Pass Score = 68 CORRECT/ 12 WRONG)
- ✓ $150 exam fee (online pay at Scrum.org)
- ✓ Take the exam online (at Scrum.org)
- ✓ Claim PDUs if you have PMI certificate

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TRAINING CENTER

PROFESSIONAL SCRUM PSM MASTER

Title:	Professional Scrum Master I (PSM I)
Percentage:	100%
Duration:	00:44:17
Date started:	Fri 14 Jan 2022 01:39
Date finished:	Fri 14 Jan 2022 02:24

Feedback

Congratulations! Your score on the Professional Scrum Master I (PSM I) assessment demonstrates that you have a fundamental understanding of the Scrum roles, events, artifacts, and rules as described in the Scrum Guide.

Scrum on,
Ken Schwaber

Scrum.org
The Home of Scrum

PROFESSIONAL CERTIFICATION

PROFESSIONAL SCRUM MASTER I

Thet Thet Mon

has demonstrated a fundamental level of Scrum mastery, including the concepts of applying Scrum, and proven an understanding of Scrum as described in the Scrum Guide. This individual has also demonstrated a consistent use of terminology and approach to Scrum.

In recognition of this achievement, Scrum.org is pleased to award this certification.

PSM I
Scrum.org

Ken Schwaber, founder Scrum.org

January 13, 2022
Certification Date

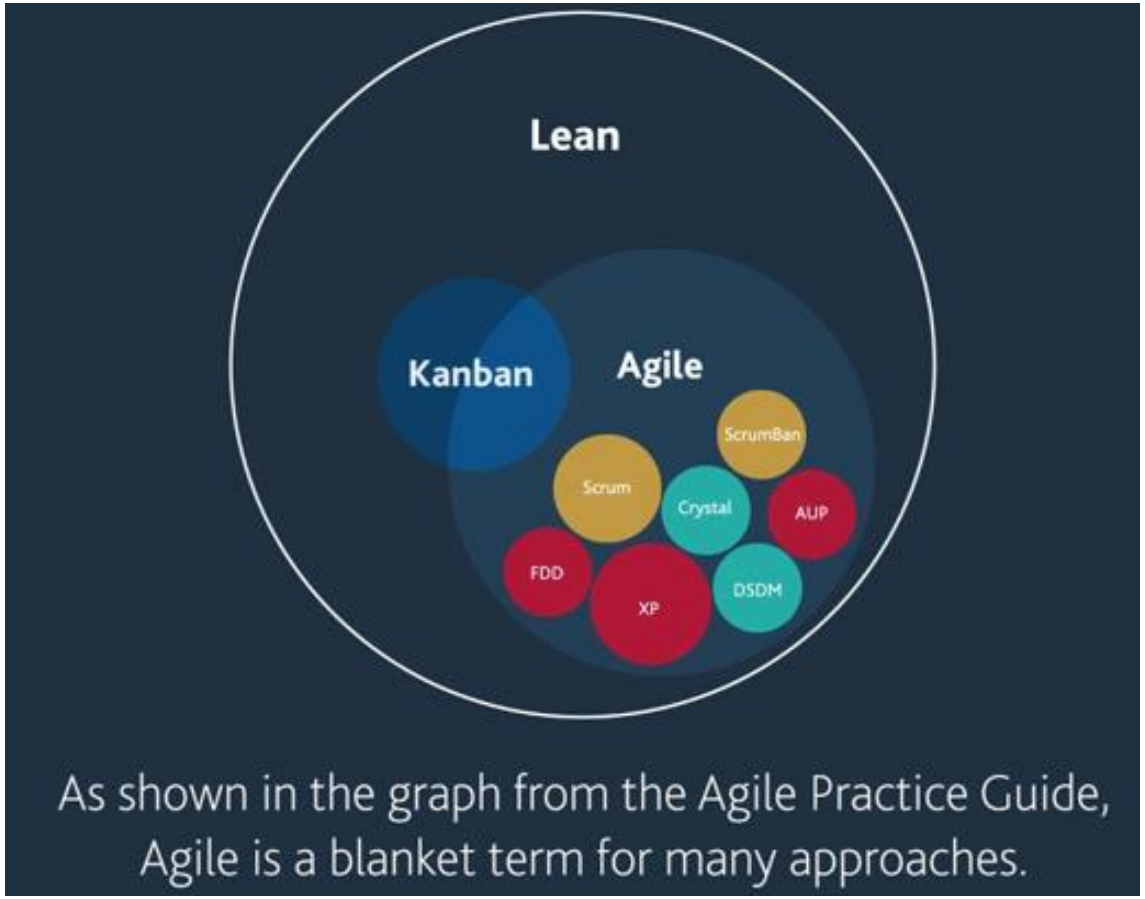
https://scrum.org/certificates/747895

Table of Contents

Section-1: INTRODUCTION TO AGILE

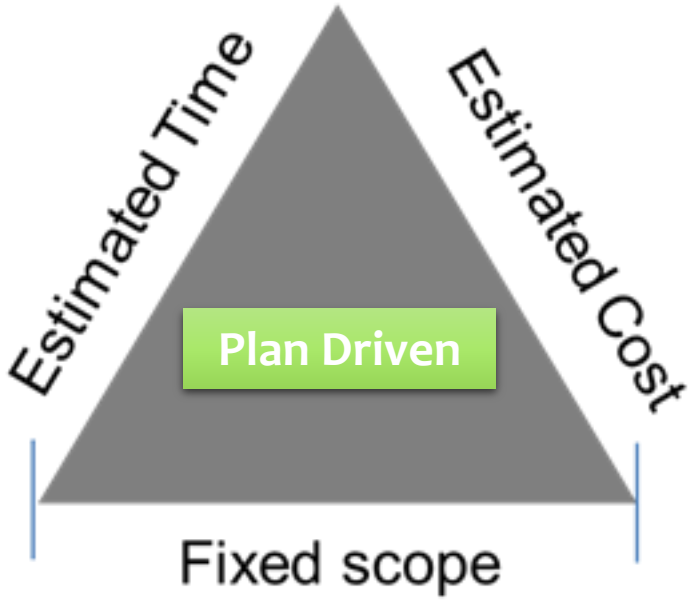
Agile is ?

- **Approach.**
- Not new.
- Proven.
- **Disciplined.**
- **Mindset.**
- Subset of **Lean.**
- **Blanket term** for many approaches.



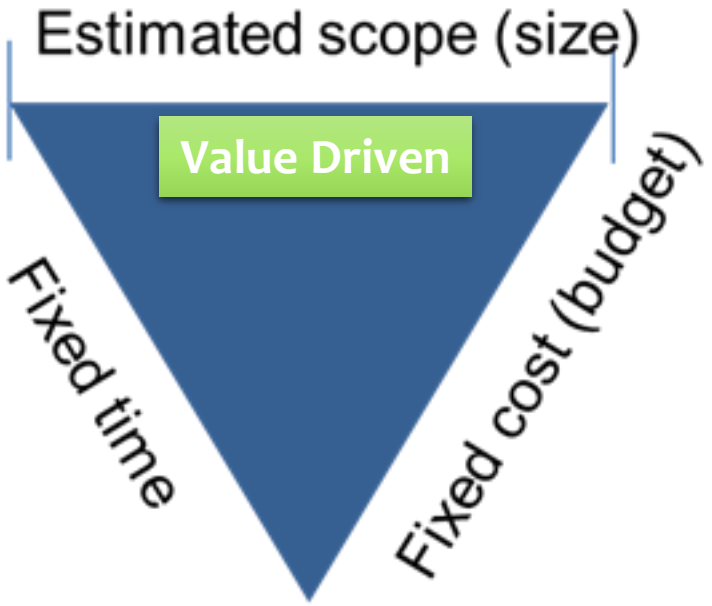
The Paradigm

TRADITIONAL



The **Requirements** or **Specification** and was **Agreed** and **Signed off** between the project team and the business or customer

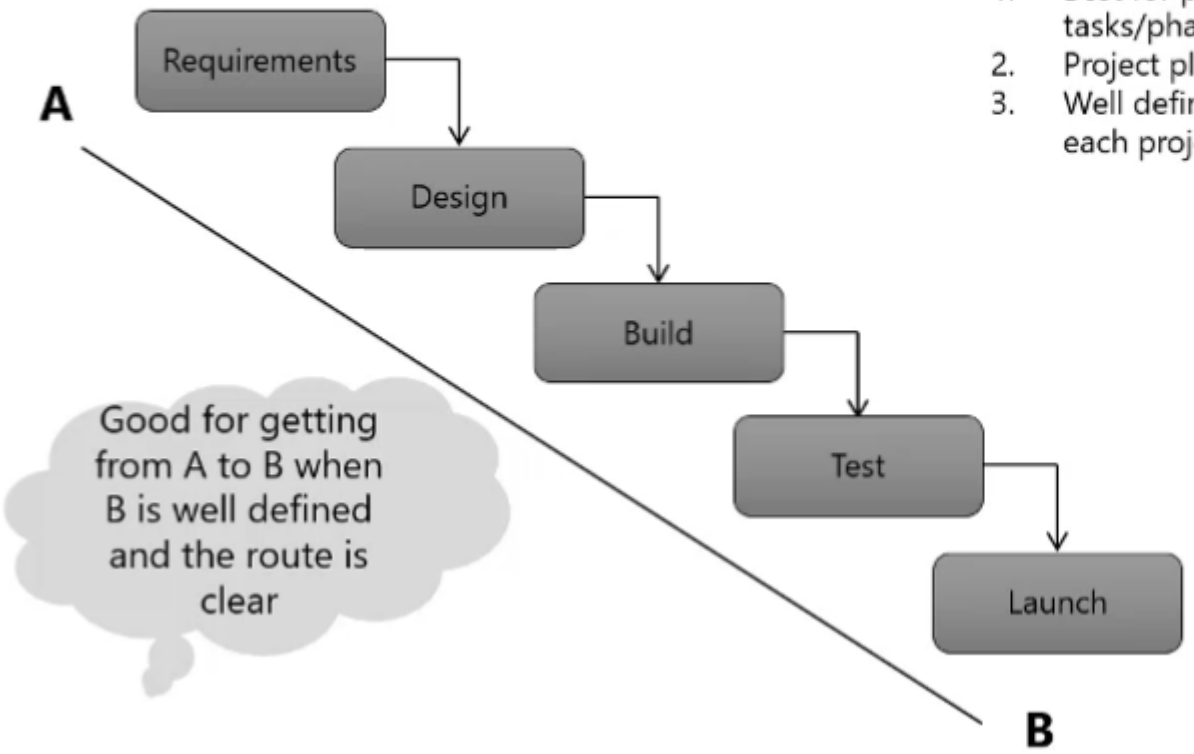
AGILE



What is Fixed and **Agreed** between the project team and the customer is the **resources** that will be used and **the time** that will be taken by the project team to deliver as much as possible of the prioritized features the customer wants.

Traditional vs Agile

- **Waterfall/Traditional** requires detailed planning at the outset, each stage is completed in full before moving to the next stage.

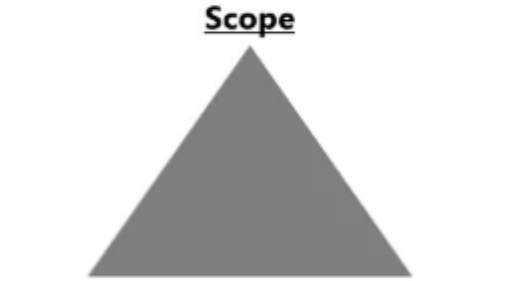


Pros

1. Best for projects well-defined tasks/phases.
2. Project plans are reusable.
3. Well defined deliverables for each project phase.

Cons

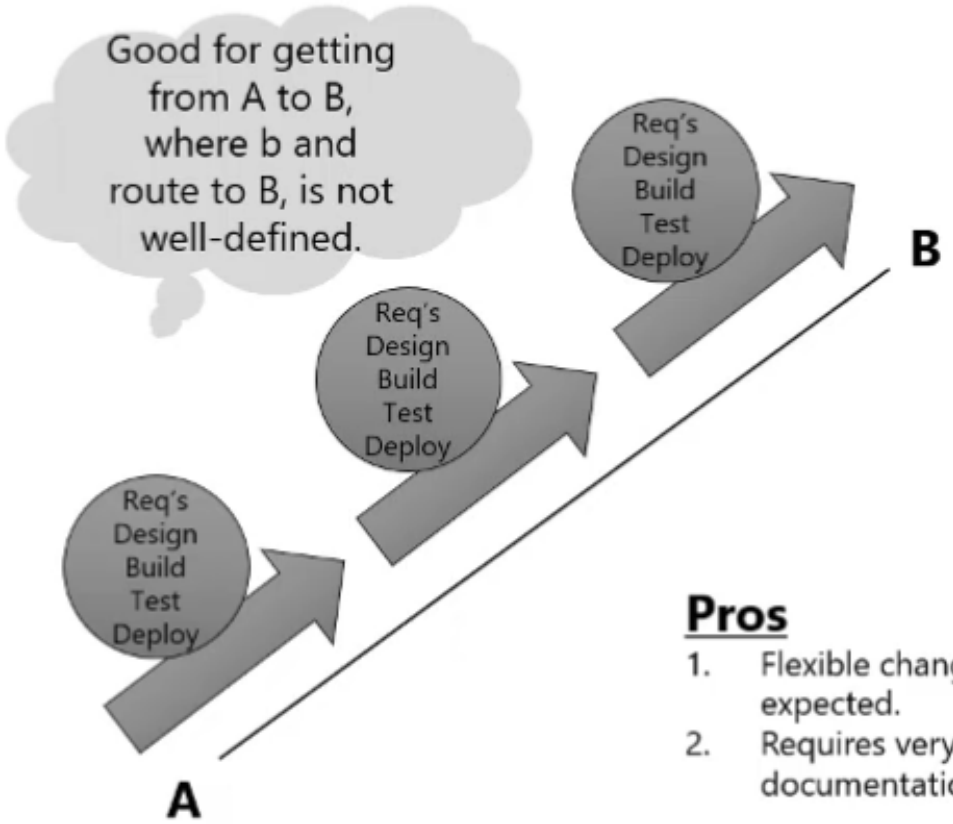
1. Requires significant planning before work starts.
2. Changes to scope can seriously impact time/cost.



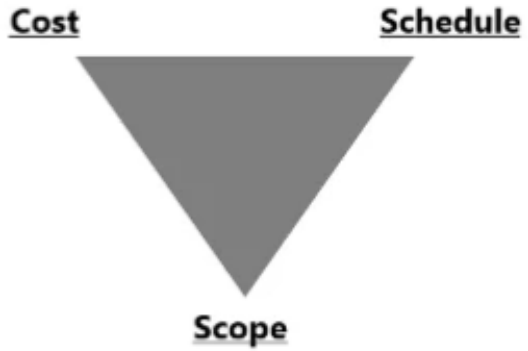
" Water fall fixes the project scope, cost and time change to match "

Traditional vs Agile

- **Agile** employs, short, iterative build and release cycles.



" Agile fixes the time and cost. Project scope is variable.



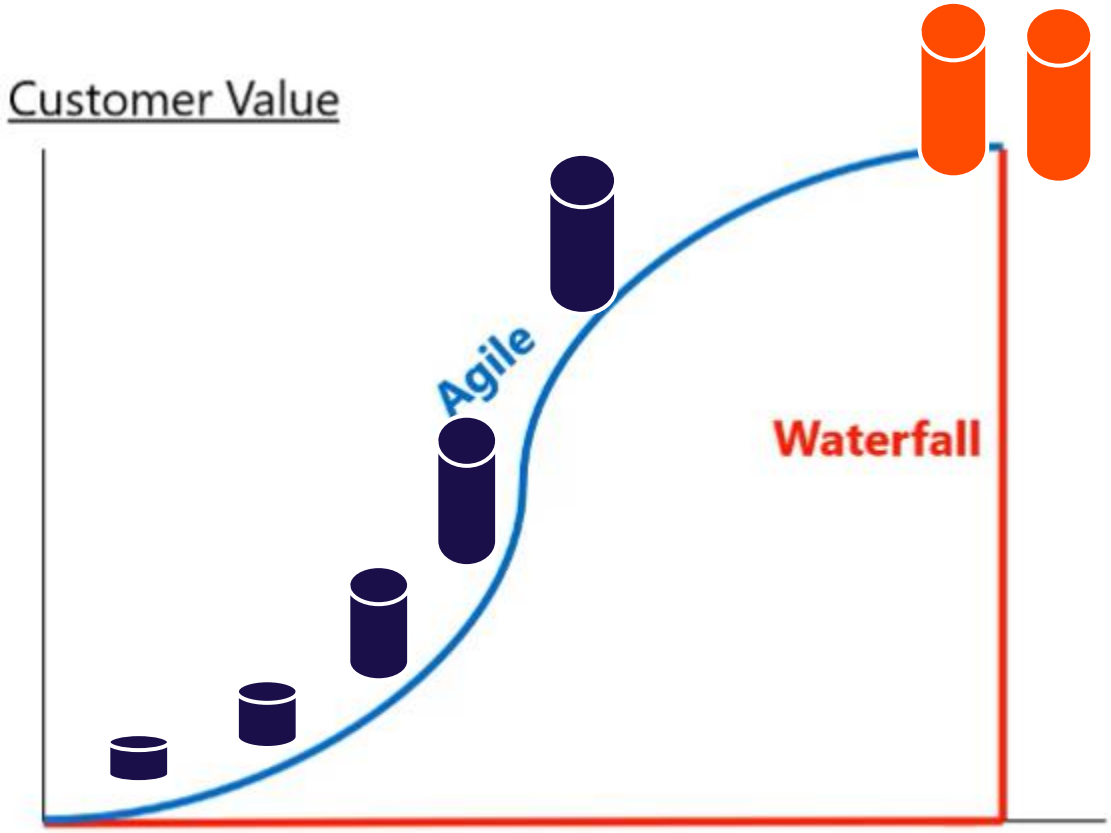
Pros

1. Flexible changes to scope are expected.
2. Requires very little documentation.

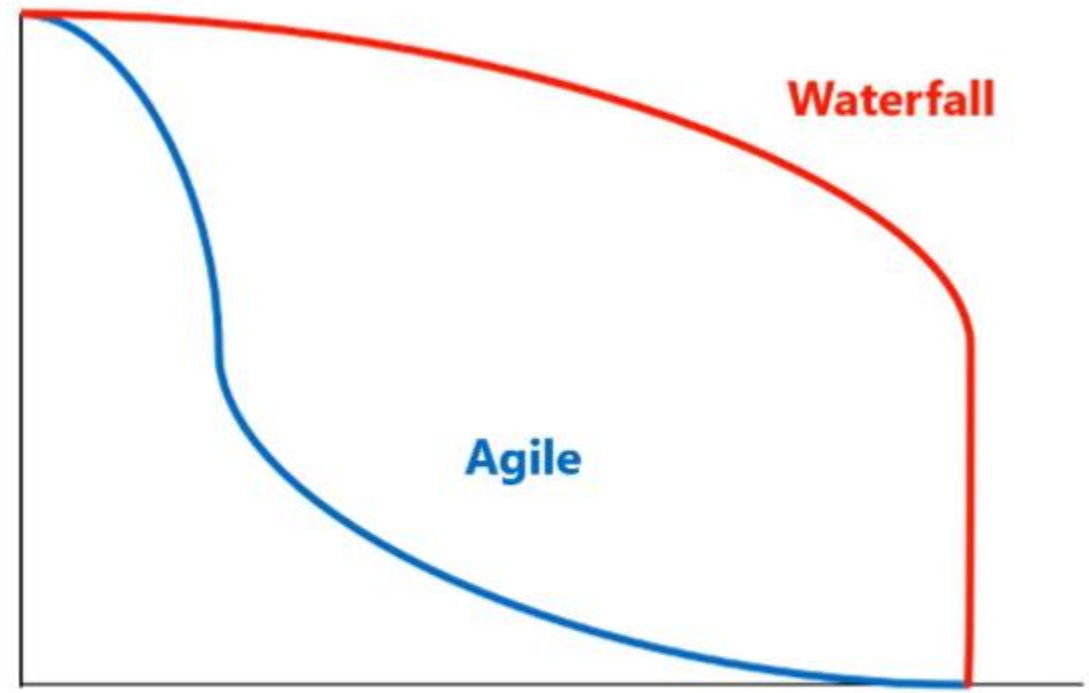
Cons

1. Variable scope and schedule can be difficult for stakeholders to accept.
2. Simple in principle, less so in practice.

Traditional vs Agile

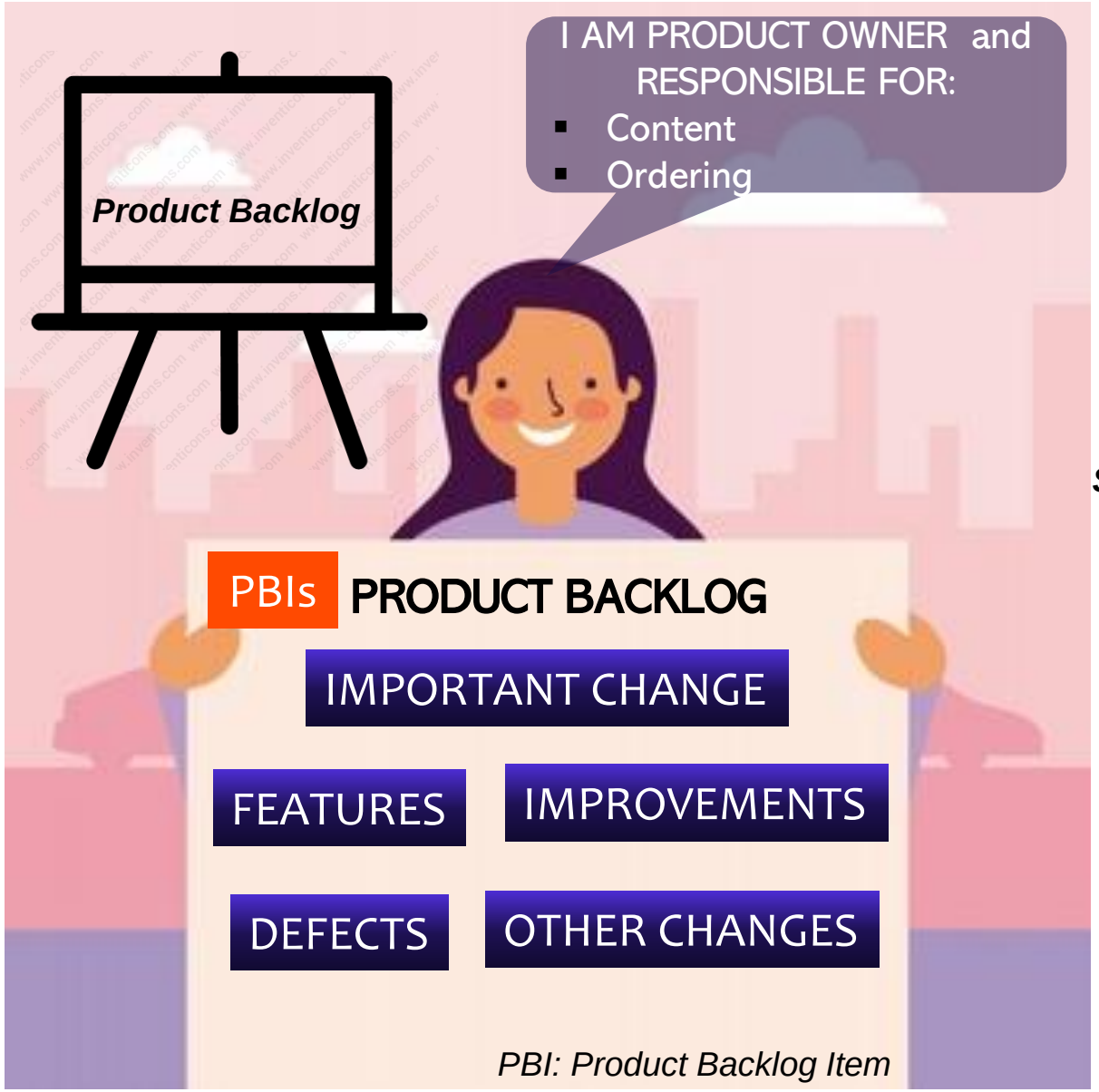


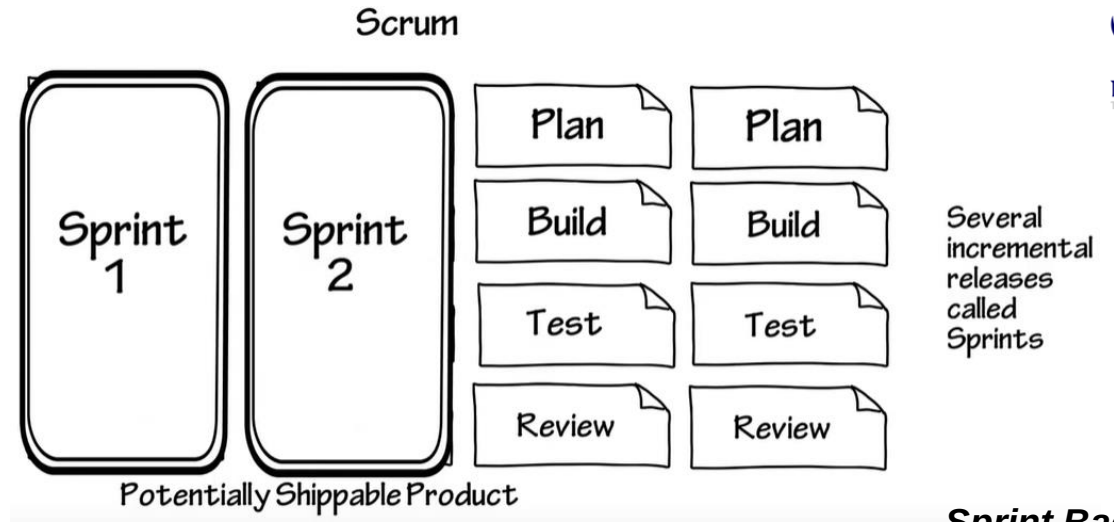
In agile, value is build early in the project and builds overtime. In waterfall, all of the value is delivered at the end of the project.

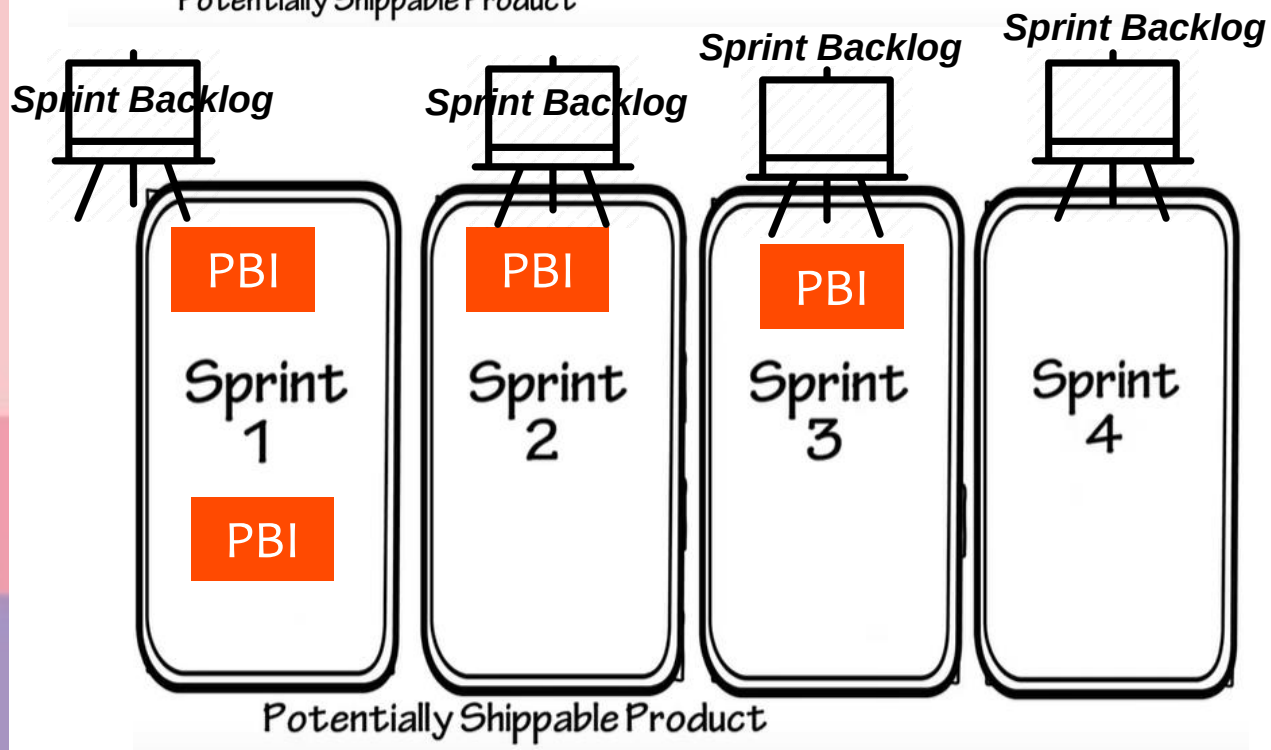


In agile, risk of failure decreases over the life time of the project. In waterfall, risk of failure increases in the build phase.

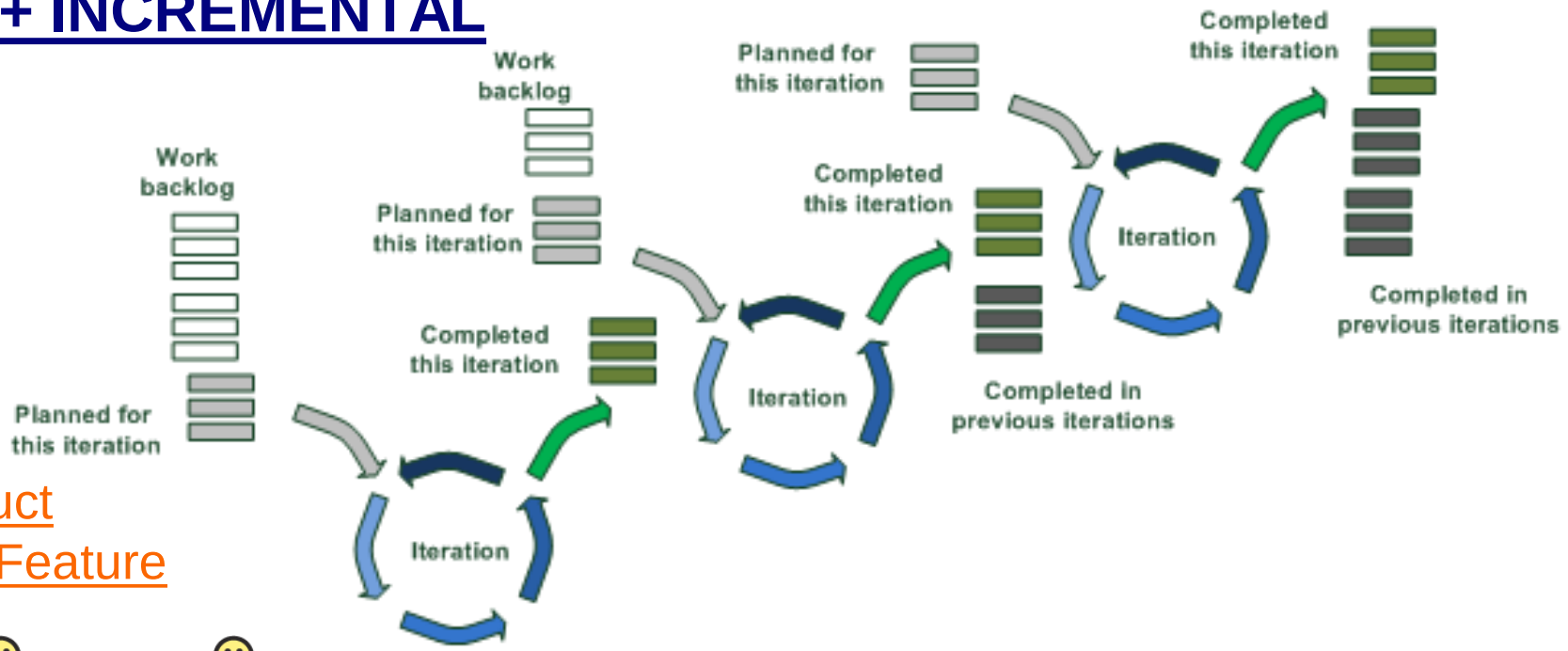
Agile SCRUM


I AM PRODUCT OWNER and RESPONSIBLE FOR:
Content
Ordering
Product Backlog
PBIs
PRODUCT BACKLOG
IMPORTANT CHANGE
FEATURES
IMPROVEMENTS
DEFECTS
OTHER CHANGES
PBI: Product Backlog Item

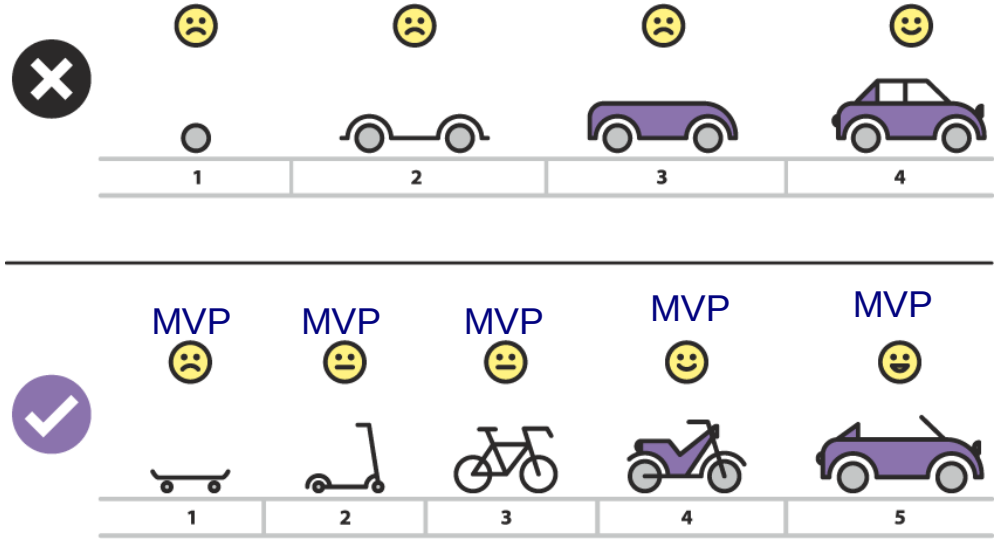

Scrum
Sprint 1
Sprint 2
Plan
Plan
Build
Build
Test
Test
Review
Review
Several incremental releases called Sprints
Potentially Shippable Product

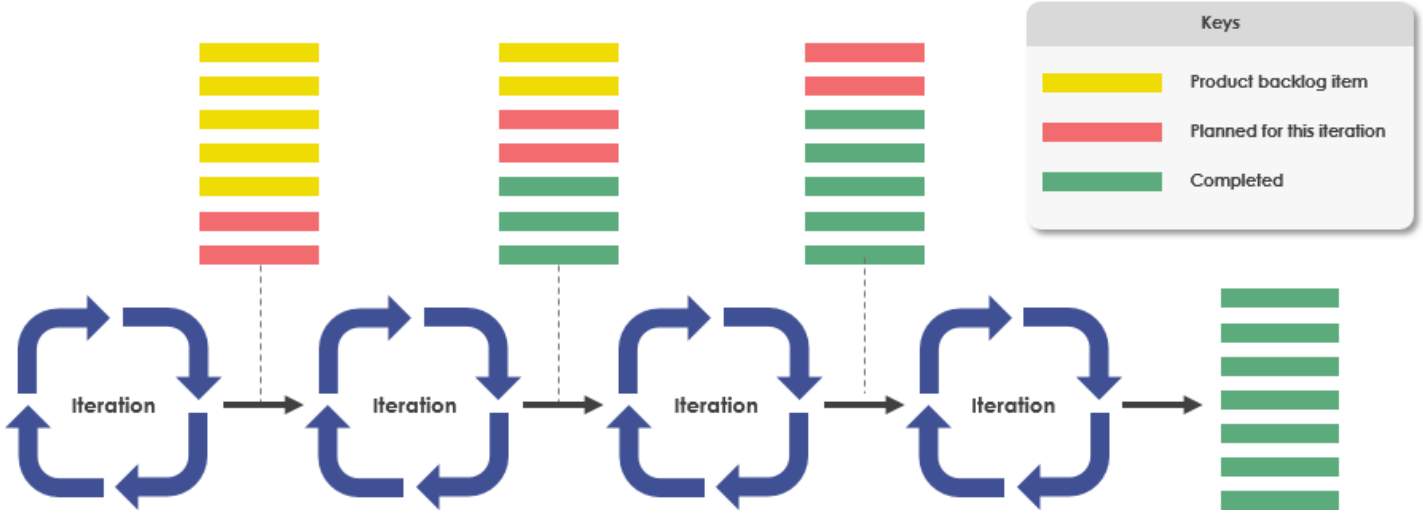

Sprint Backlog
Sprint Backlog
Sprint Backlog
Sprint Backlog
PBI
PBI
PBI
PBI
Sprint 1
Sprint 2
Sprint 3
Sprint 4
Potentially Shippable Product

AGILE = ITERATIVE + INCREMENTAL



INCREMENT OR
MVP: Minimum Viable Product
MMF: Minimum Marketable Feature



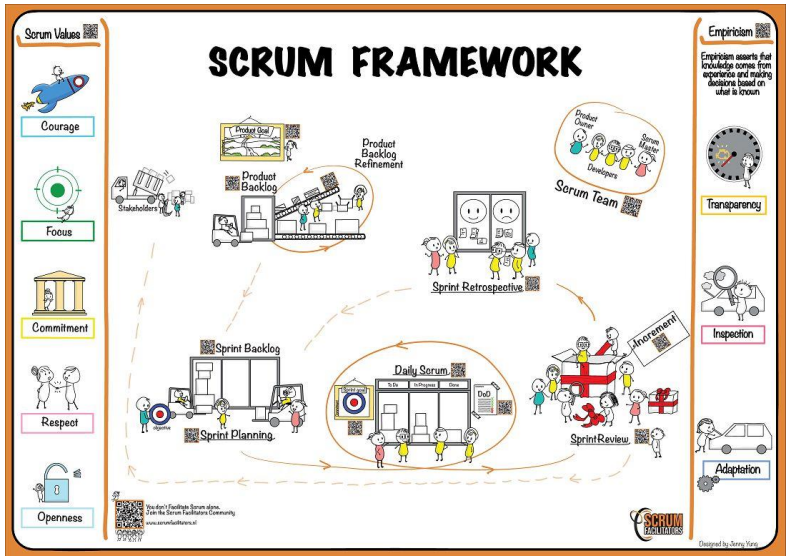


Scrum and Agile

- Not always possible to gather all requirements up front
- Agile Frameworks
- **Scrum is a project & product management method of the Agile group;**

It is the most famous and the **most broadly used** one

SCRUM BASICS



Scrum Basics

- A framework* for complex adaptive problems
- Lightweight
- Iterative and incremental
- Simple to understand
- Difficult to master

*Framework: a basic structure underlying a system or concept.

Scrum ?

- ✓ Since 1990s
- ✓ **Framework** for processes, not a process itself
- ✓ **Product Management**, not just project management
- ✓ **Rules of Scrum (R.E.AR)** is what you need to know

(**R.E.AR**: **R**oles, **E**vents, **AR**tifacts)

Framework: Rough outline of the process
Process: Step-by-step detailed set of activities

LEARNING CHECK

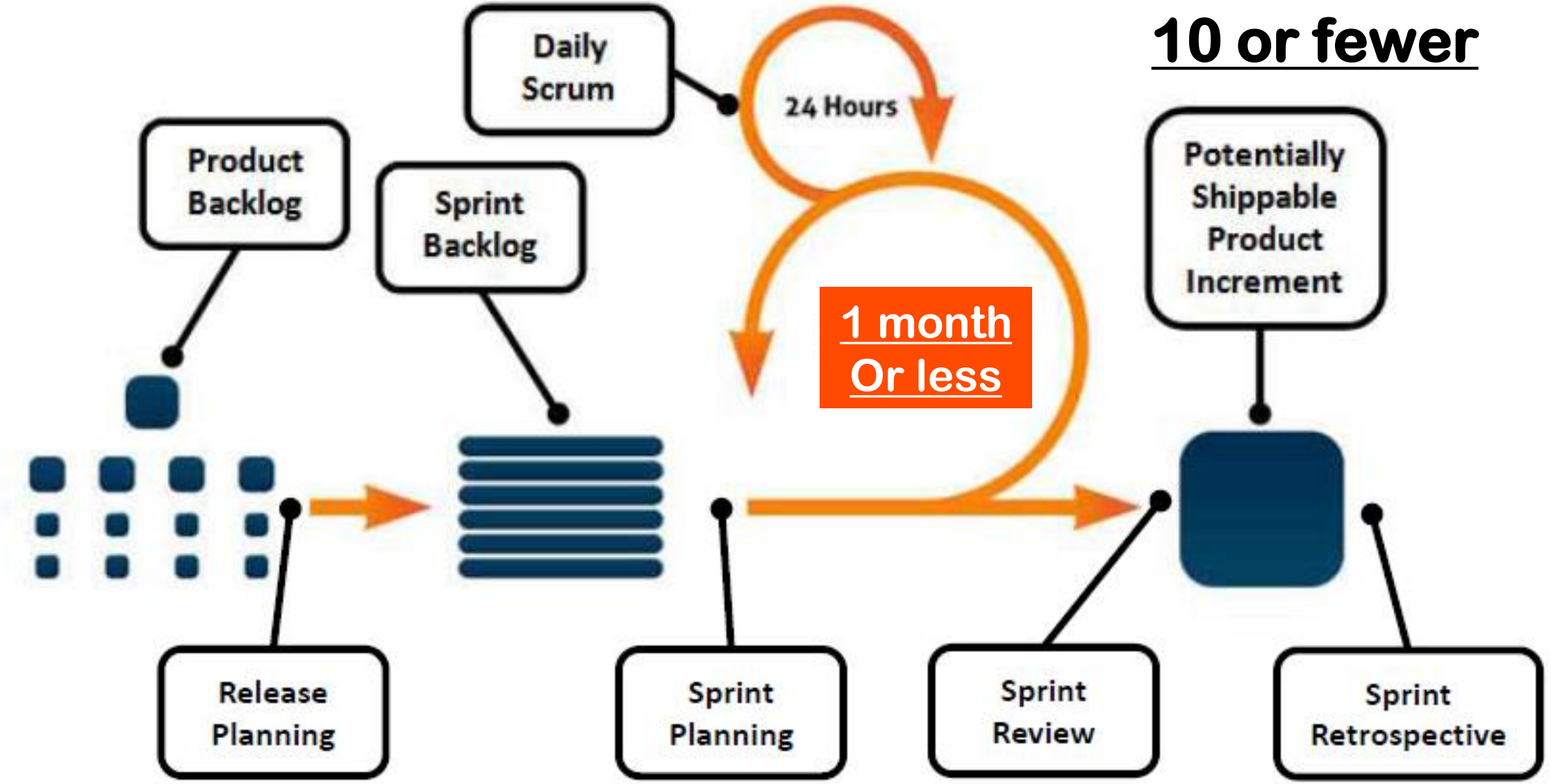
Which statement best describes Scrum?

(choose the best answer)

- A) A complete methodology that defines how to develop software.
- B) A defined and predictive process that conforms to the principles of Scientific Management.
- C) A cookbook that defines best practices for software development.
- D) A framework for creating complex products in complex environments.

SNAPSHOT

Scrum Team Size: 10 or fewer



Scrum Terms

The Sprint

Sprints are the heartbeat of Scrum, where ideas are turned into value. They are **fixed length events** of one month or less to create consistency. A new Sprint starts immediately after the conclusion of the previous Sprint.

Increment

An Increment is **a concrete stepping stone** toward the Product Goal.

Definition of Done

The Definition of Done is a formal description of **the state of the Increment** when it meets the quality measures required for the product. The moment a Product Backlog item meets the Definition of Done, an Increment is born.

Scrum Definition

Scrum is a lightweight framework that helps people, teams and organizations generate value through adaptive solutions for complex problems.

Product Goal

The Product Goal describes **a future state of the product** which can serve as a target for the Scrum Team to plan against.

Sprint Goal

The Sprint Goal is the **single objective for the Sprint**. Although the Sprint Goal is a commitment by the Developers

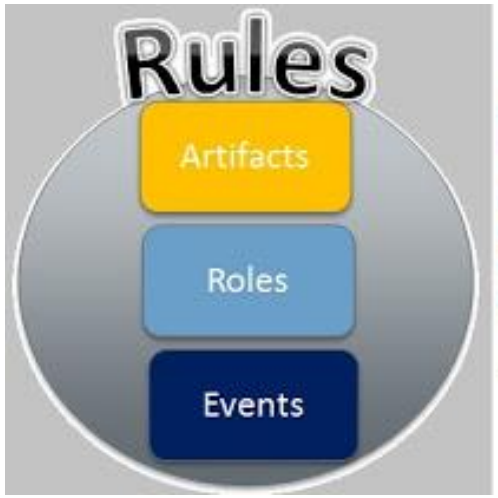
Product Backlog

The Product Backlog is **an emergent, ordered list** of what is needed to improve the product. It is the single source of work undertaken by the Scrum Team.

Sprint Backlog

The Sprint Backlog is **a plan by and for the Developers**. It is a highly visible, real-time picture of the work that the Developers plan to accomplish during the Sprint in order to achieve the Sprint Goal.

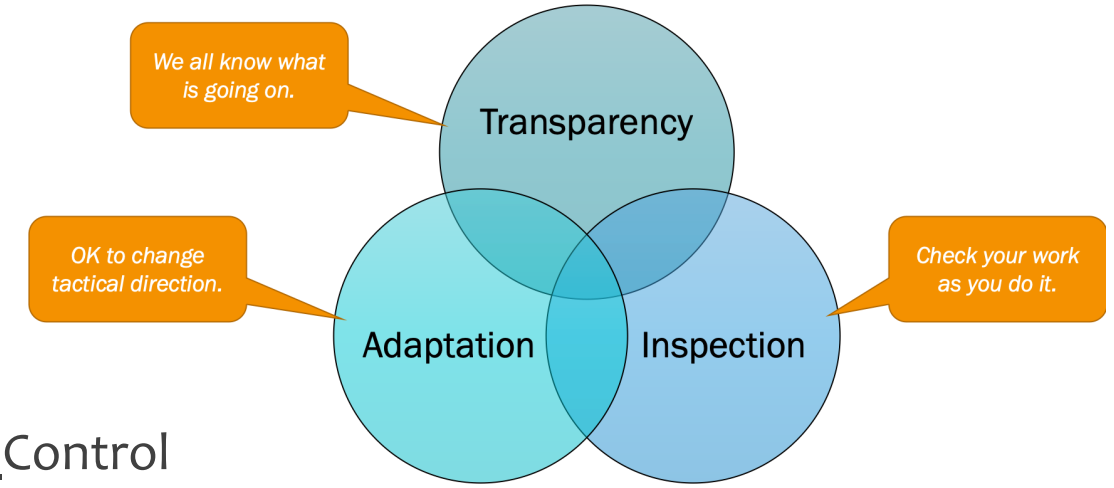
The Rules of Scrum (R.E.A.R)



"The rules of Scrum bind together the events, roles, and artifacts, governing the relationships and interaction between them."

- The Scrum Guide

(R.E.A.R: Roles, Events, ARtifacts)



- **Empirical Process** Control
- Team agrees on the "**Definition of Done**"
- Straightforward and easy to learn
- **Don't need a lot of time to choose events, roles and artifacts**
- Understand values of scrum and the Agile Manifesto

3 Pillars for Empirical Process to make decision :

1. **Transparency** (visibility- Artifacts)
2. **Inspect** (5 events) – check at daily scrum and other sprint events.
3. **Adapt** – adapt based on inspection

5 Scrum Values

Courage

Scrum Team members have courage to do the right thing and work on tough problems

Focus

Everyone focuses on the work of the Sprint and the goals of the Scrum Team

Commitment

People personally commit to achieving the goals of the Scrum Team

Respect

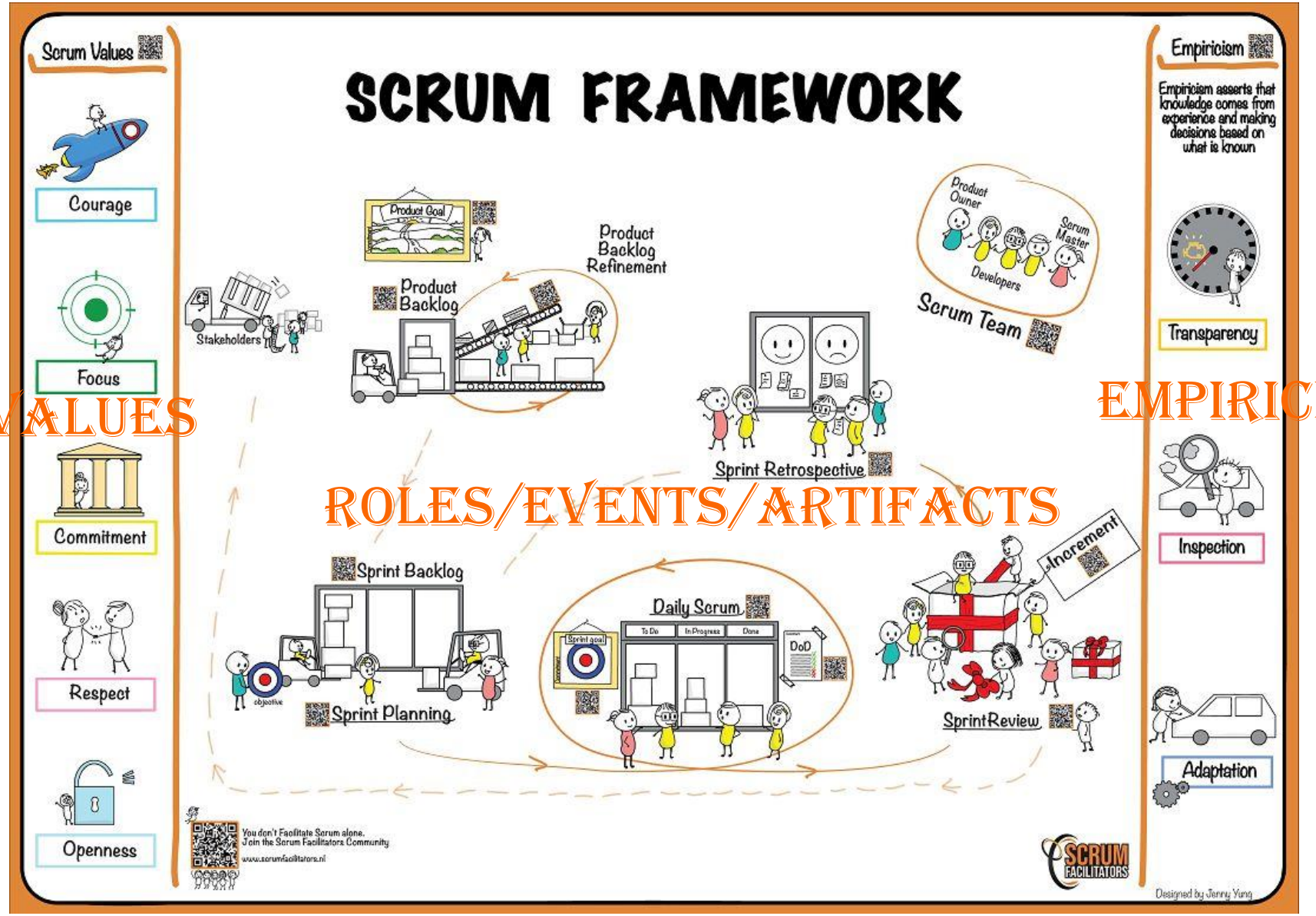
Scrum Team members respect each other to be capable, independent people

Openness

The Scrum Team and its stakeholders agree to be open about all the work and the challenges with performing the work

Mnemonics are a great aid to memory recall.
there's a mnemonic for remembering the five scrum values as well.
FROCC : Focus, Respect, Open-ness, Courage and Commitment.

SCRUM FRAMEWORK



VALUES

EMPIRICISM

ROLES/EVENTS/ARTIFACTS

Contrasting Project Types

Industrial Projects

- Visible
- Stable
- Running things
- Structure
- Correct answers
- Task driven
- Command and control
- Standards
- Performance measurement
- Cost of workers for a task

Knowledge Work Projects

- Invisible
- Lots of changes
- Changing environment
- Less structure
- Lots of questions
- Value-driven
- Autonomy driven
- Innovation
- Learning and teaching
- Workers are an asset not a cost

Knowledge Work Projects

- Industrial work requires up-front planning
- Knowledge work expects change
- Knowledge work is invisible work
- Agile is best suited for software development projects in 2000

In 2005 -> **Declaration of Independence** "***means that Agile is applicable to all industries***"

When to Use Scrum?

- ✓ Many unknowns
- ✓ Complex projects with difficult to define detailed requirements
- ✓ Don't try to apply Scrum if the organization is not ready
- ✓ Training needed for all Scrum participants
- ✓ Have stakeholders who frequently change their minds
- ✓ Require a quick feedback loop
- ✓ Use stakeholders' feedback to prioritise the next sprint
- ✓ Don't get many interruptions from everyday business
- ✓ Have a cross functional team

Scrum Fiction: Big Fat Lies About Scrum

All these followings wrong!!!

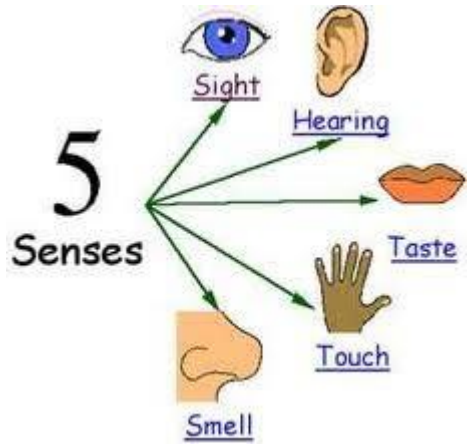
- Developers can do whatever they desire
- No paper work and the team to can start developing immediately
- All requirements must be agreed before Development Team can start
- Scrum is very easy to implement, even without training
- Scrum is a set of simple rules
- Scrum Master is like a project manager
- Scrum does not require you to have a business case
- Scrum allows the Development Team to decide on deliverables
- Product Owner is the project manager
- Scrum tells us everything about managing projects
- Product Owner is a representative from the customer

Theory of Scrum

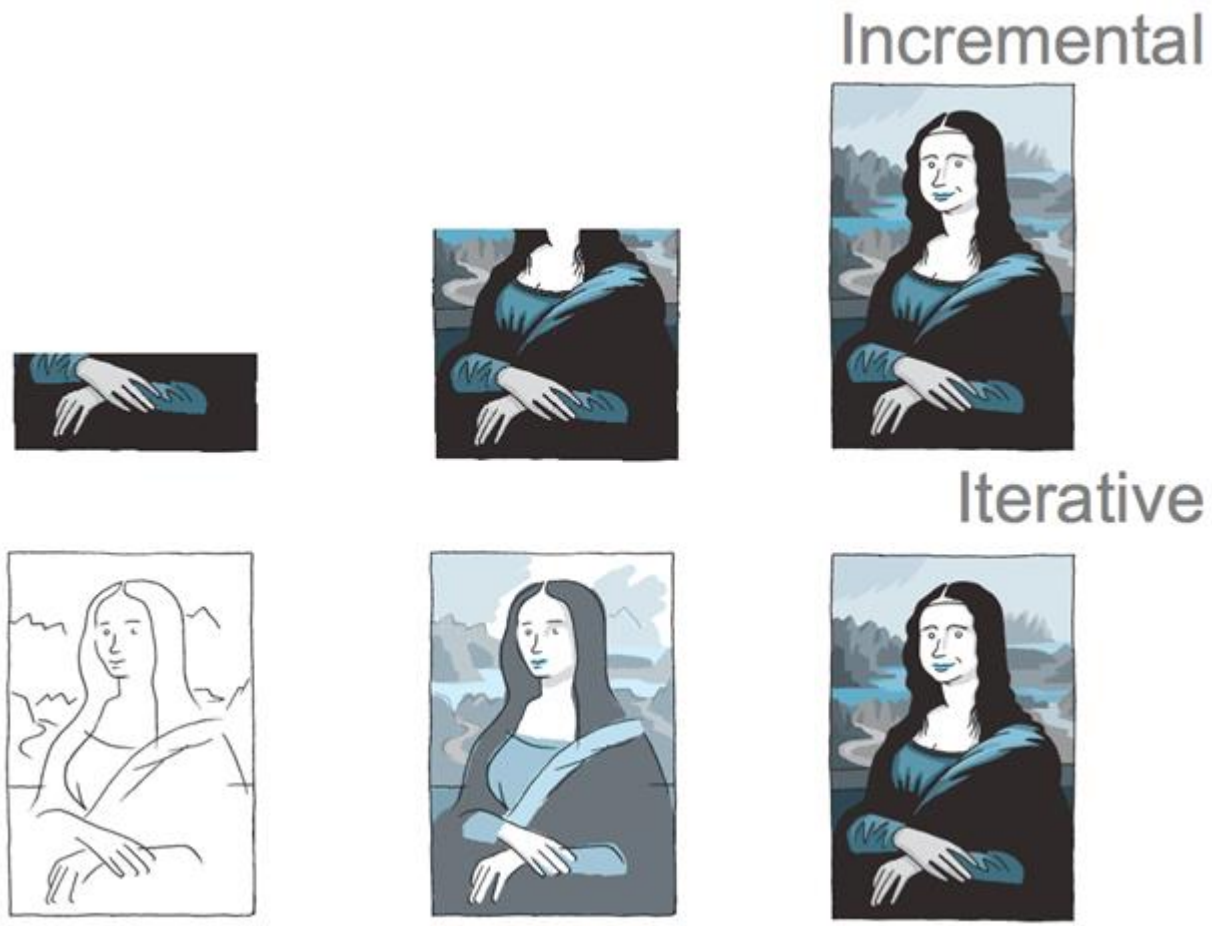
- Based on empiricism and lean thinking.

- **Empiricism:** *Knowledge comes from experience and making decisions based on what is observed*

- Lean thinking reduces waste and focuses on the essentials.

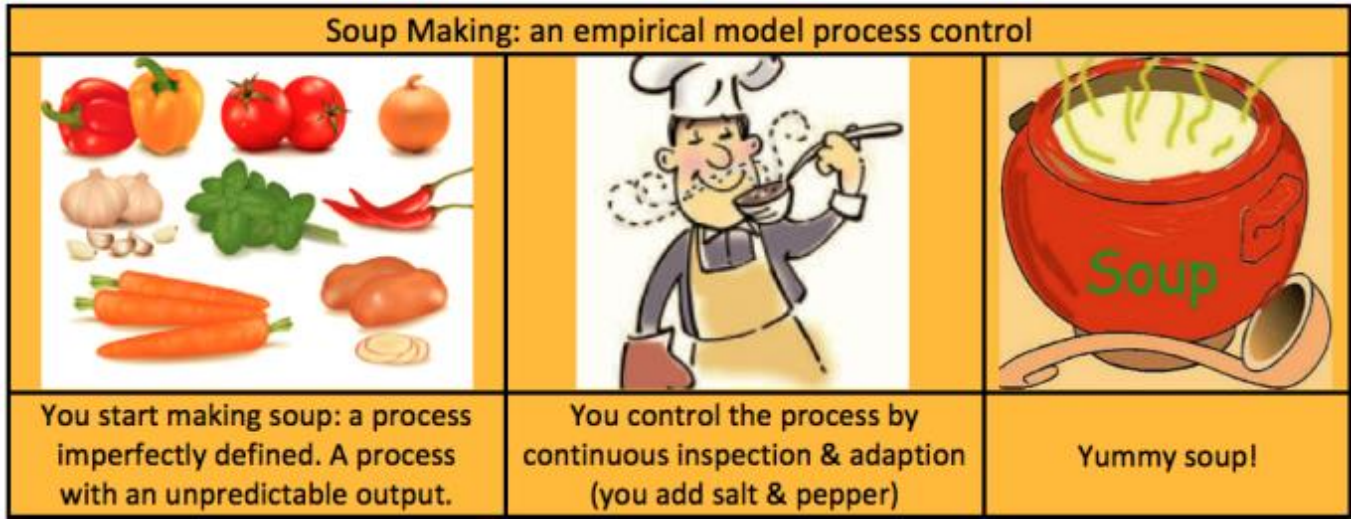


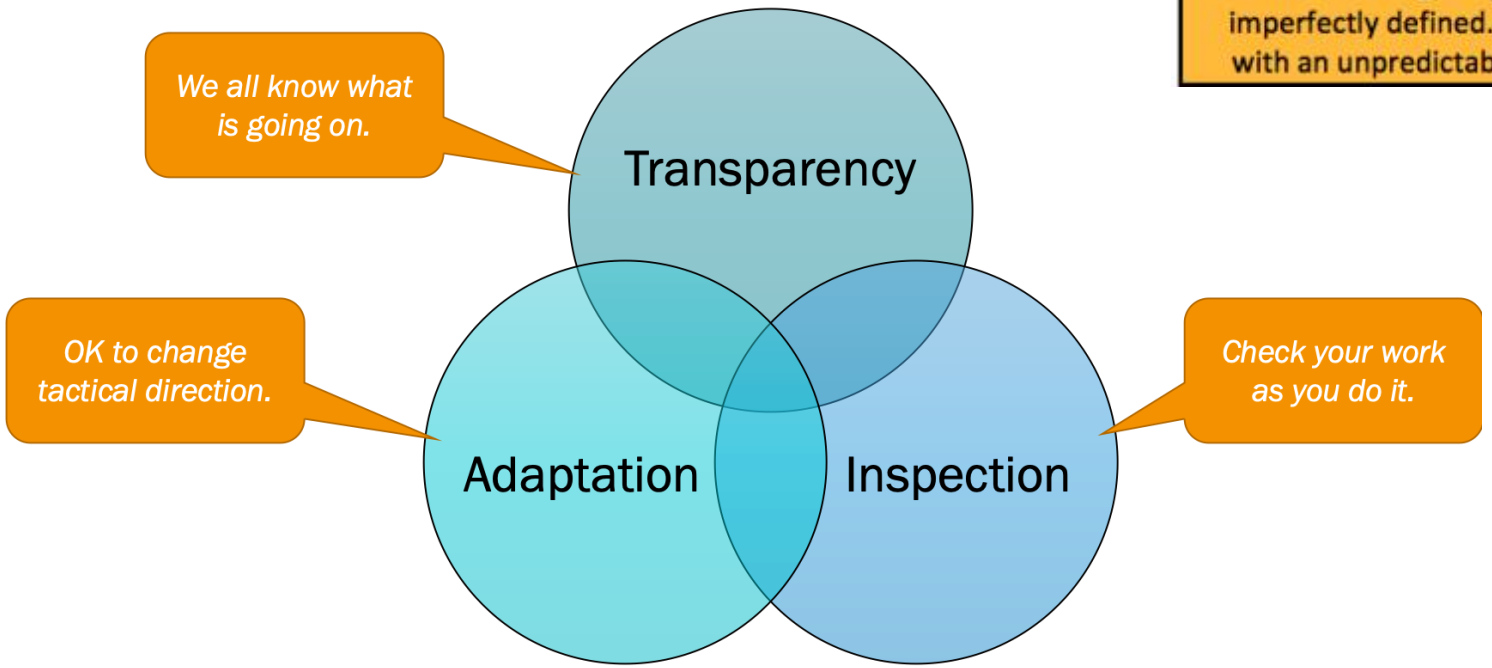
Scrum is iterative & incremental approach.



Three Scrum Pillars: TIA

- ✓ Scrum is based on empiricism
- ✓ Transparency
- ✓ Inspection
- ✓ Adaptation





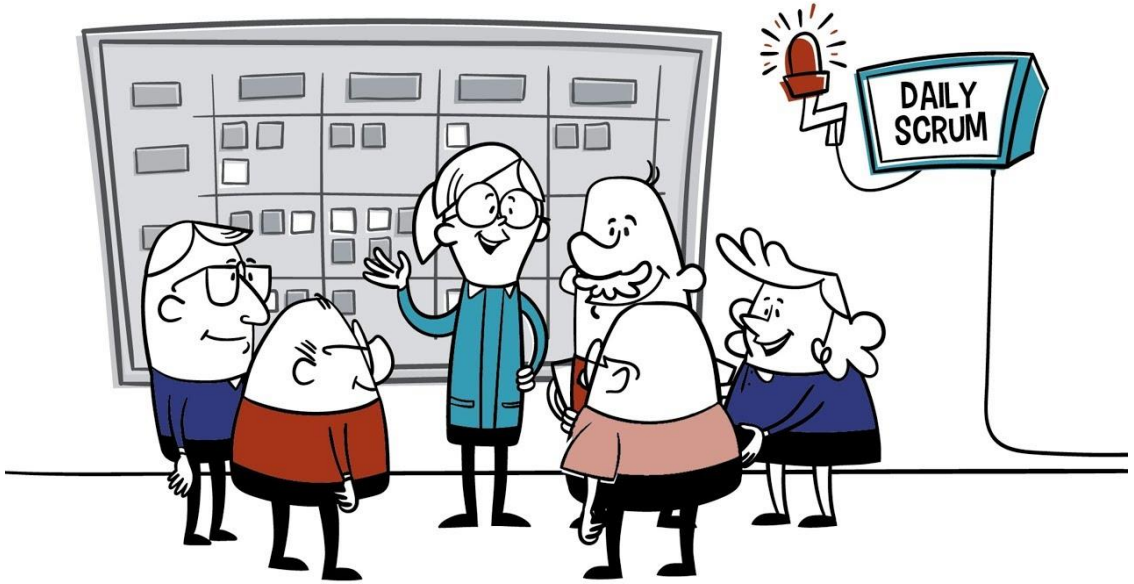
OUR KNOWLEDGE COMES FROM THE USE OF 5 SENSES

Transparency

- ✓ Your **work must be visible**
- ✓ Important decisions by **three** formal artifacts (PB, SB, Increment)
- ✓ **Low transparency in artifacts** causes low-value and high-risk
- ✓ Transparency **enables inspection**
- ✓ Inspection without transparency is **wasteful**

Inspection

- ✓ The Scrum artifacts and the progress must be **inspected frequently**
- ✓ Inspection enables adaptation.
- ✓ Inspection without adaptation is considered **pointless**.
- ✓ **Scrum events** are designed to provoke change.



Adaptation

- ✓ Make Adjustments **ASAP** to minimize additional deviations

- ✓ Adaptation difficult if the people not **empowered or self-managing**.

- ✓ A Scrum Team is expected to adapt the moment it **learns anything** new through inspection.

***4 formal events* for inspection and adaptation:**

1. ***Sprint Planning***
2. ***Daily Scrum***
3. ***Sprint Review***
4. ***Sprint Retrospective***

Scrum is a framework within which complex products in complex environments are developed.

A) True B) False

LEARNING CHECK

The three pillars of empiricism are:

(choose the best answer)

- A) Inspection, Transparency, Adaptation.
- B) Respect For People, Kaizen, Eliminating Waste.
- C) Planning, Demonstration, Retrospective.
- D) Transparency, Eliminating Waste, Kaizen.
- E) Planning, Inspection, Adaptation.

Scrum is based on empirical process control theory.

A) True B) False

Scrum is a framework that eliminates complexity.

A) True B) False

Scrum is a methodology where you can pick and choose which parts of Scrum you think will work for your environment.

A) True B) False

Scrum is like traditional processes but with self-organization to replace Project Managers.

A) True B) False

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Training & Consulting

Section-2: Scrum Roles: The Scrum Team

Scrum Team

SCRUM TEAM has <u>Only three 3 roles</u> :

1. **<u>Developers,</u>**
2. **<u>1xProduct Owner</u>** and
3. **<u>1xScrum Master</u>** in a Scrum project

- No sub-teams or hierarchies
- A cohesive unit of professionals focused on one objective at a time, the Product Goal
- Cross-functional, meaning the members have all the skills necessary to create value each Sprint.
- Self-managing, meaning they internally decide who does what, when, and how
- Typically **<u>10 or fewer</u>** people
- Responsible for all product-related activities
- **<u>All scrum team</u> <u>is</u> <u>accountable</u> for <u>creating</u> a valuable, useful <u>Increment</u> every Sprint**

Scrum Team Size

Product Owner and Scrum Master included in 10!

This is just recommendation not rule!

≤ 10

More than that increase coordination efforts & complexity.

Developers

Developers are the people in the Scrum Team that are committed to creating any aspect of a usable Increment each Sprint.

Developers are always **accountable** for:

- Creating a plan for the Sprint, the Sprint Backlog;
- Instilling quality by adhering to a Definition of Done;
- Adapting their plan each day toward the Sprint Goal; and,
- Holding each other accountable as professionals

Developers and DoD

Developers MUST deliver increments by complying DoD.

If the team can't finish all Sprint Backlog items according to DoD?

1. They do not include the items in the increment of current Sprint
2. They do not show it in the Sprint Review (**demo** of working product)
3. They must estimate it and return it to the Product Backlog for the Product Owner to decide what to do with it the item(s)

DoD: Definition of Done

LEARNING CHECK

When should the Developers on a Scrum Team should be replaced?

(choose the best answer)

- ○ A) As needed, with no special allowance for changes in productivity.
- ○ B) As needed, while taking into account a short-term reduction in productivity.
- ○ C) Never, it reduces productivity.
- ○ D) Every Sprint to promote shared learning.

LEARNING CHECK

When does a Developer become the sole owner of a Sprint Backlog item?

(choose the best answer)

- A) At the Sprint Planning event.
- B) During the Daily Scrum.
- C) Never. All Sprint Backlog items are "owned" by the Developers on the Scrum Team even though each item may be implemented by an individual Developer.
- D) Whenever a team member can accommodate more work.

LEARNING CHECK

The Developers should have all the skills needed to:

(choose the best answer)

- A) Turn the Product Backlog items they select into an Increment of useful and valuable product functionality.
- B) Do all of the development work, except for specialized testing that requires additional tools and environments.
- C) Complete the project as estimated when the date and cost are committed to the Product Owner.

A cross-functional team should be focused on one aspect of the application they are building (front-end, back-end, database, integration with other systems).

A) True B) False

Product Owner (CEO of Product)

Product Owner is accountable for maximizing the value of the product resulting from the work of the Scrum Team

Product Owner is also accountable for effective Product Backlog management, which includes:

- Developing and explicitly communicating the **Product Goal**;
- **Creating** and clearly communicating **Product Backlog items**;
- **Ordering** Product Backlog items; and,
- Ensuring that the Product Backlog is transparent, visible and understood.

Product Owner (CEO of Product)

Product Owner may delegate the responsibility to others. But still, remains accountable. But He must join Sprint Review and Sprint Retro!

- Entire organization must respect his/her decisions
- Product Owner is **one person**, not a committee
- If you want to change the Product Backlog, first convince PO!

LEARNING CHECK

Which statement best describes a Product Owner's responsibility?

(choose the best answer)

- ○ A) Directing the Developers.
- ○ B) Keep stakeholders from distracting the Developers.
- ○ C) Managing the project and ensuring that the work meets the commitments to the stakeholders.
- ○ D) Optimizing the value of the work the Scrum Team does.

LEARNING CHECK

Who is responsible for monitoring progress toward high-level goals?

- ○ The Scrum Master
- ○ The Product Owner
- ○ The Product Owner and The Development Team
- ○ The Development Team
- ○ The Scrum Master and The Development Team
- ○ The Scrum Team

Scrum Master

- Scrum Master is **accountable for establishing Scrum** by **helping everyone understand <u>SCRUM THEORY, VALUES, RULES and PRACTICES</u>**, both within the Scrum Team and the organization

- Scrum Master is **<u>accountable</u>** for the **<u>Scrum Team's effectiveness</u>**

- Scrum Masters are **<u>true leaders</u>** who serve the Scrum Team and the larger organization

Scrum Master Serves the Scrum Team

The Scrum Master serves the Scrum Team in several ways, including:

- **Coaching** the team members in self-management and cross-functionality;
- **Helping** the Scrum Team focus on creating high-value Increments that meet the Definition of Done;
- Causing the **removal of impediments** to the Scrum Team's progress; and,
- **Ensuring** that all Scrum events take place and are positive, productive, and kept within the time box.

Scrum Master Serves the Product Owner

The Scrum Master serves the Product Owner in several ways, including:

- Helping **find techniques for effective Product Goal** definition and **Product Backlog Management**;

- Helping the Scrum Team understand the need for **clear and concise Product Backlog items**;

- Helping establish empirical product planning for a complex environment; and,

- **Facilitating stakeholder collaboration** as requested or needed.

Scrum Master Serves the organization

The Scrum Master serves the organization in several ways, including:

- ✓ **Scrum adoption**
- ✓ Training
- ✓ Helping all to understand scrum
- ✓ **Removing barriers** between stakeholders and Scrum Teams.

Scrum Master is a "management" position?

A) True
B) False

LEARNING CHECK

Who has the final say on the order of the Product Backlog?

(choose the best answer)

- ○ A) The Product Owner.
- ○ B) The Stakeholders.
- ○ C) The Scrum Master.
- ○ D) The CEO.
- ○ E) The Developers.

LEARNING CHECK

Category: Scrum Team

Who is responsible for promoting and supporting Scrum? Select the best choice.

- ○ The Scrum Team
- ○ The Scrum Master and the Product Owner
- ○ The Development Team
- ○ The Product Owner
- ○ The Scrum Master

Large projects / Scaled model

-Multiple Scrum Teams (more than 1)

- **the most important concern for multiple Development Teams:** Minimizing dependencies between teams.
- Each Sprint, all Scrum Teams have a done Increment that integrates with all of the other done Increments from all other Scrum Teams on the initiative.
- A well structured 1 Product Backlog

How should Product Backlog items be chosen when multiple Scrum Team work from the same Product Backlog?

The Development Team pull in work in agreement with the Product Owner

In accordance with Scrum theory, how should a group of 100 people be divided into multiple Development Teams?

Tell team to divide themself.(self managing team)

Team-1=10 people

Team-2=7 people

Team-3=6 people

Other Roles ?

- **Scrum does not allow this!**
- Members have the same role and title: Developers
- Pay attention to final product not roles

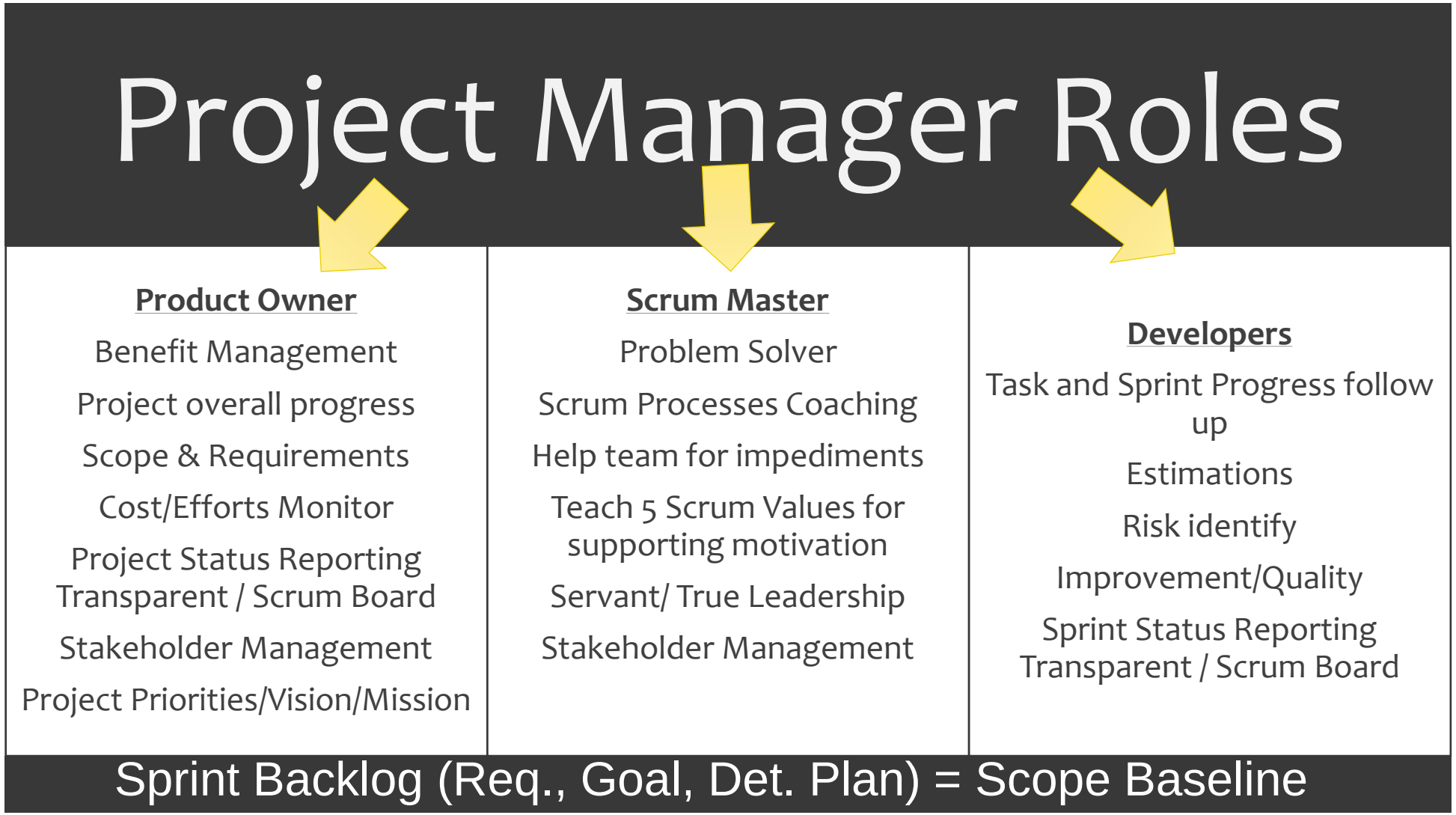
Who's the project manager?

- No such role in Scrum
- None of the roles act as a traditional project manager
- Scrum Master responsibilities are different than traditional PM

What happens to Project Management?

- PM responsibilities are distributed among the three roles
- There is no centralized project management in Scrum

What happens to Project Manager Roles?



Scrum does not have a role called "project manager.“

A) True
B) False

LEARNING CHECK

Who is on the Scrum Team?

(choose the best three answers)

- [ ] A) The Product Owner.
- [ ] B) The Scrum Master.
- [ ] C) Developers.
- [ ] D) Project Manager.

LEARNING CHECK

What is the recommended size for a Scrum Team?

(choose the best answer)

- A) Typically 10 or fewer people.
- B) 9.
- C) 7 plus or minus 2.
- D) Minimum of 7.

LEARNING CHECK

Every Scrum Team should have:

(choose the best answer)

- ○ **A)** At least one representative from each major department, such as, Quality Assurance, Development, and Marketing.
- ○ **B)** One Lead Developer and no more than 8 other members.
- ○ **C)** The competencies and skills needed to deliver an Increment in a Sprint.

LEARNING CHECK

What is the role of Management in Scrum?

(choose the best answer)

- A) Identify and remove people that are not working hard enough.
- B) Monitor the progress of the Developers on the Scrum Team.
- C) Support the Product Owner with insights and information into high value product and system capabilities. Support the Scrum Master to cause organizational change that fosters empiricism, self-management, bottom-up intelligence, and intelligent release of software.
- D) Continually monitor staffing levels of the Scrum Team.

Section-3: Scrum Events

Sprint

Sprints are the heartbeat of Scrum, where ideas are turned into value.

They are fixed length events of one month or less to create consistency. A new Sprint starts immediately after the conclusion of the previous Sprint.

All the work necessary to achieve the Product Goal, including Sprint Planning, Daily Scrums, Sprint Review, and Sprint Retrospective, happen within Sprints.

Sprint

- ✓ ***Each PBI in the Product Backlog should be developed in a single Sprint***
- ✓ ***Product Owner and Developers select items from the top of the prioritized Product Backlog***
- ✓ ***Must agree on a "Definition of Done" at the beginning of the project***
- ✓ ***Sprint length less than 1 month***
- ✓ ***Every sprint may be different length***

Sprint

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.

Running a Sprint

Sprint-1

≤ 1 month

Sprint-2

≤ 1 month

LEARNING CHECK

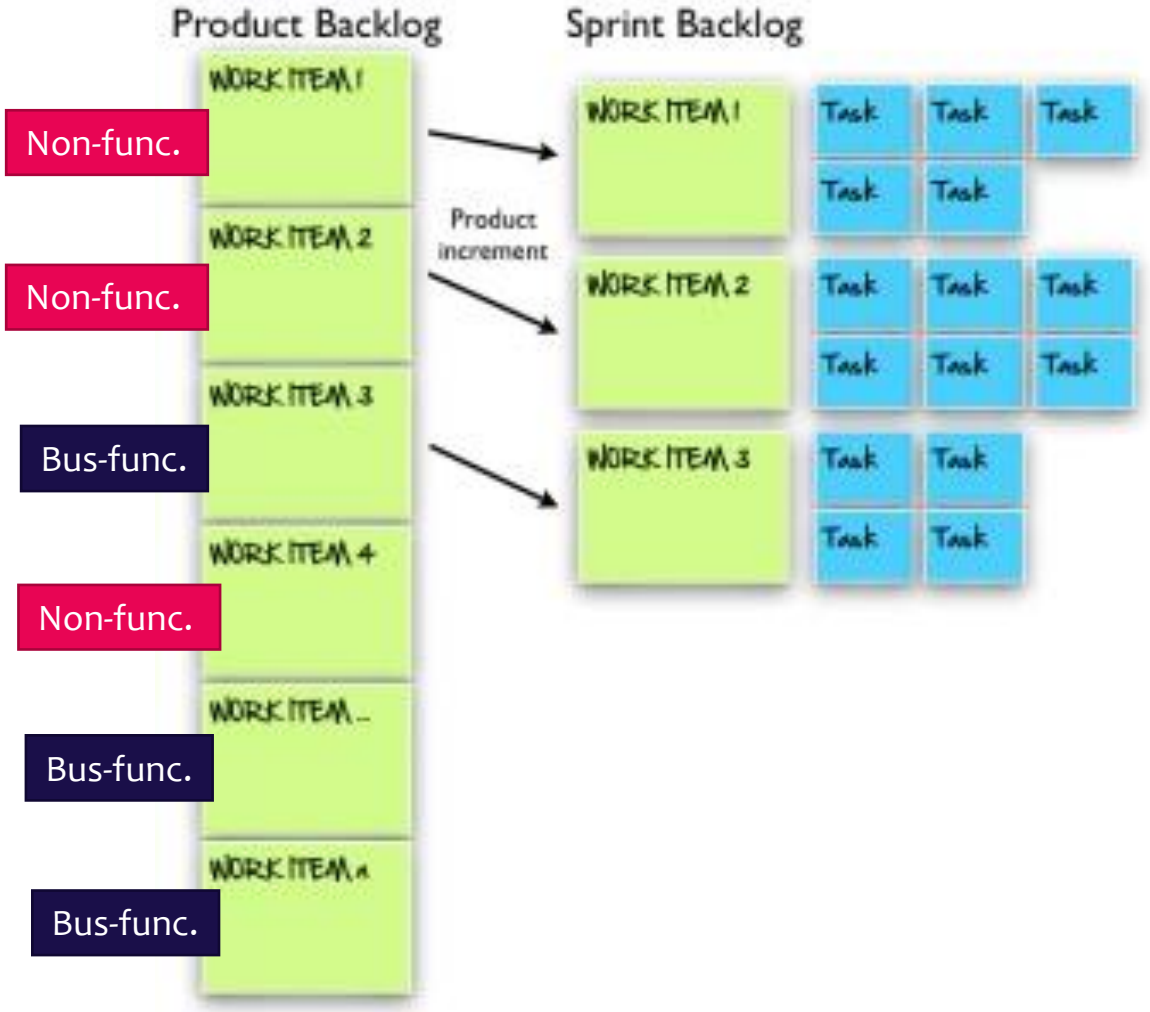
When does the next Sprint begin?

(choose the best answer)

- A) Immediately after the conclusion of the previous Sprint.
- B) When the Product Owner is ready.
- C) Immediately following the next Sprint Planning.
- D) Next Monday.

Architecture and Infrastructure Concerns

- ✓ Adress them in early Sprints
- ✓ Non-business or non-functional requirements
- ✓ Deliver with min.1 business functionality
- ✓ Security, Uptime, Redundancy, Scalability, Reliability, Regulatory, Maintainability…
- ✓ Add product backlog or Definition of Done



Time-boxed Concepts

- **Time-box** is a **fixed period**

SPRINT LENGTH ≤ 1 month

- Freeze the target and work with full focus on certain tasks
- Duration of a time-box should be agreed upon and fixed
- Free to change the duration based on lessons learned, but not frequently

LEARNING CHECK

What does it mean to say that an event has a timebox?

(choose the best answer)

- ○ A) The event must take at least a minimum amount of time.
- ○ B) The event can take no more than a maximum amount of time.
- ○ C) The event must happen at a set time.
- ○ D) The event must happen by a given time.

LEARNING CHECK

When is a Sprint over?

(choose the best answer)

- ○ A) When all Product Backlog items meet their Definition of Done.
- ○ B) When the timebox expires.
- ○ C) When the Product Owner says it is done.
- ○ D) When all the tasks are completed.

LEARNING CHECK

When does the next Sprint begin?

(choose the best answer)

- A) Immediately after the conclusion of the previous Sprint.
- B) When the Product Owner is ready.
- C) Immediately following the next Sprint Planning.
- D) Next Monday.

4 Meetings only, Instead of wasting time coordinating numerous meetings and dates…

Scrum Ceremonies	Su	M	Tu	W	Th	F	Sa
Sprint Planning							
Daily Scrum							
Sprint Review							
Sprint Retrospective							

Sprint Details

- Delivers final product after a *number* of Sprints
- Increment is developed in each Sprint
- Increment is a potentially releasable part of the final product
- Increment is a sum of all Product Backlog items completed so far
- Increment increases after each Sprint
- Customers usually request **changes during the Sprint Review**

Cancelling a Sprint

- **Product Owner** has the authority **to cancel a Sprint**
- Can happen when the **Sprint Goal becomes obsolete**
- Changes in the Product Backlog, strategies, or approach

Cancelling a Sprint

What happened if a Sprint is cancelled?

- ✓ PBIs that are “Done” will be reviewed and accepted
- ✓ PBIs that are “Not Done” will be put back into the Product Backlog

An abnormal termination of a Sprint is called when the Developers realize that the work is too hard for their skillset.

True OR False?

Pre-Sprint Activities

- **Vision Statement:** concise description of the goals of the project

- *__Product Goal:__ provides context to the Product Backlog. It can be thought of as the ‘why’ we are doing all of this work. It can be used as the elevator pitch to ‘what is the Scrum Team working on?

- **Product Backlog:** an emergent, ordered list of what is needed to improve the product.

Sprint Duration Considerations

- **Risk of being disconnected** from stakeholders
- Ability to **go to market faster** with a product release
- Short sprints help us to eliminate **uncertainties**.
- All **Sprints** *should* be of **same duration**
- No such thing as **Sprint Zero(0)**

True or False: The purpose of a Sprint is to produce a done increment of working product.

- A) True
- B) False

LEARNING CHECK

The length of a Sprint should be:

(choose the best answer)

- ○ A) Short enough to keep the business risk acceptable to the Product Owner.
- ○ B) Short enough to be able to synchronize the development work with other business events.
- ○ C) One month or less.
- ○ D) All of the above.

Scrum Ceremonies (Events)

1. **Sprint Planning** meeting – **8h**, **Scrum Team**
2. **Daily Scrum** –**15 min.** , **Only Developers**
3. **Sprint Review** meeting – **4h** , **Scrum Team and Stakeholders**
4. **Sprint Retrospective** **3h** , **Scrum Team**

LEARNING CHECK

What does it mean to say that an event has a timebox?

(choose the best answer)

- ○ A) The event must take at least a minimum amount of time.
- ○ B) The event can take no more than a maximum amount of time.
- ○ C) The event must happen at a set time.
- ○ D) The event must happen by a given time.

Sprint Planning Meeting

- **Timebox: 8- Eight hours** for a **calendar month sprint**; less for shorter sprints

- **Attendees**: All Scrum team, including all roles

- **Goal:** Team capacity, Sprint Goal/Definition of Done, Sprint Backlog, Decompose PBIs into Tasks

LEARNING CHECK

The timebox for the Sprint Planning event is?

(choose the best answer)

- A) Monthly.
- B) 4 hours.
- C) Whenever it is done.
- D) 8 hours for a monthly Sprint. For shorter Sprints it is usually shorter.

Daily Scrum

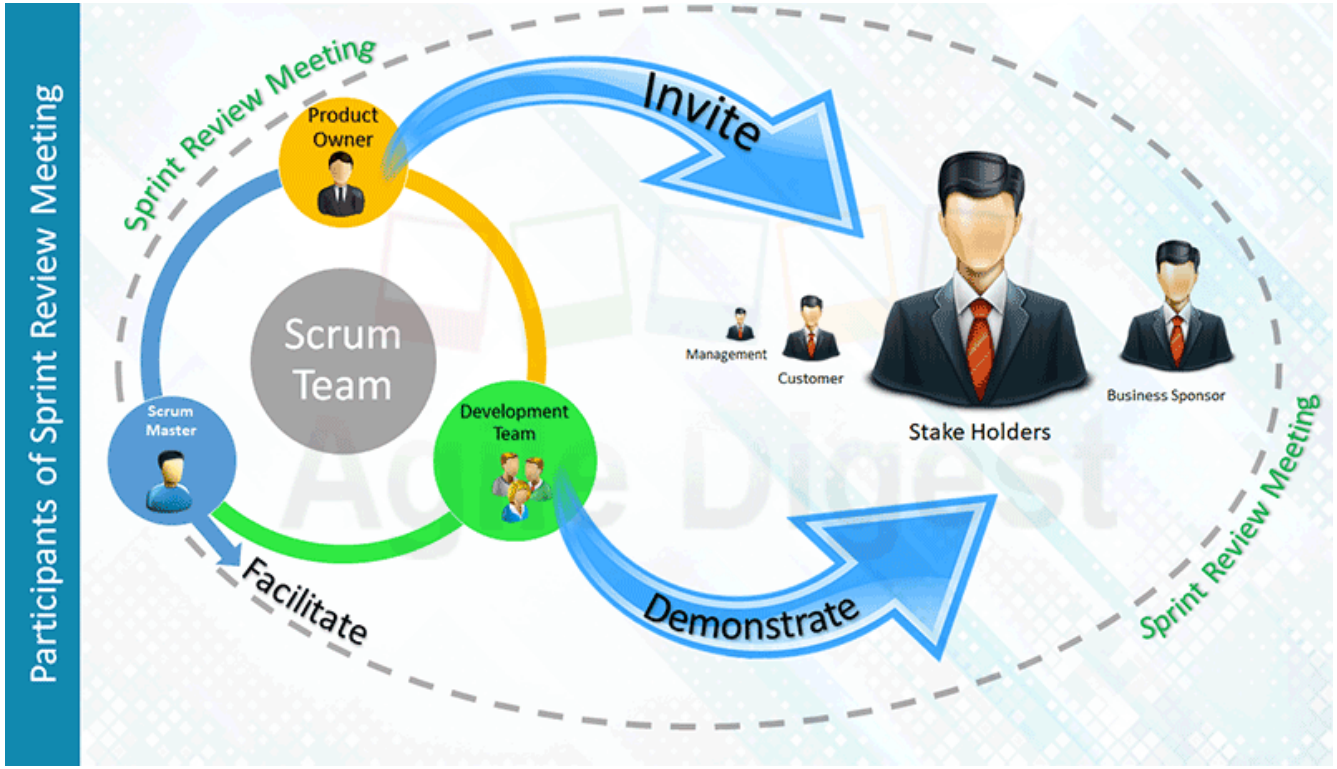
- **Timebox:** Fifteen **15** minutes

- **Attendees:** Developers (not for management, customers or PO or SM)

- **Goal**: Inspect progress toward the Sprint Goal, FIND IMPEDIMENTS and adapt the Sprint Backlog as necessary, adjusting the upcoming planned work

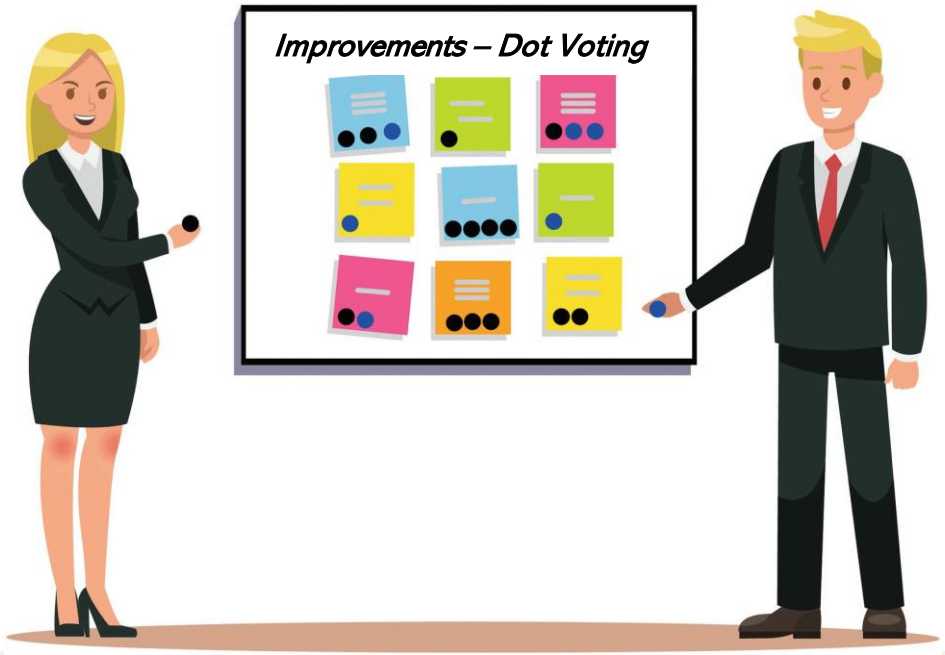
Sprint Review Meeting

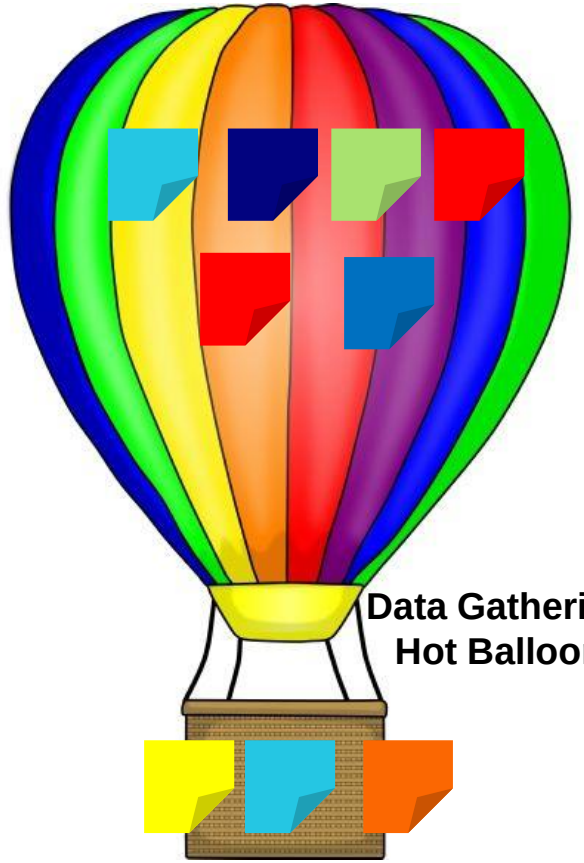
- **Timebox**: **4-Fours** for a **calendar month sprint**, less for shorter sprints
- **Attendees**: Complete Scrum team and **key stakeholders**
- **Goal**: Inspect the outcome of the Sprint and determine future adaptations



Sprint Retrospective Meeting

- **Timebox**: **3-Three** hours for a **calendar month sprint**; less for shorter sprints
- **Attendees**: Complete Scrum team, including all roles
- **Goal**: Plan ways to increase quality and effectiveness





Nature of Scrum Events

Sprint

- Each Scrum project is a set of Sprints
- A Sprint is a container for the four other events, development effort, and the maintenance of the Product Backlog

FORMULA OF SPRINT = 4 EVENTS + DEVELOPMENT + PB Refinement

>90% of time **<10% of time**

Purpose of Definition of Done

- Creates transparency over the work inspected at the Sprint Review
- Defines requirements for increment to be releasable

Definition of Done (DoD)

The below examples might be included in a User Story DoD:

- Unit tests passed
- Code reviewed
- Acceptance criteria met
- Functional Tests passed
- Non-Functional requirements met
- Product Owner accepts the User Story

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

- Scrum Guide

Nature of Scrum Events

Sprint Planning

•Sprint Planning is the first event in a Sprint

•Product Owner ensures that attendees are prepared to discuss the most important Product Backlog items and how they map to the Product Goal
Sprint Planning addresses the following topics:

1. **Why** is this Sprint valuable?
2. **What** can be Done this Sprint?
3. **How** will the chosen work get done?

FORECAST:

1. **PAST PERFORMANCE (VELOCITY)**
2. **CAPACITY**
3. **DEFINITION OF DONE**

LEARNING CHECK

The Developers should not be interrupted during the Sprint and the Sprint Goal should remain intact. These are conditions that foster creativity, quality and productivity.

(Which one the following answers is FALSE?)

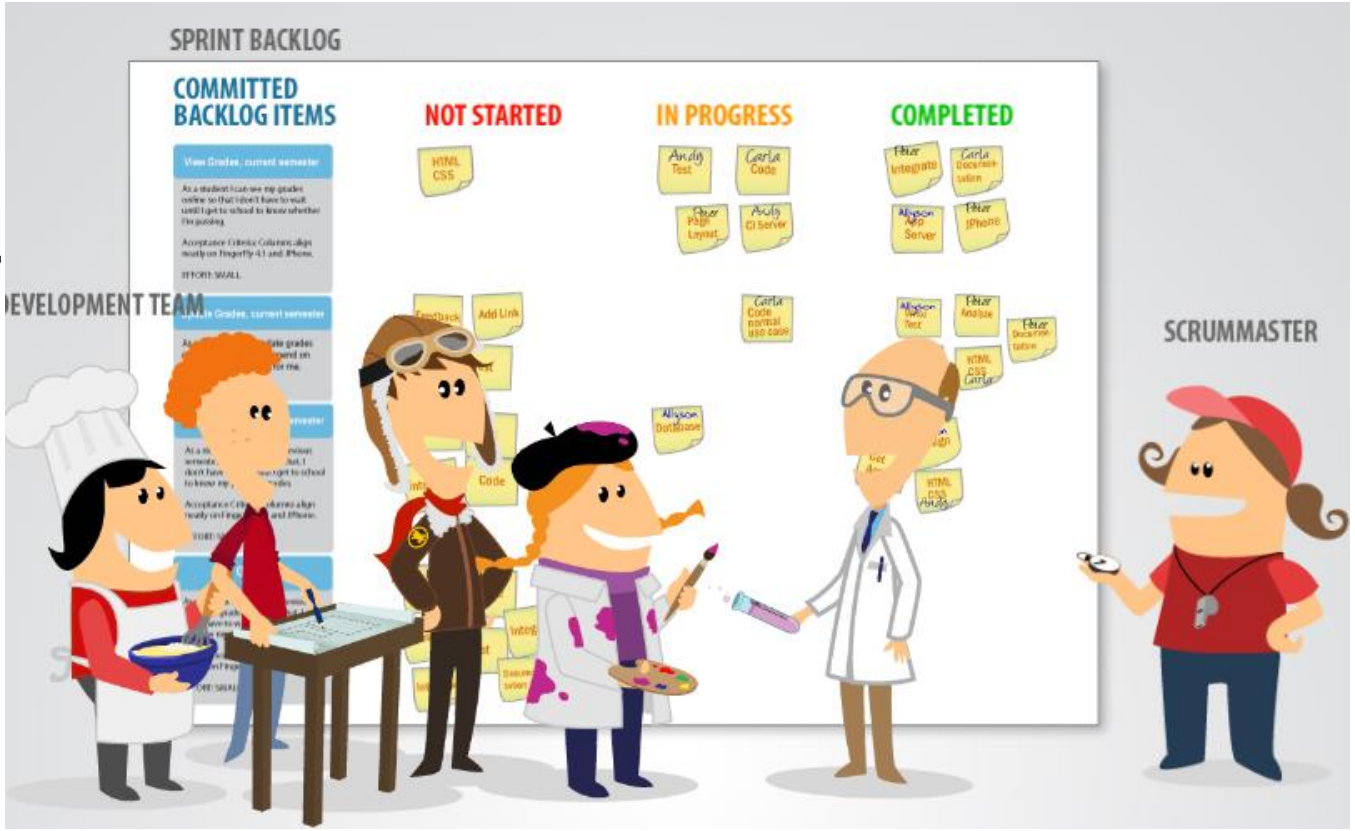
- ○ A) The Developers may work with the Product Owner to remove or add work if it finds it has more or less capacity than it expected.
- ○ B) The Sprint Backlog is fully formulated in the Sprint Planning event and does not change during the Sprint.
- ○ C) As a decomposition of the selected Product Backlog items, the Sprint Backlog changes and may grow as the work emerges.
- ○ D) The Product Owner can help clarify or optimize the Sprint when asked by the Developers.

Nature of Scrum Events

Daily Scrum

•*To reduce risks/complexity*, it is held **at the same time and place for consistency/dicipline,** every working day of the Sprint

•To improve communications, identify impediments, promote quick decision-making, and consequently eliminate the need for other meetings



LEARNING CHECK

What is the main reason for the Scrum Master to be at the Daily Scrum?

(choose the best answer)

- ○ A) To write down any changes to the Sprint Backlog, including adding new items, and tracking progress on the burn-down.
- ○ B) To make sure every team member answers the three questions.
- ○ C) To gather status and progress information to report to management.
- ○ D) He or she does not have to be there; he or she only has to ensure the Developers have a Daily Scrum.

LEARNING CHECK

Category: Scrum Team

The Scrum Master does the following regarding the Daily Scrum (select all applicable variants):

- [ ] If others are present at the Daily Scrum, ensures that they do not disrupt the meeting
- [ ] Ensures that the Development Team has the meeting
- [ ] Is responsible for conducting the Daily Scrum
- [ ] Teaches the Development Team to keep the Daily Scrum within the 15-minute time-box

LEARNING CHECK

The timebox for a Daily Scrum is?

(choose the best answer)

- A) 4 hours.
- B) 15 minutes.
- C) The same time of day every day.
- D) Two minutes per person.
- E) 15 minutes for a 4-week sprint. For shorter Sprints it is usually shorter.

LEARNING CHECK

Why is the Daily Scrum held at the same time and same place?

(choose the best answer)

- ○ A) The Product Owner demands it.
- ○ B) The place can be named.
- ○ C) The consistency reduces complexity.
- ○ D) Rooms are hard to book and this lets it be booked in advance.

LEARNING CHECK

Who is required to attend the Daily Scrum?

(choose the best answer)

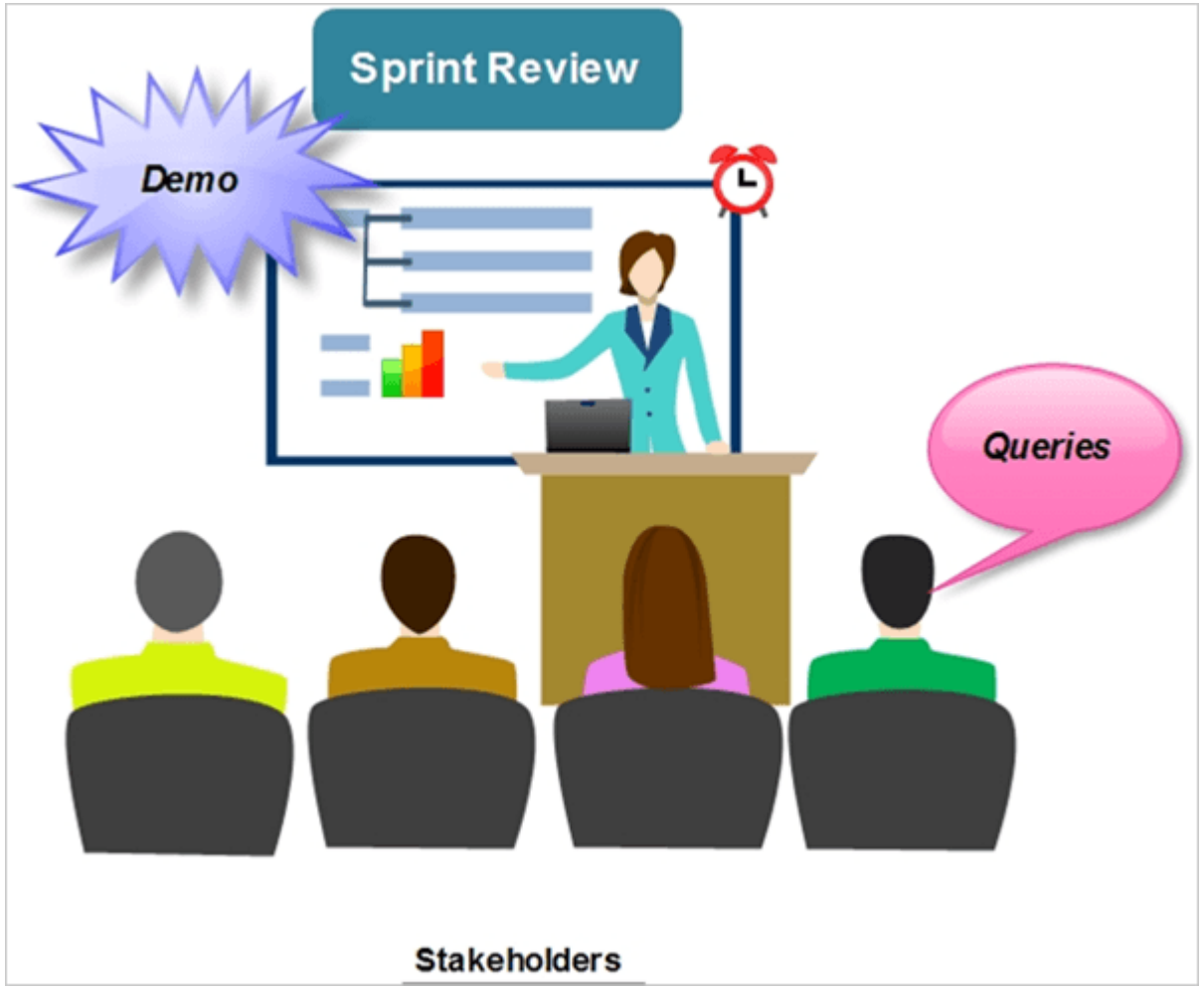
- ○ **A)** The Scrum Master and Product Owner.
- ○ **B)** The Developers and Scrum Master.
- ○ **C)** The Developers.
- ○ **D)** The Developers and Product Owner.
- ○ **E)** The Scrum Team.

Nature of Scrum Events

Sprint Review

•The Scrum Team presents the results of their work to key stakeholders and progress toward the Product Goal is discussed.

- ✓ What was done in the Sprint?
- ✓ What to do next?
- ✓ Is a working session
- ✓ Avoid limiting it to a presentation



LEARNING CHECK

Which statement best describes the Sprint Review?

(choose the best answer)

- ○ A) It is when the Scrum Team and stakeholders inspect the outcome of a Sprint and figure out what to do next.
- ○ B) It is a mechanism to control Developer activity during a Sprint.
- ○ C) It is a demo at the end of the Sprint for everyone in the organization to check on the work done.

Nature of Scrum Events

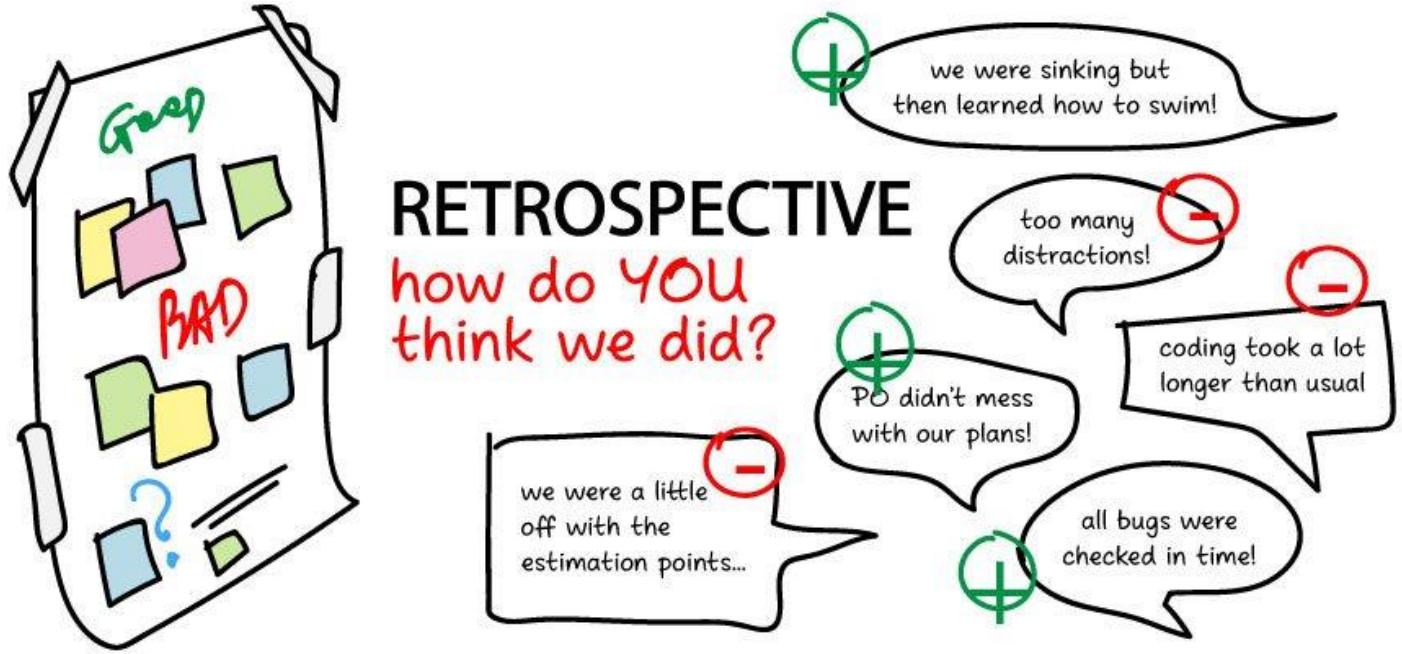
https://www.funretrospectives.com

Sprint Retrospective

- *Inspects* how the last Sprint went with regards to **individuals, interactions, processes, tools, and their Definition of Done**

- Identifies the most helpful changes to improve its effectiveness

- They **may even be added** to the Sprint Backlog for the next Sprint



LEARNING CHECK

Which Scrum events are timeboxed?

(choose the best three answers)

- [ ] A) Release Testing.
- [ ] B) Sprint Retrospective.
- [ ] C) Refinement.
- [ ] D) Sprint Planning.
- [ ] E) Sprint Testing.
- [ ] F) Sprint Review.
- [ ] G) Release Retrospective.

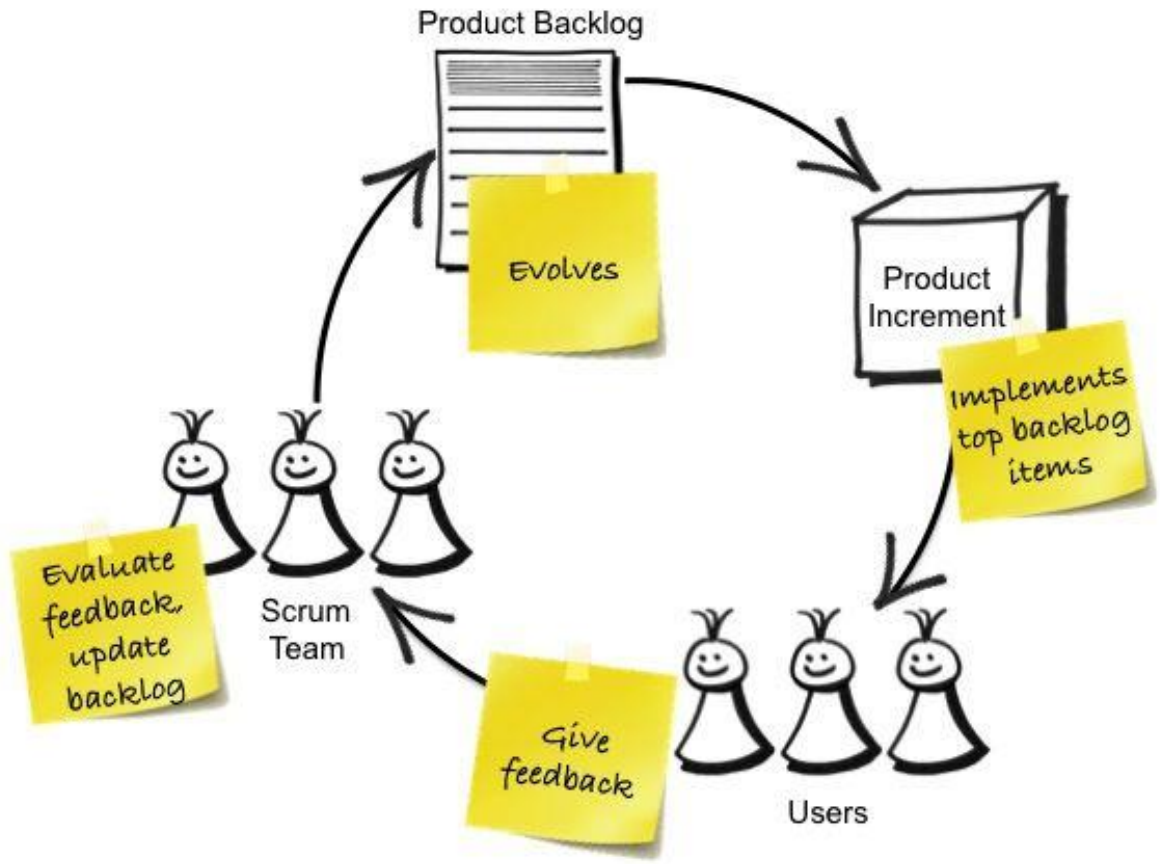
True or False?: The Scrum Team should choose at least one high priority process improvement, identified during the Sprint Retrospective, and place it in the Product Backlog.

Product Backlog Refinement (**Grooming**)

Ongoing activity

1. *Add detail*
2. *Order*
3. *Size*

• Product Backlog refinement is the act of breaking down and further defining Product Backlog items into smaller more precise items.



All Scrum events have a time-box, with no exceptions.

The Scope cannot be changed once the Sprint has started.

NAVESSE
Training & Consulting

Section-4: Scrum Artifacts

Section Overview (3 x Mandatory Artifacts)

• **Product Backlog**: An emergent, ordered list of what is needed to improve the product
For the Product Backlog it is the Product Goal

• **Sprint Backlog**: Composed of the Sprint Goal (why), the set of Product Backlog items selected for the Sprint (what), as well as an actionable plan for delivering the Increment (how)
For the Sprint Backlog it is the Sprint Goal.

• **Increment**: The Increment is the sum of all the Product Backlog items completed during a Sprint and the value of the increments of all previous Sprints.
For the Increment it is the Definition of Done.

• **Definition of "Done"**: The Definition of Done is a formal description of the state of the Increment when it meets the quality measures required for the product.

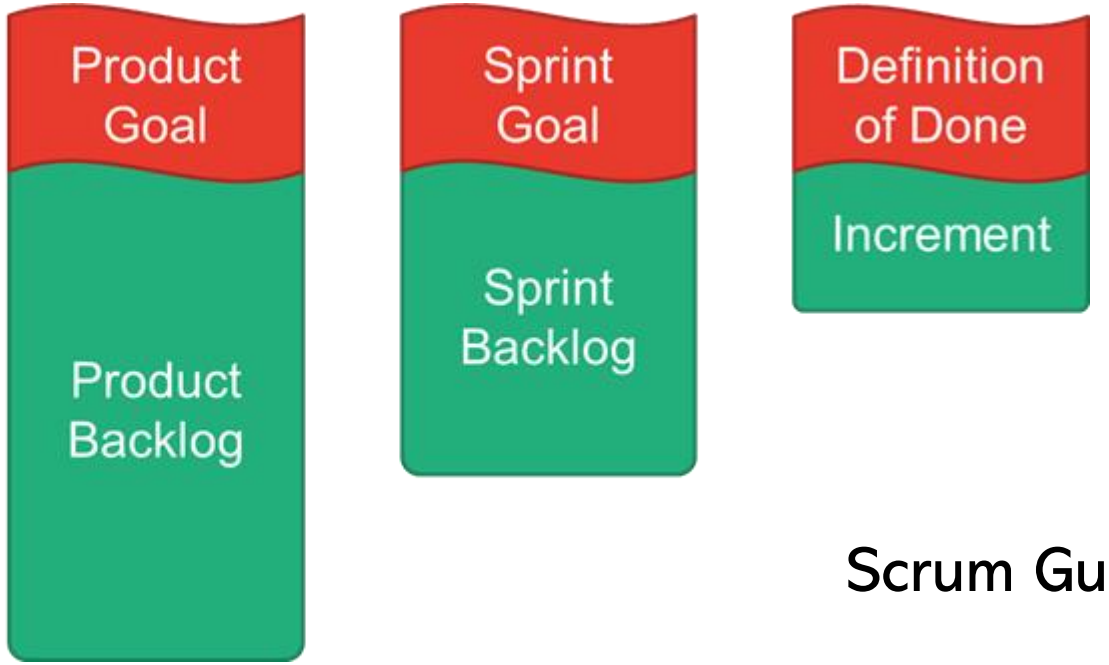
• **Monitoring Project Progress towards a Goal**: The performance measurement and forecast for the whole project. **Burndown-Burnup Charts / Velocity Charts**

• **Monitoring Sprint Progress**: The performance measurement and forecasts for a single Sprint

Product Goals and Artifacts

Commitments

Artifacts



Scrum Guide 2020 Defines 3 artifacts:

1. Product Backlog
2. Sprint Backlog
3. Increment

Product Backlog

PB Item	Priority	Points
User Story	High	5
User Story	High	8
User Story	High	3
User Story	Med	13
User Story	Med	8
User Story	Med	5
User Story	Med	13
User Story	Med	8
User Story	Med	5
User Story	Low	21
User Story	Low	13

Sprint Planning

Top priority stories are discussed and decomposed into Tasks for the Sprint Backlog.

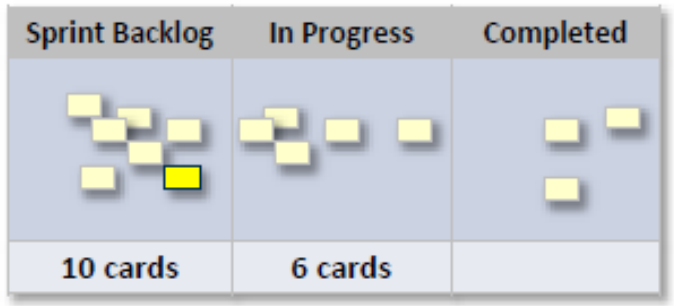
Sprint Backlog

SB Item	Priority	Hours
User Story	High	
Task 1		4
Task 2		12
Task 3		6
User Story	Med	
Task 1		9
Task 3		2
User Story	Low	
Task 1		5
Task 2		2
Task 3		7

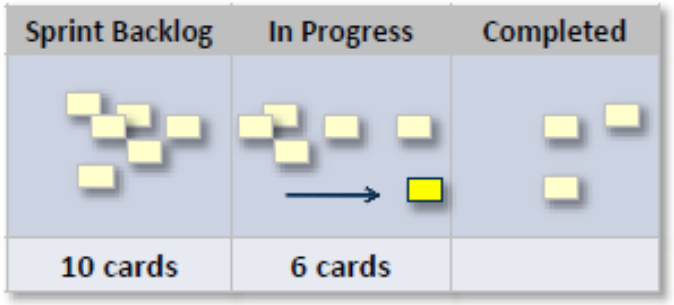
Sprint

Team **pulls** and completes Tasks until each User Story is done.

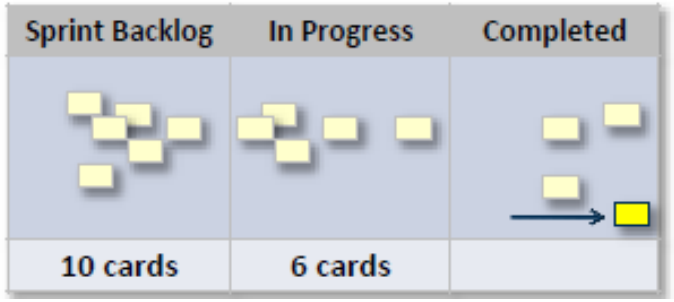
Cards move left to right, downstream, if there is space.



Cards move **left to right**,
assuming there is space, then…



From Sprint Backlog to **In Progress**,
if there is space, and…



From In Progress to
Completed.

Product Backlog

- An emergent, ordered list of what is needed to improve the product
- The single source of work undertaken by the Scrum Team
- The Developers who will be doing the work are responsible for the sizing
- The Product Owner may influence the Developers by helping them understand and select trade-offs.

Commitment: Product Goal

The Product Goal describes a future state of the product which can serve as a target for the Scrum Team to plan against. ***The Product Goal is in the Product Backlog.*** The rest of the Product Backlog emerges to define “what” will fulfill the Product Goal.

What should the Product Owner consider when ordering the Product Backlog?

The following may influence the decision of the Product Owner:

- ✓ The value of the PBIs
- ✓ Risk
- ✓ Dependencies between PBIs
- ✓ Dependencies to other products

When multiple teams are working together, each team should maintain a separate Product Backlog.

A) True B) False

Sprint Backlog = Why + What + How

•Composed of the **Sprint Goal** (**why**), the set of **Product Backlog Items** selected for the Sprint (**what**), as well as an actionable plan for delivering the **Increment** (**how**)

•**a plan** by and **for the Developers**

Commitment: Sprint Goal

The Sprint Goal is the single objective for the Sprint. Although the ***Sprint Goal is a commitment by the Developers***, it provides flexibility in terms of the exact work needed to achieve it. The Sprint Goal also creates coherence and focus, encouraging the Scrum Team to work together rather than on separate initiatives

Sprint Goal

- Created during the Sprint Planning event and then added to the Sprint Backlog
- Developers keep the Sprint Goal in mind
- Developers collaborate with the Product Owner to negotiate the scope of the Sprint Backlog within the Sprint without affecting the Sprint Goal

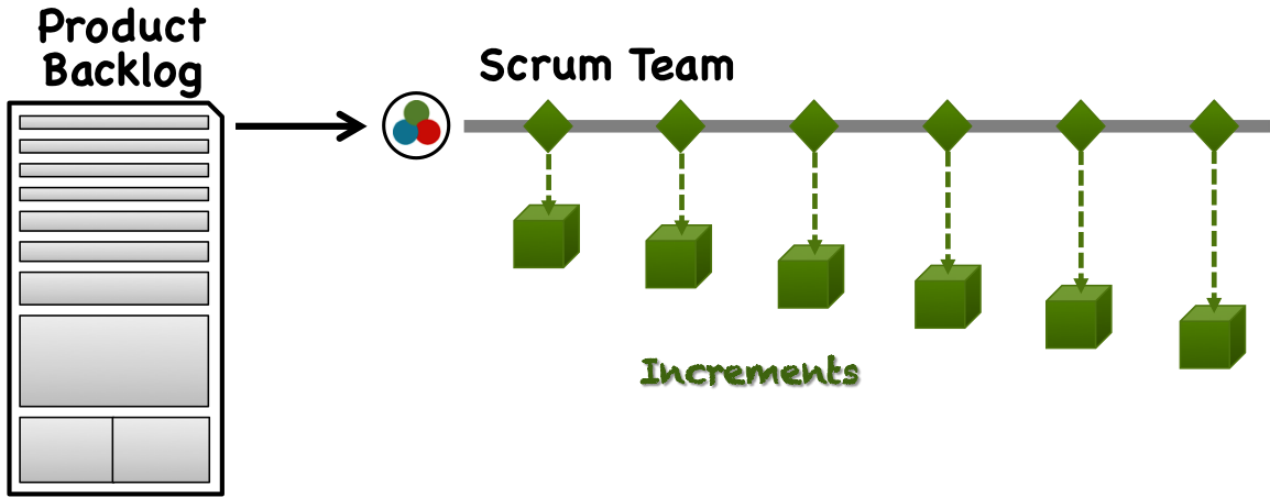
A Spring backlog can be changed during Sprint.

A) False

B) True

Increment Details

- A concrete stepping stone toward the Product Goal
- Multiple Increments may be created within a Sprint
- The sum of the Increments is presented at the Sprint Review thus supporting empiricism
- Work cannot be considered part of an Increment unless it meets the Definition of Done



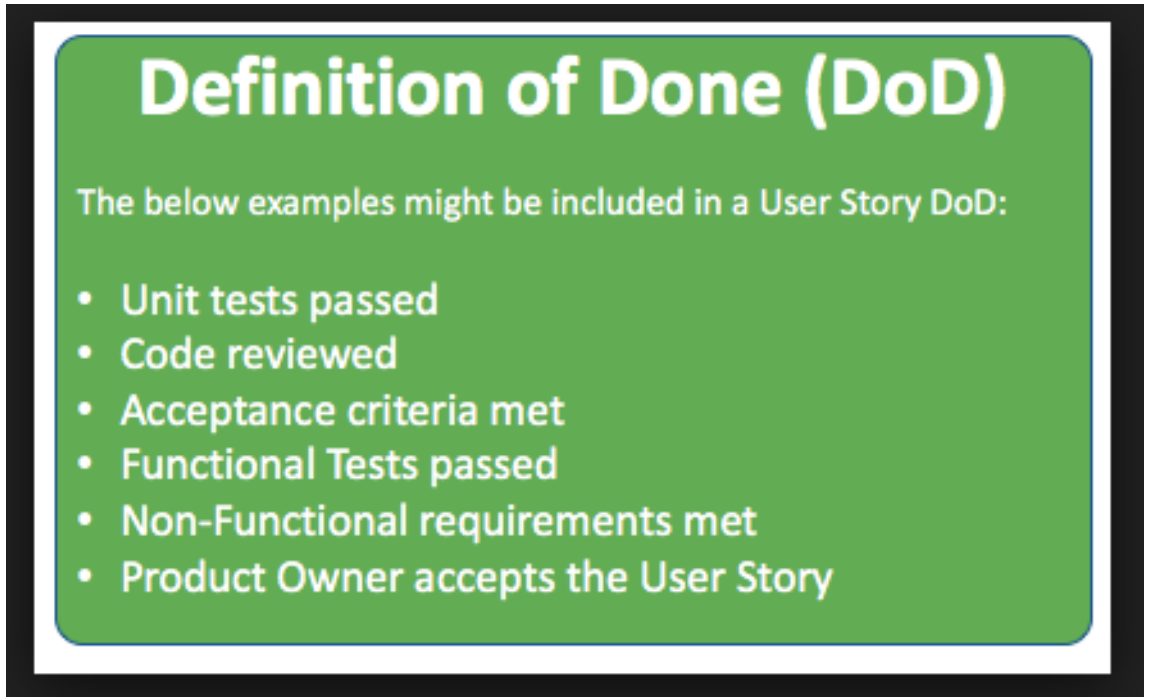
Commitment: Definition of Done

It is mandatory that the product increment be released to production at the end of each Sprint.

A) True B) False

Definition of Done

- ✓Checklist
- ✓Quality Standards
- ✓Meaning of “I’M DONE!”
- ✓Same for all PBIs
- ✓Can be changed in RETRO



Definition of Done

- ✓ **The standards of the organization**
- ✓ If it is not an organizational standard, the **Scrum Team must create**
- ✓ The Developers are **required to conform** to the Definition of Done
- ✓ **Multiple Scrum Teams ON SAME PRODUCT must mutually define and comply with the same Definition of Done**.

Our "**DEFINITION OF DONE**" for PSM Exam

Product Goal: Pass PSM I exam online
LAST SPRINT – SELF STUDY:

OUR COMMITMENT

"Definition of Done:"

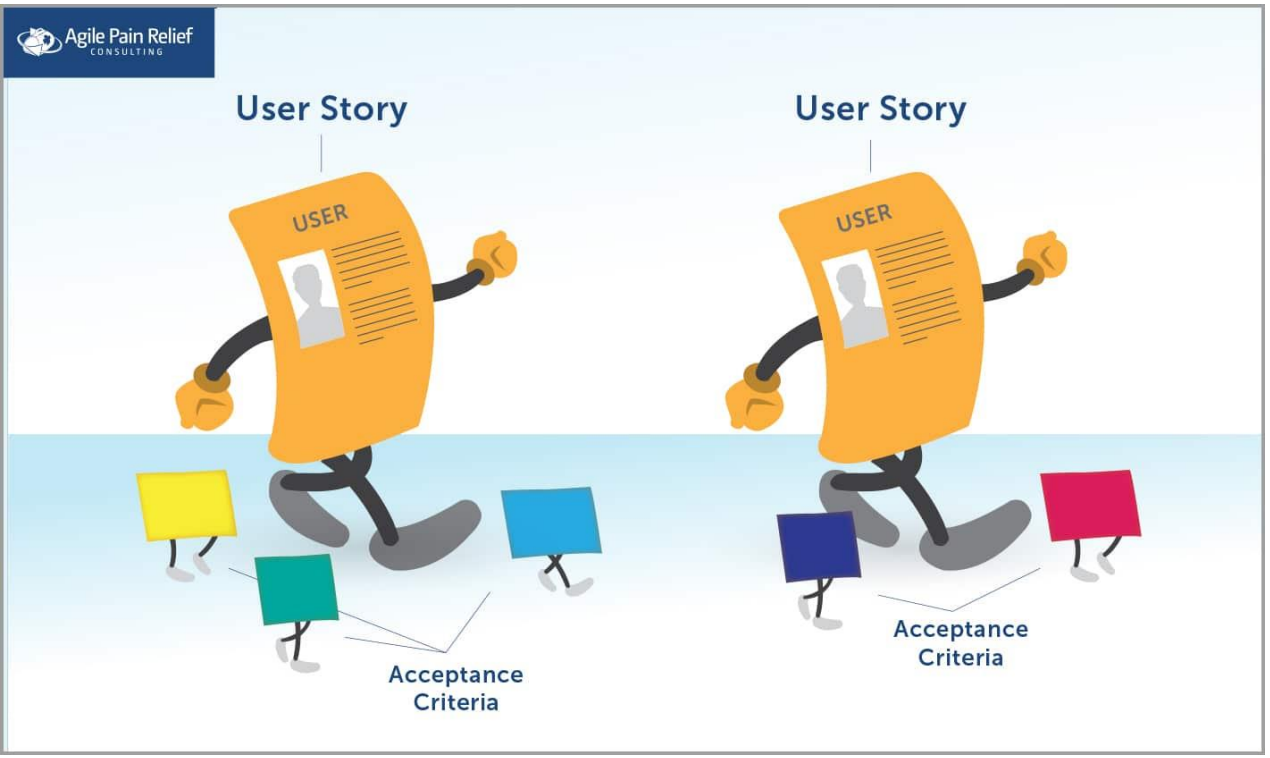
- ✓ **Join lessons fully**
- ✓ **Read 2020 Scrum Guide**
- ✓ **Scrum.org assessment, repeat until 100%**
- ✓ **Pay scrumorg 150$ and get password via email**

Sprint January= 2 weeks. Start = 10 Jan Finish= 20 Jan

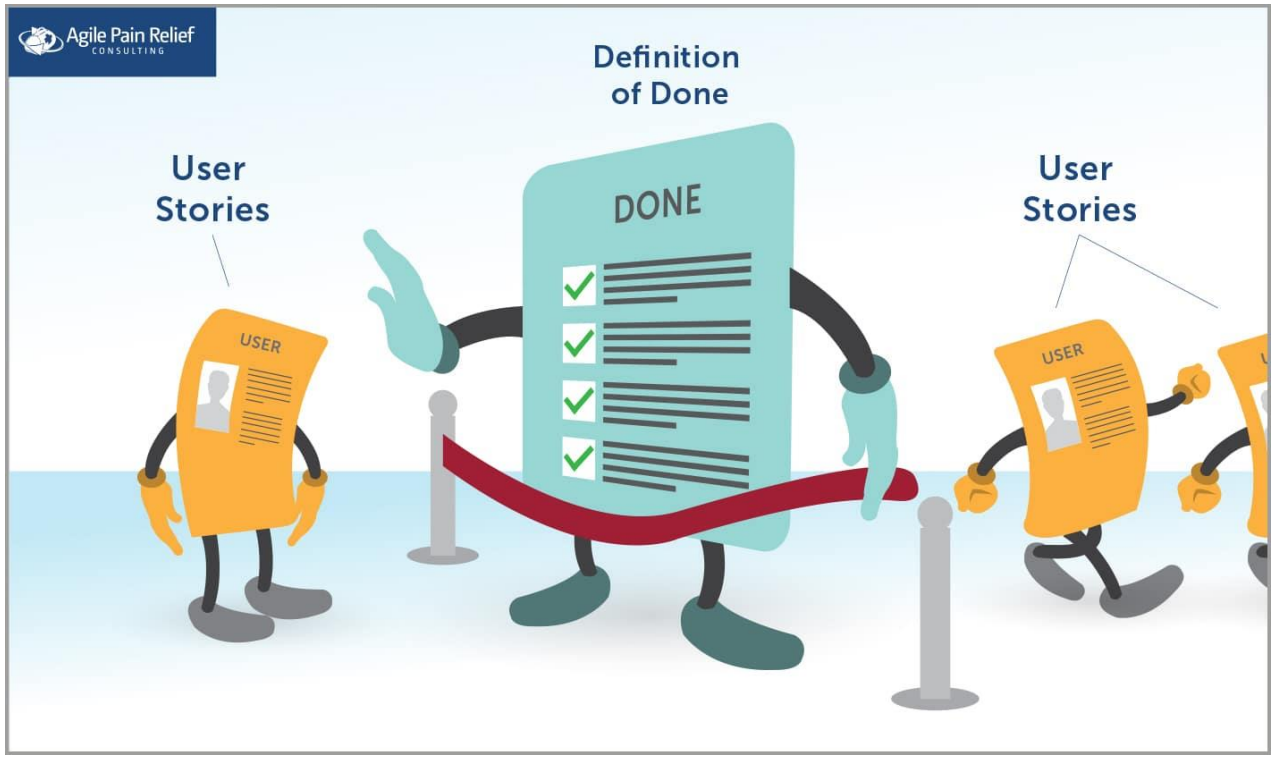
Definition of Done

- **Who define?** BY ORGANIZATION OR SCRUM TEAM
- **When defined?** FIRST SPRINT
- **When can be changed?** RETROSPECTIVE MEETING
- **Same for every sprint?** MAY CHANGE

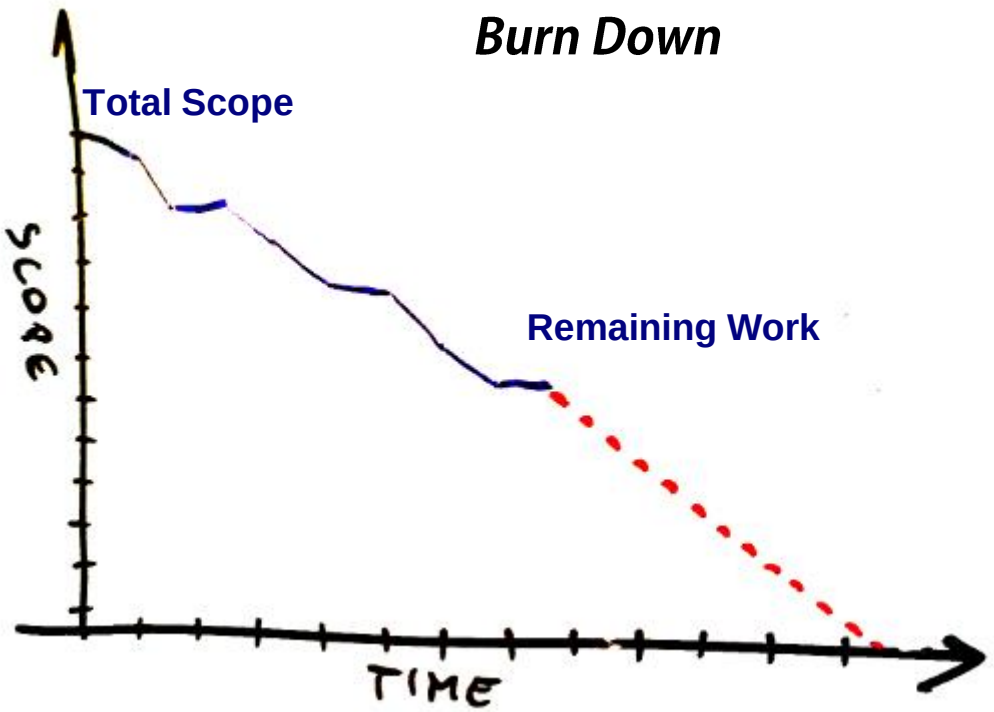
Product Owner decides Acceptance Criteria

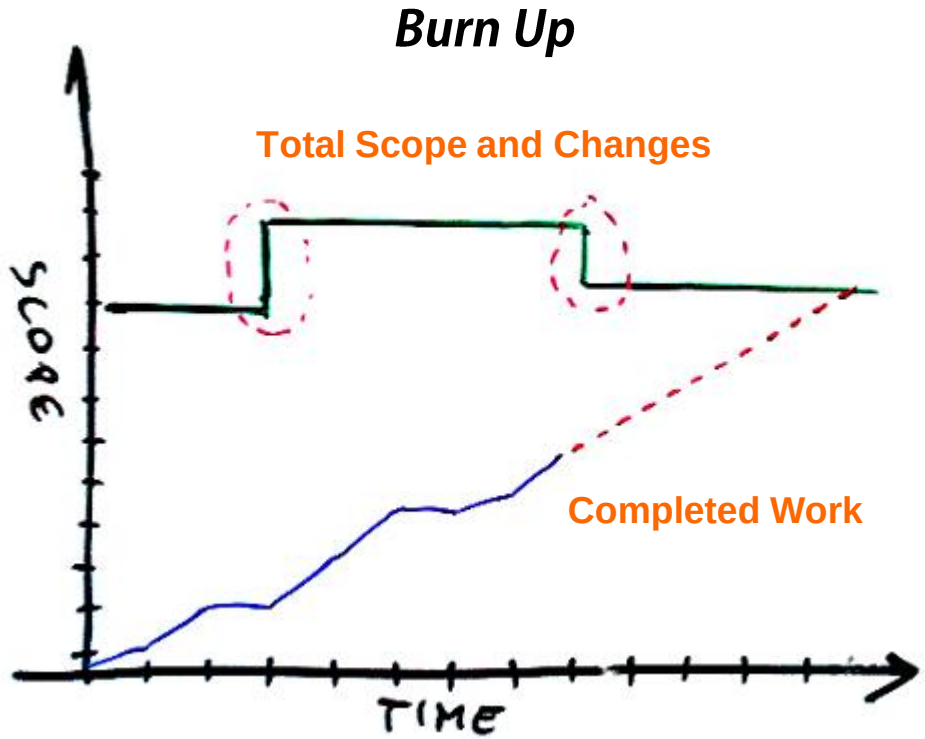


Scrum Team decides Acceptance Criteria

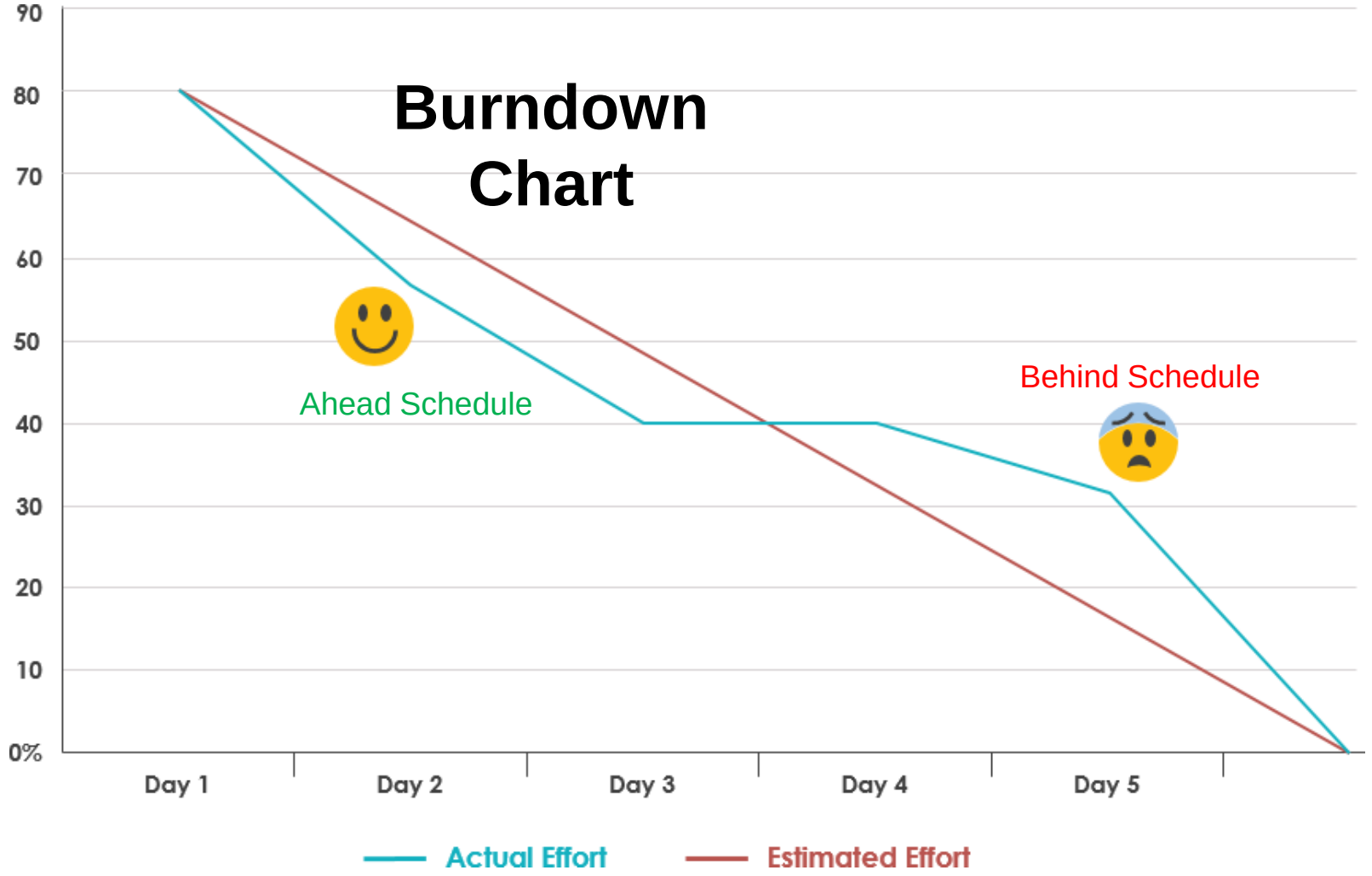


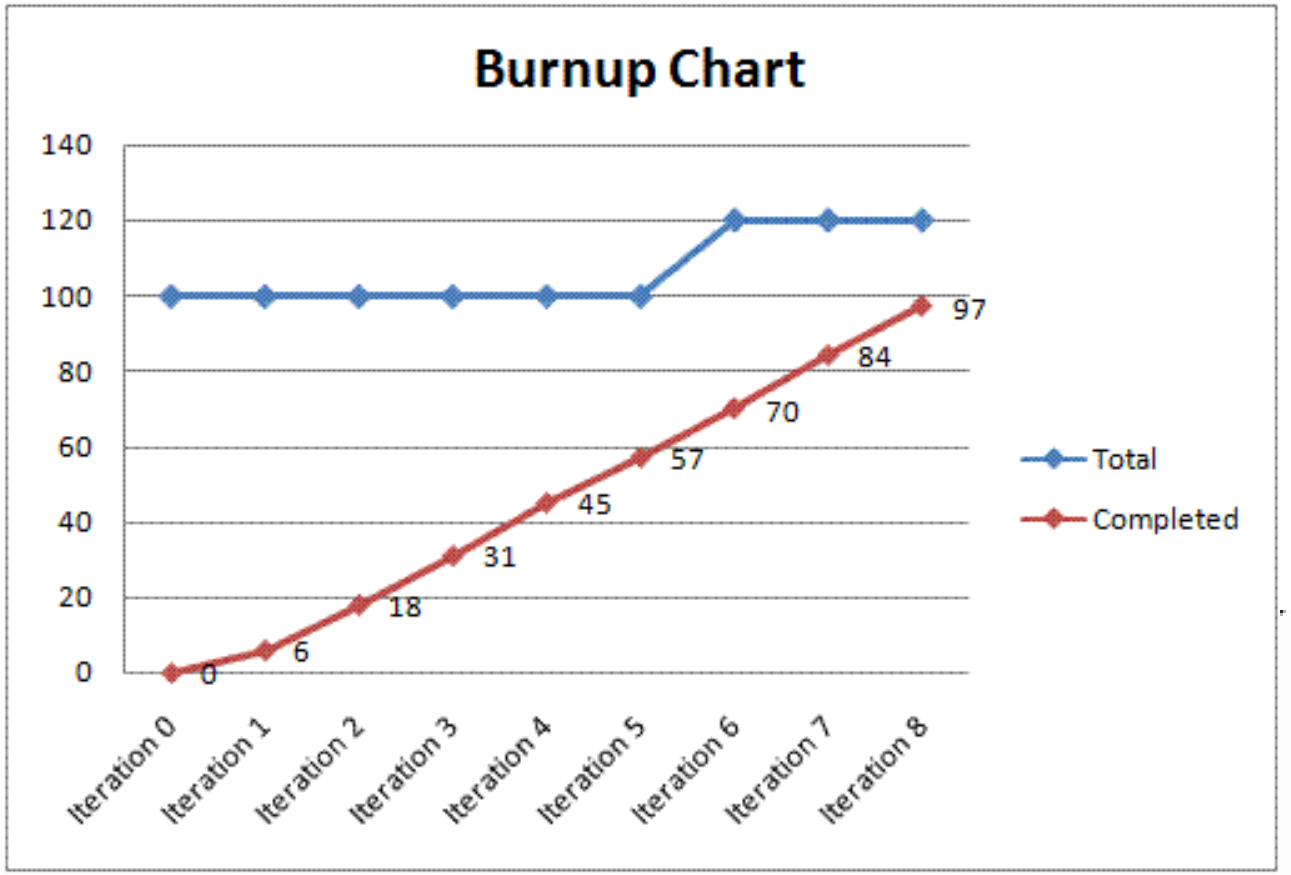
Burn Down vs Burn Up

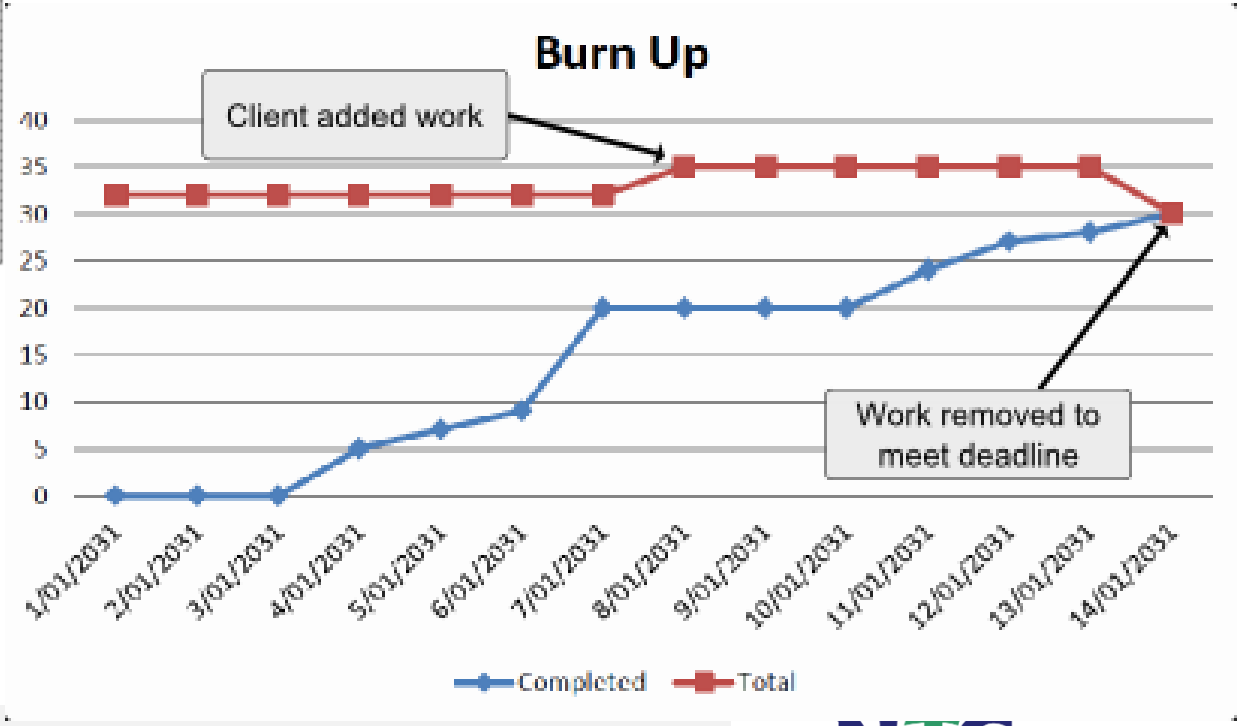




Story points or remaining work

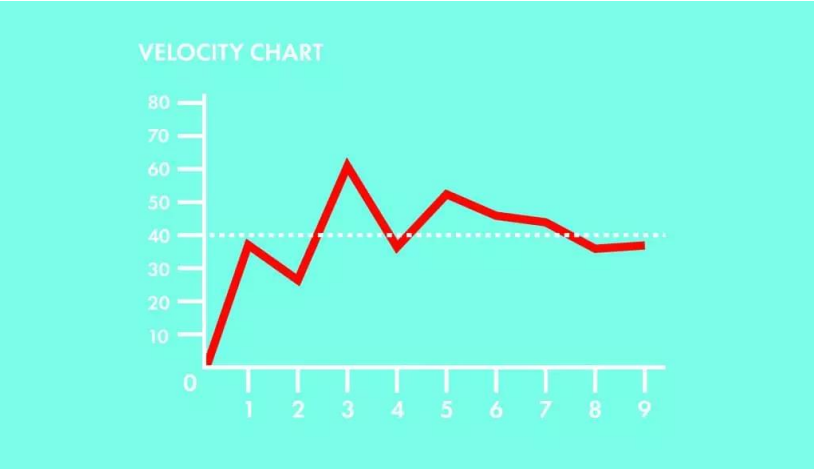



Burnup Chart
140
120
100
80
60
40
20
0
0
6
18
31
45
57
70
84
97
Iteration 0
Iteration 1
Iteration 2
Iteration 3
Iteration 4
Iteration 5
Iteration 6
Iteration 7
Iteration 8
Total
Completed


Burn Up
Client added work
Work removed to meet deadline
40
35
30
25
20
15
10
5
0
1/01/2031
2/01/2031
3/01/2031
4/01/2031
5/01/2031
6/01/2031
7/01/2031
8/01/2031
9/01/2031
10/01/2031
11/01/2031
12/01/2031
13/01/2031
14/01/2031
Completed
Total

Understanding Team Velocity

- Velocity is the measure of a team's capacity for work per iteration
- Measured in the same unit that the team estimates the work
- Velocity low in very early sprints and then stabilizes next sprints
- Velocity tends to plateau



What is current sprint Velocity : ?
What is next sprint estimated Velocity : ?

Velocity Calculation

Story	Estimate	Status at End of Sprint
As a Prospect, I can submit an application.	2 Pts*	Complete
As a Policy Holder, I can update my account information.	5 Pts	Complete
As an Account Representative, I can view a Policy Holder's information.	8 Pts	Complete
As an Underwriter, I can approve or reject applications.	5 Pts	1 Pts Remaining

Don't Break These 7 Scrum Rules

- Scrum teams should be self-organizing
- ScrumMaster should be a servant leader
- ScrumMaster doesn't run the Daily Scrum
- Scrum teams should work cross-functionally without handoffs
- Scrum events at the same time and place
- Product owner is the sole source of work for the team
- No titles besides developer

LEARNING CHECK

In Scrum, what is velocity?

- ○ The work completed by the development team within each sprint
- ○ The work that needs to be completed in a sprint
- ○ The work completed by the development team each day
- ○ The amount of time required to complete each aspect of the project work

LEARNING CHECK

Which of the following is NOT a way that velocity can be used?

a. Comparisons to measure efficiency

b. Comparisons to measure growth

c. Estimating growth and efficiency

d. Comparisons to other development teams

LEARNING CHECK

Over the past two sprints, the development team committed to completing user stories totaling 80 points but only completed 72 points. What is the team's actual velocity?

a. 80 points per sprint

b. 72 points per sprint

c. 36 points per sprint

d. 40 points per sprint

LEARNING CHECK

Category: Scrum Artifacts

What are Product Backlog features? Select three.

- [ ] It is never complete
- [ ] When the final version of a product is rolled out, its Product Backlog is dismissed
- [ ] It is dynamic
- [ ] As long as a product exists, its Product Backlog also exists
- [ ] A Product Backlog could be closed when it contains no items to include into the next Sprint

ASSESSMENT TIME !

Scrum Open

Instructions:

- Number of questions: **30**
- Has a time limit of: **00:30:00**
- Must be finished in one sitting. You cannot save and finish later.
- Questions displayed per page: **1**
- Will allow you to go back and change your answers.
- Will not let you finish with any questions unattempted.
- Has a pass mark of: **85%**

Continue ▸

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END OF COURSE

Thank You