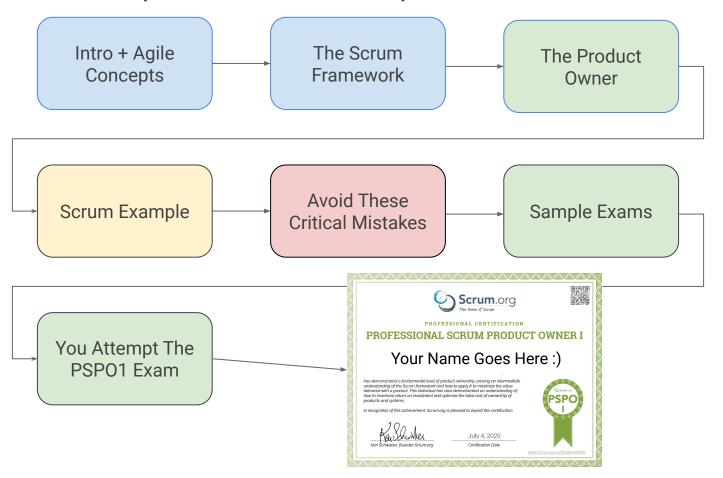
#### Roadmap To Success - Conquer The PSP01 Exam



#### About The PSP01

- 1. Exam length is **1 hour.**
- 2. You have to answer **80 questions**.
- 3. The passing score is **85%**.
- 4. Open book type.
- 5. No expiration (**Lifetime Certificate**).
- 6. It costs \$200 per attempt.



#### **Top 5 Skills For The Product Owner Role**

- 1. Domain/Business Knowledge
- 2. Communication
- 3. Organization
- 4. Negotiation
- 5. Analytical

#### **Top 5 Traits For The Product Owner Role**

- 1. Decisive
- 2. Visionary
- 3. Resilient
- 4. Leader
- 5. Accountable

#### As A Product Owner You Should Focus On

- 1. Building the *right product*.
- 2. Focusing on meeting customers' **needs** and **happiness**.
- 3. Creating a **Product Vision**.
- 4. Balancing priority, **risk**, **value**, **opportunities**, and **dependencies** to help you build the product in the right way, <u>in the right order</u>.
- 5. Maximizing **revenue** and **ROI**.
- 6. Measuring success with <u>business metrics</u> like **user adoption and retention**, and **revenue or cost** savings generated per feature.
- 7. **Frequently releasing product increments** to obtain earlier **feedback** from the marketplace.

# SECTION 1 - AGILE

#### Agile Planning

- 1. Agile is **against** detailed upfront plans.
- 2. In Scrum, we can consider the **Product Backlog** to be the **big plan** for the project. And the **Sprint Backlog** as a **smaller plan** for the Sprint.
- 3. The PO can **reduce waste** if they refine items for a few Sprints ahead (for example 2 sprints but that would depend on the Sprint length).
  - a. Anything more than that could be considered as **too much** upfront planning.

#### Agility - Part 1

- 1. The *Adaptive Approach* to development is known as **Agile**. The *Predictive Approach* to development is known as **Waterfall**.
- 2. For IT projects, **we prefer Agile** because typically we face many **unknowns**. We deliver value way faster than Waterfall, and by using a feedback loop, we build what the customer wants and expects.
- 3. **Agile needs frameworks and methodologies that support the Agile concepts and principles**, and this is why we have Scrum, Dynamic Systems Development Method (DSDM), Extreme Programming (XP), Crystal, and more.
- 4. We do planning in Agile, but we are against detailed upfront plans (which is typical for Waterfall).
- 5. In Agile and Scrum, we use **Iterative** and **Incremental Development**.

#### Agility - Part 2

- a. **Iterative** refers to the **development processes** (e.g. design, code, integrate, test, and so on). It means that we go through all the phases in one iteration. In Scrum, we call iterations Sprints and as a rule, Sprints have a maximum duration of 1 month.
- b. **Incremental** refers to the fact that we are developing the product **incrementally**. One increment at a time. The concept can be explained with a simple sentence: "Let's build some of it before we build all of it."
- 6. **Timeboxing** is an **agile concept** that refers to having a maximum duration of the events. In the Scrum contexts, these events are Sprint Planning, Daily Scrum, Sprint Review, Sprint Retrospective, and of course the Sprint container.
- 7. Scrum is the most popular agile framework for developing, delivering, and sustaining complex products in complex environments.

# SECTION 2 - THE SCRUM FRAMEWORK

#### The Scrum Team - Part 1 (To Print)

- 1. There are three different sets of accountabilities in a Scrum Team
  - a. The Scrum Master
  - b. The Product Owner
  - c. The Developers
- 2. The Scrum Team is cross-functional & self-managing.
- 3. The Scrum Team is typically **10 or fewer people.** 
  - If the Scrum Team becomes too large, we have to consider reorganizing it into multiple cohesive Scrum Teams.
- 4. There are **no sub-teams or hierarchies** in a Scrum Team.
- 5. The entire Scrum Team is responsible for all product-related activities including...
  - a. Product Releases
    - i. We can release as many times as we want during the Sprint.

#### The Scrum Team - Part 2 (To Print)

- Stakeholder collaboration
- ii. Verification
- iii. Maintenance
- iv. Operation
- v. Experimentation
- vi. Research and development
- vii. And more.
- 6. "The entire Scrum Team is accountable for creating a valuable, useful Increment every Sprint."

- Scrum Guide 2020

- 7. The entire Scrum Team **creates the Sprint Goal.**
- 8. The entire Scrum Team **creates the Definition of Done.**

#### Scrum Master Summary - Part 1 (To Print)

- 1. The SM (Scrum Master) is **accountable** for the Scrum Team's **effectiveness**.
- 2. The SM is a true leader.
  - a. The SM serves the Scrum Team
    - i. They **cause** the <u>removal of impediments</u> to the Scrum Team's progress.
    - ii. They ensure that all Scrum events **take place** and are positive, productive, and **kept** within the timebox.

#### b. The SM serves the Product Owner

- i. They facilitate **stakeholder collaboration** when requested or needed.
- ii. They help the PO to find techniques for **effective Product Goal definition** and **Product Backlog management**;
- c. The SM serves the Organization
  - i. They **lead**, **train** and **coach**, the organization in its Scrum adoption

#### Scrum Master Summary - Part 2 (To Print)

- 3. The SM acts as a team **coach** and **teacher**. They manage not the people but the **process**.
  - a. They possess what's called "Process Authority" and make sure everyone understands and enacts the Scrum theory, values, rules, and practices.
- 4. The Scrum Master is **NOT** a Project Manager.
  - a. A Project Manager role **does not exist** in Scrum.
- 5. They can work **part-time** as well as **full-time**.
- 6. Scrum doesn't prohibit one person to act as a SM and a PO but **it doesn't recommend it** either.

  The same applies to SM and a Developer.

#### Product Owner Summary - Part 1 (To Print)

- 1. The PO (Product Owner) is a **value maximizer.**
- 2. They are accountable for effective Product Backlog Management, which includes...
  - a. Creating and communicating a **Product Goal.**
  - b. **Creating** and **explaining** PBIs.
  - c. **Ordering** the Product Backlog.
  - d. Making sure the Product Backlog is **transparent**.
- 3. **The PO is one person**, not a committee.
- 4. To succeed, everyone in the organization **must respect his or her decisions.**
- 5. **Only** the PO has the **authority to cancel a Sprint.**

### Product Owner Summary - Part 2 (To Print)

- 7. The PO is **extremely knowledgeable about the marketplace** of the Product.
- 8. During Sprint Planning the PO brings a **business objective** based on which the Scrum Team collaboratively crafts the Sprint Goal.
- 9. During the Sprint Review, the PO **seeks feedback** from key stakeholders.
- 10. PO must be available to answer any questions the developers have!
- 11. The PO reviews "**Done**" items.
  - a. If he or she has written Acceptance Criteria for the PBIs, they make sure the conditions are met. Writing Acceptance Criteria for the PBIs is NOT mandatory but the Definition Of Done is.
- 12. If 2 Products are being developed, there can be one person acting as a PO for both Products. As well as, there can be 2 POs, one for each Product.

#### The Developers Summary - (To Print)

- 1. The Developers are the people who create a usable increment each Sprint.
- 2. They create the **plan** for the Sprint, this is the Sprint Backlog.
- 3. The developers choose the number of PBI to select from the Product Backlog to the Sprint Backlog.
- 4. They are **responsible for sizing** the PBIs and the **techniques** they would use to turn PBIs into a usable increment.
- 5. Developers are **required to participate in Daily Scrum** and come up with an actionable plan for the next day.
- 6. Developers are **required to conform to the DoD (Definition of Done).**
- 7. If there are multiple Scrum Teams working together on a Product, they must **mutually define** and **comply** with the **same DoD**.
- 8. Both the Developers and the PO do Product Backlog Refinement.
- 9. The Developers hold each other accountable as professionals.

#### The Sprint Summary (To Print)

- 1. "Sprints are the heartbeat of Scrum, where ideas are turned into value."
- 2. The purpose of the Sprint is to create usable increments.
  - a. We can consider Sprints as short Projects.
- 3. The Sprints happen one after another. There are no pauses or other events.
- 4. The <u>maximum duration</u> of the Sprint is **one month.**
- 5. Typically, when the project is risky, shorter Sprints are preferred, so we can generate more learning cycles.
- 6. The Sprint can be <u>canceled</u> when the Sprint Goal becomes **obsolete**.
- 7. **Sprint cancellation is bad for the team,** and it requires regrouping of the team, a new Sprint Planning event, as a result, resources are lost.
- 8. **During the Sprint quality goals do not decrease,** and scope might be re-negotiated as more is learned.
  - a. The Scrum Team **does not make changes that would endanger** the Sprint Goal.

#### The Sprint Planning Summary (To Print)

- During Sprint Planning, the PO ensures that attendees are prepared to discuss the most important PBIs and how they map to the Product Goal.
- 2. During Sprint Planning we answer **three** important questions:
  - a. **Why** is this Sprint Valuable?
  - b. **What** can be done this Sprint?
  - c. **How** will the chosen work get done?
- 3. The entire Scrum Team attends and collaborates on creating the Sprint Goal.
- 4. The Developers decide how many PBIs to select for the Sprint Backlog.
- 5. The Developers decide **on the practices they would use** to turn PBIs into a usable increment.
- 6. The more the Developers know about their **past performance**, **upcoming capacity**, and the **DoD**, the <u>more accurate forecasts</u> they would be able to do.
- 7. The Sprint Backlog is created during Sprint Planning and it is a combination of 3 things.
  - a. The Sprint Goal, the selected PBIs, and a Plan to deliver them.
- 8. The Scrum Team may invite other people to attend Sprint Planning to provide advice.
- 9. **Sprint Planning is 8-hours** for a 1-month Sprint and <u>usually</u> it gets proportionally shorter for shorter Sprints.

#### The Daily Scrum Summary - Part 1 (To Print)

- The purpose of the Daily Scrum is to inspect progress towards the Sprint Goal and adapt the Sprint Backlog if needed.
- 2. Daily Scrum is a **mandatory** event for **all Developers** of the Scrum Team.
- 3. The SM ensures that Daily Scrum takes place, but the Developers are responsible for conducting the event.
- 4. During Daily Scrum, the Developers plan the work for the next day.
- 5. The SM and PO **are allowed** to attend Daily Scrum.
- 6. **Daily Scrum is always 15 minutes** (regardless of the length of the Sprint and the number of Developers).

#### The Daily Scrum Summary - Part 2 (To Print)

- 7. **Daily Scrum is held at the same time and place** every working day of the Sprint to reduce complexity and eliminate waste.
- 8. Developers choose the structure of the Daily Scrum event.
- 9. The focus of the event should be:
  - a. "Progress towards the Sprint Goal"
  - b. "An actionable plan for the next day."
- 10. Daily Scrums...
  - a. Improve communications,
  - b. identify impediments,
  - c. promote quick decision-making,
  - d. and consequently eliminate the need for other meetings.
- 11. **The developers are allowed to adjust their plan** to achieve the Sprint Goal **outside** Daily Scrum as well. Often, they meet throughout the day for more detailed discussions.

#### The Sprint Review Summary (To Print)

- The purpose of the Sprint Review event is to inspect the outcome of the Sprint and determine future adaptations. The Scrum Team presents the results of their work to key stakeholders and progress toward the Product Goal is discussed.
- 2. Attendees of the Sprint Review event are the **Scrum Team** and **key stakeholders**.
- 3. Sprint Review is not just a demo or a presentation of the increment.
- 4. The Scrum Team presents only items that have been 100% done according to the DoD.
- 5. If a customer routinely skips this event, the expectations of the Scrum Team and the customer would become misaligned and both parties would not be happy.
- 6. The Product Backlog **may** also be adjusted to meet new opportunities.
- 7. The Sprint Review is a **4-hour event** for a 1-month Sprint.
  - a. **Usually**, It gets proportionally shorter for shorter Sprints [**Not a Rule**].

#### The Sprint Retrospective Summary (To Print)

- 1. The main purpose of the Sprint Retrospective is to <u>plan ways</u> to increase **quality** and **effectiveness**.
- 2. "The Scrum Team inspects how the last Sprint went with regards to **individuals**, **interactions**, **processes**, **tools**, and their **Definition of Done**"
- 3. It is a **3-hour event** for a 1-month Sprint.
  - a. Usually, it gets proportionally shorter for shorter Sprints [Not a Rule].
- 4. It is an opportunity to **inspect** and **adapt** the **process** the Scrum Team has been using to build the increments.
- 5. The whole Scrum Team attends the event.
- 6. During the Sprint Retrospective, we talk about the context, not the content.
  - a. For example, tools to help us communicate with members of the team who work remotely. Or the importance of communication between team members. Or the length of the Sprint. Or the structure of the Daily Scrum. Or the DoD, and so on.

#### Scrum Artifacts & Their Commitments (To Print)

#### 1. There are 3 Scrum Artifacts:

- a. The Product Backlog
- b. The Sprint Backlog
- c. The Increment
- Each Scrum Artifact contains a commitment to ensure it provides information that enhances transparency and focus.
  - a. For the **Product Backlog**, it is the **Product Goal**.
  - b. For the **Sprint Backlog**, it is the **Sprint Goal**.
  - c. For the **Increment**, it is the **Definition of Done**.
- 3. The three commitments are mandatory.
- 4. The PO works with the Scrum Team and creates the Product Goal.
  - The PO is accountable for the Product Goal.
- 5. The entire Scrum Team creates and is accountable for the Sprint Goal.
- 6. The entire Scrum Team creates and is accountable for the Definition of Done.

#### Product Backlog Summary (To Print)

- 1. The PB (Product Backlog) is an **ordered list of items**.
- 2. It is the single source of work undertaken by the Scrum Team.
- 3. The PB is ordered in a way that **maximizes the value the product delivers**.
- 4. **The PB is never complete.** It is ever-changing and dynamic.
- 5. One Product has:
  - a. One Product Backlog
  - b. One Product Owner
  - c. One Product Goal at any given time
- 6. PBIs on top of the PB are clearer, hence smaller than those on the bottom.
- 7. "A Product is a vehicle to deliver value. It has a clear boundary, known stakeholders, well-defined users or customers. A product could be a service, a physical product, or something more abstract." a quote from the Scrum Guide 2020

#### The Product Goal Commitment (To Print)

- 1. The Product Goal describes a future state of the Product.
  - a. "The Product Goal is the long-term objective for the Scrum Team."
- 2. The PO is accountable for **creating** and **explicitly** communicating the Product Goal.
- 3. We cannot have more than one Product Goal at any given time.
- 4. It is recommended that the Product Goal is **clear** and **concise**.
- 5. Each increment (Sprint) moves the Product toward the Product Goal.
- 6. The Product Goal is **measurable**, the Scrum Team knows when the goal has been achieved.
- 7. **The Product Goal can change**, but it is highly unlikely for this to happen during a Sprint.
- 8. Refinements to the Product Goal happen during the **Sprint Review event.**
- 9. Generally, the Product Goal is one part of a bigger **Product Vision**.
- 10. Multiple Scrum Teams working on the same Product, share the same Product Goal, the same Product Backlog, and the same Product Owner.

#### The Sprint Backlog & The Sprint Goal (To Print)

- 1. The SB (Sprint Backlog) consists of **3 things**:
  - a. The Sprint Goal (which is the why).
  - b. The selected PBIs (which is the what).
  - c. The Plan for delivering the Increment (which is the how).
- 2. The SB is a plan by and for the Developers.
- 3. The SB is highly-visible.
- 4. The SB **changes** during the Sprint.
- 5. The PO and the Developers may change/negotiate the scope of the Sprint but this should not affect the Sprint Goal in any way.
- 6. We move the incomplete items back to the **Product Backlog** for future considerations.
- 7. The Sprint Goal helps the team stay **focused** during the Sprint.

#### The Increment Summary (To Print)

- 1. An Increment is a **stepping stone** toward the Product Goal.
- 2. Each Increment is additive to all prior increments.
- 3. The Scrum Team creates one or multiple Increments each Sprint.
- 4. All Increments must be verified and usable.
- 5. The whole Scrum Team decides when to release the Increment.
- 6. **Scrum does not tell us when to release.** We can release as many times as we want.
- 7. Work cannot be considered part of an Increment **unless** it meets the <u>Definition of Done</u>.

# SECTION 3 - PO

#### The Product Vision

- 1. The PO is the Chief Product Visionary.
- 2. The first thing the PO does when starting a new product is <u>defining the Product Vision</u>.
- 3. The PO communicates the Product Vision **often** to the team and stakeholders.
- 4. The Scrum Events, besides Daily Scrum, are **great opportunities** for the PO to **remind** the team and stakeholders about the Product Vision.
- 5. The Product Vision increases **transparency** and it gives a direction to all Sprints.
- 6. The Product Vision is **focused**, **clear**, and **easy to understand**. It reflects the target audience and their needs. It can be **emotional** and **persuasive**.

#### Value (The Most Important Topic For The PO) Part 1

- 1. Value can be **financial** and **societal**.
- 2. Value is not only just measured by income, revenue, or money.
  - For non-profit organizations, it might be increased safety or security.
- 3. POs have excellent knowledge about the product and the marketplace.
- 4. If there is a difference in opinion between the **end-user** and the **customer**, what you should consider the most is the **end-users' opinion** (If they are happy, chances are everyone else will be happy too).
- 5. **POs deliver value by releasing the product.** There is not a rule in Scrum that says how often or when we should release. We can release a few increments at a time. We can also release a few times during a Sprint. **The rule is each increment must be usable (releasable)!** 
  - a. **Reminder:** The whole Scrum Team decides when to release.

#### Value (The Most Important Topic For The PO) Part 2

- 6. The agile approach is better than the waterfall approach for software development because **it delivers value to the end-users fast**.
  - a. Waterfall delays value by design.
- 7. POs order the items in the PB in a way that maximizes the value of the product.
- 8. According to the EBM guide, there are **4 key-value areas** (KVAs) we should measure and improve:
  - a. Current Value
  - b. Unrealized Value
  - c. Time-to-Market
  - d. Ability to innovate

#### Evidence-Based Management - Part 1

- 1. Velocity is not a measure of success.
- 2. **Code integration** happens frequently during the Sprint (multiple times a day).
- 3. Test-driven development (TDD), Pair-programing, and User Stories are good practices, often used, but they are not mandatory in Scrum.
- 4. EBM approach **measures value delivered** as evidence of organizational agility, and <u>provides</u> ways to measure and improve the ability to deliver value.

#### Evidence-Based Management - Part 2

- 1. According to the EBM guide, there are 4 key-value areas (KVAs):
  - a. Current value
  - b. Time-to-market
  - c. Ability to innovate
  - d. Unrealized value
- 2. Each **Key Value Area** (KVA) is associated with **Key Value Measures** (KVMs).
- 3. Improving performance is an **iterative process**, it uses a **learning loop**. We measure the current state, we set performance goals, we do small experiments and then we measure the results to gauge the effect. Then we do that again, and again and again continuously.

#### Product vs Project Management (Mental Shifts)

- 1. "Responding to change over following a plan." Agile Manifesto
- 2. **Time**, **budget**, and **scope** <u>are not</u> the best measurements for success. Yes, these metrics can be useful but this is not how you measure success in Scrum.
- 3. Success in Scrum is delivering value through products, so we have happy end-users, scrum teams, and stakeholders (customers).
- 4. Useful business metrics for the Product Owner are:
  - a. **User adoption and retention** (we want to grow our customer base but also keep the customers we already have).
  - b. **Revenue or cost savings generated per feature** (we strive for higher revenue and lower cost for the organization).
- 5. In Scrum, project management activities are distributed among all members of the Scrum team. (Reminder: We are not allowed to add new accountabilities or roles in Scrum, for example, a Project Manager (PM), and we do not have an equivalent of a PM.)

#### The Product Backlog & PBIs' Attributes

- 1. The three main attributes of the PBIs are: **Description**, **Size**, and **Order**.
  - a. In the past, we had "value" as a fourth attribute but it has been removed from the Scrum Guide v2020
- 2. "Attributes often very with the domain of work" Scrum Guide v2020
- 3. The PBIs should be non-technical and independent (not mandatory in Scrum but good for your practice)
- 4. A common way to write the <u>description</u> of a PBI is to use **User Stories** (not mandatory in Scrum).
- 5. A common way to estimate the <u>size</u> of a PBI is to use **Story Points** (not mandatory in Scrum).
- 6. A common way to estimate the <u>value</u> of a PBI is to use **Value Points** (not mandatory in Scrum).
- PO orders the items in a way that maximizes the value of the product and more specifically, value, cost, risk, and dependencies.
- 8. **Non-functional features** (security, performance, speed, reliability, maintainability) can be added to the <u>Product Backlog</u> and the <u>Definition Of Done</u>.

Note: PBI stands for Product Backlog Item.

#### Product Backlog Management/Refinement

- 1. PBR is the act of **adding details** such as **description**, **order** and **size** to the items in the Product Backlog.
- 2. **PBR is an ongoing process.** There is no official event for it because we receive feedback spontaneously. We want to do PBR on an ad hoc basis.
- 3. The PO and Developers **collaborate** during PBR.
- 4. Only the Developers do the sizing of the PBIs (if the SM and PO do not act as Developers).
- 5. The PO spends <u>as much time as needed refining</u> the Product Backlog.
- 6. Effective Scrum Teams keep the PBIs on top of their product backlogs **refined**. That means the items are ready for development **immediately actionable**.

Note: PBR stands for Product Backlog Refinement.

#### The Concept Of Readiness

- PBI readiness refers to the concept of items that are immediately actionable (or simply said ready for development).
- 2. A Definition Of Ready is **not accepted** in Scrum.
- 3. The PO strives to have "ready" items on top of the Product Backlog.
- 4. If the PBIs on top of the Product Backlog are not ready, **The Developers have to pull them to the**Sprint Backlog anyway.

Note: Do not confuse the Definition Of Done with the Definition Of Ready.

#### The Definition Of Done (DoD)

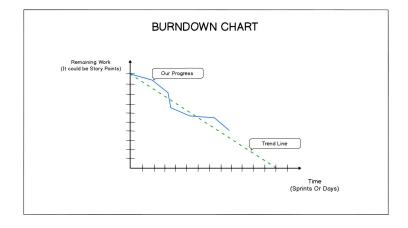
- 1. The DoD is a **formal description** of the state of the Increment when it meets the quality measures required for the product.
- 2. The DoD is **mandatory** and it <u>increases transparency</u>.
- 3. If DoD is part of organizational standards, the **Scrum Team must follow it as a minimum.**
- 4. If DoD is not part of organizational standards, **the Scrum Team must create one** that is appropriate for the Product.
- 5. The DoD **may be improved** during the project, the result would be a higher quality of the work.
- 6. If multiple Scrum Teams are working on the same product, they **must mutually define and comply** with the same DoD for the integrated increment.

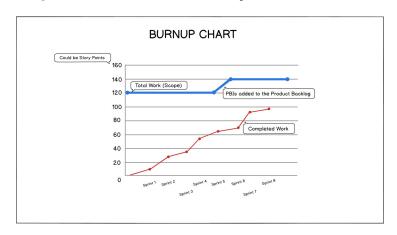
#### Story Points, Velocity, and Planning Poker

- 1. Story points are a **relative unit of measurement.**
- 2. The Developers <u>use</u> Story Points to **estimate the size** of the PBIs.
  - a. This estimate includes the **overall effort** that is needed to fully implement a PBI.
- 3. The Developers <u>estimate</u> the items during **Product Backlog Refinement** (PBR).
- 4. **Velocity gives us an idea of how fast we complete PBIs** but it does not tell us if these PBIs would maximize the value of the product.
- 5. We should not <u>compare or normalize</u> the velocity of two or more Scrum Teams (it's pointless).
- 6. **Story Points have a relation to time**, but that relation **changes** because, at the beginning of the project, the velocity is lower in comparison to the middle of the project.
- 7. **Planning Poker is a voting technique** the Developers use to assign Story Points to PBIs.
  - a. It eliminates the psychological bias called **Anchoring**.

### Progress Measurement (Information Radiators)

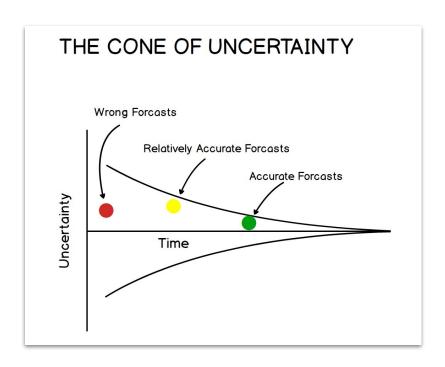
- 1. <u>Progress measurement</u> is **mandatory** in Scrum.
- 2. The PO measures the progress of the **Project once per Sprint** to ensure **value** is being delivered.
- 3. The Burndown Chart shows the remaining work across time.
  - a. The trend line is simply a forecast, an assumption when the project will end if there are no changes in scope and number of developers.
- 4. **The Burnup Chart shows the complete work and total work.** Changes in the scope are clearly seen.
- 5. For your exam (PSPO1), remember that charts or diagrams are **not mandatory**.





#### The Cone Of Uncertainty

- 1. What the Cone Of Uncertainty represents is the fact that at the very beginning of the project the uncertainty is the highest. The more we do, the more we reduce uncertainty.
- 2. The longer the forecast the less accurate it will be.



#### Technical Debt, Code Refactoring & Cont. Integration

- 1. "Technical debt is a concept in software development that reflects the **implied cost of additional rework** caused by choosing an **easy solution now** instead of using a better approach that would take longer"
- 2. **Code refactoring** is about improving a piece of code without changing the behavior of the feature.
  - a. For example, we can simplify a piece of code so it is easier to maintain, fix bugs, or add new functionality in the future.
- 3. The Dev. Team does code refactoring during the Sprint. There is no special event for it.
- 4. In Scrum we use **Continuous Integration** (CI). It is an **agile practice** that means we integrate the new code to the existing code **frequently**. This can be multiple times per day. We do not wait until the end of the Sprint to integrate the code.
  - a. **Note:** To integrate the code, does not mean to release it.

#### Releases

- 1. The whole Scrum Team contributes to release decisions.
- 2. All increments must be **verified** and **usable**.
- 3. <u>Scrum doesn't tell us when to release.</u> **It is not true** that we can release only once per Sprint.
- 4. **By releasing we add value and receive feedback from end-users** (which is the most valuable feedback we can get, more valuable than the customer who pays for the development of the product). Also, we (POs) **validate our assumptions.** This is validated learning.
- 5. We can have **major releases** and **minor releases**. Major releases are typical for the Waterfall approach to development but we can also have major releases in Scrum.
- 6. When we release, we should consider **customer absorption**, **constraints**, **the value being delivered**late to the marketplace, and the cost of the release.
- 7. There are no **Special Sprints** in Scrum such as **Sprint Zero** or a **Hardening Sprint**.
- 8. A rule of thumb, if you can release, do it! :-)

#### Scaled Scrum

- 1. One product has one Product Backlog, one Product Owner, and one Product Goal.
- 2. There can be one or multiple **Scrum Masters**. The reason is the **Scrum Master** can work part-time and act as such for more than one team.
- 3. The length of the Sprints **does not** have to be synchronized.
- 4. There can be multiple Definitions of Done, as long as they are compatible. The teams must be able to combine the outputs of their Sprints into **one integrated increment**.

#### **Contract Types & Budgeting**

- 1. The PO revises the budget at least **once per Sprint t**o make sure value is being delivered. Generally, that's at the end of the Sprint.
- 2. A **Fixed-Price contract type** with fixed scope means that upfront planning is required. Which is against the Agile beliefs.
- 3. Fixed-Price contracts limit Agility but it is still possible to execute product development.
- 4. The **Time & Material contract type** is great for Scrum and Agile in general.

#### **Definition Of Done**

(For All User Stories)

VS

## Acceptance Criteria

(It's Different For Each User Story/Task)