

# EPIC

Effective Professional Inspiring Competent

## Project Management

### Fundamentals

Agile Concepts

# Agenda

- ❖ **Predictive vs Adaptive**
- ❖ **The Agile Manifesto**
- ❖ **Agile Frameworks**
- ❖ **Scrum Framework**

# Predictive vs Adaptive

# Which Project Approach is this?

**Agile**

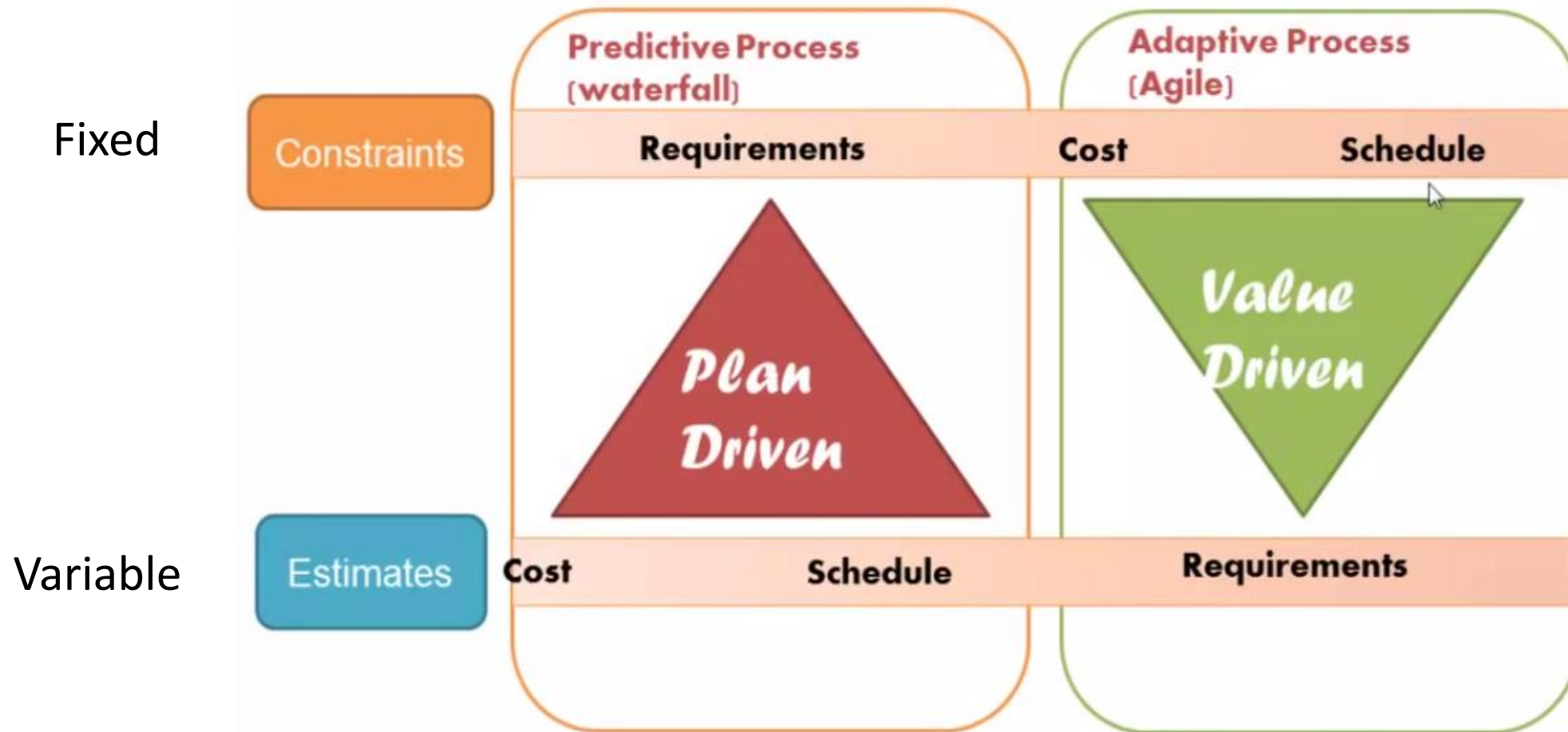


**Hybrid**

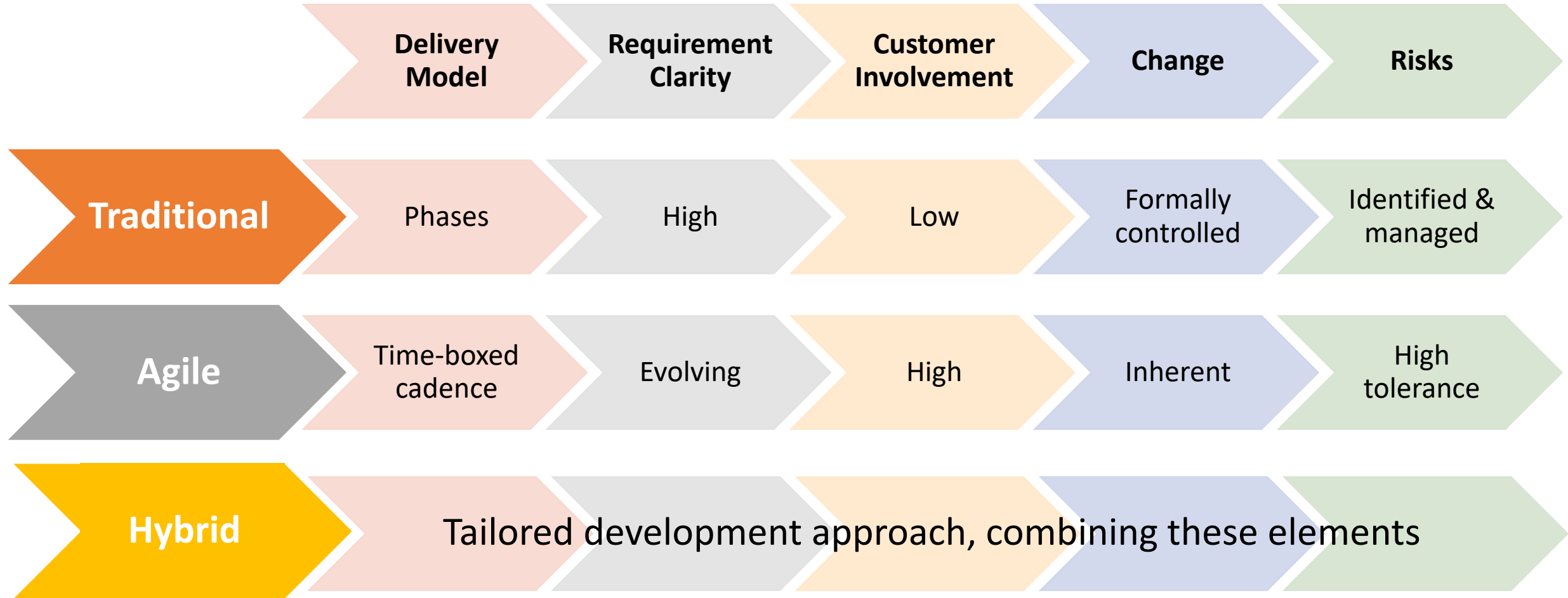


**Waterfall**

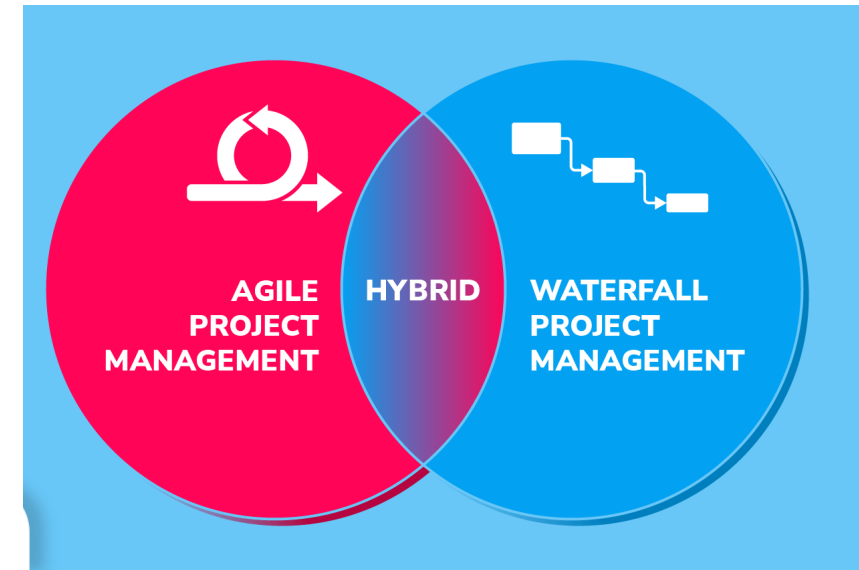
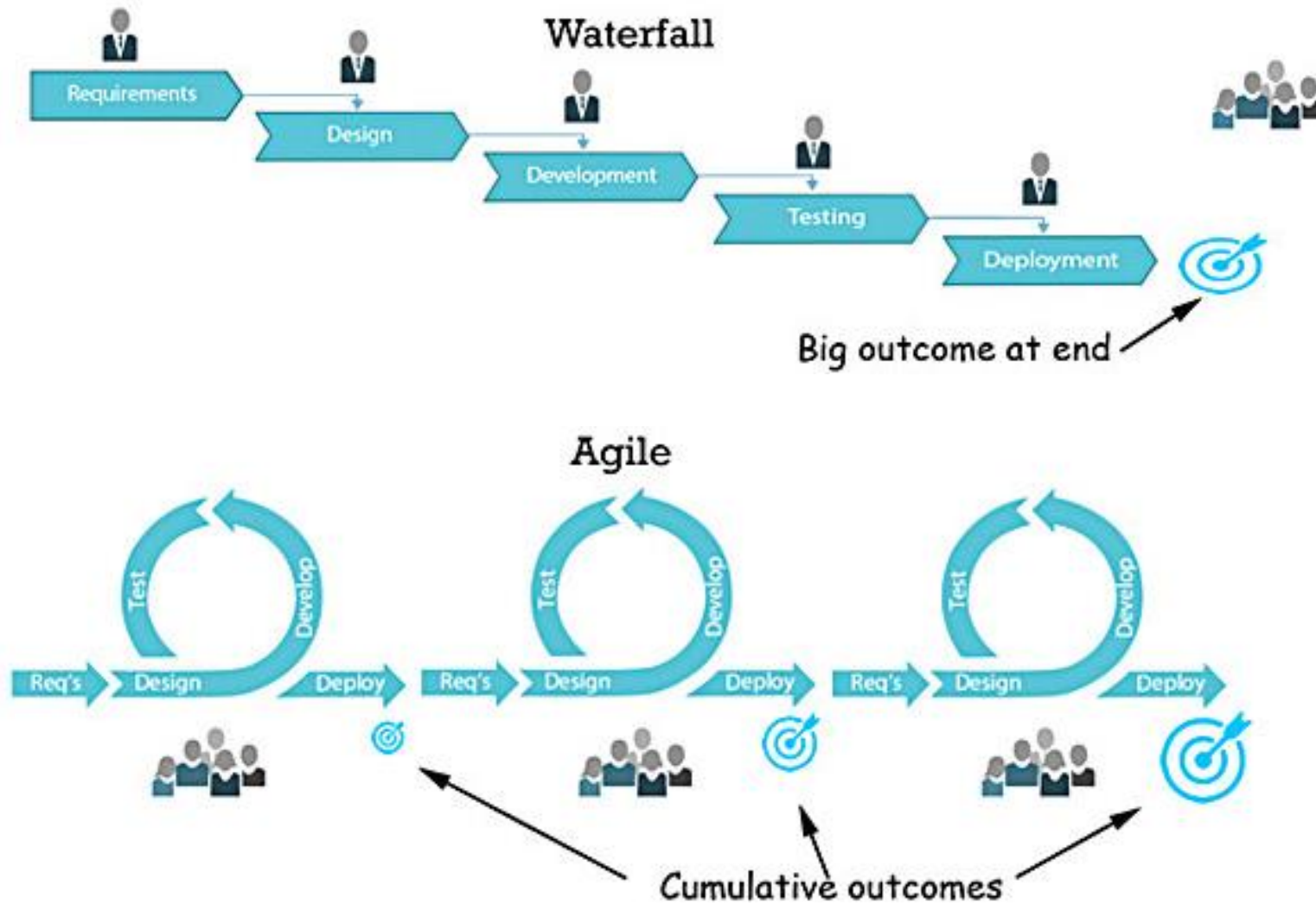
# Value Driven Approach



# Comparison








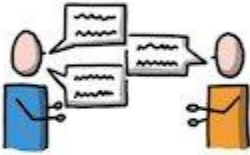




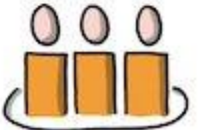
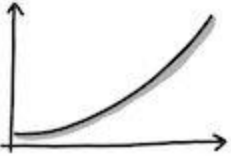
# Comparison



# The Agile Manifesto



# The Agile Manifesto

<p>Satisfy the customer through early and continuous delivery of valuable software.</p> 	<h1>12 Agile Principles</h1> <p>@OlgaHeismann</p>		<p>Business people and developers must work together.</p> 
	 <p>Welcome changing requirements, even late in development.</p>	 <p>Deliver working software frequently.</p>	
<p>Build projects around motivated individuals. Give them the support they need. Trust them.</p> 	 <p>The most efficient and effective method of conveying information is face-to-face conversation.</p>	<p>Working software is the primary measure of progress.</p> 	 <p>The sponsors, developers, and users should be able to maintain a constant pace indefinitely.</p>
<p>Continuous attention to technical excellence and good design.</p> 	 <p>Simplicity — the art of maximizing the amount of work not done — is essential.</p>	<p>The best architectures, requirements, and designs emerge from self-organizing teams.</p> 	<p>The team reflects on how to become more effective and adjusts its behavior accordingly.</p> 

# The Agile Manifesto



Individuals and  
interactions

over

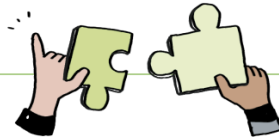
processes  
and tools



Working  
software

over

comprehensive  
documentation



Customer  
collaboration

over

contract  
negotiation



Responding  
to change

over

following  
a plan

“

We are uncovering **better ways** of developing software by doing it and helping others do it.

Through this work we have come to **value**:

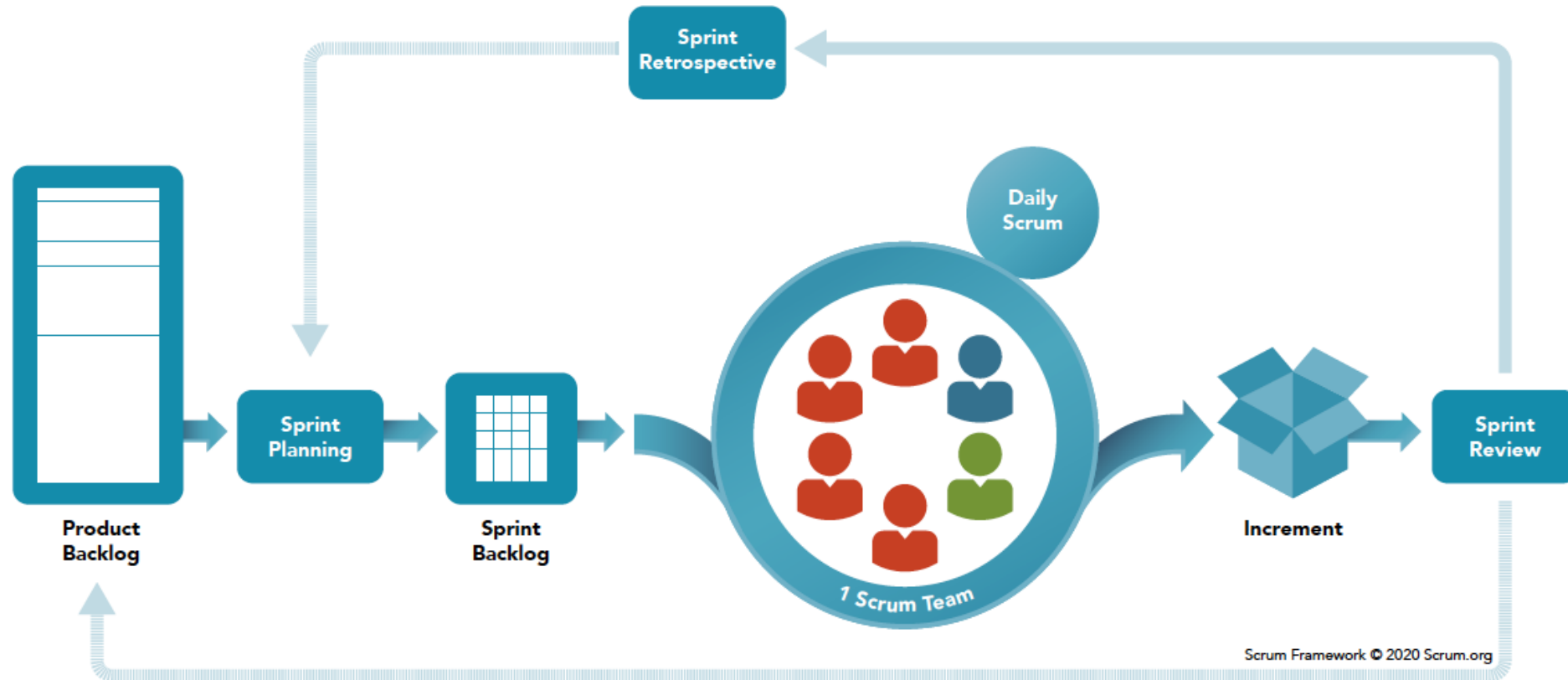
That is, while there is **value** in the items on the **right**, we value the items on the **left more**.

”

# Agile Frameworks

# Scrum Framework

Focuses on **time-boxed iterations** to implement the **highest priority** requirements by a **cross functional team**



# Kanban Framework

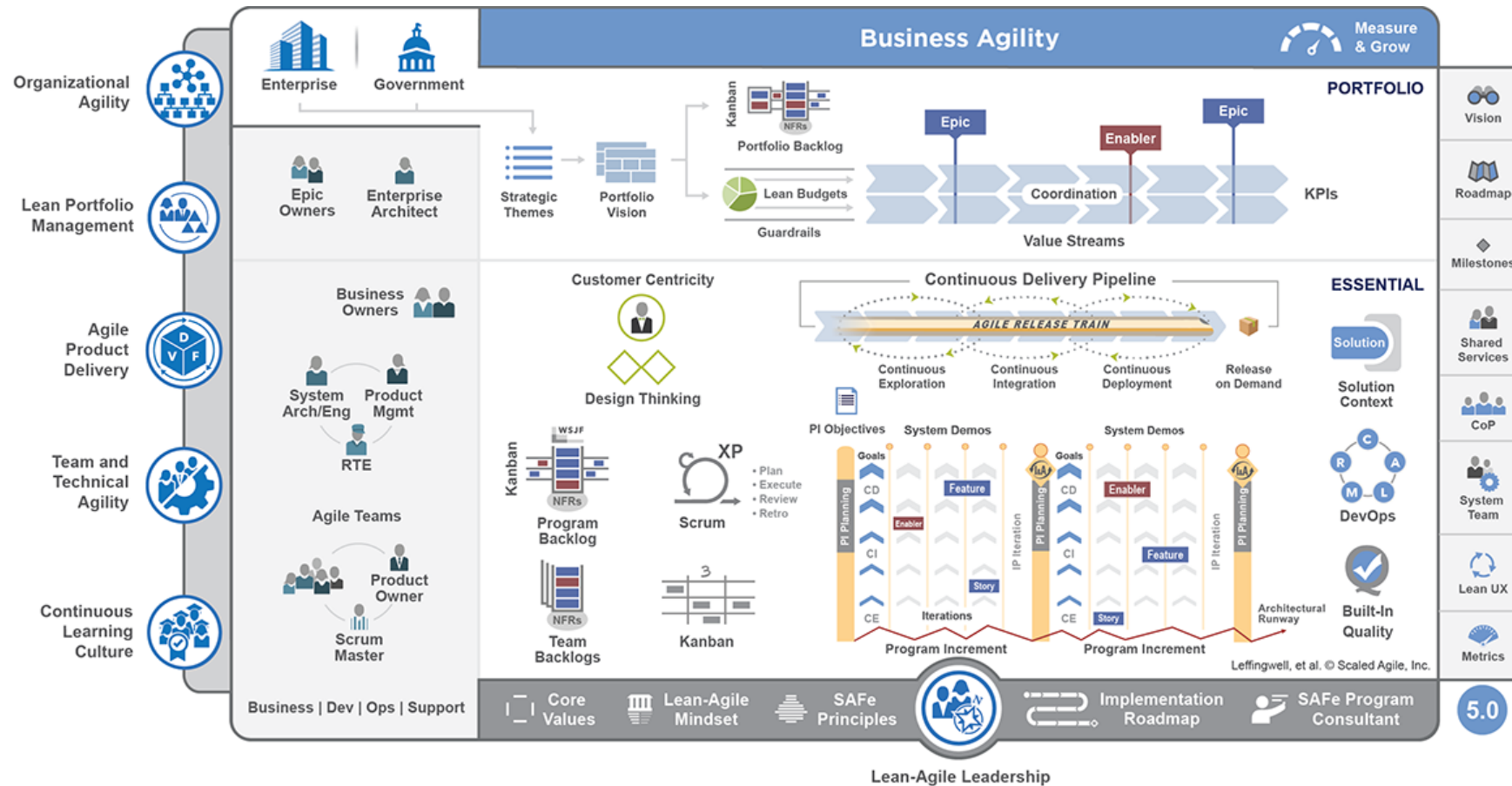
Focuses on visualizing the **entire project on boards** in order to increase project **transparency and collaboration** between team members



Kanban Board

# Scaled Agile Framework® (SAFe®)

## Organizational and workflow patterns for implementing agile practices at an enterprise scale





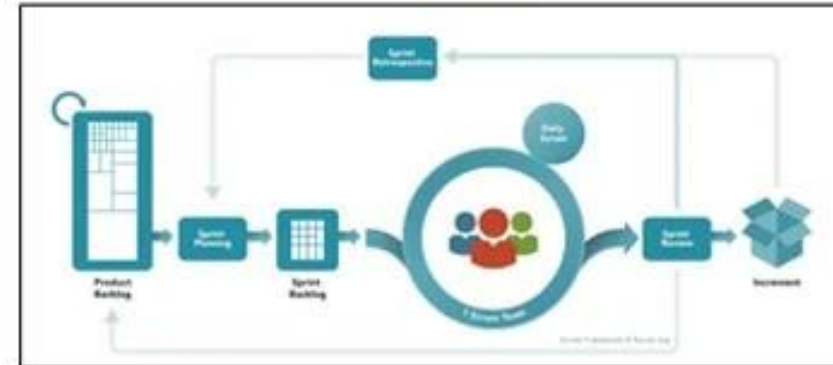
# Summary



## Kanban



## Scrum



## SAFe

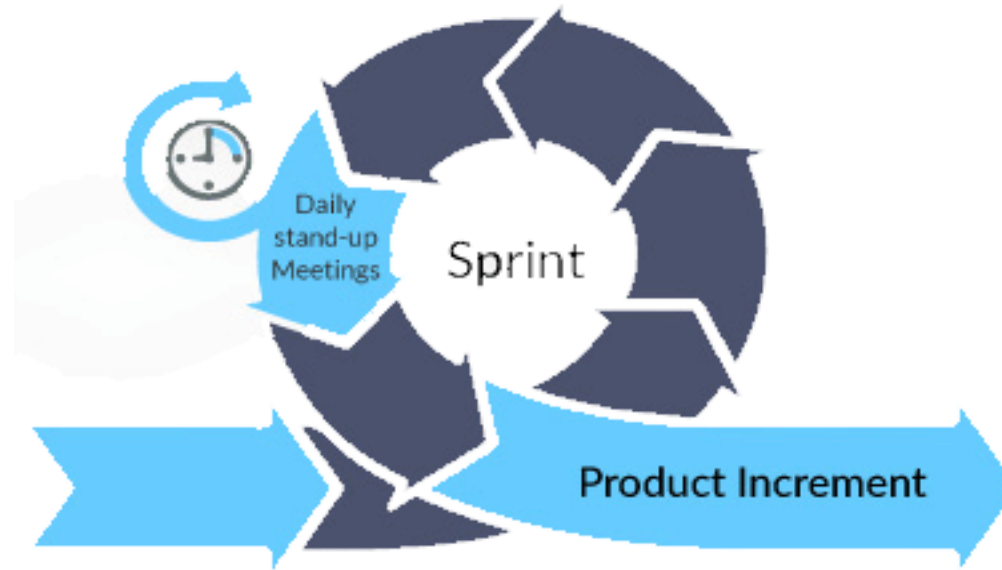


# Scrum Framework



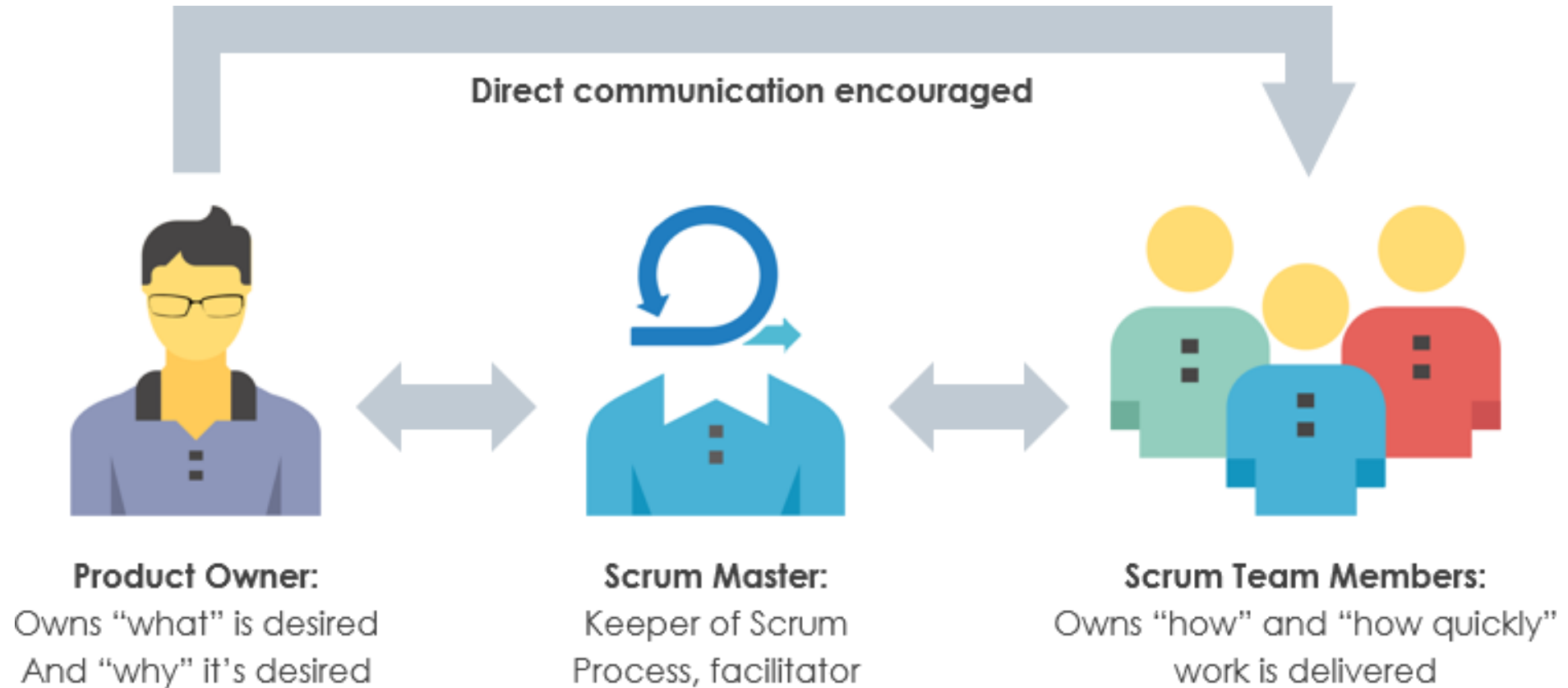
# Scrum Framework

Get work done as a **team** in small pieces at a time, with **continuous** experimentation and **feedback** loops along the way to learn and **improve** as you go



# Scrum Teams

Group of **collaborators**, typically between five and nine individuals, who work toward completing projects and **delivering products**



# Project Team Formation

---

## Self-organizing team

A **cross-functional team** in which people fluidly assume leadership as needed to achieve the team's objectives.

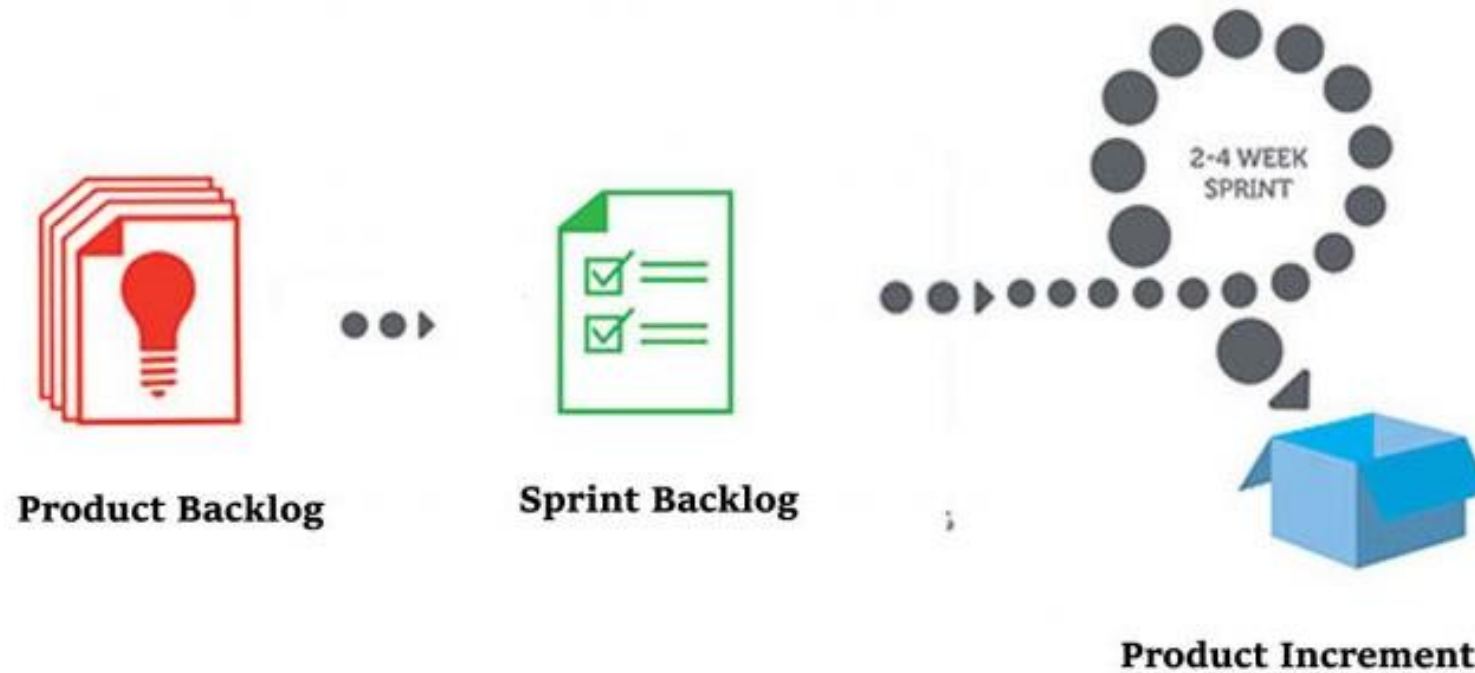
## Cross-functional team

Teams that have all the capabilities to deliver the work they've been assigned. Team members can specialize in certain skills, but the team is capable of delivering what they've been called on to build. See also "self-organizing teams."

*These concepts can be applied in any kind of project team.*

# Scrum Artifacts

**Information** that a scrum team and stakeholders use to detail the **product** being developed, **actions** to produce it, and the actions performed during the project

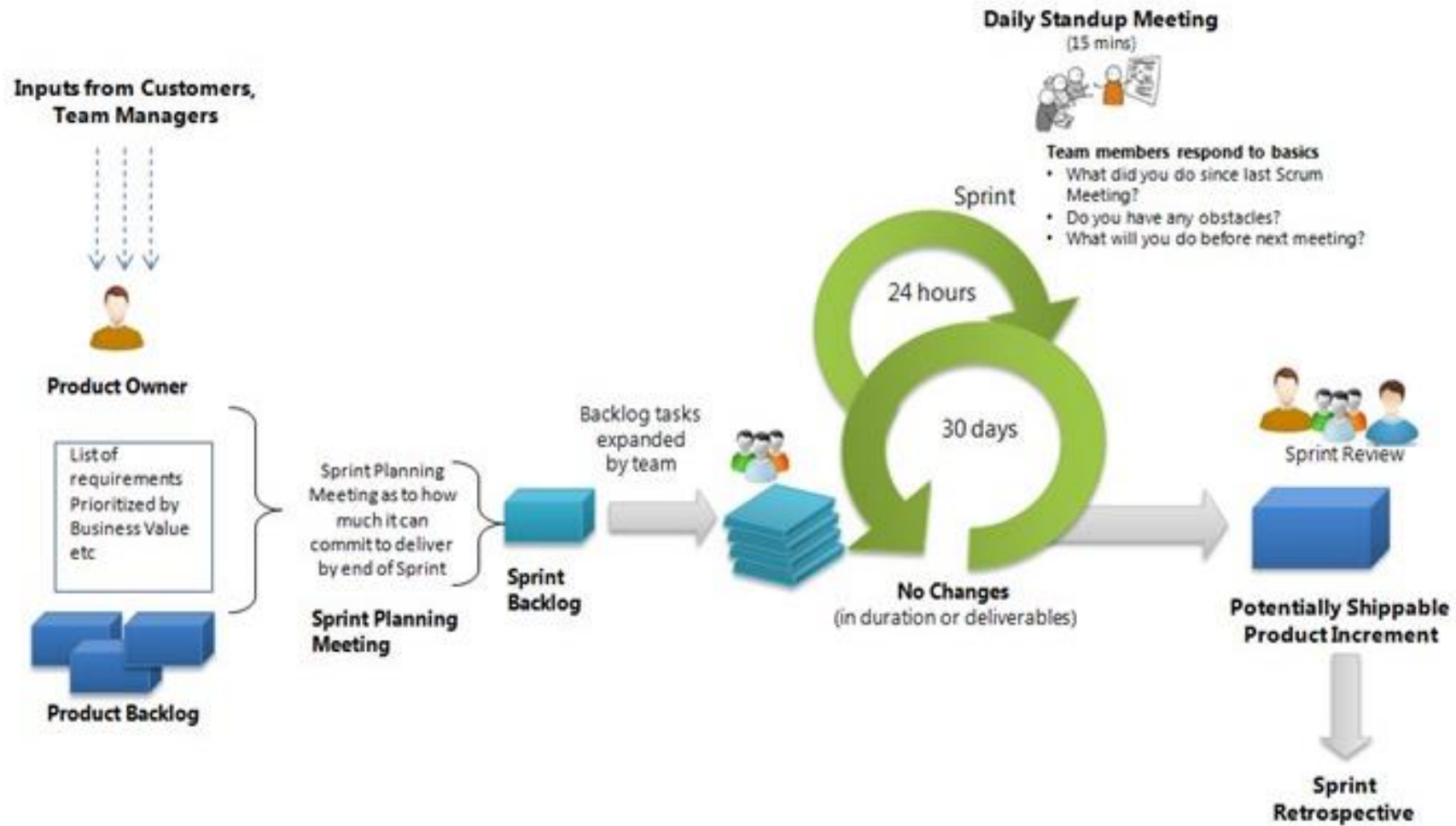


# Iterative Way of Working: Video

---



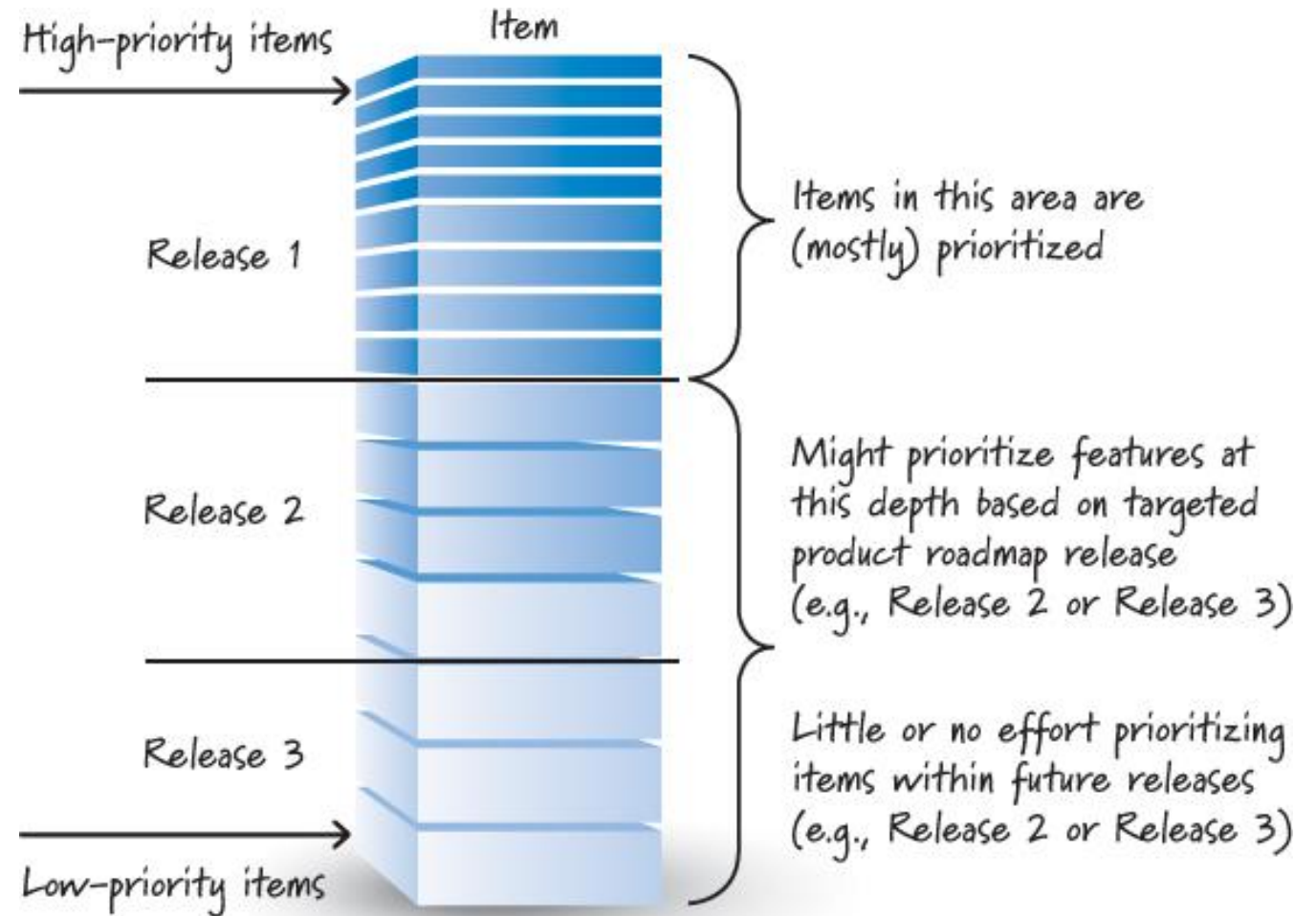
# Summary



# Scope Management

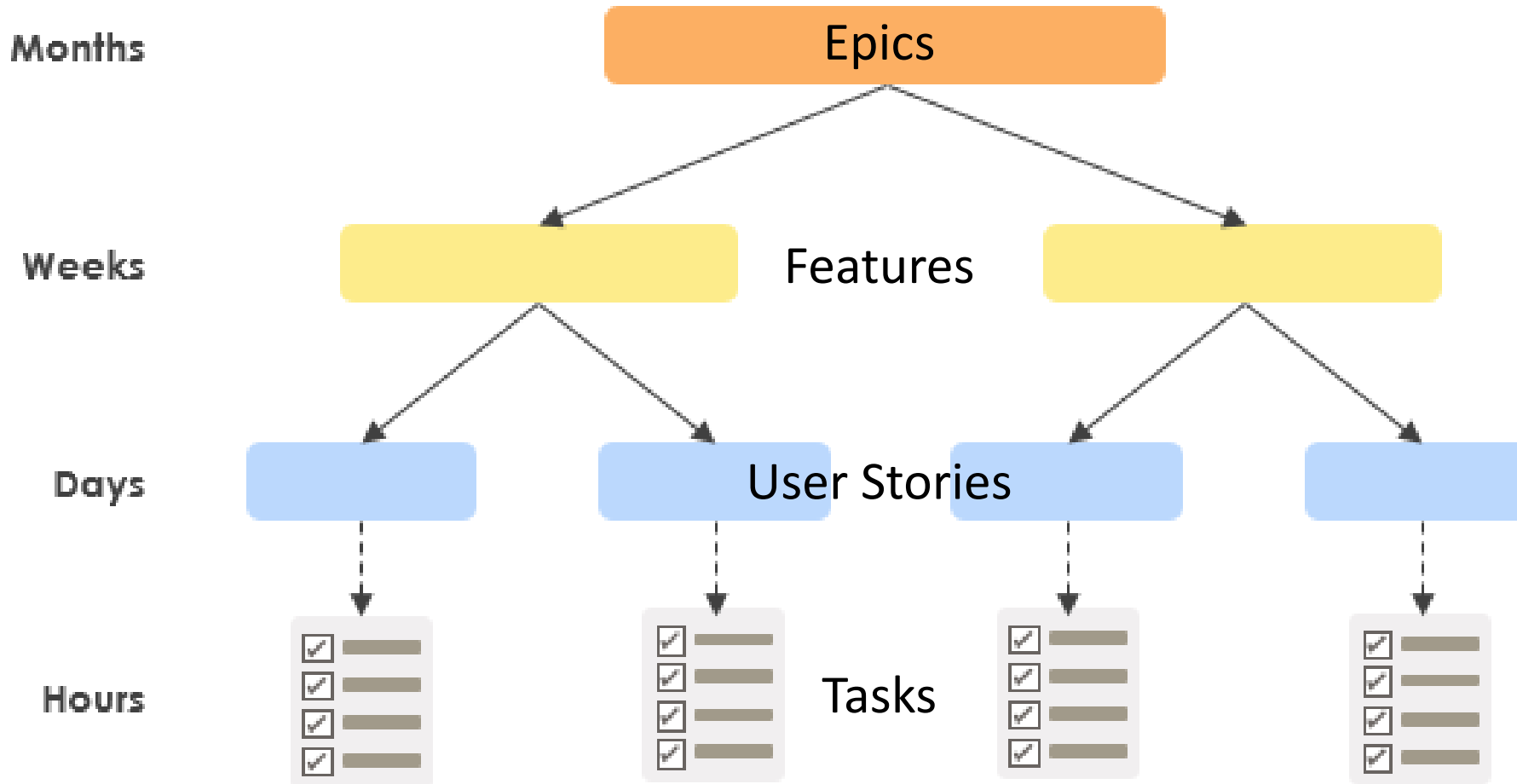
# Product Backlog

- List of ALL the requirements / desired work on the project (similar to project scope)
- Prioritized by the Product Owner
- Reprioritized at the start of each sprint





# Breaking down the work



# Requirement Documentation

## EPIC

A **large body of work** that can be broken down into smaller pieces—features and user stories. Epics can **take months** to complete.

## FEATURE

A set of **related requirements** that allows the user to **satisfy a business objective** or need.

## USER STORY

- A user story is an informal, general explanation of a software feature written from the perspective of the end user or customer.
- The purpose of a user story is to articulate how a piece of work will deliver a particular value back to the customer.

# Requirement Documentation

Sprint 1			Sprint 2			Sprint 3			Sprint 4			
Epic			Across Release(s)									Level
			As a registered user, I can book my travel ticket with various options so that I can travel comfortably									Business / End User
Feature			Across Sprints but should fit in a Release									Level
User Registration			Search travel options			Payment Options			Confirmation (mail/sms)			Product Owner / Manager
User Story			Has to fit in a sprint									Level
US	US	US	US	US	US	US	US	US	US	US	US	Team
US	US	US	US	US	US	US	US	US	US	US	US	
US	US	US	US	US	US	US	US	US	US	US	US	
US	US	US	US	US	US	US	US	US	US	US	US	

# User Story

**Requirements** are recorded as User Stories in Scrum Framework



**As a** <role>  
**I want** <goal>  
**so that** <benefit>

**Acceptance criteria:**  
(Conditions of Satisfaction)

...  
...

**As an** Account Manager  
**I want** a sales report of my account  
to be sent to my inbox daily  
**So that** I can monitor the sales  
progress of my customer portfolio

**Acceptance criteria:**

1. The report is sent daily to my inbox
2. The report contains the following sales details: ...
3. The report is in csv format.

Can have **Acceptance Criteria** & must comply to **Definition of Done (DoD)**

# Definition of Done (DoD)

A team's checklist of all the **criteria** required to be met so that a deliverable can be considered **ready for customer use**.

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

# Schedule Management

# Release and Iteration Planning

---

## Release Planning

---

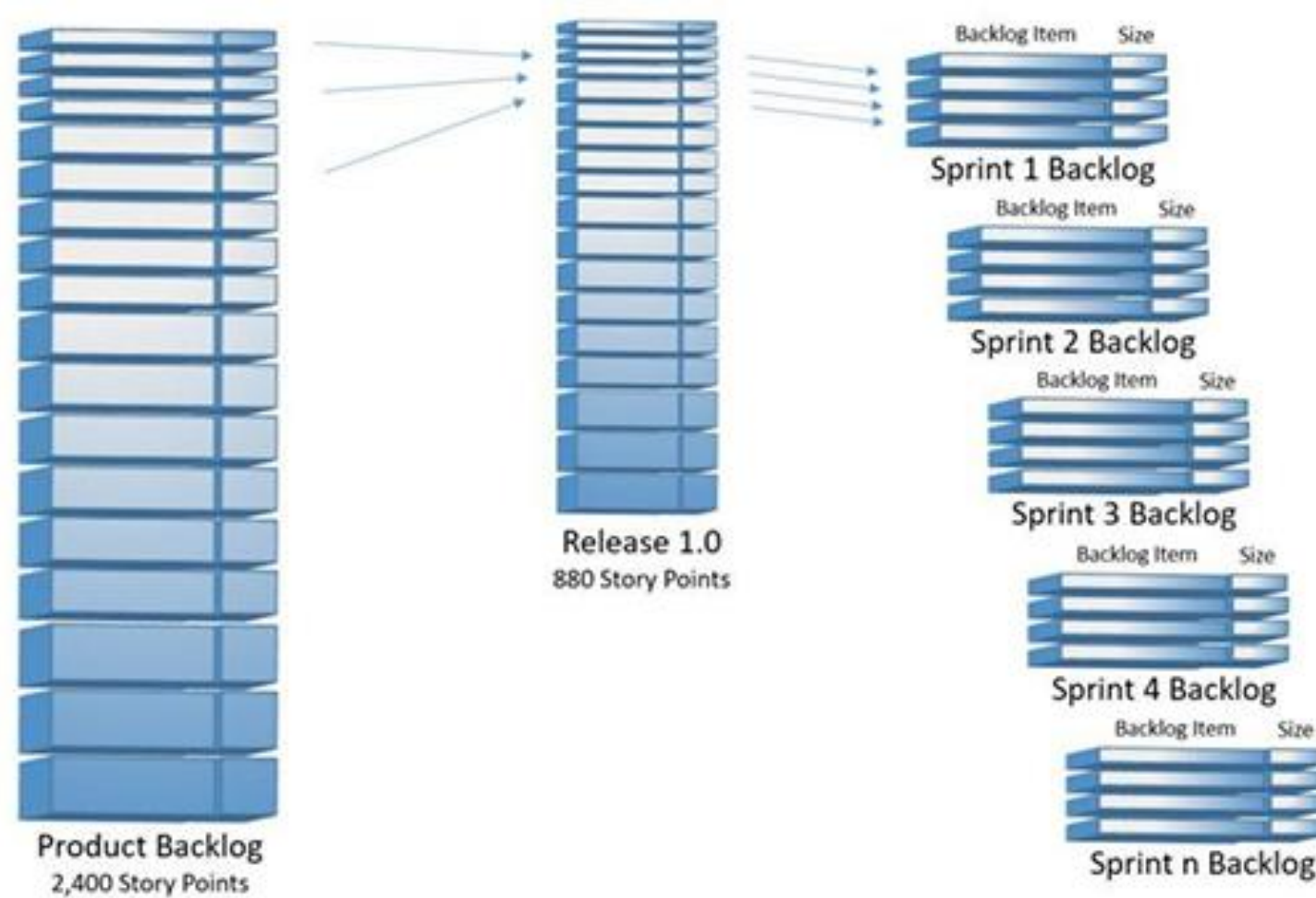
- Number of iterations or sprints needed to complete each release
- Features contained in the release
- Goal dates of each release
- Usually for 3-6 months

## Sprint Planning

---

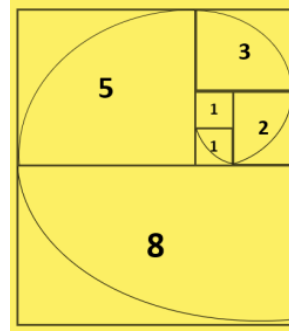
- Review the highest prioritized user stories or key outcomes
- Ask questions
- Agree on effort required to complete the user story in the current iteration
- Determine the activities required to deliver iteration objectives
- Time-boxed iterations or sprints typically last 1 - 4 weeks

# Release & Iteration Planning





# Measure Effort, Not Time



## Relative sizing

- Compares effort of multiple user stories through assignment of values (XS, S, M, L, XL)
- *Use common **t-shirt sizes** to assign values to user stories.*

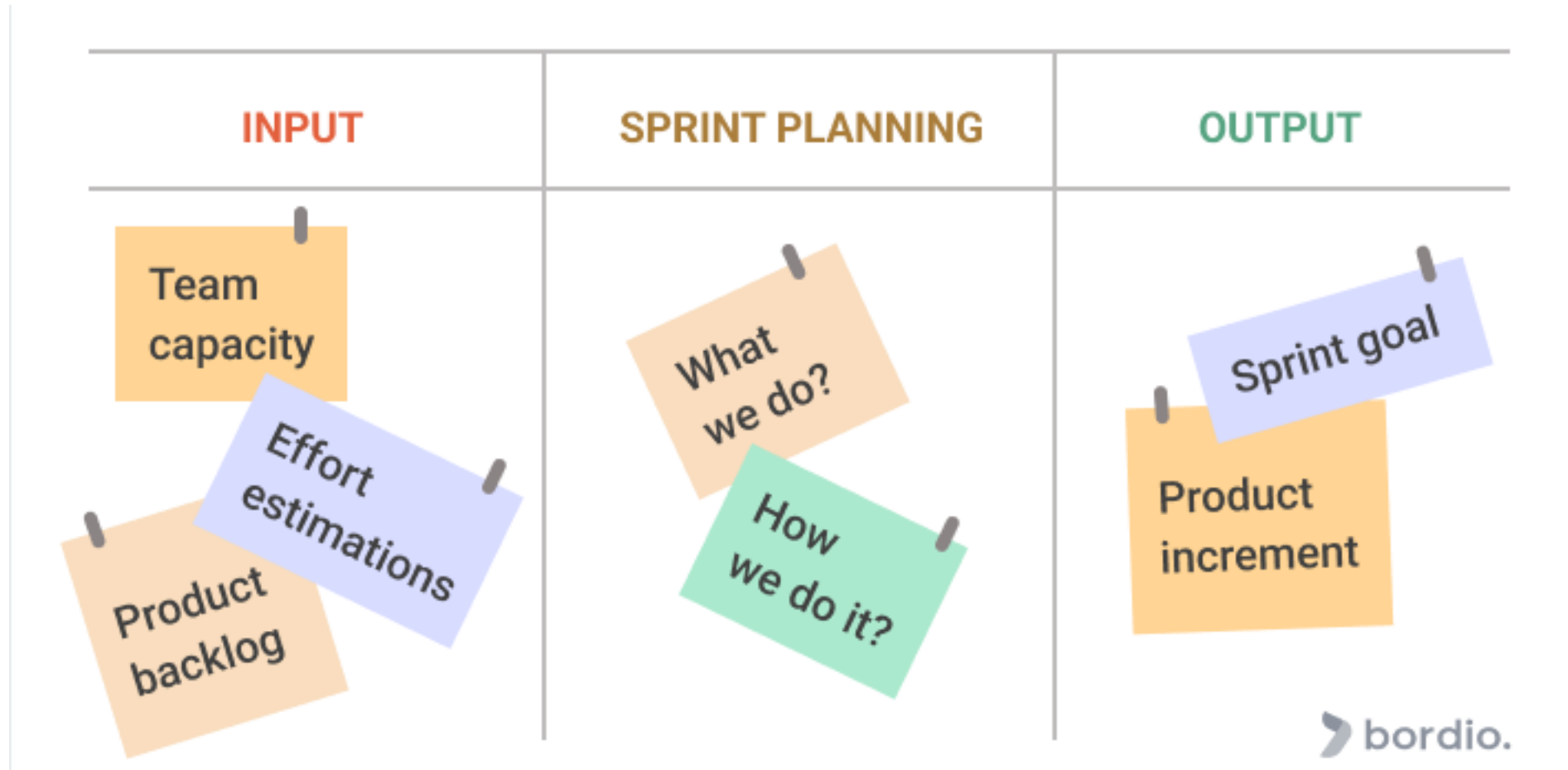
## Story points

- Uses a relative measure – e.g., numbers in the **Fibonacci sequence** – to identify the level of difficulty or complexity of a user story or task

## Planning poker

- Estimates effort or relative size of development effort
- Uses a deck of cards with modified Fibonacci numbers to vote on user stories

# Summary



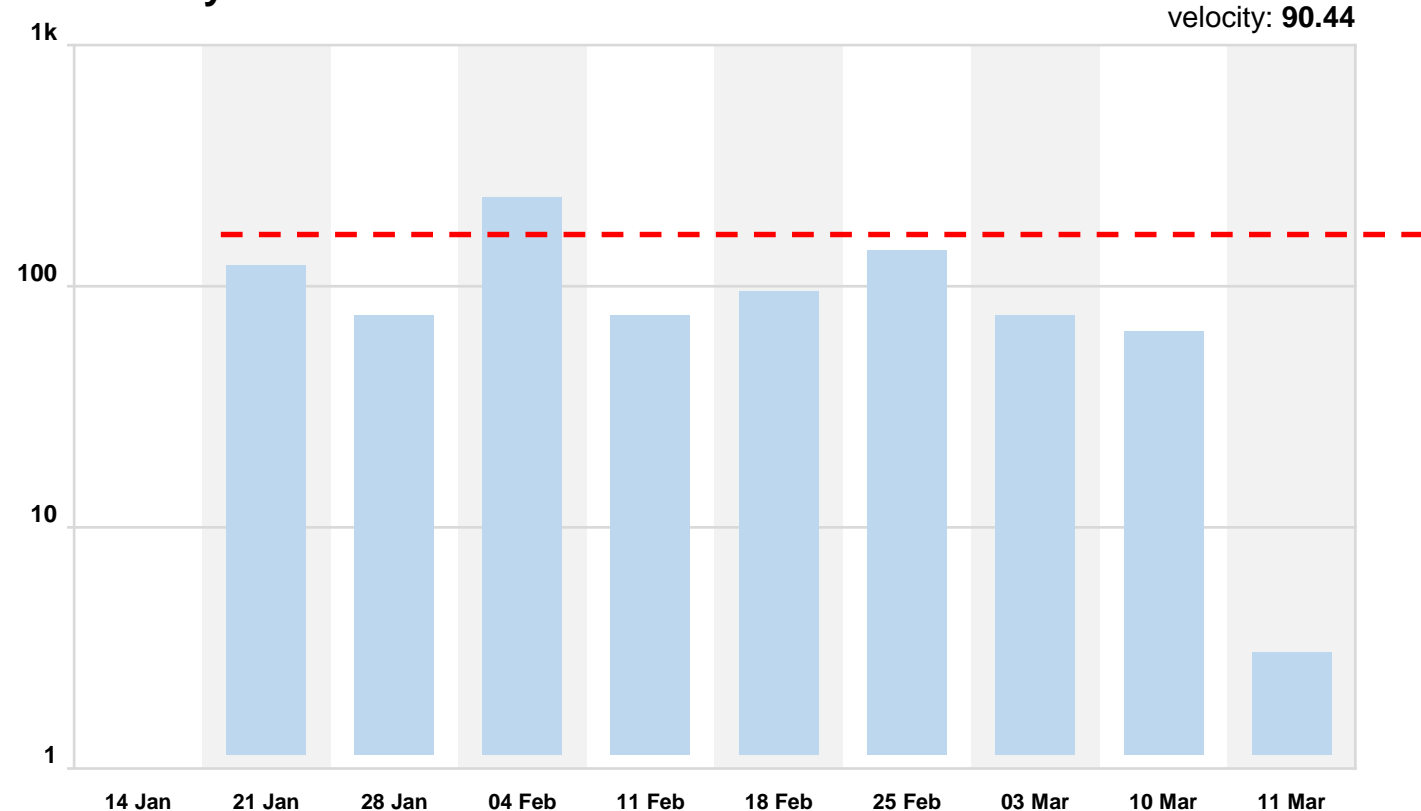
# Metrics

# Velocity

## Team's estimated **rate of progress** of completed work

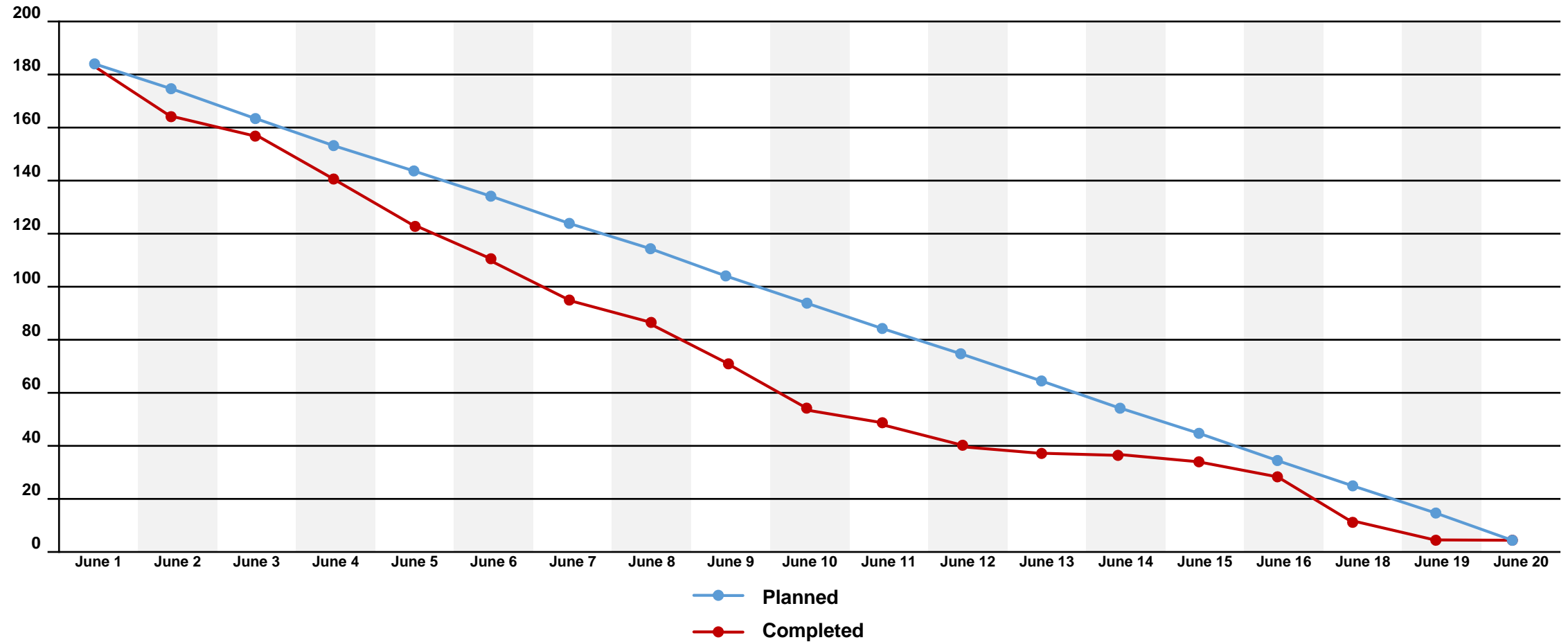
- Calculate by estimating number of **story points** that can be completed during an **iteration**
- Then modify during subsequent iterations
- **Goal:** Achieve **constant velocity** from one iteration to the next
- *Velocity is a **unique metric** to a project; it can't be used to compare the performance of teams.*

Velocity Chart



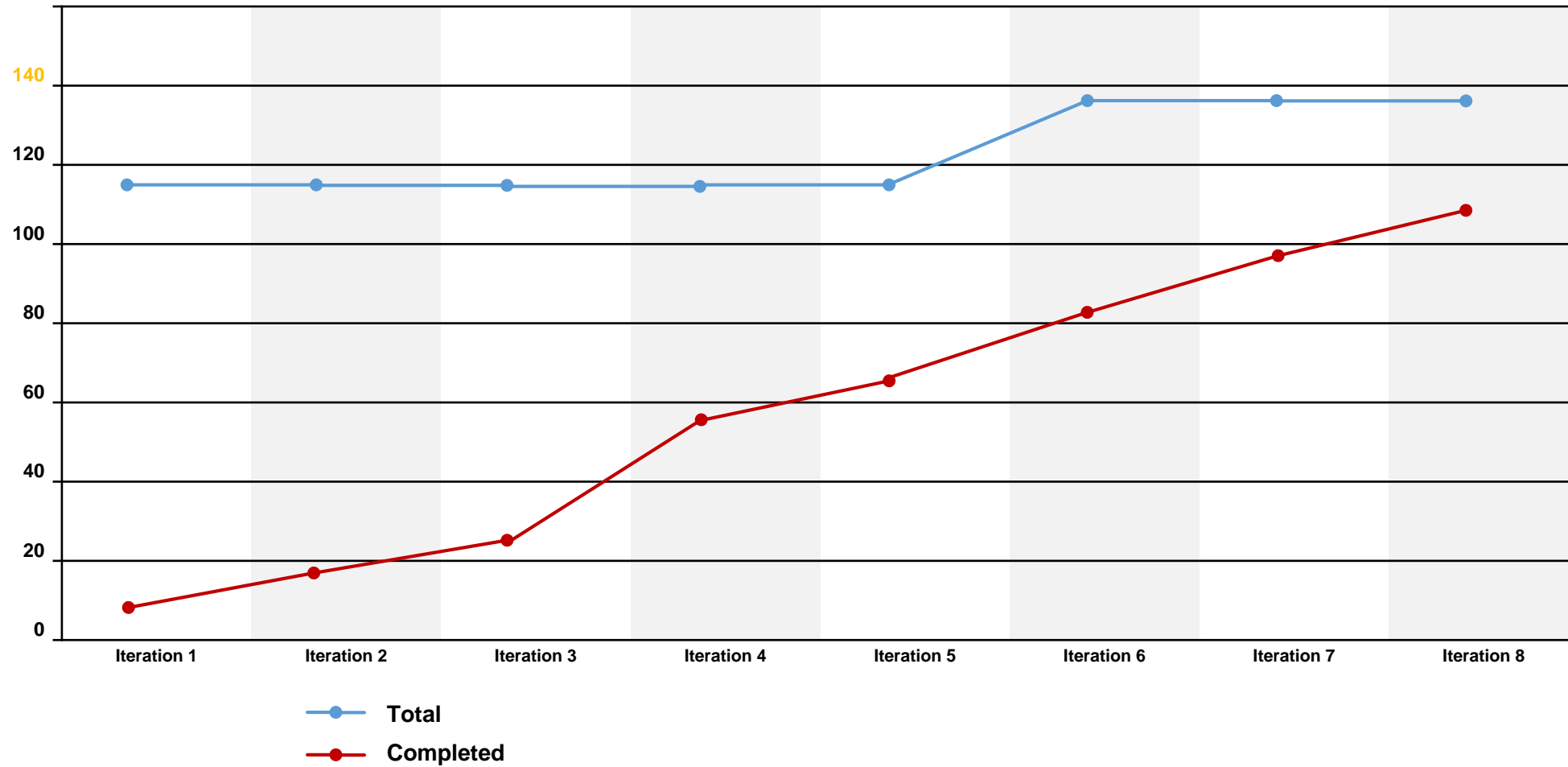
# Burn Down Chart

Tracks the **planned vs actual work** to be completed in a sprint



# Burn Up Chart

Show accumulated **progress of completed work**



# Key Take-aways

---

**Note down the top 3 Key  
Take-aways for you from  
this session**



# Thank You



<https://www.linkedin.com/company/talent-academy-taualpha/>