

# EXIN Agile Scrum Master

## Lesson 2—Other Agile Frameworks

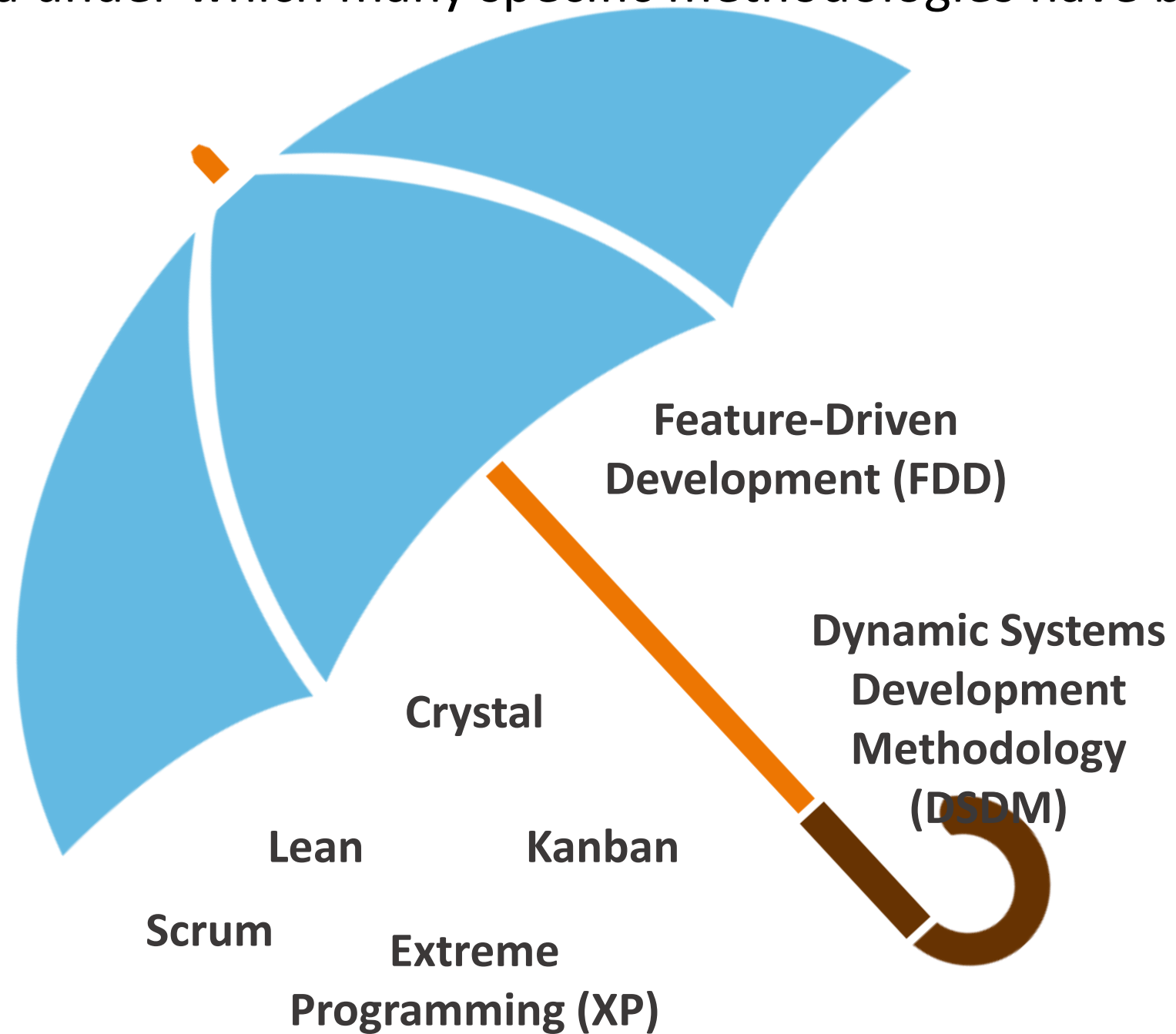


After completing this lesson, you will be able to:

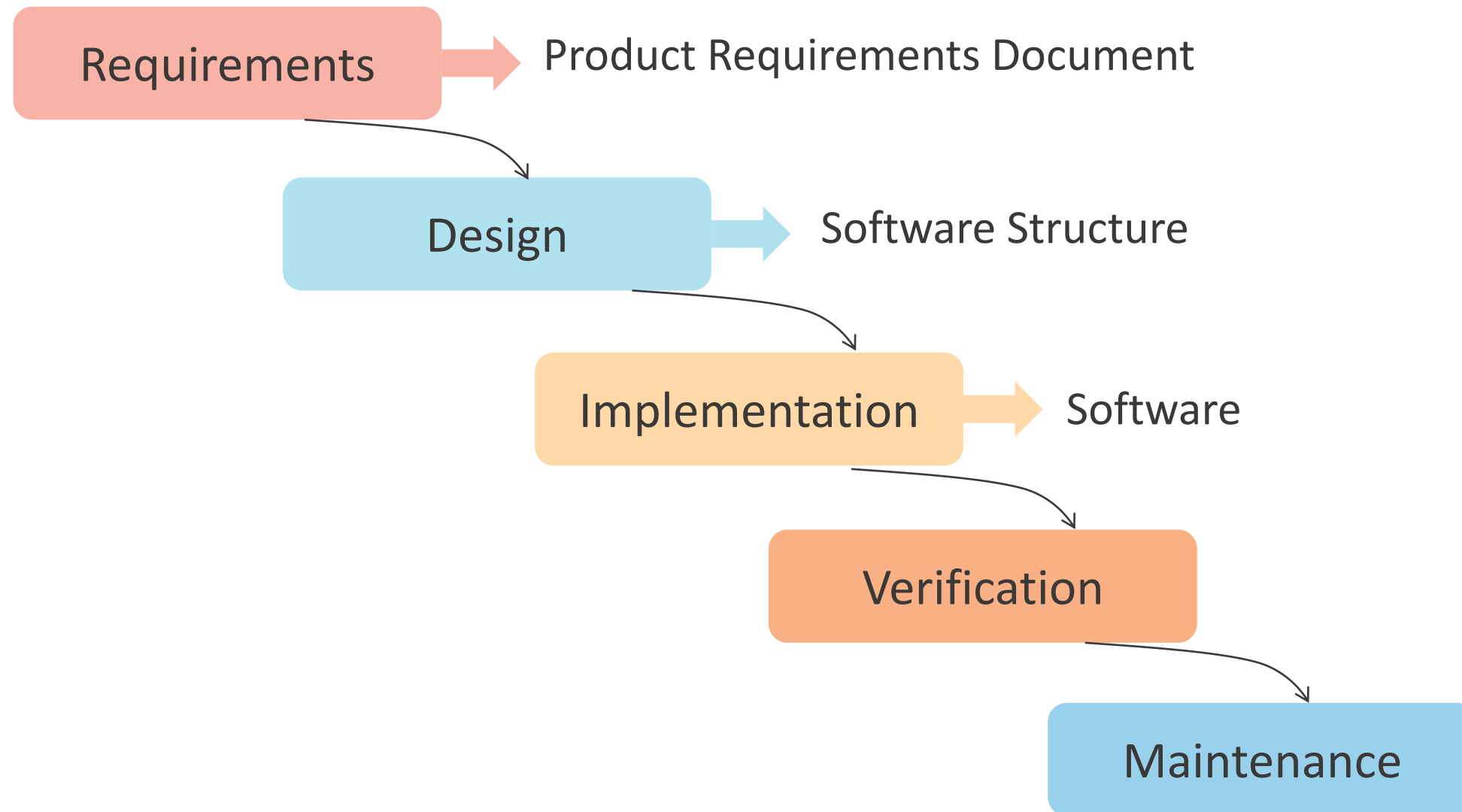


- Explain the features, strengths, and limitations of different development methodologies, including Waterfall, Lean, Extreme Programming, Crystal, and Atern.
- Describe the role of DevOps as a discipline that is critical to the success of Agile teams.
- Apply Agile methods to IT Service Management.

Agile is an umbrella under which many specific methodologies have been developed and are thriving.



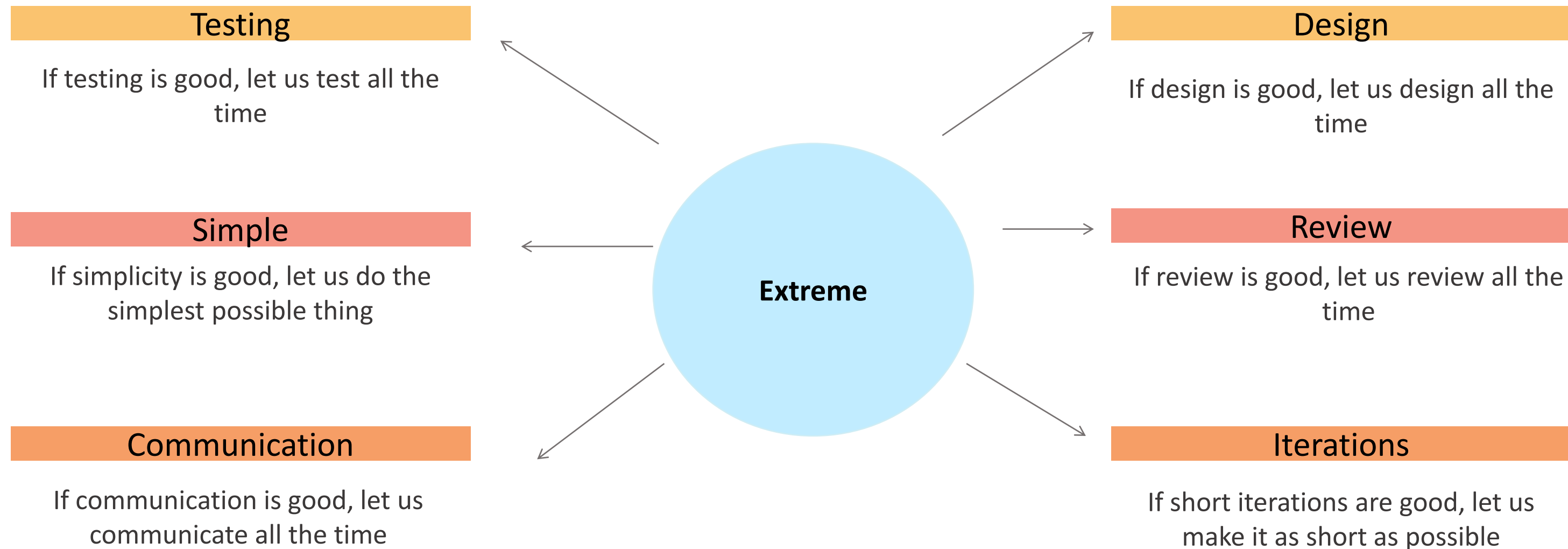
Sequence of logical steps, culminating in the desired outcome. Perfectly logical, however, expensive to change.



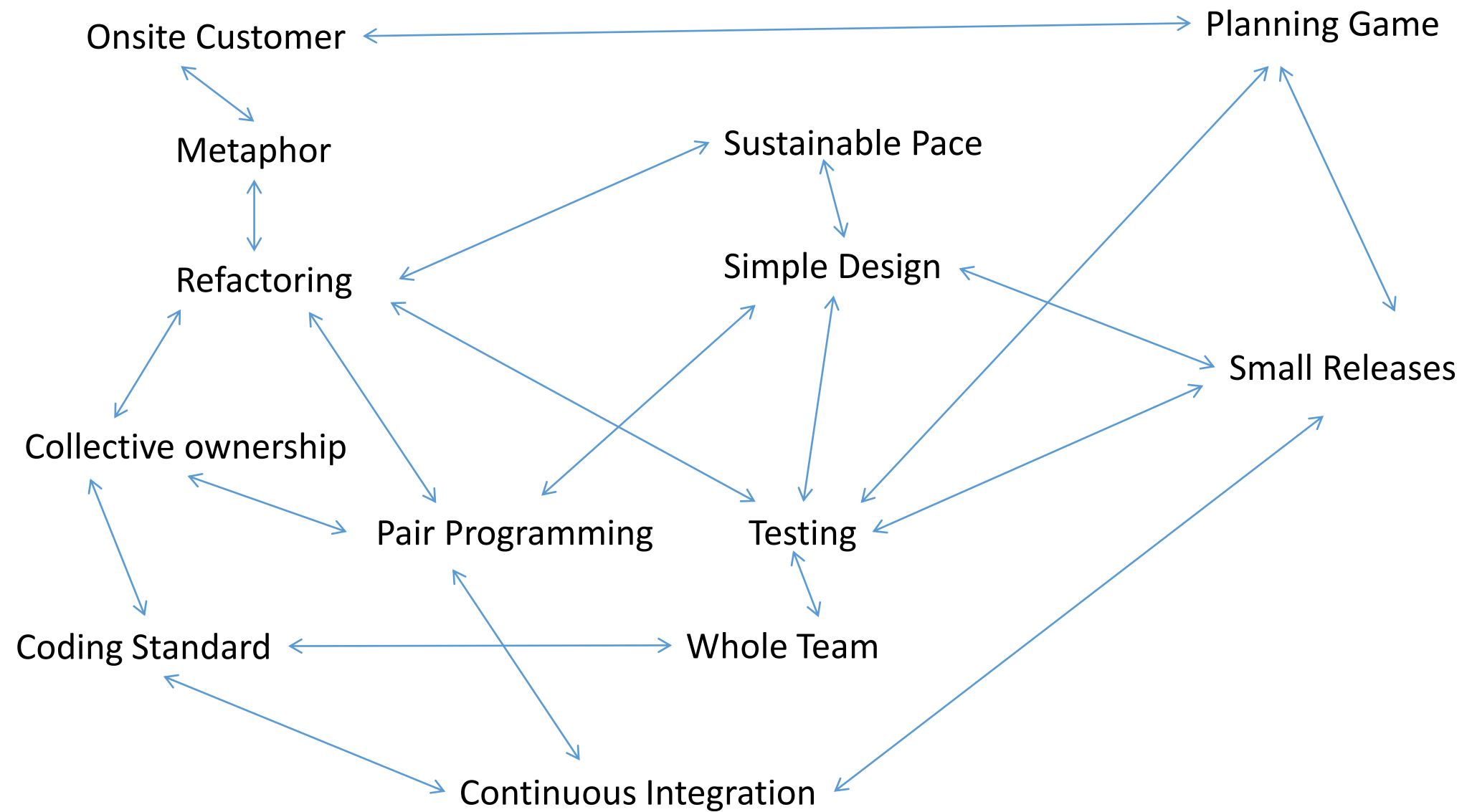
## Other Agile Frameworks

### Agile Methods

Extreme Programming is a system of practices to develop high-quality software.

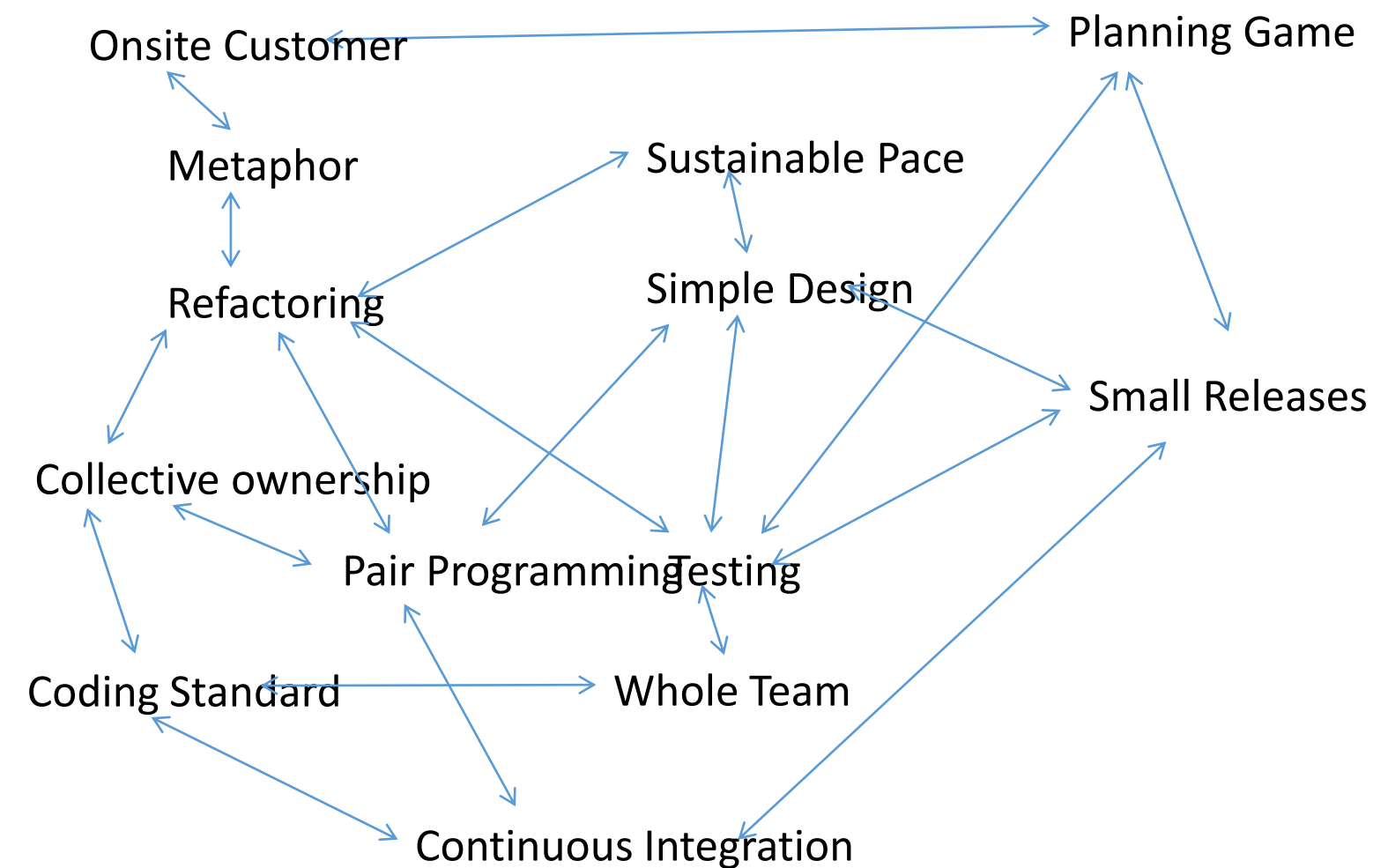


Here are some of the well-known XP practices:



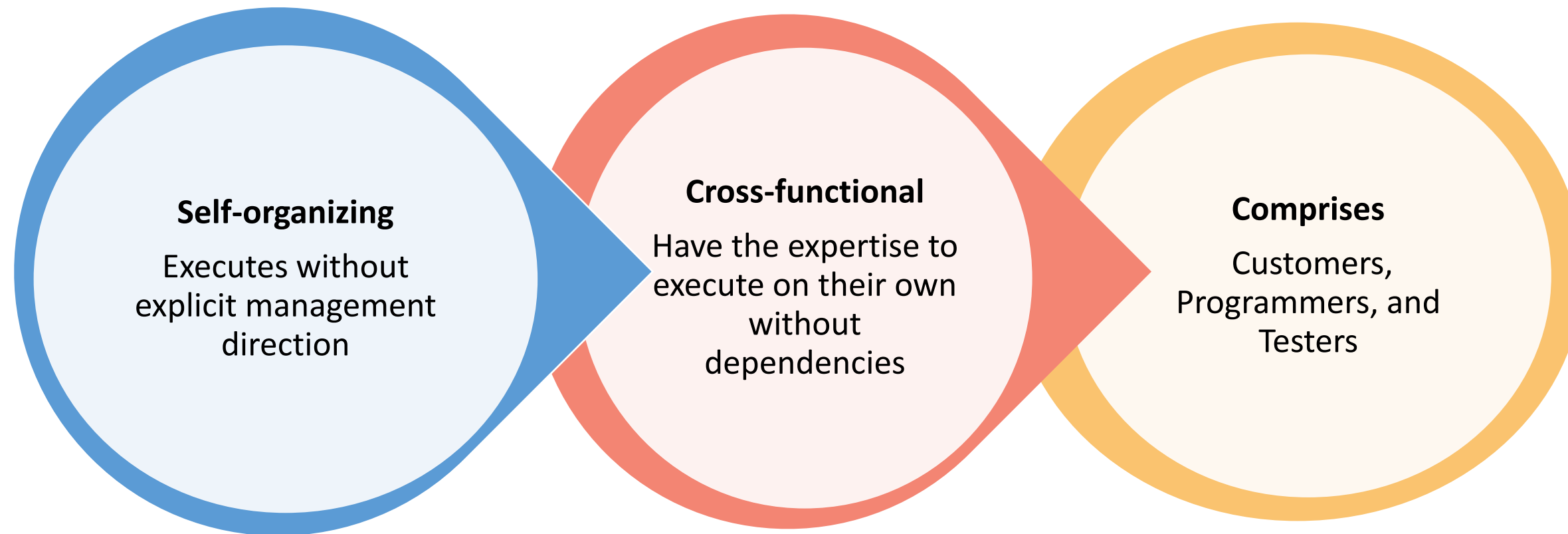
- Planning Games
- Sustainable pace
- Small Releases
- Testing
- Continuous Integration

Some of the other XP practices can be used in SCRUM but are not as commonly used as the ones we just mentioned.

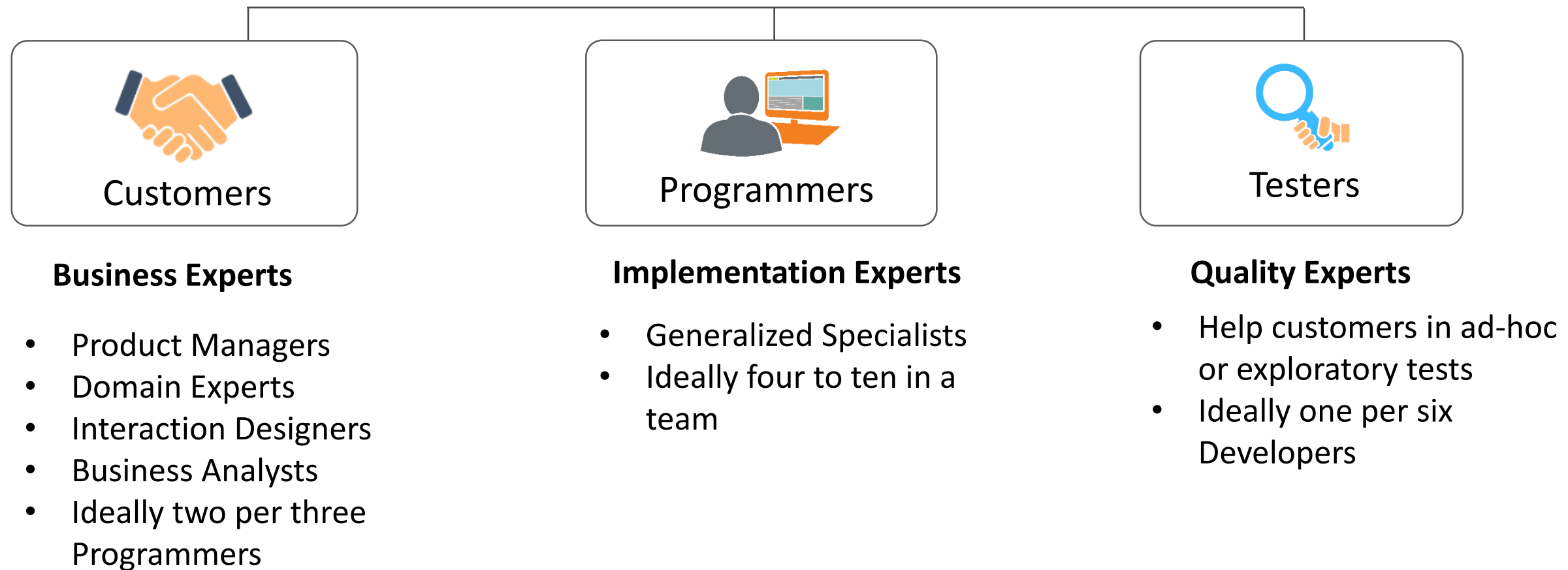




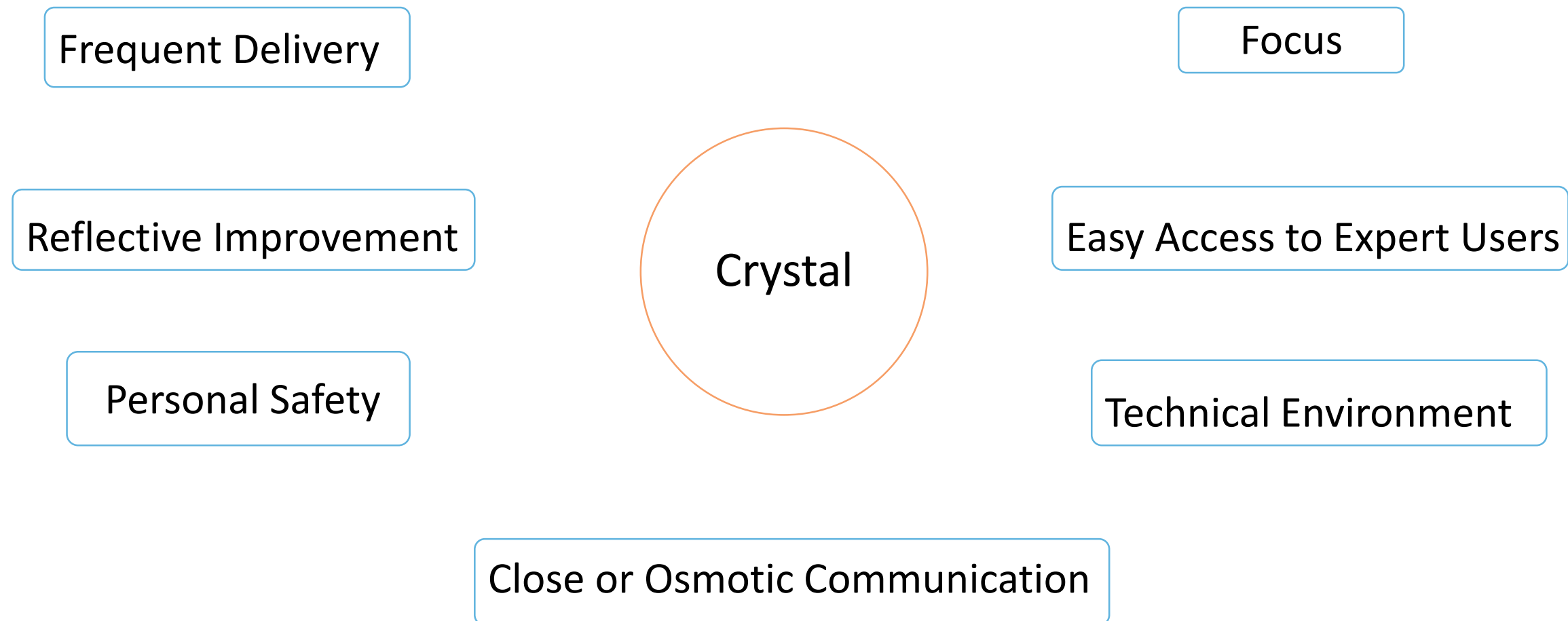
The common characteristics of XP Teams are as follows:



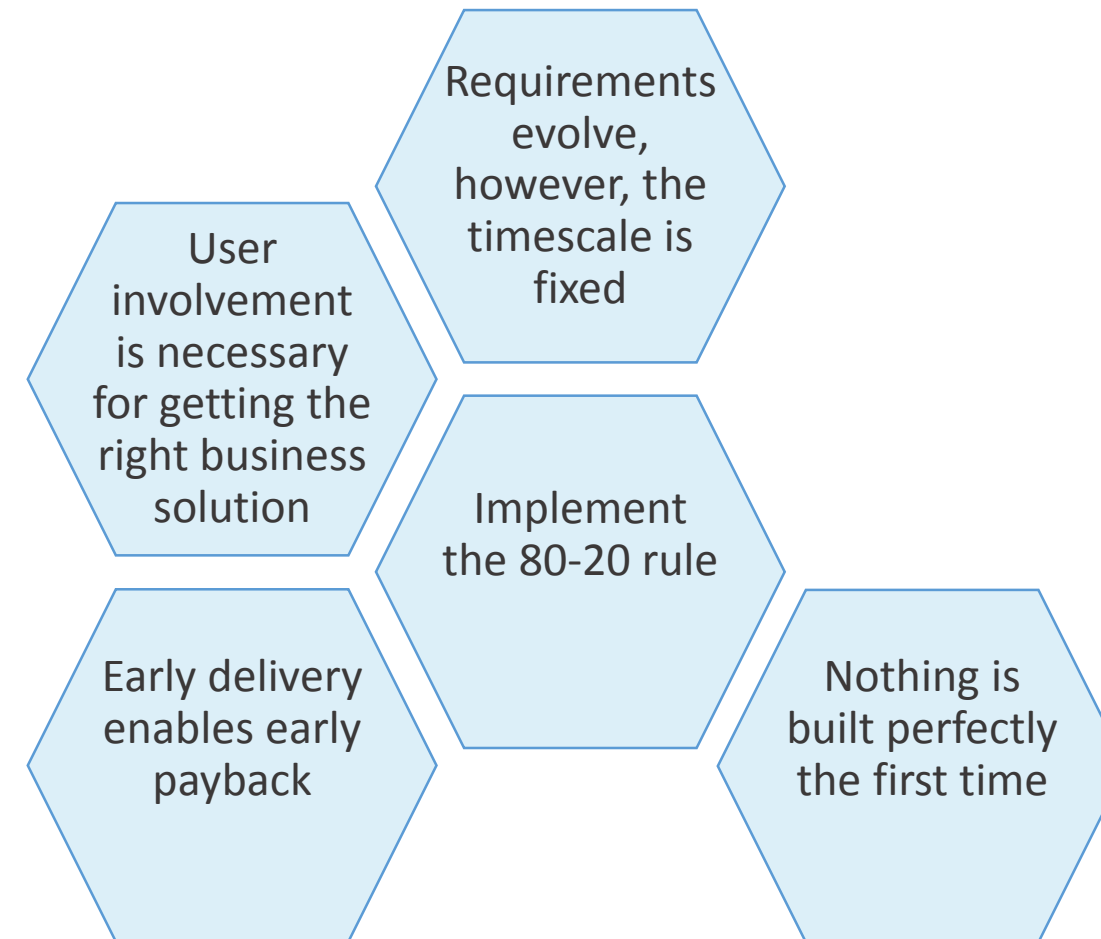
Here are the role descriptions for different types of XP Team members:



Crystal is a family of methodologies invented by Alastair Cockburn. Following are the seven properties of Crystal Project:



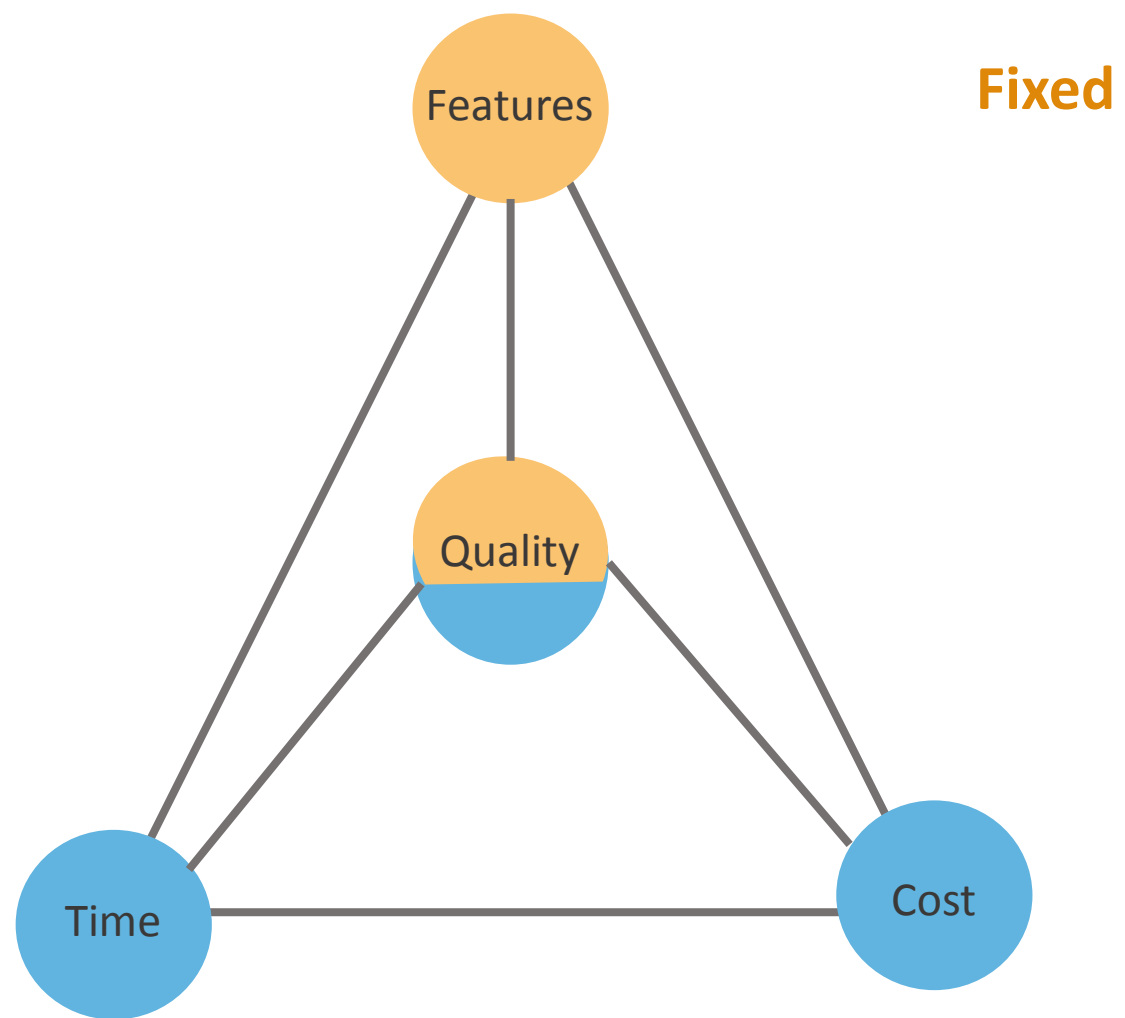
Dynamic Systems Development Method (DSDM) is a comprehensive methodology which was first published in 1994. A revised version of DSDM, also known as Atern, was published in 2007. This technique is popular in UK. Following are the basic concepts of Atern:



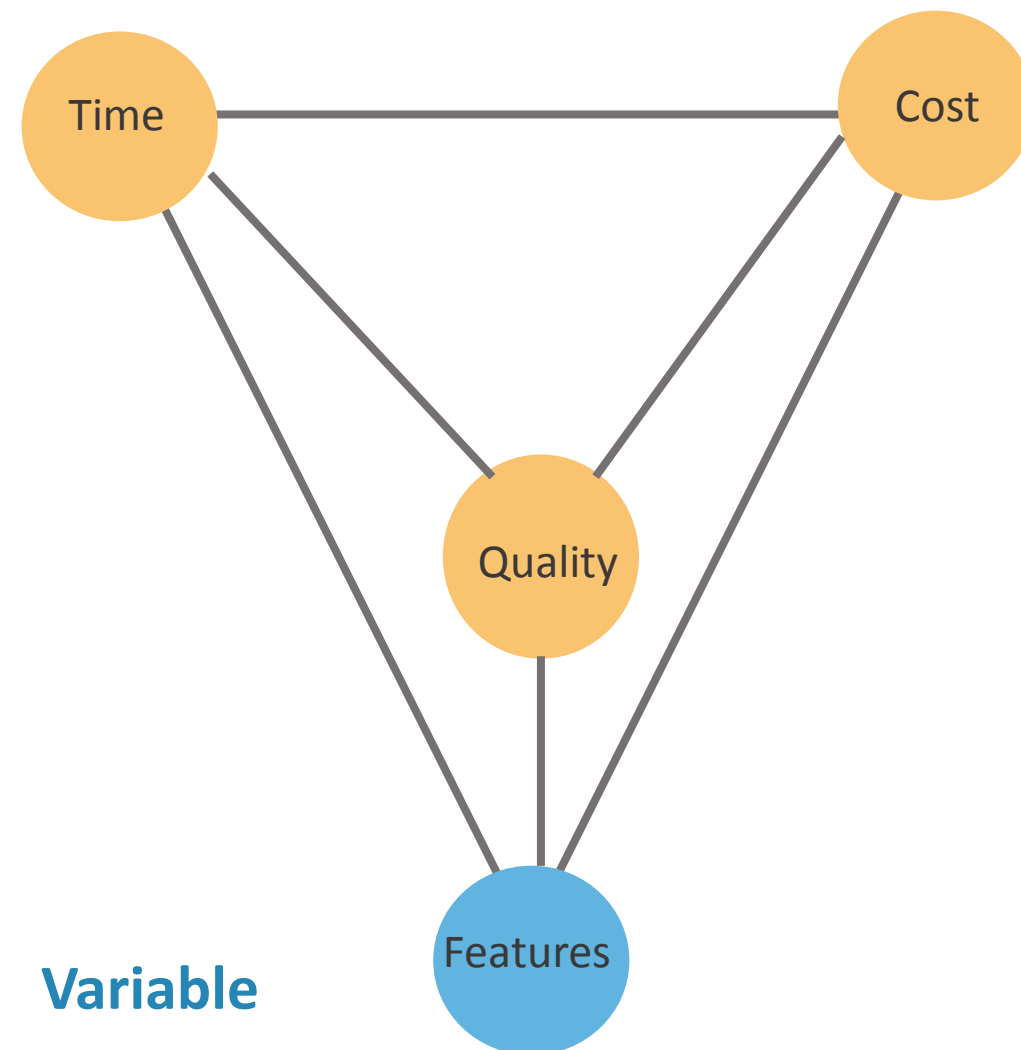
DSDM is maintained by the DSDM consortium [www.dsdm.org](http://www.dsdm.org).

## Conventional Planning vs. DSDM Planning

**Traditional Approach**



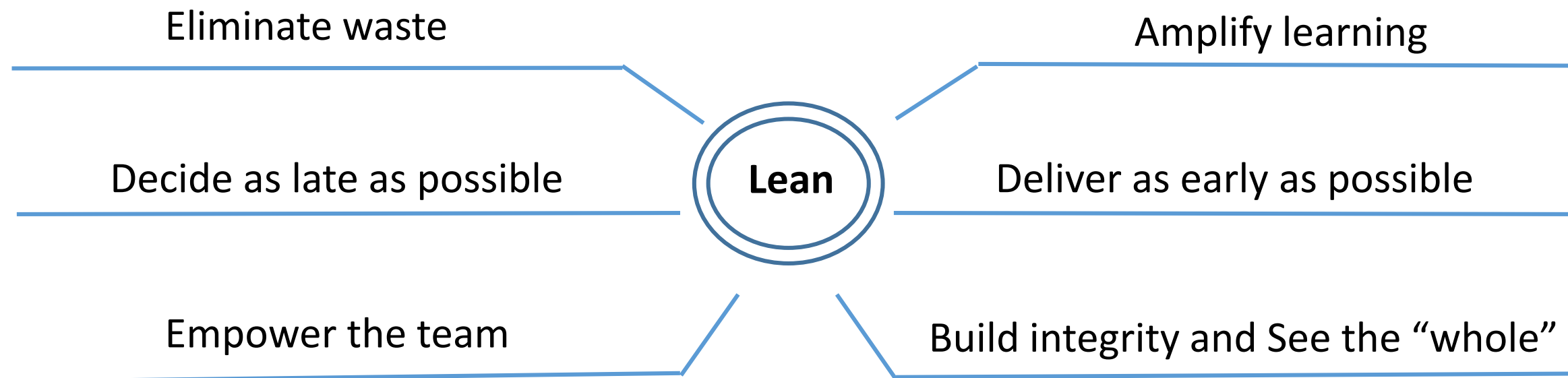
**Atern Approach**



The five core techniques of DSDM are as follows:

- Iterative Development
- Time-Boxing
- MoSCoW Prioritization
  - MUST
  - SHOULD
  - COULD
  - WON'T
- Facilitated Workshops
- Modeling

- Lean originated from the Toyota Production System in 1950.
- This technique focuses on the elimination of waste by creating the value stream map for the process.
- Lean software development is trying to adopt the following principles for software development:



Waste constitutes over 90% of a process. We must constantly look for it and for ways to eliminate it.



## In Manufacturing

- Over production
- Excess inventory
- Unnecessary processing
- Unnecessary movement of goods
- Unnecessary movement of people
- Waiting time
- Defects



## In Software Development

- Extra features
- Partly done work
- Extra processes
- Task switching
- Needlessly splitting tasks across teams
- Waiting time
- Defects

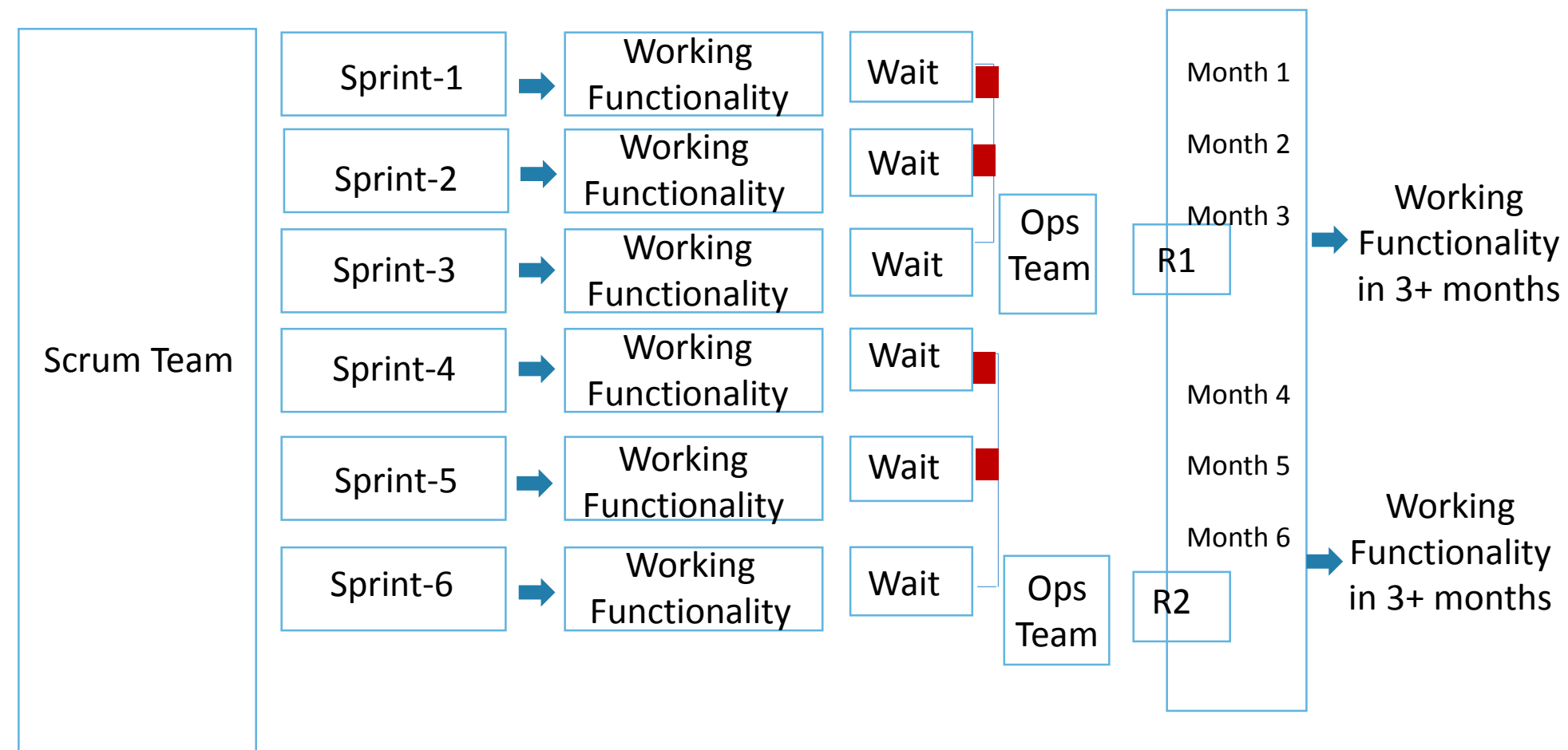


A “pull system” to manage the flow of work

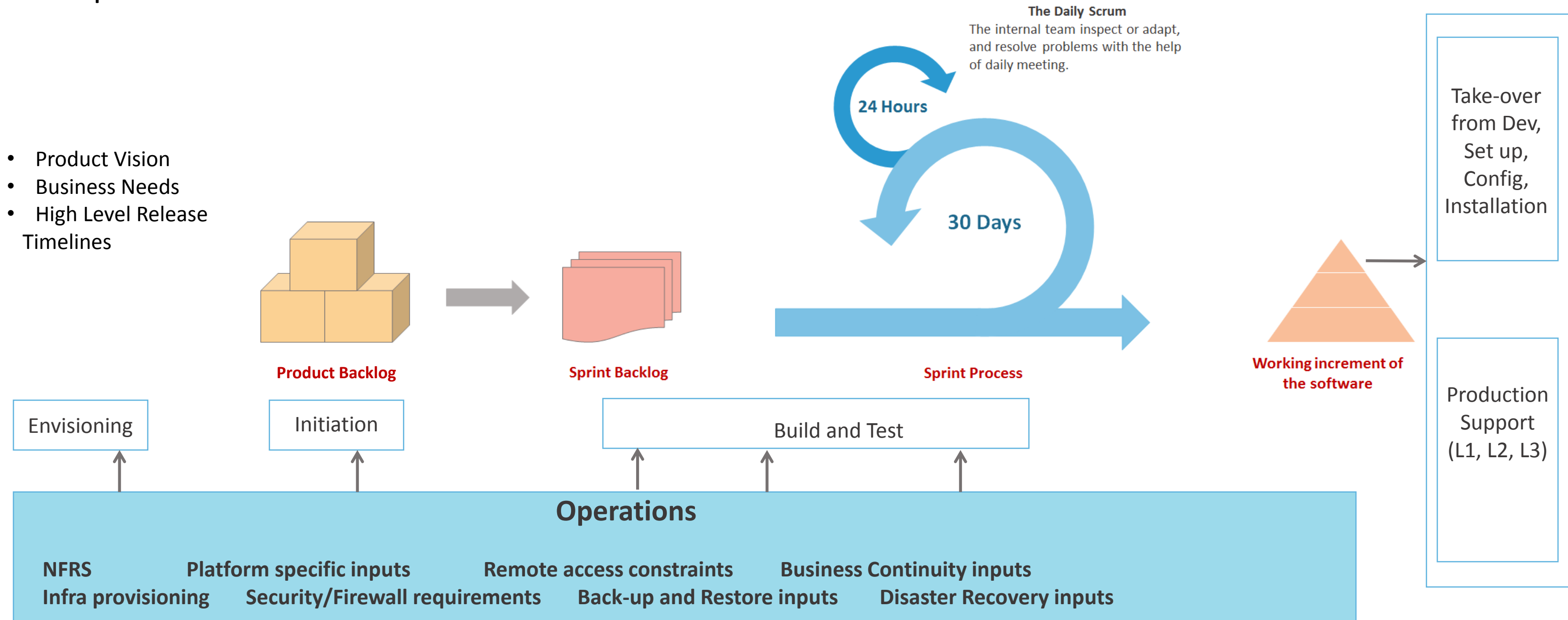
- Invented by Taichi Ohno in the Toyota Production System
- Manages a process based on “pull” principle in which work is pulled by the succeeding step, not pushed by the preceding step
- Only a minimal buffer is maintained to ensure continuity of the process by employing Just-In-Time (JIT) principles
- Many software teams employ Kanban systems, especially for maintenance or repetitive tasks
- Steps to set up a Kanban System:
  - Visualize the workflow.
  - Create flow by minimizing the “work-in-progress”
  - Continuously improve the system by applying Kaizen principles

DevOps enables faster delivery of value created by Agile into operations. This is a system without efficient

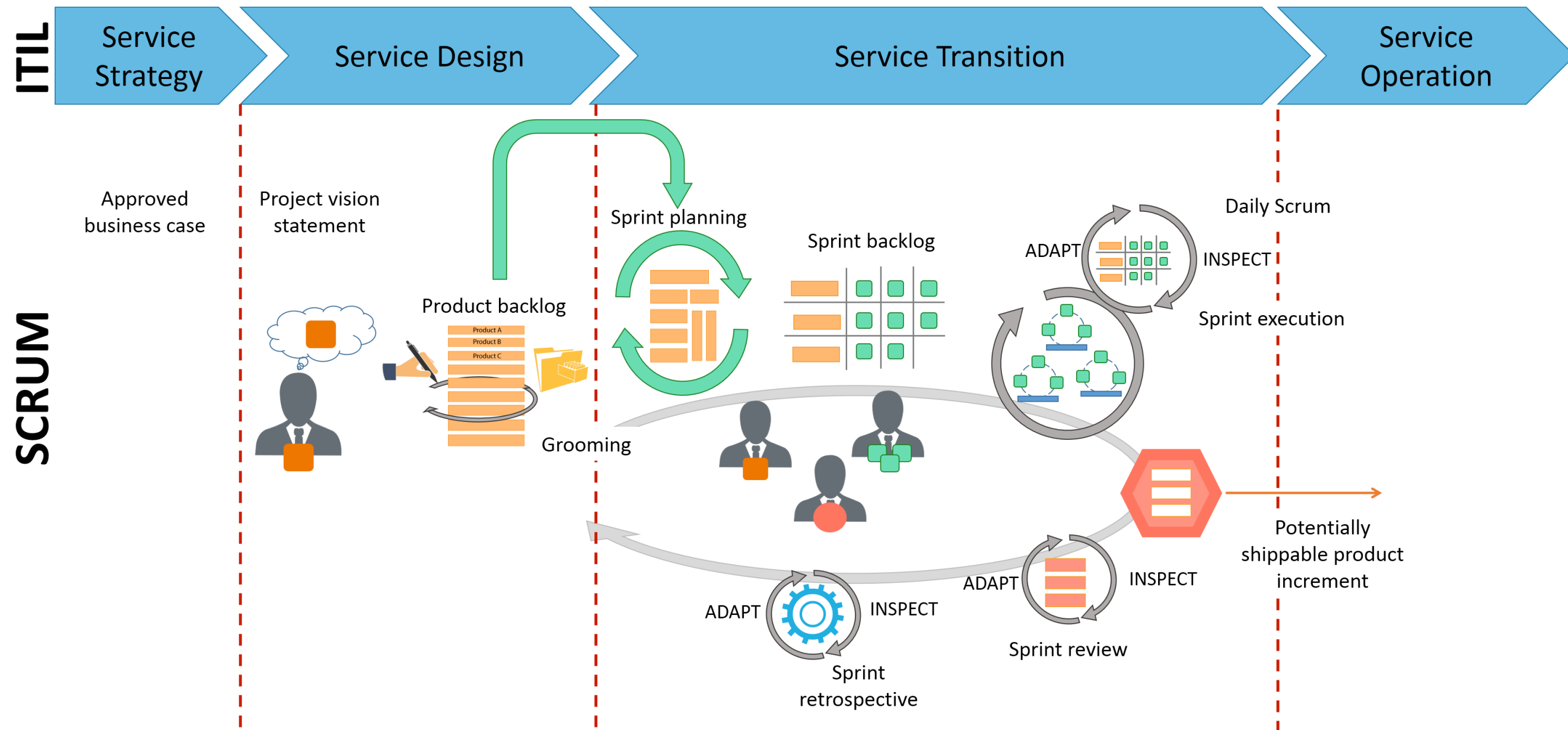
DevOps:



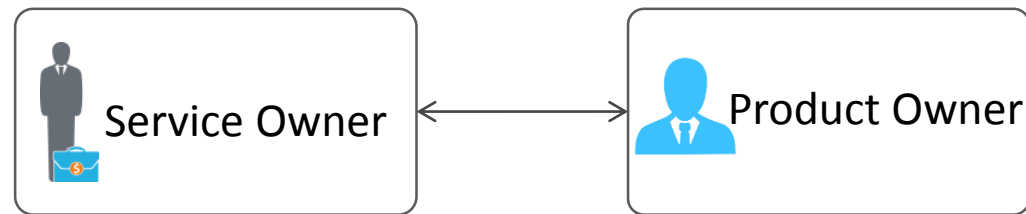
DevOps enables faster delivery of value created by Agile into operations. This is a system with efficient DevOps:



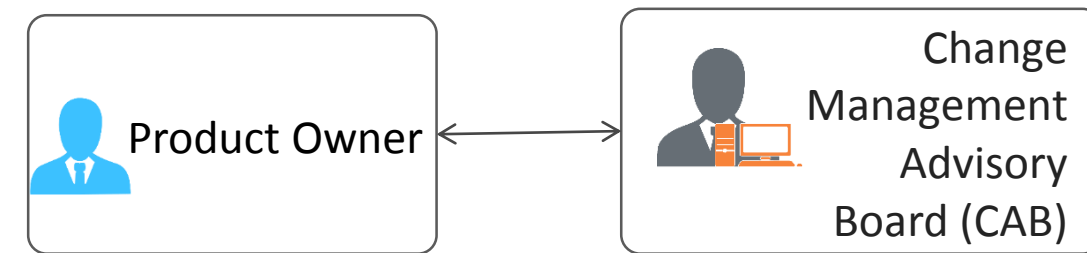
Service Management and Agile must work together to create sustainable and predictable services.



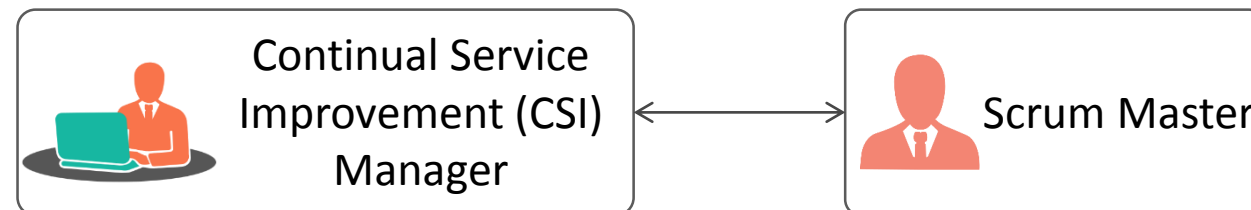
There must be close co-ordination between several roles in an Agile team and an IT team.



Could be the same person or collaborate to represent the voice of the customer



Product Owner must sit on the CAB or collaborate to ensure smooth releases



To enable continuous learning across the product and service lifecycles

Let us summarize the topics covered in this lesson:



- There are many techniques and methodologies to choose from under the Agile umbrella.
- The Waterfall method is logical, however, it's expensive to change.
- Crystal is strong on communication, Dynamic Systems Development Method (DSDM), or Atern, is good at timeboxing and prioritization, and XP has good guidance on engineering practices.
- Agile and Scrum techniques have to be complementary to DevOps processes to ensure that the value developed can be deployed quickly and seamlessly.
- Agile and Scrum should also link to IT Service Management because products are ultimately tied to business services that are supported by IT Operations.



## QUIZ 1

Which of the following is the most appropriate interpretation of the 80–20 rule used in DSDM or Atern?

- a. 80% of the defects are caused by 20% of the root causes.
- b. 80% of the work is done by 20% of the team.
- c. 80% of the value is delivered from 20% of the work.
- d. 80% of the revenue comes from 20% of the clients.





## QUIZ 2

What is the meaning of Osmotic Communication?

- a. Communication with remote team members
- b. Communication with stakeholders outside the team
- c. Communication that is formal and written
- d. Communication that flows through currents and overhearing



## QUIZ 3

Which of these XP practices is enabled through Pair Programming?

- a. Collective Code Ownership
- b. Test Driven Development
- c. Continuous Integration
- d. Ubiquitous Language



## QUIZ 4

Which of the following is a Lean principle?

- a. Decide as early as possible
- b. See the whole
- c. Develop iteratively
- d. Trust, however, verify



This concludes “Other Agile Frameworks.”

The next lesson is “Scrum Events and Artifacts.”