

Introduction to Scrum

Lecture 3

SoftUni Team
Technical Trainers



SoftUni



Software University

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Have a Question?



sli.do

#Agile

1. The Agile Umbrella
2. Scrum: a Quick Overview
3. Actors in Scrum
 - The Product Owner
 - The Scrum Master
 - The Dev Team
4. Q&A





The Agile Umbrella

Agile Frameworks



The Lean Roots of Agile

**Toyota Production
System**



lppd  Lean Product &
Process Development



- Derived from lean manufacturing approaches
- Closely aligned with agile, but *not* an agile methodology
- Core concepts include
 - Using visual management tools
 - Identifying customer-defined value
 - Building in learning and continuous improvement

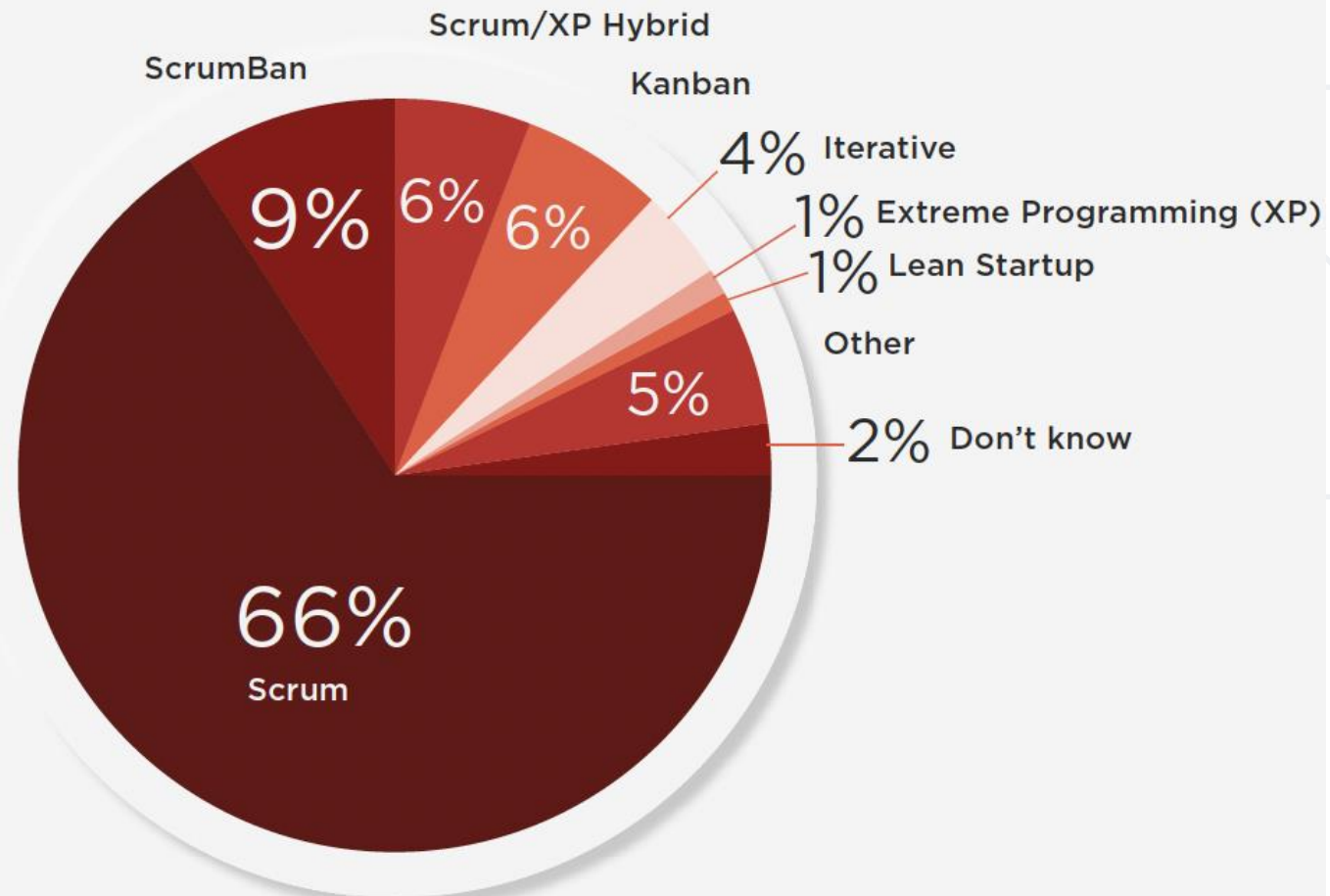


- Derived from Toyota's lean production system
- "Kanban" is a Japanese word meaning "signboard"
- Focuses on limiting work in progress (WIP) to identify issues and minimize waste

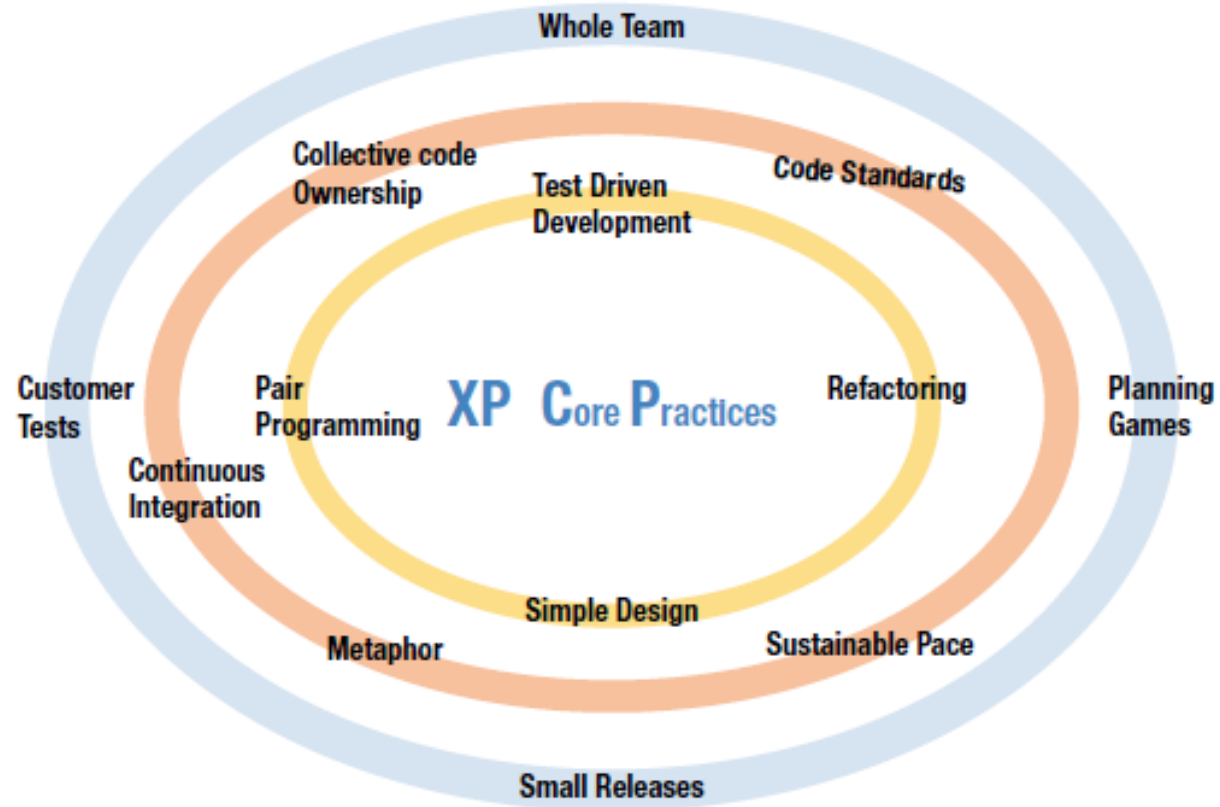


Most Popular Agile Approaches

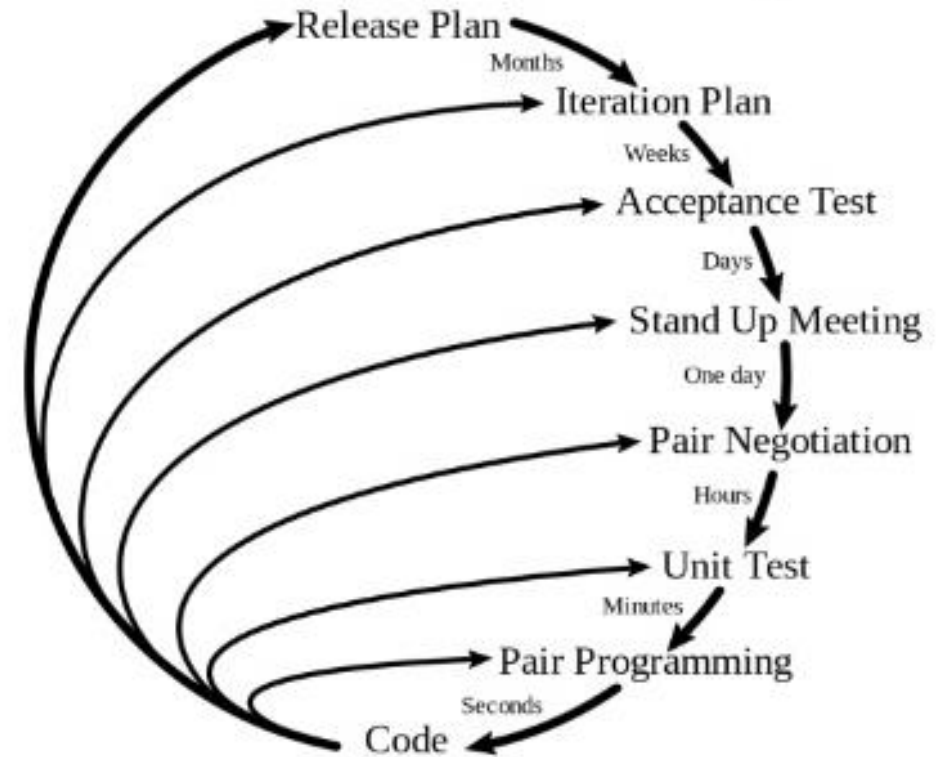
Which Agile methodology do you follow most closely at the team level?



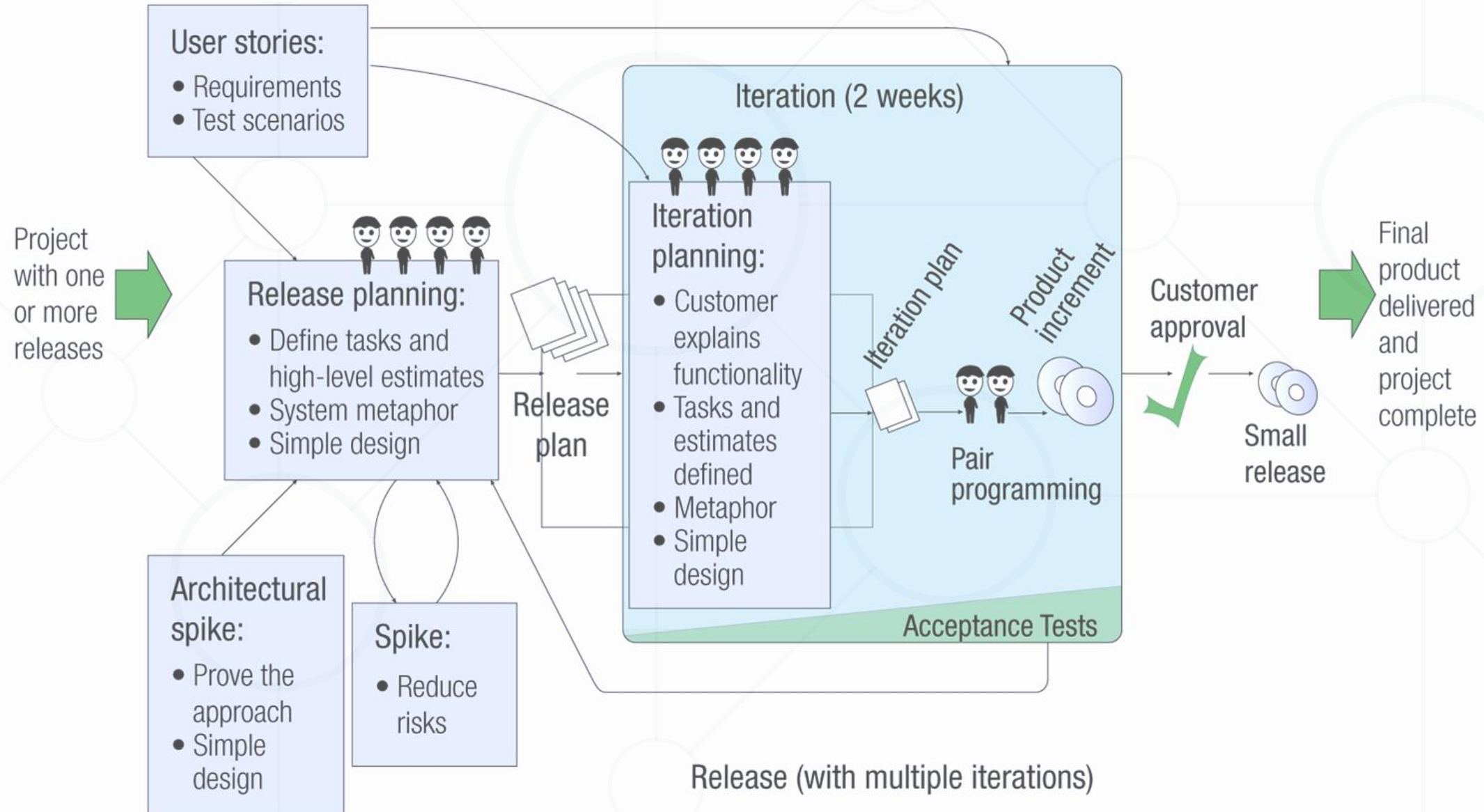
Extreme Programming



Planning/Feedback Loops

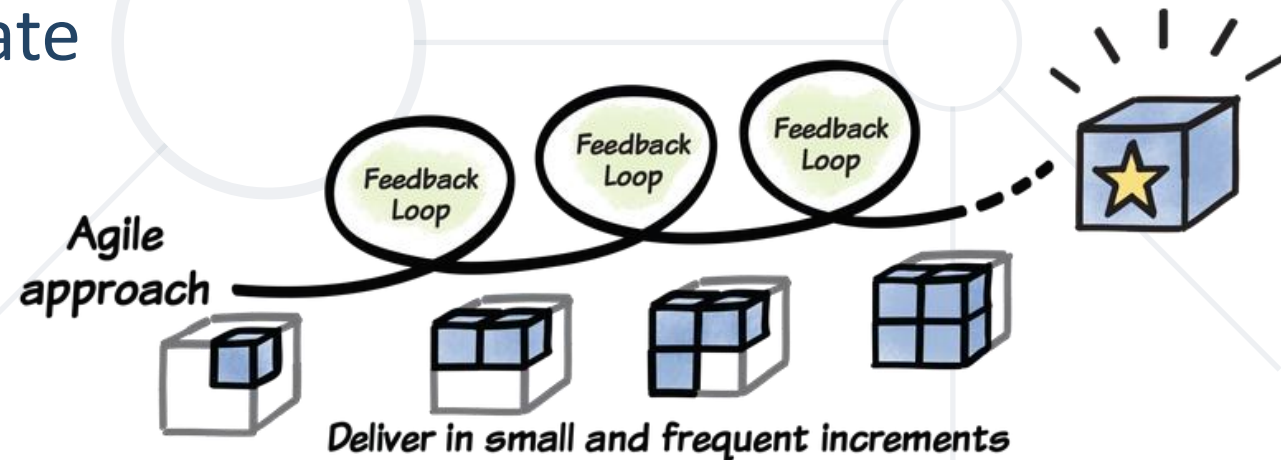


XP Life Cycle



XP Core Practices (1)

- **Whole team:** Contributors sit together in the same location
- **Planning games**
 - Release planning—A *release* is a push of new functionality to the production user; project typically has one or more releases
 - Iteration planning—An *iteration* is a short development cycle within a release; in Scrum, these are called "sprints"
- **Small releases:** Used to demonstrate progress, increase visibility, and rapidly deploy working software to end user

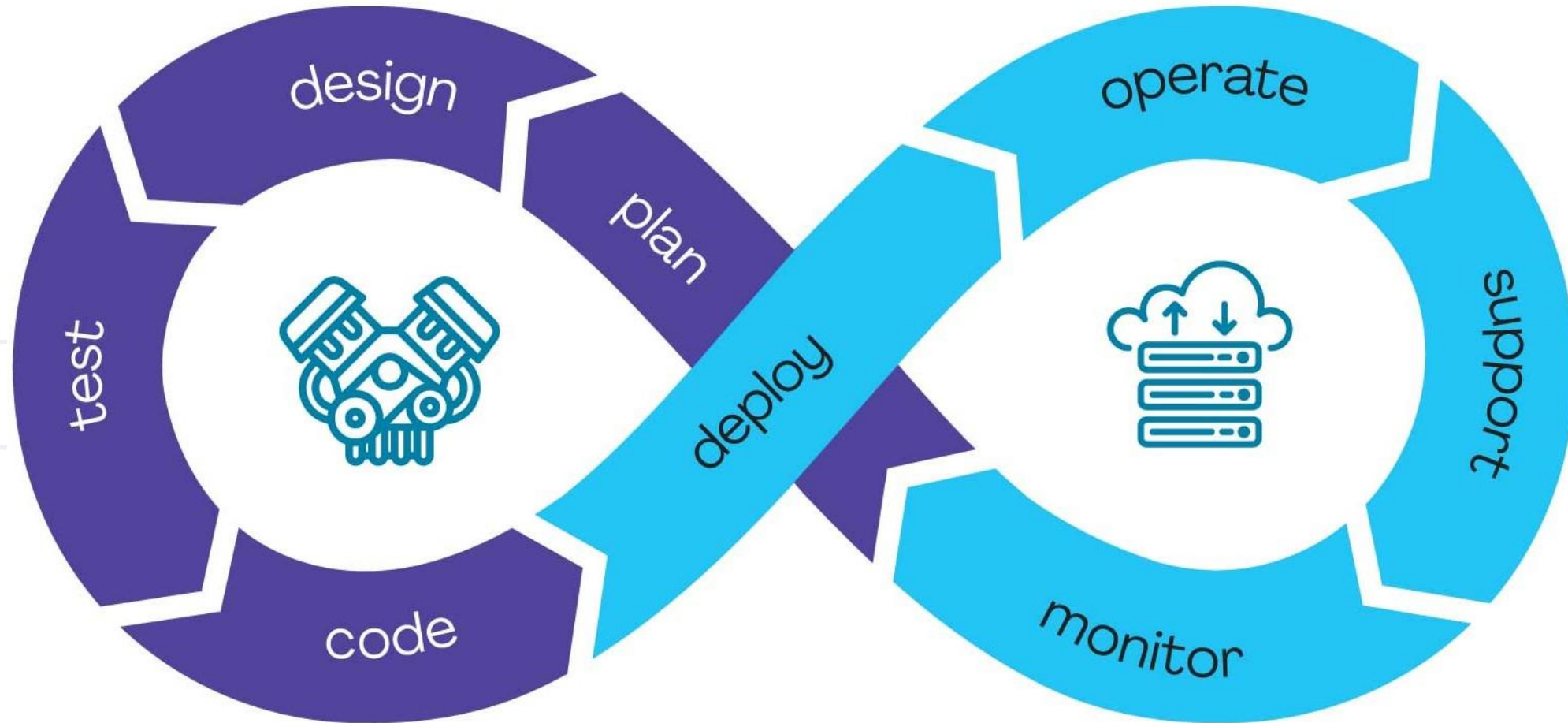


XP Core Practices (2)

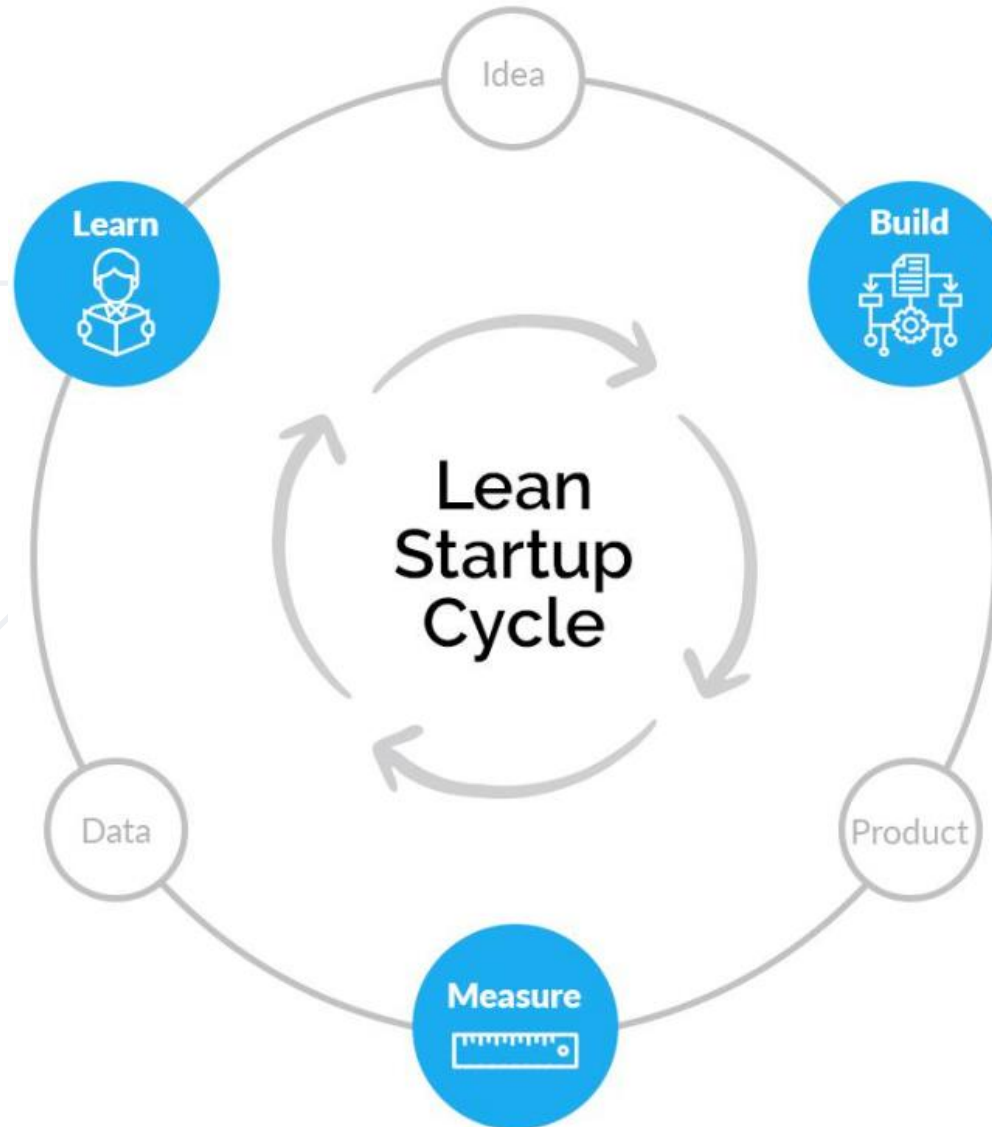
- **Customer tests:** Customer describes one or more tests that will show that the software is working as intended
- **Collective code ownership:** Any pair of developers can improve or amend any code
- **Code standards:** Teams follow consistent coding standard
- **Sustainable pace:** Highest level of productivity is achieved by a team operating at a sustainable pace
- **Metaphor:** Use metaphors and similes to explain designs and create a shared vision that all stakeholders can understand

XP Core Practices (3)

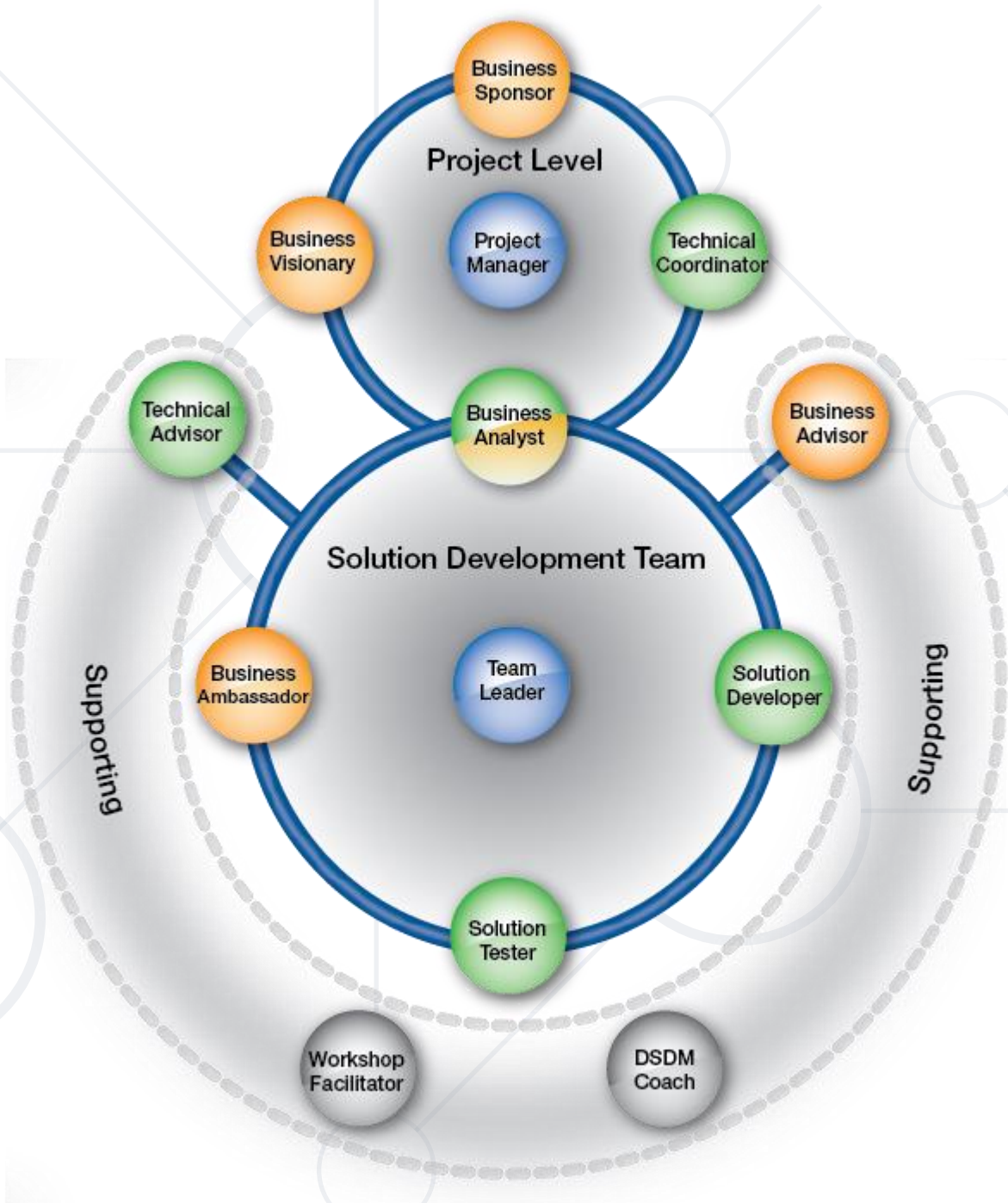
- **Continuous integration**: Make sure code compiles and works together
- **Test-driven development**: Team writes the tests before developing the code
- **Refactoring**: Improve design of existing code without altering external behavior or adding new functionality
- **Simple design**: Simple, but adequate design allows teams to develop code quickly and adapt as necessary
- **Pair programming**: Production code is written by two developers working as a pair



Disciplined Agile Delivery



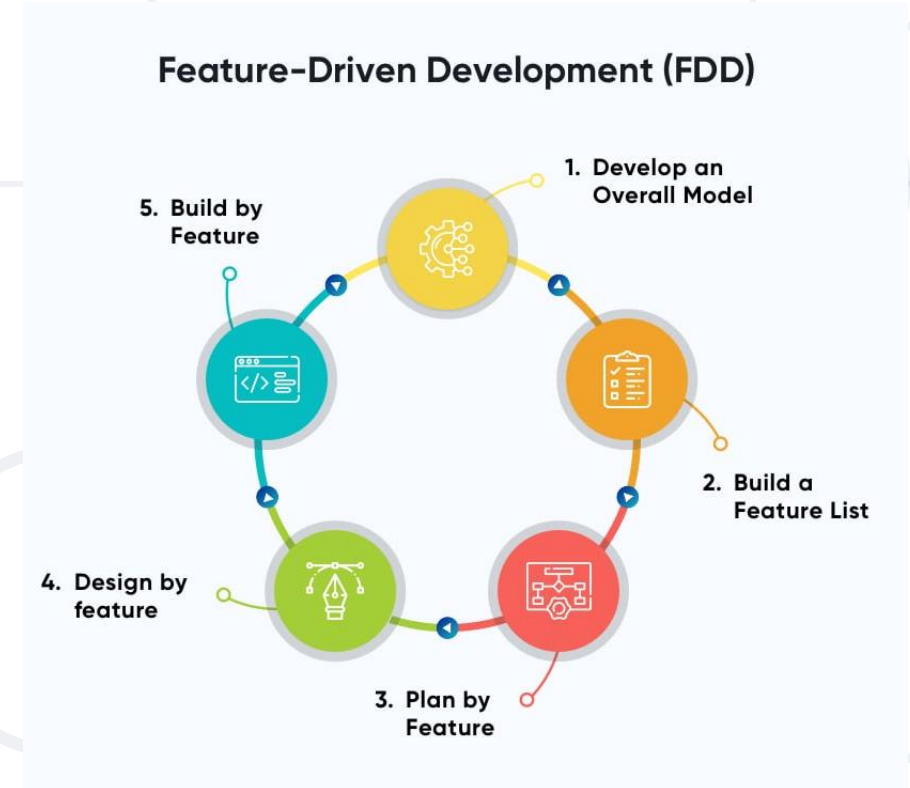
DSDM



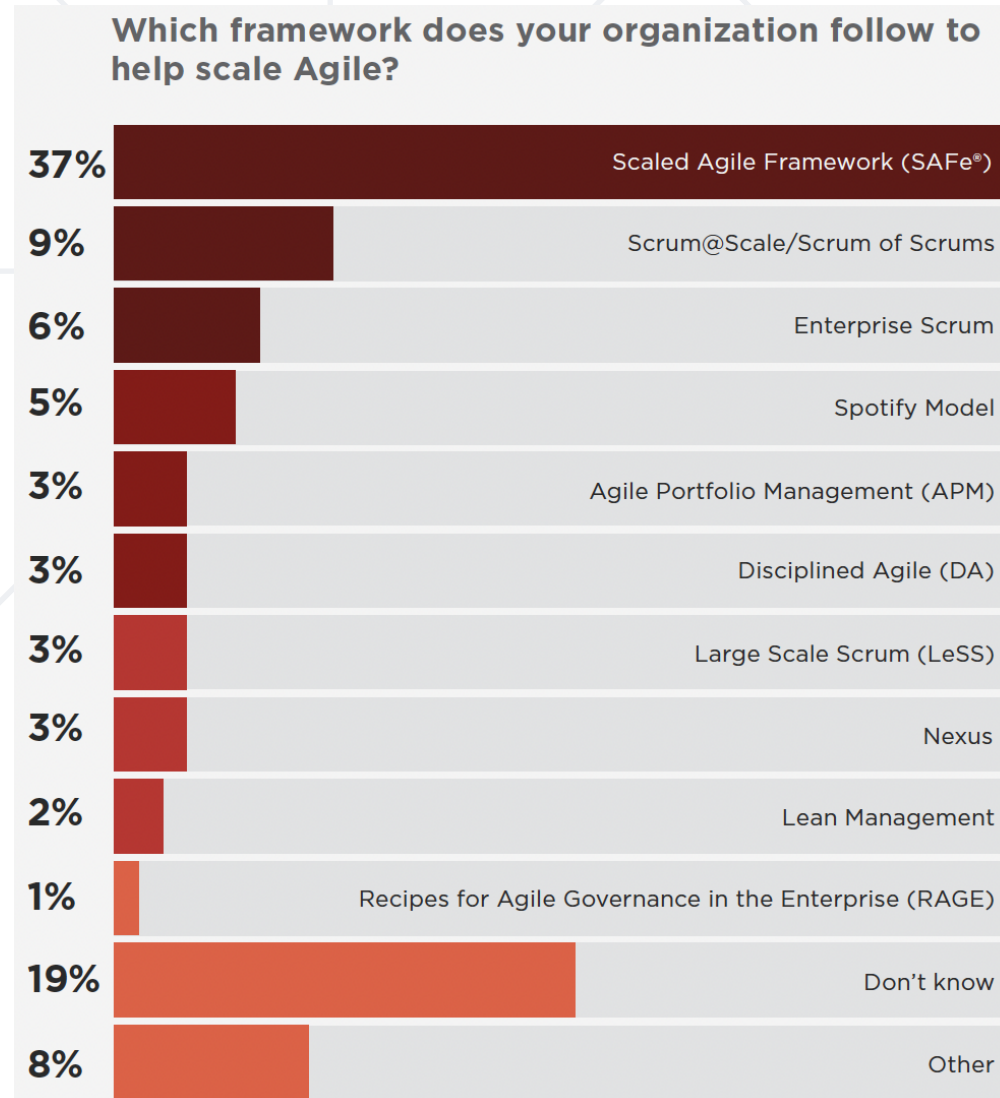
■ Crystal

Method	Team size	Project size
Crystal Clear	6 people or less	Small projects
Crystal Yellow	7–20 people	Small to medium projects
Crystal Orange	20–40 people	Medium projects
Crystal Red	40–80 people	Medium to large projects
Crystal Maroon	80–200 people	Large projects
Crystal Diamond or Crystal Sapphire	Very large teams (200+ people)	Very large projects with high criticality

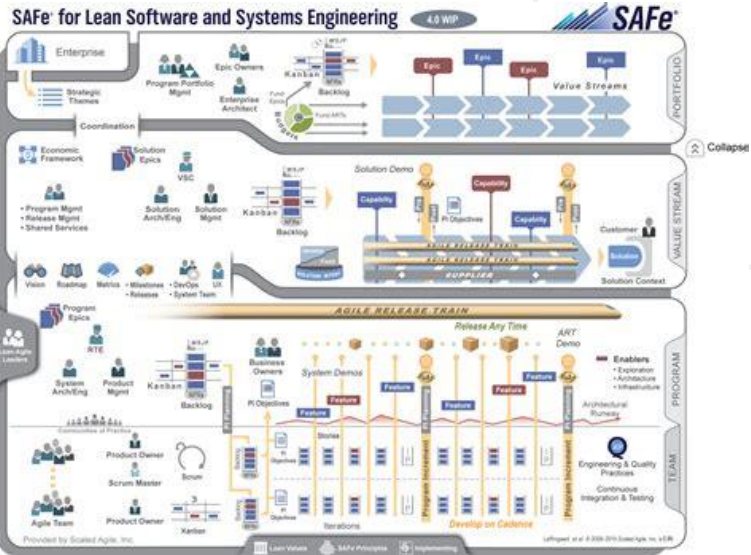
■ FDD



Scaling Frameworks Popularity



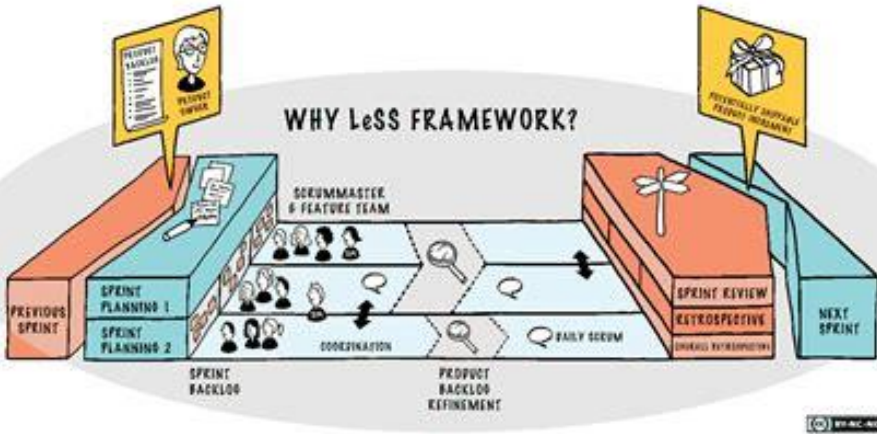
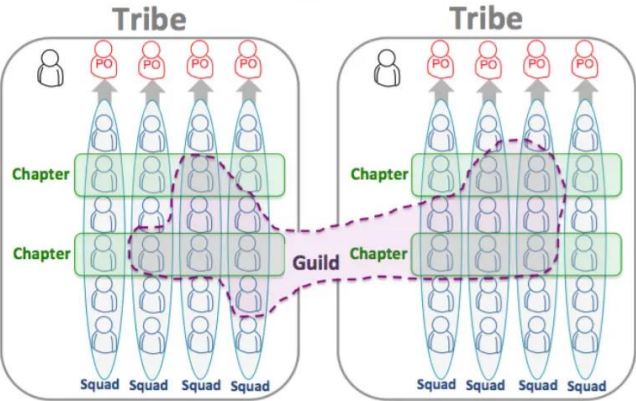
Scaling Frameworks



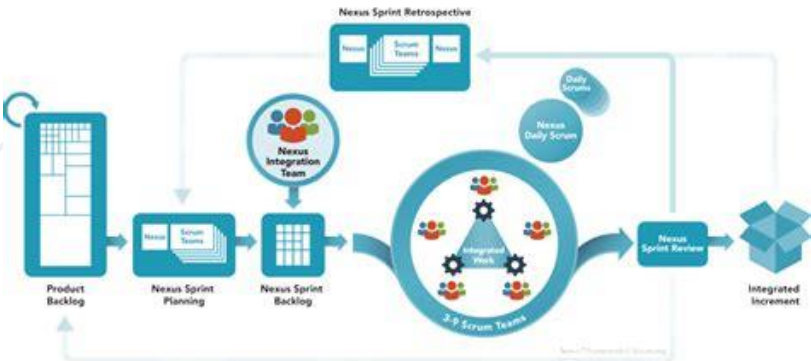
Scaling Agile @ Spotify

with Tribes, Squads, Chapters & Guilds

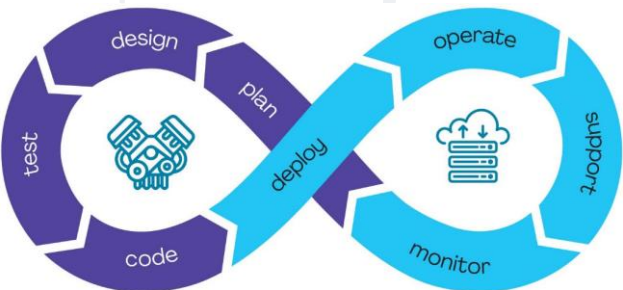
Henrik Kniberg & Anders Ivarsson
Oct 2012



NEXUS™ FRAMEWORK

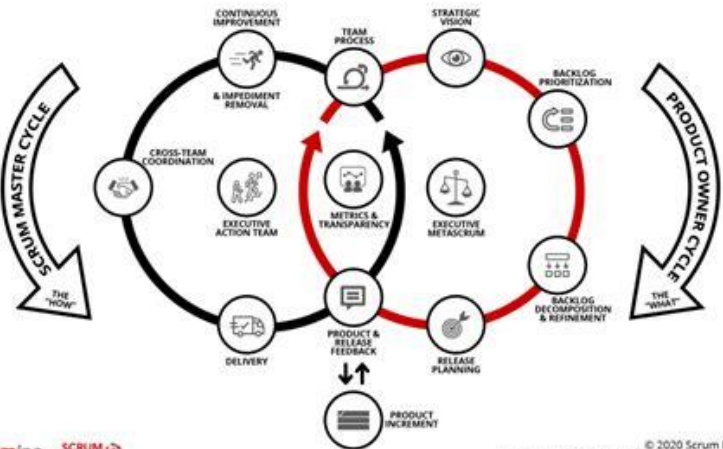


DISCIPLINED
AGILE



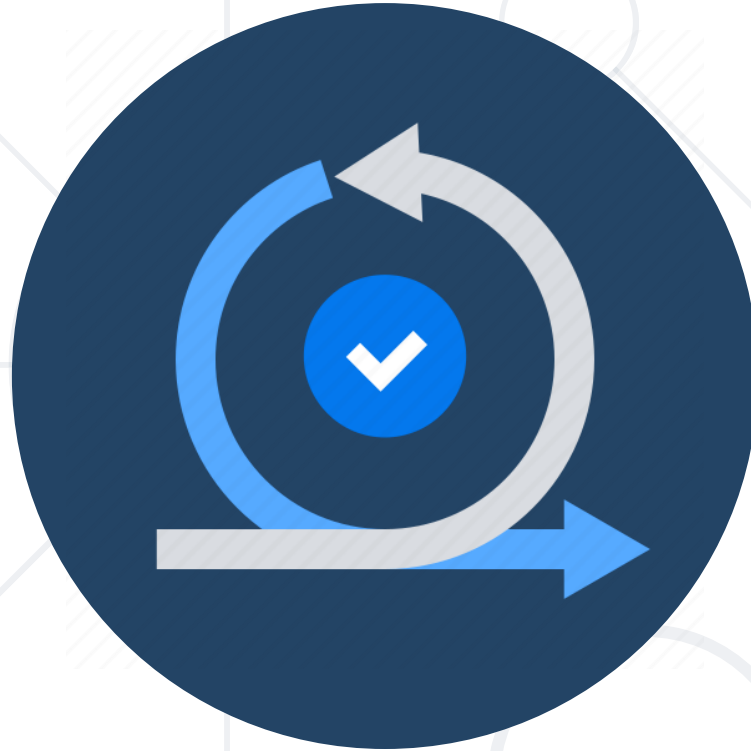
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The Scrum@Scale Framework



scruminc. SCRUM@SCALE

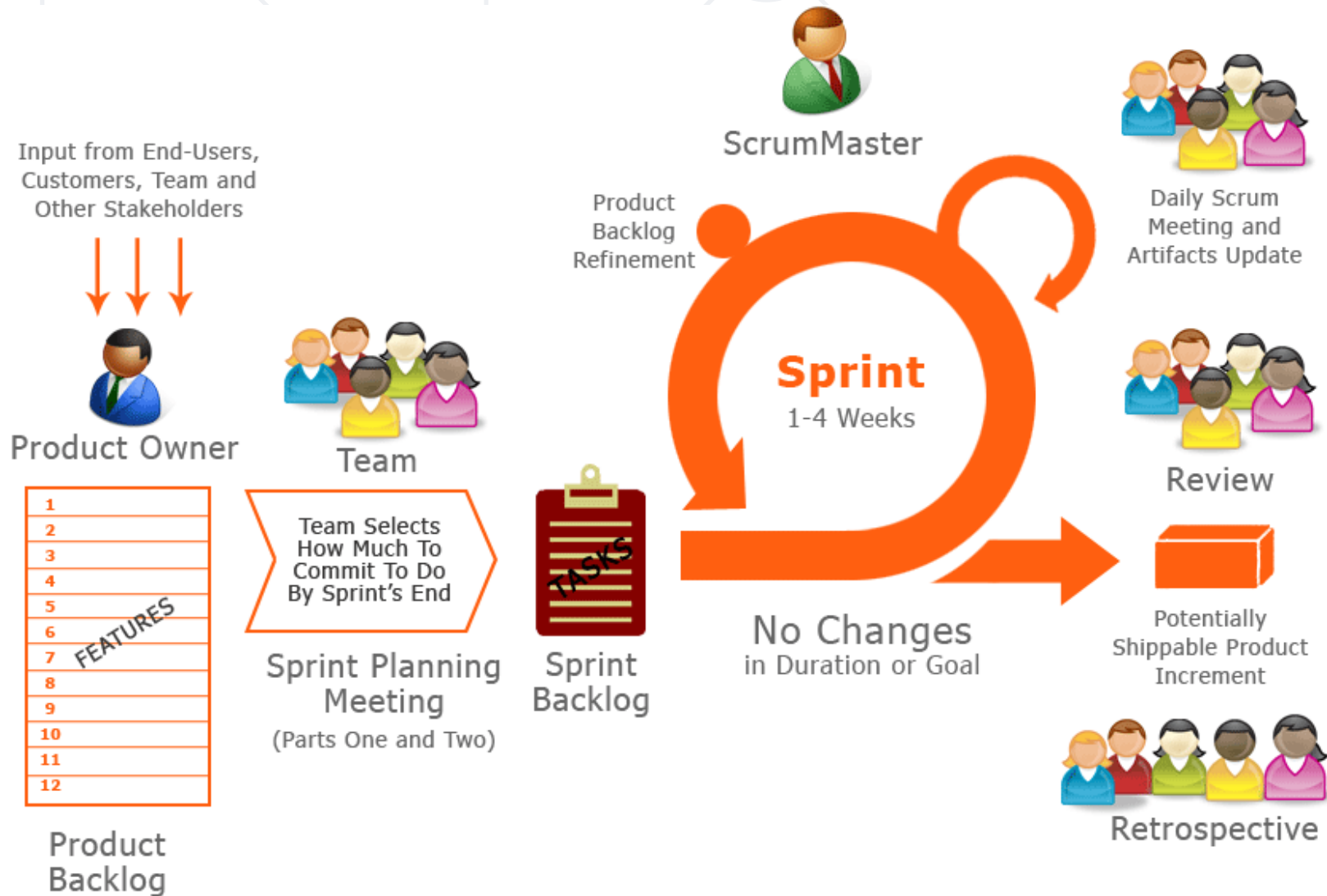
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www.scruminc.com | www.scrum@scale.com



Scrum: a Quick Overview

What is SCRUM?

Scrum Basics



- Based on short cycles (2-4 weeks)
- Iterative approach
- 4 basic themes while running each cycle
 - Plan
 - Build
 - Test
 - Review / Revise
 - *...and then repeat again*



Actors in Scrum

Who?

Scrum Team Members

- Scrum Team



Product Owner



Development Team



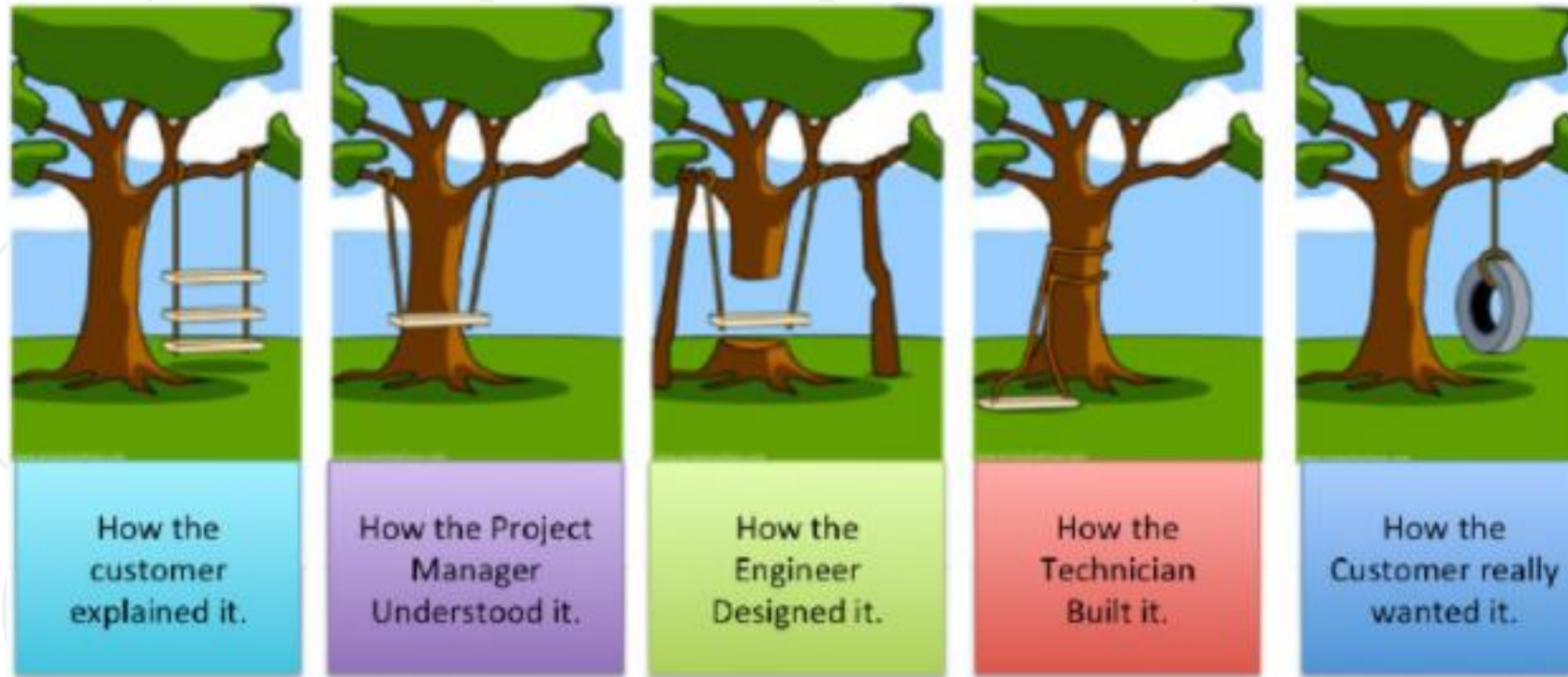
Scrum Master

- Accountable for maximizing the value of the product and 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
 - Ensuring that the Product Backlog is transparent, visible and understood

The Product Owner (2)

- **Solely** responsible for managing the Product Backlog
- A **single** person, not a group or committee
 - Why do you think it is a single person, not a group?
- Primary it is a **business** role

- Why is stakeholder engagement important?



Gulf of Evaluation

The Development Team (1)

- Developers are the people in the Scrum Team that are committed to creating any aspect of a usable Increment each Sprint
- The development team is 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
 - Holding each other accountable as professionals

The Development Team (2)

- The **only** people who do the **work** of delivering a potentially **releasable Increment** at the end of a Sprint
- **3-9** people, **cross-functional** and **self-organized**
- No **titles**, no **sub-teams**
- Individual skills but team **accountability**
- What does "cross-functional" mean? Do we all have to know everything?
- No titles. How about a Team Lead / Manager?
- No sub-teams. What about FE/BE, Dev/QA?

The Scrum Master (1)

- The Scrum Master is accountable for establishing Scrum & for the Scrum Team's effectiveness
- The Scrum Master serves the Scrum Team by
 - Coaching the team members in self-management and cross-functionality
 - Helping the Scrum Team focus on creating high-value Increments
 - Removing impediments to the Scrum Team's progress
 - Ensuring that all Scrum events take place and are productive, and kept within the timebox

The Scrum Master (2)

- The Scrum Master serves the Product Owner by
 - Helping find techniques for effective Product Goal definition and Product Backlog management
- The Scrum Master serves the organization by
 - Leading, training, and coaching the organization in its Scrum adoption

The Scrum Master (3)

- **Promotes** and **supports** Scrum
- Helps everyone **understand** theory, values, roles, and practices
- **Servant-leader** for the Scrum Team
- This is not a team lead role
- Brings value by optimizing **interactions**

The Scrum Master (4)

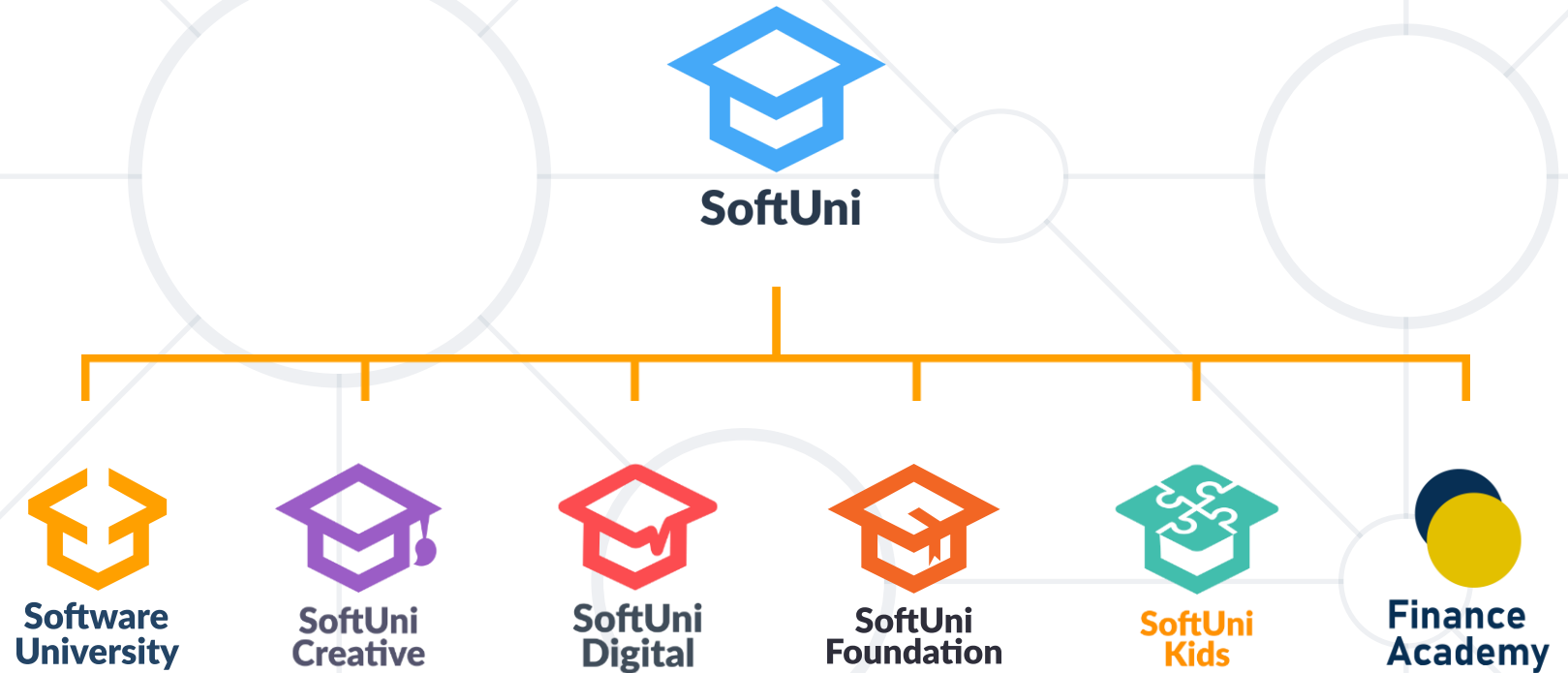
- How can a Scrum Master be a leader without proper authority?
- The role of Project Manager in Scrum?
- Sharing roles on a Scrum Team
- How does my role fit in Scrum?

- Top 7 Agile Frameworks
- The SCRUM team roles and accountabilities
- Discussion topic – Can an agile team work on more than one project at a time?
- Discussion topic – Is it OK to add items to the current sprint?

- Scrum is a simple framework for empirical process control in complex adaptive systems
- Pure SCRUM keeps simplicity in its hearth
- The iterative character of SCRUM makes it Agile by nature
- Understanding the purpose and function of the SCRUM Artefacts is understanding SCRUM
- Skipping an Event, Phase, or an Artefact is moving away from pure Scrum
- Scrum was developed for the needs of SW development



Questions?



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