

SAFe® for Teams

Establishing Team Agility
for Agile Release Trains

6.0

Workbook



Welcome to the course!

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Collaborate with Your Team

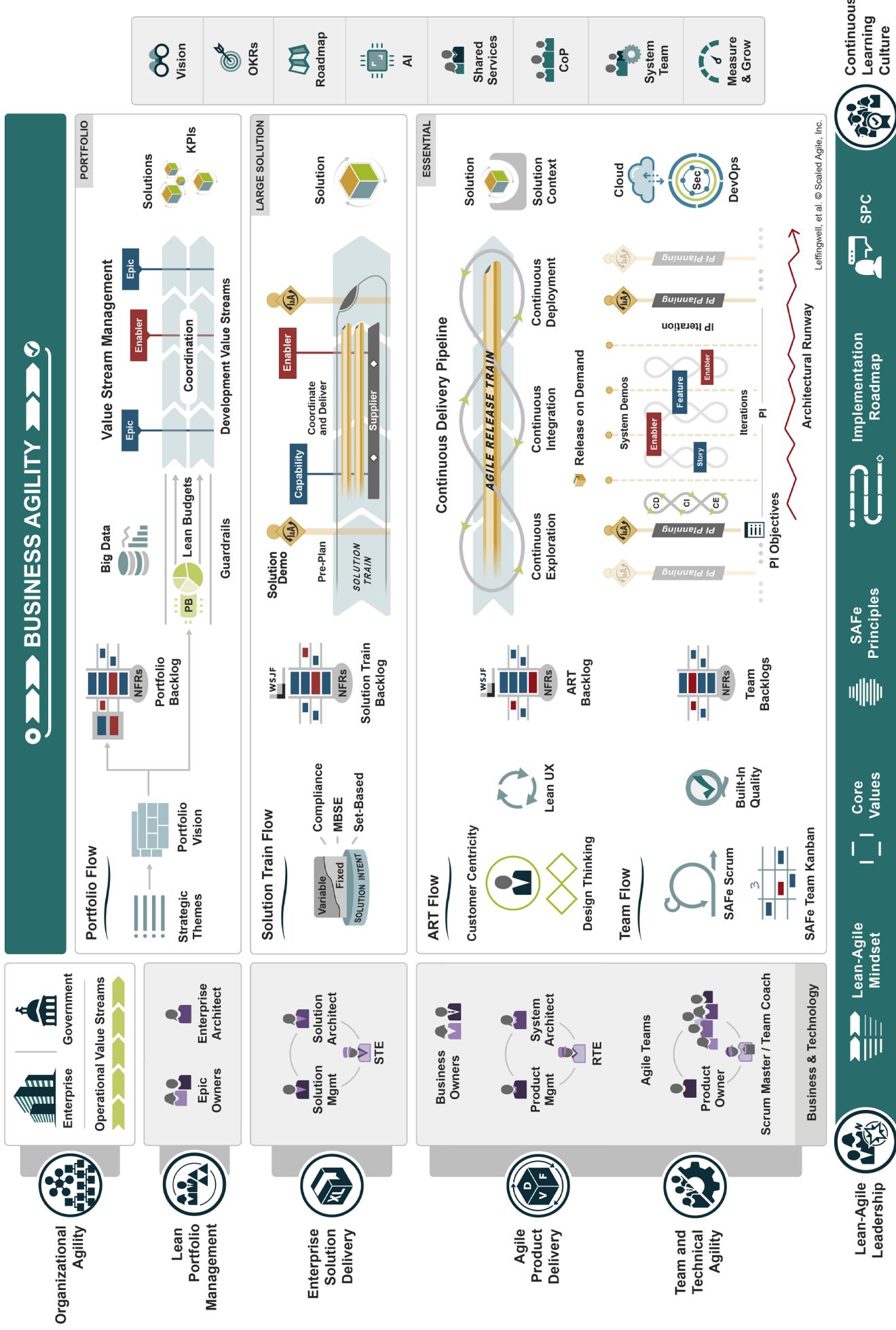
Choose from hundreds of collaboration templates to easily set up events like PI Planning and work in real time with your team and others—all with SAFe Collaborate.



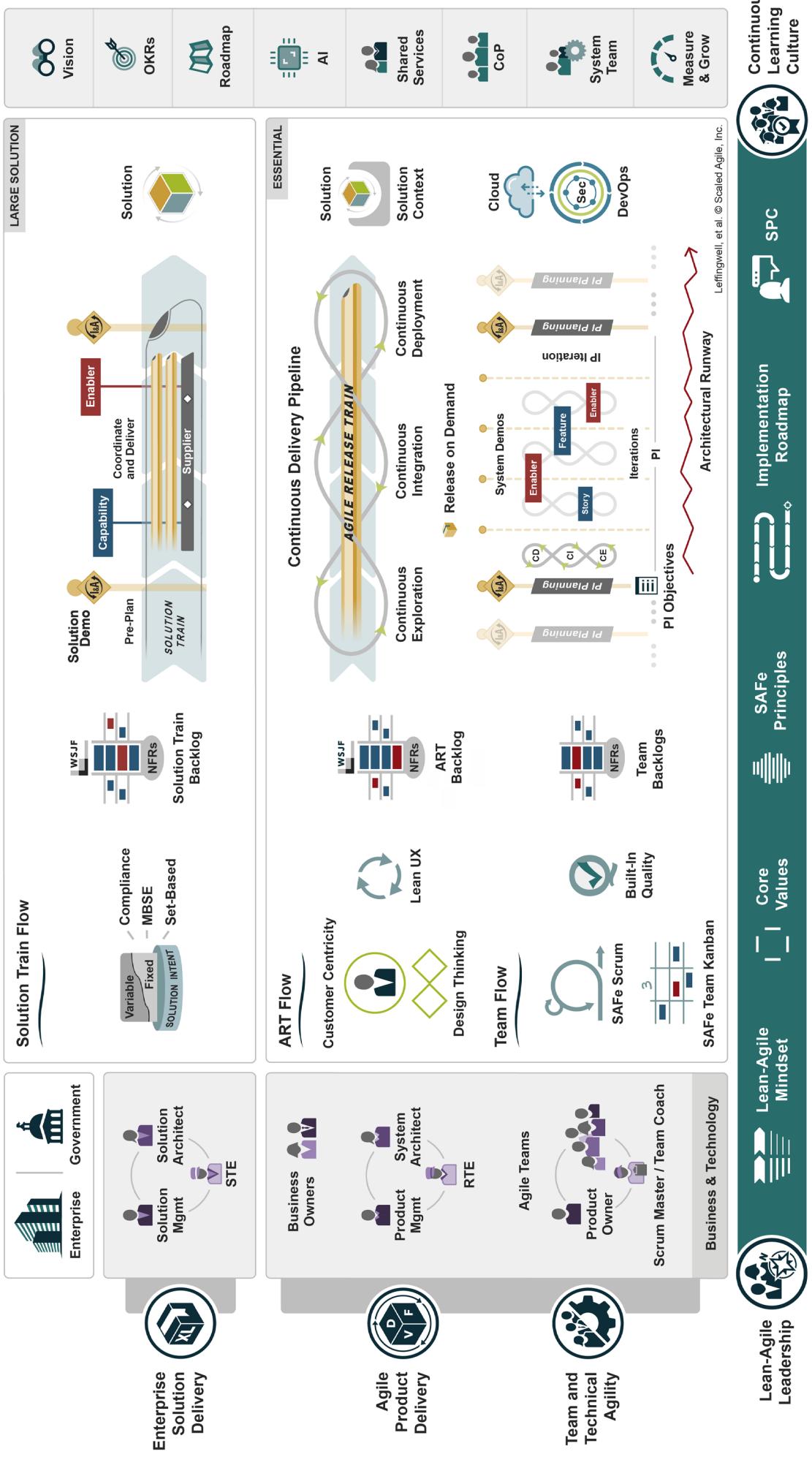
Showcase SAFe Credentials

Display your digital badge to promote your SAFe capabilities and proficiencies throughout your career.

SAFe® 6.0

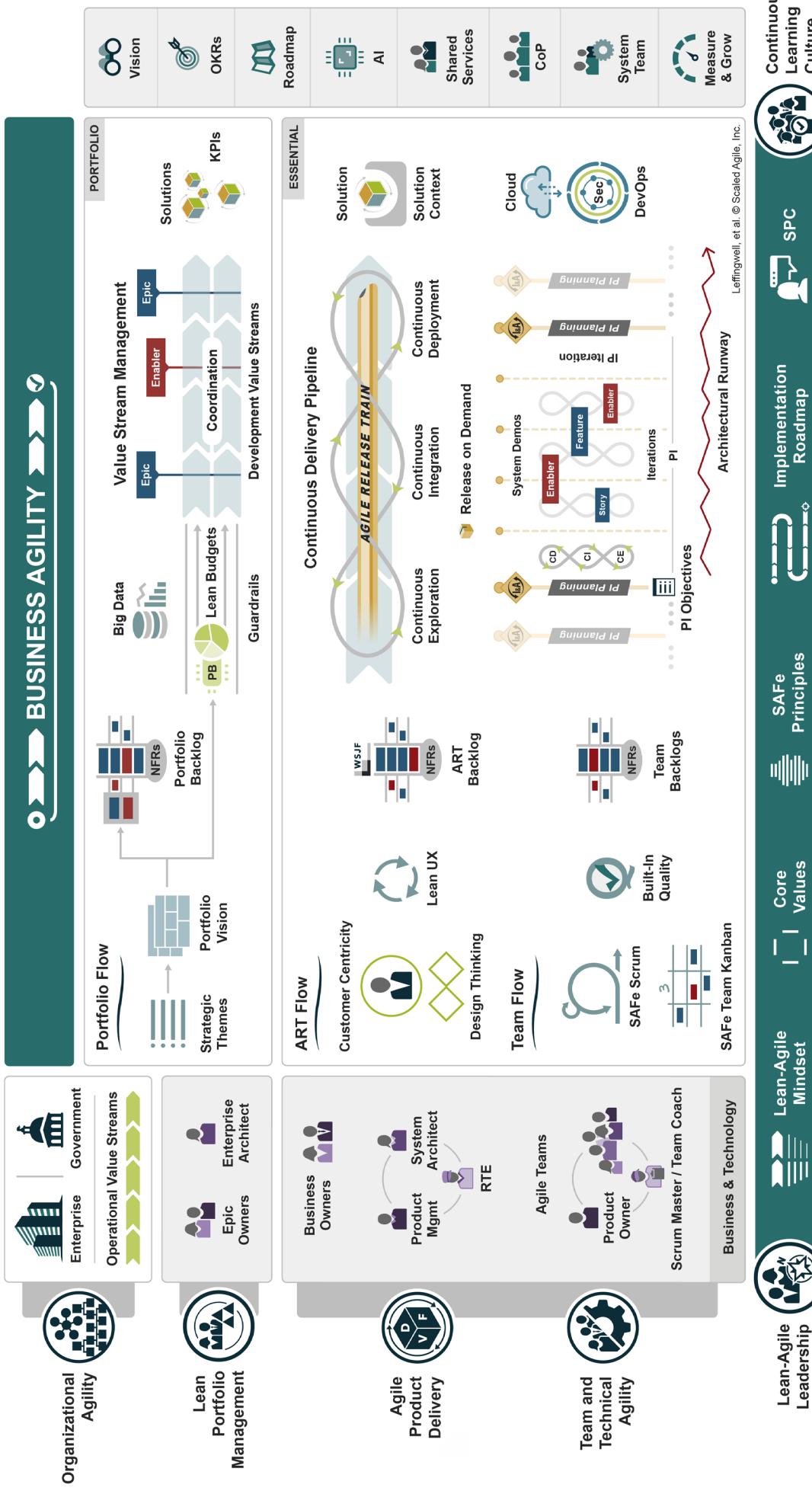


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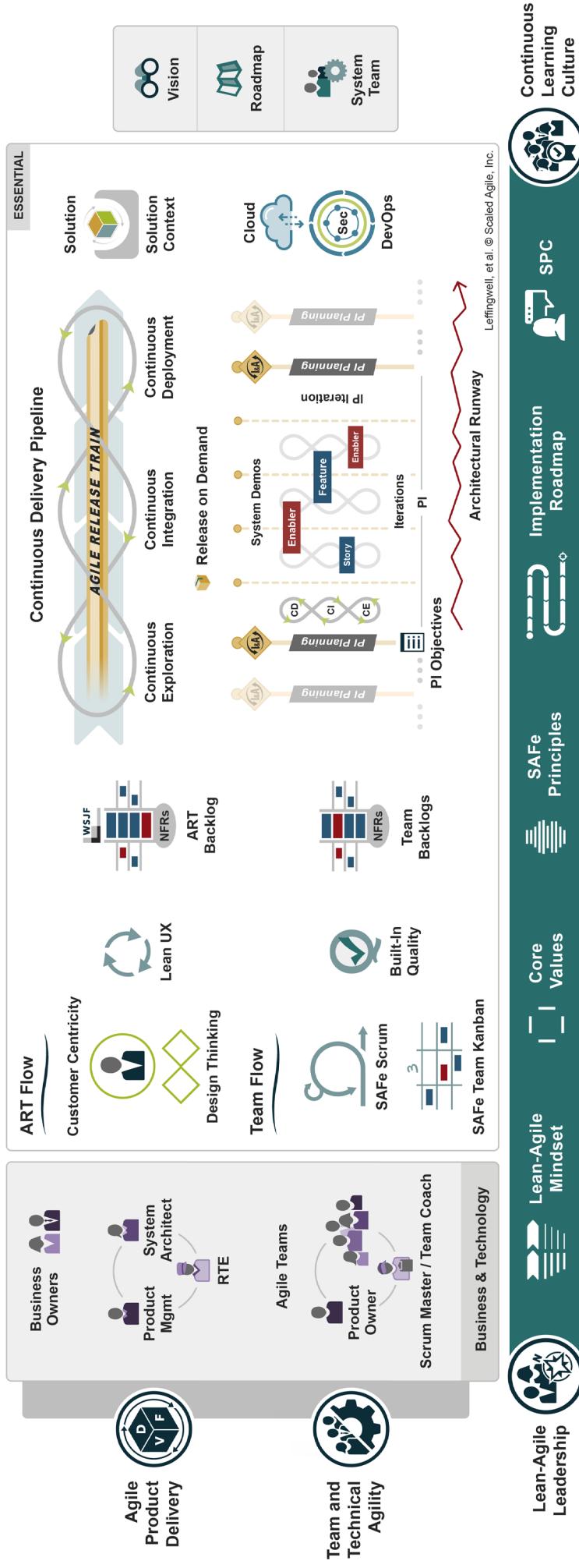
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SPC
Implementation
Roadmap

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Architectural Runway

PI Objectives

Iterations

Feature

Enabler

System Demos

Release on Demand

Continuous Integration

Continuous Deployment

Solution Context

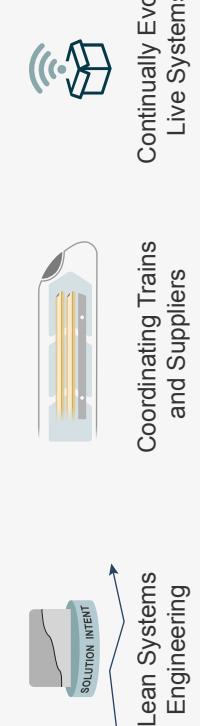
Solution

PI Planning

BA

BUSINESS AGILITY

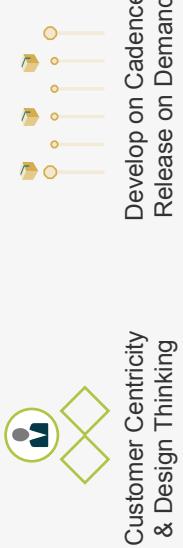
Enterprise Solution Delivery



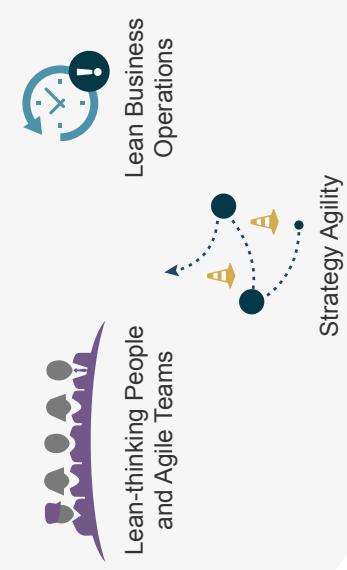
Lean Portfolio Management



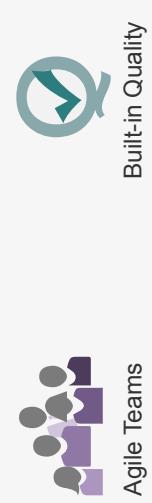
Agile Product Delivery



Organizational Agility



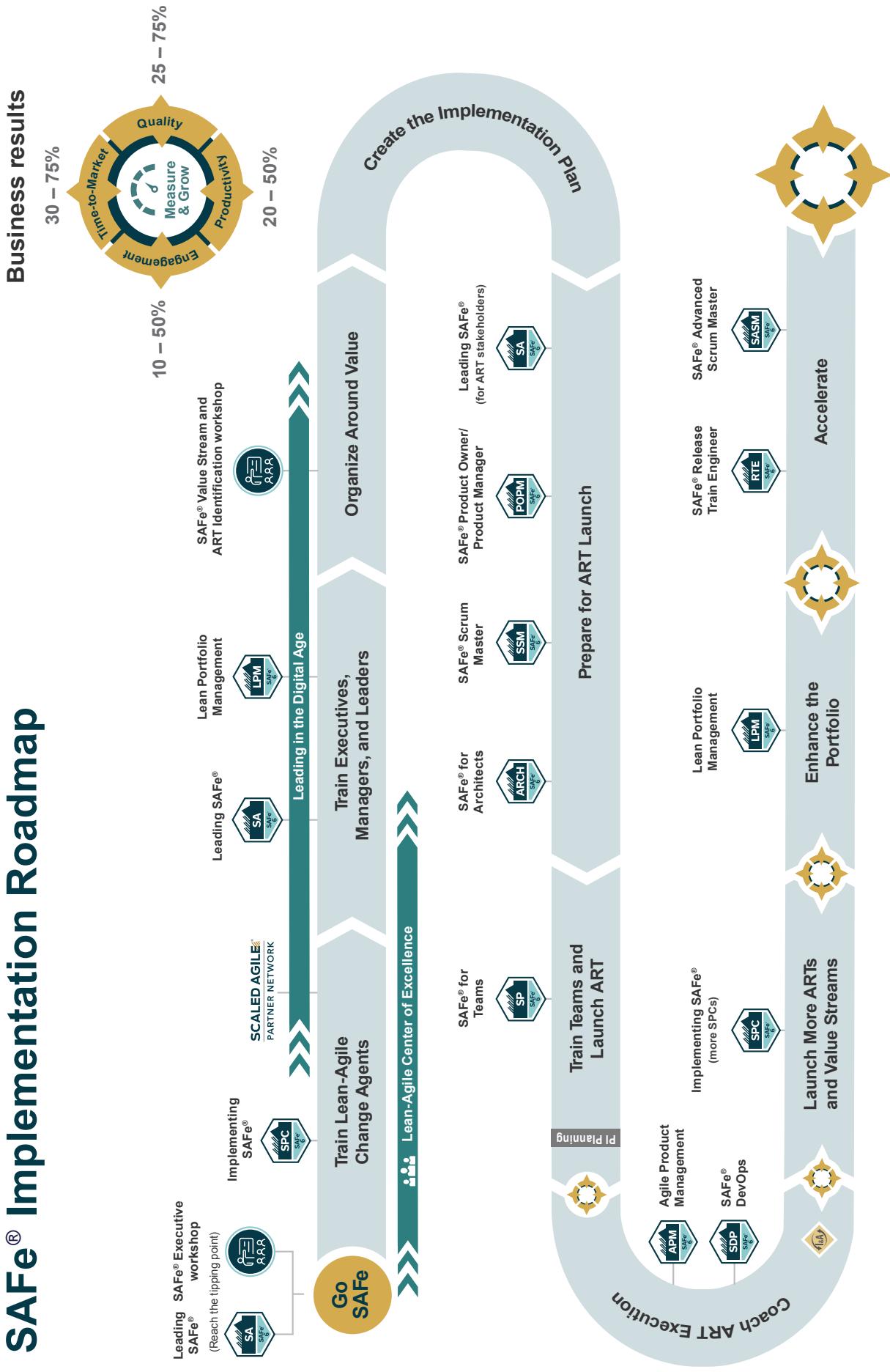
Team and Technical Agility



Lean-Agile Leadership



SAFe® Implementation Roadmap



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SAFe® for Teams

Establishing Team Agility for Agile Release Trains

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.



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Logistics

- ▶ Course meeting times
- ▶ Breaks
- ▶ Facilities
- ▶ Technology requirements
- ▶ Working agreements



Activity: Access the Class Page

Duration
5 min

- ▶ **Step 1:** Navigate to the Class Page on the SAFe Community Platform
- ▶ **Step 2:** Select Learn, then My Classes, then SAFe for Teams
- ▶ **Step 3:** Click on the link to Download the SAFe for Teams workbook

Home Learn Implement Measure Connect Teach Partner Support

My Classes

SAFe My Learning My Classes

Media Library Role Based Learning Training and Events Calendar SPC Skills Development SAFe Distilled

i is over but you're not done yet! Provide feedback on your class Add the exam study guide Take the practice test Take the exam Exam Window Expires Sep 10, 2021 Go to my learning plan

Download the SAFe for Teams (6.0) workbook PDF

Before Class During Class Practicing SAFe Additional Resources

SAFe® | COMMUNITY

Visit the SAFe for Teams Class Page to download the workbook
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Course outline

- ▶ Lesson 1: Introducing SAFe
- ▶ Lesson 2: Form Agile Teams as an Agile Release Train
- ▶ Lesson 3: Connect to the Customer
- ▶ Lesson 4: Plan the Work
- ▶ Lesson 5: Deliver Value
- ▶ Lesson 6: Get Feedback
- ▶ Lesson 7: Improve Relentlessly
- ▶ Lesson 8: Practicing SAFe

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Introducing the SAFe® Practitioner Action Plan

In your workbook, you will find Action Plans after every lesson. Through the Action Plans you will have an opportunity to add ideas, insights, and improvement items as a takeaway from each of the lessons.



1-5

Lesson 1

Introducing SAFe®

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.

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Lesson Topics

- 1.1** The Scaled Agile Framework
- 1.2** The Seven Core Competencies of Business Agility
- 1.3** The Lean-Agile Mindset and SAFe Core Values
- 1.4** SAFe Principles



Learning objectives

At the end of this lesson, you should be able to:

- ▶ Recognize SAFe as an operating system for Business Agility
- ▶ Summarize Team and Technical Agility and Agile Product Delivery competencies
- ▶ Describe the Lean-Agile Mindset and SAFe Core Values
- ▶ Recognize the SAFe Lean-Agile Principles
- ▶ Identify one or more actions an individual or a team can take to represent the SAFe Core Values and the SAFe Lean-Agile Principles

1.1 The Scaled Agile Framework

Rethinking the organization

“

The world is now changing at a rate at which the basic systems, structures, and cultures built over the past century cannot keep up with the demands being placed on them.”

—John P. Kotter, *Accelerate*

Accelerate by John P. Kotter
Portrait of John Kotter. Photo courtesy of Kotter Inc.



Business Agility is our opportunity

Business opportunity emerges

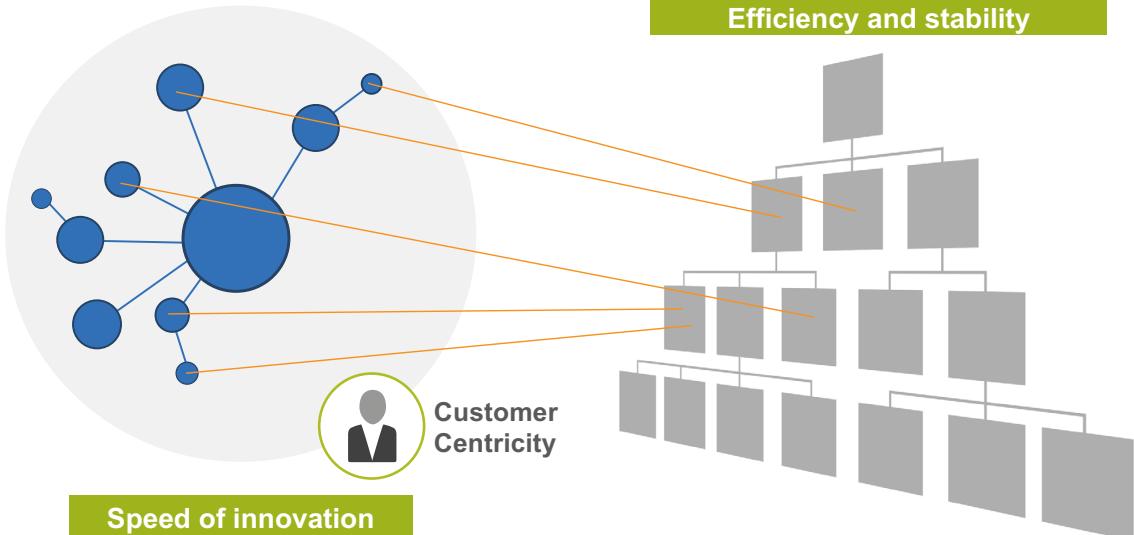
Business opportunity leveraged



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1-11

We need a dual operating system for Business Agility

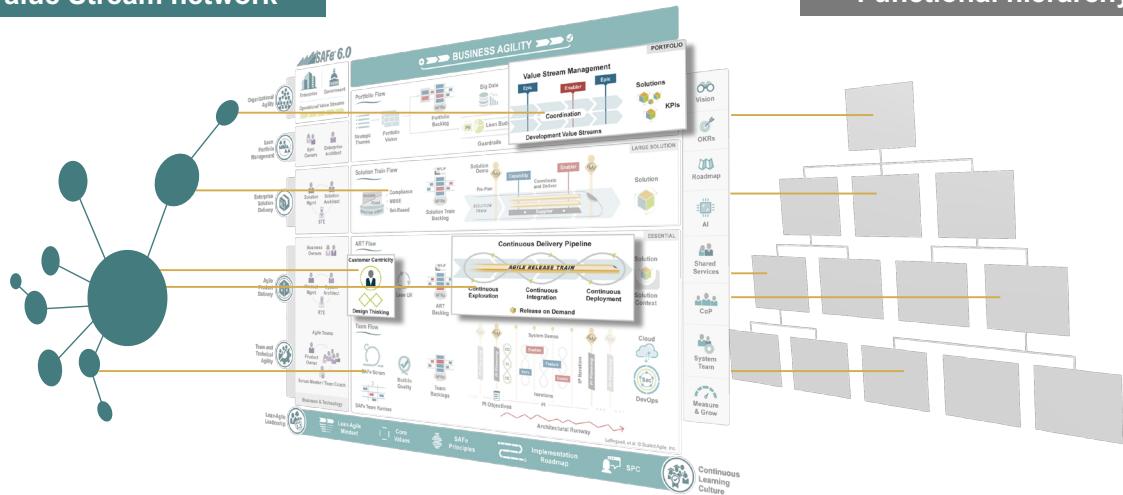


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1-12

We have just such an operating system at our fingertips

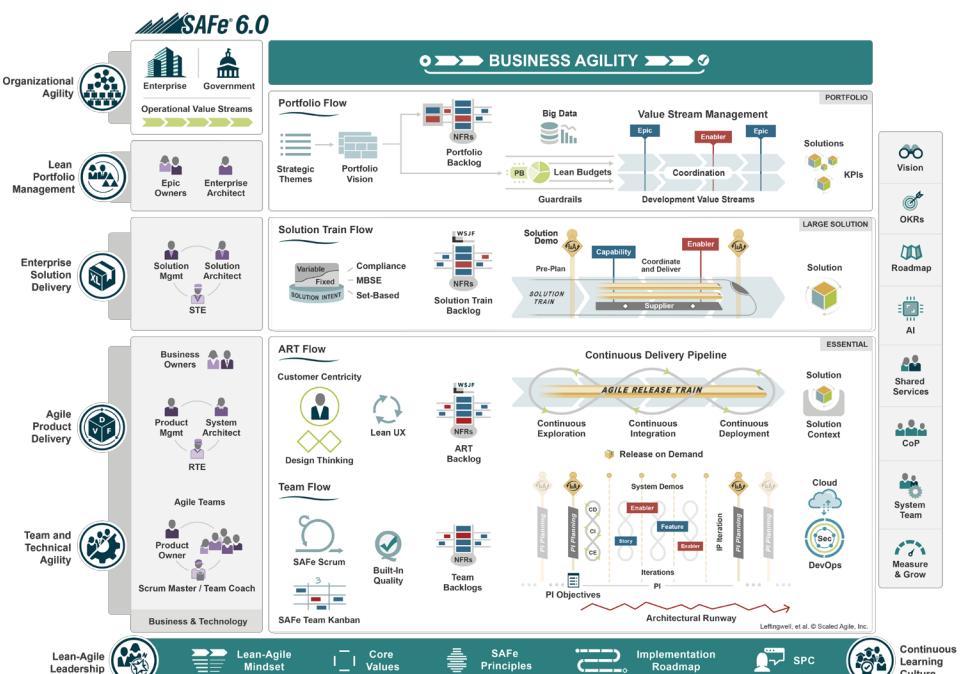
Value Stream network



Functional hierarchy

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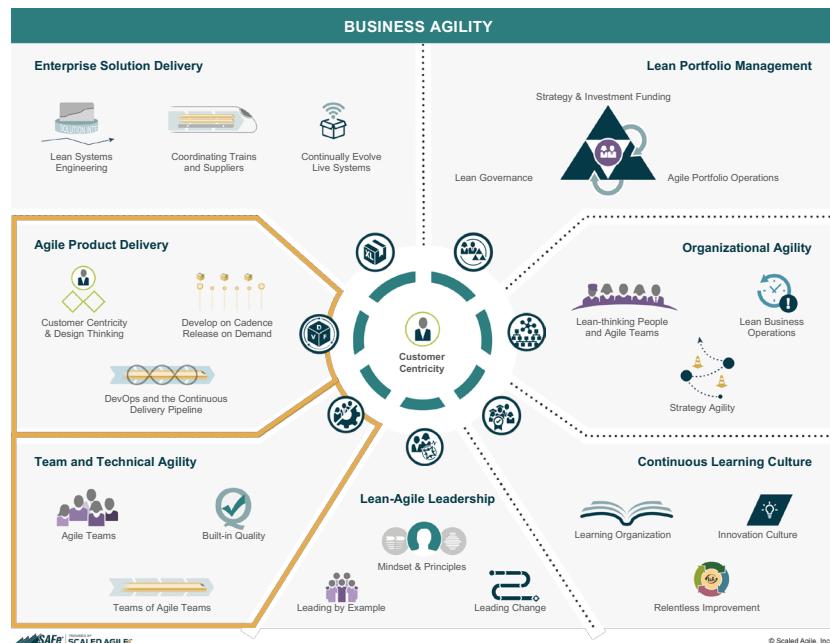
<https://www.scaledagileframework.com/>

1-14

1.2 The Seven Core Competencies of Business Agility

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1-15



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Team and Technical Agility

- ▶ High-performing, cross-functional Agile Teams
- ▶ Teams of business and technical teams build Solutions
- ▶ Quality business Solutions delight Customers

Agile Teams



Teams of Agile Teams

AGILE RELEASE TRAIN

Built-In Quality



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1-17



Agile Product Delivery

- ▶ The Customer is the center of your product strategy
- ▶ Decouple the release of value from the development cadence
- ▶ Continuously explore, integrate, deploy, and release

Customer Centricity and Design Thinking



Develop on cadence and Release on Demand



DevOps and the Continuous Delivery Pipeline



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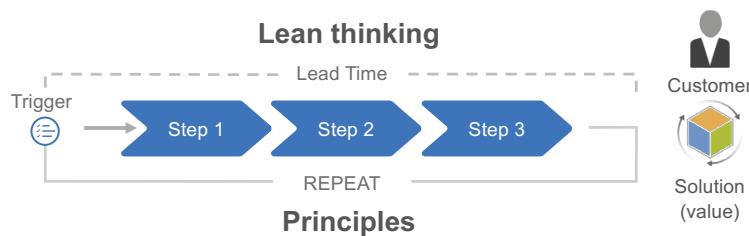
1-18

1.3 The Lean-Agile Mindset and SAFe Core Values

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1-19

Lean thinking



Principles

- 1 Precisely specify value by product
- 2 Identify the Value Stream for each product
- 3 Make value flow without interruptions
- 4 Let the Customer pull value from the producer
- 5 Pursue perfection

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1-20

The Agile Manifesto

Agile Values

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

Through this work we have come to value:

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

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

Reference: Agile Manifesto

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1-21

The Agile Manifesto principles

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference for the shorter timescale.
4. Business people and developers must work together daily throughout the project.

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The Agile Manifesto principles

5. Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development.
The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

The Agile Manifesto principles

9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity—the art of maximizing the amount of work not done—is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

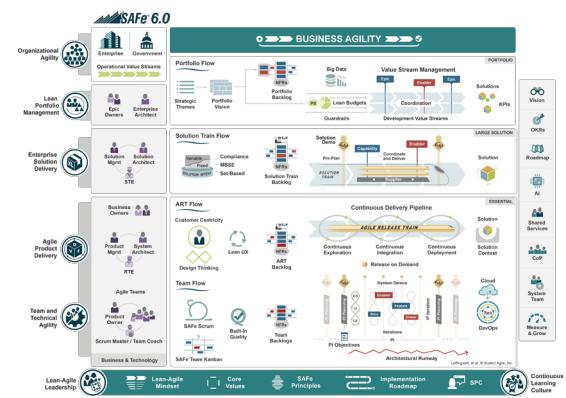
SAFe Core Values

"Before we build cars,
we build people."
— from *The Toyota Way*

Alignment

Transparency

Respect for People



Relentless Improvement

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SAFe Core Values

Alignment

- ▶ Communicate the vision, mission, and strategy
- ▶ Connect strategy to execution
- ▶ Speak with a common language
- ▶ Constantly check for understanding
- ▶ Understand your Customer

Transparency

- ▶ Create a trust-based environment
- ▶ Communicate directly, openly, and honestly
- ▶ Turn mistakes into learning moments
- ▶ Visualize work
- ▶ Provide ready access to needed information

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1-26

SAFe Core Values

Respect for People

- ▶ Hold precious what it is to be human
- ▶ Value diversity of people and opinions
- ▶ Grow people through coaching and mentoring
- ▶ Embrace ‘Your Customer is whoever consumes your work’
- ▶ Build long-term partnerships based on mutual benefit

Relentless Improvement

- ▶ Create a constant sense of urgency
- ▶ Build a problem-solving culture
- ▶ Reflect and adapt frequently
- ▶ Let facts guide improvements
- ▶ Provide time and space for innovation

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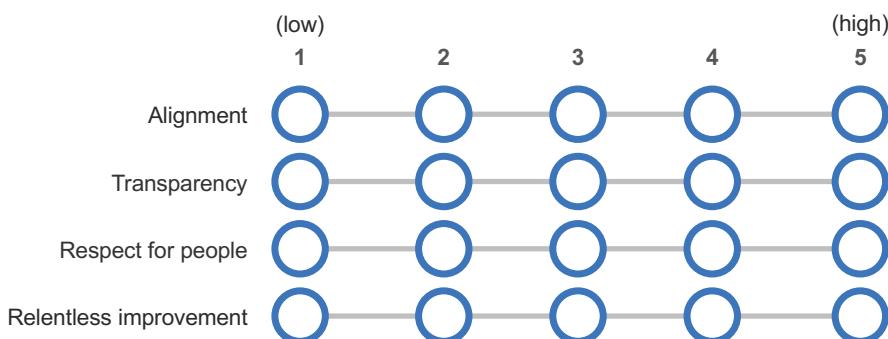
1-27



Activity: SAFe Core Values



- ▶ **Step 1:** Individually assess where your organization stands in embracing the SAFe Core Values.
- ▶ **Step 2:** Discuss the results of the self-assessment within your group. What similarities and differences emerge?



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SAFe Core Values

Alignment

- Communicate the vision, mission, and strategy
- Connect strategy to execution
- Speak with a common language
- Constantly check for understanding
- Understand your customer

Respect for People

- Hold precious what it is to be human
- Value diversity of people and opinions
- Grow people through coaching and mentoring
- Embrace “Your customer is whoever consumes your work”
- Build long-term partnerships based on mutual benefit.

Transparency

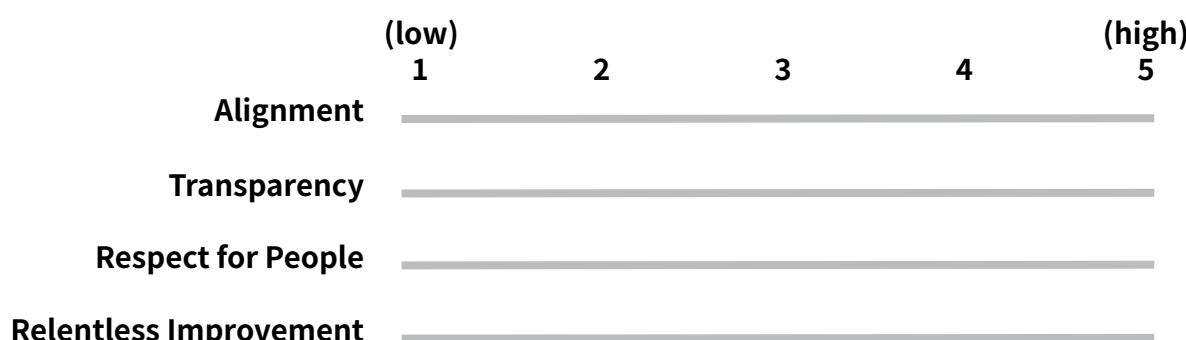
- Create a Trust Based Environment
- Communicate directly, openly, and honestly
- Turn mistakes into learning moments
- Visual work
- Provide ready access to needed information

Relentless Improvement

- Create a constant sense of urgency
- Build a problem-solving culture
- Reflect and adapt frequently
- Let facts guide improvements
- Provide time and space for innovation

Step 1: Assess where your team stands in embracing a Lean mindset.

Step 2: Discuss the results of the self-assessment. Do you have similar low or high scores?



Notes

1.4 SAFe Principles

SAFe Lean-Agile Principles

#1 Take an economic view

#2 Apply systems thinking

#3 Assume variability; preserve options

#4 Build incrementally with fast, integrated learning cycles

#5 Base milestones on objective evaluation of working systems

#6 Make value flow without interruptions

#7 Apply cadence, synchronize with cross-domain planning

#8 Unlock the intrinsic motivation of knowledge workers

#9 Decentralize decision-making

#10 Organize around value



Action Plan: Introducing SAFe

Prepare
7 min

Share
3 min

- ▶ **Step 1:** Individually in your workbook, brainstorm some daily actions you can take that will enable you to represent the SAFe Core Values. Add them to your Action Plan.
- ▶ **Step 2:** Share your ideas with your team.
- ▶ **Step 3:** With your team, determine which SAFe Principle to concentrate on first by looking at which one seems to have the highest value impact. Identify one action your team can take to represent the principle in daily practice. Add to your Action Plan.
- ▶ **Step 4:** Be prepared to share with the class.





Action Plan

Introducing SAFe

Core Values

- Alignment
- Respect for People
- Transparency
- Relentless Improvement

Principles

- #1 Take an economic view
- #2 Apply systems thinking
- #3 Assume variability; preserve options
- #4 Build incrementally with fast, integrated learning cycles
- #5 Base milestones on objective evaluation of working systems
- #6 Visualize and limit WIP, reduce batch sizes, and manage queue lengths
- #7 Apply cadence, synchronize with cross-domain planning
- #8 Unlock the intrinsic motivation of knowledge workers
- #9 Decentralize decision-making
- #10 Organize around value

Lesson review

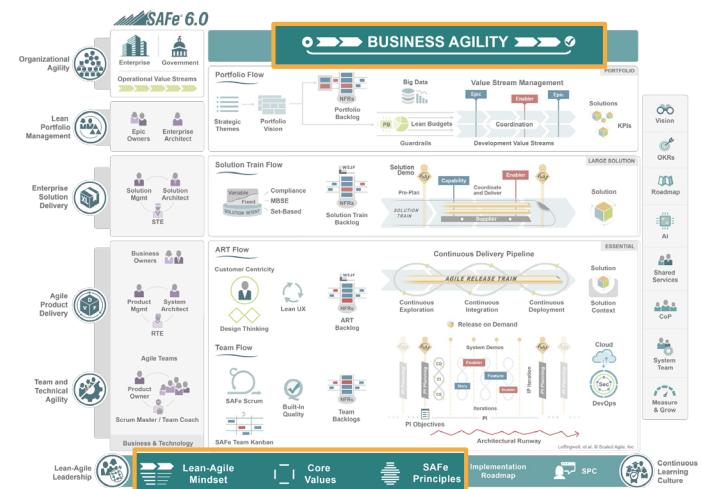
In this lesson you:

- ▶ Recognized SAFe as an operating system for Business Agility
- ▶ Summarized Team and Technical Agility and Agile Product Delivery competencies
- ▶ Described the Lean-Agile Mindset and SAFe Core Values
- ▶ Identified the SAFe Lean-Agile principles
- ▶ Identified one or more actions an individual or a team can take to represent the SAFe Core Values and the SAFe Lean-Agile principles

Articles used in this lesson

Read these Framework articles to learn more about topics covered in this lesson:

- ▶ “Core Values”
<https://www.scaledagileframework.com/safe-core-values/>
- ▶ “Lean-Agile Mindset”
<https://www.scaledagileframework.com/lean-agile-mindset/>
- ▶ “SAFe Lean-Agile Principles”
<https://www.scaledagileframework.com/safe-lean-agile-principles/>
- ▶ “Business Agility”
<https://www.scaledagileframework.com/business-agility>



Continue your SAFe journey with the following resources:

Watch this three-minute video, <i>Navigating the Big Picture</i> , to understand how to use the SAFe Big Picture. https://bit.ly/Video-NavigatingtheBigPicture	Build your knowledge of the goals and methods of SAFe to achieve Business Agility with the <i>What is SAFe for Lean Enterprise</i> online learning. https://bit.ly/Community-GettingStarted
Watch this four-minute video, <i>Lean-Agile Mindset</i> , to learn why a Lean-Agile mindset is an important Enabler for Business Agility. https://bit.ly/Video-LeanAgileMindset	Complete the online learning, <i>Agile Basics</i> , to learn more about what Agile is and how it supports value delivery. https://bit.ly/Community-GettingStarted
Download and share the “Introducing SAFe” toolkit to familiarize people in your organization with SAFe. https://bit.ly/Community-ToolkitsandTemplates	Watch this video playlist <i>SAFe Lean-Agile Principles (6.0)</i> to explore each of the ten SAFe Lean-Agile Principles in depth. https://bit.ly/Playlist-Principles6

References

Agile Manifesto. “Manifesto for Agile Software Development.” Updated 2001.
<https://agilemanifesto.org>.

Kotter, John P. *Accelerate: Building Strategic Agility for a Faster-Moving World*. Boston: Harvard Business Review Press, 2014. Kindle.

Liker, Jeffrey K. *The Toyota Way: 14 Management Principles from the World’s Greatest Manufacturer*. McGraw-Hill: New York, 2004. 199.

Lesson notes

Enter your notes below. If using a digital workbook, save your PDF often so you don't lose any of your notes.

Lesson 2

Form Agile Teams as an Agile Release Train

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.



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Lesson Topics

- 2.1** Forming cross-functional Agile Teams
- 2.2** The Scrum Master / Team Coach and Product Owner roles
- 2.3** SAFe Scrum and SAFe Team Kanban
- 2.4** Becoming an Agile Release Train



Learning objectives

At the end of this lesson, you should be able to:

- ▶ Form your Agile Team
- ▶ Explain the characteristics and responsibilities of an Agile Team
- ▶ Describe the SAFe Scrum Master / Team Coach (SM/TC) and SAFe Product Owner (PO) roles
- ▶ Explain SAFe Scrum and SAFe Team Kanban
- ▶ Identify the roles within an Agile Release Train (ART)
- ▶ Identify one or more actions individuals or teams can take to develop cross-functional skillsets within their Agile Team

2.1 Forming cross-functional Agile Teams

What are Agile Teams?

In SAFe, an Agile Team is a cross-functional group of generally ten or fewer individuals who define, build, test, and deliver value in short increments while continuously learning and adjusting.

- ▶ Optimized for communication and delivery of value
- ▶ Deliver value every two weeks
- ▶ Contain two specialty roles:
 - Scrum Master / Team Coach (SM/TC)
 - Product Owner (PO)



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2-5

The power of a high-performing team:

The people, the work, and the knowledge are all one

- ▶ A self-organizing team dynamically interacts with itself and the organization
- ▶ Team members create new points of view and resolve contradictions through dialogue
- ▶ The team is energized with intentions, Vision, interest, and mission
- ▶ Leaders provide autonomy, variety, trust, and commitment



2-6

Responsibilities of the Agile Team



2-7

Characteristics of high-performing Agile Teams

- ▶ Foster the psychological safety needed to take risks without fear of embarrassment or punishment
- ▶ Have diverse knowledge and skills to make quick, effective decisions independently
- ▶ Trust each other, allowing for both healthy conflict and reliance on others
- ▶ Align on a shared Vision with clear goals and purpose
- ▶ Accountable to each other and the organization for reliably completing quality work
- ▶ Meet commitments
- ▶ Understand their work's broader impact on the organization
- ▶ Enjoy their work and working together

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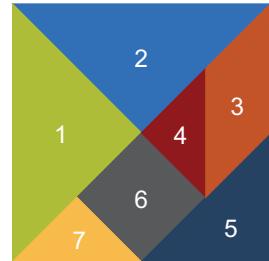
2-8



Activity: Experience Teams



- ▶ **Step 1:** In your groups, select one team member to act as the timekeeper.
- ▶ **Step 2:** Working with your team, review the puzzle images to be built and the available pieces. Then solve the puzzle as quickly as possible within a three-minute time limit.
- ▶ **Step 3:** After the first Iteration, run a one-minute retrospective to discuss your process and how it can be improved.
- ▶ **Step 4:** Complete two more Iterations with different puzzle shapes. Discuss your approach after each Iteration in your team's one-minute retrospective.
- ▶ **Step 5:** Be prepared to share with the class.



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2-9

Teams on the ART are composed of different team topologies



Stream-aligned team – organized around the flow of work and can deliver value directly to the Customer or end user



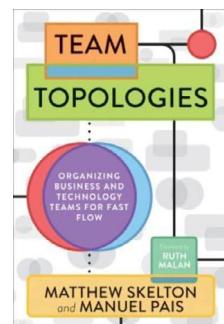
Platform team – organized around the development and support of platforms that provide services to other teams



Enabling team – organized to assist other teams with specialized capabilities and help them become proficient in new technologies



Complicated subsystem team – organized around specific subsystems that require deep specialty skills and expertise



Team Topologies by Matthew Skelton and Manuel Pais

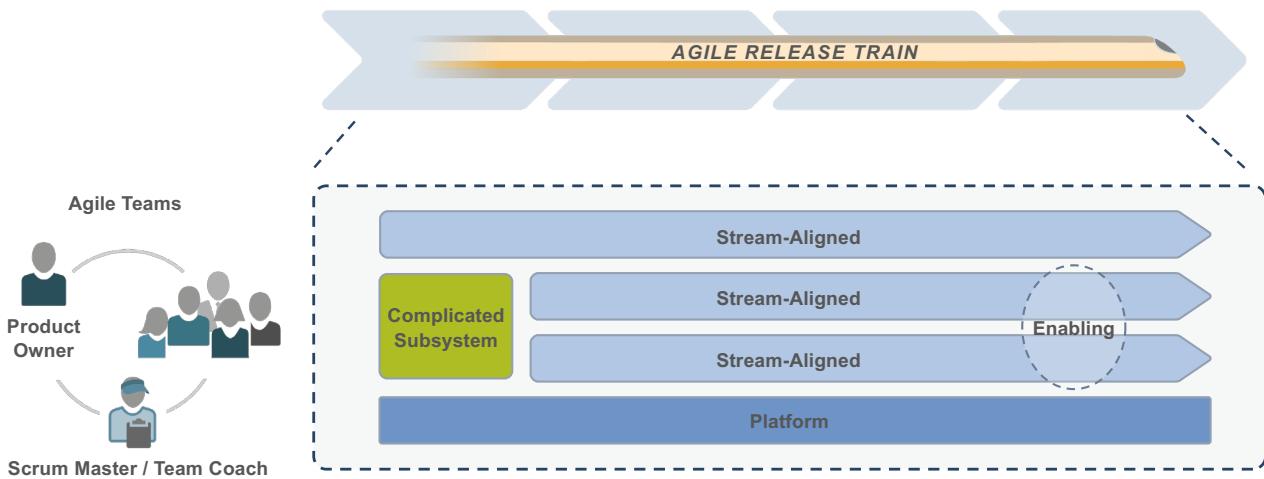
More information in the Advanced Topic Article:

<https://www.scaledagileframework.com/organizing-agile-teams-and-arts-team-topologies-at-scale/>

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2-10

Team topologies help align interactions between teams



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2-11



Activity: Identifying your team topology



- ▶ **Step 1:** As a group, discuss your team's responsibilities and skill sets
- ▶ **Step 2:** Use the team topologies on the following two slides to consider what behaviors need to be present on the team in relation to its responsibilities within the larger Solution
- ▶ **Step 3:** Select which of the four team topologies best applies to your team
- ▶ **Step 4:** Be ready to present your findings as part of an activity later in this lesson

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2-12

Applying the four topologies – team behavior

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Stream-aligned teams

- ▶ Develop a steady flow of new features
- ▶ Support the solution in production
- ▶ Respond to customer need
- ▶ Collaborate with other teams
- ▶ Are cross-functional and long-lasting
- ▶ Develop efficiencies over time

Platform teams

- ▶ Collaborate with stream-aligned teams in service of end customer requirements
- ▶ Focus on usability and self-service capabilities
- ▶ Lead by example, keeping platforms thin and fit for purpose
- ▶ Build and deploy incrementally with frequent feedback

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2-13

Applying the four topologies – continued

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Enabling teams

- ▶ Identify improvement opportunities including new technology and practices
- ▶ Develop knowledge in other team types over time
- ▶ Collaborate with other teams proactively
- ▶ Communicate with organization new technologies and emerging methods
- ▶ Exemplify a continuous learning culture
- ▶ Short-lived by intention

Complicated Subsystem teams

- ▶ Maintain deep expertise and ongoing technical excellence
- ▶ Plan and prioritize effectively aligned to needs of stream-aligned teams
- ▶ Develop appropriate interfaces which hide complexity
- ▶ Ensure quality, performance and architectural robustness of the subsystem

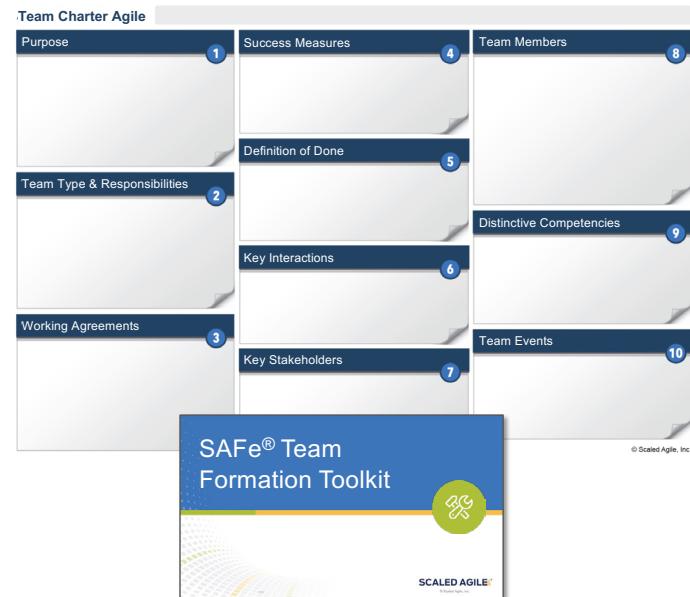
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2-14

Facilitate an Agile Team Charter workshop

Part of the SAFe Team Formation Toolkit:

- ▶ The Agile Team Charter helps teams to clearly define their purpose, responsibilities, and success criteria, amongst other critical elements
- ▶ The process of completing the Agile Team Charter provides the opportunity for teams to discuss and reflect on how they want to work with each other and with other teams on the ART
- ▶ For each of the ten boxes, there's an interactive exercise to generate discussion and the required output



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2-15

2.2 The Scrum Master / Team Coach and Product Owner roles

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Agile Teams have two speciality roles



SM/TC

- Facilitates PI Planning
- Supports Iteration Execution
- Improves Flow
- Builds a high-performing team
- Improves ART Performance



PO

- Connects with the Customer
- Contributes to the Vision and Roadmap
- Manages and prioritizes the Team Backlog
- Supports the Team in Delivering Value
- Gets and Applies Fast Feedback

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2-17

The SM/TC responsibilities

Improving ART Performance



Facilitating PI Planning

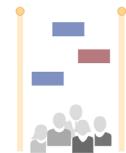


Building High-Performing Teams



Scrum Master /
Team Coach

Supporting Iteration Execution



Improving Flow



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The PO responsibilities



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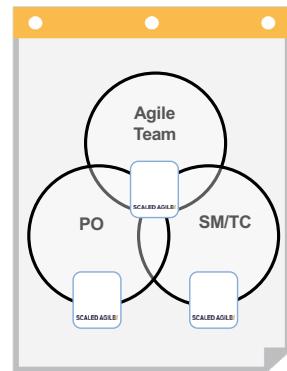
2-19



Activity: Team roles and responsibilities



- ▶ **Step 1:** With your group, draw the following Venn diagram
- ▶ **Step 2:** Review the provided responsibility cards
- ▶ **Step 3:** Place them either in the circle for a role or in an applicable intersection on the Venn diagram
- ▶ **Step 4:** Present your Venn diagram to the class



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2.3 SAFe Scrum and SAFe Team Kanban

SAFe Lean-Agile Principles

#1 Take an economic view

#2 Apply systems thinking

#3 Assume variability; preserve options

#4 Build incrementally with fast, integrated learning cycles

#5 Base milestones on objective evaluation of working systems

#6 Make value flow without interruptions

#7 Apply cadence, synchronize with cross-domain planning

#8 Unlock the intrinsic motivation of knowledge workers

#9 Decentralize decision-making

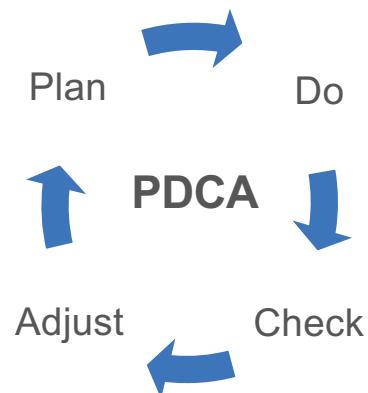
#10 Organize around value

#4 Build incrementally with fast, integrated learning cycles

Fast feedback accelerates knowledge.

- ▶ Improves learning efficiency by decreasing the time between action and effect
- ▶ Reduces the cost of risk-taking by truncating unsuccessful paths quickly
- ▶ Is facilitated by small batch sizes
- ▶ Requires increased investment in development environment

The iterative learning cycle



The shorter the cycles, the faster the learning.

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#6 Make value flow without interruptions

Instead of a large group...



working on all the requirements...

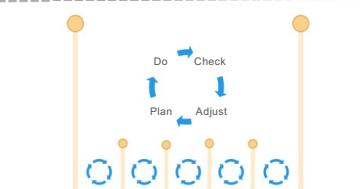


and integrating and delivering value toward the end of development...



have small teams aligned together...

working on small batches of requirements...

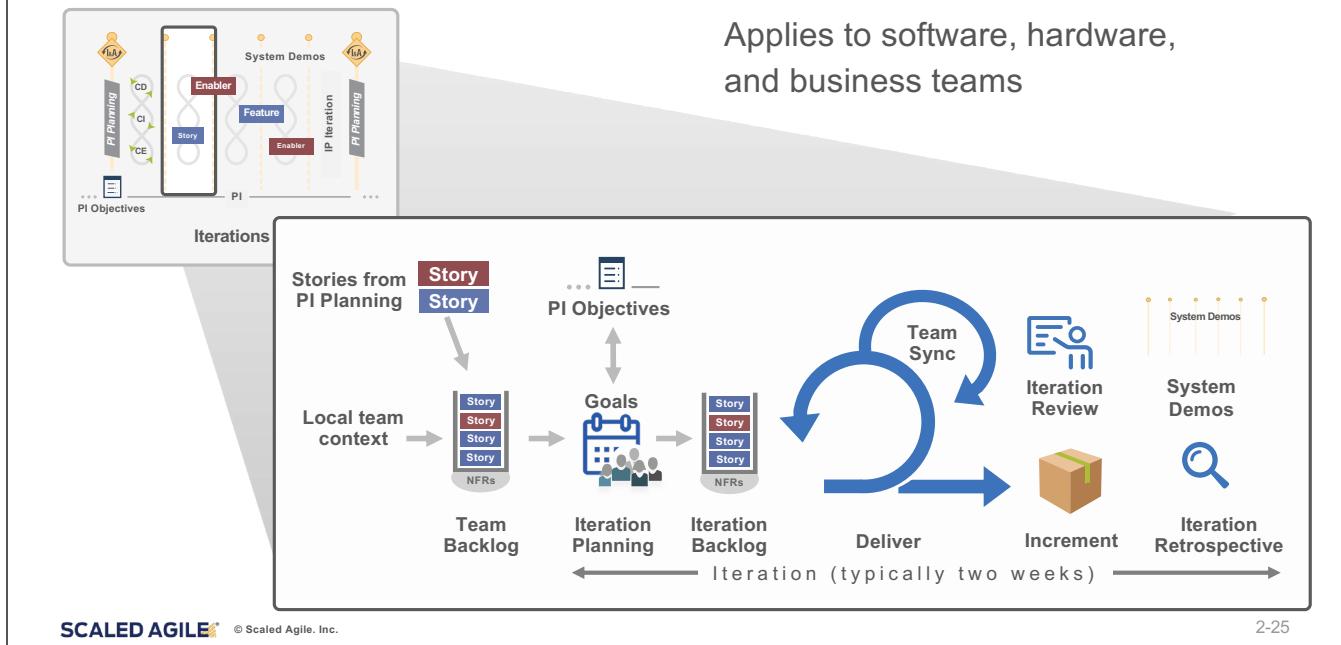


and delivering value in short timeboxes with frequent integration and improvement cycles.

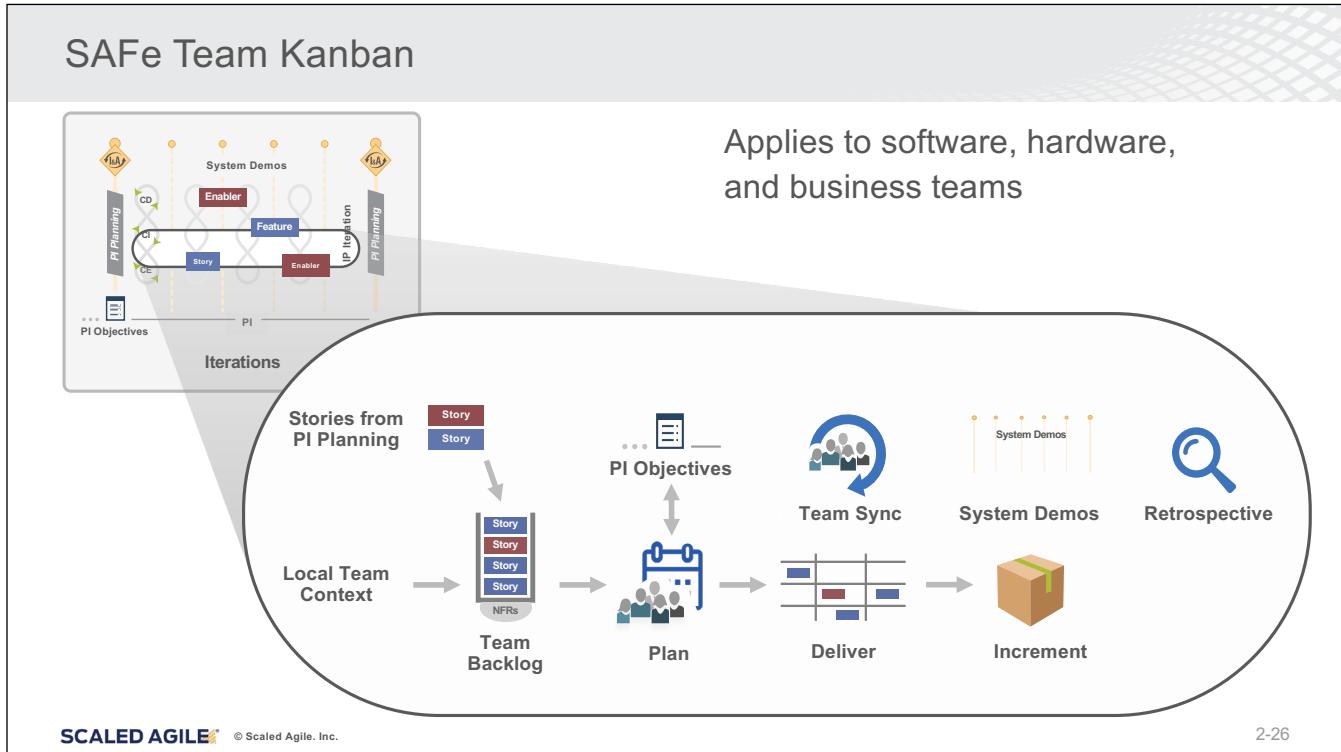
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Starting with SAFe Scrum



SAFe Team Kanban





Video: Designing Your Team's Kanban System

Duration
5 min



<https://bit.ly/Video-DesignKanban>

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Benefits of SAFe Scrum and SAFe Team Kanban

SAFe Scrum

- ▶ Great for new technology Solution teams
- ▶ Provides known methods for team alignment via Scrum events
- ▶ Creates shared team commitment to timeboxed goals

SAFe Team Kanban

- ▶ Great for new business Solution teams
- ▶ Provides daily ability to react to changing demands
- ▶ Creates priority alignment and next to pull backlog

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2-28



Activity: Building your team

Duration
10 min

- ▶ **Step 1:** As a group, discuss and identify each person's responsibilities and skill sets
- ▶ **Step 2:** Create a group name
 - Names should not be the names of components, subsystems, or Feature areas. Instead, create a fun name, a mascot, or even a cheer.
- ▶ **Step 3:** Use your findings from "Identifying your team topology" and select either SAFe Team Kanban or SAFe Scrum as a team starting point
- ▶ **Step 4:** Prepare a one-minute presentation about your group
 - Include the name, role on the train, and special skills other groups should know about.

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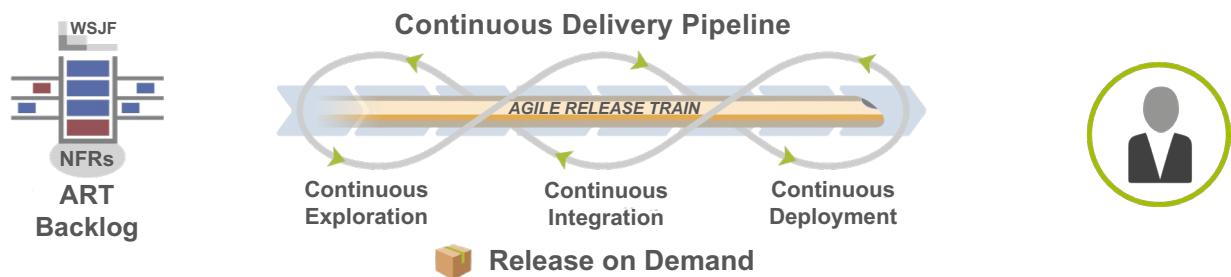
2.4 Becoming an Agile Release Train

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2-30

ARTs

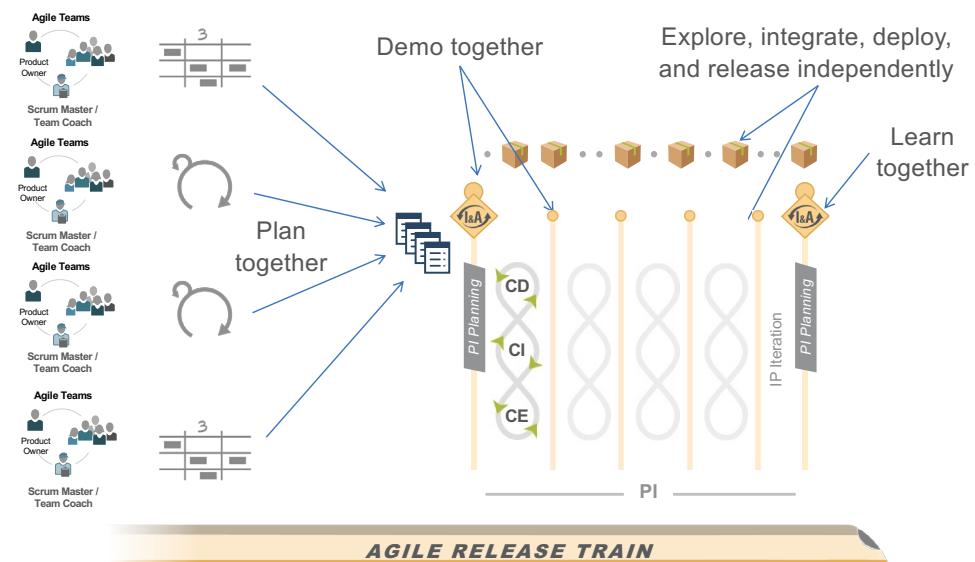
- ▶ A virtual organization of 5 – 12 teams (50 – 125+ individuals)
- ▶ Synchronized on a common cadence, a Planning Interval (PI)
- ▶ Aligned to a common mission via a single ART Backlog



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Teams in SAFe are part of an ART



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Roles on the ART



Release Train Engineer (RTE) acts as the chief coach for the train



Product Management owns, defines, and prioritizes the ART Backlog



System Architect provides architectural guidance and technical enablement to the teams on the train



System team provides processes and tools to integrate and evaluate assets early and often



Business Owners are key stakeholders on the ART

AGILE RELEASE TRAIN

Responsibilities of the ART

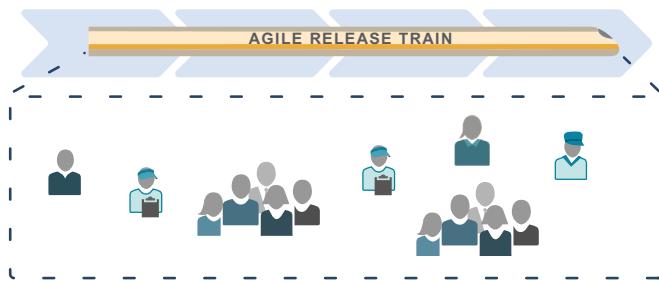




Activity: Know the people on the train

Duration
20 min

- ▶ **Step 1:** The RTE introduces themself
- ▶ **Step 2:** The RTE presents the main players on the train:
 - Product Management
 - System Architect
 - Lean User Experience (UX)
 - Shared Services
- ▶ **Step 3:** Each team presents itself (name, area of responsibility, special skills)



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2-35



Action Plan: Form Agile Teams as an ART

Prepare
5 min
Share
3 min

- ▶ **Step 1:** Individually, identify one skill you could grow to help expand your team's cross-functional skillset
- ▶ **Step 2:** Share your ideas with your group
- ▶ **Step 3:** In your group, identify pairs or groups of team members that can work together to help each other build the skills identified in the previous step
- ▶ **Step 4:** Add your chosen actions to the Action Plan in your workbook and be prepared to share with the class



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Action Plan

**Form Agile Teams
as an ART**

Lesson review

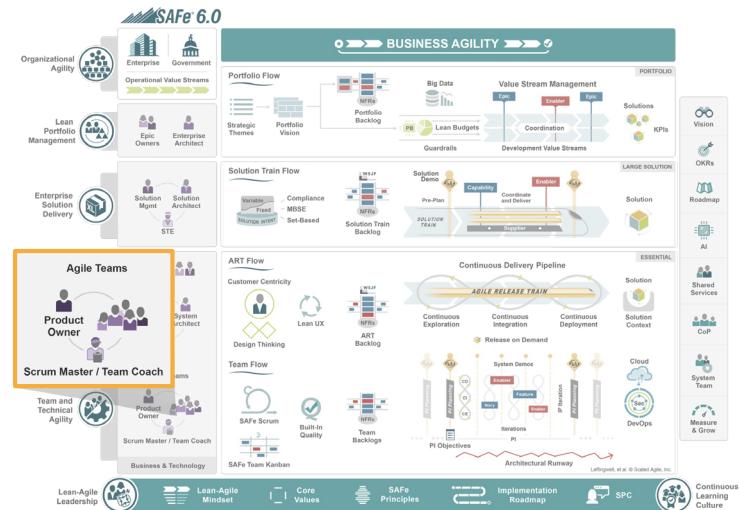
In this lesson you:

- ▶ Formed your Agile Team
- ▶ Explained the characteristics and responsibilities of an Agile Team
- ▶ Described the SAFe SM/TC and SAFe PO roles
- ▶ Explained SAFe Scrum and SAFe Team Kanban
- ▶ Identified the roles within an ART
- ▶ Identified one or more actions individuals or teams can take to develop cross-functional skillsets within their Agile Team

Articles used in this lesson

Read these Framework articles to learn more about topics covered in this lesson

- ▶ “Agile Teams”
<https://www.scaledagileframework.com/agile-teams/>
- ▶ “Product Owner”
<https://www.scaledagileframework.com/product-owner/>
- ▶ “Scrum Master / Team Coach”
<https://www.scaledagileframework.com/scrum-master-team-coach/>
- ▶ “Agile Release Train”
<https://www.scaledagileframework.com/agile-release-train/>



Continue your SAFe journey with the following resources:

Download and use the “Team Formation Toolkit” to build your Agile Team Charter and clearly define your purpose, responsibilities and success criteria, and other critical elements necessary for your new team to flourish. https://bit.ly/Community-ToolkitsandTemplates	Download and use the “Measure and Grow Workshop Toolkit” to run a workshop to identify growth opportunities for your team as you work toward mastering SAFe and Business Agility. https://bit.ly/Community-ToolkitsandTemplates
Download and share the “Essential SAFe Toolkit” with your team to help ensure a shared understanding of the basic building blocks needed for a successful SAFe implementation. https://bit.ly/Community-ToolkitsandTemplates	Facilitate a team-building exercise using the “Experience Teams!” SAFe Collaborate template to practice working as a team and using retrospectives to improve team performance. https://bit.ly/Template-ExperienceTeams
Watch this 61-minute video, <i>Community Webinar: Team Formation Toolkit - Facilitating an Agile Team Charter Workshop</i> to get a deep dive of how to prepare for and run an Agile Team Charter workshop. https://bit.ly/Video-AgileTeamCharterWebinar	Use the “SAFe Agile Team Charter” SAFe Collaborate template to help a remote or distributed team capture the ideas and decisions from the “Team Formation Toolkit.” https://bit.ly/Template-SAFeAgileTeamCharter

References

Skelton, Matthew and Manuel Pais. *Team Topologies: Organizing Business and Technology Teams for Fast Flow*. IT Revolution: Portland, 2019. Kindle Edition.

Lesson notes

Enter your notes below. If using a digital workbook, save your PDF often so you don't lose any of your notes.

Lesson 3

Connect to the Customer

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.



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Lesson Topics

- 3.1** Apply Customer Centricity and Design Thinking
- 3.2** Recognize product Vision and Roadmaps
- 3.3** Define the work in support of the Customer



Learning objectives

At the end of this lesson, you should be able to:

- ▶ Explain the Customer-Centric mindset
- ▶ Summarize how to use Design Thinking tools to create Customer-Centric products
- ▶ Connect Vision concepts to strategy execution
- ▶ Identify Roadmap techniques
- ▶ Summarize strategies for creating well-written Stories
- ▶ Identify steps your team can take to uncover key details about your Customers

3.1 Apply Customer Centricity and Design Thinking



Discussion: Customer Centricity

Prepare
5 min

Share
2 min

- ▶ **Step 1:** Discuss the following with your group:
 - Why is it important to maintain focus on the Customer?
 - What are some of the characteristics of a Customer-centric Enterprise?
 - List your team's primary customer(s).
- ▶ **Step 2:** Be prepared to share with the class



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3-5

Customer Centricity is a mindset

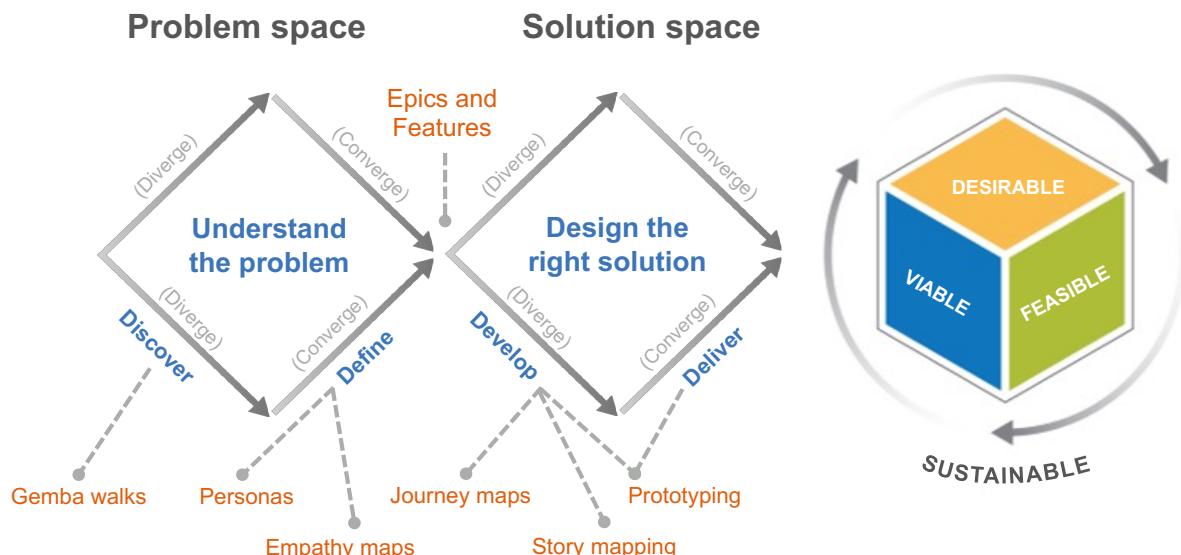
Customer-Centric organizations deliver Solutions that are designed with a deep understanding of Customer needs.



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3-6

Design Thinking is a Customer-Centric development process



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3-7

Use personas to understand Customers

Personas are fictional characters that represent the different people who might use your product.

Personas:

- ▶ Convey the problems they're facing in context and key triggers for using the product
- ▶ Capture rich, concise information that inspires great products without unnecessary details



Cary the Consumer

Age: 36

Location: Reno, Nevada, US

Time in App: 10 minutes

"I'm a working dad with three children ages three, six, and ten. I'm also in a band, which means I want to spend as much time as possible with my kids and my band. I need my package delivered on time so that I can maximize time with my family."

I like technology! I have an iPhone, iPad, and nice home Wi-Fi setup.	I'm not home on some weekends.	I'd rather order online than dial the phone and talk to somebody.
My wife also works during the week, so she doesn't have much spare time to help.	Text is my favorite form of communication with suppliers.	I don't own a computer, only tablets and phones.

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3-8

Use empathy maps to identify with Customers

- ▶ The empathy map is a tool that helps teams develop deep, shared understanding and empathy for the Customer
- ▶ Use it to design better User Experiences and Value Streams



3.2 Recognize product Vision and Roadmaps

Vision aligns everyone on the product's direction

The product Vision is a description of the future state of the product.

- ▶ How will the product solve our Customer's problems?
- ▶ What Features does it have?
- ▶ How will it differentiate us?
- ▶ What nonfunctional requirements (NFRs) does it deliver?



3-11

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Communicate the vision differently to different audiences

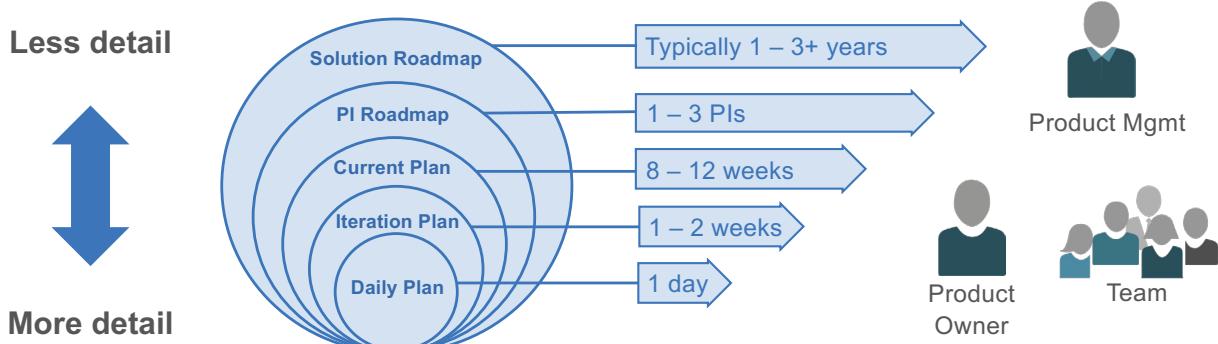
Vision technique	Audience	Goal
Elevator pitch	Marketing/ Sales	Effectively communicate desired competitive positioning
We're #1 statement	Brand team	Align Solution with brand attributes and mission
Vision video, postcard from the future, Vision box	Solution Train and ARTs	Inspire the future and establish context
Vision video	Customers	For business-to-business and business-to-people, maintain and strengthen relationships
	Investors	Secure investors for early stage offers
Cover story / Press release	Solution Train and ARTs	Provide context and inspiration for the PI or next major release Supported by preview or Solution brief

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3-12

Roadmaps forecast upcoming work to realize the product Vision

- ▶ Hierarchical Roadmaps provide multiple planning horizons
- ▶ Roadmaps communicate intent without over-constraining the implementation



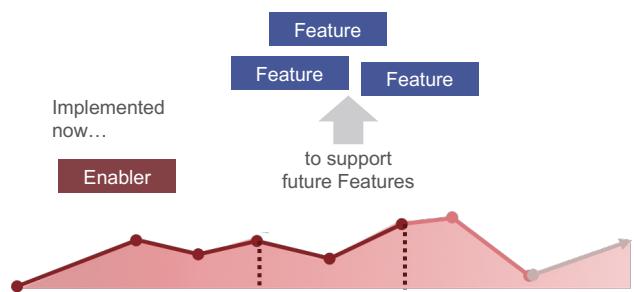
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3-13

Architectural Runway supports Vision execution

- ▶ Provides the technical Vision to realize the product Vision
- ▶ Consists of existing code, hardware components, marketing branding guidelines, and so on, that enable near-term business Features
- ▶ Enablers build up the runway
- ▶ Features consume it

Example:
A single sign-on mechanism will enable sign-on in multiple applications



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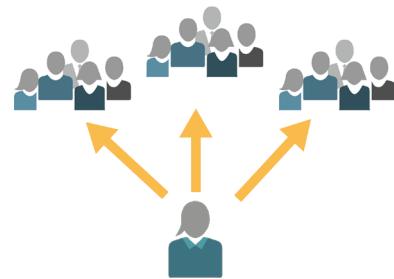
3-14

Intentional architecture and emergent design

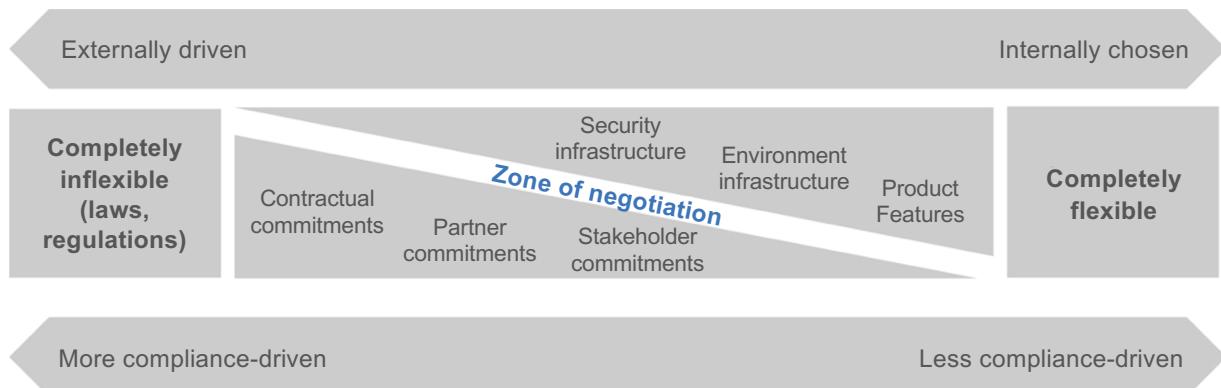
- ▶ **Intentional architecture:** fosters team alignment and defines the Architectural Runway
- ▶ **Emergent design:** teams grow the system design as User Stories require

A balance between intentional architecture and emergent design is required for speed of development and maintainability.

- ▶ Every team deserves to see the bigger picture
- ▶ Every team is empowered to design their part



Roadmaps are not commitments

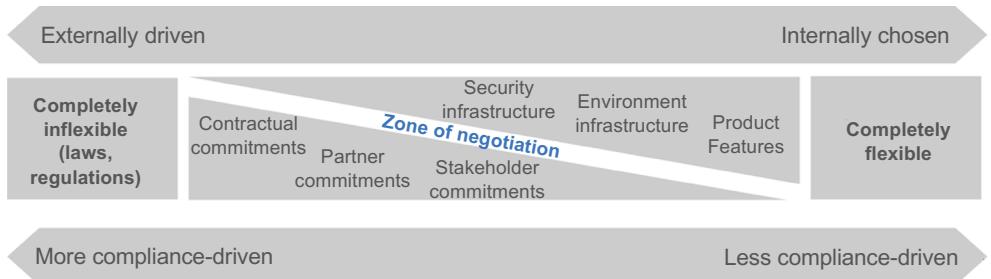




Activity: What's negotiable in when and how we deliver value?



- ▶ **Step 1:** As a team, consider your upcoming Customer and Enabling work. Use sticky notes to capture your ideas.
- ▶ **Step 2:** Place the sticky notes on the corresponding space on the image and discuss which items have flexibility
- ▶ **Step 3:** Be prepared to share your rationale with the ART



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3-17

3.3 Define the work in support of the Customer

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Features represent the work for the ART

- ▶ The Feature benefit hypothesis justifies development cost, Customer value, and provides business perspective for decision-making
- ▶ Features contain acceptance criteria typically defined as part of refining the ART backlog
- ▶ They reflect functional and nonfunctional requirements
- ▶ Features can be completed within a PI timebox

In-service software update

Benefit hypothesis

Significantly reduced planned downtime

Acceptance criteria

1. Nonstop routing availability
2. Automatic and manual update support
3. Rollback capability
4. Support through existing admin tools
5. All enabled services are running after the update

Example Feature

Example Features

Technology example

Multi-factor authentication

Benefit hypothesis

Enhanced user security will reduce risk of a system data breach

Acceptance criteria

1. USB tokens as a first layer
2. Password authentication second layer
3. Multiple tokens on a single device
4. User activity log reflecting both authentication factors
5. Data breach tests pass

Business example

Incident response plan for protected customer data

Benefit hypothesis

Organizational readiness to quickly respond to incidents

Acceptance criteria

1. Incident response plan is fully documented
2. Incident response plan is reviewed and approved by legal and security
3. Incident response is placed within company repository for policies and procedures

Teams break down Features into User Stories and Enabler Stories

- ▶ User Stories are short descriptions of a small piece of desired functionality, written in the user's language
- ▶ The recommended form of expression is the user-voice form, as follows:
As a (user role), **I want to** (activity), **so that** (business value).

As a driver, I want to limit the amount of money I spend before I fuel so that I can control my expenditure.

As a driver, I want to get a receipt after fueling so that I can expense the purchase.

As the vehicle sensor system, I want to get information from the gas tank so that I can send notifications about how soon a refill is needed to the driver interface.

Using personas to better understand users

Personas are detailed fictional characters acting as a representative user.



Jane: Mileage-sensitive
– Law-abiding driver
– obeys all traffic signs
– Wants to save on gas



Bob: Time-sensitive
– Impatient driver
– Ignores traffic signs if they slow him down

As Jane, I want to travel at the legal limit and operate in an energy saving manner so that I don't get a ticket and save money.

As Bob, I want to travel at the maximum speed the roadway and my vehicle safely allows so that I arrive quickly.

INVEST in a good Story

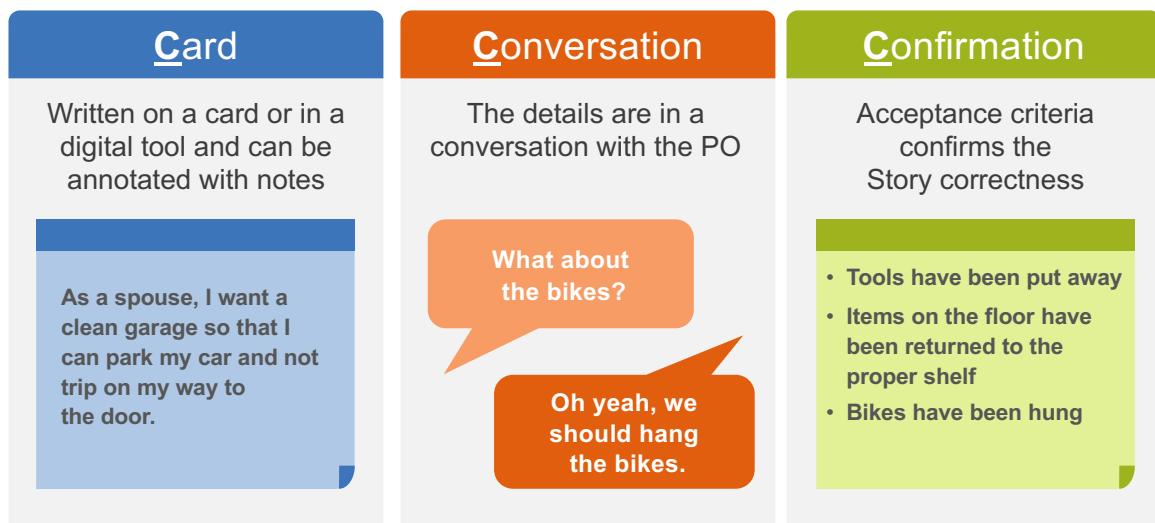
I	Independent	Write Stories that can be developed on their own
N	Negotiable	Write Stories that have a flexible scope
V	Valuable	Write Stories that are useful to the Customer
E	Estimable	Write Stories that can be estimated
S	Small	Write Stories that can fit in an Iteration
T	Testable	Write Stories that are testable

Reference: Wake, "INVEST in Good Stories, and SMART Tasks"

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3-23

Writing good Stories: The Three Cs



Reference: Jeffries, "Essential XP: Card, Conversation, Confirmation"

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3-24

Enabler Stories

Enabler Stories build the groundwork for future User Stories. There are four types of Enabler Stories:

- ▶ **Infrastructure:** Build development and testing frameworks that enable a faster and more efficient development process
- ▶ **Architecture:** Build the Architectural Runway, which enables smoother and faster development
- ▶ **Exploration:** Build understanding of what is needed by the Customer to understand prospective Solutions and evaluate alternatives
- ▶ **Compliance:** Facilitate specific activities such as verification and validation, documentation, signoffs, regulatory submissions, and approvals



Action Plan: Connect to the Customer



- ▶ **Step 1:** As a group, identify three or more questions you have about the Customers you identified in the discussion “Customer Centricity” earlier in this lesson
- ▶ **Step 2:** With your group, plan how and when you can work together to answer these questions
- ▶ **Step 3:** Add the outcomes of your discussion to the Action Plan in your workbook



Lesson Review

In this lesson you:

- ▶ Explored the Customer-Centric mindset
- ▶ Summarized how to use Design Thinking tools to create Customer-Centric products
- ▶ Connected Vision concepts to strategy execution
- ▶ Identified Roadmap techniques
- ▶ Explored strategies for creating well-written Stories
- ▶ Identified steps your team can take to uncover key details about your Customers



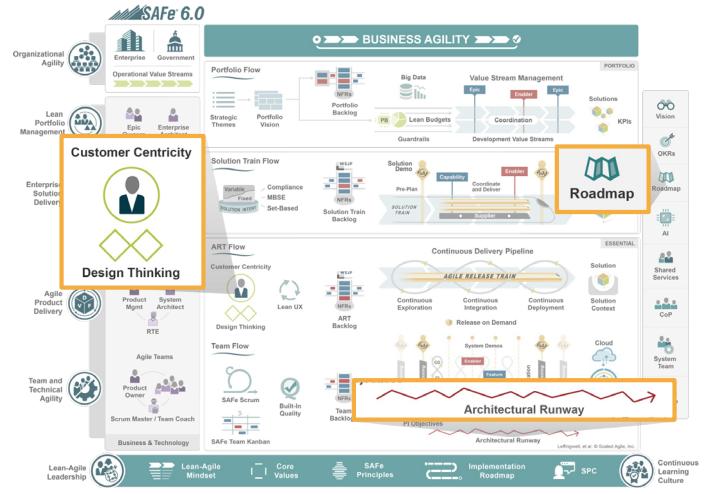
Action Plan

Connect to the Customer

Articles used in this lesson

Read these Framework articles to learn more about topics covered in this lesson

- ▶ "Customer Centricity"
<https://www.scaledagileframework.com/customer-centricity/>
- ▶ "Design Thinking"
<https://www.scaledagileframework.com/design-thinking/>
- ▶ "Roadmap"
<https://www.scaledagileframework.com/roadmap/>
- ▶ "Architectural Runway"
<https://www.scaledagileframework.com/architectural-runway/>



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3-28

Continue your SAFe journey with the following resources:

Listen to this 30-minute podcast episode, "Customer Centricity in SAFe," to explore how customer centricity ties to organizational agility.
<https://bit.ly/Podcast-CustomerCentricityinSAFe>

Watch the two-video series, *Stories*, to learn more about the different types of stories and how to write them so that they are most effective.
<https://bit.ly/Video-StoriesPlaylist>

Use the "Empathy Map" SAFe Collaborate template to conduct an empathy mapping exercise with your team to learn more about your customer and their needs.
<https://bit.ly/Template-EmpathyMap>

Use the "Persona Canvas" SAFe Collaborate Template with your team to practice stepping into the shoes of your customer.
<https://bit.ly/Template-PersonaCanvas>

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3-29

References

Jeffries, Ron. "Essential XP: Card, Conversation, Confirmation." Ron Jeffries. August 30, 2001.
<https://ronjeffries.com/xprog/articles/expcardconversationconfirmation>.

Wake, Bill. "INVEST in Good Stories, and SMART Tasks." XP123. August 17, 2003.
<https://xp123.com/articles/invest-in-good-stories-and-smart-tasks>.

Lesson notes

Enter your notes below. If using a digital workbook, save your PDF often so you don't lose any of your notes.

Lesson 4

Plan the Work

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.



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Lesson Topics

- 4.1 Creating the backlog
- 4.2 PI Planning
- 4.3 Team Planning



Learning objectives

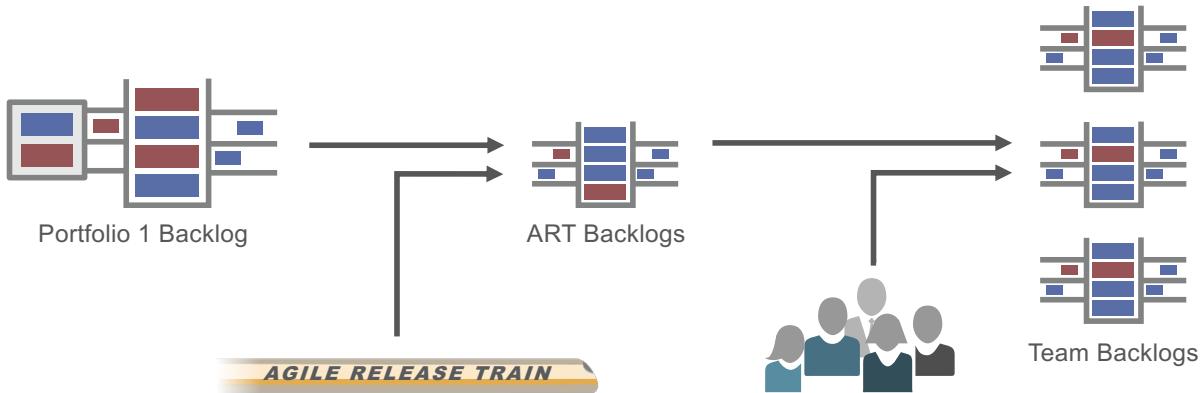
At the end of this lesson, you should be able to:

- ▶ Explain techniques for creating a Team Backlog
- ▶ Practice preparing your backlog by breaking down Features into Stories
- ▶ Apply strategies for creating well-written Stories
- ▶ Explain relative sizing of User Stories
- ▶ Summarize the steps of PI Planning
- ▶ Describe the purpose of Iteration Goals and PI Objectives
- ▶ Summarize the Iteration Planning event and its outcomes
- ▶ Create a set of questions your team can use to understand and size upcoming work

4.1 Creating the backlog

Connected Kanban systems drive backlogs

Work originates locally and from broader contexts

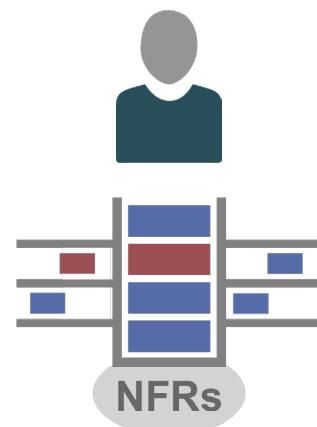


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4-5

The Agile Team Backlog is comprised of Stories

- ▶ Contains all the work for the team
- ▶ Created by the PO and the team
- ▶ Prioritized by the PO
- ▶ Contains User and Enabler Stories
 - User Stories provide Customers with value
 - Enabler Stories build the infrastructure and architecture that makes User Stories possible
- ▶ Stories for near-term Iterations are more detailed than Stories for later Iterations
- ▶ NFRs are backlog constraints



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4-6

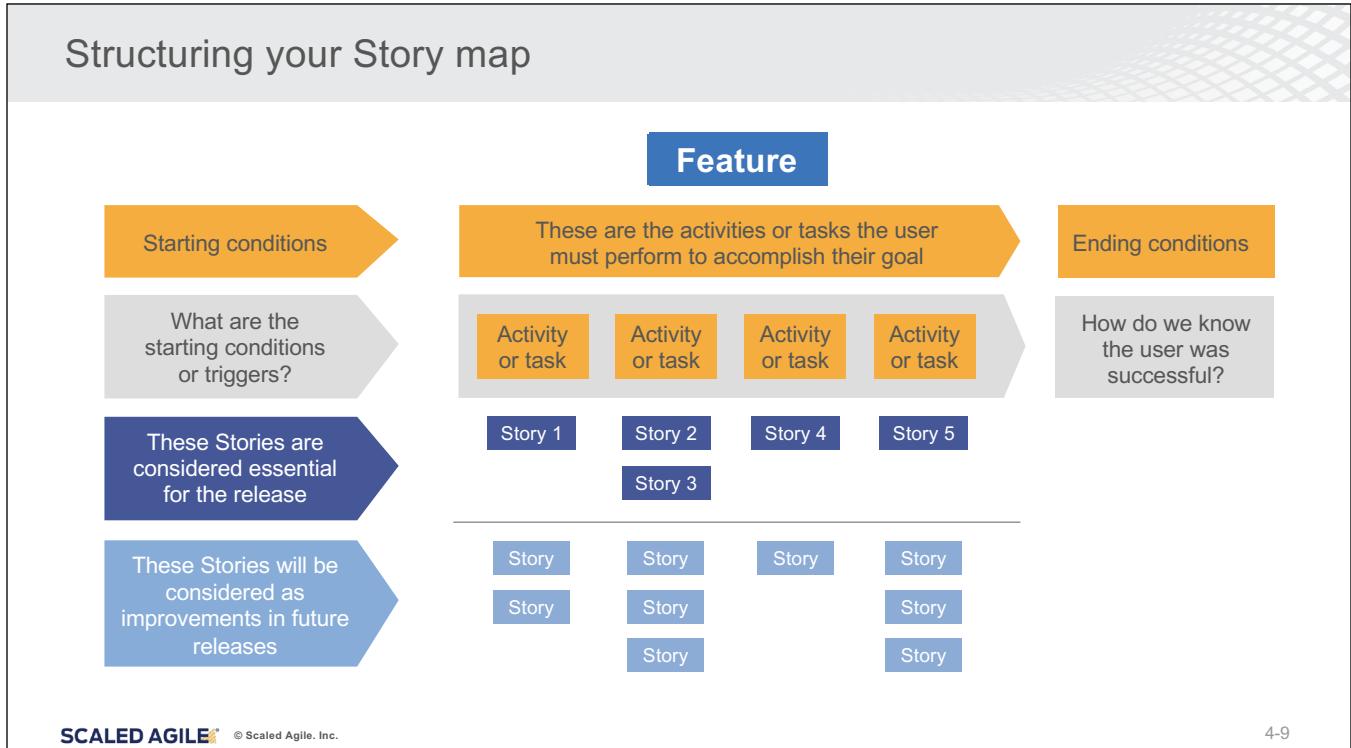
Backlog prioritization without connection to the user journey

- ▶ Backlogs are optimized to help teams focus on priorities
- ▶ Backlogs have some challenges:
 - It can be difficult to understand workflows
 - The relationship between ‘Stories that make something good’ and ‘Stories that make something better or great’ is lost
 - It is hard to validate that the Stories in the backlog support all steps needed by the user to accomplish their objective

Story maps overcome these challenges

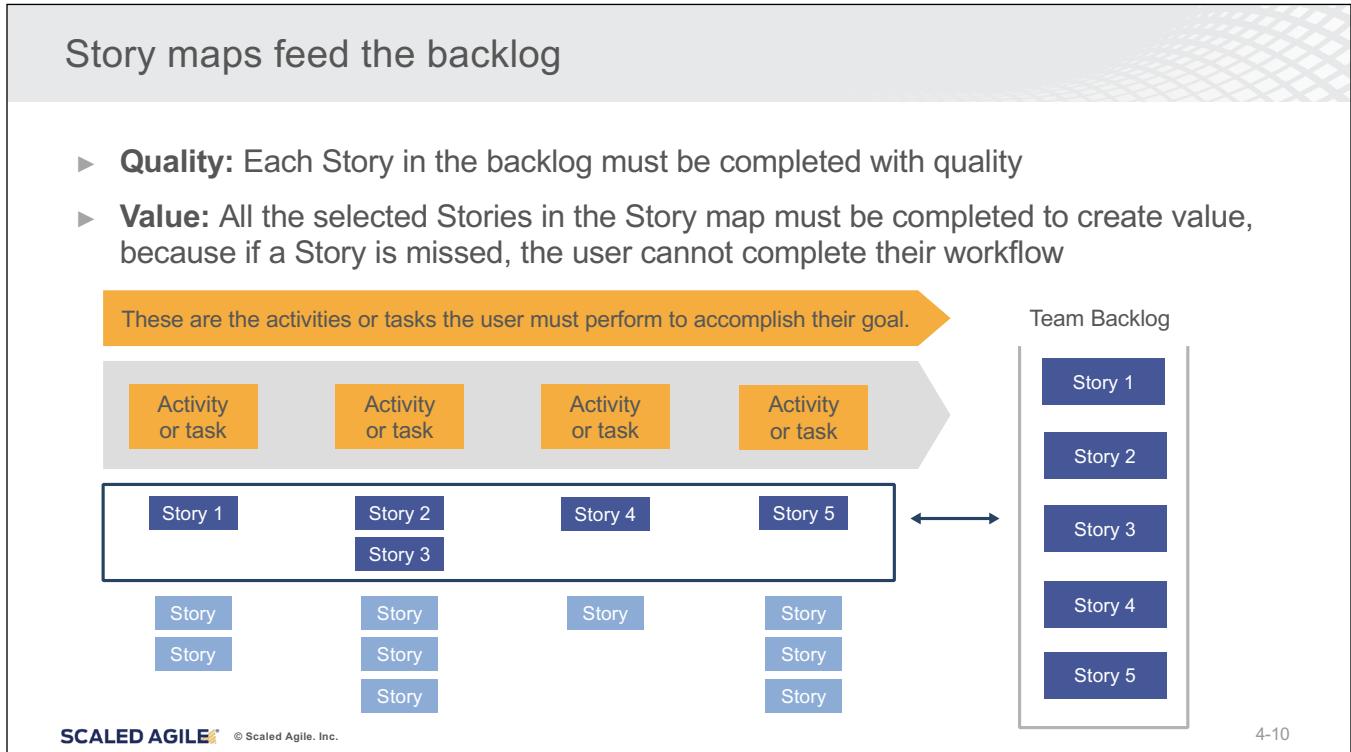
- ▶ Story maps overcome backlog challenges and promote Design Thinking
- ▶ Story maps are for ideating on how to break down big User Stories as they are told
- ▶ Story maps enable broader thinking toward delighting a user rather than starting with identifying sequence or priority
- ▶ Story maps may produce User Stories or even additional Features

Structuring your Story map



Story maps feed the backlog

- **Quality:** Each Story in the backlog must be completed with quality
- **Value:** All the selected Stories in the Story map must be completed to create value, because if a Story is missed, the user cannot complete their workflow

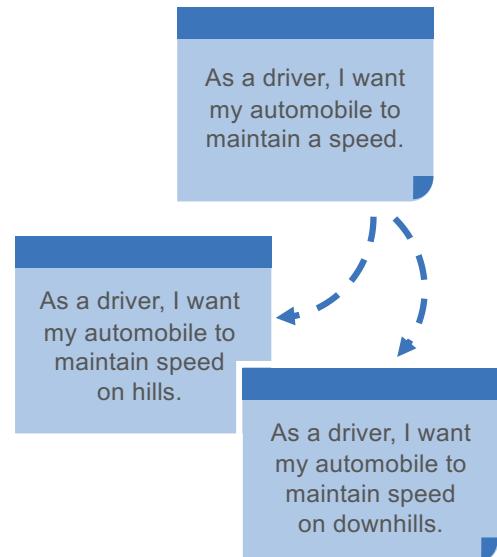


Splitting Stories

- ▶ **In support of small batches for flow, decrease size to the minimum:**
 - Split Stories into essential and nonessential parts and eliminate the nonessential
 - Ensure you have something releasable
- ▶ **In support of feedback:**

Deploy small Stories to get technical/user feedback quickly; maximize feedback
- ▶ **In support of Iteration Planning:**

Split Stories so they fit into an Iteration



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4-11

Acceptance criteria

- ▶ Provide the details of the Story from a testing point of view
- ▶ Are created by the Agile Team
- ▶ Can be written in the Given-When-Then format

As a driver, I want to limit the amount of money I can spend before I fuel **so that** I can control my expenses.
Acceptance criteria:
Given that the driver indicated a maximum amount of money
When the fuel cost reaches that amount
Then the fueling process stops automatically

As a driver, I want to get a receipt after fueling **so that** I can expense the purchase.
Acceptance criteria:
Given that the fueling is over
When the driver asks for the receipt
Then it is printed and includes:
amount fueled, the amount paid, tax, date, time

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4-12



Activity: Write User Stories



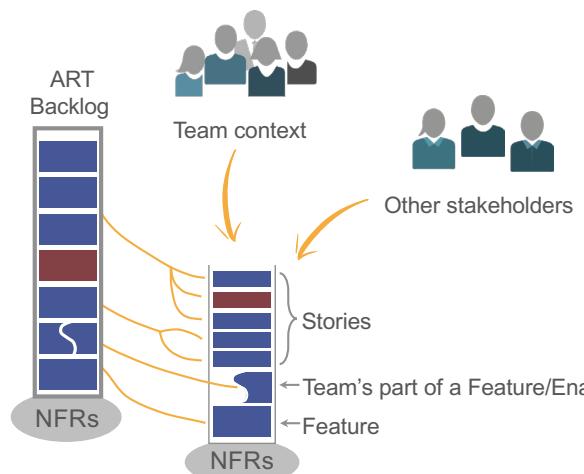
- ▶ **Step 1:** With your group, select one Feature from the ART Backlog. It can be either your own or the example provided in your workbook.
- ▶ **Step 2:** Break the Feature into at least three Stories, written in User Story format: **As a** (user role), **I want** (activity) **so that** (business value).

Break the Feature into Stories in a way that retains business value.

- ▶ **Step 3:** Write acceptance criteria in the Given-When-Then format for each User Story. Be sure that the acceptance criteria are testable.
- ▶ **Step 4:** Be prepared to share with the class.

Sequencing Stories

- ▶ The PO and the team sequence Stories based on:
 - Priorities inherited from the ART Backlog
 - Capacity allocations for defects, maintenance, and refactors
 - Dependencies with other Stories, teams, events, Milestones, and releases
- ▶ Initial sequencing happens during PI Planning
- ▶ Adjustments happen at Iteration boundaries



Write User Stories

Instructions: With your group, select three Features you created and decompose these Features into Stories. Write these Stories in the User Story format: As a (user role) I want (activity) so that (business value).

Story: As a Fleet Manager, I can search my fleet so that I can find vans that need maintenance. Vans that are overdue or need a safety recall are highlighted.

Story: As a Fleet Manager, I can review safety recalls so that I can prioritize the maintenance schedules of my fleet.

As a (user role)

I want to (activity)

So that (business value)

As a (user role)

I want to (activity)

So that (business value)

Program Backlog Example Features

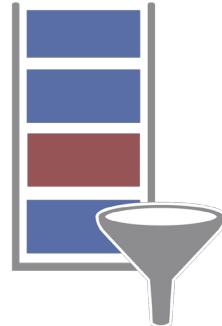
Feature: Flexible search	
Benefit: Users will have a flexible, easy-to-use search capability to locate books.	
Description: Search by author, title, or genre from a single search field. Misplinging substitutions (i.e., "Did you mean ..."). Present results as per-match algorithm.	
Feature: Shopping Cart	
Benefit: Users can manage items in a shopping cart for immediate or future purchase.	
Description: Users can easily access their cart from any page, view the same information displayed in the book list, change the quantity, remove it from their cart, or save it for later. A subtotal for all items in their shopping cart should be displayed at the bottom. Items saved for later should appear below that.	
Feature: Purchase by credit card	
Benefit: Users can purchase products from us (as soon as implemented—only beta up until then).	
Description: Users can select from their preferred credit card and shipping address as defined in their profile or add new ones. Visa, mastercard, Discover, and Diners Club are required. American Express is optional. Must be PCI compliant.	
Feature: Shipping method selection	
Benefit: Users can select a shipping method based on cost, delivery speed, and carrier.	
Description: Users can select a shipping method based on the price, delivery speed, and estimated delivery date for all major carriers (USPS, UPS, and FedEx).	
Feature: Profile management	
Benefit: Users can create and maintain their profiles rather than enter in their information each time they order.	
Description: Users can manage their login credentials (ID, password), personal information (name, email address, home address), nickname for book rating and commenting, credit card information (multiple), and shipping address (multiple). Physical addresses, email addresses, and credit card info should be verified as valid. Passwords must meet current security standards.	
Feature: Book detail	
Benefit: Users can see informative and enticing details about a book.	
Description: Display book name, book cover (which can be enlarged when clicked), author and bio, book description, genre, publishing info (publisher, release date, etc.), book rating, and comments. Hyperlink author's name to a list of other books by the same author.	
Feature: Book list sorting	
Benefit: Users can sort a list of books in a number of ways to more easily find what they are looking for.	
Description: Sort by book title, author, price, book rating, and release date. Allow for users to select the number of search results to appear on each page.	

Backlog refinement

Refinement is a collaborative process that involves the entire team.

Backlog refinement:

- ▶ Helps the team turn new hypotheses into User Stories
- ▶ Allows the team to consider recent learnings before Iteration Planning or in preparation for PI Planning
- ▶ May occur daily throughout the Iteration or at a longer event on a cadence
- ▶ Improves Stories, adds acceptance criteria, and identifies missing information
- ▶ Leverages the team's collective knowledge and creativity
- ▶ Creates joint buy-in and ownership

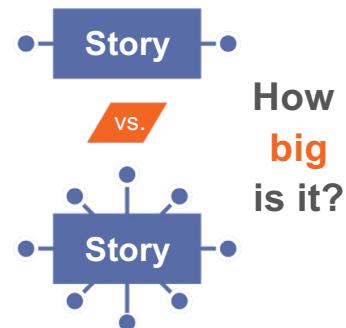


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Fibonacci is used for estimation

- ▶ A Story point is a singular number that represents:
 - Volume: How much is there?
 - Complexity: How hard is it?
 - Knowledge: What do we know?
 - Uncertainty: What's not known?
- ▶ Story points are relative. They are not connected to any specific unit of measure.
 - An 8-point Story should take 4 times longer than a 2-point Story to complete
 - Typically, a 1-point Story would take 1 day to develop and test



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4-16

Apply estimating poker for fast, relative estimating

- ▶ Estimating poker combines expert opinion, analogy, and disaggregation for quick but reliable estimates
- ▶ All members participate
- ▶ Increases accuracy by including all perspectives
- ▶ Builds understanding and creates shared understanding

Steps	
1	Each estimator gets a deck of cards
2	Read a job
3	Estimators privately select cards
4	Cards are turned over
5	Discuss differences
6	Re-estimate

Agile Estimating and Planning by Mike Cohn

Warning: Estimation performed by a manager, architect, or select group negates these benefits.



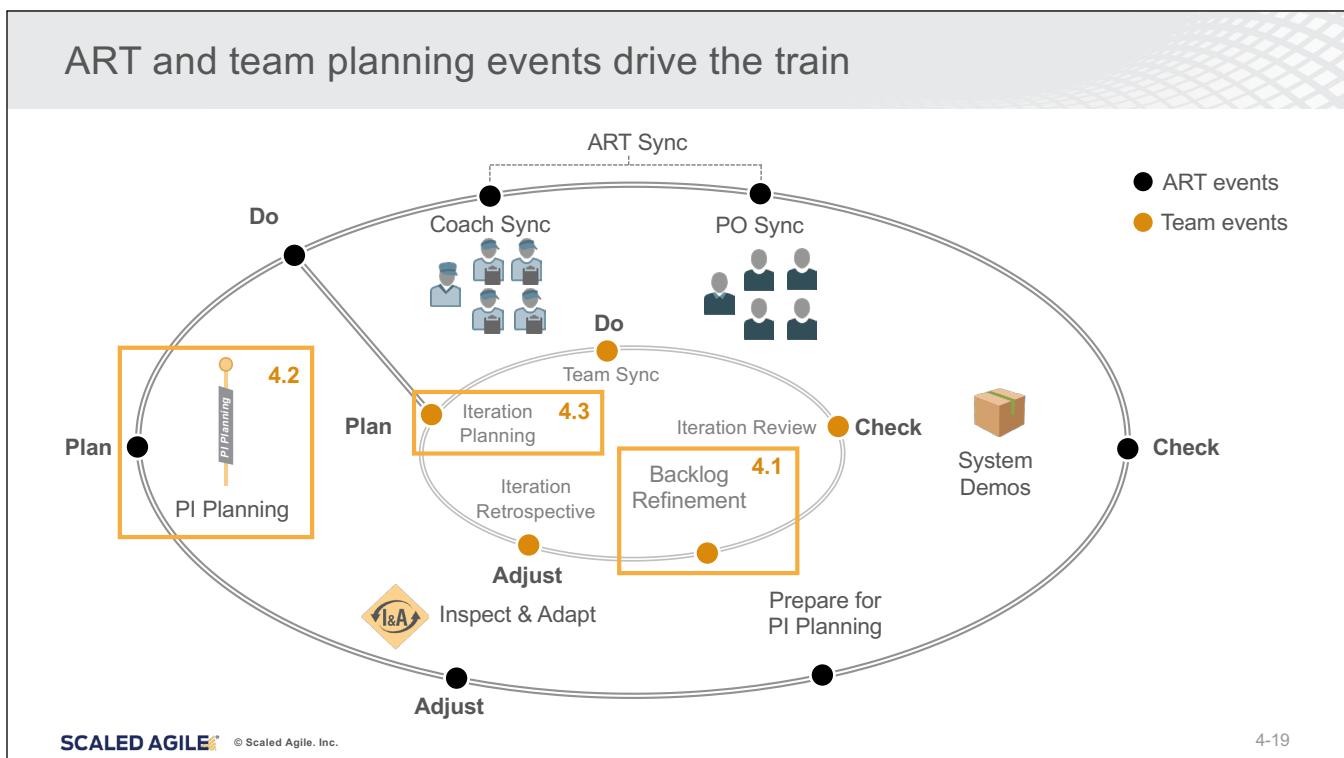
Activity: Estimate Stories



- ▶ **Step 1:** As a group, use estimating poker to relatively estimate the Stories created in “Write User Stories”
- ▶ **Step 2:** Share the following with the class:
 - Where do you find challenges when engaged in Story estimation?
 - Are you, as a team, aligned around the combination of qualities that represent a Story point: volume, complexity, knowledge, uncertainty?



ART and team planning events drive the train



4.2 PI Planning

Innovation and Planning (IP) Iteration

PI Planning occurs on cadence within the IP Iteration which facilitates reliability, PI readiness, planning, and innovation.

- ▶ **Innovation:** Opportunity for innovation, hackathons, and infrastructure improvements
- ▶ **Planning:** Provides for cadence-based planning
- ▶ The IP Iteration also provides an estimating **guard band** for cadence-based delivery.

“Provide sufficient capacity margin to enable cadence.”

—Donald G. Reinertsen, *The Principles of Product Development Flow*

Example IP Iteration calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
	Buffer for leftover work					
	Final verification and validation, and documentation (if releasing)					
	Innovation					
	PI Planning readiness					
8	9	10	11	12	13	14
	Solution Train Pre-PI Planning	Continuing education	PI Planning Day 1	PI Planning Day 2	Optional time for distributed planning	
	Innovation continues	Inspect & Adapt workshop			Solution Train Post-PI Planning	
	PI Planning readiness					



Video: The Power of PI Planning

Duration
3 min



<https://bit.ly/Video-PowerofPIPlanning>

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What is PI Planning?

Planning Interval (PI) Planning is a cadence-based event that serves as the heartbeat of the ART, aligning all teams on the ART to a shared mission and Vision.

- ▶ Two days every 8 – 12 weeks (10 weeks is typical)
- ▶ Everyone plans together
- ▶ Product Management owns Feature priorities
- ▶ Development teams own Story planning and high-level estimates
- ▶ Architect and UX work as intermediaries for governance, interfaces, and dependencies

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The benefits of PI Planning

- ▶ Establishes personal communication across all team members and stakeholders
- ▶ Aligns development of business goals with the business context, Vision, and Team/ART PI Objectives
- ▶ Identifies dependencies and fosters cross-team and cross-ART collaboration
- ▶ Provides the opportunity for the right amount of architecture and Lean UX guidance
- ▶ Matches demand to capacity, eliminating excess work in process (WIP)
- ▶ Allows for faster decision-making

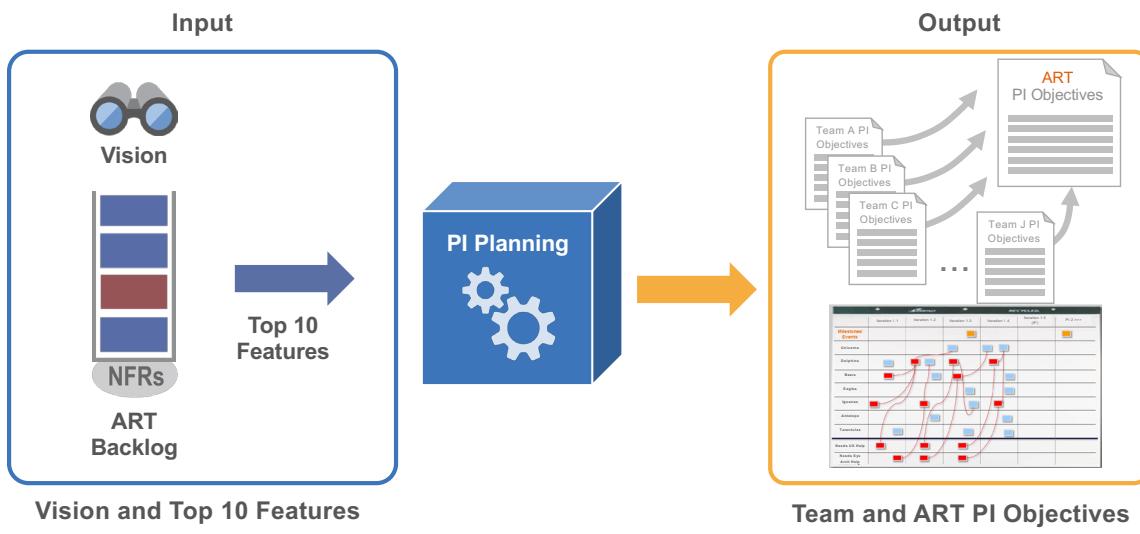


Cross-team collaboration

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The PI Planning process



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Create alignment with PI Objectives

- ▶ Objectives are business summaries of what each team intends to deliver in the upcoming PI
- ▶ They often directly relate to intended Features in the backlog
- ▶ Other examples:
 - Aggregation of a set of Features
 - A Milestone like a trade show
 - An Enabler Feature supporting the implementation
 - A major refactoring

Objectives for PI 1	BV	AV
1. Show routing calculations between the 5 most frequent destinations	—	—
2. Navigate autonomously from distribution center to the most frequent destination	—	—
3. Parallel park for a delivery	—	—
4. Return to the distribution center after delivery	—	—
5. Include traffic data in route planning	—	—
6. Recall a delivery that is already in progress	—	—
Uncommitted Objectives		
7. Spike: Reduce GPS signal loss by 25%	—	—
8. Demonstrate real-time rerouting to avoid delays (e.g., accident, construction)	—	—

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Maintain predictability with uncommitted objectives

Uncommitted objectives help improve the predictability of delivering business value.

- ▶ They are planned, not extra things teams do "just in case you have time"
- ▶ They are not included in the commitment, thereby making the commitment more reliable
- ▶ If a team has low confidence in meeting a PI Objective, it should be moved to uncommitted
- ▶ If an objective has many unknowns, consider moving it to uncommitted and putting in early spikes*
- ▶ Uncommitted objectives count when calculating load

Objectives for PI 1	
—	
—	
—	
—	
—	
Uncommitted Objectives	
7. Spike: Reduce GPS signal loss by 25%	
8. Demonstrate real-time rerouting to avoid delays (e.g., accident, construction)	

*Spikes are research Stories, considered exploration-style Enablers.

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Outcomes of the PI Planning simulation

Actively participating in a simulated PI Planning event will enable you to:



Communication

Experience the business benefits of establishing communication across all team members and stakeholders



Estimate Capacity

Experience estimating capacity for the Iteration



Objectives

Experience drafting PI Objectives for achieving the PI and committing to the plan



Manage risks

Experience managing PI Risks



Activity: Identify ART roles

Duration
3 min

- ▶ **Step 1:** Identify ART roles for the simulation
- ▶ **Step 2:** Ensure that you have all key roles required for the PI Planning simulation

Simulation role	Assigned to
Executive	Volunteer
Product Manager	Volunteer
System Architect, UX, Development Manager	Volunteer
RTE	Trainer



Simulation: Why are we here?



Alignment to a common mission

We are here to gain alignment and commitment around a clear set of prioritized objectives. I will now review the agenda for the next two days of the PI Planning event.



Simulation: Day 1 agenda

Business context	8:00 – 9:00	<ul style="list-style-type: none">• State of the business
Product/Solution Vision	9:00 – 10:30	<ul style="list-style-type: none">• Vision and prioritized Features
Architecture Vision and development practices	10:30 – 11:30	<ul style="list-style-type: none">• Architecture, common frameworks, and so on• Agile tooling, engineering practices, and so on
Planning context and lunch	11:30 – 1:00	<ul style="list-style-type: none">• Facilitator explains the planning process
Team breakouts	1:00 – 4:00	<ul style="list-style-type: none">• Teams develop draft plans and identify risks and impediments• Architects and Product Managers circulate
Draft plan review	4:00 – 5:00	<ul style="list-style-type: none">• Teams present draft plans, risks, and impediments
Management review and problem-solving	5:00 – 6:00	<ul style="list-style-type: none">• Adjustments made based on challenges, risks, and impediments



Simulation: Day 2 agenda

Planning adjustments	8:00 – 9:00	<ul style="list-style-type: none">Planning adjustments made based on previous day's management meeting
Team breakouts	9:00 – 11:00	<ul style="list-style-type: none">Teams develop final plans and refine risks and impedimentsBusiness Owners circulate and assign business value to team objectives
Final plan review and lunch	11:00 – 1:00	<ul style="list-style-type: none">Teams present final plans, risks, and impediments
PI risks	1:00 – 2:00	<ul style="list-style-type: none">Remaining PI-level risks are discussed and ROAMed
PI confidence vote	2:00 – 2:15	<ul style="list-style-type: none">Team and ART confidence vote
Plan rework if necessary	2:15 – ???	<ul style="list-style-type: none">If necessary, planning continues until commitment is achieved
Planning Retrospective and moving forward	After commitment	<ul style="list-style-type: none">RetrospectiveMoving forwardFinal instructions



Simulation: Briefings



Executive



Product Management



System Architect



Simulation: Planning guidance



Expect this first PI Planning to feel a bit chaotic. Future PI Planning meetings will become more routine.



PO: You are responsible for making decisions at the User Story level by leveraging your content authority

SM/TC: You are responsible for managing the timebox, the dependencies, and the ambiguities

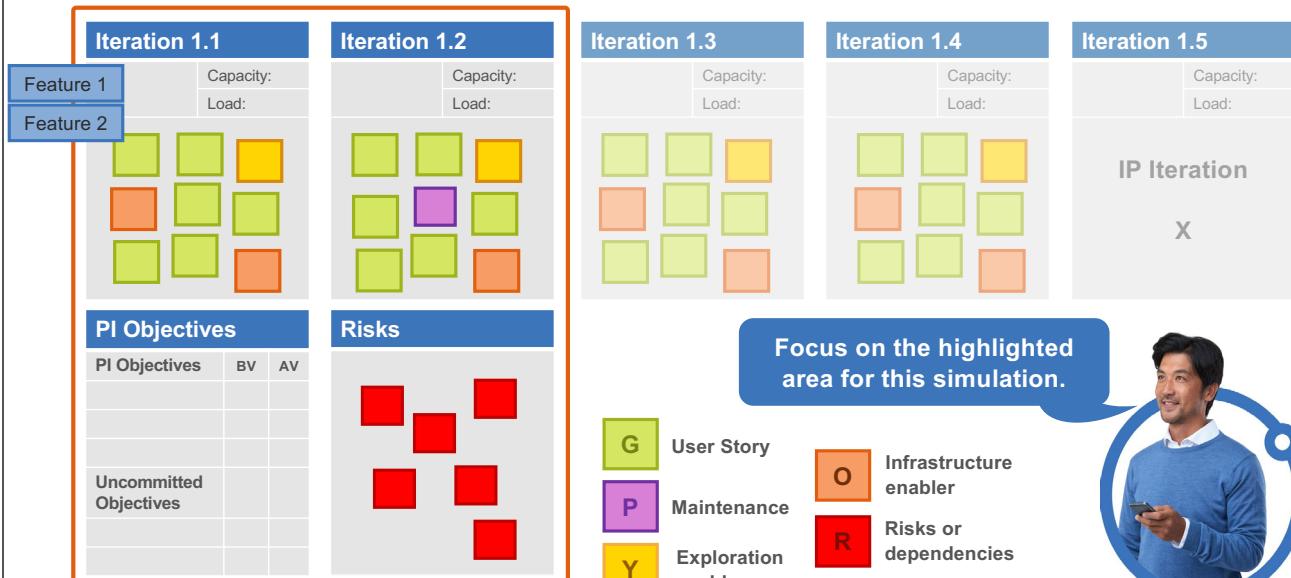
Agile Team: You are responsible for defining User Stories, planning them into the Iteration, and working out interdependencies with other teams

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Simulation: Planning requirements



4-36



Activity: Select the Feature from Product Management

Duration
5 min

- ▶ **Step 1:** Work with your team to select a Feature from Product Management
- ▶ **Step 2:** Ensure this information is visible so it can be referred to during the PI Planning simulation



Simulation: Using historical data to calculate velocity

Establish velocity by looking at the average output of the last Iterations

Velocity

6 Iterations

→ 180 Story points

→ 30 SP / Iteration



Simulation: Calculate your capacity

Calculating Iteration capacity:

- ▶ For every full-time Agile Team member contributing to Solution development, give the team 8 points; adjust for those who are part-time.
- ▶ Subtract 1 point for every team member's vacation day and holiday.
- ▶ Find a small Story that would take about a half-day to develop and a half-day to test and validate. Call it a 1-point Story.
- ▶ Estimate every other Story relative to that 1.

Example:

A seven-person team composed of three developers, two testers, one PO, and one Scrum Master / Team Coach

Exclude the PO, Scrum Master / Team Coach, and time off from the calculation

Calculated capacity:
 $5 \times 8 \text{ points} = 40 \text{ points per Iteration}$

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4-39



Activity: Team breakout #1

Duration
50 min

You will be planning a short PI with two Iterations with your team.

- ▶ **Step 1:** Calculate and enter the capacity for each Iteration (two-week Iteration)
 - The first Iteration starts Monday
 - Use your real availability
- ▶ **Step 2:** Estimate the Stories using Story points
- ▶ **Step 3:** Load the Stories into the Iterations
- ▶ **Step 4:** Write the PI Objectives using clear statements
- ▶ **Step 5:** Identify the uncommitted objectives
- ▶ **Step 6:** Identify any ART PI Risks and dependencies



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Activity: Coach Sync

Duration
5 min

- ▶ **Step 1:** The teams observe the Coach Sync, conducted by the RTE.
- ▶ **Step 2:** Choose a Scrum Master / Team Coach to provides the team's current status and address the questions from the RTE.
- ▶ **Step 3:** The RTE holds a meet-after following the sync (limited to one or two topics for the simulation).

Note: Coach Sync questions are on the following slide.



Activity: Coach Sync

Coach Sync Questions	Team 1
Have you identified the capacity for each Iteration of the PI?	
Have you identified most of the Stories for the first two Iterations and begun estimating?	
Have you begun resolving dependencies with other teams?	
Are you discussing tradeoffs and conflicting priorities with your Business Owners?	
Have you identified any ART PI Risks?	
Will you be ready to start writing PI Objectives in the next 15 minutes?	
Is there anything you need to discuss with other SM/TCs? If so, stay for the meet-after.	



Activity: Draft plan review

Duration
7 min

- ▶ **Step 1:** The teams will present summaries of their first two Iterations and one or more draft PI Objectives.
- ▶ **Step 2:** Make sure to include the following:
 - Capacity and load for each Iteration
 - Draft PI Objectives
 - ART PI Risks and impediments

Management review and problem-solving

At the end of Day 1, management meets to make adjustments to scope and objectives based on the day's planning.

Common questions:

- What did we just learn?
- Where do we need to adjust: in Vision, in scope, in team assignments?
- Where are the bottlenecks?
- What Features must be de-scoped?
- What decisions must we make between now and tomorrow to address these issues?



Photo of management review. Photo courtesy of Hybris Software

Activities during Day 2

Day 1		Day 2	
Business context	8:00–9:00	Planning adjustments	8:00–9:00
Product / Solution Vision	9:00–10:30	Team breakouts	9:00–11:00
Architecture Vision and development practices	10:30–11:30	Final plan review and lunch	11:00 –1:00
Planning context and lunch	11:30–1:00	ART PI Risks	1:00–2:00
Team breakouts	1:00–4:00	PI confidence vote	2:00–2:15
Draft plan review	4:00–5:00	Plan rework if necessary	2:15–???
Management review and problem-solving	5:00–6:00	Planning Retrospective and moving forward	After commitment

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Make planning adjustments

- ▶ Based on the previous day's management review and problem-solving meeting, adjustments are discussed
- ▶ Possible changes:
 - Business priorities
 - Adjustment to Vision
 - Changes to scope
 - Realignment of work and teams



Team breakout #2

Based on new knowledge and a good night's sleep, teams work to create their final plans.

- ▶ In the second team breakout, Business Owners circulate and assign business value to PI Objectives from low (1) to high (10)
- ▶ Teams finalize the PI plan
- ▶ Teams also consolidate PI Risks, impediments, and dependencies
- ▶ Uncommitted objectives provide the capacity and guard band needed to increase the reliability of cadence-based delivery

Objectives for PI 1	BV	AV
1. Show routing calculations between the 5 most frequent destinations	10	
2. Navigate autonomously from distribution center to the most frequent destination	8	
3. Parallel park for a delivery	7	
4. Return to the distribution center after delivery	10	
5. Include traffic data in route planning	7	
6. Recall a delivery that is already in progress	7	
Uncommitted Objectives		
7. Spike: Reduce GPS signal loss by 25%	2	
8. Demonstrate real-time rerouting to avoid delays (e.g., accident, construction)	5	



Activity: Setting business value

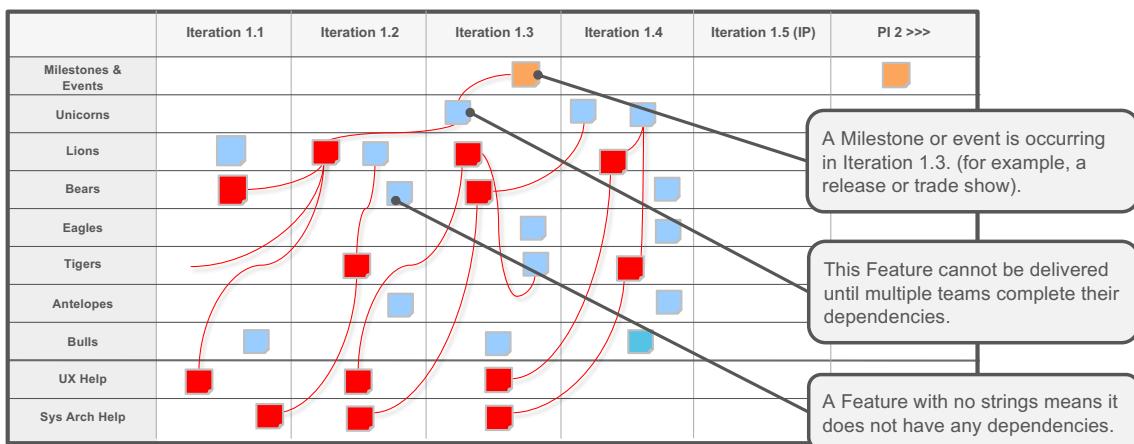
Duration
7 min

The trainer will demonstrate assigning business value for one team's objectives.

- ▶ **Step 1:** Bring the Business Owners to one team's draft plans
- ▶ **Step 2:** The Business Owners will set value on a scale of 1 – 10 for each identified objective
- ▶ **Step 3:** Observe the discussion that takes place, illustrating the larger purposes and thought processes around assigning business value

Objectives for PI	BV	AV
1. Show routing calculations between the 5 most frequent destinations	10	
2. Navigate autonomously from distribution center to the most frequent destination	8	
3. Parallel park for a delivery	7	
4. Return to the distribution center after delivery	10	
5. Include traffic data in route planning	7	
6. Recall a delivery that is already in progress	7	
Uncommitted Objectives		
7. Spike: Reduce GPS signal loss by 25%	2	
8. Demonstrate real-time rerouting to avoid delays (e.g., accident, construction)	5	

ART Planning Board: Feature delivery, dependencies, and Milestones



ART Planning Board Legend:



Red strings, or lines for digital boards, are used to connect a Feature or Milestone to one or more dependencies. Sometimes a dependency has its own dependency (see Lions in Iteration 1.2).

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4-49

Final plan review

Teams and Business Owners review all final plans.

Final plan review agenda

1. Changes to capacity and load
2. Final PI Objectives with business value
3. PI Risks and impediments
4. Q&A session



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4-50

Building the final plan

- ▶ Final plans are reviewed by all teams
 - ▶ Business Owners are asked whether they accept the plan
 - If so, the plan is accepted
 - If not, the plans stay in place, and the team continues planning after the review

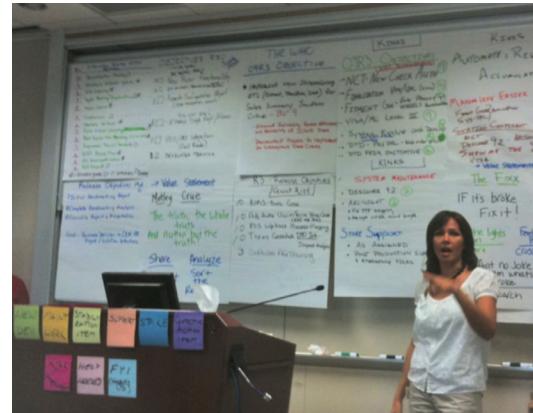


Photo of final plan presentation. Photo courtesy of Discount Tire Corporation.

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4-51

Addressing ART PI Risks

After all plans have been presented, remaining PI Risks and impediments are discussed and categorized.

ROAMing risks:

- ▶ **Resolved**: Has been addressed; No longer a concern
 - ▶ **Owned**: Someone has taken responsibility
 - ▶ **Accepted**: Nothing more can be done; If risk occurs, release may be compromised.
 - ▶ **Mitigated**: Team has plans to adjust as necessary.



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Activity: Manage ART PI Risks

Duration
7 min

The trainer will assess one to two ROAMing risks for one team.

- ▶ **Step 1:** Pick two risk examples.
- ▶ **Step 2:** Read them in front of all teams and stakeholders.
- ▶ **Step 3:** Ask if anyone can own, mitigate, or resolve the risk. Otherwise, accept the risk as is.
- ▶ **Step 4:** Put each risk into its corresponding quadrant of the ROAM sheet for the ART.



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4-53

Confidence vote: Team and ART

Once ART PI Risks have been addressed, a confidence vote is taken by the team and ART.

A commitment with two parts:

1. Teams agree to do everything in their power to meet the agreed-to objectives
2. If fact patterns dictate that it is simply not achievable, teams agree to escalate immediately so that corrective action can be taken



No confidence



Little confidence



Good confidence



High confidence



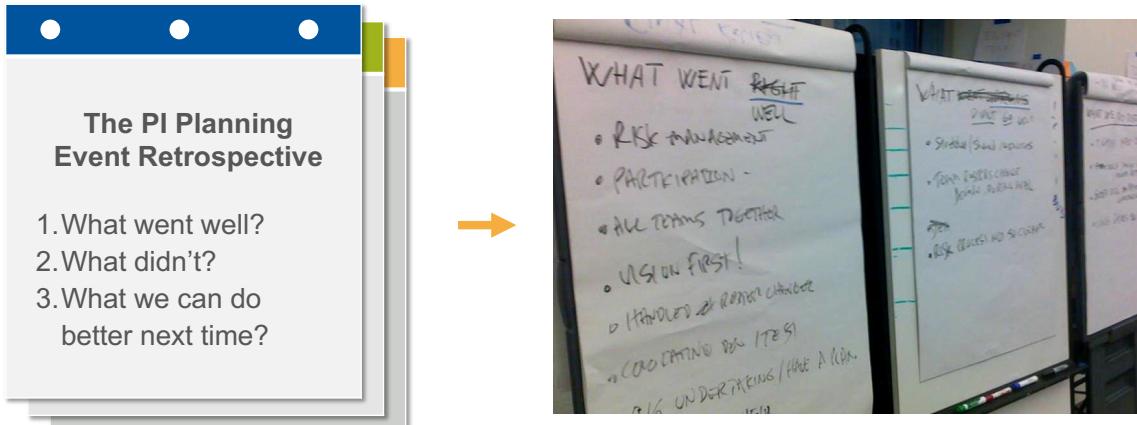
Very high confidence

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Run a planning meeting retrospective

The PI Planning event will evolve over time. Ending with a retrospective will help continuously improve it.



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4.3 Team Planning

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SAFe Scrum – Plan and commit with Iteration Planning

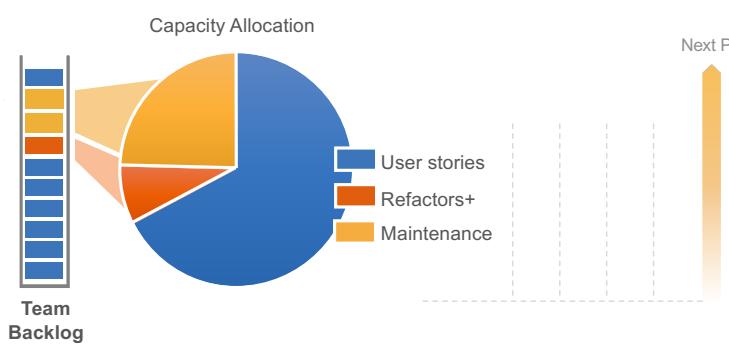
Purpose	<ul style="list-style-type: none">Define and commit to what will be built in the Iteration
Responsibilities	<ul style="list-style-type: none">The PO defines the potential value of the IterationThe team defines how the value will be delivered via Stories that meet the definition of done
Result	<ul style="list-style-type: none">Iteration Goals and a backlog of the team's commitment
Reciprocal commitment	<ul style="list-style-type: none">Team commits to delivering specific valueStakeholders commit to leaving priorities unchanged during the Iteration

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4-57

Capacity allocation for a healthy balance

- By having capacity allocation defined, the PO doesn't need to prioritize unlike things against each other
- Once the capacity allocation is set, the PO and team can prioritize like things against each other



Capacity allocation

- Helps alleviate velocity degradation due to technical debt
- Keeps existing Customers happy with bug fixes and enhancements
- Can change at Iteration or PI boundaries

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4-58

Commit to the Iteration goals

Team commitments are not just to the work. Teams are committed to other teams, the ART, and the stakeholders.

A team meets its commitment:

By doing everything they said they would do,

- or -

By immediately raising the concern if it isn't feasible to do so.

Commitment

Too rigid of a commitment can lead to burnout, inflexibility, and quality problems.



Adaptability

Too little commitment can lead to unpredictability and lack of focus on results.

Iteration Goals: Examples

Software example

Iteration Goals

1. Finalize and push last-name search and first-name morphology
2. Index 80% of remaining data
3. Other Stories:
 - Establish search replication validation protocol
 - Refactor artifact dictionary schema

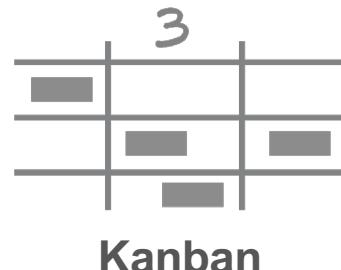
Business example

Iteration Goals

1. Roll out the incident report procedures
2. Have documentation in one folder for external audit
3. Obtain commitment to audit days from auditors and internal leaders

Team Planning for SAFe Team Kanban

- ▶ Some teams have a more responsive nature to their work, such as maintenance teams and system teams
- ▶ These teams will tend toward emphasizing continual backlog refinement over detailed Iteration plans
- ▶ Kanban teams could still publish Iteration goals and integrate with other teams continuously or on cadence
- ▶ They commit to the goals and communicate average response time for incoming work based on their known historical lead time, enabling other teams to accurately depend on them
- ▶ They participate in PI Planning, System Demos, and Inspect & Adapt like all other teams



Action Plan: Plan the work



- ▶ **Step 1:** As a group, brainstorm four or more questions you can ask to help uncover the volume, complexity, knowledge, or uncertainty of upcoming work
- ▶ **Step 2:** Make a plan for how you will bring these questions into PI Planning and Iteration Planning
- ▶ **Step 3:** Add your plan to the Action Plan in your workbook





Action Plan

Plan the Work

Learning review

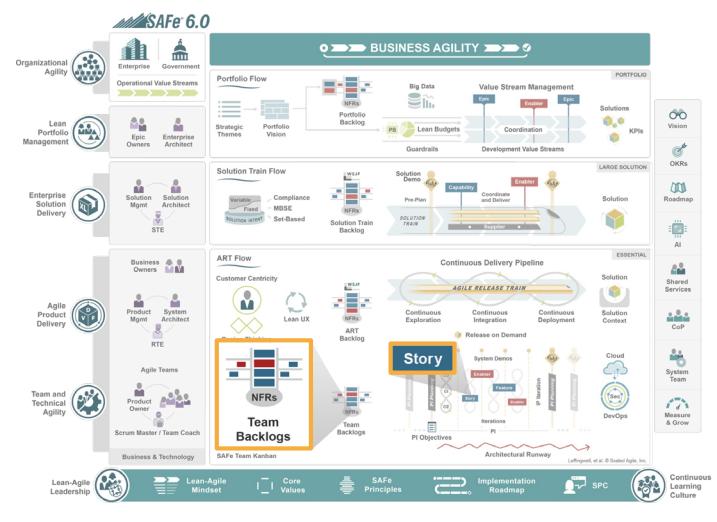
In this lesson you:

- ▶ Explored techniques for creating a Team Backlog
- ▶ Practiced preparing your backlog by breaking down Features into Stories
- ▶ Applied strategies for creating well-written Stories
- ▶ Discovered relative sizing of User Stories
- ▶ Experienced the steps of PI Planning
- ▶ Discovered the purpose of Iteration Goals and PI Objectives
- ▶ Explored the Iteration Planning event and its outcomes
- ▶ Created a set of questions your team can use to understand and size upcoming work

Articles used in this lesson

Read these Framework articles to learn more about topics covered in this lesson

- ▶ "Story"
<https://www.scaledagileframework.com/story/>
- ▶ "Team Backlogs"
<https://www.scaledagileframework.com/team-backlog/>
- ▶ "PI Planning"
<https://www.scaledagileframework.com/pi-planning/>
- ▶ "Iteration Planning"
<https://www.scaledagileframework.com/iteration-planning/>



Continue your SAFe journey with the following resources:

Access the “SAFe ART and Team Events” page on the SAFe Community Platform for additional tools and guidance for preparing to facilitate SAFe events. https://bit.ly/Community-SAFeARTandTeamEvents	Download and read the “Story Writing and Splitting Guide” to learn what makes a good story and how to split stories. https://bit.ly/Community-StoryWritingGuide
Practice story splitting with your team using the SAFe Collaborate template, “Story Splitting on an Agile Team.” https://bit.ly/Template-StorySplitting	Download the “SAFe Iteration Execution Toolkit” for a set of tools and guides for facilitating significant Iteration events. https://bit.ly/Community-ToolkitsandTemplates
Download “The Facilitator’s Guide to SAFe: Backlog Refinement” for support with agenda setting, preparation checklists, and tips and tricks for facilitating great backlog refinement events. https://bit.ly/Community-FGBacklogRefinement	Watch this quick one-minute video, <i>SAFe Developer Stories: My First PI Planning</i> , to hear about Elizabeth Flournoy’s first PI Planning experience and how it’s affected how she approaches her work. https://bit.ly/Video-FirstPIPlanning

References

Cohn, Mike. *Agile Estimating and Planning*. Pearson Education, Inc.: Upper Saddle River, 2006. 56-59.

Reintersen, Donald G. *The Principles of Product Development Flow: Second Generation of Lean Product Development*. Redondo Beach: Celeritas 2009. 178.

Lesson notes

Enter your notes below. If using a digital workbook, save your PDF often so you don't lose any of your notes.

Lesson 5

Deliver Value

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.



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Lesson Topics

- 5.1** Continuously integrate, deploy, and release
- 5.2** Syncs align delivery
- 5.3** Building quality in



Learning objectives

At the end of this lesson, you should be able to:

- ▶ Explain the importance of a Continuous Delivery Pipeline (CDP)
- ▶ Describe the communication and synchronization benefits of SAFe sync events
- ▶ Summarize different practices to build quality into Solutions
- ▶ Create action items as a team to take into the upcoming PI around improving your Continuous Delivery Pipeline and Built-in Quality

5.1 Continuously integrate, deploy, and release

SAFe Lean-Agile Principles

#1 Take an economic view

#2 Apply systems thinking

#3 Assume variability; preserve options

#4 Build incrementally with fast, integrated learning cycles

#5 Base milestones on objective evaluation of working systems

#6 Make value flow without interruptions

#7 Apply cadence, synchronize with cross-domain planning

#8 Unlock the intrinsic motivation of knowledge workers

#9 Decentralize decision-making

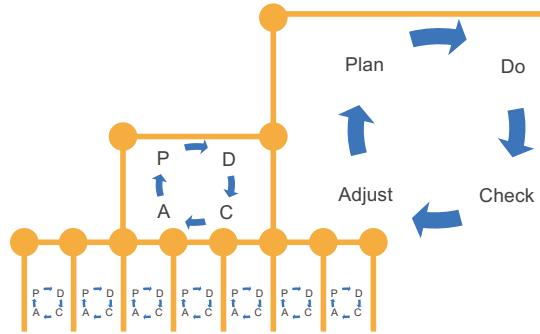
#10 Organize around value

Integration points control product development

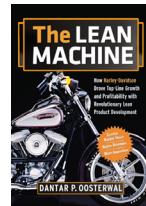
“Product development is the creation of reusable knowledge through set-based design and the establishment of development cadence and flow.”

—Dantar P. Oosterwal, *Lean Machine*

- ▶ Integration points accelerate learning
- ▶ Development can proceed no faster than the slowest learning loop
- ▶ Improvement comes through synchronization of design loops and faster learning cycles



The Lean Machine by
Dantar P. Oosterwal





Video: What is DevOps?

Duration
5 min

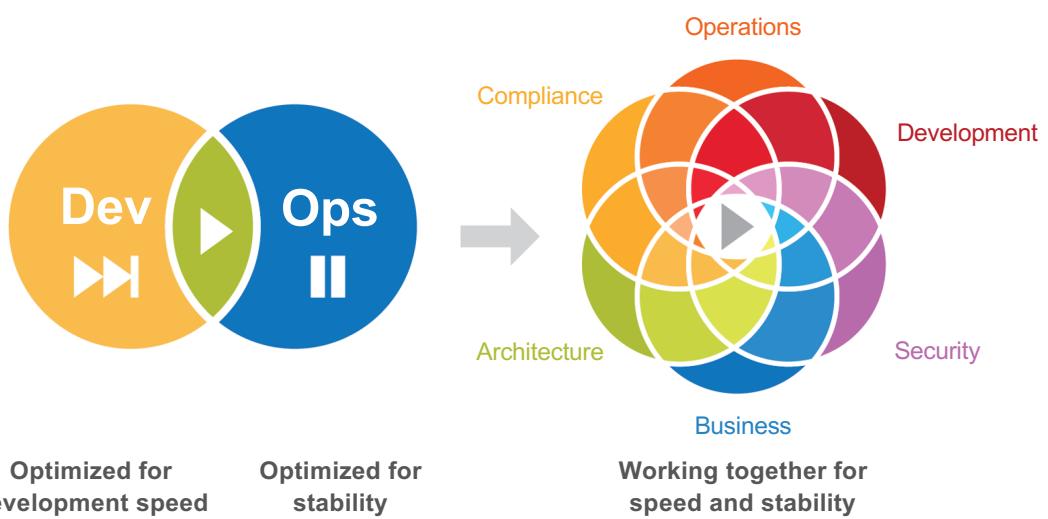


<https://bit.ly/Video-WhatIsDevOps>

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5-7

Maximize speed *and* stability



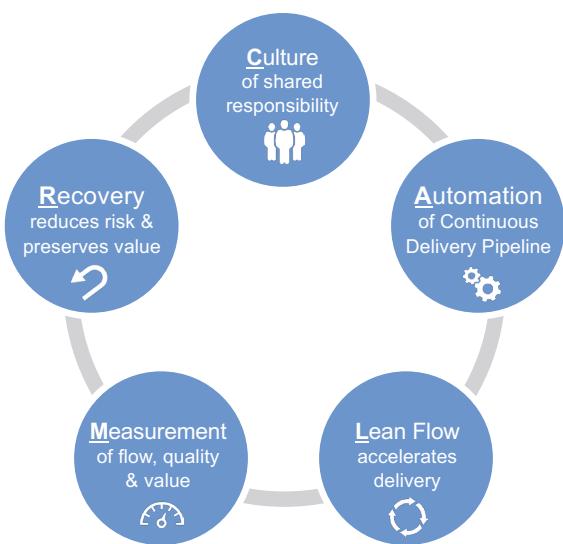
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5-8

Maximize speed and stability

C	Culture	Establish a culture of shared responsibility for development, deployment, and operations.
A	Automation	Automate the CDP.
L	Lean flow	Keep batch sizes small, limit WIP, and provide extreme visibility.
M	Measurement	Measure the flow through the pipeline. Implement full-stack telemetry.
R	Recovery	Design for low-risk releases. Establish fast recovery, fast reversion, and fast fix-forward.

A CALMR approach to DevOps

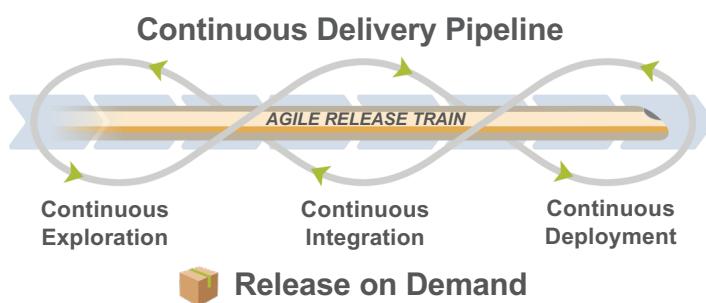


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5-9

Building the CDP with DevOps

- The CDP represents the workflows, activities, and automation needed to deliver new functionality more frequently
- Each ART builds and maintains, or shares a pipeline
- Organizations map their current pipeline into this new structure to remove delays and improve the efficiency of each step



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5-10



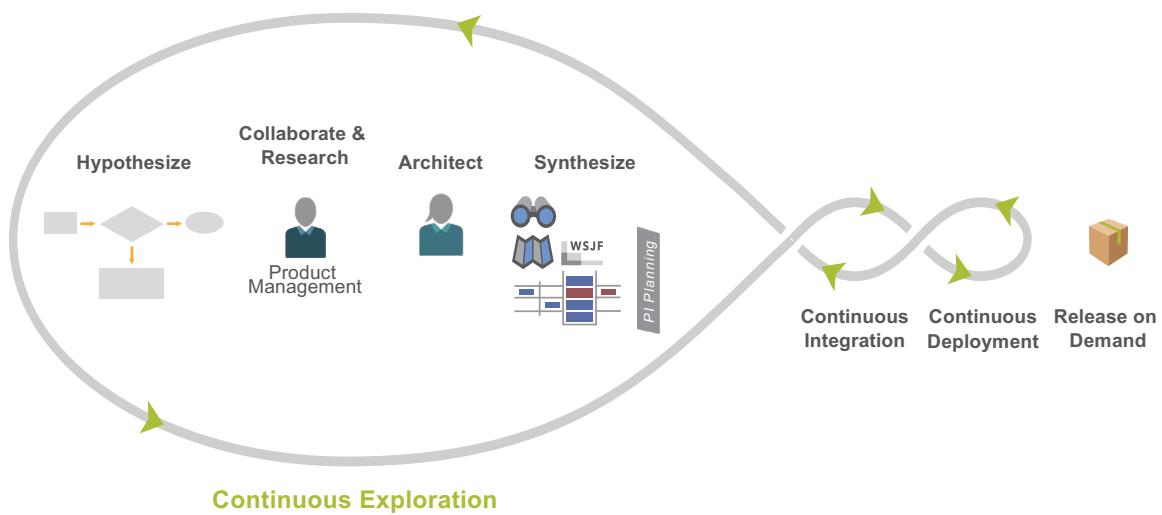
Discussion: Continuous delivery culture



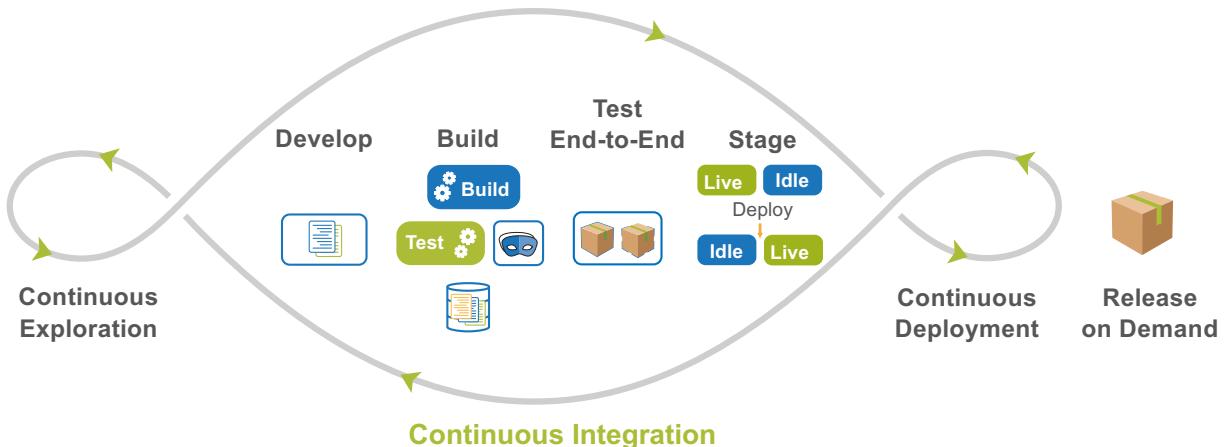
- ▶ **Step 1:** Working in your group, discuss the following:
 - Is your organizational culture or environment ready for continuous delivery?
 - What are the biggest factors influencing your readiness?
 - What does “continuous” mean to you and your group?
- ▶ **Step 2:** Be prepared to share with the class



Continuous Exploration – Understand Customer needs



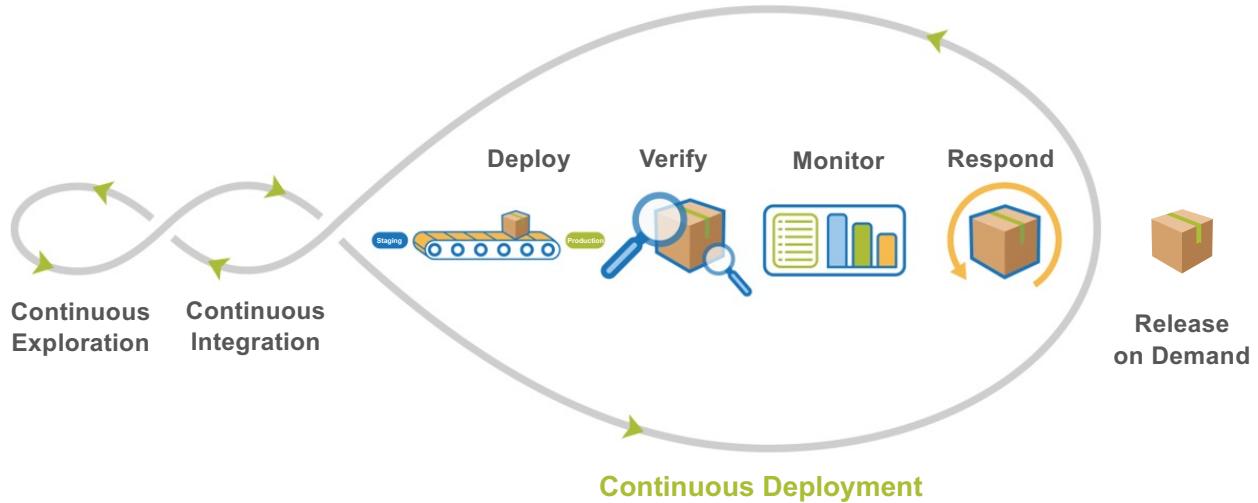
Continuous Integration – Get fast feedback on small changes



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5-13

Continuous Deployment – Get to production early for verification

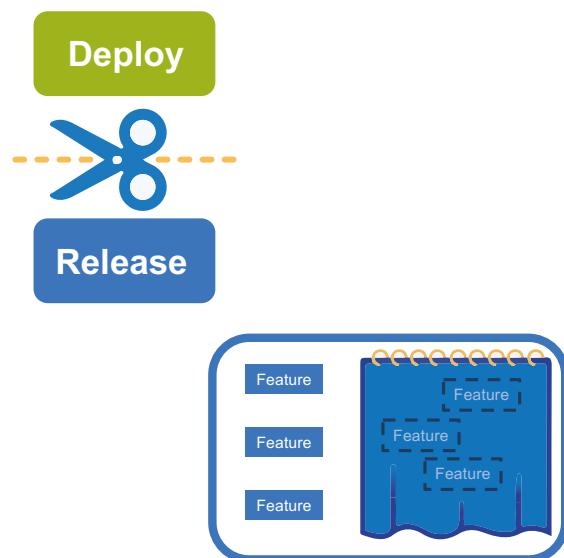


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5-14

Release on Demand

- ▶ Separate deployment from release
- ▶ Hide new functionality under feature toggles
- ▶ Enable testing background and foreground processes in the actual production environment before exposing new functionality to users
- ▶ Consider timing of the release a business decision



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5-15



Discussion: Continuous Exploration, Integration, and Deployment challenges



- ▶ **Step 1:** Considering the various aspects of environment, culture, tools, and people that influence continuous delivery culture, discuss the following:
 - What are the challenges to continuously exploring?
 - What are the challenges to continuously integrating?
 - What are the challenges to continuously deploying?
- ▶ **Step 2:** As a group, create a poster with the challenges you discussed in Step 1. What may be some ways to solve them?
- ▶ **Step 3:** Be prepared to share with the class.



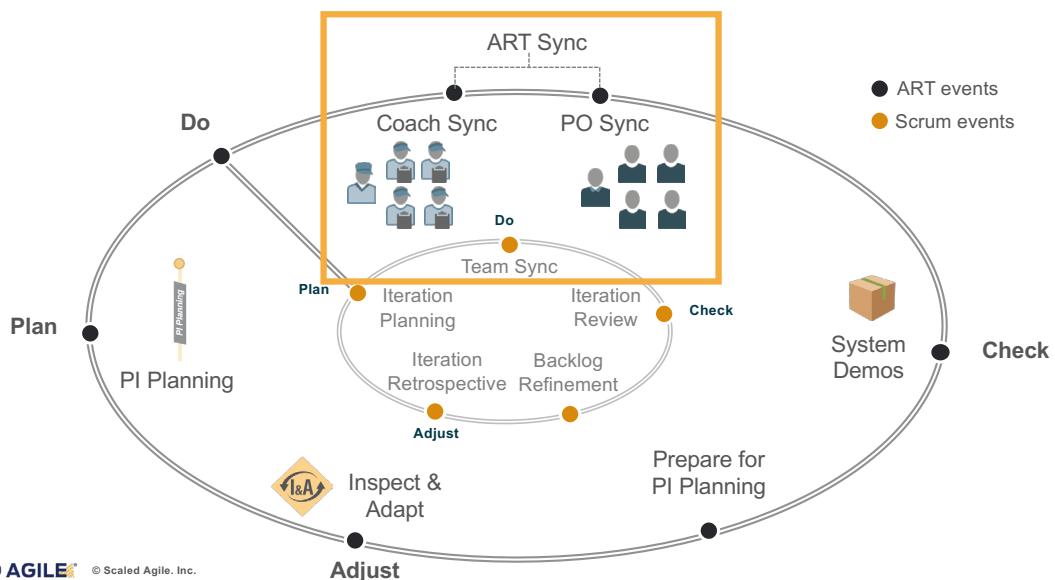
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5-16

5.2 Syncs align delivery

Sync events drive the delivery of value

Utilize syncs to maintain connectivity as you deliver and overcome challenges together.



Communication and synchronization with the Team Sync

Basic daily Team Sync agenda

Each person answers:

1. What did I do yesterday to advance the Iteration Goals?
2. What will I do today to advance the Iteration Goals?
3. Are there any impediments that will prevent the team from meeting the Iteration Goals?

The meet-after agenda

1. Review topics captured on the meet-after board
2. Involved parties discuss and uninvolved people may leave



Activity: Reenact a Team Sync



You will participate in or observe a reenactment of a Team Sync. A group of volunteers will play the role of team members. Your trainer will play the role of the SM/TC.

- ▶ **Step 1:** Volunteers receive a persona card. Do not show your card to others.
- ▶ **Step 2:** Run a Team Sync, playing the role assigned by the card.
- ▶ **Step 3:** The rest of the class observes and considers the following:
 - How long do you think the meeting should be?
 - Where should it take place?
 - What is the main purpose of the Team Sync?

Reenact the Team Sync

How long do you think the meeting should be?

Where should it take place?

What is the main purpose of the Team Sync?

ART Sync is used to coordinate progress



Coach Sync

- ▶ Visibility into progress and impediments to flow
- ▶ Facilitated by RTE
- ▶ Participants: SM/TCs, other select team members, and SMEs as necessary
- ▶ Weekly or more frequently, 30 – 60 minutes
- ▶ Timeboxed and followed by a meet-after

ART Sync



PO Sync

- ▶ Visibility into progress, scope, and priority adjustments
- ▶ Facilitated by RTE or Product Manager
- ▶ Participants: Product Managers, POs, other stakeholders, and SMEs as necessary
- ▶ Weekly or more frequently, 30 – 60 minutes
- ▶ Timeboxed and followed by a meet-after

5.3 Building quality in

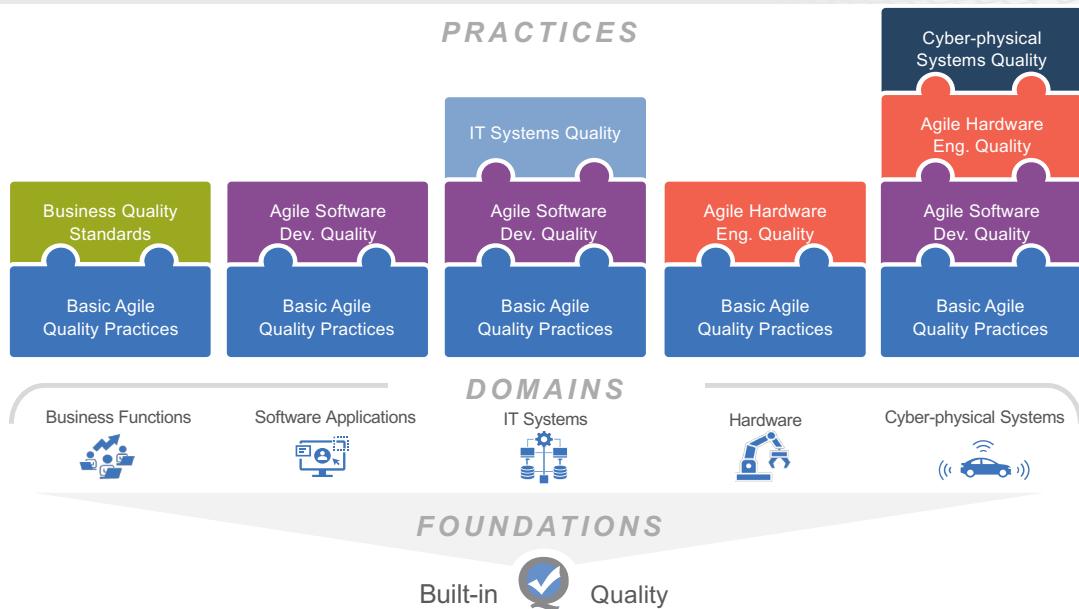


Discussion: Express “Build quality in”



- ▶ **Step 1:** As a class, discuss what the phrase “build quality in” means to you
- ▶ **Step 2:** Identify how your teams build quality in and what value it brings to your Customer, your organization, and your Agile Teams

Built-In Quality



Foundations of Built-in Quality

- ▶ Think shift-left
- ▶ Shorten the define-build-test cycle
- ▶ Remove barriers to collaboration
- ▶ Design for quality
- ▶ Deliver continuously for fast Customer feedback



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5-25

Basic Agile quality practices

Agile quality practices apply to every team, whether business or technology.

- ▶ **Establish flow:** avoid stopping and starting as work moves through the system
- ▶ **Peer review and pairing:** multiple viewpoints enhance knowledge and work quality
- ▶ **Collective ownership and standards:** reduce bottlenecks and ensure consistency
- ▶ **Automation:** minimize manual processes to enable smaller batches
- ▶ **Definition of done:** ensure consistent quality measures for each work product



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Agile software development quality practices

- ▶ **Continuous integration:** continually check many small changes for conflicts and errors
- ▶ **Test-first practices:** define and execute many tests early, often, and at multiple levels of integration
- ▶ **Refactoring:** continuously modify the system to provide a foundation to efficiently deliver value in the future
- ▶ **Continuous delivery:** apply continuous exploration, integration, deployment, and release on demand
- ▶ **Agile architecture:** evolve the architecture continuously, while supporting the needs of current users

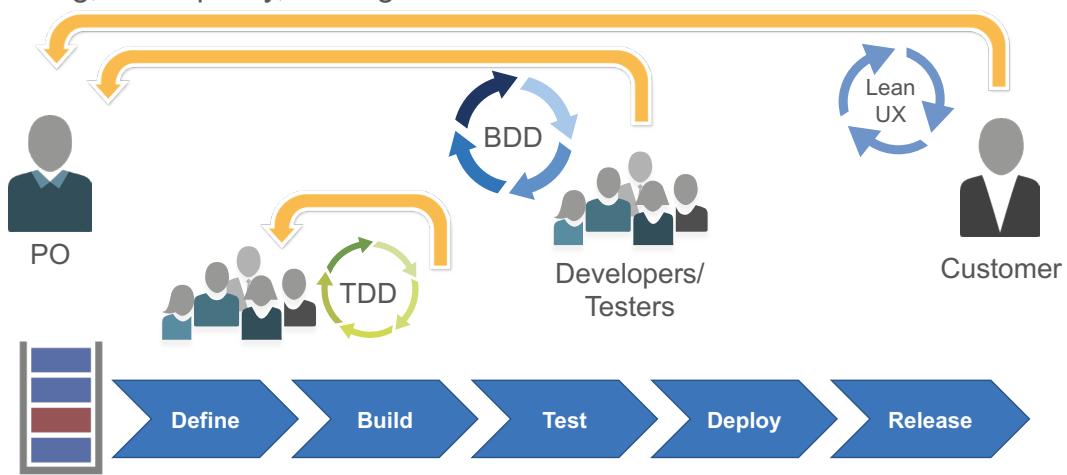
Agile Software Dev. Quality

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5-27

Test-first software practices

Software quality practices, most inspired by Extreme Programming (XP), like Agile testing, behavior-driven development (BDD), test-driven development (TDD), refactoring, code quality, and Agile architecture.

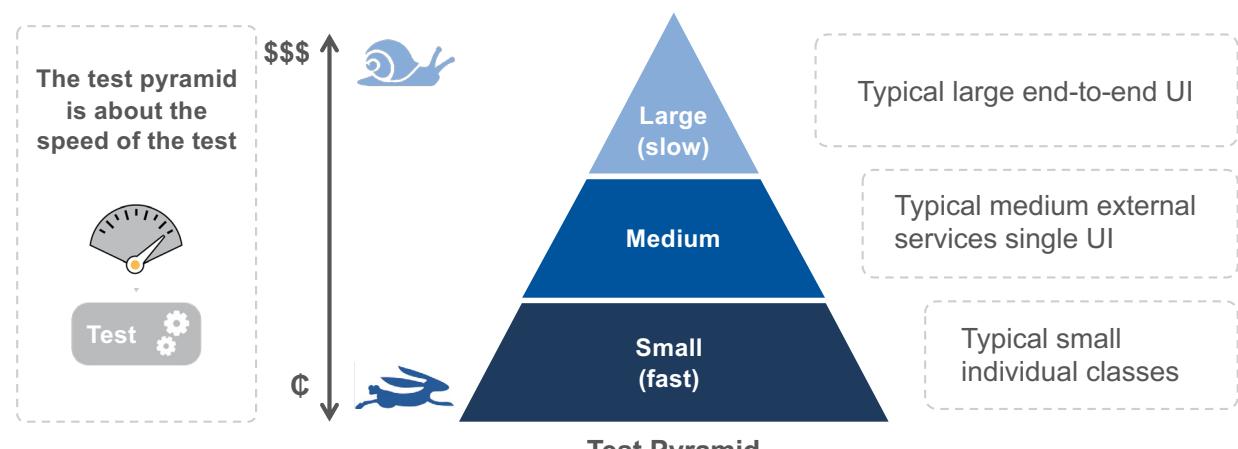


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5-28

A test-first approach creates a balanced Agile testing pyramid

A balanced portfolio of tests contains many small, low-level, automated tests and fewer large, manual tests.

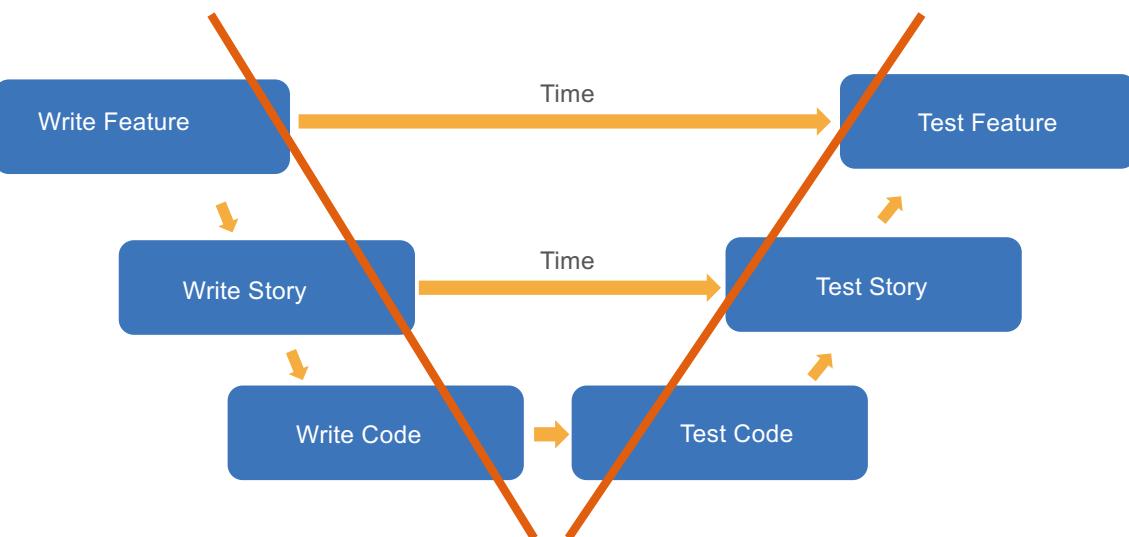


Reference: Cohn, *Succeeding with Agile*

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5-29

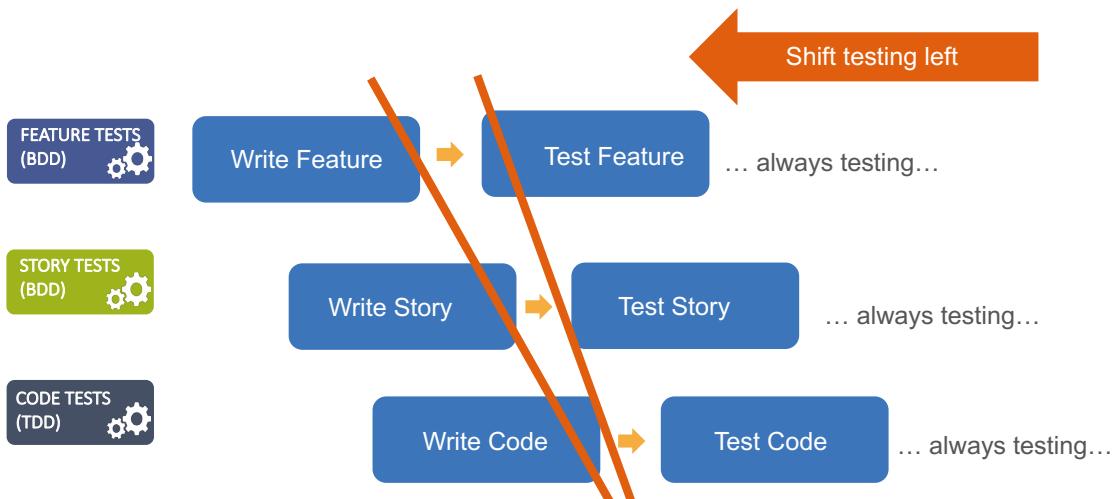
Traditional testing (V-Model) delays feedback



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5-30

Shift testing left for fast and continuous feedback



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Business quality practices

- ▶ **Address specific functional quality standards:** Standards have historical and legacy context that require adjustment when applying them to a flow-based context.
- ▶ **Apply standards in an Agile manner:** apply standards early and continually (shift-left) and strive to automate them where possible

Business Quality Standards

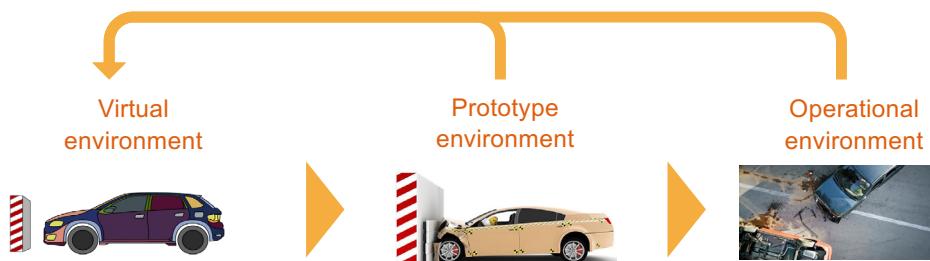
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5-32

Agile hardware engineering quality practices

- **Modeling and simulation:** analyze and simulate in a virtual environment to test changes quickly and cost-effectively
- **Rapid prototyping:** integrate mockups (for example, 3D-printed parts) for higher-fidelity feedback

Agile Hardware
Eng. Quality



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5-33

Scalable definition of done



Team Increment	System Increment	Solution Increment	Release
<ul style="list-style-type: none">Stories satisfy acceptance criteriaAcceptance tests passed (automated where practical)Unit testsCumulative unit tests passedAssets under version controlEngineering standards followedNFRs metNo must-fix defectsStories accepted by PO	<ul style="list-style-type: none">Stories completed by all teams in the ART and integratedCompleted features meet acceptance criteriaNFRs metNo must-fix defectsVerification and validation of key scenariosIncluded in build definition and deployment processIncrement demonstrated, feedback achievedAccepted by Product Management	<ul style="list-style-type: none">Capabilities completed by all ARTs and meet acceptance criteriaDeployed/installed in the staging environmentNFRs metSystem end-to-end integration, verification and validation doneNo must-fix defectsIncluded in build definition and deployment/transition processDocumentation updatedSolution demonstrated, feedback achievedAccepted by Solution Management	<ul style="list-style-type: none">All capabilities done and meet acceptance criteriaEnd-to-end integration and solutions V&V doneRegression testing doneNFRs metNo must-fix defectsRelease documentation completeAll standards metApproved by Solution and Release Management

5-34



Activity: What is your definition of done?



- ▶ **Step 1:** As a group, craft a definition of what it means for you to finish a team increment
- ▶ **Step 2:** Considering the elements of a team increment in the previous slide, discuss what is included in your definition of done
- ▶ **Step 3:** Discuss how you might mature your definition of done to improve the quality of your solution
- ▶ **Step 4:** Be prepared to share with the class



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5-35



Action Plan: Deliver value



- ▶ **Step 1:** With your group, brainstorm actions you could take into the upcoming PI regarding one of the below:
 - Continuous Exploration
 - Continuous Integration
 - Continuous Deployment
- ▶ **Step 2:** As a group, select one action you agree to take in the coming PI
- ▶ **Step 3:** Be prepared to share with the class



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Action Plan

Deliver Value

Lesson review

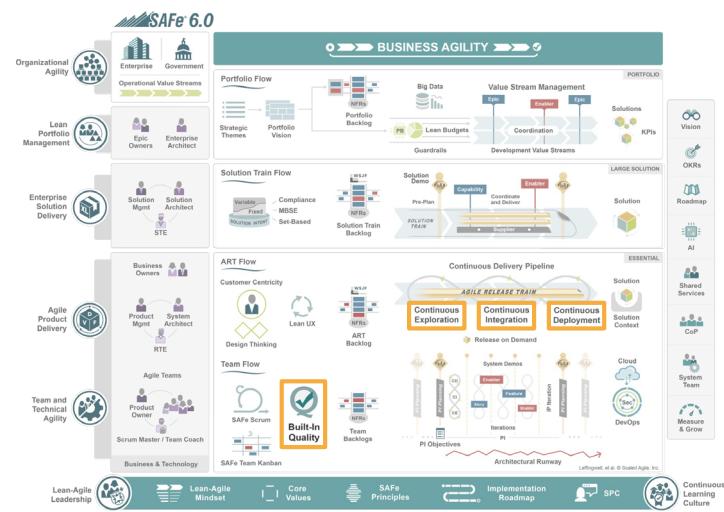
In this lesson you:

- ▶ Explained the importance of a Continuous Delivery Pipeline
- ▶ Described the communication and synchronization benefits of SAFe sync events
- ▶ Summarized different practices to build quality into solutions
- ▶ Created action items as a team to take into the upcoming PI around improving your Continuous Delivery Pipeline and Built-in Quality

Articles used in this lesson

Read these Framework articles to learn more about topics covered in this lesson

- ▶ “Continuous Exploration”
<https://www.scaledagileframework.com/continuous-exploration/>
- ▶ “Continuous Integration”
<https://www.scaledagileframework.com/continuous-integration/>
- ▶ “Continuous Deployment”
<https://www.scaledagileframework.com/continuous-deployment/>
- ▶ “Built-in Quality”
<https://www.scaledagileframework.com/built-in-quality/>



Continue your SAFe journey with the following resources:

<p>Use the SAFe Collaborate template "Determine the Team's Definition of Done" with your team to agree upon guardrails, rules, and processes that ensure built-in quality for your solutions.</p> <p>https://bit.ly/Template-DetermineDoD</p>	<p>Watch this sixty-minute video, <i>Community Webinar: DevSecOps in Real Life</i>, to delve into the most important practices that fuel the Continuous Delivery Pipeline and how they are implemented in real life.</p> <p>https://bit.ly/Community-DevSecOpsWebinar</p>
<p>Download "The Facilitator's Guide to SAFe: Team Sync" for support facilitating your Team Sync events and ideas for overcoming potential issues you might encounter.</p> <p>https://bit.ly/Community-FGDailyStand-Up</p>	<p>Download "The Facilitator's Guide to SAFe: PO Sync" to ensure your PO Sync events stay on track, achieve their goals, and stay fresh to ensure strong, consistent participation.</p> <p>https://bit.ly/Community-FGPOSync</p>
<p>Download "The Facilitator's Guide to SAFe: Coach Sync" for guidance on preparation and execution of the Coach Sync, along with tips to keep the format engaging for attendees.</p> <p>https://bit.ly/Community-FGSoS</p>	<p>Download "The Facilitator's Guide to SAFe: ART Sync" for an overview of the purpose, preparation, and execution details to ensure this meeting is valuable for the attendees and the organization.</p> <p>https://bit.ly/Community-FGARTSync</p>

References

Cohn, Mike. *Succeeding with Agile: Software Development Using Scrum*. Boston: Pearson Education Inc., 2013. 312

Oosterwal, Dantar P. *The Lean Machine: How Harley-Davidson Drove Top-Line Growth and Profitability with Revolutionary Lean Product Development*. New York: AMACOM, 2010. 143.

Lesson notes

Enter your notes below. If using a digital workbook, save your PDF often so you don't lose any of your notes.

Lesson 6

Get Feedback

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.



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Lesson Topics

- 6.1 Getting Customer Feedback
- 6.2 Demonstrating value with the Iteration Review
- 6.3 System Demo



Learning objectives

At the end of this lesson, you should be able to:

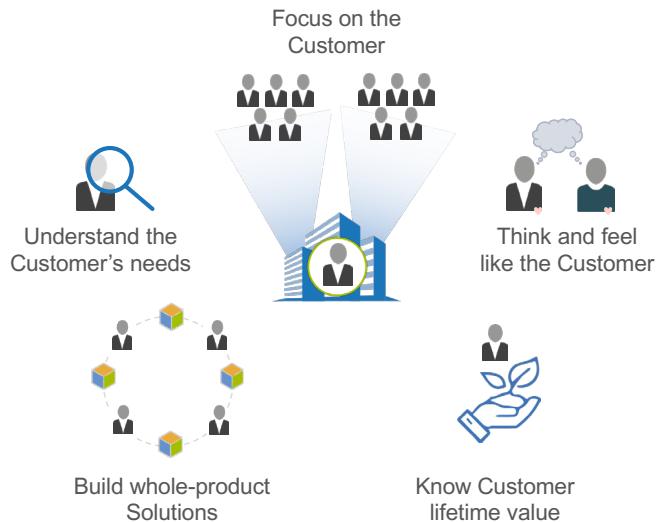
- ▶ Summarize techniques to maintain Customer focus
- ▶ Identify Iteration Review steps for the Agile Team
- ▶ Recognize the importance of integrating and demonstrating together with the System Demo
- ▶ Identify one or more actions your team can take to develop or maintain a Customer focus in the upcoming PI

6.1 Getting Customer Feedback

Connect to the Customer

Agile Teams use multiple techniques to maintain Customer focus:

- ▶ Product roles as a proxy
- ▶ Gemba walks
- ▶ Empathy mapping
- ▶ Solution telemetry
- ▶ System Demo



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6-5

Product roles as a proxy

- ▶ Focus on how value is determined by the Customer
- ▶ Bring the Business Owners, Customers, and end users as needed to ART and team events
- ▶ Identify the need and plans for implementing Design Thinking activities such as Gemba walks and empathy interviews



Understand the Customer's needs

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Gemba and empathic design

Gemba walks

Gemba walking refers to observing Customers in their day-to-day, using Solutions, or observing problem spaces

Empathic design

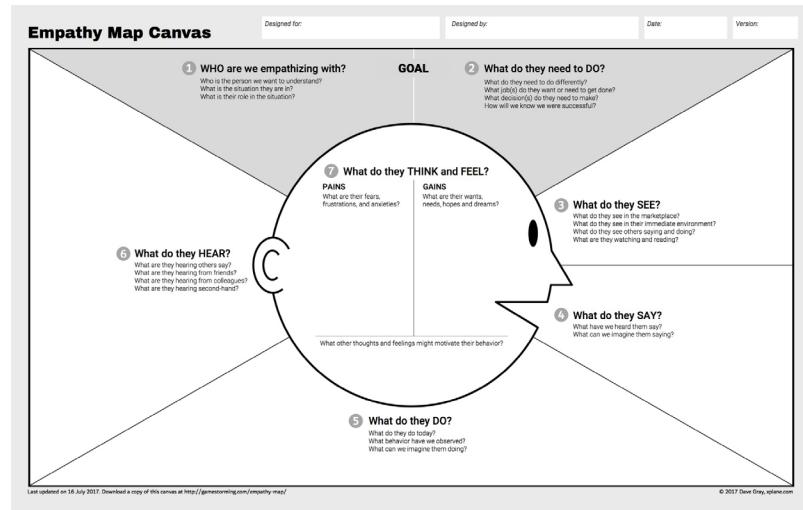
Empathic design refers to our ability to put aside our preconceived ideas and develop Solutions from the perspective of our Customers



Think and feel like the Customer

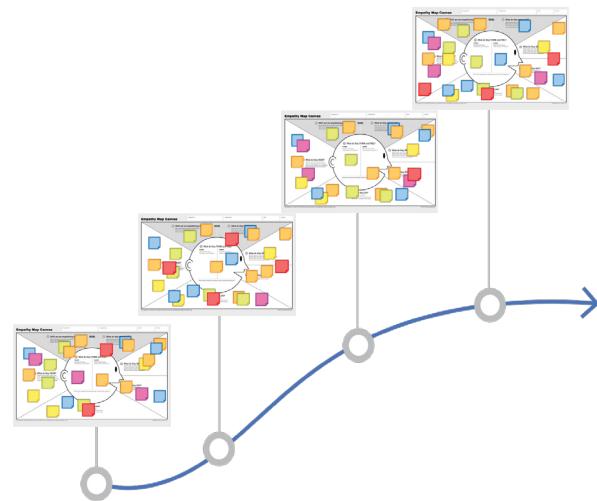
Empathy map

- The empathy map is a tool that helps teams develop deep, shared understanding and empathy for others
- The empathy map can be used to design better experiences and Value Streams



Empathy maps evolve

- ▶ What do our Customers see, think, and feel now?
 - More Gemba walks after the Solution is in use can build on previous innovation
- ▶ How do we hope our planned releases change what is seen, considered and felt?
- ▶ When should we update our persona and empathy map based on these changes?



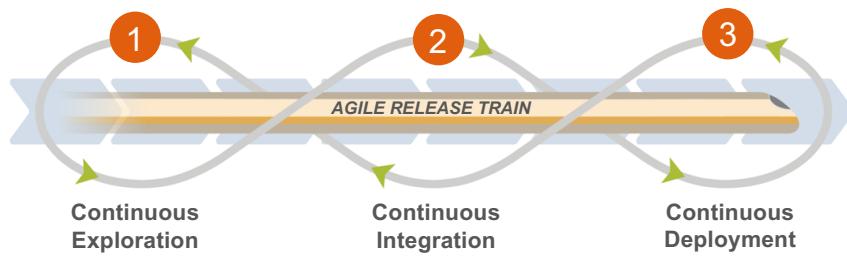
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Enable feedback by building telemetry into solutions

- 1 Architect for operations by designing logging and telemetry into enterprise solutions
- 2 Build telemetry into each application to help determine the results of relevant hypotheses
- 3 Use telemetry to monitor for problems across the entire stack
- 4 Collect and manage the telemetry data used to track and measure hypotheses

Continuous Delivery Pipeline



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Discussion: Keeping the Customer focus



- ▶ **Step 1:** Individually, consider the following:
 - What techniques do the ART and teams already utilize to get Customer feedback?
 - What techniques may be valuable to add in?
- ▶ **Step 2:** Discuss as a class

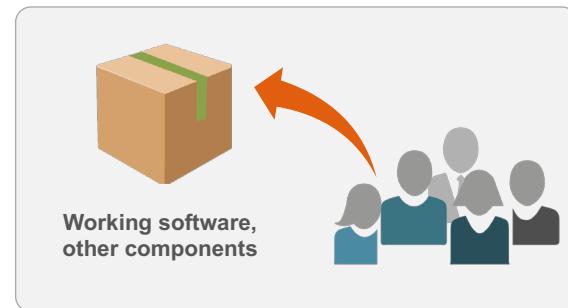
6.2 Demonstrating value with the Iteration Review

The Iteration Review

The Iteration Review provides the true measure of progress by showing working software functionality and business outcome progression.

- ▶ Preparation starts with planning
- ▶ Teams demonstrate every Story, spike, refactor, and NFR
- ▶ Attended by the team and its stakeholders

Demonstrating a working, tested team increment



Iteration Review guidelines

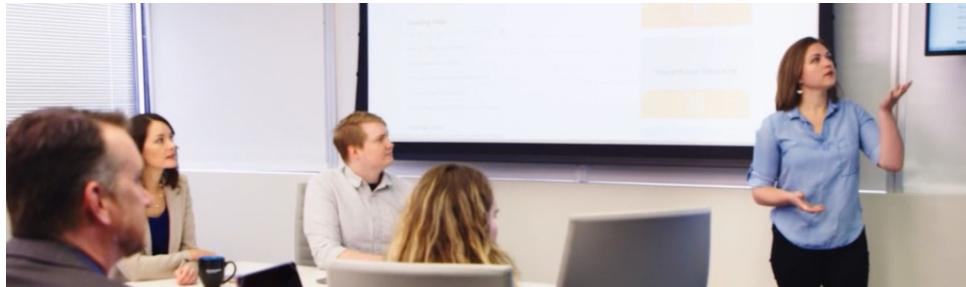
- ▶ **Timebox:** Approximately one-to-two hours long.
- ▶ **Preparation:** Review preparation should be limited to one-to-two hours. Minimize presentation. Work from the repository of Stories.
- ▶ **Attendees:** If a major stakeholder cannot attend, the PO should follow up individually.

Sample Iteration Review Agenda

1. Review business context and Iteration Goals
2. Demo and solicit feedback of each Story, spike, refactor, and NFR
3. Discuss Stories not completed and why
4. Identify risks, impediments
5. Revise team backlog and Team PI Objectives as needed

Two views from the Iteration Review based on a working system

- ▶ **How did we do in the Iteration?**
 - Did we meet the goal?
 - Story-by-Story review
- ▶ **How are we doing in the PI?**
 - Review of PI Objectives
 - Review of remaining PI scope and reprioritizing if necessary



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6-15

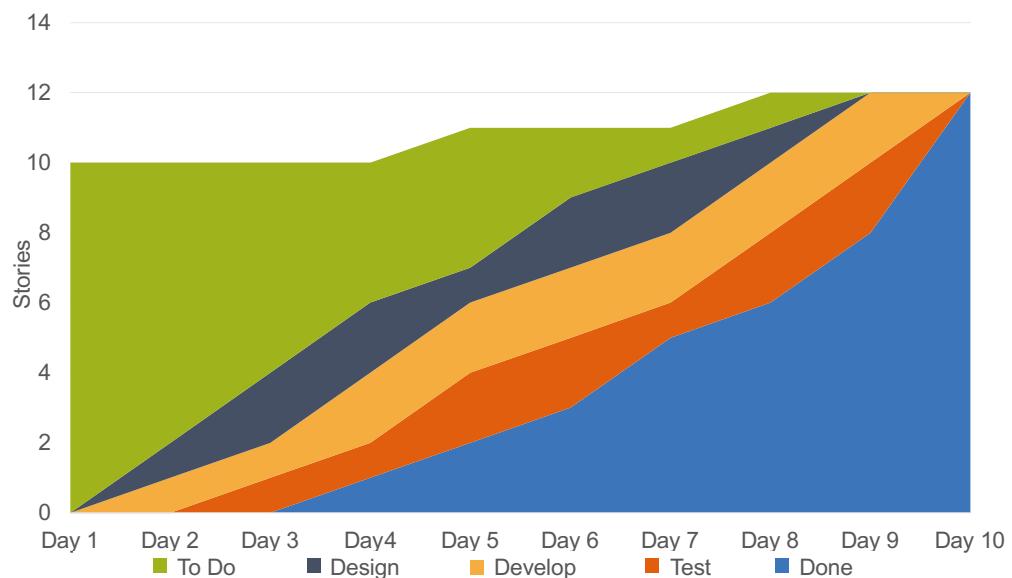
Team Reviews within SAFe Team Kanban

- ▶ **How did we do in the Iteration?**
 - Did we meet the dependencies other teams relied on us for?
 - Have we been meeting our Team DoD?
 - Is our Flow Time stabilized or improving?
- ▶ **How are we doing in the PI?**
 - Review of Team PI Objectives
 - Review of remaining known PI scope and reprioritizing if necessary
 - Alignment on Kanban board

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6-16

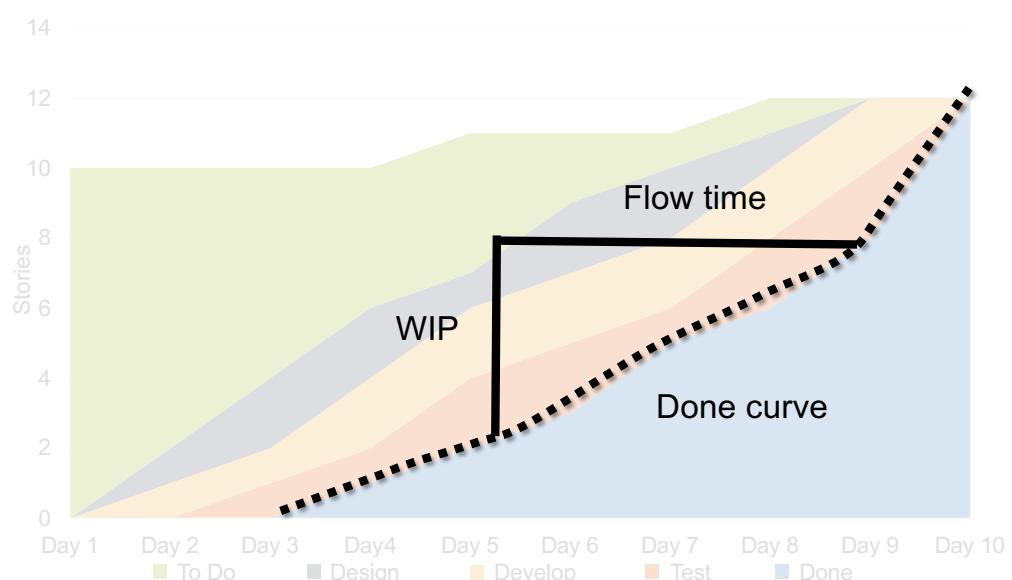
Understand cumulative flow diagrams (CFDs)



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6-17

What can you learn from a CFD?



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6-18

6.3 System Demo

SAFe Lean-Agile Principles

#1 Take an economic view

#2 Apply systems thinking

#3 Assume variability; preserve options

#4 Build incrementally with fast, integrated learning cycles

#5 Base milestones on objective evaluation of working systems

#6 Make value flow without interruptions

#7 Apply cadence, synchronize with cross-domain planning

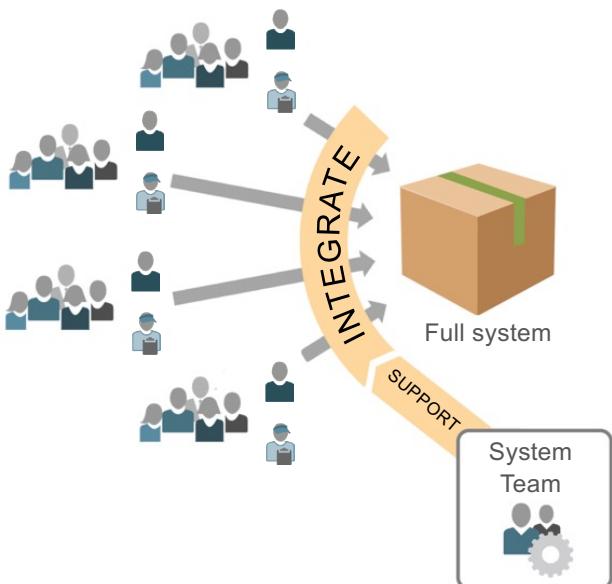
#8 Unlock the intrinsic motivation of knowledge workers

#9 Decentralize decision-making

#10 Organize around value

Base Milestones on objective evaluation of working systems

- ▶ Demos happen after the Iteration Review and may lag by one Iteration at most
- ▶ Features are functionally complete or ‘toggled’ so as not to disrupt demonstrable functionality
- ▶ New Features work together and with existing functionality
- ▶ Demos happen from a staging environment that resembles production as much as possible



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6-21

The System Demo demonstrates value at each iteration

System Demo tests and evaluates the full solution in a production-like context, often through staging, to receive feedback from stakeholders.

Sample Agenda:

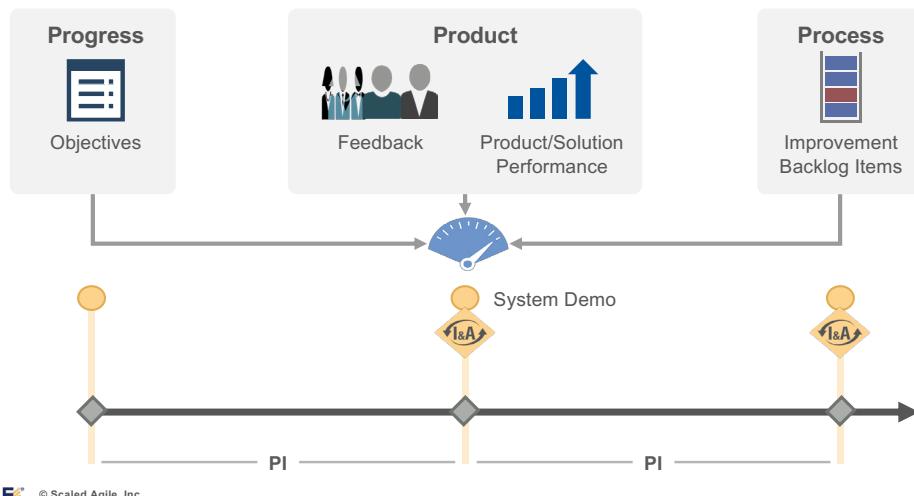
- Review the business context and the PI Objectives (around 5 – 10 minutes)
- Briefly describe each new Feature before demoing (around 5 minutes)
- Demo each new Feature in an end-to-end use case (around 20 – 30 minutes total)
- Open discussion of questions and feedback
- Summarize progress, feedback, and action items

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The PI System Demo evaluates the full PI

PI System Demos are orchestrated to deliver objective progress, product, and process Metrics.



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Discussion: System Demo challenges



- ▶ **Step 1:** In your group, discuss the challenges present in demonstrating a new system increment every two weeks
- ▶ **Step 2:** Brainstorm some ways to solve these challenges
- ▶ **Step 3:** Be prepared to share with the class

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6-24



Action Plan: Get feedback

Prepare
5 min

Share
2 min

- ▶ **Step 1:** With your group, discuss and select one Customer feedback collection technique you would like to use in the upcoming PI
- ▶ **Step 2:** Identify any other teams or stakeholders you may need to work with to collect Customer feedback
- ▶ **Step 3:** Plan for how your team will collaborate with other teams and stakeholders during PI Planning to plan your feedback campaign
- ▶ **Step 4:** Add your plan to the Action Plan in your workbook





Action Plan

Get Feedback

Lesson review

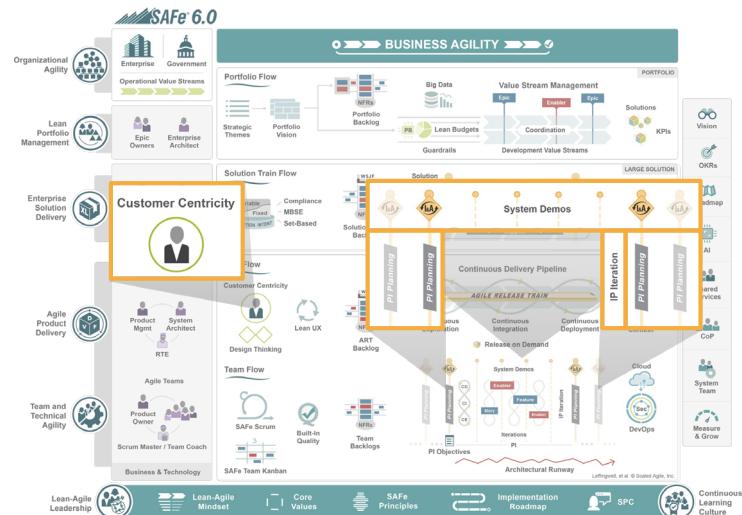
In this lesson you:

- ▶ Summarized techniques to maintain Customer focus
- ▶ Identified Iteration Review steps for the Agile Team
- ▶ Recognized the importance of integrating and demonstrating together with the System Demo
- ▶ Identified one or more actions your team can take to develop or maintain a Customer focus in the upcoming PI

Articles used in this lesson

Read these Framework articles to learn more about topics covered in this lesson:

- ▶ "System Demo"
<https://www.scaledagileframework.com/system-demo/>
- ▶ "Iteration Review"
<https://www.scaledagileframework.com/iteration-review/>
- ▶ "Customer Centricity"
<https://www.scaledagileframework.com/customer-centrality/>



Continue your SAFe journey with the following resources:

Download the "Facilitator's Guide to SAFe: Iteration Review and Demo" for guidance in preparing to facilitate Iteration Review and Demo events.
<https://bit.ly/Community-FGIterationReview>

Watch this five-minute video, *How To Run An Effective SAFe Iteration Review*, to get an overview of the Iteration Review event along with practical tips on how to facilitate the event.
<https://bit.ly/Video-IterationReview>

Download and use the "Facilitator's Guide to SAFe: System Demo" for practical guidance on how to prepare for and execute the System Demo
<https://bit.ly/Community-FGSytemDemo>

Watch and share this two-minute video, *ART Events: System Demo*, to learn about the purpose and benefit of this critical ART event.
<https://bit.ly/Video-SystemDemo>

References

Gray, Dave. "Empathy Map." Game Storming. Updated November 12, 2009.
<https://gamestorming.com/empathy-Dmap>.

Lesson notes

Enter your notes below. If using a digital workbook, save your PDF often so you don't lose any of your notes.

Lesson 7

Improve Relentlessly

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.



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Lesson Topics

- 7.1** Improving competency
- 7.2** Improving flow
- 7.2** Improving outcomes
- 7.4** Starting the improvement journey

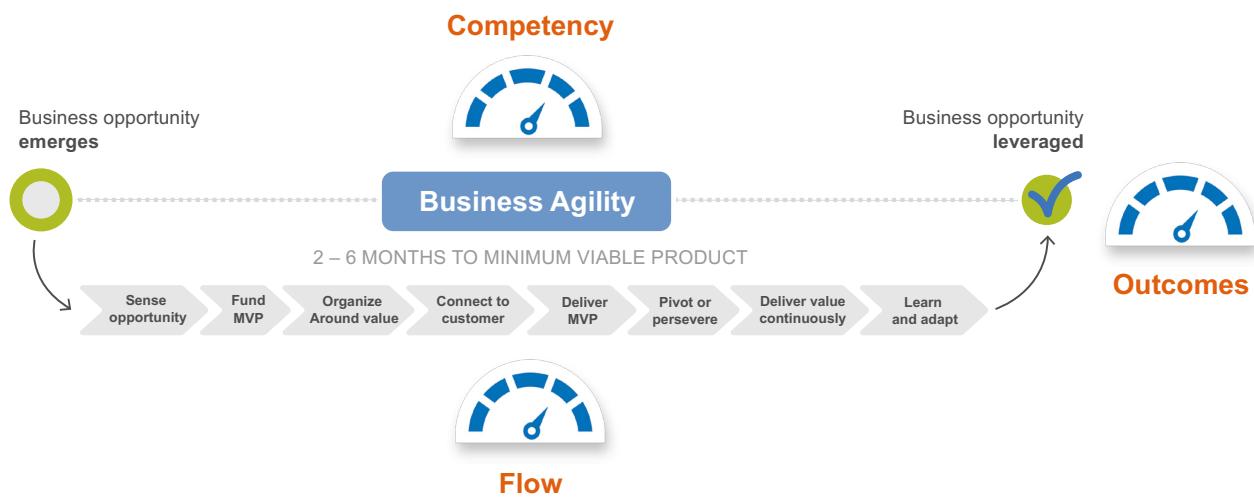


Learning objectives

At the end of this lesson, you should be able to:

- ▶ Summarize the steps of a retrospective
- ▶ Identify the steps of Inspect & Adapt (I&A)
- ▶ Explain the eight flow fundamentals
- ▶ Summarize how to apply flow Metrics to assess the organization's ability to make value flow without interruption
- ▶ Describe the purpose of a balanced Metric approach
- ▶ Identify the top three actions your team can take into the upcoming PI to develop and grow your SAFe Agile Team practices

Business Agility requires improvement in three domains





7.1 Improving competency



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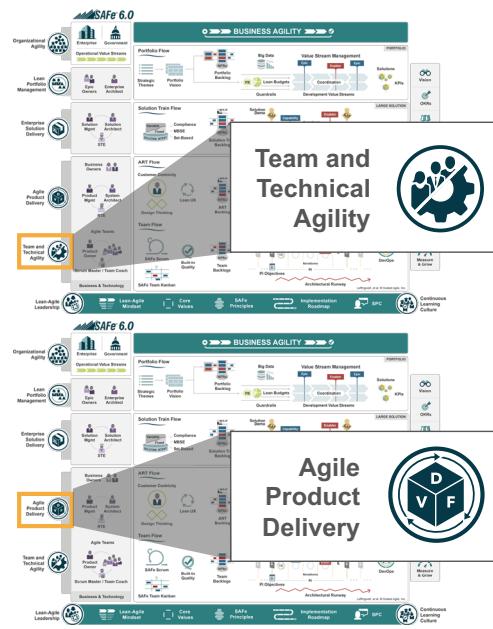
Delivering business agility requires technical competency



Competency

Competency improvement activities include:

- ▶ Retrospectives
- ▶ SAFe Assessments
- ▶ I&A



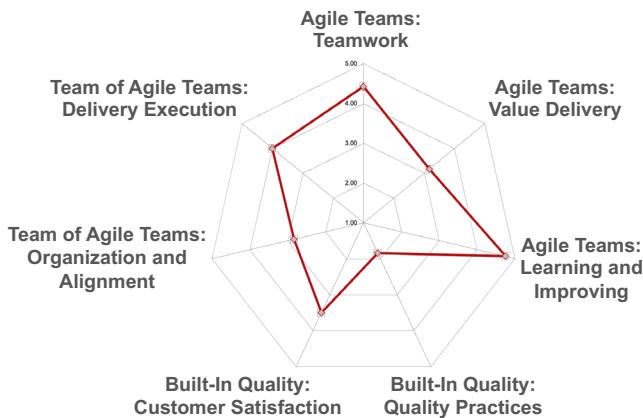
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7-6

Competency assessments

- ▶ Periodically measure the progress being made toward the three dimensions of each competency
- ▶ Identify specific practices for potential improvement
- ▶ Reassess periodically to observe trends
- ▶ Make growth recommendations available as you assess

Example: Team and Technical Agility Self-Assessment



<https://bit.ly/Community-MeasureAndGrow>

Iteration Retrospective

- ▶ **Timebox:** Should be an hour or less.
- ▶ **Purpose:** Align on items that can be improved upon in next Iteration.
- ▶ **Outcome:** Enter the improvement items in the Team Backlog.
- ▶ **Tip:** Action items take time and energy. Prioritize them alongside other work so the work to be done is visible.

Sample Agenda

- Part 1: Quantitative**
1. Review the improvement backlog items targeted for this Iteration. Were they all accomplished?
 2. Did the team meet the goals (yes/no)?
 3. Collect and review the agreed-to Iteration print metrics.
- Part 2: Qualitative**
1. What went well?
 2. What didn't?
 3. What can we do better next time?



Activity: Simulate a retrospective

Prepare
8 min

Share
2 min

In your group, run a retrospective of this course so far.

- ▶ **Step 1:** Pick someone in your group to play the role of the SM/TC. They will facilitate the retrospective.
- ▶ **Step 2:** As a group, participate in the retrospective by discussing the following:
 - What went well?
 - What didn't go so well?
 - What can be done better?
- ▶ **Step 3:** Share some of your group's insights with the class.

SAFe Lean-Agile Principles

#1 Take an economic view

#2 Apply systems thinking

#3 Assume variability; preserve options

#4 Build incrementally with fast, integrated learning cycles

#5 Base milestones on objective evaluation of working systems

#6 Make value flow without interruptions

#7 Apply cadence, synchronize with cross-domain planning

#8 Unlock the intrinsic motivation of knowledge workers

#9 Decentralize decision-making

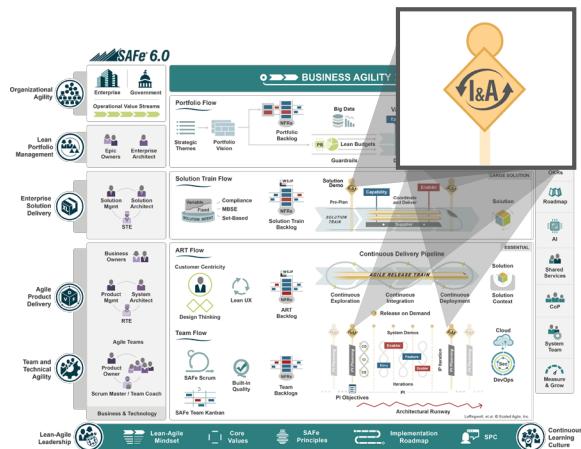
#10 Organize around value

Improving with I&A

There are three parts of I&A:

1. The PI System Demo
2. Quantitative and Qualitative Measurement
3. Problem-Solving Workshop

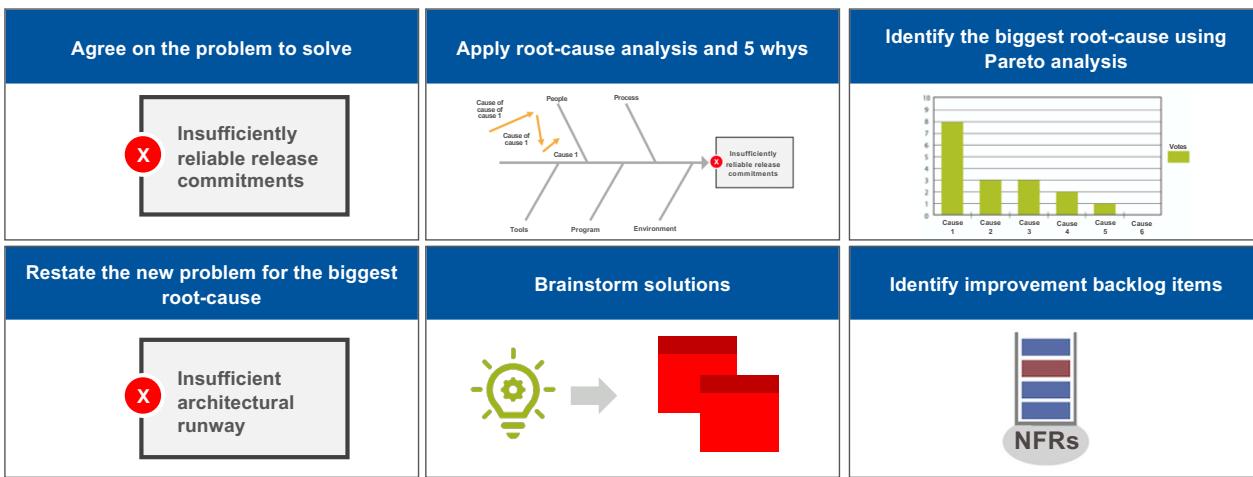
- **Timebox:** Three-to-four hours per PI
- **Attendees:** Teams and stakeholders



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The Problem-Solving Workshop



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7.2 Improving flow

SAFe Lean-Agile Principles

#1 Take an economic view

#2 Apply systems thinking

#3 Assume variability; preserve options

#4 Build incrementally with fast, integrated learning cycles

#5 Base milestones on objective evaluation of working systems

#6 Make value flow without interruptions

#7 Apply cadence, synchronize with cross-domain planning

#8 Unlock the intrinsic motivation of knowledge workers

#9 Decentralize decision-making

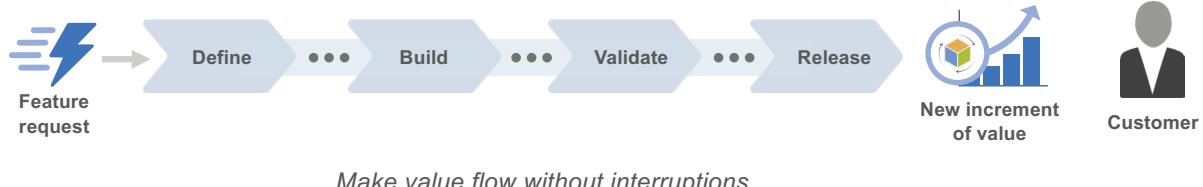
#10 Organize around value

What is flow?

"To enable fast and predictable lead times in any value stream, there is usually a relentless focus on creating a smooth and even flow of work...."

—Kim et al., *The DevOps Handbook*

- ▶ Delivering a continuous flow of value to customers in the shortest sustainable lead time is the central theme of SAFe
- ▶ Accomplishing this requires dedication to working towards an entirely new way of working



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The Eight Flow Accelerators

1. Visualize and limit WIP
2. Address bottlenecks
3. Minimize handoffs and dependencies
4. Get faster feedback
5. Work in smaller batches
6. Reduce queue lengths
7. Optimize time ‘in the zone’
8. Remediate legacy policies and practices



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7-16

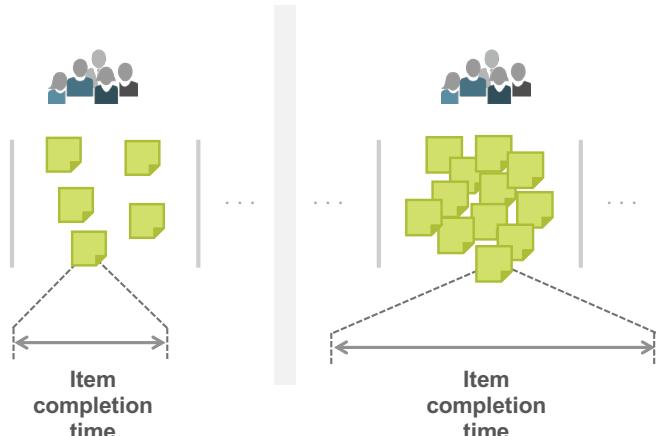
1. Visualize and limit WIP

► Why it matters:

- Excessive WIP decreases team productivity and impedes the flow of value
- Excessive WIP confuses individual and team priorities, causes frequent context switching, and increases waste and overhead

► What to do about it:

- Make current WIP visible
- Set WIP limits to balance WIP against available capacity



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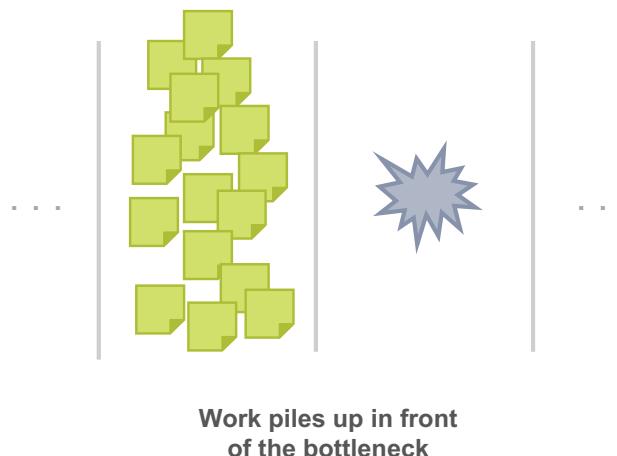
2. Address bottlenecks

► Why it matters:

- A bottleneck constrains the productivity of the entire ART
- Teams must address them to improve flow and continuously optimize

► What to do about it:

- Identify bottlenecks and understand their impact
- Identify the resolution: bypass? Increase skills towards the bottleneck? Prioritize enablers?
- Assess the improvement impact on the system



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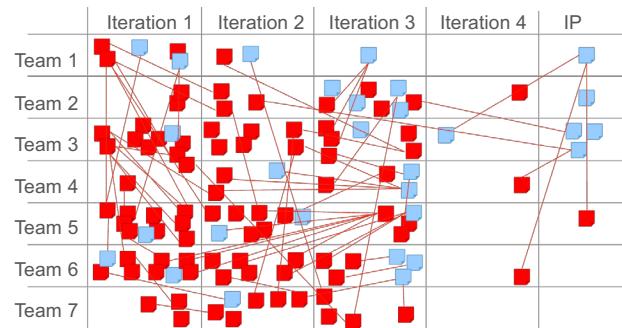
3. Minimize handoffs and dependencies

► Why it matters:

Excessive and unnecessary dependencies and handoffs disrupt team flow, create delays, and increase context switching overhead

► What to do about it:

- Use the planning board to visualize dependencies within and external to the ART
- Foster incremental execution of dependencies
- Organize around value, and reorganize when necessary



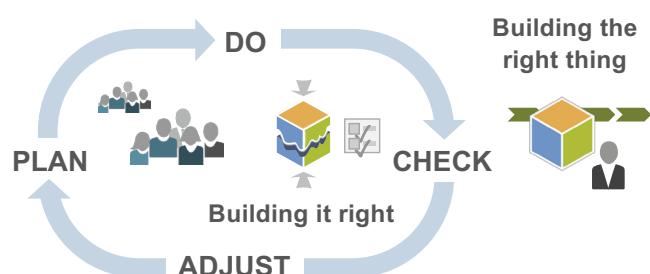
4. Get faster feedback

► Why it matters:

When feedback is delayed or missing mistakes pile up quickly, leading to substantial rework for multiple teams, slow delivery, and unsatisfied Customers

► What to do about it:

- Determine what types of feedback are missing or inadequate
- Shift reviews left
- Provide Solution telemetry
- Frequently engage with the Customer and Business Owner



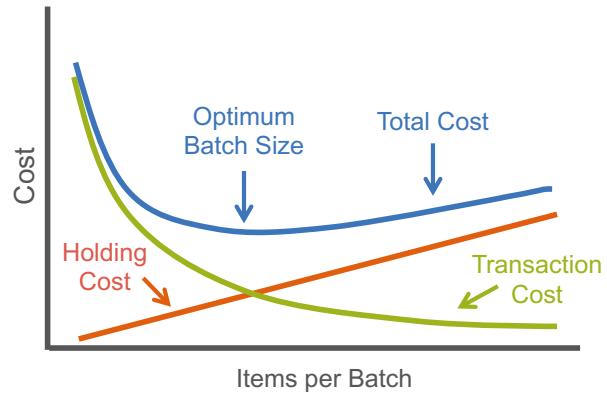
5. Work in smaller batches

► Why it matters:

Operating in large batches leads to delayed feedback, significant rework, and high variability. Teams have many different types of batches in play including feedback batches, integration batches and deployment batches.

► What to do about it:

- Use recommended cadence and team size
- Ensure enablers support automating the delivery pipeline
- Provide Solution telemetry
- Explicitly plan for small batches



6. Reduce Queue Lengths

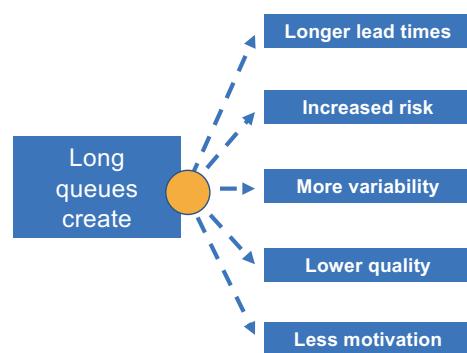
► Why it matters:

Queues represent committed work. The longer the queue, the longer the wait time for new functionality to be delivered to the Customer.

► What to do about it:

- Short Iteration time boxes and crisp Iteration and PI Objectives bring focus
- Ensure all work goes through the backlog
- Enable Product Managers and POs to exert positive yet firm ways to prioritize
- Leave capacity for emergent priorities

Long queues: All bad



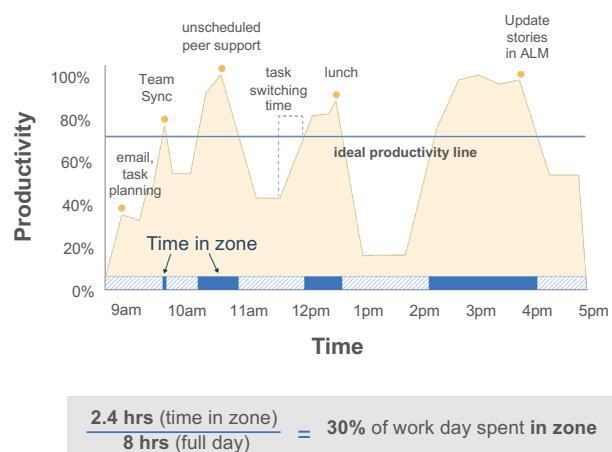
7. Optimize time 'in the zone'

► Why it matters:

Solution development relies heavily on creativity, focus, and deep, intellectual effort. It may take up to 20 minutes to fully immerse in work, and a simple external factor may instantly interrupt it.

► What to do about it:

- Continually optimize the efficiency of all meetings
- Refine what productive collaboration patterns mean to the team
- Maintain Solution health
- Make WIP visible, update limits across teams as needed



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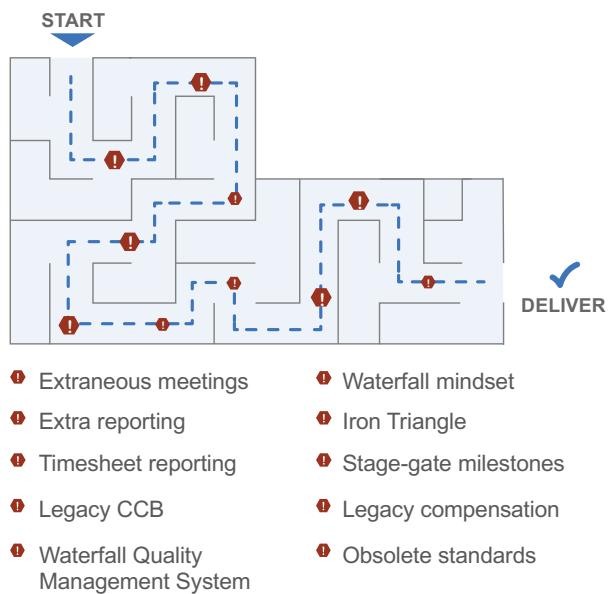
8. Remediate legacy policies and practices

► Why it matters:

Teams find themselves in a difficult predicament: pretend to conform to conflicting policies and reduce transparency, or fight the system while development is in process, slowing progress and creating friction. We want to be fully agile, not half.

► What to do about it:

- Know that these impediments likely exist
- Grant time and space to raise issues
- Actively solve the issues you can within the teams and ART
- Raise the visibility of the effects of those out of ART control



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7-24

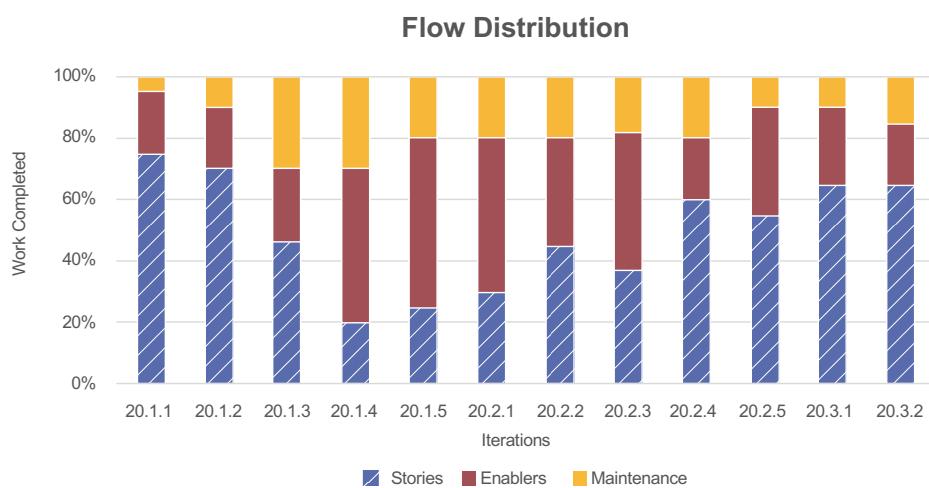
Measure flow with six flow Metrics

Metric	Description
Flow Distribution	The amount of each type of work in the system over time
Flow Velocity	The average number of work items that can be completed in a given timeframe
Flow Time	How long it takes for a work item to go through the system
Flow Load	The overall amount of WIP in the system
Flow Efficiency	How much of the overall flow time is spent in value-added work activities vs. waiting between steps
Flow Predictability	Overall planned vs. actual business value achieved

Reference: Kersten, *Project to Product*

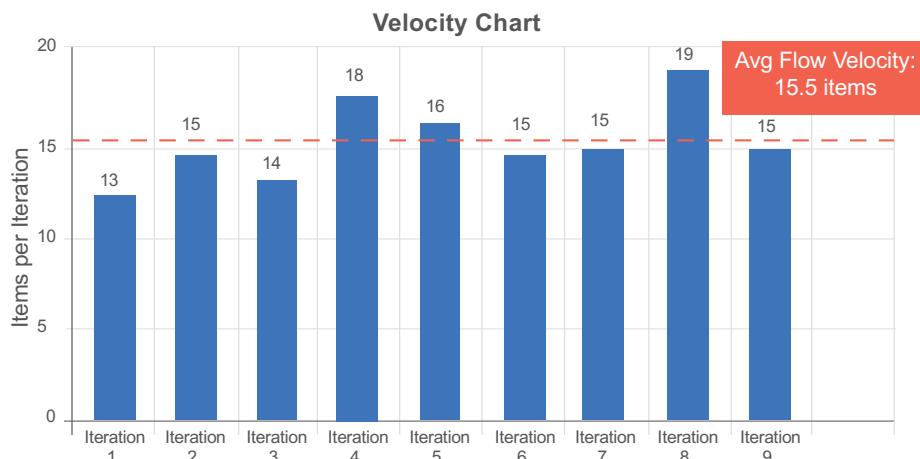
Flow distribution ensures a healthy balance of work item types

What does it measure? Flow distribution measures the amount of each type of work in the system over time.



Flow velocity tracks team performance each Iteration

What does it measure? Flow velocity measures the number of backlog items (Stories, Features, Capabilities, Epics) completed in a given timeframe; this is also known as the system's throughput.

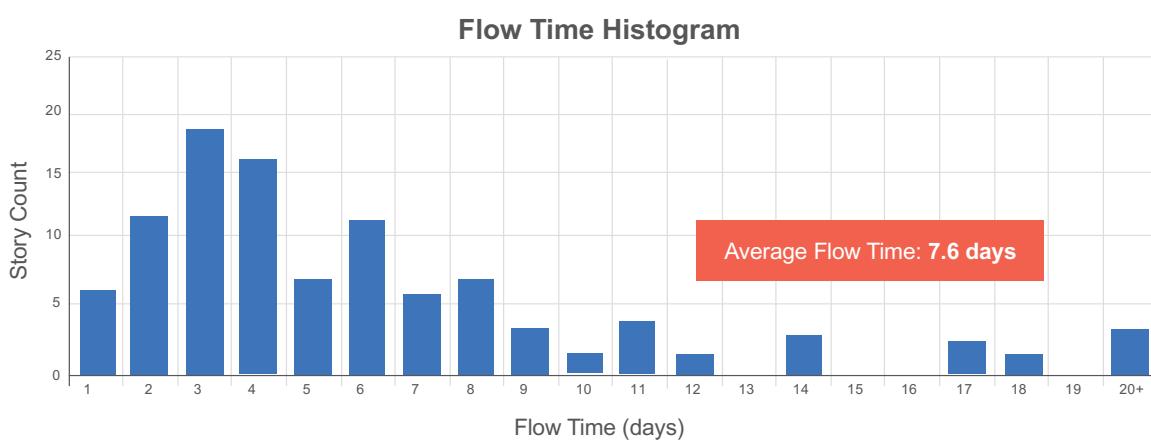


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Flow time ensures teams deliver value in the shortest possible time

What does it measure? Flow time measures the elapsed time from when an item enters the system to the moment it is delivered to the Customer.

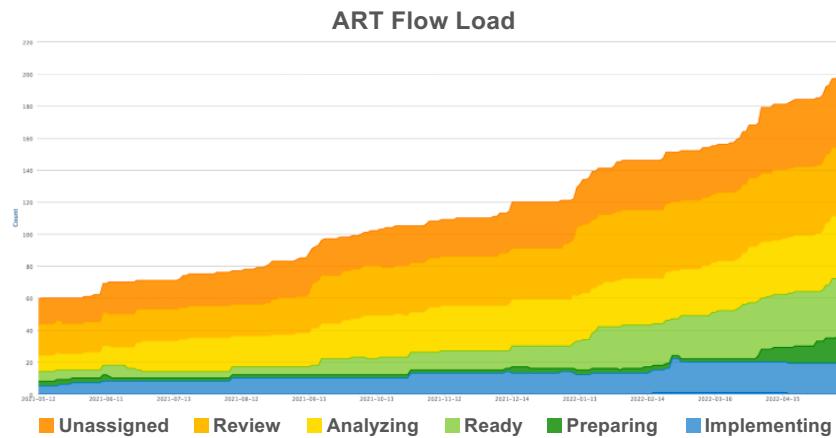


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Flow load is a leading indicator of excess WIP

What does it measure? Flow load indicates how many items are currently in the system, and helps to optimize the team and ART throughput by limiting demand to the capacity.

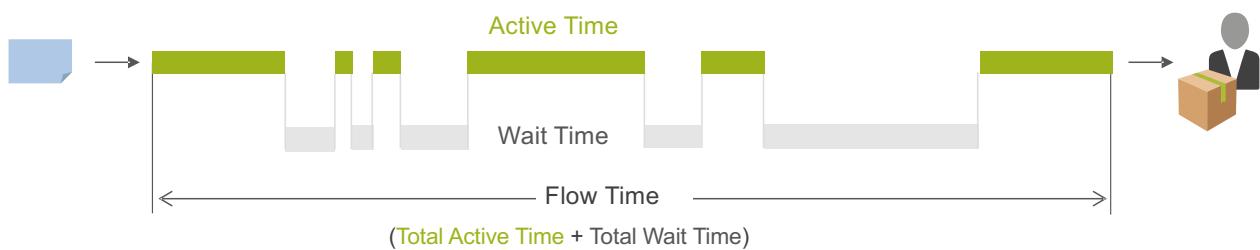


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7-29

Flow efficiency highlights waste, bottlenecks, and delays in the system

What does it measure? Flow efficiency measures how much of the overall flow time is spent in value-added work activities vs. waiting between steps.



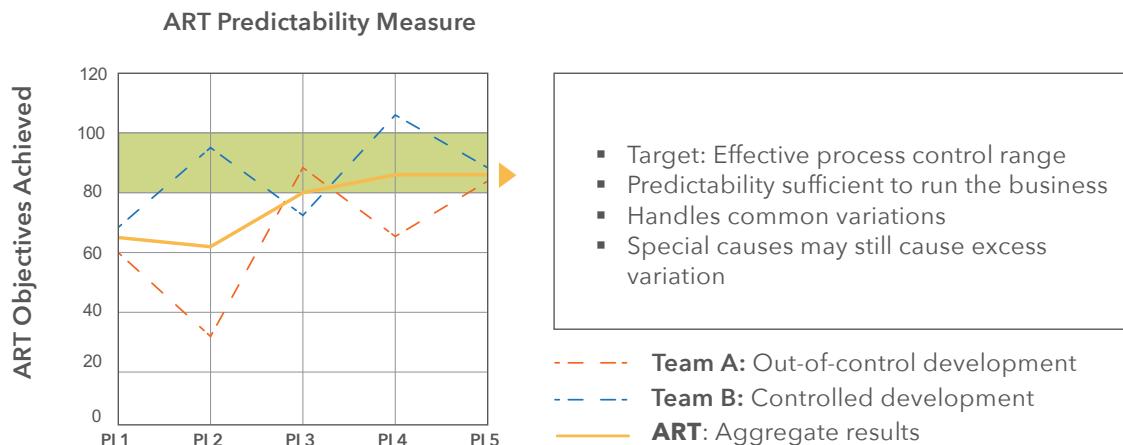
$$\text{Flow Efficiency} = \frac{\text{Total Active Time}}{\text{Flow Time}}$$

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7-30

Measure ART Predictability

The ART Predictability Measure compares actual business value to planned business value.





Activity: Which accelerators assist in what kind of problems?

Prepare
8 min

Share
3 min

- ▶ **Step 1:** In your group, review the example problems provided in your workbook and on the next slide. Select a problem that most closely matches one you experience in your team or ART.
- ▶ **Step 2:** Select which Flow Accelerators and Flow Metrics would apply to that problem.
- ▶ **Step 3:** Determine if any additional Flow Accelerators and Flow Metrics would be helpful in addressing the problem.
- ▶ **Step 4:** Be prepared to share with the class.



Activity: Which accelerators assist in what kind of problems?

Example Problems Surfaced

Too much focus on business Features, leading to Solution health degradation and slow development

Underlying problems with productivity; unpredictable velocity from one time period to the next

Slow time to market, causing the Customer to wait and our business to incur the cost of delay

Excess WIP, leading to increased flow time as queues build up in the system

Large amounts of waste in the system, along with bottlenecks and delays that need addressing

Low or erratic predictability, highlighting underlying problems in technology, planning, or organization performance that need addressing

Which fundamentals assist in what kind of problems?

Example Problems Surfaced

Too much focus on business Features leading to Solution health degradation, slowing development

Underlying problems with productivity; unpredictable velocity from one time period to the next

Slow time to market causing Customer to wait and our business to incur a cost of delay

Excess WIP leading to increased flow time as queues build up in the system

Large amounts of waste in the system along with bottlenecks and delays that need addressing

Low or erratic predictability highlights underlying problems in technology, planning, or organization performance that need addressing

Problems

Flow Accelerators

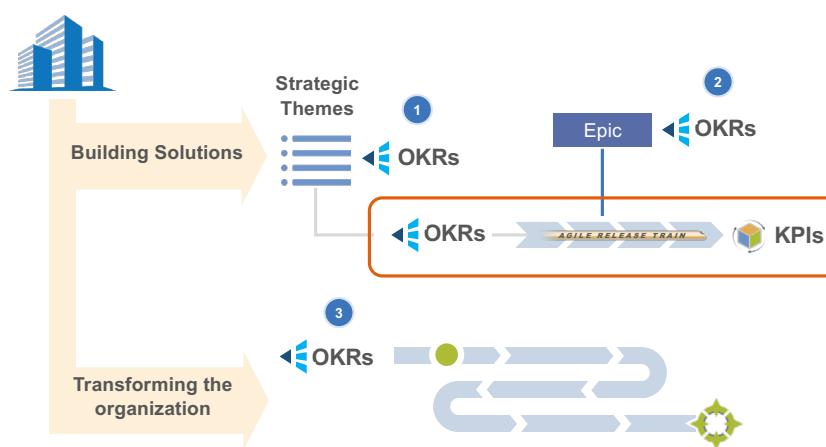
Flow Metrics

Notes

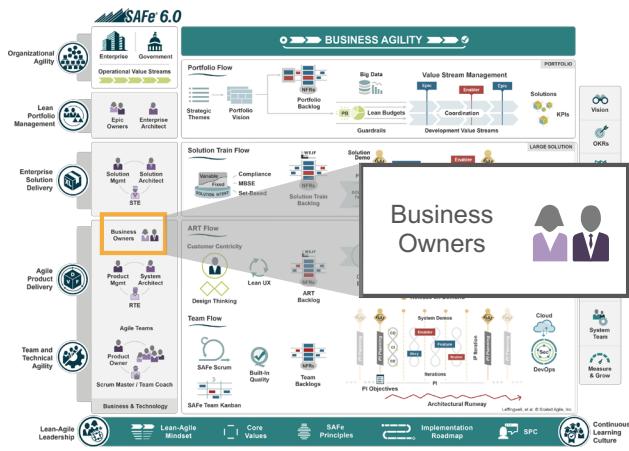
7.3 Improving outcomes

OKRs measure progress towards achieving outcomes

Objectives and key results (OKRs) create goals towards achieving business outcomes



The Business Owners guide the ART towards outcomes



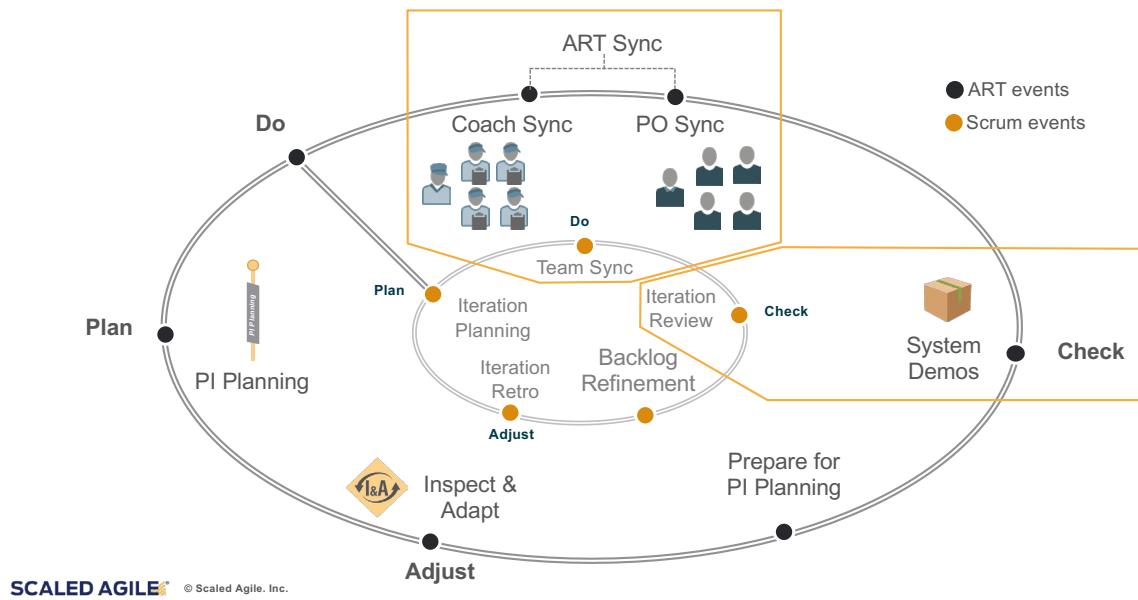
- ▶ Guide the ART toward business outcomes
- ▶ Are responsible for understanding and communicating the strategic themes that influence the train
- ▶ Identify OKRs and maintain, with ART leaders, KPI alignment
- ▶ Communicate the business context at ART events

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SAFe events provide continual outcome focus

Utilize syncs alongside reviews and demos to maintain alignment on outputs are leading towards outcomes



7-37

7.4 Starting the improvement journey

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Creating a balanced Metrics dashboard

	SAFe Portfolio	Agile Release Train	Agile Team
Outcomes	Value Stream KPIs Employee NPS	ART PI Objectives	Team PI Objectives Iteration Goals
Flow	Flow Load Flow Distribution	Flow Time Flow Efficiency Flow Predictability	Flow Velocity Flow Distribution
Competency	BA Assessment	APD Assessment DevOps Health Radar	TTA Assessment

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7-39

Four critical success factors



1. Use measurement in conjunction with other discovery tools



2. Apply Metrics where they support improved decision making



3. Understand the effect of Metrics on behavior



4. Interpret Metrics carefully



Action Plan: How will we improve together?



- ▶ **Step 1:** As a team, discuss and answer the following prompts:
 - Identify the top three actions you will bring to the upcoming PI
 - Identify how you will emphasize relentless improvement in the team and the ART in the next PI
 - Determine what Metrics and methods you will start with
 - Discuss how you will visualize team improvements
 - Decide how you would prefer to get feedback from other teams on opportunities to improve together
- ▶ **Step 2:** Create a two-minute recap of your discussion and your decisions





Action Plan

How will we
improve together?

Lesson review

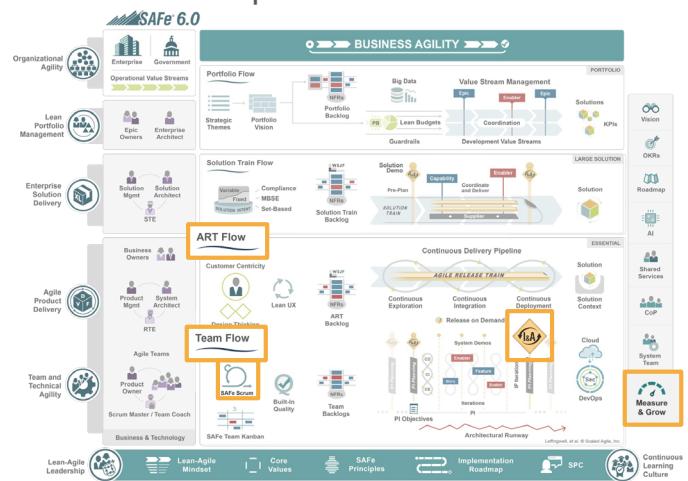
In this lesson you:

- ▶ Summarized the steps of a retrospective
- ▶ Identified the steps of I&A
- ▶ Explained the eight flow fundamentals
- ▶ Summarized how to apply flow Metrics to assess the organization's ability to make value flow without interruption
- ▶ Described the purpose of a balanced Metric approach
- ▶ Identified the top three actions your team can take into the upcoming PI to develop and grow your SAFe Agile Team practices

Articles used in this lesson

Read these Framework articles to learn more about topics covered in this lesson

- ▶ “Measure and Grow”
<https://www.scaledagileframework.com/measure-and-grow/>
- ▶ “Make Value Flow Without Interruptions”
<https://www.scaledagileframework.com/make-value-flow-without-interruptions/>
- ▶ “Inspect and Adapt”
<https://www.scaledagileframework.com/inspect-and-adapt/>
- ▶ “Iteration Retrospective”
<https://www.scaledagileframework.com/iteration-retrospective/>



Continue your SAFe journey with the following resources:

Download “The Facilitator’s Guide to SAFe: Iteration Retrospectives” for guidance in preparing to facilitate Iteration Retrospectives. https://bit.ly/Community-FGRetrospective	Access the Collaborate template, “Start – Stop – Continue & I Wish Retrospective,” for two types of retrospectives to help teams reflect on the previous iteration. https://bit.ly/Template-StartStopContinuelWishRetro
Download “The Facilitator’s Guide to SAFe: Inspect and Adapt” for support with agenda setting, preparation guidance, and tips and tricks for facilitating I&A events. https://bit.ly/Community-FGInspectandAdapt	Access the SAFe Collaborate template, “Root Cause Analysis and Problem-Solving Board,” to gather data and visualize the problem-solving process. https://bit.ly/Template-RootCause
Watch this 25-minute video, <i>Measure What Matters for Business Agility: Outcomes, Flow and Competency</i> , for a comprehensive overview of the various tools SAFe prescribes for measuring success. https://bit.ly/Video-MeasureWhatMatters	Use the “SAFe Assessment Workshop Toolkit” to run a workshop to identify growth opportunities for your team as you work toward mastering SAFe and Business Agility. https://bit.ly/Community-ToolkitsandTemplates

References

- AOE. 4. Don Reinertsen: *The Economics of Batch Size and the “Father-Egg” Story*. YouTube. April 12, 2017.
https://www.youtube.com/watch?v=zVASqSj_kvc.
- Kersten, Mik. *Project to Product: How to Survive and Thrive in the Age of Digital Disruption with the Flow Framework*. IT Revolution: Portland, 2018. Kindle Edition.
- Kim, Gene, Jez Humble, Patrick Debois, and John Willis. *The DevOps Handbook: How to Create World-Class Agility, Reliability, & Security in Technology Organization, Second Edition*. IT Revolution: Portland, 2021. Kindle Edition.

Lesson notes

Enter your notes below. If using a digital workbook, save your PDF often so you don't lose any of your notes.

Lesson 8

Practicing SAFe

SAFe® Course - Attending this course gives learners access to the SAFe® Practitioner exam and related preparation materials.



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8-1



Video: SAFe Certification Benefits

Duration
3 min



<https://bit.ly/Video-SAFECertificationBenefits>

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8-2



Video: Welcome to the SAFe Community Platform

Welcome to the SAFe Community Platform

<https://bit.ly/Video-WelcomeSAFeCommunityPlatform>

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8-4

SAFe ART and team events



SAFe ART and Team Events: Use checklists, guides, templates, videos, and more to support your ART and team events

Home Learn Implementation Measure Connect Teach Partner Support

SAFe ART & Team Events

Support for ART and Team Events

Learn how to facilitate SAFe ART and Team events for both in-person and distributed teams. SAFe tools and guidance are added and updated regularly to help you prepare for and facilitate successful SAFe events regardless of whether they will be face-to-face or distributed. Use articles, videos, agendas and one-pagers, and more to support your ART and team events.



Events



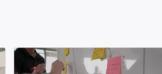
ART Events

Find the tools, resources, and assets you need to help you facilitate ART Events.



Program Increment (PI) Planning

Find the tools, resources, and assets you need to help you facilitate a PI Planning event.



Inspect and Adapt (I&A)

Find the tools, resources, and assets you need to help you facilitate an Inspect and Adapt event.



Team Events

Find the tools, resources, and assets you need to help you facilitate Team Events.

What's on this page?

- 1 Vision, checklist, Toolkit, and more to help guide you in preparing for and facilitating SAFe ART and Team events.
- 2 SAFe Collaborate Templates specifically curated for each SAFe event.
- 3 New to SAFe Collaborate? Find guidance for using that tool here as well.

8-5

SAFe toolkits

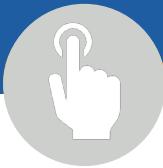


Explore ready-to-use templates and job resources to help execute SAFe events and workshops more effectively

The image displays six Scaled Agile Framework (SAFe) toolkits arranged in a 2x3 grid. Each toolkit has a blue header with white text and a green circular icon containing a white wrench and screwdriver. The toolkits are: 1. SAFe® Remote ARTs Toolkit, 2. SAFe® Assessment Workshop Toolkit, 3. SAFe® Iteration Execution Toolkit, 4. SAFe® PI Planning Toolkit, 5. SAFe® PI Execution Toolkit, and 6. Team Formation Toolkit. The background of each toolkit page features a white wavy pattern and the Scaled Agile logo at the bottom right.

8-6

E-learning resources



Discover and develop skills through self-paced, interactive e-learning modules to achieve your personal and professional goals



Agile Basics

E-learning

Learn what Agile is, where it comes from, why it continues to be used and needed, and how it supports teams and organizations to do what they do better.

⌚ 30 - 45 Minutes



What is SAFe for Lean Enterprises

E-learning

Become more familiar with the goals and methods of SAFe to achieve Business Agility.

⌚ 15 - 30 Minutes



SAFe Foundations: Core Values

E-learning

Build your understanding of the core values of SAFe and how they are applied in practice.

⌚ 15 - 30 Minutes

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8-7

Community video hub



Access videos to support your learning and grow your skills



Introduction to PI Planning

A Quick Overview



SAFe Developer Stories

My First PI Planning

Elizabeth Flournoy
SAFED AGILE®
Provider of SAFe



The Lean-Agile Mindset



Navigating the Big Picture

SAFED AGILE®
Provider of SAFe



What is DevOps?

with Morgan Campbell

SAFED AGILE®
Provider of SAFe

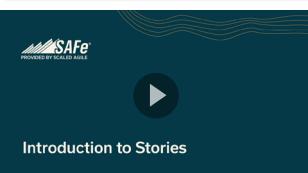


SAFED Overview in 5 Minutes



Implementing Kanban for a Team on a Train

Part 2: Kanban Video Series



Introduction to Stories

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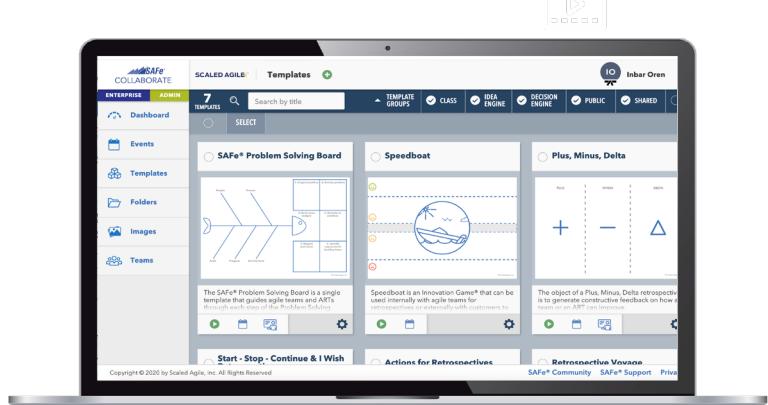
8-8

SAFe Collaborate



Organize and run virtual SAFe events in real-time

SAFe Collaborate is a visual, cloud-based workspace where organizations can orchestrate virtual SAFe events activities easily and effectively with predesigned and customizable templates.



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8-9

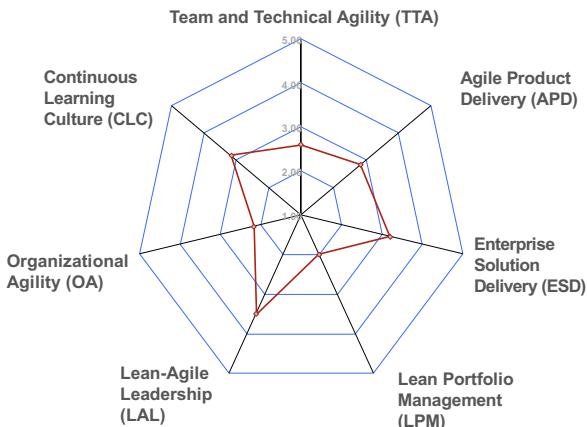
Measure & Grow



Evaluate progress towards business agility with the SAFe assessments, Measure and Grow workshop and our assessment partners

Business Agility Assessment

Team and Technical Agility (TTA)



Continuous Learning Culture (CLC)

Agile Product Delivery (APD)

Enterprise Solution Delivery (ESD)

Lean Portfolio Management (LPM)

Lean-Agile Leadership (LAL)

Organizational Agility (OA)

SCALED AGILE® © Scaled Agile, Inc.

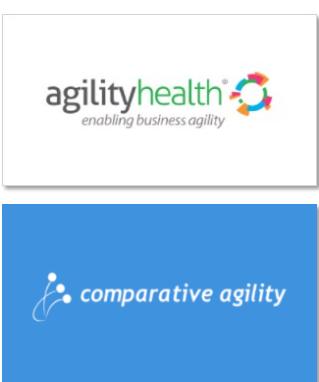
Measure and Grow Workshop Toolkit

SAFe Measure and Grow Workshop Toolkit

[PDF](#)

Find the tools and resources needed to facilitate successful Measure & Grow Workshops in your organization.

[Download](#)



8-10

Team and Technical Agility assessment



Competency-based self-assessments

Each core competency has a downloadable assessment, along with three Growth recommendations, available in SAFe Collaborate. To access these assets directly, visit the SAFe Community Platform Measure and Grow page: <https://bit.ly/Community-MeasureAndGrow>

-  Organizational Agility
-  Lean Portfolio Management
-  Enterprise Solution Delivery
-  Agile Product Delivery

-  Team and Technical Agility
-  Continuous Learning Culture
-  Lean-Agile Leadership



SAFe forums



Join the SAFe Practitioners Community Forum to connect with a community of SAFe certified Practitioners

The screenshot shows the SAFe Community forum. At the top, there's a navigation bar with links like Home, Learn, Implement, Measure, Connect, Teach, and Partner. Below that is a search bar and a user profile icon. The main area features a post by a user named "SAFe". The post content is:

Hello all,
We are planning to implement Essential SAFe in our organization. As a first step we are planning to fill the Essential SAFe Diagnostic sheet. Now my question, who if the best person in the company who can fill this out in an unbiased way. Or if it should be a group of people please advise.

Below the post are interaction buttons: Like, Comment, Share, and a link to "2 comments · 13 views". A comment from "Shrihan Alawani" is shown below:

Definitely it should be a group of persons!
Not only to have a common understanding but also an alignment so that you generate a Tipping Point to really change and take the more critical persons behind you.
So this answers the question you have need the line Managers of this Organisation who are responsible for the Work, for the in and output channel. so also the stakeholders (BO's) of the Products / Services of the Train. typically you limit this group up to 10 people

SAFe FAQs



When you need support, check the FAQ page for your question or contact SAI support directly.

The screenshot shows the 'Frequently Asked Questions' section of the SAFe Support website. It features a grid of six categories: 'SAFe Enterprise' (with a building image), 'SAFe Collaborate' (with a computer monitor image), 'Membership & Certification' (with a person and badge image), 'Courses & Exams' (with a person at a desk image), 'Instructor/Admin' (with a person speaking image), and 'Community Platform' (with a computer screen image). Below the grid, there are three rows of links:

SAFe Enterprise Enterprise General	Enterprise Admin	SAFe Enterprise Benefits
SAFe Collaborate Collaborate Instructor	Collaborate Learner	Collaborate General
Membership & Certification		

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8-13

**Good luck on your
SAFe Practice
with the
SAFe Community
Platform!**

<https://community.scaledagile.com/>



8-14

SAFe Glossary



SAFe Glossary:

Visit the Scaled Agile Framework site (www.scaledagileframework.com/glossary/) to download glossaries translated into other languages.