

Implementing SAFe®

Achieving Business Agility with the Scaled Agile
Framework®

5.0.0.1

SAFe® Course - Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.



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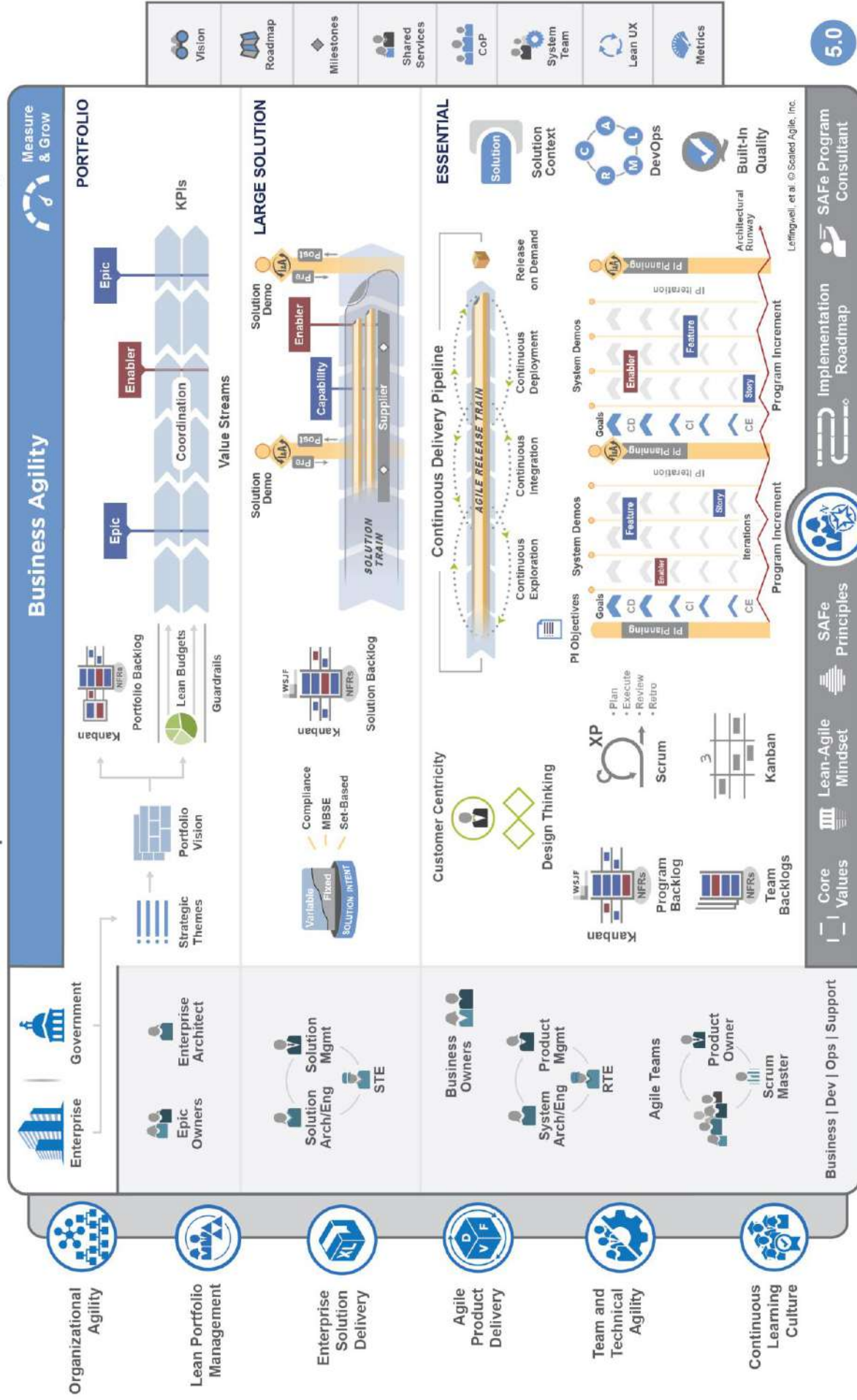
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SAFe® for Lean Enterprises

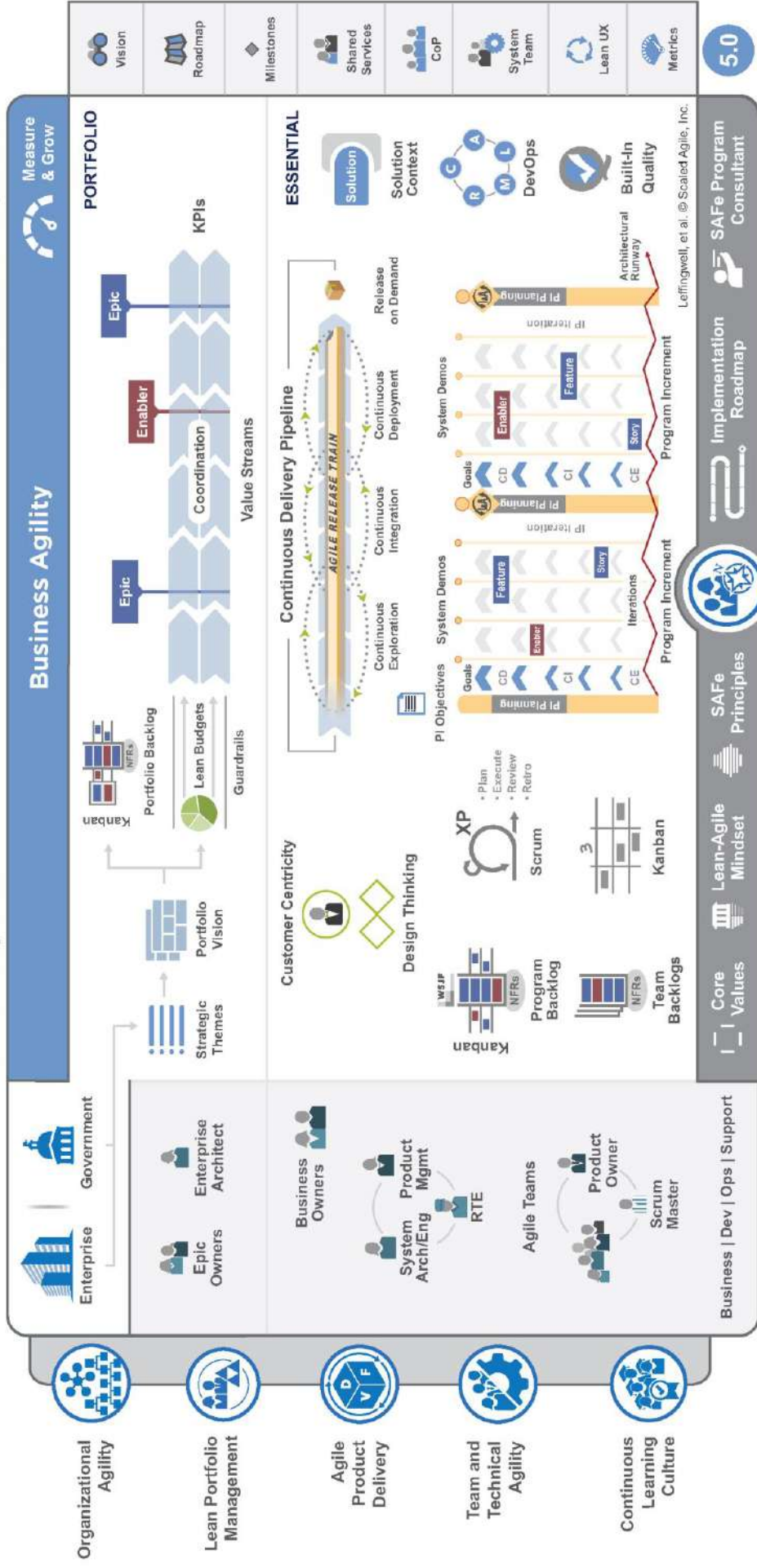
Full Configuration



Lean-Agile Leadership

SAFe® for Lean Enterprises

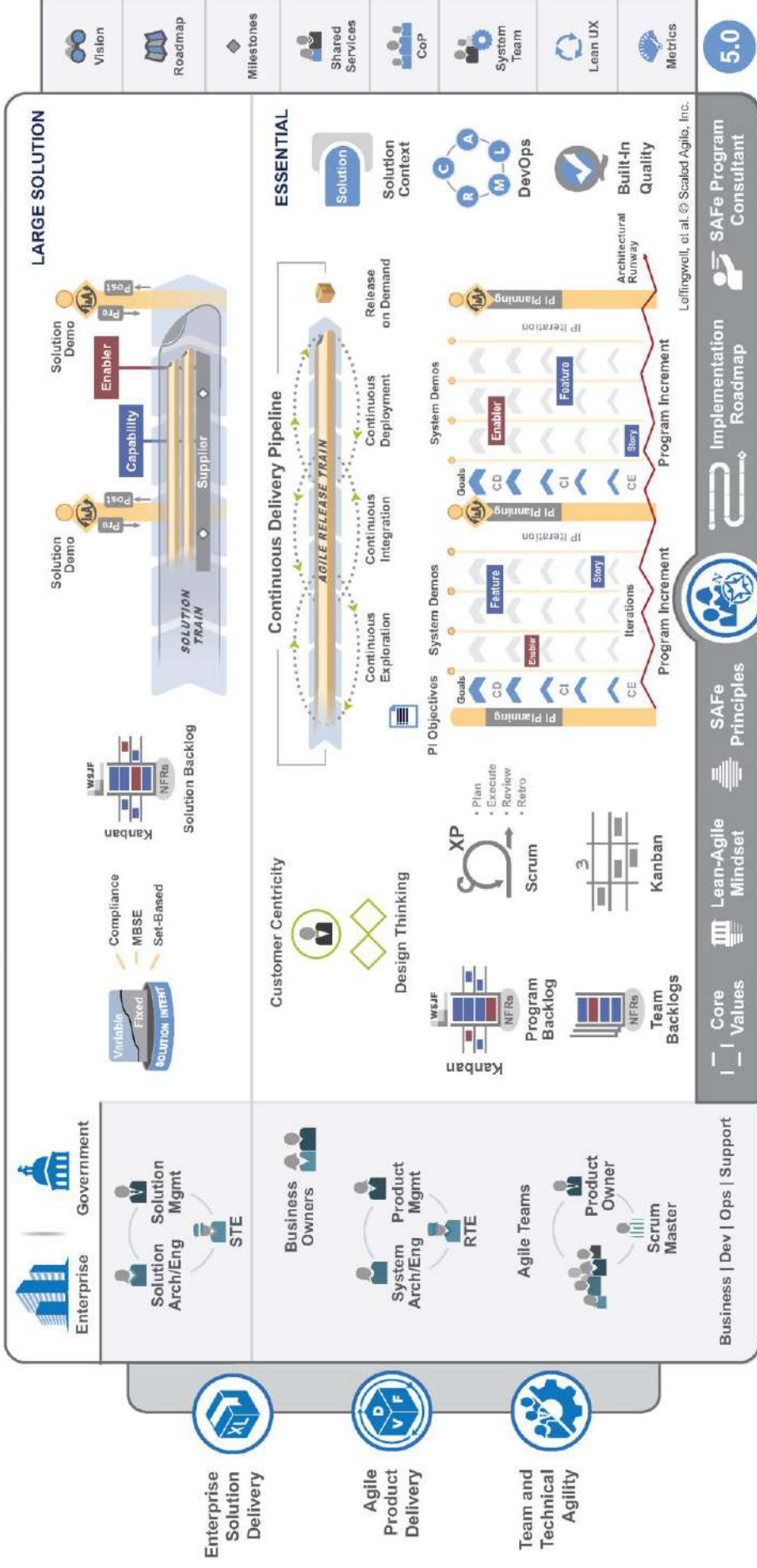
Portfolio Configuration



Lean-Agile Leadership

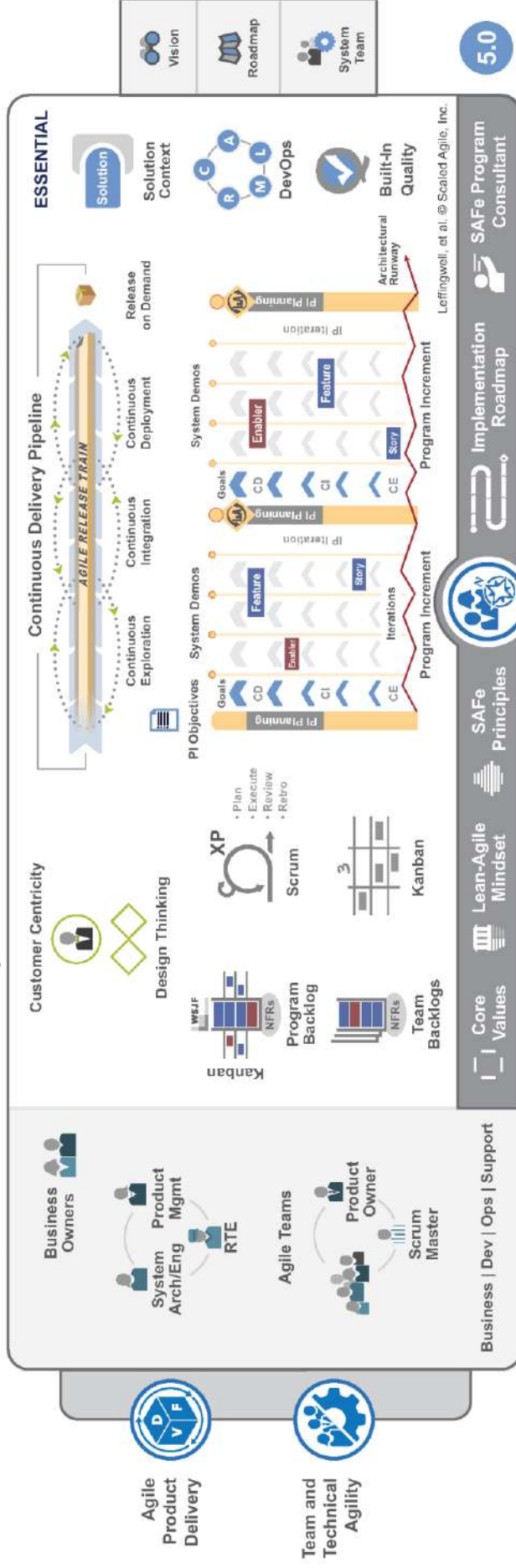
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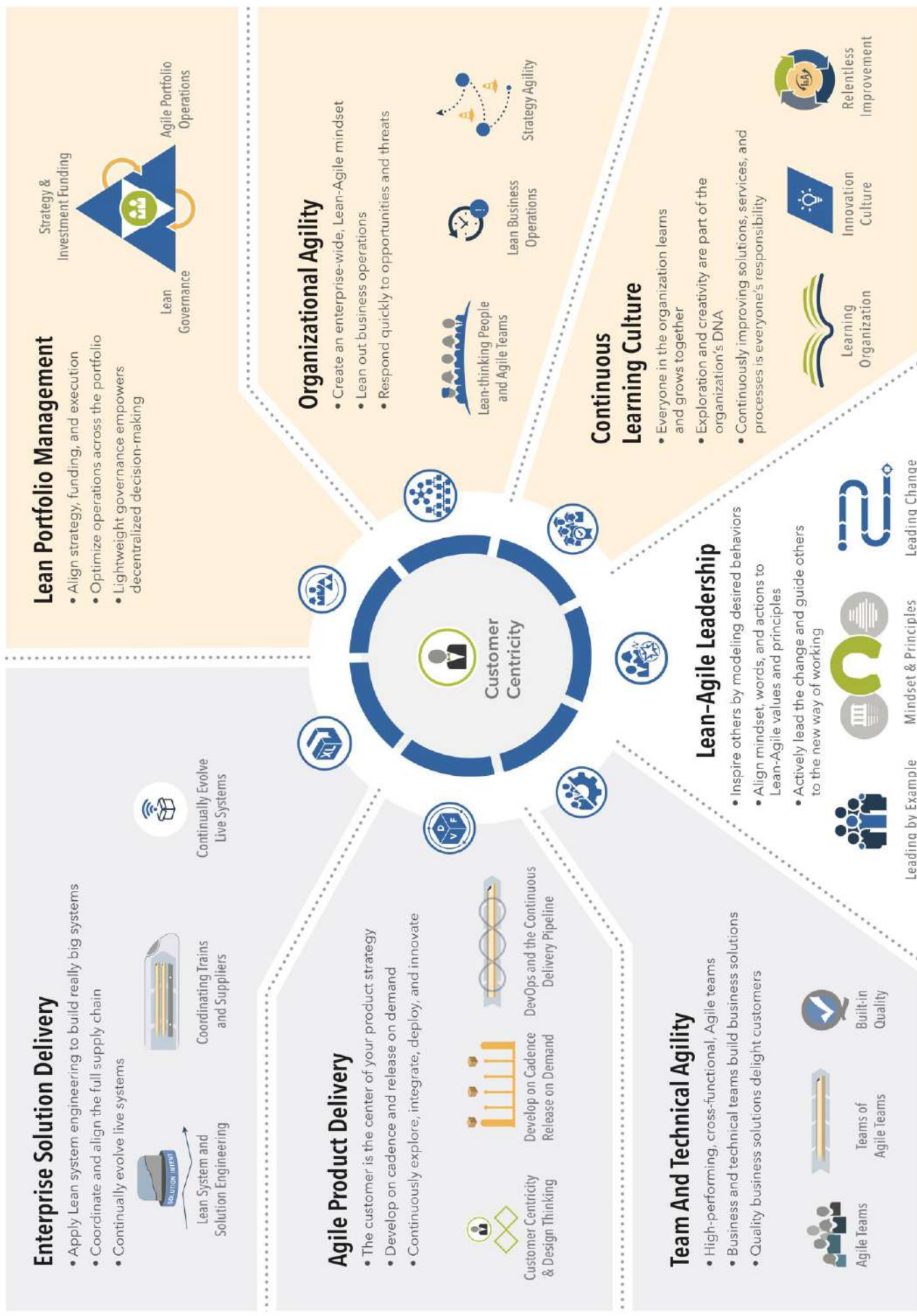
Large Solution Configuration



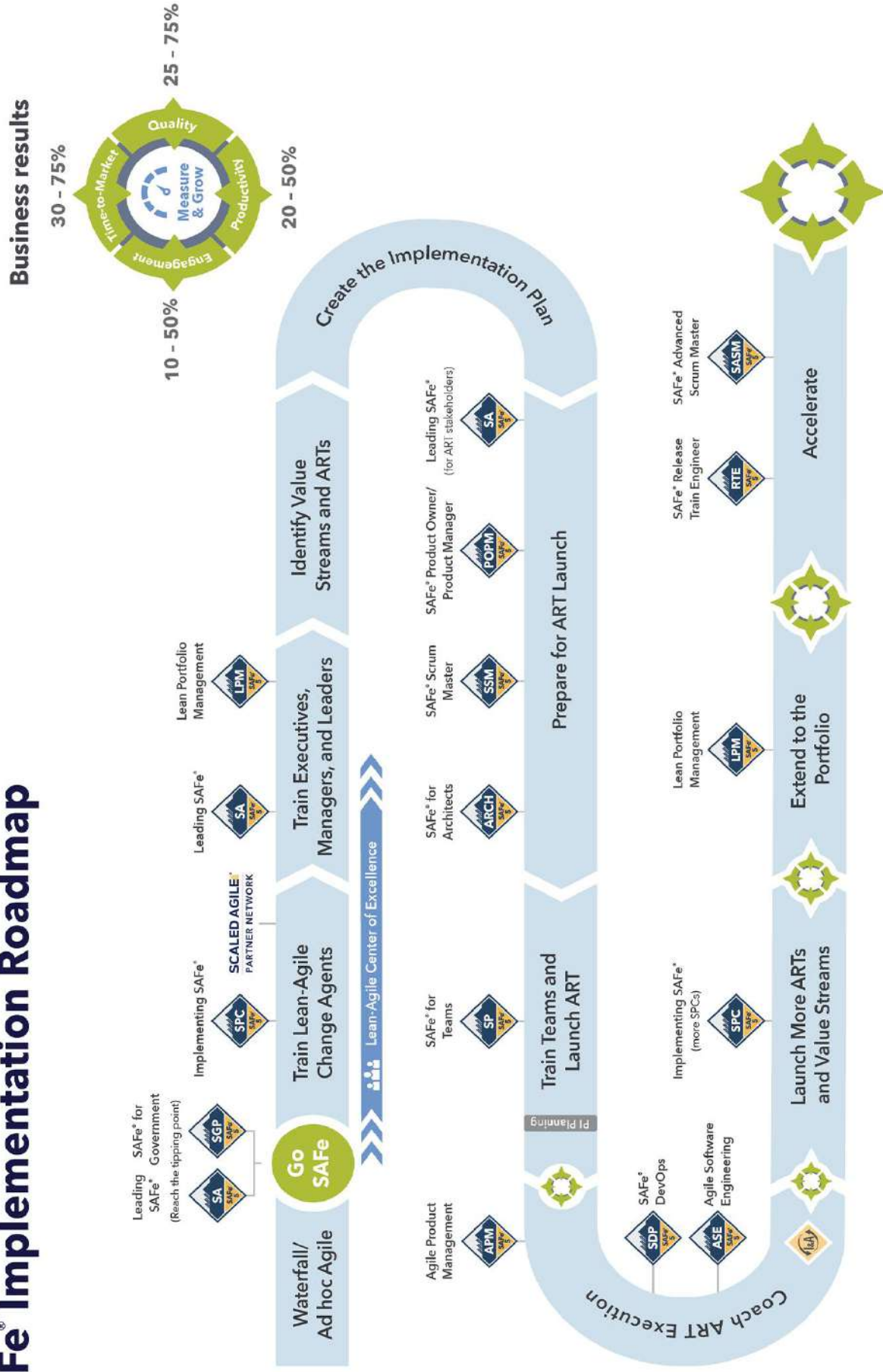
SAFe® for Lean Enterprises

Essential Configuration





SAFe® Implementation Roadmap



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SAFe® Courses and Certifications














Course	Description	Certification
Leading SAFe®	Thriving in the Digital Age with Business Agility	 with SAFe® 5 Agilist Certification
Implementing SAFe®	Achieving Business Agility with the Scaled Agile Framework	 with SAFe® 5 Program Consultant Certification
SAFe® for Government	Applying Lean-Agile Practices in the Public Sector with SAFe®	 with SAFe® 5 Government Practitioner Certification
Lean Portfolio Management	Aligning Strategy with Execution	 with SAFe® 5 Lean Portfolio Manager Certification
SAFe® Product Owner/Product Manager	Delivering Value through Effective Program Increment Execution	 with SAFe® 5 Product Owner/Product Manager Certification
Agile Product Management	Using Design Thinking to Create Valuable Products in the Lean Enterprise	 with SAFe® 5 Agile Product Manager Certification
SAFe® Scrum Master	Applying the Scrum Master Role within a SAFe® Enterprise	 with SAFe® 5 Scrum Master Certification
SAFe® Advanced Scrum Master	Advancing Scrum Master Servant Leadership with SAFe®	 with SAFe® 5 Advanced Scrum Master Certification
SAFe® Release Train Engineer	Facilitating Lean-Agile Program Execution	 with SAFe® 5 Release Train Engineer Certification
SAFe® for Architects	Architecting for Continuous Value Flow with SAFe®	 with SAFe® 5 Architect Certification
SAFe® DevOps	Optimizing Your Value Stream	 with SAFe® 5 DevOps Practitioner Certification
SAFe® for Teams	Establishing Team Agility for Agile Release Trains	 with SAFe® 5 Practitioner Certification
Agile Software Engineering	Enabling Technical Agility for the Lean Enterprise	 with SAFe® 5 Agile Software Engineer Certification

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Digital Workbook User Guide

Frequently Asked Questions

Q: How can I take notes in my digital workbook?

A: After each lesson, there is a notes page that allows you to type notes directly into the workbook. At the end of the workbook, there is an action plan which also has fields that allow you to type notes. Remember to save your workbook to your personal computer to save any content you may have added.

If you open the digital workbook with a product like Adobe Acrobat, there are functions that allow you to add your own text boxes, add bookmarks, highlight text, and add comments. Remember to save your workbook to your personal computer to save any content you may have added.

Q: What other features are included in the digital workbook?

A: Action plan slides are clickable and will take you to the action plan at the end of the workbook. All videos have a hyperlink directly below the slide that will take you to the correct URL. If you click on assets in the front matter, you will be taken to ScaledAgileFramework.com resources like the Implementation Roadmap and course certification pages.

Q: How do I fill out the action plan in my digital workbook?

A: To add text to a blue text field, click within the blue box and type. Remember to save your workbook to your personal computer to save any content you may have added.

Q: Is my digital workbook saved on the community platform?

A: The original digital workbook file will always be available to you in your Learning Plan on the SAFe Community Platform. However, any text or content added to your digital workbook must be saved on your personal computer. Remember to save your workbook to your personal computer to save any content you may have added.

Q: Can I share my digital workbook with my coworkers?

A: No. You cannot share your digital workbook. It is for personal use only, so you may not reproduce or distribute it.

Q: Can I print the digital workbook?

A: Yes. You may print the digital workbook for your personal use. The file is in full color, so if you'd prefer to print the workbook in black and white only, make sure to adjust your printing preferences.

Logistics

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

Notes:



Discussion: Introductions



- ▶ **Step 1:** Introduce yourself to someone and share something you know about SAFe and the role of the SAFe Program Consultant (SPC)
- ▶ **Step 2:** Be prepared to share with the class:
 - What is your current role?
 - What are your expectations for this class?



Notes:

Course goals

At the end of this course you should be able to:

- ▶ Lead an Enterprise Lean-Agile transformation
- ▶ Implement the Scaled Agile Framework (SAFe)
- ▶ Implement Lean Portfolio Management
- ▶ Perform Value Stream identification
- ▶ Launch and coach Agile Release Trains
- ▶ Coordinate multiple Agile Release Trains with a Solution Train
- ▶ Use the seven core competencies to achieve Business Agility
- ▶ Train managers and executives in Leading SAFe
- ▶ Continue your learning journey and become enabled to train other SAFe roles in the Enterprise

Notes:



Activity: Course goals overview



- ▶ **Step 1:** Review the outlined course goals posted on flip chart sheets around the room.
- ▶ **Step 2:** You have three votes total. Place a dot on the goals that are most relevant to you.

Notes:



Activity: Where are we?



- **Step 1:** Place a sticky note on the following three posters to identify where you are in terms of:
 - Existing certification
 - Agility experience matrix
 - Place in the SAFe Implementation Roadmap

Notes:

Implementing SAFe is a two-part course

Part 1: Leading SAFe



SPCs teach leaders and other stakeholders this two-day course. In Part 1, you will take the course and also be given tips and strategies for teaching it.

Part 2: Implementation



In Part 2, you will learn strategies and practices for implementing SAFe.

Notes:

Course map

Leading SAFe

- ▶ Lesson 1: Thriving in the Digital Age with Business Agility
- ▶ Lesson 2: Becoming a Lean-Agile Leader
- ▶ Lesson 3: Establishing Team and Technical Agility
- ▶ Lesson 4: Building Solutions with Agile Product Delivery
- ▶ Lesson 5: Exploring Lean Portfolio Management
- ▶ Lesson 6: Leading the Change
- ▶ Lesson 7: Becoming a SAFe Agilist

Implementing SAFe

- ▶ Lesson 8: Reaching the SAFe Tipping Point
- ▶ Lesson 9: Designing the Implementation
- ▶ Lesson 10: Launching an Agile Release Train
- ▶ Lesson 11: Coaching ART Execution
- ▶ Lesson 12: Extending to the Portfolio
- ▶ Lesson 13: Accelerating Business Agility
- ▶ Lesson 14: Becoming a SAFe Program Consultant
- ▶ Open Space

Notes:

Introducing the Action Plan

- ▶ In your workbook you will find the *Action Plan*
- ▶ Throughout the course, you will have an opportunity to add ideas, insights, and action items as a takeaway



Notes:

Lesson 1

Thriving in the Digital Age with Business Agility

Learning Objectives:

- 1.1 Thrive in the Digital Age
- 1.2 Describe SAFe as an operating system for Business Agility
- 1.3 Explain the Seven Core Competencies of Business Agility



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

1.1 Thrive in the digital age

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Notes:

“Those who master large-scale software delivery will define the economic landscape of the 21st century.

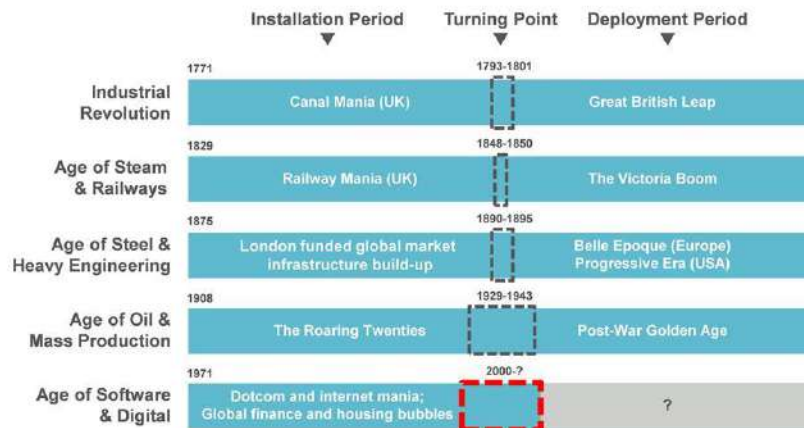
—Mik Kersten



Notes:

1.1 Thrive in the Digital Age

Five technological revolutions



Adapted from Technological Revolutions and the Age of Software, Carlota Perez

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Notes:

Production capital follows financial capital

- **Installation Period** – New technology and financial capital combine to create a “Cambrian explosion” of new entrants, disrupting the entire industries from the previous age
- **Turning Point** – Existing business either master the new technology or decline and become relics of the last age
- **Deployment Period** – Production capital of the new technological giants starts to take over



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Notes:

What stage are we in?

- ▶ "BMW Group's CEO expects that in their future more than half of its R&D staff will be software developers." (Mik Kersten, Project to Product)
- ▶ "Amazon and Whole Foods Merger to Introduce Cross-Platform Selling and Lower Prices" (Forbes, August 2017)
- ▶ The market cap of Tesla (\$43B market cap, \$21B revenue) now exceeds the market cap of Ford (\$36.2B market cap, \$160B revenue) 8:1 value ratio (September 2019)
- ▶ Apple is now the biggest watchmaker in the world (Investopedia 2019)



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Notes:

Competing in the Age of Software



The problem is not with our organizations realizing that they need to transform; the problem is that organizations are using managerial frameworks and infrastructure models from past revolutions to manage their businesses in this one.

—Mik Kersten

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Notes:

Rethinking the organization



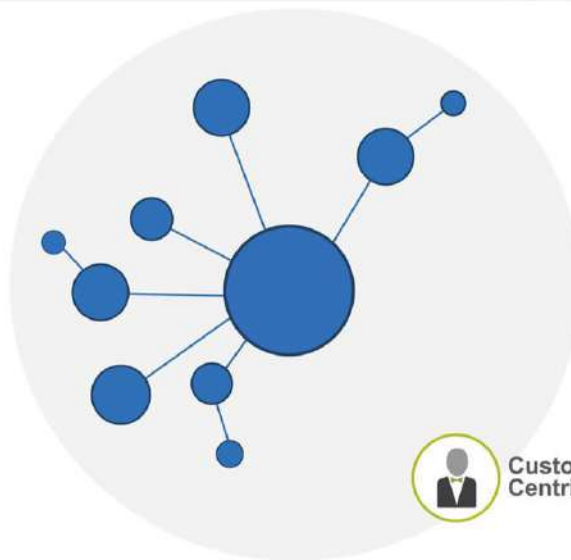
The world is now changing at a rate at which the basic systems, structures, and cultures built over the past century cannot keep up with the demands being placed on them.

—John P. Kotter



Notes:

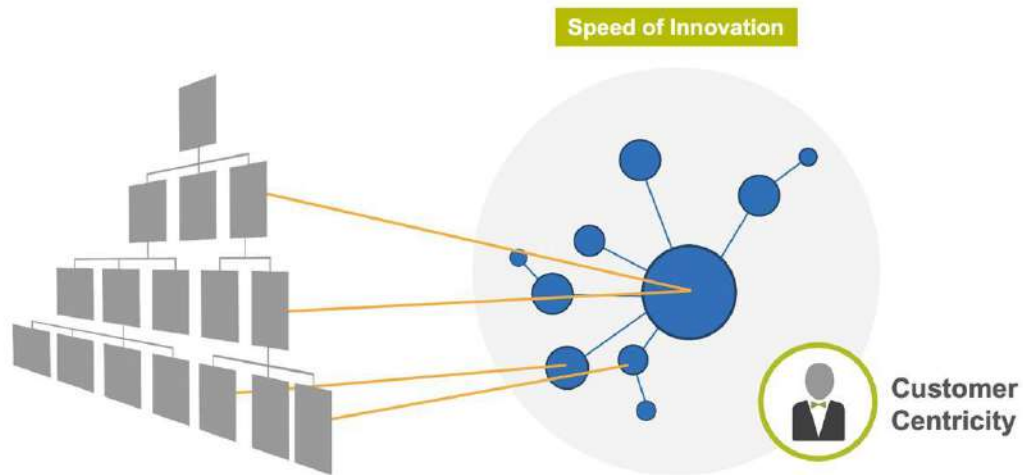
We started with a network



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Notes:

We add hierarchy for stability and execution

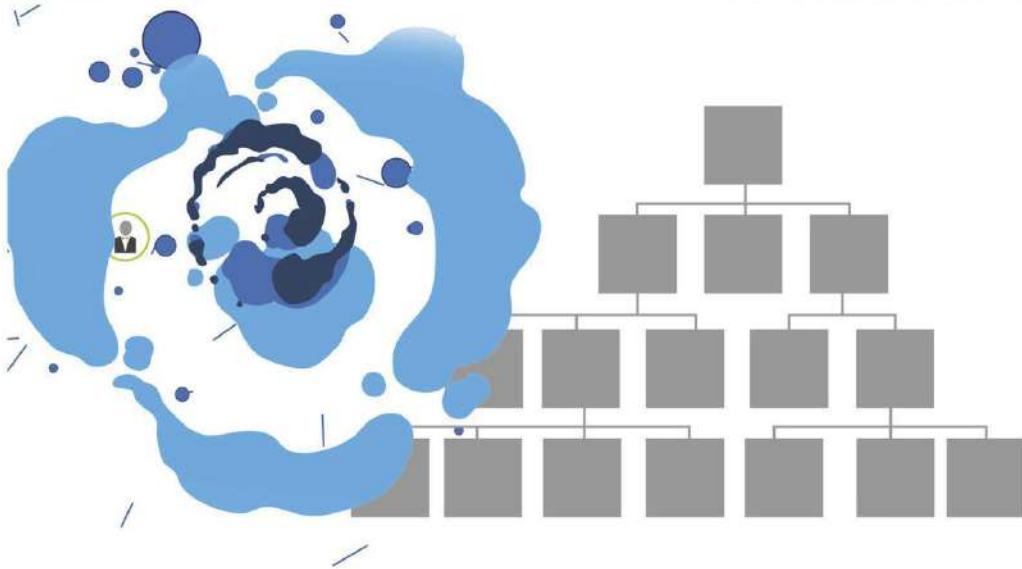


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Notes:

Guess what happens?



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Notes:



The solution is not to trash what we know and start over but instead to reintroduce a second system—one which would be familiar to most successful entrepreneurs.

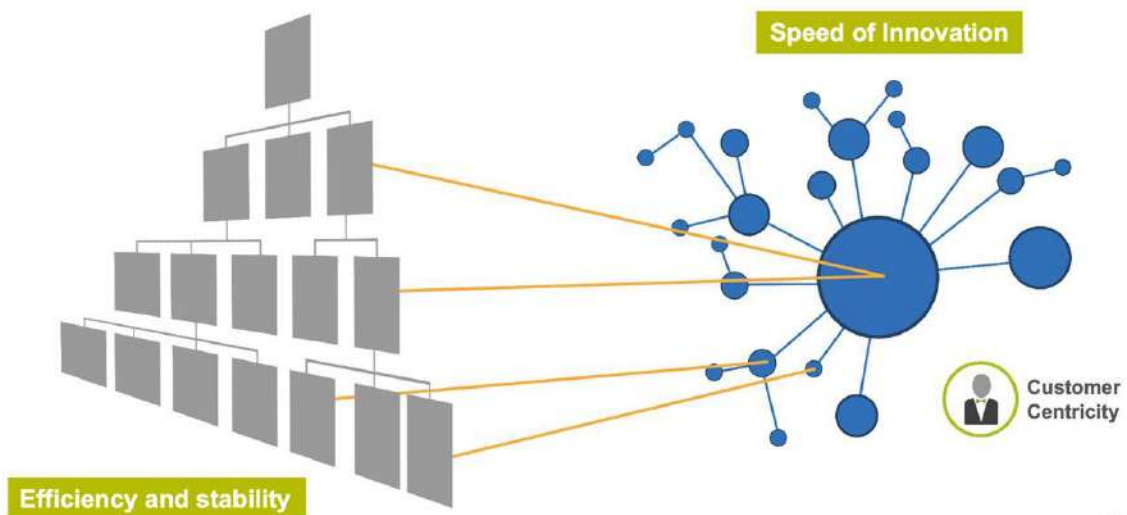
You need a dual operating system.

—John P. Kotter

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Notes:

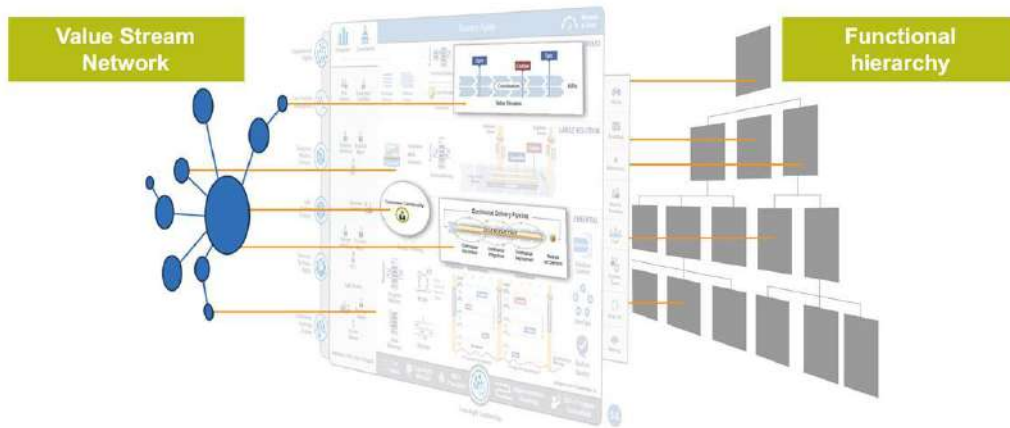
We need a dual operating system for Business Agility



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Notes:

And we have just such an operating system at our fingertips



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Notes:

1.2 Describe SAFe as an operating system for Business Agility

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Notes:



*Every business is a software business now. Achieving a state of **business agility** means that the entire organization—not just development—is engaged in continually and proactively delivering innovative business solutions faster than the competition.*

*— Dean Leffingwell
Creator of SAFe*

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Notes:

1.2 Describe SAFe as an operating system for Business Agility

Business Agility requires technical agility **and** a business-level commitment to product and Value Stream thinking.

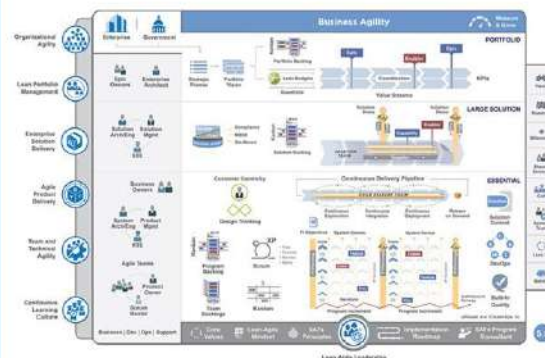
And it requires that **everyone involved in delivering business Solutions** use Lean and Agile practices.



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Notes:

SAFe® for Lean Enterprises is a knowledge base of proven, integrated principles, practices, and competencies for achieving Business Agility by implementing Lean, Agile, and DevOps at scale.



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Notes:

1.2 Describe SAFe as an operating system for Business Agility

Why SAFe?

SAFe business benefits are derived directly from case studies written by SAFe customers



Source: Typical results from scaledagile.com/case-studies

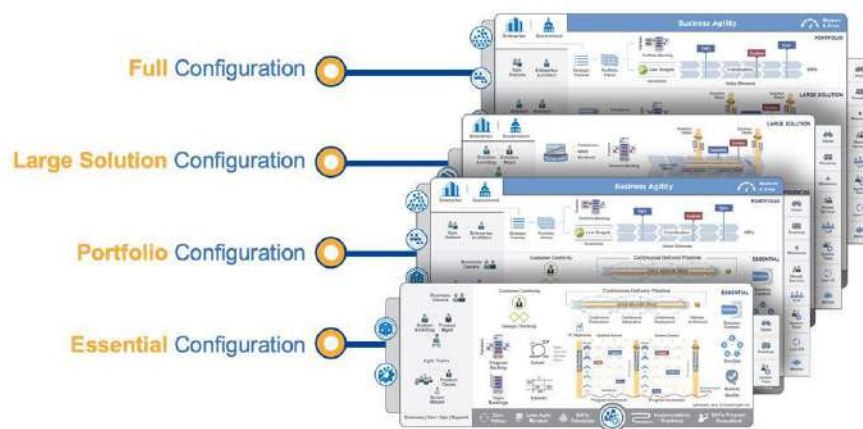
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Notes:

SAFe configurations

Four configurations provide the right solution for each Enterprise.



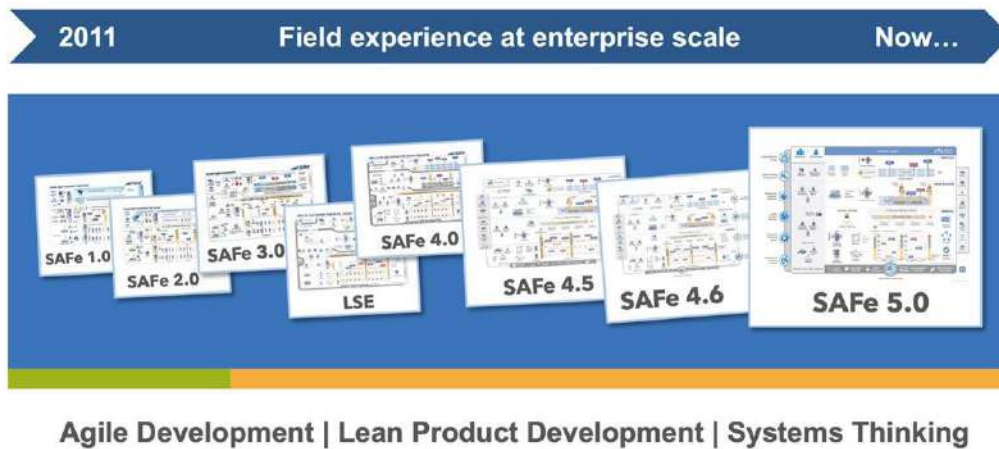
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Notes:

1.2 Describe SAFe as an operating system for Business Agility

SAFe: Roots, past, present and future



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Notes:

The Seven Core Competencies of Business Agility



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Notes:

1.3 Explain the Seven Core Competencies of Business Agility

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Notes:

Why Team and Technical Agility?

Agile Teams and teams of Agile Teams create and support the business Solutions that deliver value to the Enterprise's customers. Consequently, an organization's ability to thrive in the digital age is entirely dependent on the ability of its teams to deliver Solutions that reliably meet a customer's needs.



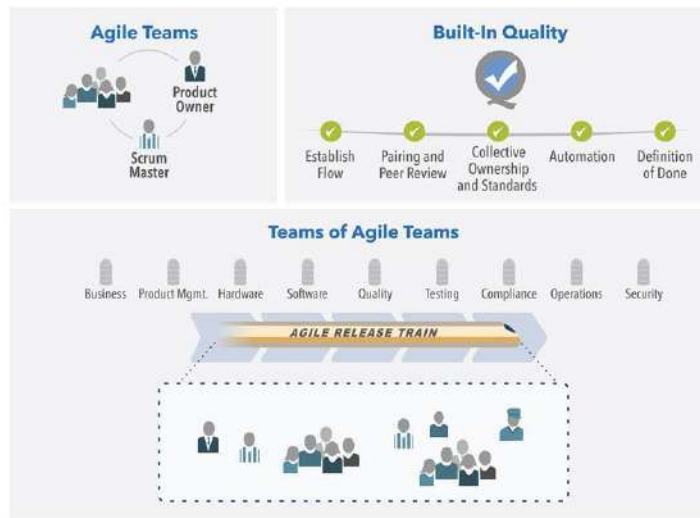
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Notes:

1.3 Explain the Seven Core Competencies of Business Agility

Team and Technical Agility

The Team and Technical Agility competency describes the critical skills and Lean-Agile principles and practices that high-performing Agile Teams and teams of Agile Teams use to create high-quality solutions for their customers.

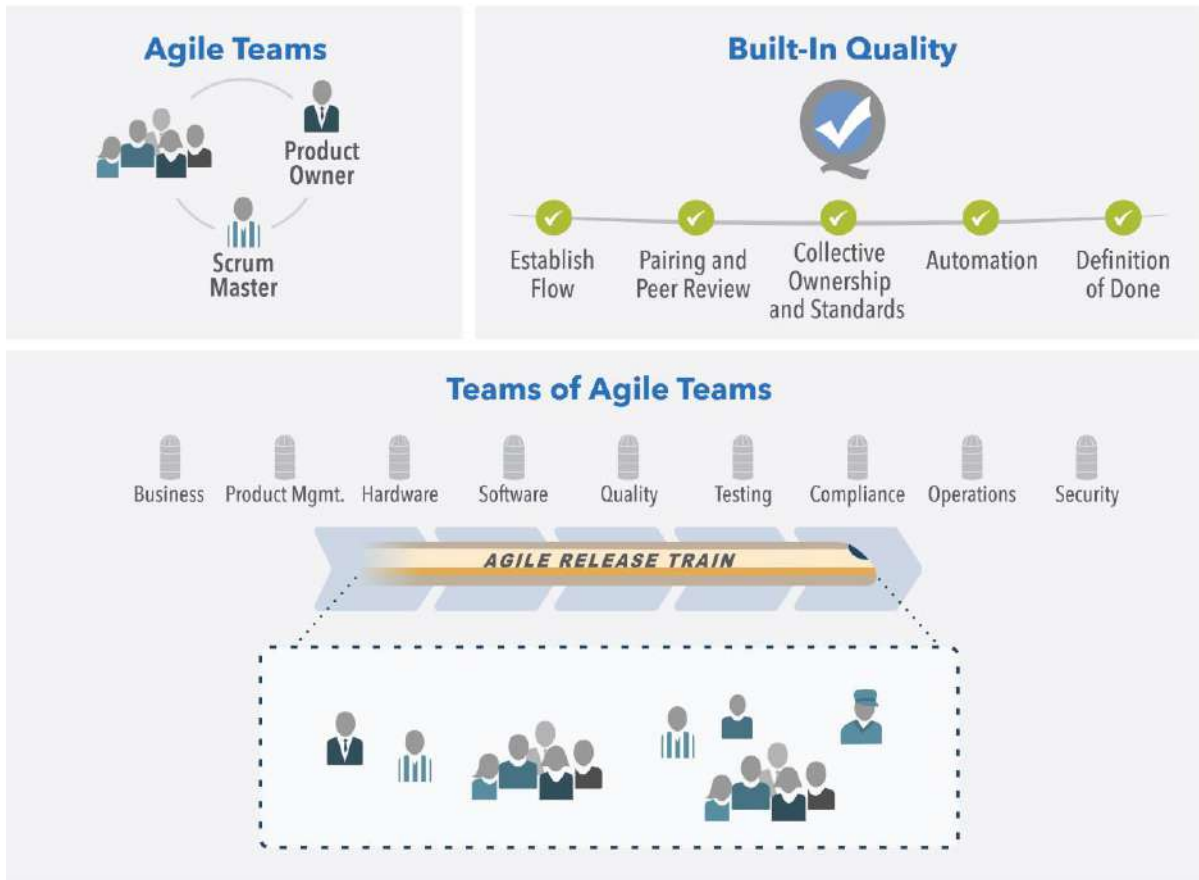


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Notes:

1.3 Explain the Seven Core Competencies of Business Agility



Why Agile Product Delivery?

In order to achieve Business Agility, Enterprises must rapidly increase their ability to deliver innovative products and services. To be sure that the Enterprise is creating the right Solutions for the right customers at the right time, they must balance their execution focus with a customer focus.



Notes:

1.3 Explain the Seven Core Competencies of Business Agility

Agile Product Delivery

Agile Product Delivery is a customer-centric approach to defining, building, and releasing a continuous flow of valuable products and services to customers and users.

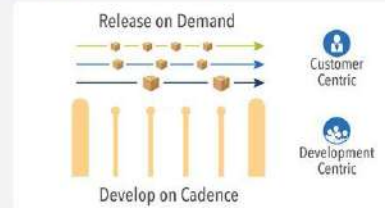
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Customer Centricity



Design Thinking

Develop on Cadence, Release on Demand



DevOps and the Continuous Delivery Pipeline



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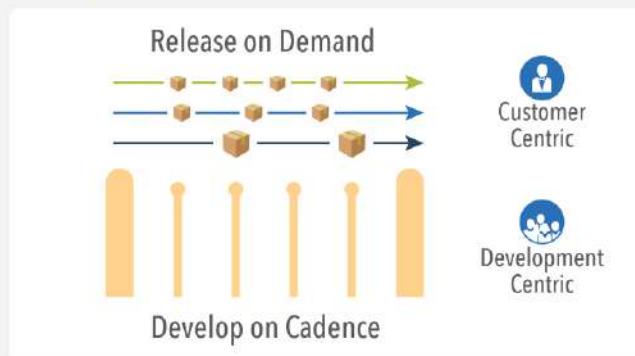
Notes:

Customer Centricity

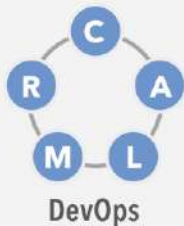


Design Thinking

Develop on Cadence, Release on Demand



DevOps and the Continuous Delivery Pipeline



1.3 Explain the Seven Core Competencies of Business Agility

Why Enterprise Solution Delivery?

Humanity has always dreamed big; and scientists, engineers, and software developers then turn those big dreams into reality. That requires innovation, experimentation, and knowledge from diverse disciplines. Engineers and developers bring these innovations to life by defining and coordinating all the activities to successfully specify, design, test, deploy, operate, evolve, and decommission large, complex solutions.

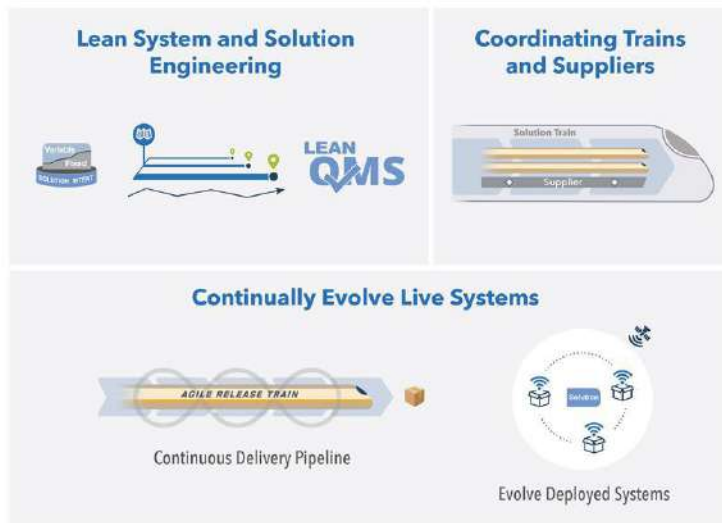


Notes:

Enterprise Solution Delivery

The Enterprise Solution Delivery competency describes how to apply Lean-Agile principles and practices to specification, development, deployment, operation, and evolution of the world's largest and most sophisticated software applications, networks, and cyber-physical systems.

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Notes:

1.3 Explain the Seven Core Competencies of Business Agility

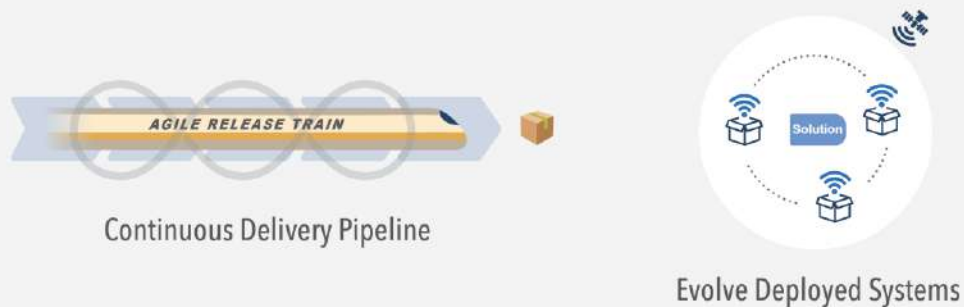
Lean System and Solution Engineering



Coordinating Trains and Suppliers



Continually Evolve Live Systems



Why Lean Portfolio Management?

Traditional approaches to portfolio management were not designed for a global economy or the impact of digital disruption. These factors put pressure on enterprises to work under a higher degree of uncertainty, and yet deliver innovative solutions much faster.



Notes:

1.3 Explain the Seven Core Competencies of Business Agility

Lean Portfolio Management

The Lean Portfolio Management competency aligns strategy and execution by applying Lean- and systems-thinking approaches to strategy and investment funding Agile portfolio operations, and governance.

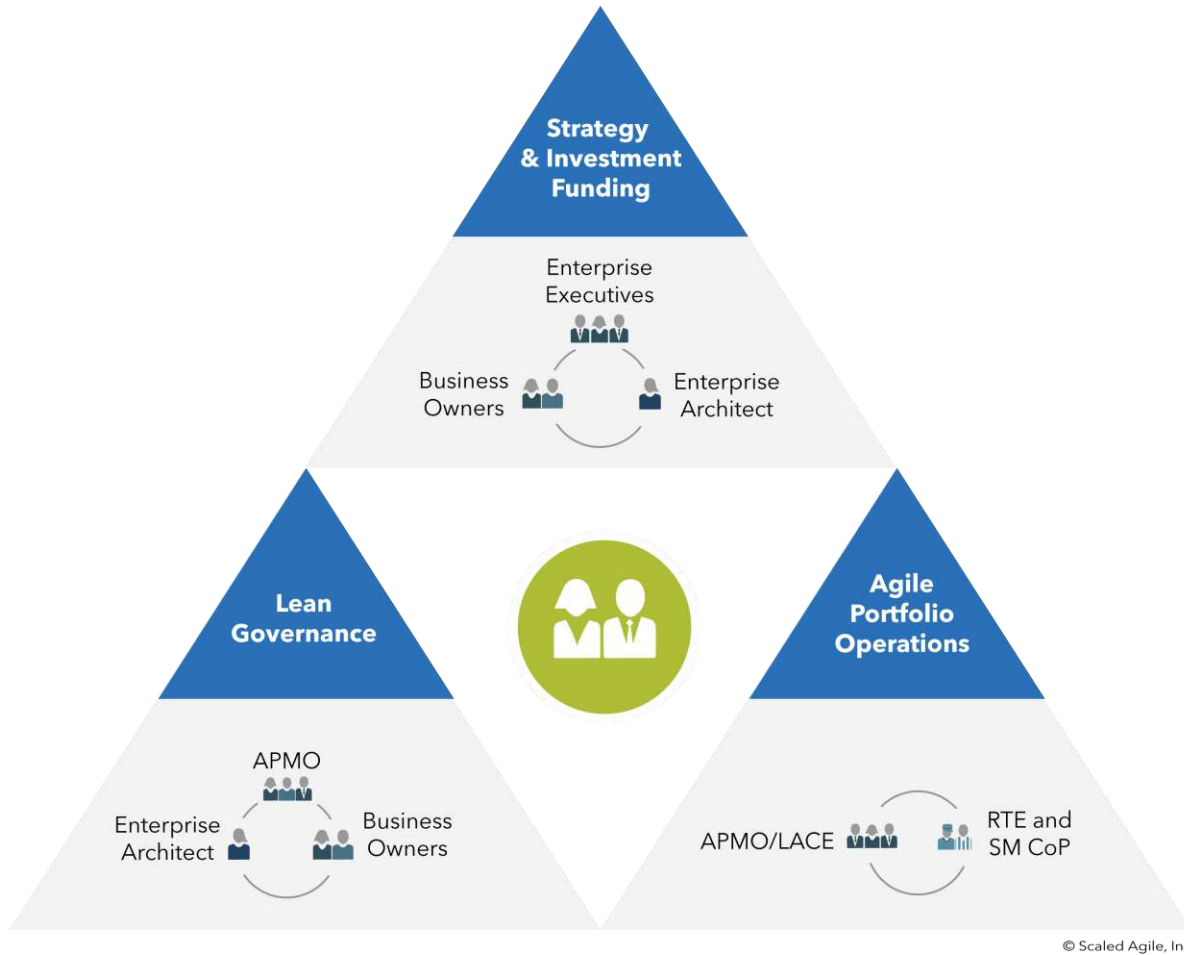


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Notes:

1.3 Explain the Seven Core Competencies of Business Agility



1.3 Explain the Seven Core Competencies of Business Agility

Why Organizational Agility?

Without Organizational Agility, Enterprises simply cannot respond sufficiently to the challenges and opportunities that today's rapidly changing markets present. Without it, employees and the Enterprises associate an individual's value with their functional skills, rather than business outcomes.



Notes:

Organizational Agility

The Organizational Agility competency describes how Lean-thinking people and Agile Teams optimize their business process, evolve strategy with clear and decisive new commitments, and quickly adapt the organization as needed to capitalize on new opportunities.

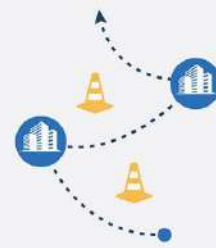
Lean-Thinking People and Agile Teams



Lean Business Operations



Strategy Agility



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Notes:

1.3 Explain the Seven Core Competencies of Business Agility

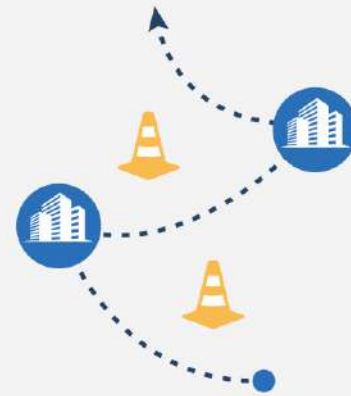
Lean-Thinking People and Agile Teams



Lean Business Operations

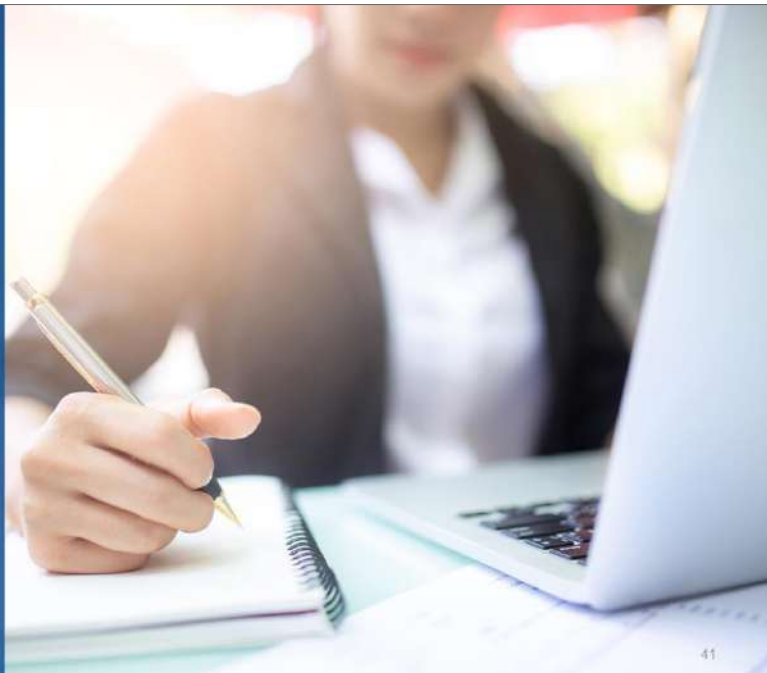


Strategy Agility



Why Continuous Learning Culture?

In order to thrive in the current climate, organizations must evolve into adaptive engines of change, powered by a culture of fast and effective learning at all levels. Learning organizations leverage the collective knowledge, experience, and creativity of their workforce, customers, supply chain, and the broader ecosystem.



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Notes:

1.3 Explain the Seven Core Competencies of Business Agility

Continuous Learning Culture

The Continuous Learning Culture competency describes a set of values and practices that encourage individuals, and the Enterprise as a whole, to continually increase knowledge, competence, performance, and innovation

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Notes:



1.3 Explain the Seven Core Competencies of Business Agility

Why Lean-Agile Leadership?

An organization's managers, executives, and other leaders are responsible for the adoption, success, and ongoing improvement of Lean-Agile development and the competencies that lead to Business Agility. Only they have the authority to change and continuously improve the systems that govern how work is performed.



Notes:

Lean-Agile Leadership

The Lean-Agile Leadership competency describes how Lean-Agile Leaders drive and sustain organizational change and operational excellence by empowering individuals and teams to reach their highest potential.

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Notes:

1.3 Explain the Seven Core Competencies of Business Agility

Mindset & Principles



Fixed Mindset → Growth Mindset

Core Values | Lean-Agile Mindset | SAFe Principles

Leading by Example



- Authenticity
- Decentralized Decision-Making
- Emotional Intelligence
- Lifelong Learning
- Growing Others

Leading Change



Change Vision
Change Leadership
Coalition for Change
Psychological Safety
Training

The management challenge



It is not enough that management commit themselves to quality and productivity, they must know what it is they must do.

Such a responsibility cannot be delegated.

—W. Edwards Deming

...and if you can't come, send no one"

—Vignette from "Out of the Crisis," W. Edwards Deming

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Notes:

1.3 Explain the Seven Core Competencies of Business Agility

Measure and Grow

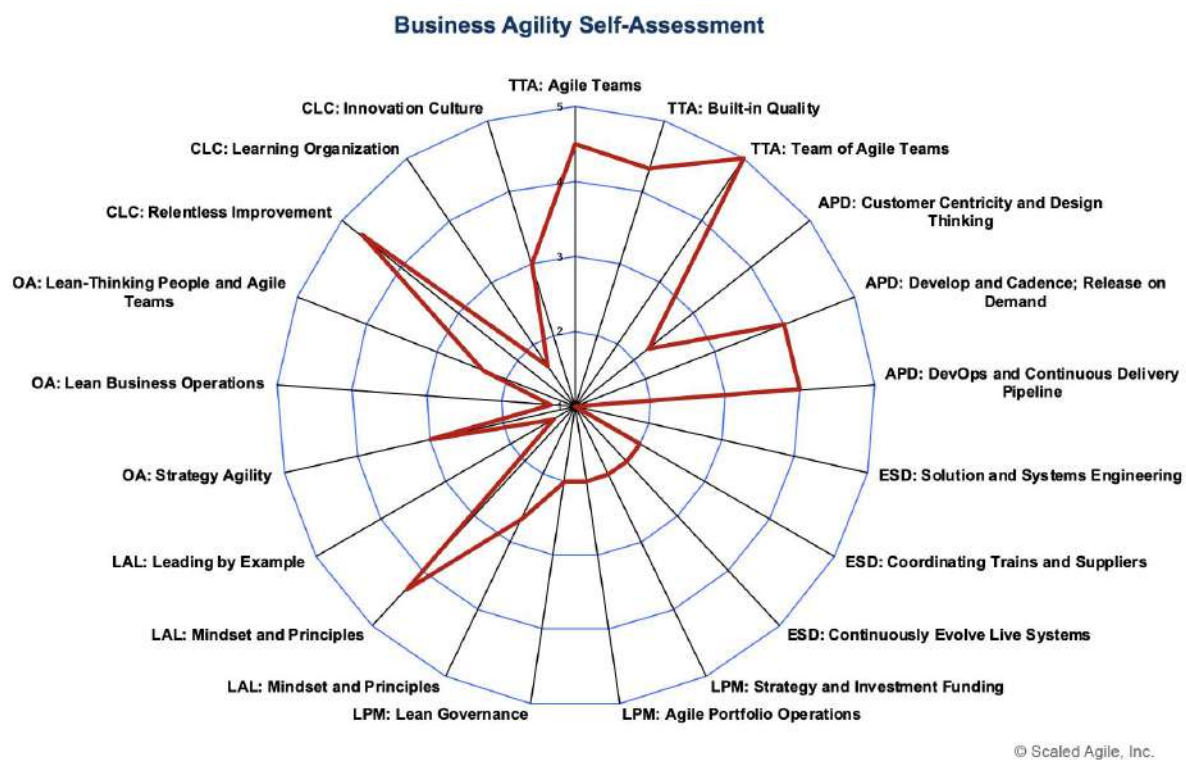
Measure and Grow is the way portfolios evaluate their progress in Business Agility and determine their next improvement steps.



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Notes:



Lesson review

In this lesson you:

- ▶ Discussed what is necessary to be able to thrive in the digital age
- ▶ Described SAFe as your operating system for Business Agility
- ▶ Explained the Seven Core Competencies of Business Agility

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Notes:

- ▶ Scaled Agile Framework recommended reading for this lesson:
 - *SAFe for Lean Enterprises*
 - *Business Agility*
 - *Measure and Grow*

Lesson 1 notes



Click below to type your thoughts.

Lesson 2

Becoming a Lean-Agile Leader

Learning Objectives:

- 2.1 Embrace the Lean-Agile Mindset
- 2.2 Apply Lean and Agile at scale with the SAFe Principles



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

2.1 Embrace the Lean-Agile Mindset

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Notes:

Exemplifying SAFe core values

Alignment

- ▶ Provide the relevant briefings and participate in Program Increment (PI) Planning
- ▶ Help with backlog visibility, review, and preparation
- ▶ Help with Value Stream organization and coordination
- ▶ Constantly check for understanding
- ▶ Communicate the mission, visions and strategy at every opportunity

Built-in Quality

- ▶ Demonstrate quality by refusing to accept or ship low-quality work
- ▶ Support investments in capacity planning for maintenance and reduction of technical debt
- ▶ Ensure UX, architecture, operations, security, compliance, and others, are part of the flow of work

Transparency

- ▶ Visualize all relevant work
- ▶ Take ownership and responsibility for errors and mistakes
- ▶ Admit your own mistakes
- ▶ Support others who acknowledge and learn from their mistakes—never punish the messenger

Program Execution


- ▶ Participate as an active business owner in PI execution
- ▶ Celebrate high quality and predictably delivered Program Increments
- ▶ Aggressively remove impediments and demotivators

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Notes:

2.1 Embrace the Lean-Agile Mindset




Taking Action: Exemplifying SAFe's core values

Duration

5 min

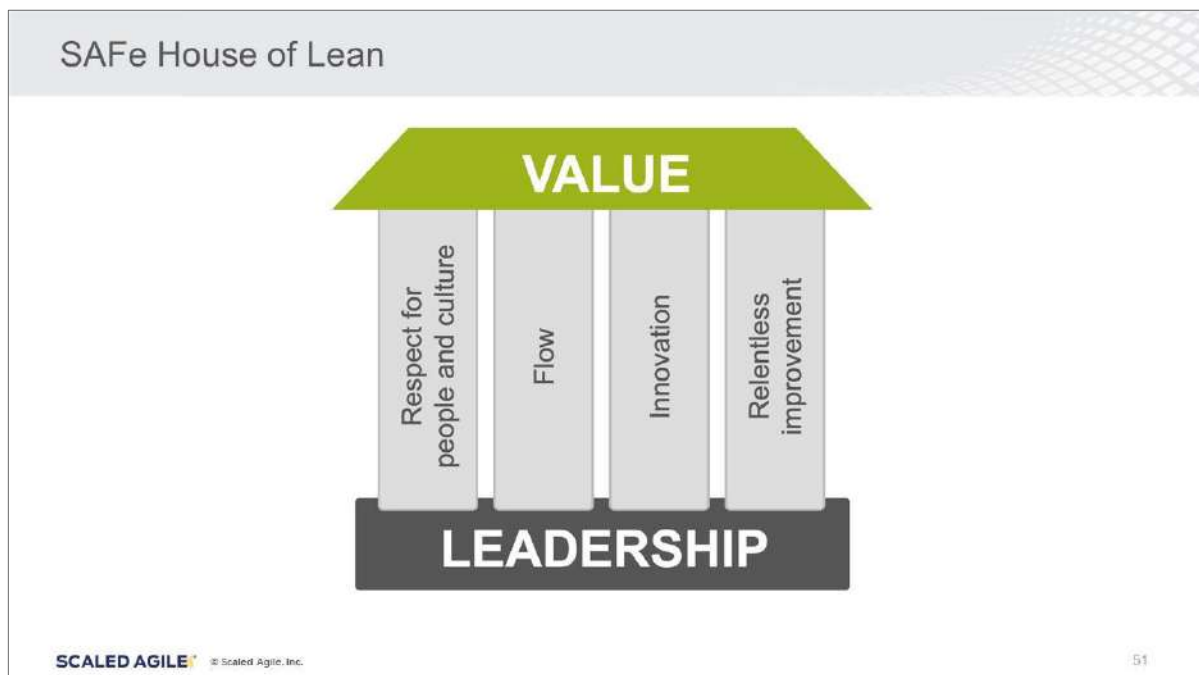
- ▶ **Step 1:** Individually choose one of SAFe's four core values: Alignment, Transparency, Built-In Quality, and Program Execution
- ▶ **Step 2:** At your table, discuss how can you exemplify that core value in your organization
- ▶ **Step 3:** Write down one example in the Action Plan in your workbook



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Notes:



Notes:

2.1 Embrace the Lean-Agile Mindset

Value

Achieve the shortest sustainable lead time with:

- ▶ The best quality and value to people and society
- ▶ High morale, safety, and Customer delight

There is only one boss. The customer.
And he can fire everybody in the company.
—Sam Walton

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Notes:

Respect for people and culture

- ▶ Generative culture
- ▶ People do all the work
- ▶ Your Customer is whoever consumes your work
- ▶ Build long-term partnerships based on trust
- ▶ To change the culture, you have to change the organization

Culture eats strategy for breakfast.
—Peter Drucker

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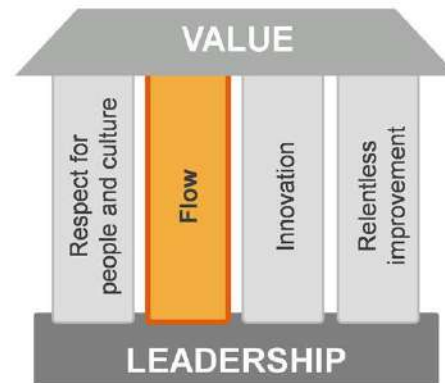
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Notes:

2.1 Embrace the Lean-Agile Mindset

Flow

- ▶ Optimize sustainable value delivery
- ▶ Build-in quality
- ▶ Understand, exploit, and manage variability
- ▶ Move from projects to products



Operating a product development process near full utilization is an economic disaster.
—Don Reinertsen

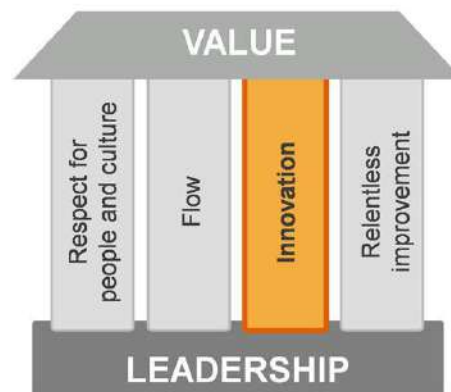
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Notes:

Innovation

- ▶ Innovative people
- ▶ Provide time and space for innovation
- ▶ Go see
- ▶ Experimentation and feedback
- ▶ Innovation riptides
- ▶ Pivot without mercy or guilt



Innovation comes from the producer.
—W. Edwards Deming

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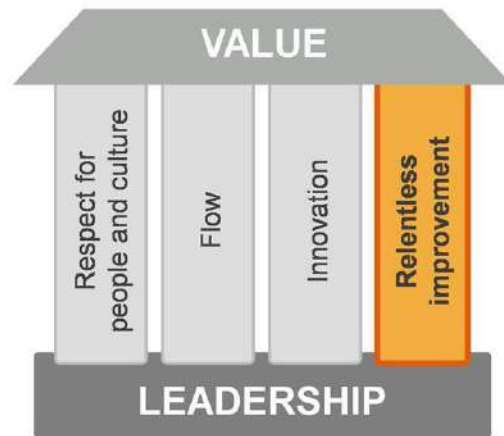
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Notes:

2.1 Embrace the Lean-Agile Mindset

Relentless Improvement

- ▶ A constant sense of danger
- ▶ Optimize the whole
- ▶ Problem-solving culture
- ▶ Base improvements on facts
- ▶ Reflect at key Milestones



Those who adapt the fastest win.

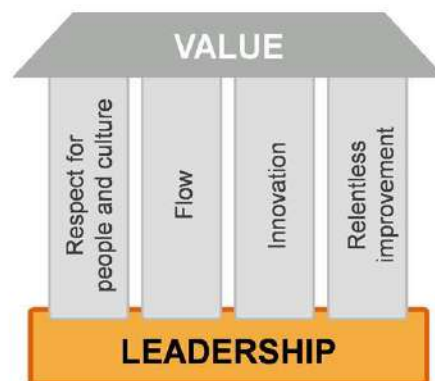
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Notes:

Leadership

- ▶ Lead by example
- ▶ Adopt a growth mindset
- ▶ Exemplify the values and principles of Lean-Agile and SAE
- ▶ Develop people
- ▶ Lead the change
- ▶ Foster psychological safety




*People are already doing their best;
the problems are with the system.
Only management can change the system.
—W. Edwards Deming*

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Notes:

2.1 Embrace the Lean-Agile Mindset



Activity: Assessing a Lean mindset

Duration
5 min

► **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?

	(low) 1	2	3	4	(high) 5
Value delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respect for people and culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relentless improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


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Notes:

	(low) 1	2	3	4	(high) 5
Value delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respect for people and culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relentless improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2.1 Embrace the Lean-Agile Mindset




Taking Action: Improving the Lean-Agile mindset

Prepare
3 min

Share
2 min

- ▶ **Step 1:** Select one of the lowest scores in the assessment.
- ▶ **Step 2:** Brainstorm one to three actions you could take to improve this area.
- ▶ **Step 3:** Share your ideas at your table. Give and receive constructive suggestions on how the ideas offered can improve the mindset scores.
- ▶ **Step 4:** Write down one idea in your Action Plan and be prepared to share.



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Notes:

The Agile Manifesto

We are uncovering better ways of developing software by doing it 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.

 agilemanifesto.org

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Notes:

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.
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.

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Notes:


The Agile Manifesto Principles

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.
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.

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Notes:



Activity: Agile principles at scale

Prepare
5 min

Share
3 min

- ▶ **Step 1:** Review the principles behind the Agile Manifesto
- ▶ **Step 2:** Select one principle at each table
- ▶ **Step 3:** Categorize as:
 - Works as is
 - Not applicable
 - Requires rethinking for scale
- ▶ **Step 4:** Share your findings with the class

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Notes:

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.
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.
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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.

2.2 Apply Lean and Agile at scale with the SAFe Principles

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Notes:

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 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

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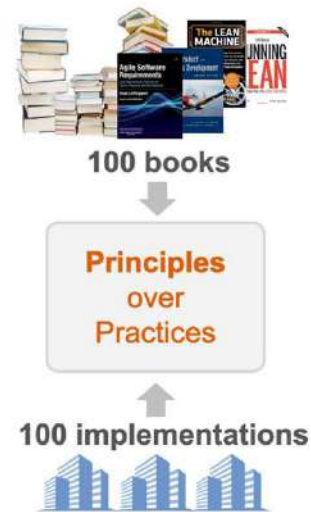
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Notes:

Why focus on the principles?

A common disease that afflicts management the world over is the impression that "Our problems are different." They are different to be sure, but the principles that will help to improve the quality of products and services are universal in nature.
—W. Edwards Deming

- ▶ A Lean-Agile transformation will deliver substantial benefits
- ▶ However, it is a significant change, and every implementation is different
- ▶ Leaders should understand why the practices work; it's part of 'knowing what it is they must do'
- ▶ If a practice needs to change, understanding the principles will assure the change moves the Enterprise in the right direction



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Notes:

#1 Take an economic view

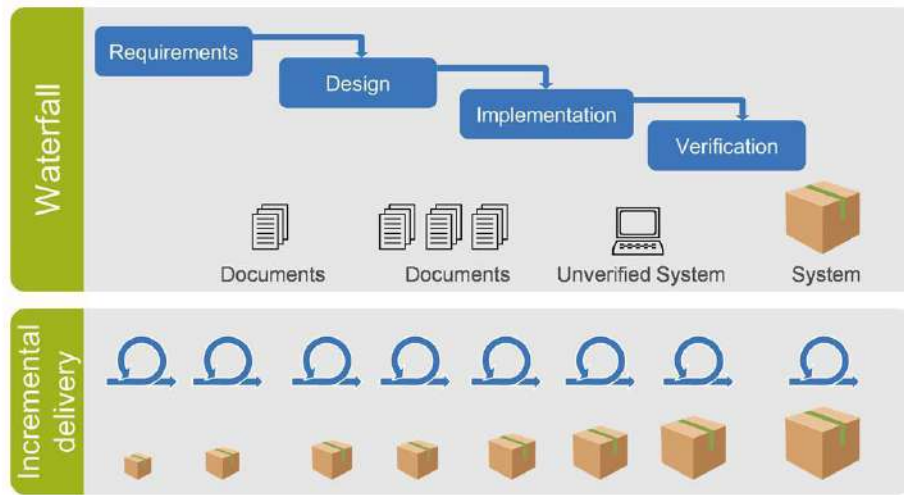
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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles

Agile economics: Deliver early and often

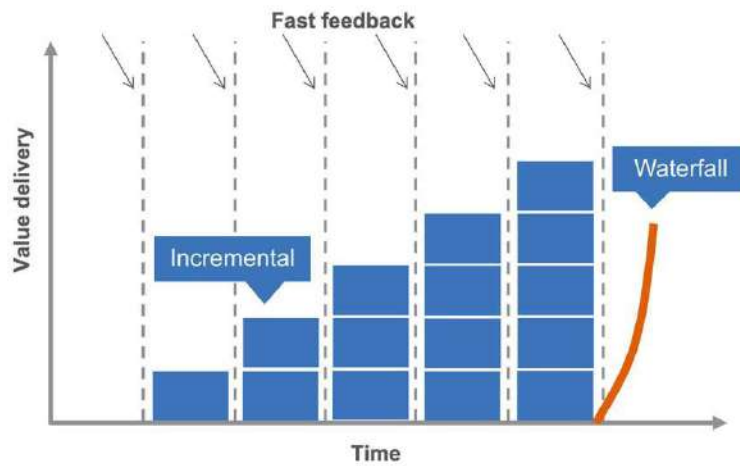


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Notes:

Deliver value incrementally

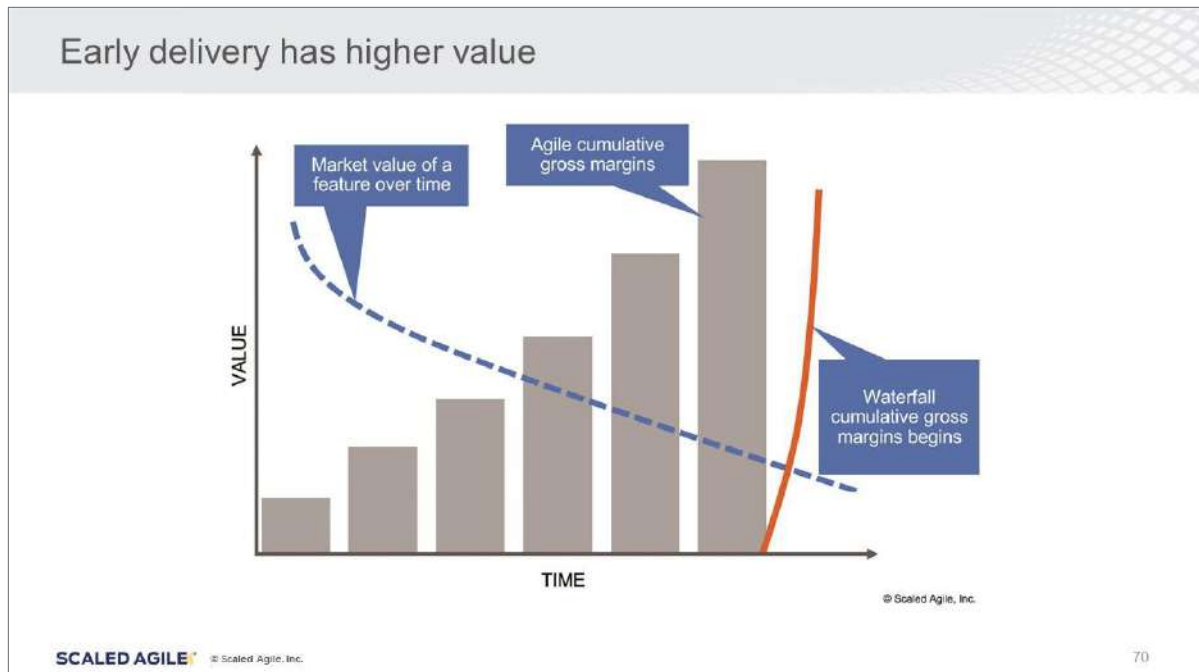


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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles



Notes:




Activity: Accelerating value delivery

Prepare
5 min

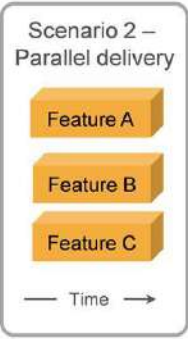
Share
2 min

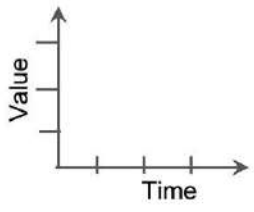
- **Step 1:** Consider that your backlog has three Features. Each will take the entire team one month and delivers one unit of value.
- **Step 2:** Plot the value delivery of serial and simultaneous/parallel implementation scenarios for delivering the Features.
 - **NOTE:** Assume 20% task switching overhead for each team member in Scenario 2
 - **HINT:** Plot the serial case first

Scenario 1 – Serial delivery



Scenario 2 – Parallel delivery





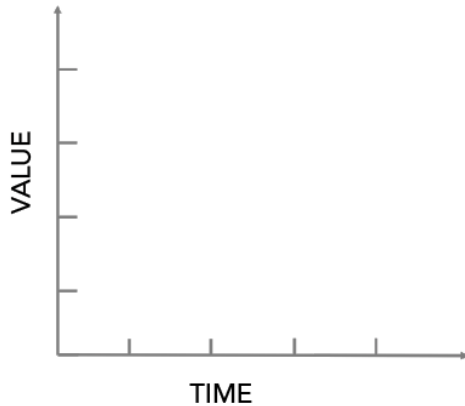
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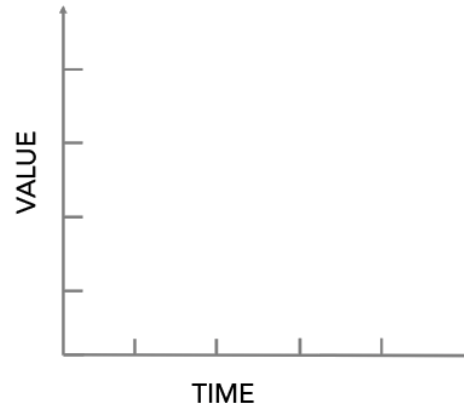
Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles

Plot Serial Delivery



Plot Parallel Delivery

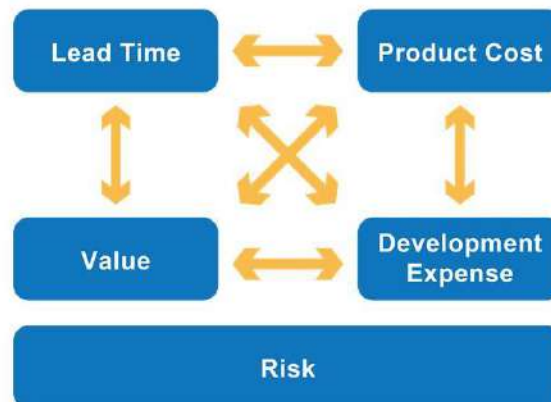


NOTE: Assume 20% task switching overhead

Solution economic trade-offs

Understanding tradeoff parameters:

- ▶ Sequence jobs for maximum benefit
- ▶ Do not consider money already spent
- ▶ Make economic choices continuously
- ▶ Empower local decision making
- ▶ If you only quantify one thing, quantify the cost of delay



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Notes:

#2 Apply systems thinking

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Notes:

Systems thinking



A system must be managed. It will not manage itself.

Left to themselves, components become selfish, independent profit centers and thus destroy the system...

The secret is cooperation between components toward the aim of the organization.

—W. Edwards Deming

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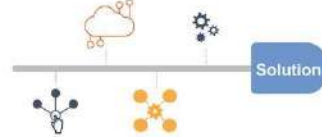
Notes:

Attributes of systems thinking

The Solution and the Enterprise are both affected by the following:

- ▶ Optimizing a component does not optimize the system
- ▶ For the system to behave well as a system, a higher-level understanding of behavior and architecture is required
- ▶ The value of a system passes through its interconnections
- ▶ A system can evolve no faster than its slowest integration point

The Solution itself is a system



The Enterprise building the system is a system too



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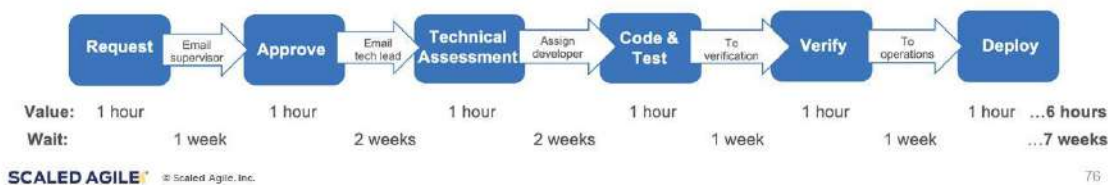
Notes:

Optimize the full Value Stream

All we are doing is looking at the timeline, from when the customer gives us an order to when we collect the cash. And we are reducing the timeline by reducing the non-value added wastes. —Taiichi Ohno

- ▶ Most problems with your process will surface as *delays*
- ▶ Most of the time spent getting to market is a result of these delays
- ▶ Reducing delays is the fastest way to reduce time-to-market


Focus on the delays!



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Notes:



Discussion: Identifying delays

Prepare
3 min




Share
2 min

- ▶ **Step 1:** Identify three delays from your context and write them down.
- ▶ **Step 2:** Write down what you think might be some potential causes for the delays.
- ▶ **Step 3:** Consider how systems thinking relates to finding possible solutions for the delays. Who is ultimately responsible for the optimization of the full Value Stream?
- ▶ **Step 4:** Share your insights with the class.

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Notes:

Delay #1:	
Potential cause:	
Delay #2:	
Potential cause:	
Delay #3:	
Potential cause:	

#3 Assume variability; preserve options

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Notes:

Development occurs in an uncertain world

Aggressively evaluate alternatives. Converge specifications and solution set. —Allen Ward

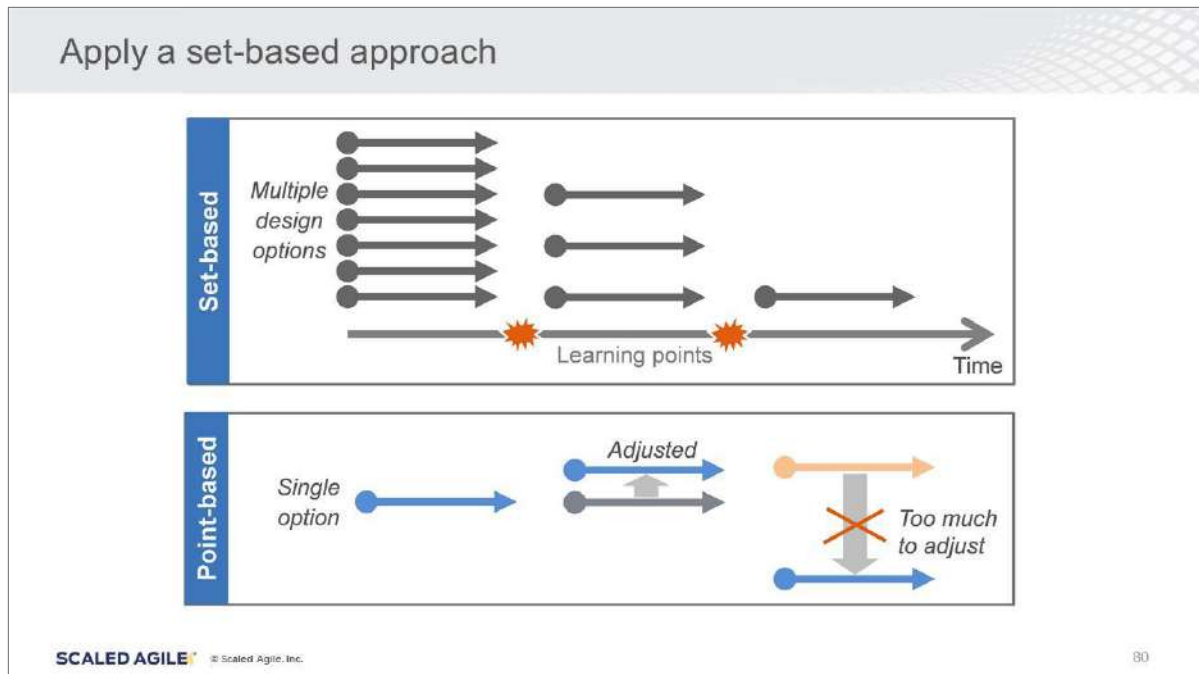
- ▶ You cannot possibly know everything at the start
- ▶ Requirements must be flexible to make economic design choices
- ▶ Designs must be flexible to support changing requirements
- ▶ Preservation of options improves economic results



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Notes:



Notes:

#4 Build incrementally with fast, integrated learning cycles

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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles

Apply fast learning cycles

- ▶ 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 shorter the cycles, the faster the learning

The iterative learning cycle



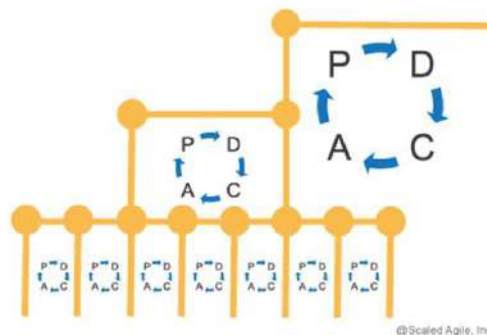
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Notes:

Integration points control product development

- ▶ 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

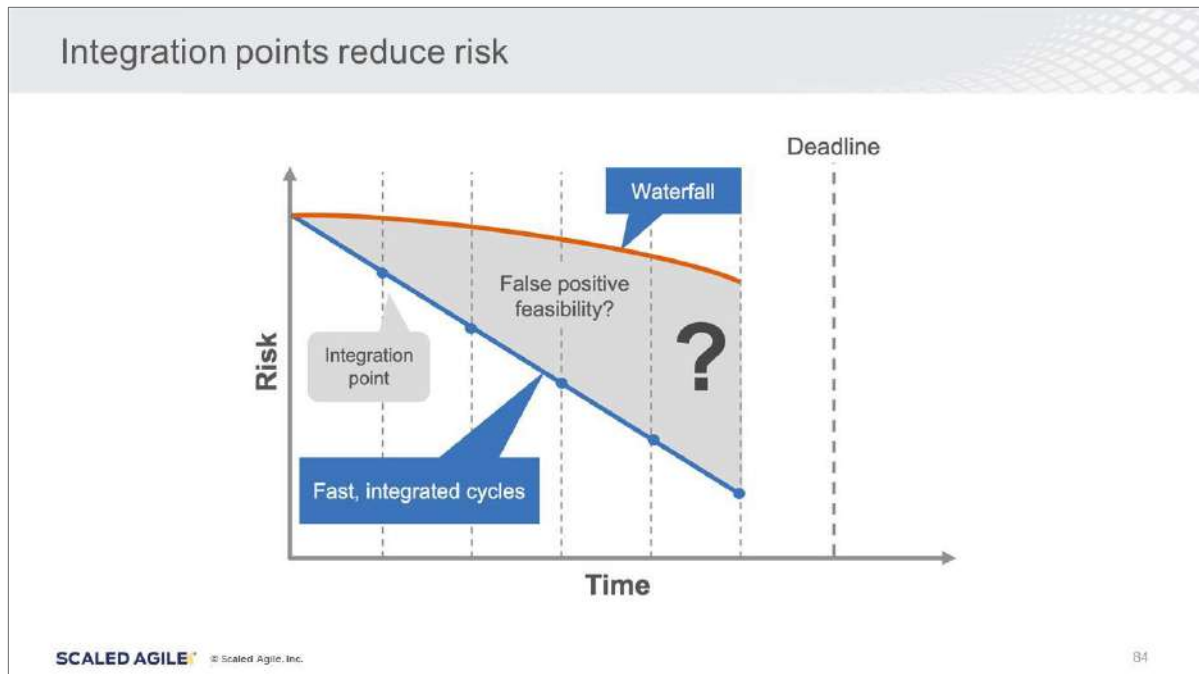


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Notes:



Notes:

#5 Base milestones on objective evaluation of working systems

Notes:

The problem of phase-gate milestones

There was in fact no correlation between exiting phase gates on time and project success... the data suggested the inverse might be true. —Lean Machine

- ▶ They force design decisions too early; this encourages false-positive feasibility.
- ▶ They assume a 'point' Solution exists and can be built correctly the first time.
- ▶ They create huge batches and long queues, and they centralize requirements and design in program management.



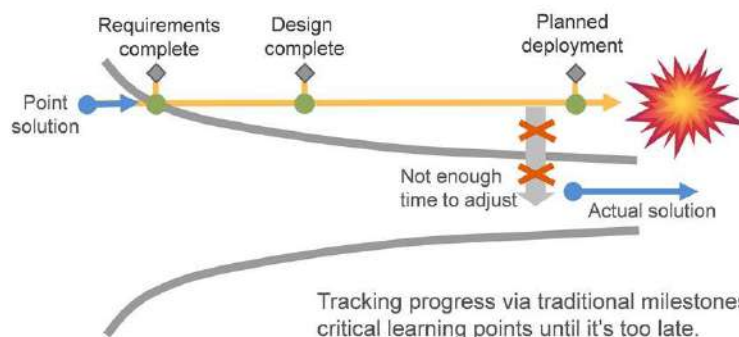
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Notes:

The problem of phase-gate milestones

Phase gates fix requirements and designs too early, making adjustments too late and costly as new facts emerge.



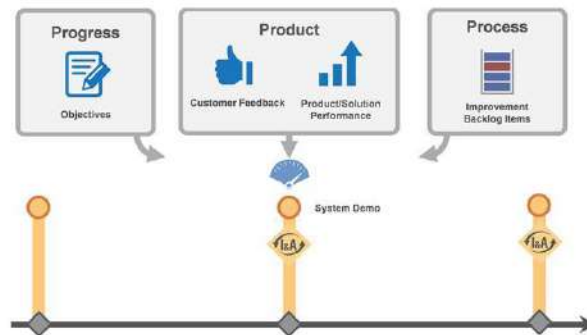
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Notes:

Apply objective Milestones

Program Increment (PI) System Demos are orchestrated to deliver objective progress, product, and process Metrics.



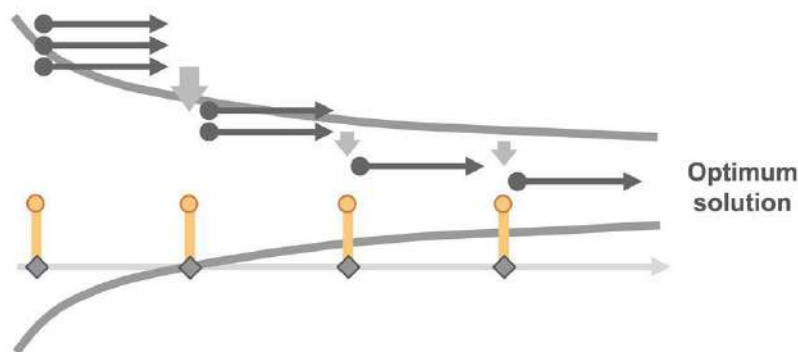
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Notes:

Iterate to the optimum solution

Objective Milestones facilitate learning and allow for continuous, cost-effective adjustments towards an optimum Solution.



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Notes:

#6 Visualize and limit WIP, reduce batch sizes, and manage queue lengths

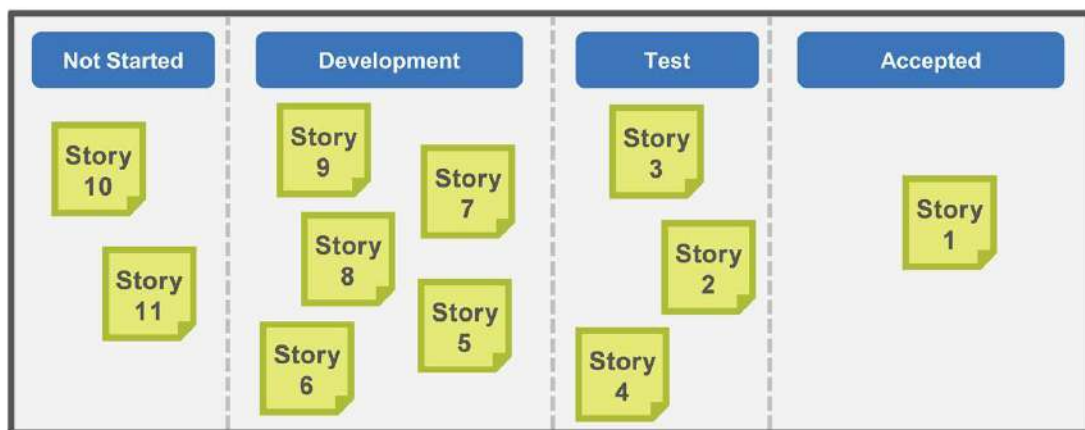
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Notes:

An example from the field

How is this team doing? How do you know that?



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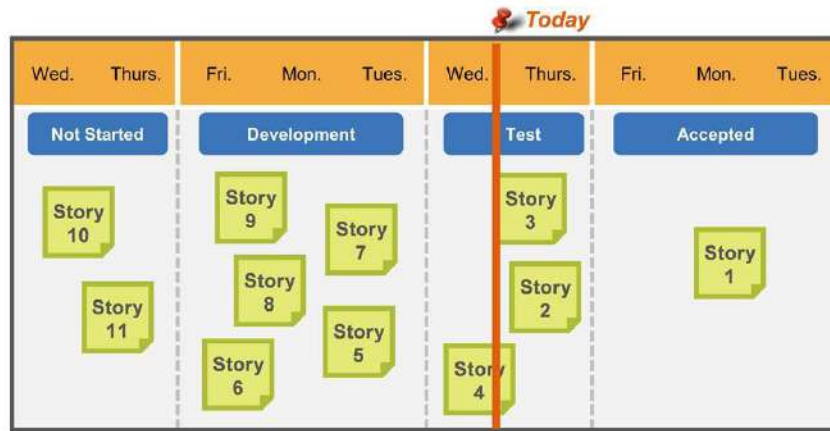
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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles

Visualize to increase understanding


Now how do you think they are doing?



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Notes:



Activity: WIP improvement opportunities

Prepare
5 min

Share
3 min

- ▶ **Step 1:** Look at the BVIR graphic in your workbook.
- ▶ **Step 2:** At your table, discuss what the effect would be of a three-story WIP constraint on Development and Test.
- ▶ **Step 3:** Consider this scenario: You're a developer. You just finished story 6. What would you do if:
 - There is no WIP constraint
 - The three-story WIP constraint is in place
- ▶ **Step 4:** Which scenario has the highest throughput?

The Kanban board is organized into two columns representing different stages of work:

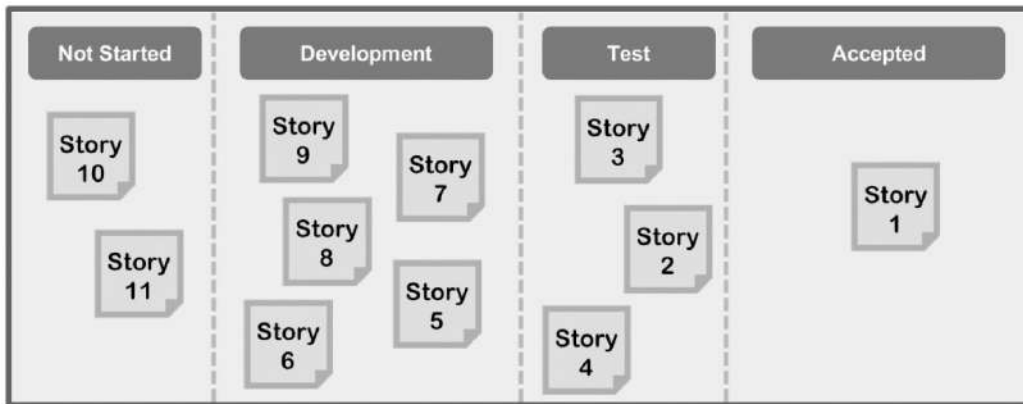
- Development:** Contains Story 9, Story 8, Story 7, Story 6, and Story 5.
- Test:** Contains Story 3, Story 2, and Story 4. A vertical red line labeled 'Today' is positioned between the Development and Test columns.

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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles



What is the throughput if there is no WIP constraints?



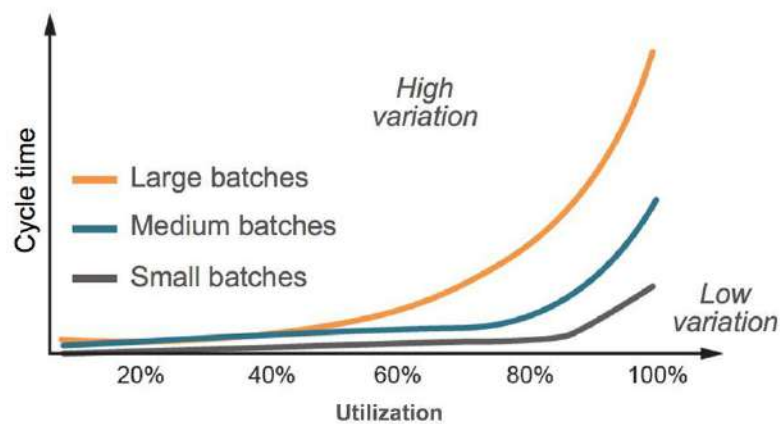
low | high

What is the throughput if there is a three-story WIP constraint?



low | high

Reduce batch size for higher predictability



Source: *Implementing Lean Software Development*, Poppendieck, Mary.

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Notes:


2.2 Apply Lean and Agile at scale with the SAFe Principles



Activity: Experience a large batch size

Duration
5 min


- ▶ **Step 1:** Create groups of five people with 10 coins per group. Designate one person as the timekeeper. The remaining four people will be processing the coins.
- ▶ **Step 2:** Person by person, flip each coin one at a time, recording your own results (heads or tails).
- ▶ **Step 3:** Pass all coins at the same time to the next person, who repeats step two, until all four people are done
- ▶ **Step 4:** The timekeeper stops the timer and records the total time



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Notes:



Activity: Experience a small batch size

Duration
5 min

- ▶ **Step 1:** Ensure that the timekeeper is ready to start the timer
- ▶ **Step 2:** This time, each person flips one coin at a time, records the result (heads or tails), and immediately passes each coin to the next person
- ▶ **Step 3:** The timekeeper will stop the timer when the last person flips the last coin and records the result



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Notes:

The importance of small batches

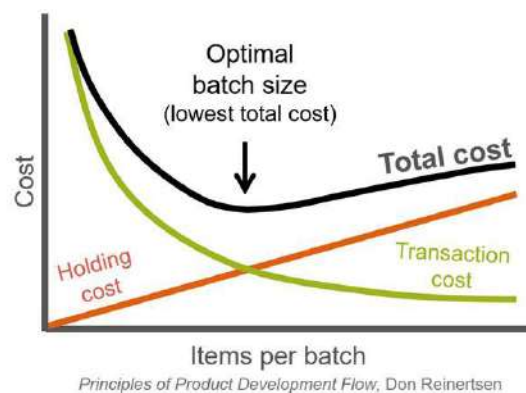
- ▶ Large batch sizes increase variability
- ▶ High utilization increases variability
- ▶ Severe project slippage is the most likely result
- ▶ Small batches go through the system faster with lower variability
- ▶ The most important batch is the handoff batch

Notes:

Finding optimal batch size

Optimal batch size is an example of a U-curve optimization.

- ▶ Total costs are the sum of holding costs and transaction costs
- ▶ Higher transaction costs make optimal batch size bigger
- ▶ Higher holding costs make batch size smaller

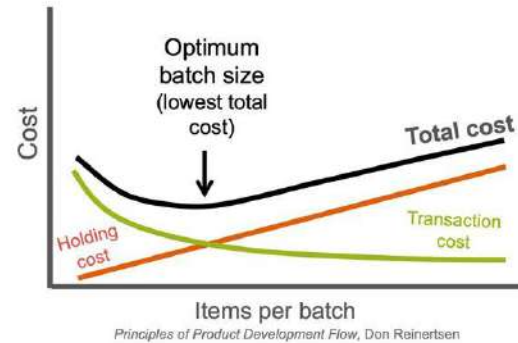


Notes:

Reducing optimal batch size


Reducing transaction costs reduces total costs and lowers optimum batch size.

- ▶ Reducing batch size:
 - Increases predictability
 - Accelerates feedback
 - Reduces rework
 - Lowers cost
- ▶ Batch size reduction probably saves **twice** what you think





Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles



Video: Formula 1 Pit Stops: 1950 and Today





https://youtu.be/RRy_73ivcms

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Notes:



Video link: https://youtu.be/RRy_73ivcms

Manage queue lengths

Email from a client service organization:

Thank you for contacting us.



We are experiencing increased volumes and apologize in advance for the delay.

Our goal is to contact you within . . .

Long queues: All bad



Principles of Product Development Flow, Don Reinertsen

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Notes:

Reduce queue lengths

► Understand Little's Law

- Faster processing time decreases wait
- Shorter queue lengths decrease wait

► Control wait times by controlling queue lengths:

- WIP limits, small batches, defer commitments

$$W_q = \frac{L_q}{\lambda}$$

Average wait time = average queue length divided by average processing rate

Example - Given average processing speed of 10 Features per quarter and a committed set of 30 Features, a new Feature will experience approximate wait time of:

$$\frac{30 \text{ items}}{10 \text{ items/Q}} = 3Q$$

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Notes:

#7 Apply cadence, synchronize with cross-domain planning

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Notes:

Cadence and synchronization

Cadence

- ▶ Converts unpredictable events into predictable occurrences and lowers cost
- ▶ Makes waiting times for new work predictable
- ▶ Supports regular planning and cross-functional coordination
- ▶ Limits batch sizes to a single interval
- ▶ Controls injection of new work
- ▶ Provides scheduled integration points

Note: Delivering on cadence requires scope or capacity margin

Synchronization

- ▶ Causes multiple events to happen simultaneously
- ▶ Facilitates cross-functional tradeoffs
- ▶ Provides routine dependency management
- ▶ Supports full system and integration and assessment
- ▶ Provides multiple feedback perspectives

Note: To work effectively, design cycles must be synchronized

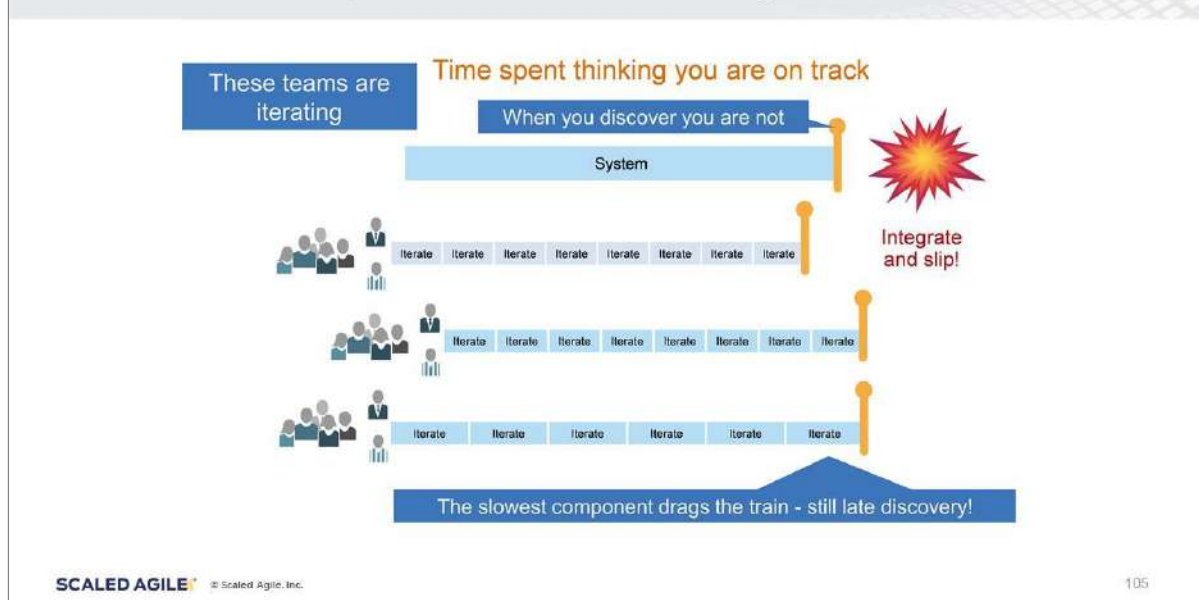
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Notes:

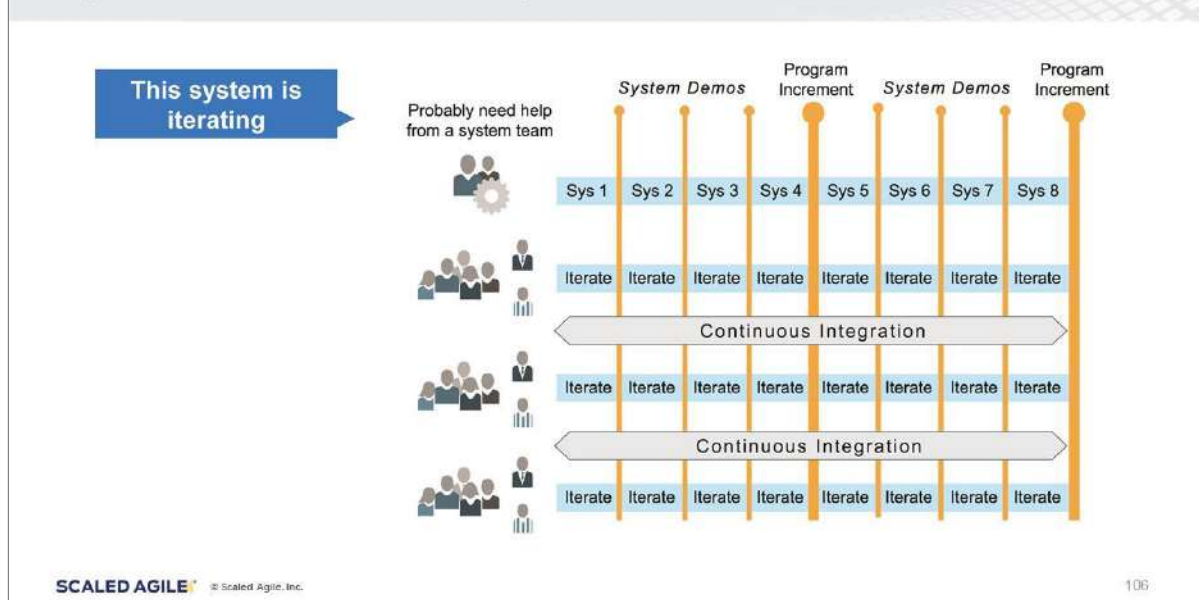
2.2 Apply Lean and Agile at scale with the SAFe Principles

Cadence without synchronization is not enough



Notes:

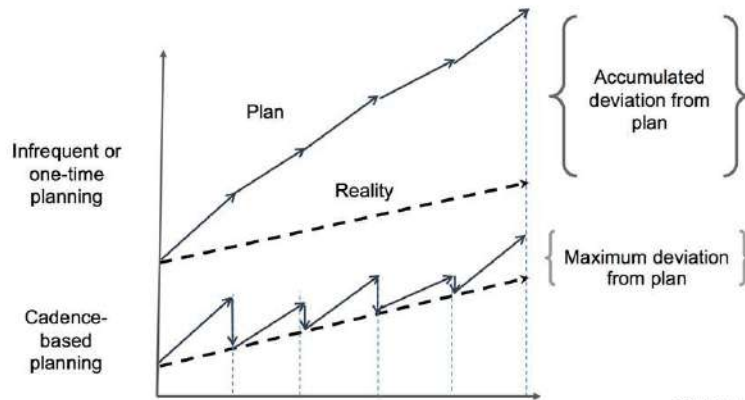
Synchronize to assure delivery



Notes:

Control variability with planning cadence

Cadence-based planning limits variability to a single interval.



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Notes:

Synchronize with cross-domain planning

Future product development tasks can't be pre-determined. Distribute planning and control to those who can understand and react to the end results.

—Michael Kennedy, Product Development for the Lean Enterprise

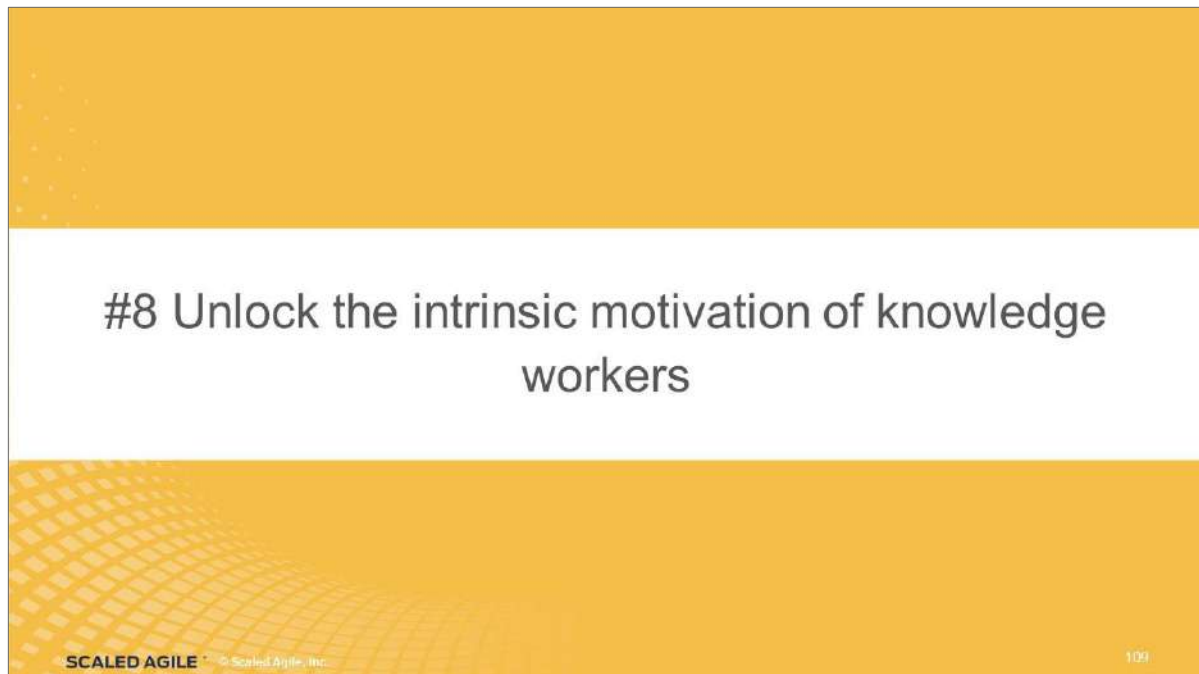
- ▶ All stakeholders meet face-to-face (but typically in multiple locations)
- ▶ Management sets the mission with minimum possible constraints
- ▶ Requirements and design happen
- ▶ Important stakeholder decisions are accelerated
- ▶ Teams create and take responsibility for plans



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Notes:



Notes:

On managing knowledge workers

- ▶ Workers themselves are most qualified to make decisions about how to perform their work
- ▶ Workers must be heard and respected for management to lead effectively
- ▶ Knowledge workers have to manage themselves: they need autonomy
- ▶ Continuing innovation has to be part of the work and the responsibility of knowledge workers

Workers are knowledge workers if they know more about the work they perform than their bosses.

— Peter Drucker

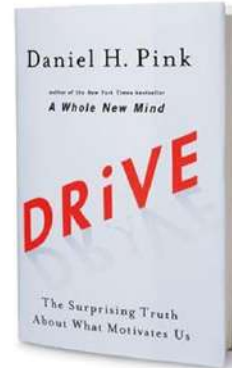
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Notes:

Unlocking intrinsic motivation with autonomy, mastery, and purpose

- ▶ **Autonomy** is the desire to be self-directing and have control over what we work on, how we do our work, and who we work with
- ▶ **Mastery** is the urge to get better at what we do and improve our personal and team skills
- ▶ **Purpose** is the desire to do something that matters and has meaning



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Notes:


#9 Decentralize decision-making

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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles



Video: Greatness by David Marquet

Duration
10 min



https://youtu.be/OqmdLcyES_Q

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Notes:



Video link: https://youtu.be/OqmdLcyES_Q

2.2 Apply Lean and Agile at scale with the SAFe Principles

Decentralize decision-making


Define the economic logic behind a decision; empower others to make the changes.

Centralize	De-centralize everything else
<ul style="list-style-type: none">▶ Infrequent - Not made very often and usually not urgent (<i>example: internationalization strategy</i>)▶ Long-lasting - Once made, highly unlikely to change (<i>example: common technology platform</i>)▶ Significant economies of scale - Provide large and broad economic benefit (<i>example: compensation strategy</i>)	<ul style="list-style-type: none">▶ Frequent - Routine, everyday decisions (<i>example: Team and Program Backlog</i>)▶ Time critical - High cost of delay (<i>example: point release to customer</i>)▶ Require local information - Specific and local technology or customer context is required (<i>example: Feature criteria</i>)

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Notes:



Activity: Decentralize decision-making

Prepare
3 min

Share
2 min

- ▶ **Step 1:** Consider three significant decisions you are currently facing. Write them down in the table provided in your workbook.
- ▶ **Step 2:** Rate each decision based on the frequency, time criticality, and economies of scale, assigning the value of 2 or 0.
- ▶ **Step 3:** Add the total values: 0 – 3 centralize and 4 – 6 decentralize

Decision	Frequent? Y=2 N=0	Time-critical? Y=2 N=0	Economies of scale? Y=0 N=2	Total

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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles

Decision	Frequent? Y=2 N=0	Time Critical Y=2 N=0	Economies of scale? Y=0 N=2	Total

Keys to practicing decentralized decision making

- ▶ Openly discuss how decisions are made and explore opportunities to move authority for those decisions closer to where the work is performed.
- ▶ Establish a decision-making framework that equips knowledge workers with the information to make good decisions.
- ▶ Provide clarity on organizational objectives, coach effective problem-solving, and provide opportunities to exercise and cultivate decision-making abilities.
- ▶ Take responsibility for making and communicating strategic decisions—those that are infrequent, long lasting, and have significant economies of scale. Decentralize all others.

Notes:

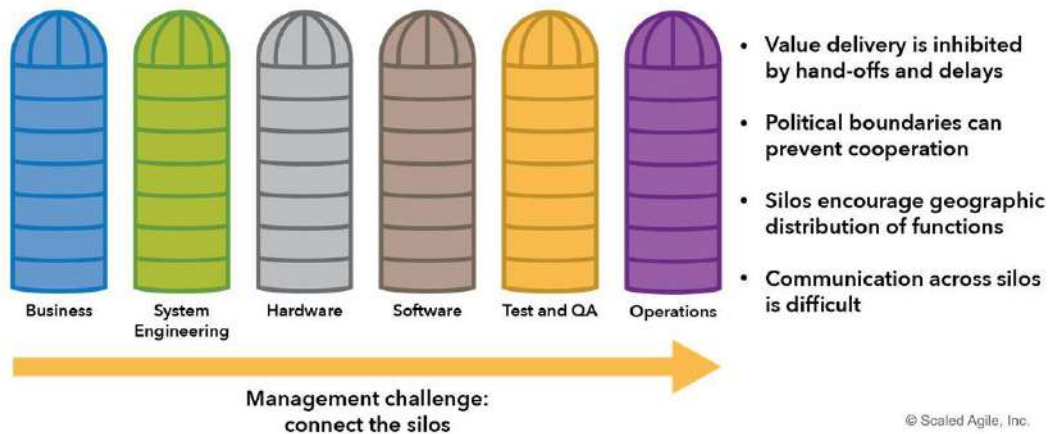
#10 Organize around value

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Notes:

Value doesn't follow silos



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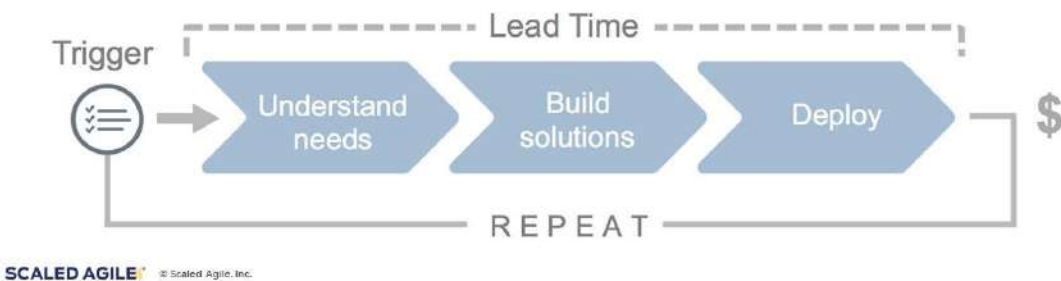
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Notes:

Instead, organize around the flow of value

- ▶ A Value Stream is the sequence of steps used to deliver value to the Customer
- ▶ It includes the whole sequence—concept or customer order—to delivery of value and/or receipt of cash
- ▶ It contains the people who do the work, the systems, and the flow of information and materials

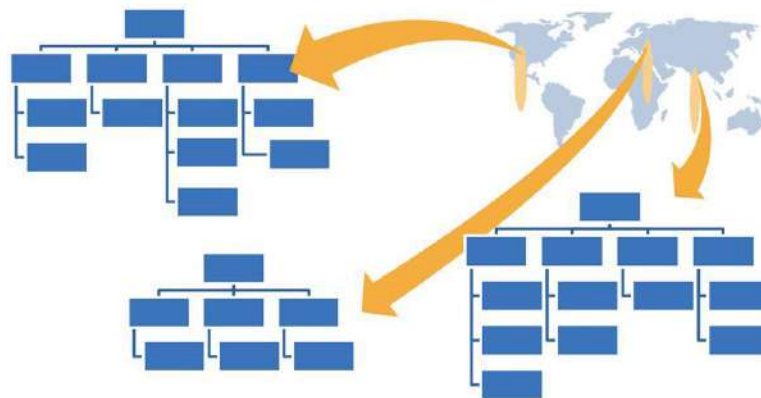


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Notes:

Value at scale is distributed

Value often flows across organizational boundaries.



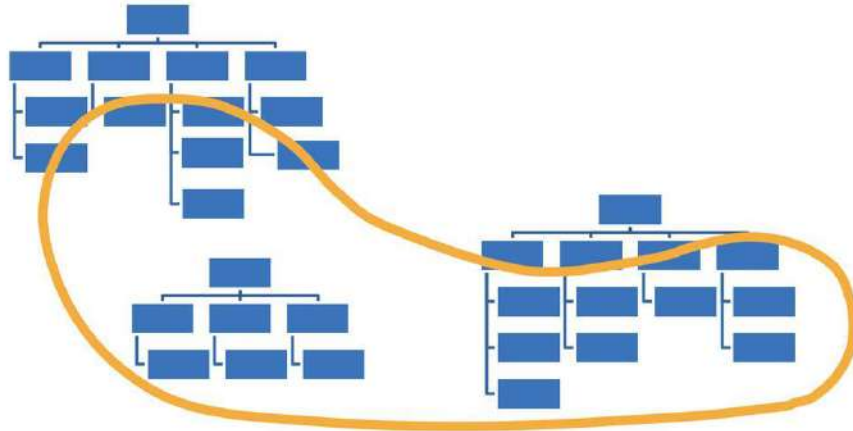
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Notes:

Find the 'kidney'

Use this thinking tool to identify the Value Stream within which to build one or more Agile Release Trains



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Notes:

Principles are great, but ...

*Clarity on how to **think**, without clarity on how to **act**, leaves people unmoved.*

—Daniel Pink


... it's time to put this thinking to work.

Let's start doing.

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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles




Taking Action: Advocating SAFe Principles

Prepare
3 min

Share
2 min

- ▶ **Step 1:** Individually identify three actions you can take to model and advocate SAFe Principles in your Enterprise.
- ▶ **Step 2:** Write them down in your Action Plan.
- ▶ **Step 3:** At your table, share some of the insights you gained from SAFe Principles.



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Notes:

Lesson review

In this lesson you:

- ▶ 2.1 Embraced the Lean-Agile Mindset
- ▶ 2.2 Applied Lean and Agile at scale with the SAFe Principles

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Notes:

2.2 Apply Lean and Agile at scale with the SAFe Principles

- ▶ Scaled Agile Framework recommended reading for this lesson:
 - *Core Values*
 - *Lean-Agile Mindset*
 - *SAFe Principles*
 - *Lean-Agile Leadership*

Lesson 2 notes



Click below to type your thoughts.

Lesson 3

Establishing Team and Technical Agility

Learning Objectives:

- 3.1 Form cross-functional Agile Teams
- 3.2 Build quality in
- 3.3 Organize Agile Release Trains around the flow of value



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

3.1 Form cross-functional Agile Teams

Team and Technical Agility

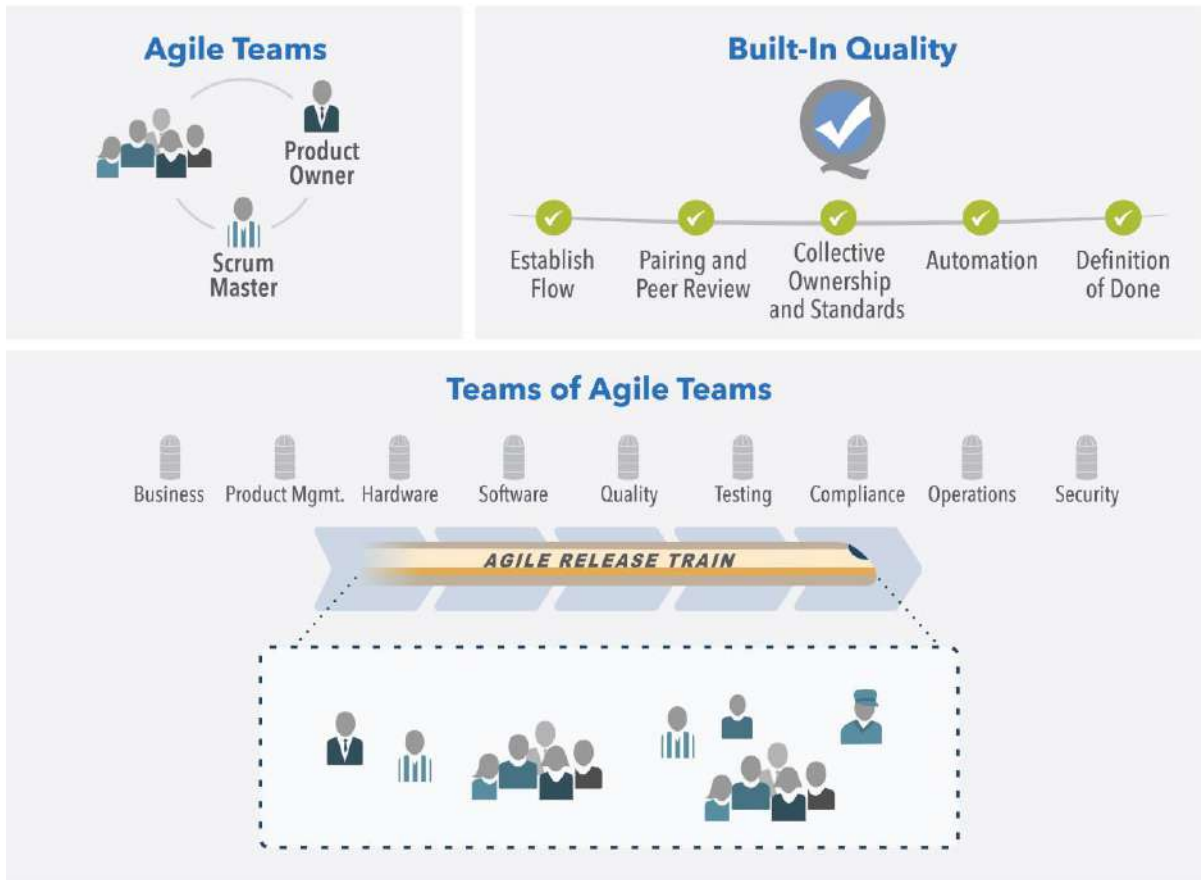


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Notes:

3.1 Form cross-functional Agile Teams



3.1 Form cross-functional Agile Teams

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Notes:

Build cross-functional Agile Teams

Agile Teams are cross-functional, self-organizing entities that can define, build and test, and where applicable, deploy increments of value

- ▶ Optimized for communication and delivery of value
- ▶ Deliver value every two weeks
- ▶ Two specialty roles:
 - Scrum Master
 - Product Owner



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Notes:

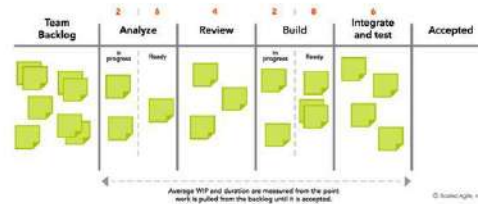
3.1 Form cross-functional Agile Teams

Teams execute Iterations with Scrum and Kanban

Scrum is built on transparency, inspection, adaptation, and short learning cycles



Kanban visualizes and optimizes the flow of work through the system



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Notes:

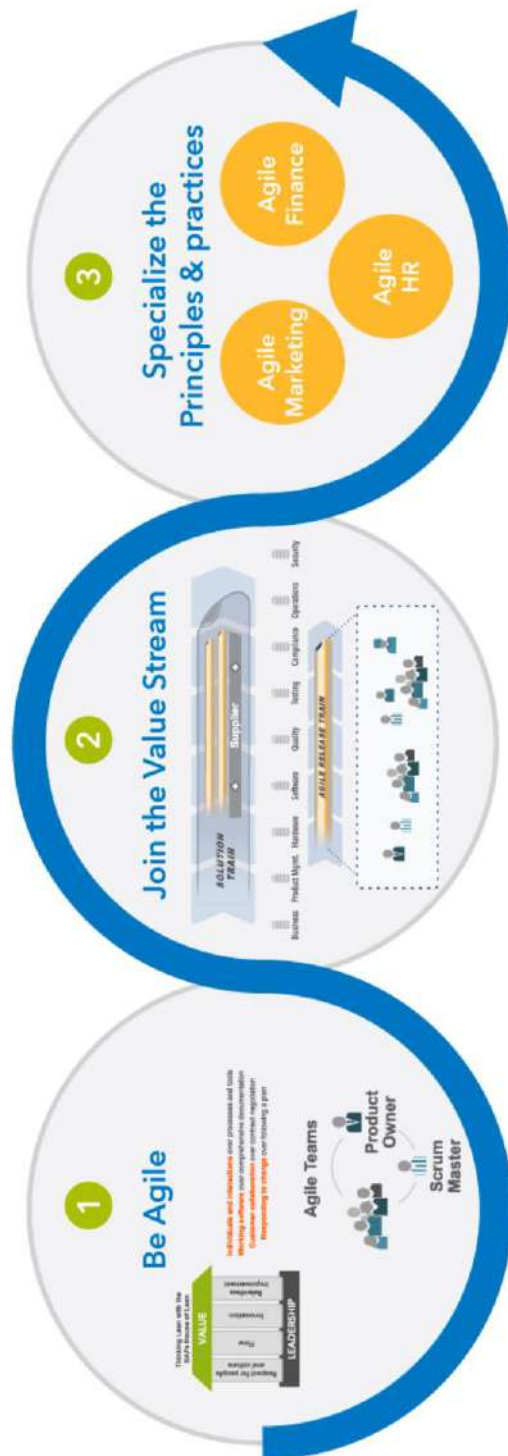
Agile business teams foster true Business Agility



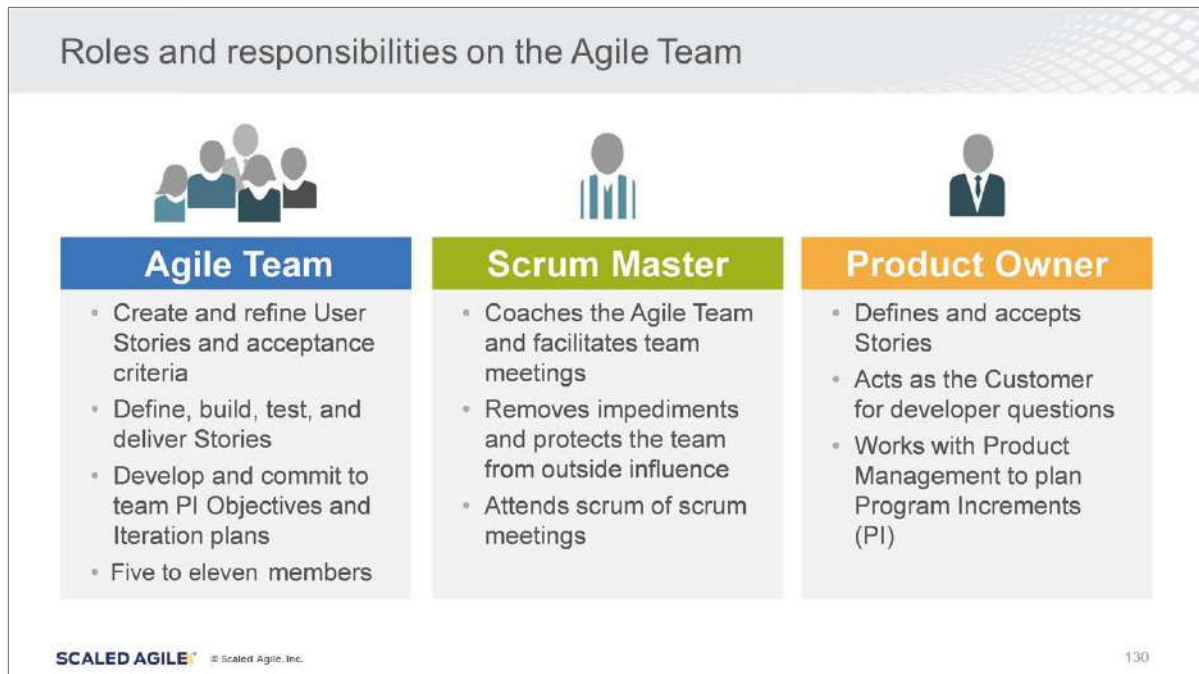
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Notes:



3.1 Form cross-functional Agile Teams



Notes:



Activity: Identify team names and roles

Duration
2 min

- ▶ **Step 1:** Your team is your table. Create a team name.
- ▶ **Step 2:** Select a Scrum Master for your team.
- ▶ **Step 3:** Select a Product Owner for your team.
- ▶ **Step 4:** Make sure the team name and the names of the people selected are visible to all other teams

— **Note:** In the next lesson, your team will experience PI Planning



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Notes:

3.2 Build quality in

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Notes:

Build quality in

You can't scale crappy code (or hardware, or anything else).

- ▶ Ensures that every increment of the Solution reflects quality standards
- ▶ Is required for high, sustainable development velocity
- ▶ Many practices apply to every team, whether business or technology:
 - Establish flow
 - Peer review and pairing
 - Collective ownership and standards
 - Automation
 - Definition of done

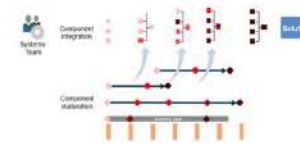
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Notes:

Built-in Quality practices for technology-focused teams

- ▶ Include software quality practices (most inspired by XP) like, Agile testing, behavior-driven development, test-driven development, refactoring, and code quality, Agile architecture
- ▶ Support hardware quality with exploratory, early iterations, frequent system-level integration, design verification, Model-Based Systems Engineering (MBSE), and Set-Based Design



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Notes:

3.3 Organize Agile Release Trains (ARTs) around the flow of value

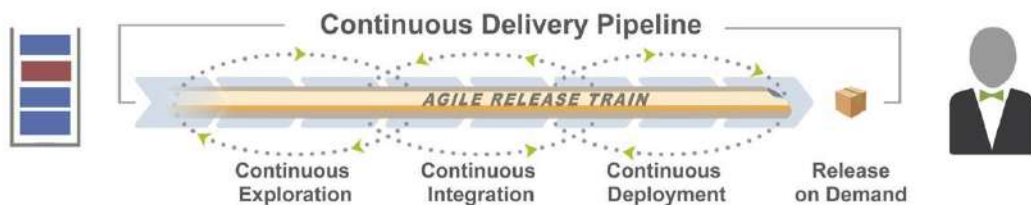
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Notes:

Agile Release Trains (ARTs) continuously deliver value

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

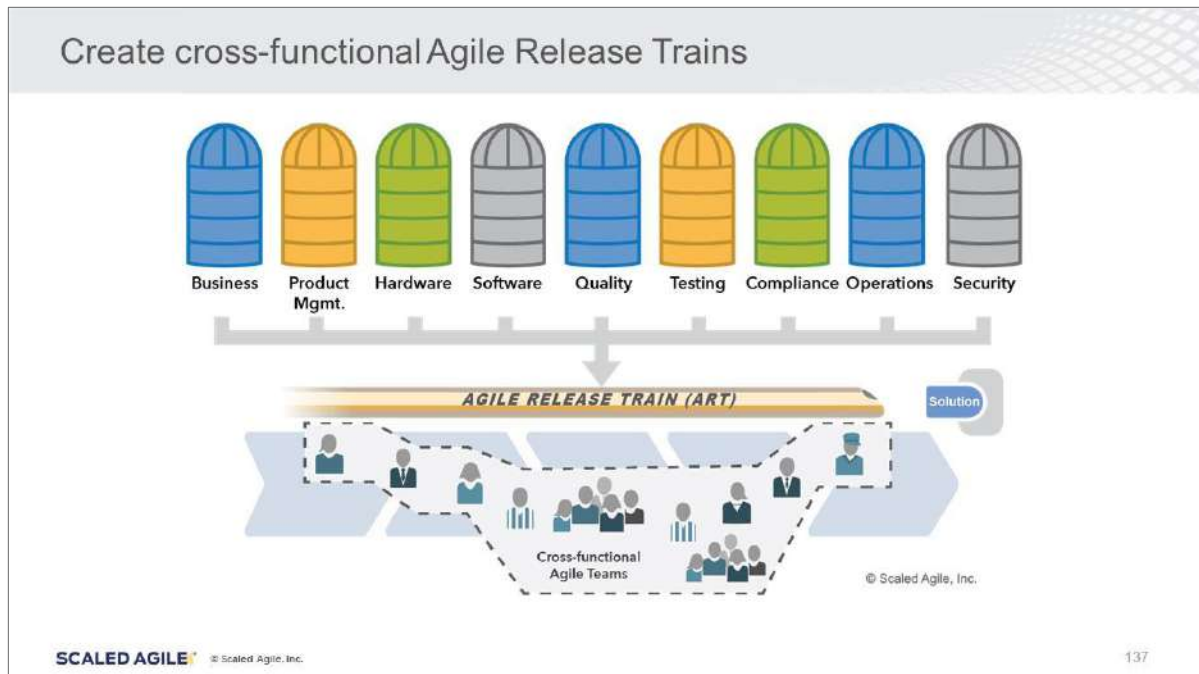


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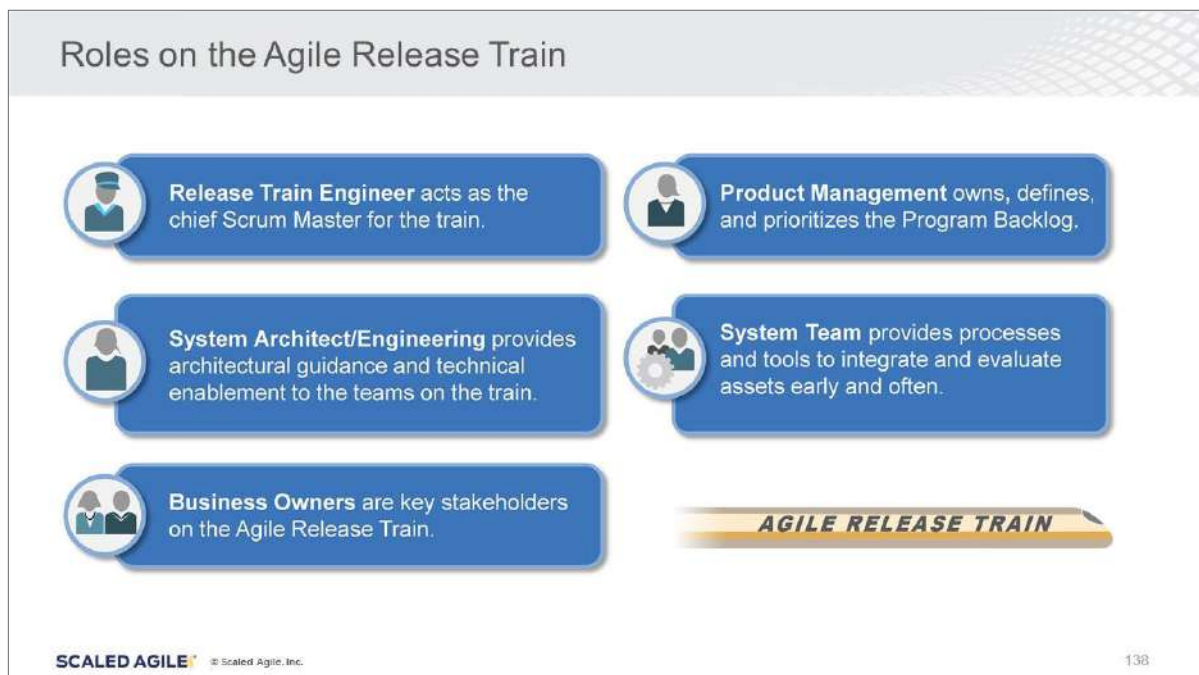
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Notes:

3.3 Organize Agile Release Trains around the flow of value



Notes:



Notes:

Lesson review

In this lesson, you:

- ▶ Discussed how to form cross-functional Agile Teams
- ▶ Explored how to build quality in
- ▶ Discussed how to organize Agile Release Trains (ARTs) around the flow of value

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Notes:

- ▶ Scaled Agile Framework recommended reading for this lesson:
 - *Team and Technical Agility*
 - *Built-in Quality*
 - *Agile Teams*
 - *Agile Release Train*

Lesson 3 notes



Click below to type your thoughts.

Lesson 4

Building Solutions with Agile Product Delivery

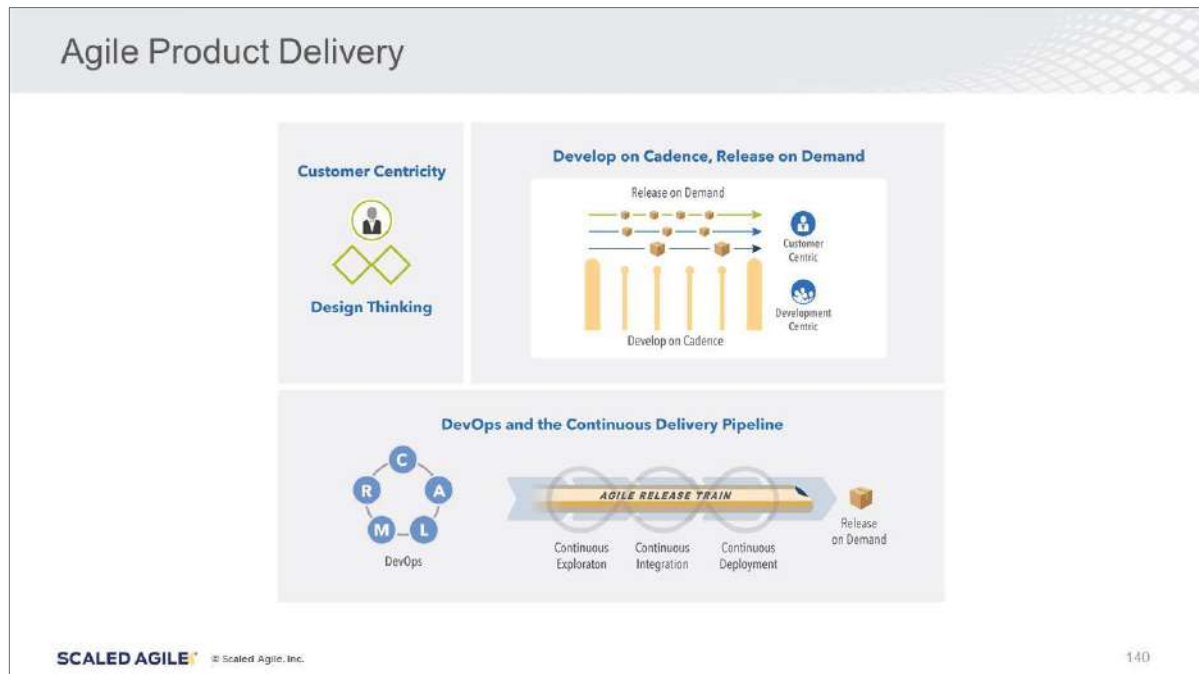
Learning Objectives:

- 4.1 Apply Customer Centricity with Design Thinking
- 4.2 Prioritize the Program Backlog
- 4.3 Participate in PI Planning
- 4.4 Develop on Cadence; Release on Demand
- 4.5 Build a Continuous Delivery Pipeline with DevOps



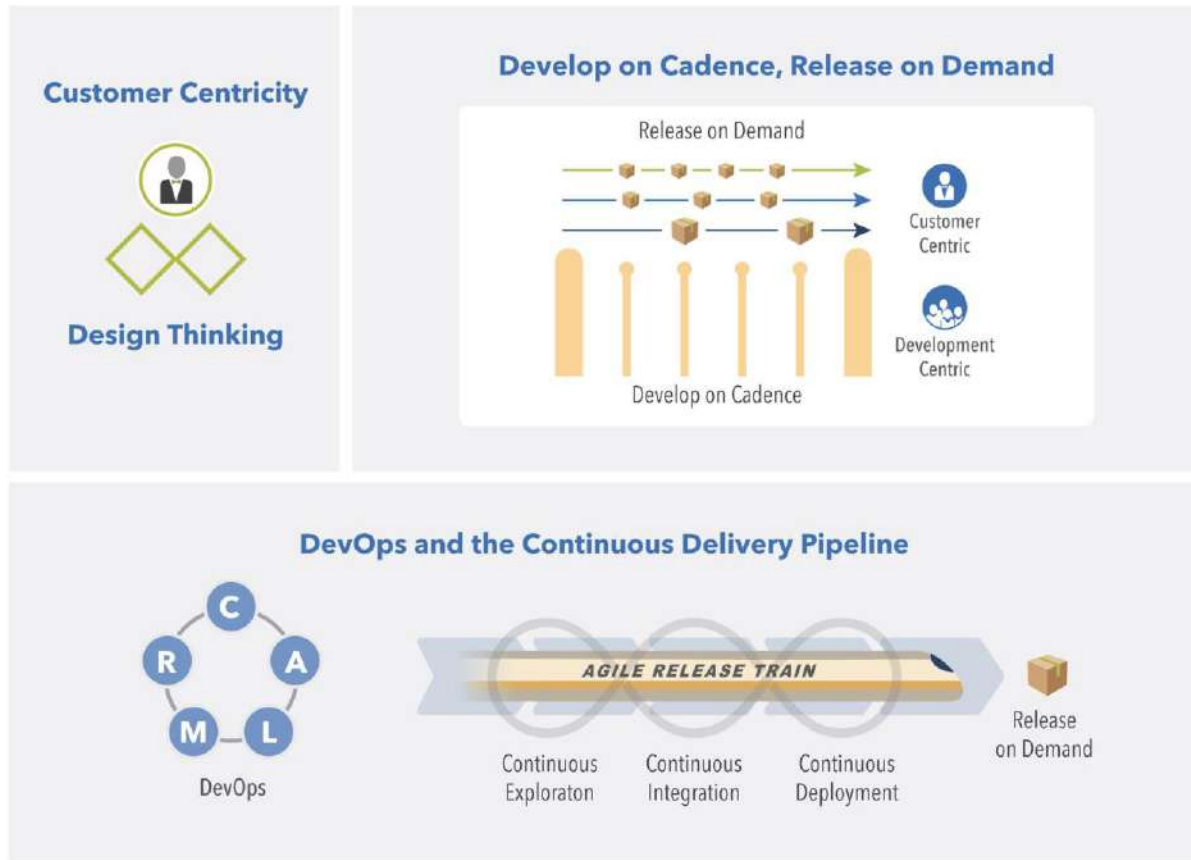
SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

4.1 Apply Customer Centricity with Design Thinking



Notes:

4.1 Apply Customer Centricity with Design Thinking




4.1 Apply Customer Centricity with Design Thinking

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Notes:



Discussion: Customer Centricity


Prepare
3 min

Share
2 min

► **Step 1:** Discuss as a team:

- Why is it important to maintain focus on the Customer?
- What are some of the characteristics of a customer-centric Enterprise?

► **Step 2:** Be prepared to share with the class.



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Notes:

Why Customer Centricity?

Customer-centric Enterprises deliver whole-product Solutions that are designed with a deep understanding of Customer needs.

Customer-centric businesses generate:

- greater profits
- increased employee engagement
- more satisfied customers.



Customer-centric governments and nonprofits create:

- the resiliency, sustainability, and alignment needed to fulfill their mission.

Notes:

Customer Centricity is a mindset

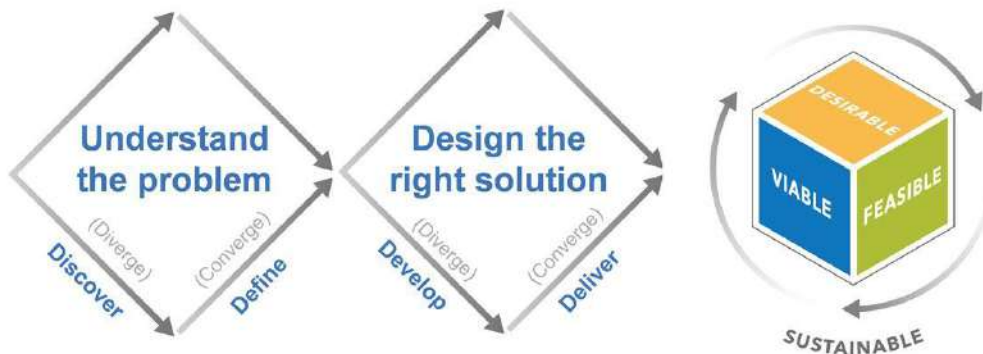
Whenever a customer-centric Enterprise makes a decision, it fully considers the effect it will have on its end users.



Notes:

What is Design Thinking?

Design Thinking is an iterative Solution development process that promotes a holistic approach to delighting stakeholders.



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Notes:

Use personas to understand Customers

Personas are fictional characters based upon your research. They represent the different people who might use your product or Solution in a similar way.

- Convey the problems they're facing in context (i.e., their work environment) and key triggers for using the product
- Capture rich, concise information (photographs, family stories, jobs, etc.) that inspire great products without unnecessary details



Cary the Consumer

Age: 36
Location: Reno, Nevada, USA
Time in App: 10 minutes

"I'm a working dad with three children ages 3, 6, and 10. 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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Notes:



Cary the Consumer

Age: 36
Location: Reno, Nevada, USA
Time in App: 10 minutes

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Text is my favorite form of communication with suppliers

I don't own a computer, only tablets and phones


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



Notes:

4.1 Apply Customer Centricity with Design Thinking

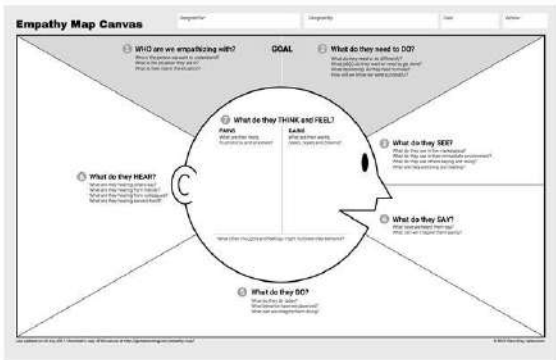


Activity: Empathy mapping

Prepare
7 min

Share
3 min

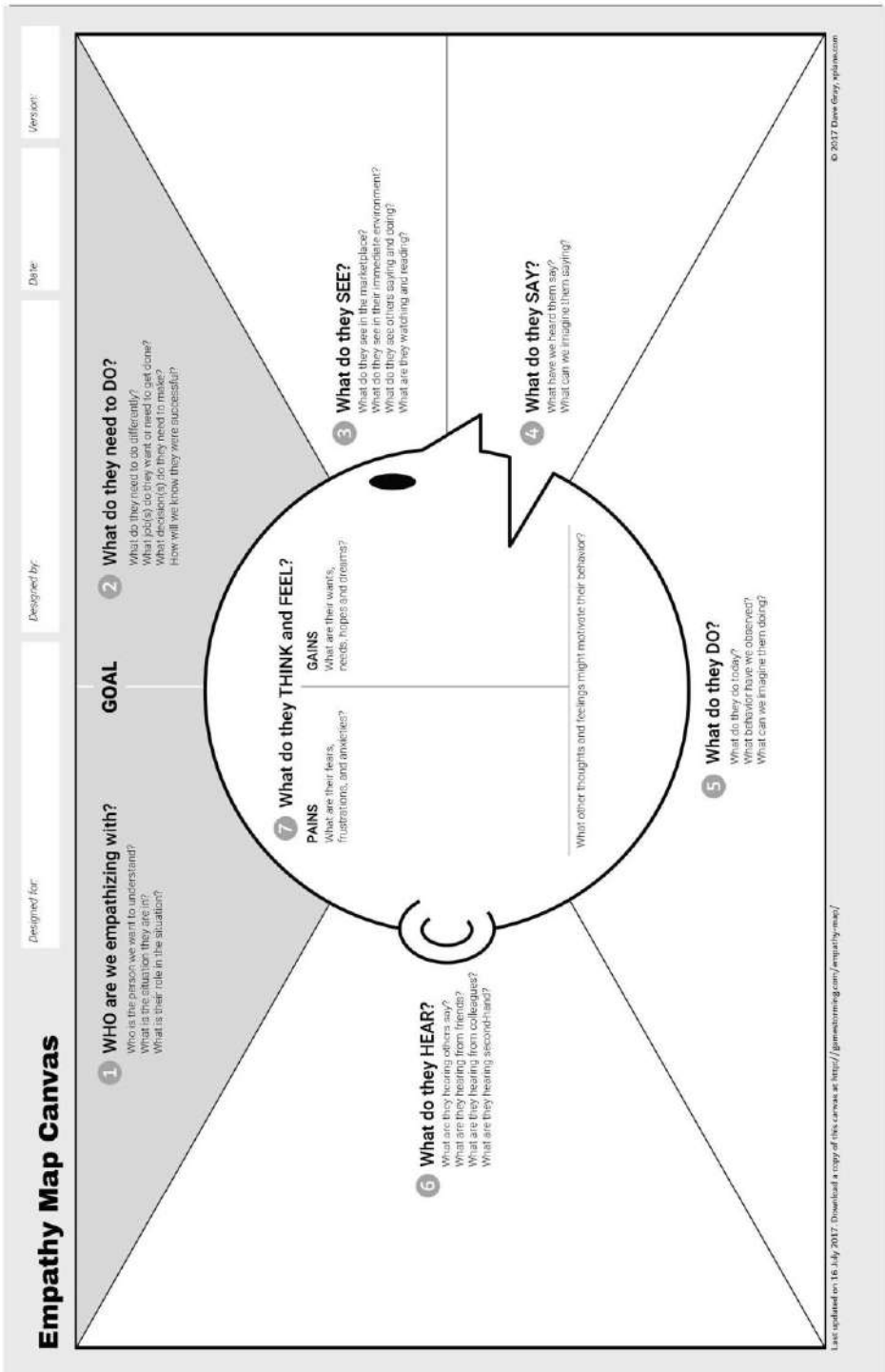
- ▶ **Step 1:** On a flip chart, as a team, create an empathy map using the example in your workbook.
- ▶ **Step 2:** Select a user or customer of a product or service from one of the companies at your table.
- ▶ **Step 3:** Following the sequence of numbers, fill in each section of the empathy map.
- ▶ **Step 4:** Discuss at your table how the empathy map can inform Solution development. Be prepared to share your insights with the class.



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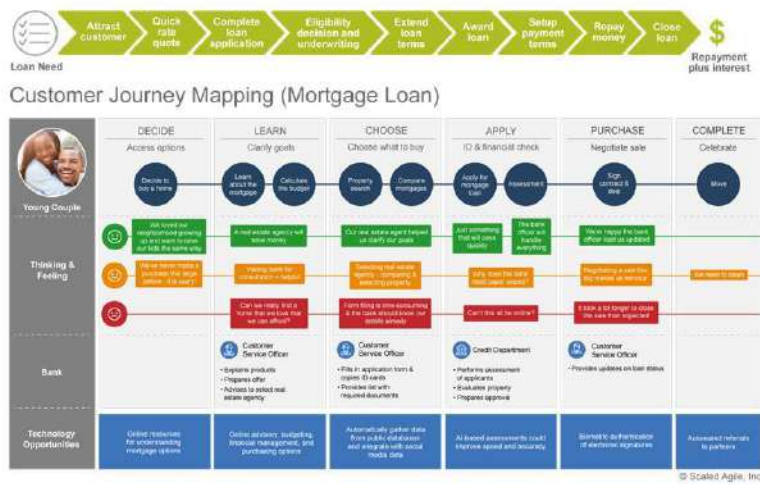
Notes:

4.1 Apply Customer Centricity with Design Thinking



4.1 Apply Customer Centricity with Design Thinking

Use journey maps to design the end-to-end Customer experience



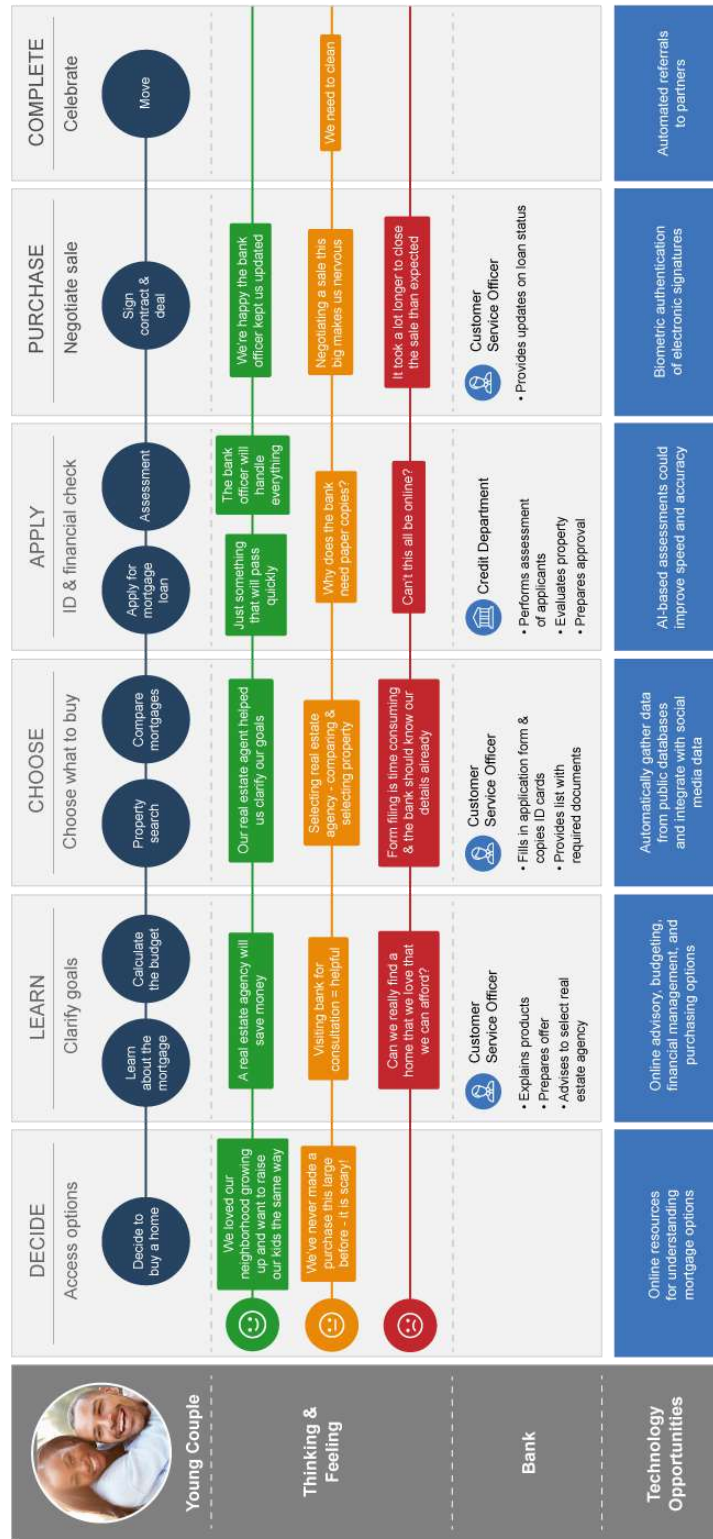
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Notes:



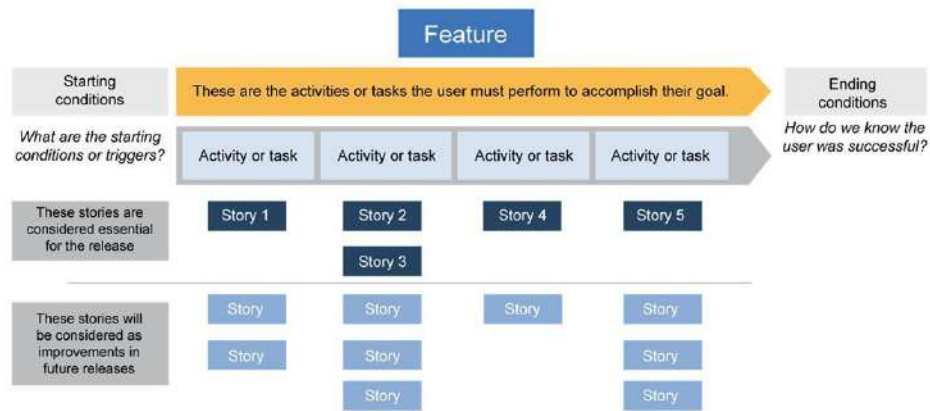
Customer Journey Mapping (Mortgage Loan)



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4.1 Apply Customer Centricity with Design Thinking

Use story maps to capture workflows



Stories within an activity are typically prioritized from "Stories essential to complete the activity" to "Stories that delight the user."

Notes:

4.2 Prioritize the Program Backlog

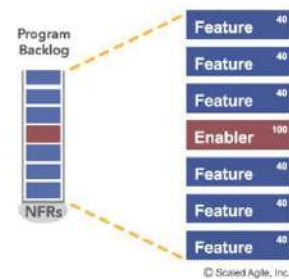
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Notes:

Features are managed through the Program Backlog

The Program Backlog is the holding area for upcoming Features, that will address user needs and deliver business benefits for a single Agile Release Train (ART).



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Notes:

Vision aligns everyone on the product's direction

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

- ▶ How will our product solve our customer's problems?
- ▶ What Features does it have?
- ▶ How will it differentiate us?
- ▶ What Nonfunctional Requirements does it deliver?



Notes:

Features represent the work for the Agile Release Train

- ▶ Feature is an industry-standard term familiar to marketing and Product Management
- ▶ A benefit hypothesis justifies Feature implementation cost and provides business perspective when making scope decisions
- ▶ Acceptance criteria are typically defined during Program Backlog refinement
- ▶ Reflect functional and nonfunctional requirements
- ▶ Fits in one PI

Example:

Multi-factor authentication


Benefit hypothesis

Enhance user security via both password and a device.


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

Notes:



Activity: Describe three Features




- **Step 1:** Individually identify three Features from your context
- **Step 2:** In your workbook, write down the Features and the benefit hypothesis for these Features
- **Step 3:** Choose one of the Features and write down some acceptance criteria for it

Example:

Feature:
Multi-factor authentication

Benefit Hypothesis:
Enhance user security via both password and a device.



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Notes:

4.2 Prioritize the Program Backlog

Feature 1:

Benefit hypothesis:

Acceptance Criteria:

Feature 2:

Benefit hypothesis:

Acceptance Criteria:

Feature 3:

Benefit hypothesis:

Acceptance Criteria:

Features are implemented by Stories

- ▶ Stories are small increments of value that can be developed in days and are relatively easy to estimate
- ▶ Story user-voice form captures role, activity, and goal
- ▶ Features fit in one PI for one ART; Stories fit in one Iteration for one Team

Enabler Story

Relocate mount for obstacle sensor to the top bracket so that it has a full 360° around the vehicle.

Enabler Stories represent different types of work, such as: *Exploration, Architecture, Infrastructure, Compliance*

Business Feature

Feature: Avoid obstacles unique to government installations
Benefit hypothesis: Characterize sensor's ability to detect and process obstacles unique to government installations

User Story

As an obstacle sensor **I can** track a single obstacle that continually changes speed and directions - like carts, pedestrians, forklifts, etc. **So that** vehicle control can respond to the obstacle's dynamic behavior

Notes:

Estimate Stories with relative Story points

- ▶ 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.

How big is it?



Guidance: Compared with other Stories, an 8-point Story should take relatively four times longer than a 2-point Story.

Notes:

Apply estimating poker for fast, relative estimating

- ▶ Estimating poker combines expert opinion, analogy, and disaggregation for quick but reliable estimates
- ▶ All team members participate



Steps

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

Source: Mike Cohn, Agile Estimating and Planning

Notes:

Estimation is a whole-team exercise


- ▶ Increases accuracy by including *all* perspectives
- ▶ Builds understanding
- ▶ Creates shared commitment



The whole team estimates Stories

Warning: Estimation performed by a Manager, Architect, or select group negates these benefits.

Notes:



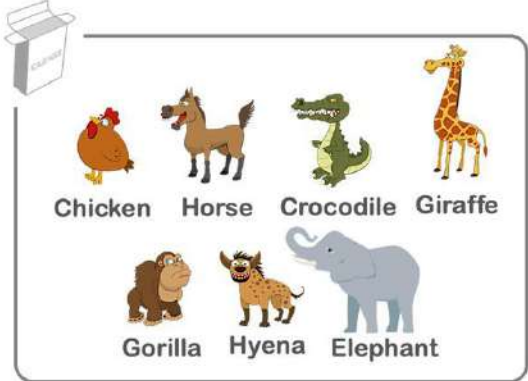
Activity: Relative size estimating

Prepare
5 min

Share
3 min

Use estimating poker to relatively estimate the mass of a set of animals.

- **Step 1:** As a team at your table, identify the smallest animal and mark it as **1**
- **Step 2:** Estimate the remaining animals using values **1, 2, 3, 5, 8, 13, 20, 40, 100**



Chicken Horse Crocodile Giraffe

Gorilla Hyena Elephant

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Notes:

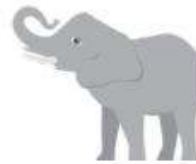
4.2 Prioritize the Program Backlog

Relative Size Estimating

Think in relative sizing of these animals. Which one would be smallest? Mark it as 1.

At your table, you will find a deck of Estimating Poker cards. As a team, use the cards to estimate the remaining of the animals.

If you identify the Hyena as 1. How would you relatively estimate the horse for example?



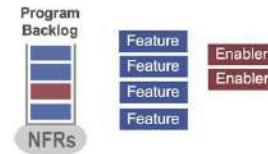
Prioritize Features for optimal ROI

In a flow system, *job sequencing* is the key to improving economic outcomes.

To prioritize based on Lean economics, we need to know two things:

- ▶ The cost of delay (CoD) in delivering value
- ▶ What is the cost to implement the valuable thing?

If you only quantify one thing, quantify the Cost of Delay. - Donald G. Reinertsen



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Notes:



Video Link: <https://tinyurl.com/kpmjnuk>

4.2 Prioritize the Program Backlog

Example with equal CoD: Which job first?

A \$\$, 1 day

B \$\$, 3 days

C \$\$, 10 days

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Notes:

Example with equal duration: Which job first?

A \$\$\$, 3 days

B \$\$, 3 days

C \$, 3 days

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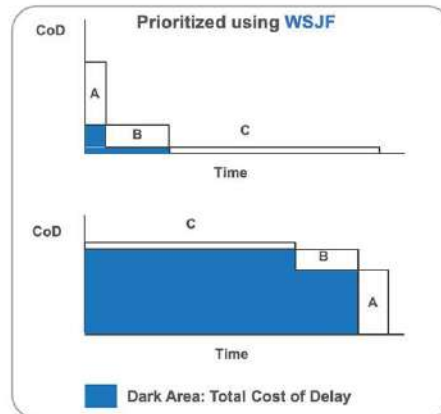
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Notes:

4.2 Prioritize the Program Backlog

General case: Any Cost of delay (CoD) and duration

In the general case, give preference to jobs with shorter duration and higher CoD, using Weighted Shortest Job First (WSJF):



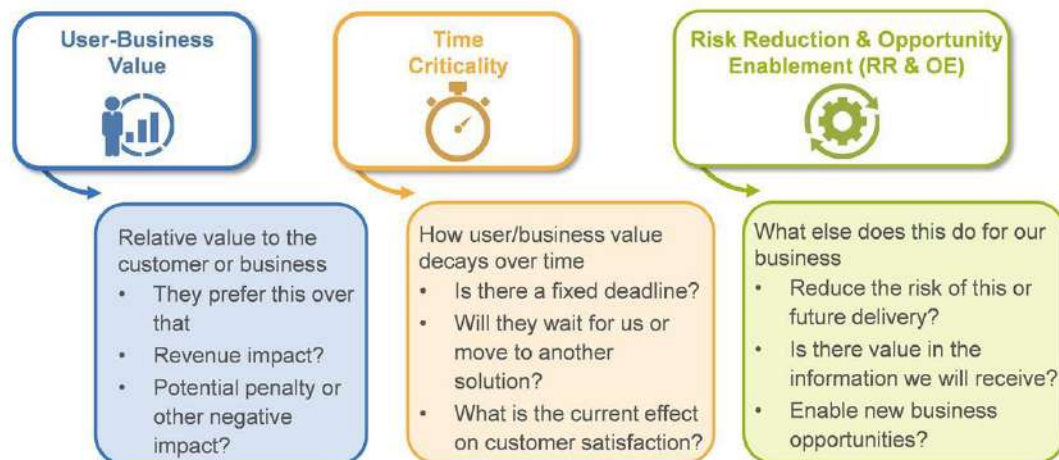
$$\text{WSJF} = \frac{\text{Cost of Delay}}{\text{Job Duration (Job size)}}$$

Feature	Duration	CoD	WSJF
A	1	10	10
B	3	3	1
C	10	1	0.1

Adapted from The Principles of Product Development Flow, Donald G. Reinertsen

Notes:

Components of cost of delay



Notes:

4.2 Prioritize the Program Backlog

Calculate WSJF with relative estimating

In order to calculate WSJF, teams need to estimate cost of delay and duration

- ▶ For duration, use job size as a quick proxy for duration
- ▶ Relative estimating is a quick technique to estimate job size and relative value
- ▶ WSJF stakeholders: Business Owners, Product Managers, Product Owners, and System Architects

$$\text{WSJF} = \frac{\text{User - Business Value} + \text{Time Criticality} + \text{Risk Reduction and/or Opportunity Enablement}}{\text{Job Size}}$$

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Notes:



Activity: Weighted Shortest Job First (WSJF) prioritization

Prepare
10 min

Share
4 min

- ▶ **Step 1:** Prioritize three of the Features you identified earlier using WSJF
- ▶ **Step 2:** Share some insights from this activity with the class

Feature	User-business value	Time criticality	RR OE value	CoD	Job size	WSJF
	+	+	=	÷	=	
	+	+	=	÷	=	
	+	+	=	÷	=	

Scale for each parameter: 1, 2, 3, 5, 8, 13, 20
Note: Do one *column* at a time, start by picking the smallest item and giving it a "1"
There must be at least one "1" in each column!

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Notes:

4.2 Prioritize the Program Backlog

Feature	User-business value	Time criticality	RR OE value	CoD	Job size	WSJF
	<div>+</div>	<div>+</div>	<div>=</div>	<div>÷</div>	<div>=</div>	
	<div>+</div>	<div>+</div>	<div>=</div>	<div>÷</div>	<div>=</div>	
	<div>+</div>	<div>+</div>	<div>=</div>	<div>÷</div>	<div>=</div>	

Scale for each parameter: 1, 2, 3, 5, 8, 13, 20

Note: Do one column at a time, start by picking the smallest item and giving it a "1."

There must be at least one "1" in each column!

4.3 Participate in PI Planning

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Notes:

Program Increment Planning

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

- ▶ Two days every 8 – 12 weeks (10 weeks is typical)
- ▶ Everyone attends, in person if at all possible
- ▶ Product Management owns Feature priorities
- ▶ Agile Teams own Story planning and high-level estimates
- ▶ Architect/Engineering and UX work as intermediaries for governance, interfaces, and dependencies




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Notes:


4.3 Participate in PI Planning



Video: The Power of PI Planning





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Notes:



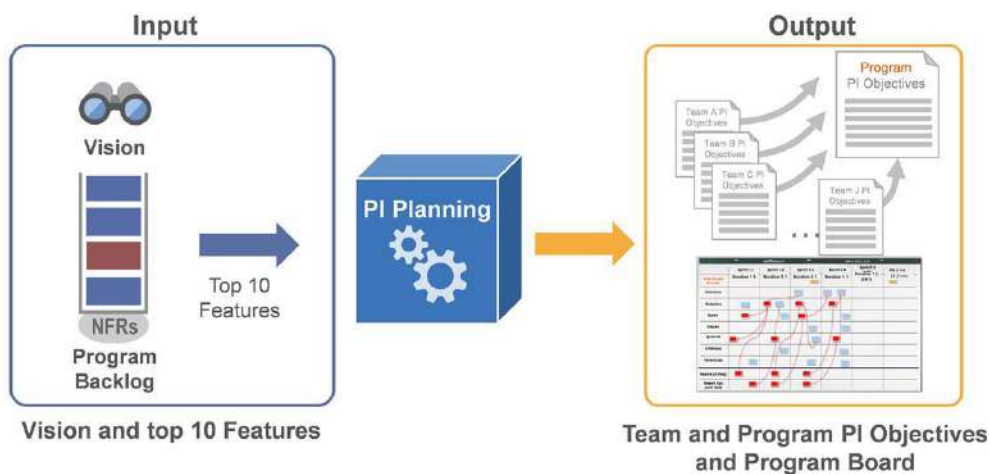
Video link: <https://youtu.be/EF0yGq9XCrA>

The benefits of PI Planning

- ▶ Establishing face-to-face communication across all team members and stakeholders
- ▶ Aligning development to business goals with the business context, Vision, and Team/Program PI Objectives
- ▶ Identifying dependencies and fostering cross-team and cross-ART collaboration
- ▶ Providing the opportunity for 'just the right amount' of architecture and Lean User Experience (UX) guidance
- ▶ Matching demand to capacity, eliminating excess work in process (WIP)
- ▶ Fast decision making

Notes:

The PI Planning process



Notes:

Align to a mission with PI Objectives

- ▶ Objectives are business summaries of what each team intends to deliver in the upcoming PI.
- ▶ They often map directly to the 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		
	Business Value	Actual Value
Structured location and validation of locations		
• Navigate autonomously from distribution center to top 5 most frequent destinations	—	—
• Park at 1 building that requires parallel parking	—	—
• Reduce GPS signal loss by 25%	—	—
• Build and demonstrate proof of concept for next generation vehicle navigation systems	—	—
Uncommitted Objectives		
• Spike: conduct hijack testing of the vehicle sensors	—	—

Notes:

Maintain predictability with uncommitted objectives

Uncommitted objectives help improve the predictability of delivering business value.

- ▶ They are planned and aren't 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, encourage them to move it to uncommitted
- ▶ If an item has many unknowns, consider moving it to uncommitted and put in early spikes
- ▶ Uncommitted objectives do count in velocity/capacity.

Objectives for PI 1	
—	
—	
—	
Uncommitted Objectives	
Spike: Conduct hijack testing of the vehicle sensors	
Enabler: Improve LMS integration with Salesforce	

Notes:

Prepare to experience a simulated PI Planning event

The flow of the simulation



You will be presented with the program Vision



You will be involved in planning two iterations considering Stories and Features



You will be drafting PI Objectives based on the program Vision and Features



You will be collaborating with the Business Owners to assign business value to the PI Objectives


Notes:

Outcomes of the PI Planning simulation

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



Notes:




Activity: Identify program roles

Duration
3
 min

- ▶ **Step 1:** Identify program 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 and Development Manager	Volunteer

Example: Your Instructor will be the RTE. A volunteer will be the Product Manager, etc.



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Notes:



Simulation: Why are we here?




RTE

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.




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Notes:

4.3 Participate in PI Planning



Simulation: Day 1 agenda



Presented by RTE

8:00 > 9:00	Business Context		› State of the business and upcoming objectives
9:00 > 10:30	Product/Solution Vision		› Vision and prioritized Features
10:30 > 11:30	Architecture Vision and development practices		› Architecture, common frameworks, etc. › Agile tooling, engineering practices, etc.
11:30 > 1:00	Planning context and lunch		› Facilitator explains planning process
1:00 > 4:00	Team breakouts		› Teams develop draft plans and identify risks and impediments › Architects and Product Managers circulate
4:00 > 5:00	Draft plan review		› Teams present draft plans, risks, and impediments
5:00 > 6:00	Management review and problem solving		› Adjustments made based on challenges, risks, and impediments

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Notes:



Simulation: Day 2 agenda




Presented by RTE

8:00 > 9:00	Planning adjustments		› Planning adjustments made based on previous day's management meeting
9:00 > 11:00	Team breakouts		› Teams develop final plans and refine risks and impediments › Business Owners circulate and assign business value to team objectives
11:00 > 1:00	Final plan review and lunch		› Teams present final plans, risks, and impediments
1:00 > 2:00	Program risks		› Remaining program-level risks are discussed and ROAMed
2:00 > 2:15	PI confidence vote		› Team and program confidence vote
2:15 > ???	Plan rework if necessary		› If necessary, planning continues until commitment is achieved
After commitment	Planning retrospective and moving forward		› Retrospective › Moving forward › Final instructions

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Notes:




Simulation: Briefings


Executive



Product Manager




System Architect




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Notes:



Simulation: Planning guidance



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

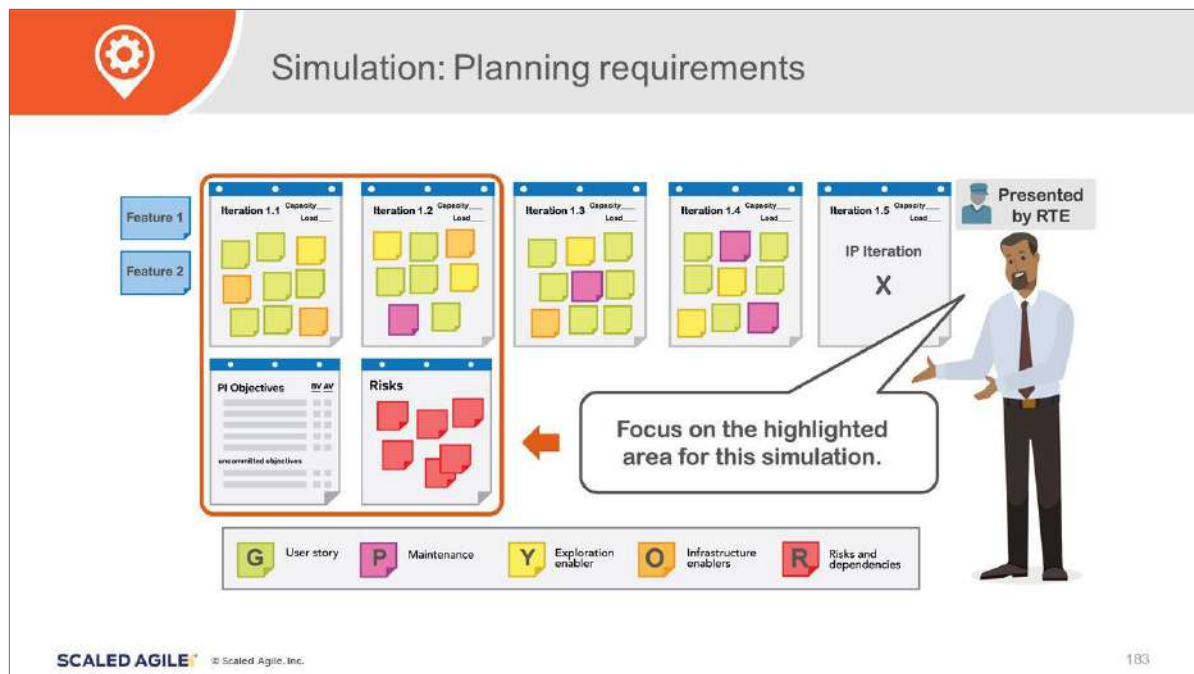
-  **Product Owners:** You have the content authority to make decisions at the user Story level
-  **Scrum Masters:** Your responsibility is to manage the timebox, the dependencies, and the ambiguities
-  **Agile Team:** Your responsibility is to define users Stories, plan them into the Iteration, and work out interdependencies with other teams

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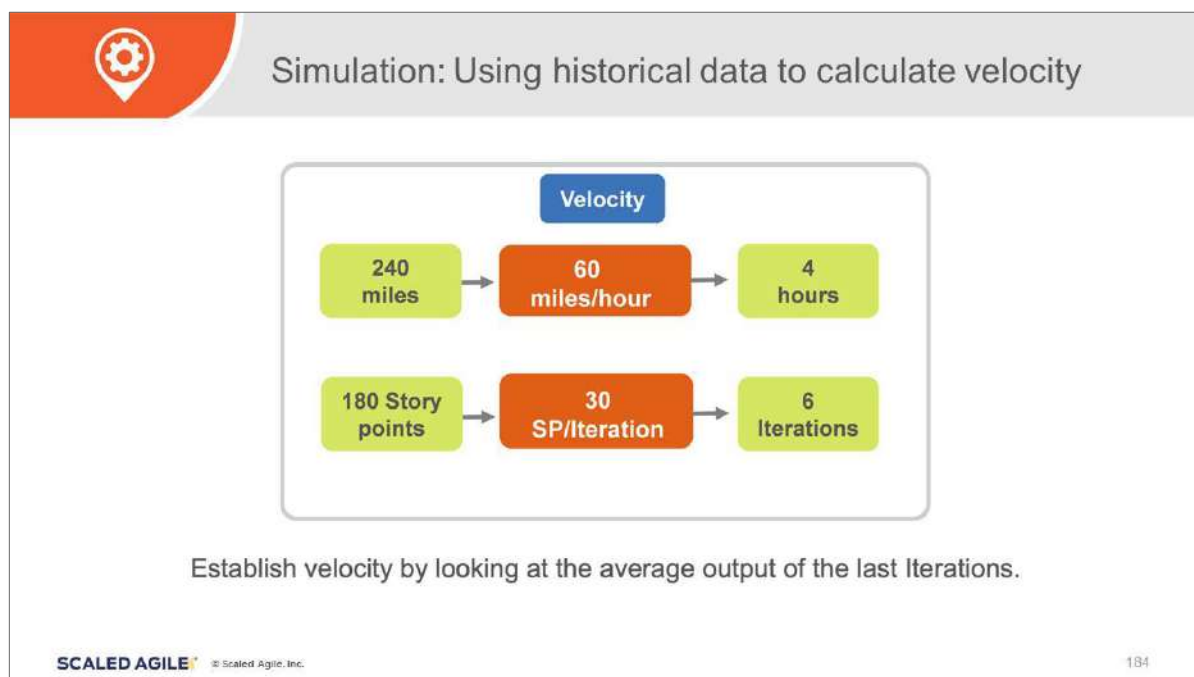
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Notes:


4.3 Participate in PI Planning



Notes:



Notes:



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 part-timers).
- ▶ Subtract 1 point for every team member 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.
- ▶ Estimate every other Story relative to that one.

Example:

A 7-person team composed of 3 developers, 2 testers, 1 Product Owner, and 1 Scrum Master


Exclude The Scrum Master, Product Owner, and vacation time from the calculation

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


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Notes:



Activity: Calculate your capacity

Duration


- ▶ **Step 1:** Review the example on the previous slide
- ▶ **Step 2:** Calculate your own capacity for the next two, 2-week Iterations
 - The first Iteration starts Monday
 - Use your real availability
- ▶ **Step 3:** Make sure you have your team's capacity calculated

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Notes:

4.3 Participate in PI Planning




Activity: Team breakout #1

Duration
45 min

You will be planning a short Program Increment with two Iterations.


- ▶ **Step 1:** Setup the team area. Enter the capacity for each Iteration.
- ▶ **Step 2:** Pick up a Feature from the Product Manager.
- ▶ **Step 3:** Estimate the Stories using Story Points.
- ▶ **Step 4:** Load the Stories into the Iterations.
- ▶ **Step 5:** Write the PI Objectives using clear statements.
- ▶ **Step 6:** Identify the uncommitted objectives.
- ▶ **Step 7:** Identify any program risks and dependencies.



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Notes:



Activity: Scrum of scrums (SoS) sync

Duration
5 min

- ▶ **Step 1:** Observe the SoS sync, conducted by the RTE
- ▶ **Step 2:** Each team's Scrum Master provides the team's current status and addresses the questions from the RTE
- ▶ **Step 3:** The RTE holds a meet-after after the sync (limited to 1 – 2 topics for the simulation)

SoS Sync Questions	Team 1	Team 2
Have you identified the capacity for each Iteration in 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 trade-offs and conflicting priorities with your Business Owners?		
Have you identified any program risks?		
Will you be ready to start writing PI Objectives in the next 15 minutes?		
Is there anything you need to discuss with other Scrum Masters? If so, stay for the meet-after		


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Notes:

4.3 Participate in PI Planning


SoS Sync Questions	Team 1	Team 2
Have you identified the capacity for each Iteration in 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 trade-offs and conflicting priorities with your Business Owners?		
Have you identified any program risks?		
Will you be ready to start writing PI Objectives in the next 15 minutes?		
Is there anything you need to discuss with other Scrum Masters? If so, stay for the meet-after		



Activity: Draft plan review



- ▶ **Step 1:** Present the summary of your team's first two Iterations and one or more draft PI Objectives
- ▶ **Step 2:** Make sure that you have included the following:
 - Capacity and load for each Iteration
 - Draft PI Objectives
 - Program risks and impediments

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Notes:

4.3 Participate in PI Planning

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.

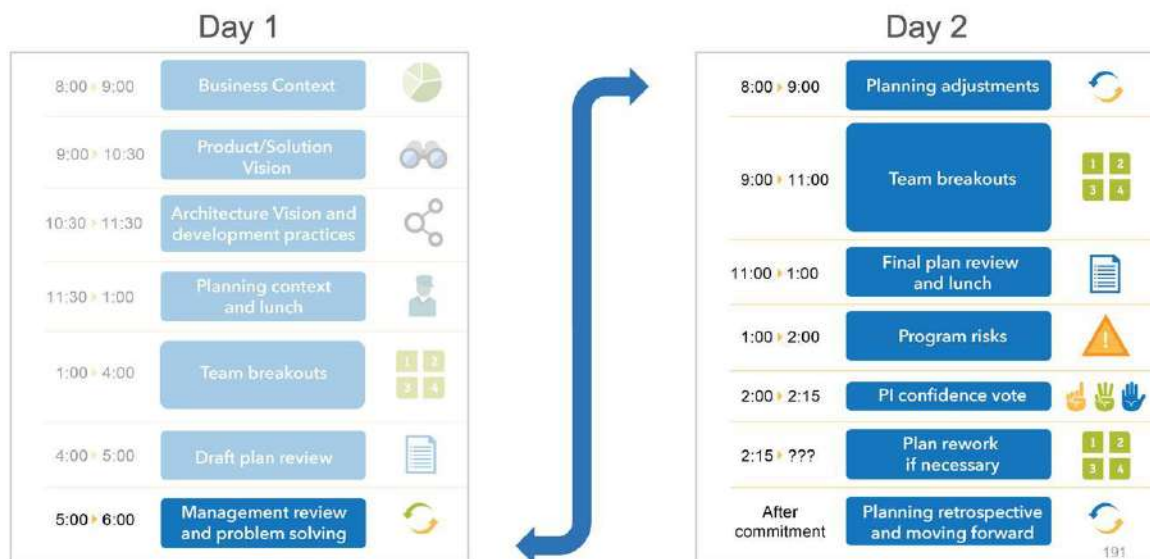
Common questions during the managers' review:

- ▶ What did we just learn?
- ▶ Where do we need to adjust? Vision? Scope? 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?



Notes:

Activities during day 2



Notes:

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



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Notes:

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 Program Increment plan
- ▶ Teams also consolidate program risks, impediments, and dependencies
- ▶ Uncommitted objectives provide the capacity and guard band needed to increase the reliability of cadence-based delivery


Team A	
PI Objectives	BV
■ Proof of concept with mock sounds	10
■ Help with radar POC	4
■ Decide to create or buy engine noises	3
Uncommitted	
■ Proof of concept with real sounds	7

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Notes:

4.3 Participate in PI Planning



Activity: Setting business value

Duration
10 min

The instructor 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 would take place, illustrating the larger purposes and thought processes around assigning business value

Team A

PI Objectives	BV
Proof of concept with mock sounds	10
Help with radar POC	4
Decide to create or buy engine noises	3
Uncommitted	
Proof of concept with real sounds	7

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Notes:

Program Board - Feature delivery, dependencies, and Milestones

	Iteration 1.1	Iteration 1.2	Iteration 1.3	Iteration 1.4	Iteration 1.5 (IP)	PI 2 >>>
Milestones/ Events						
Unicorns						
Dolphins						
Bears						
Eagles						
Iguanas						
Antelope						
Tarantulas						
Needs UX Help						
Needs Sys Arch Help						

A program Milestone or event is happening in Iteration 1.3 (e.g., a trade show, market release, etc.).

This Feature cannot be delivered until multiple teams complete their dependencies.

A Feature placed in a team's swim lane with no strings means that it can be completed independent of other teams.

Blue = Features
Red/Pink = Significant Dependency
Orange = Milestone/ Event
Red String = A dependency requiring Stories or other dependencies to be completed before the Feature can be completed

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Notes:

Final plan review

Teams and Business Owners peer-review all final plans.



Final plan review

Used with permission of SEI Global Wealth Services

Notes:

Building the final plan

- ▶ Final plans are collected at the front of the room
- ▶ Final plans are reviewed by all teams
- ▶ Business Owners are asked whether they accept the plan
- ▶ If so, the team's plan and program risk sheet are brought to the front of the room
- ▶ If not, the plans stay in place, and the team continues planning after the review



A team's final plan

Used with permission of Discount Tire Corporation

Notes:

Addressing program risks

After all plans have been presented, remaining program risks and impediments are discussed and categorized.

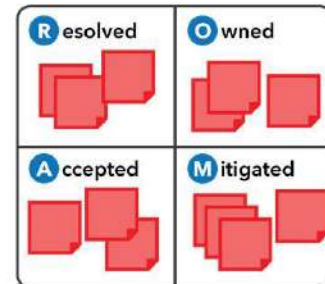
ROAMing risks:

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 plan to adjust as necessary.



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Notes:

Activity: Manage program risks

Duration

The instructor will demonstrate **ROAMing** one to two risks for one team.

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

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Notes:

Confidence vote: Team and program

After dependencies are resolved and risks are addressed, a confidence vote is taken by the team and program.

A commitment with two parts:

1. Teams agree to do everything in their power to meet the agreed-to objectives
2. In the event that 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



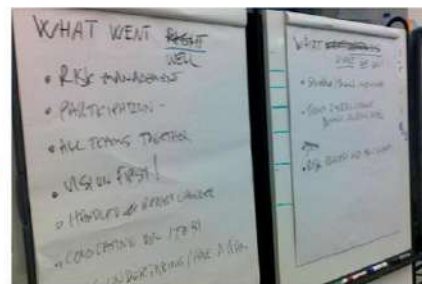
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Notes:

Run a planning meeting retrospective

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



A Team's Retrospective

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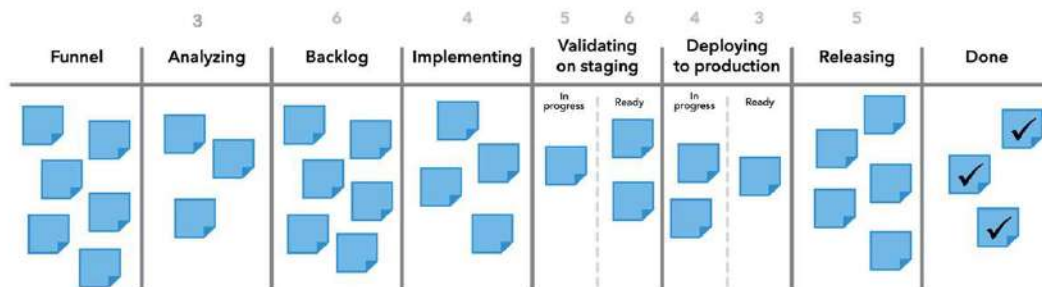
4.4 Develop on Cadence; Release on Demand

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Notes:

Manage the flow of work with the Program Kanban



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Notes:

An example of a Program Kanban



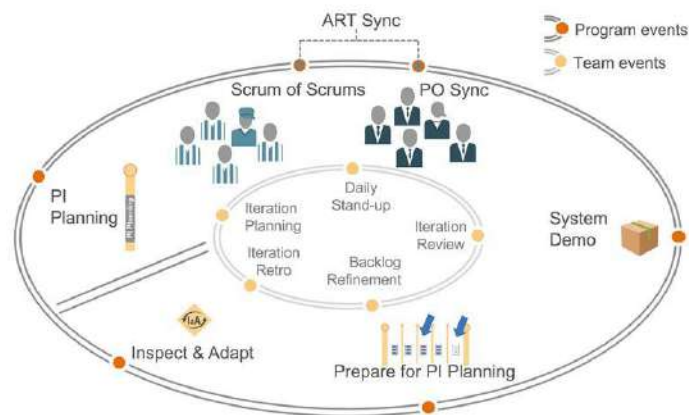
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Notes:

Program events drive the train

Program events create a closed-loop system to keep the train on the tracks.



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Notes:

ART sync is used to coordinate progress

Programs coordinate dependencies through sync meetings.



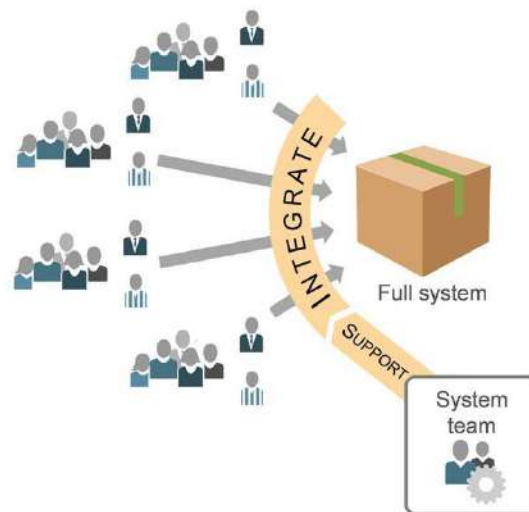
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Notes:

Demo the full system increment every two weeks

- ▶ Features are functionally complete or 'toggled' so as not to disrupt demonstrable functionality
- ▶ New Features work together and with existing functionality
- ▶ Happens after the Iteration review (may lag by as much as one iteration, maximum)
- ▶ Demo from a staging environment which resembles production as much as possible



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Notes:

Innovation and Planning (IP) Iteration

Provide sufficient capacity margin to enable cadence. —Donald G. Reinertsen

Facilitate reliability, Program Increment readiness, planning, and innovation

- ▶ **Innovation:** Opportunity for innovation, hackathons, and infrastructure improvements
- ▶ **Planning:** Provides for cadence-based planning
- ▶ Estimating **guard band** for cadence-based delivery

Notes:

Example IP Iteration calendar

Monday	Tuesday	Wednesday	Thursday	Friday
1	2	3	4	5
Buffer for leftover work				
Final verification and validation, and documentation (if releasing)				
Innovation				
PI planning readiness				
6	7	8	9	10
Innovation continues	Continuing education	PI planning		Optional time for distributed planning
PI planning readiness	Inspect & Adapt Event	Business context	Planning adjustments	
		Product / solution vision	Team breakouts	
		Architecture vision and development practices	Final plan review and lunch	
		Planning requirements and lunch	Program risks	
		Team breakouts	PI confidence vote	
		Draft plan review	Plan rework if necessary	
		Management review and problem-solving	Planning retrospective and moving forward	

Notes:

4.4 Develop on Cadence; Release on Demand

Monday	Tuesday	Wednesday	Thursday	Friday
1	2	3	4	5
Buffer for leftover work				
Final verification and validation, and documentation (if releasing)				
Innovation				
PI planning readiness				
8	9	10	11	12
Innovation continues	Continuing education	PI planning		Optional time for distributed planning
		Business context	Planning adjustments	
PI planning readiness	Inspect & Adapt Event	Product / solution vision	Team breakouts	
		Architecture vision and development practices	Final plan review and lunch	
		Planning requirements and lunch	Program risks	
		Team breakouts	PI confidence vote	
		Draft plan review	Plan rework if necessary	
		Management review and problem-solving	Planning retrospective and moving forward	

Without the IP Iteration...

- ▶ Lack of delivery capacity buffer impacts predictability
- ▶ Little innovation; tyranny of the urgent
- ▶ Technical debt grows uncontrollably
- ▶ People burn out
- ▶ No time for teams to plan, demo, or improve together



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Notes:

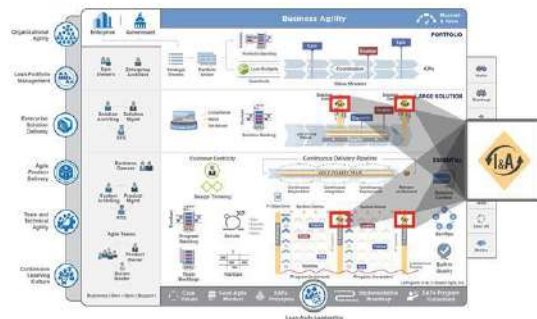
Improving results with the Inspect and Adapt event

Three parts of Inspect and Adapt:

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

Timebox: 3 – 4 hours per PI

Attendees: Teams and stakeholders



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Notes:

PI System Demo

At the end of the PI, teams demonstrate the current state of the Solution to the appropriate stakeholders.

- ▶ Often led by Product Management, POs, and the System Team
- ▶ Attended by Business Owners, program stakeholders, Product Management, RTE, Scrum Masters, and teams



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Notes:

Program performance reporting

As part of the PI System Demo, teams compare planned vs actual PI Objectives.

- ▶ Teams meet with their Business Owners to self-assess the business value they achieved for each objective
- ▶ Each team's planned vs actual business value is then rolled up to the program predictability measure.

Objectives for PI 3	Business Value	
	Plan	Actual
• Structured locations and validation of locations	7	7
• Build and demonstrate a proof of concept for context images	8	8
• Implement negative triangulation by: tags, companies and people	8	6
• Speed up indexing by 50%	10	5
• Index 1.2 billion more web pages	10	8
• Extract and build URL abstracts	7	7
Uncommitted Objectives		
• Fuzzy search by full name	7	0
• Improve tag quality to 80% relevance	4	4
Totals	50	45
% Achievement:	90%	

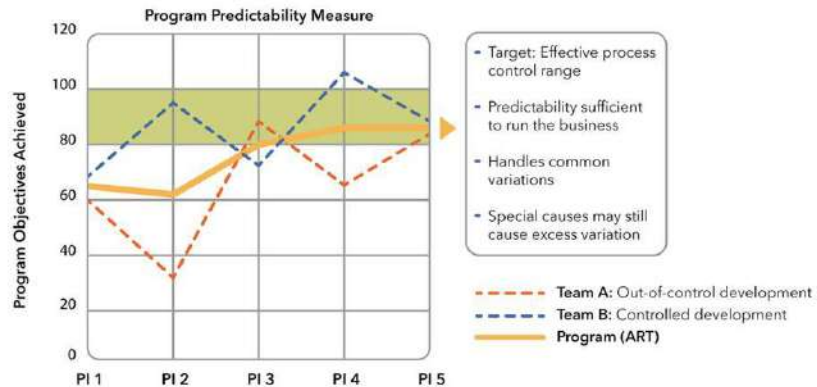
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Notes:

Quantitative and qualitative measurement

The report compares actual business value achieved to planned business value.



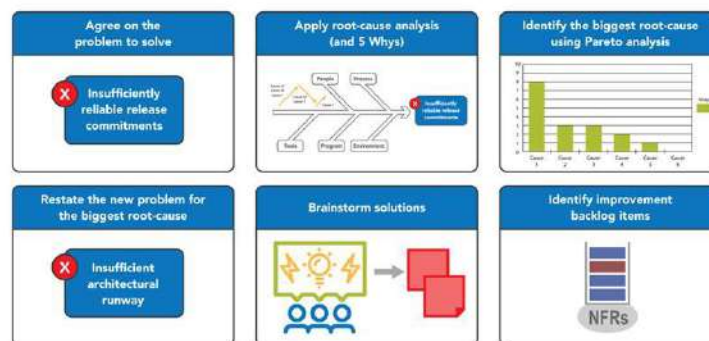
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Notes:

The problem-solving workshop

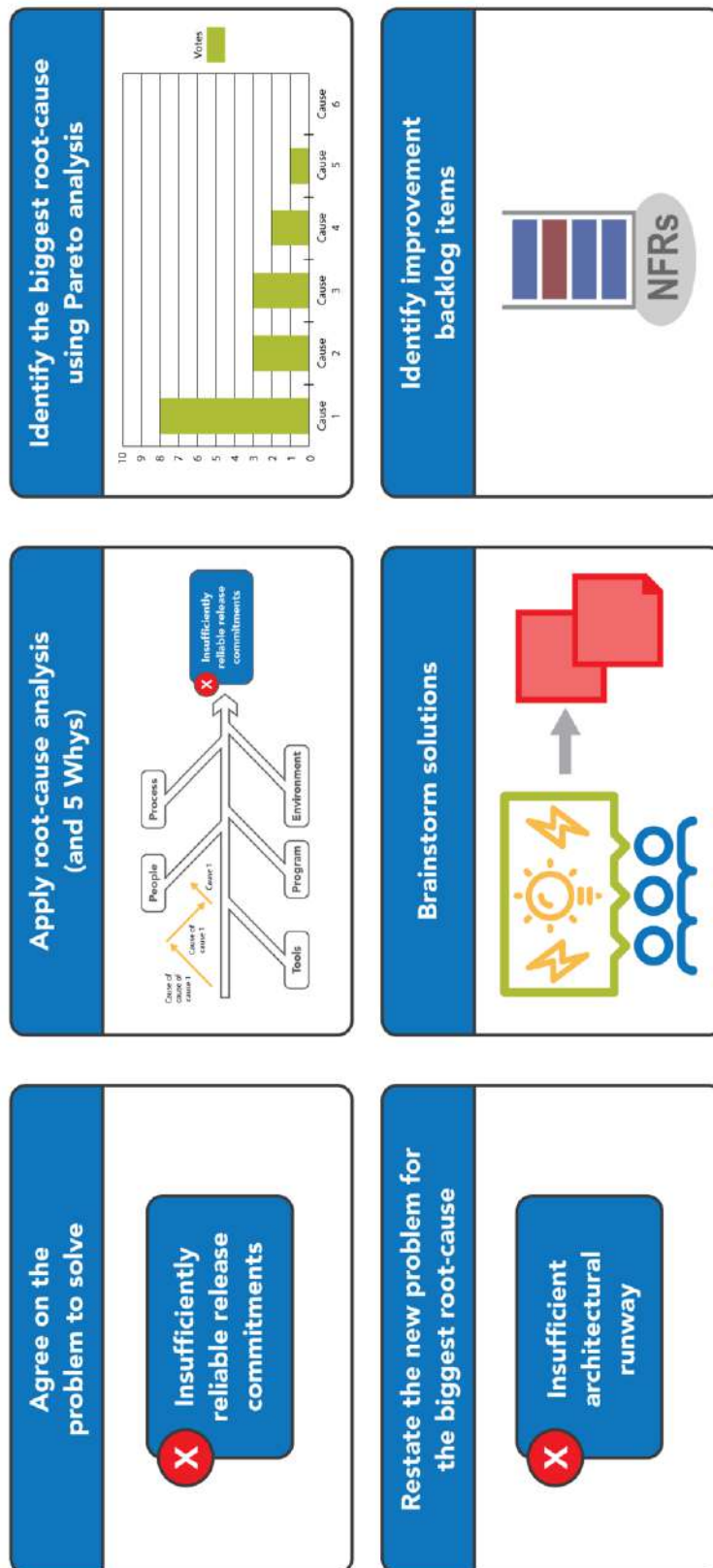
Teams conduct a short retrospective to systematically address the larger impediments that are limiting velocity.



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Notes:




4.5 Build a Continuous Delivery Pipeline with DevOps

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Notes:



Activity: DevOps myth or fact

Prepare
5 min

- ▶ **Step 1:** Take the myth or fact quiz in your workbook
- ▶ **Step 2:** Check your results with the answer key at the bottom of page that follows the quiz



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Notes:

Myth or Fact Quiz

MYTH FACT

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. DevOps is just about automation |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. DevOps is a cultural change |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. You don't need Lean-Agile to have a successful DevOps implementation |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Agile is for development not operations |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. The deployment pipeline is used to deploy environments as well as solutions |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. DevOps tries to bridge the gap between new Features and stable solutions |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Measurements are an important part of DevOps |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Automation of testing reduces the holding cost |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. DevOps is only for small software companies |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Chaos monkey was developed by Netflix |



Video: What is DevOps?





<https://vimeo.com/342037390/3a25026214>

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Notes:



Video link: <https://vimeo.com/342037390/3a25026214>

?

Quiz Answers: 1-MYTH | 2-FACT | 3-MYTH | 4-MYTH | 5-FACT | 6-FACT | 7-FACT | 8-MYTH | 9-MYTH | 10-FACT

4.5 Build a Continuous Delivery Pipeline with DevOps

Who is DevOps?

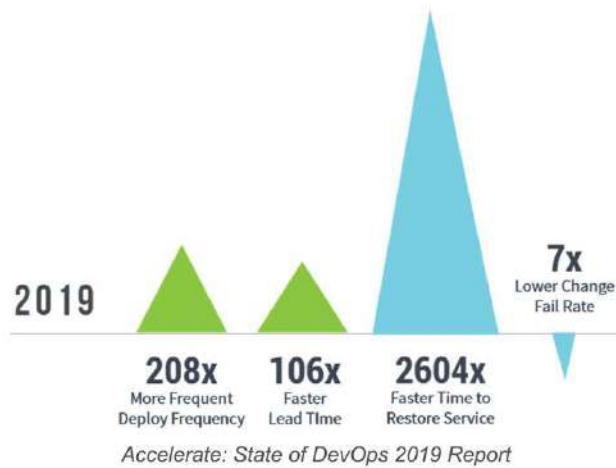


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Notes:

Achieve higher performance with DevOps



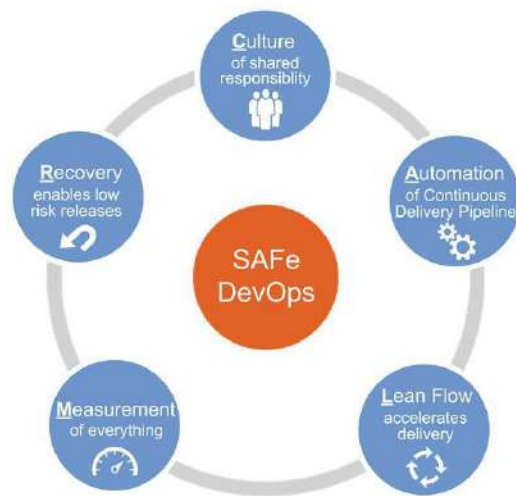
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Notes:

A CALMR approach to DevOps

- ▶ **C**ulture - Establish a culture of shared responsibility for development, deployment, and operations.
- ▶ **A**utomation - Automate the Continuous Delivery Pipeline.
- ▶ **L**ean flow - Keep batch sizes small, limit WIP, and provide extreme visibility.
- ▶ **M**easurement - Measure the flow through the pipeline. Implement full-stack telemetry.
- ▶ **R**ecovery - Architect and enable low-risk releases. Establish fast recovery, fast reversion, and fast fix-forward.



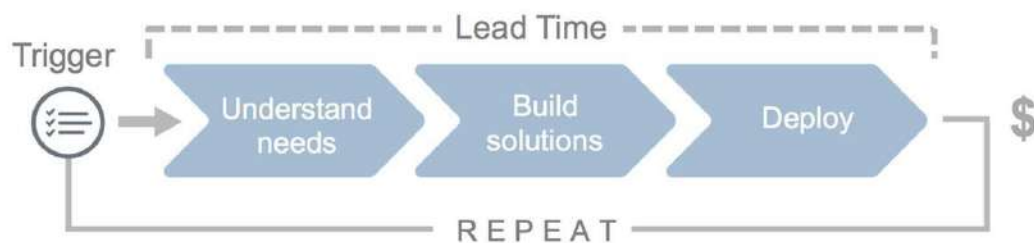
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Notes:

DevOps is in the Value Stream

Value occurs only when the end users are operating the Solution.



DevOps isn't optional. The only question is how efficient it is.

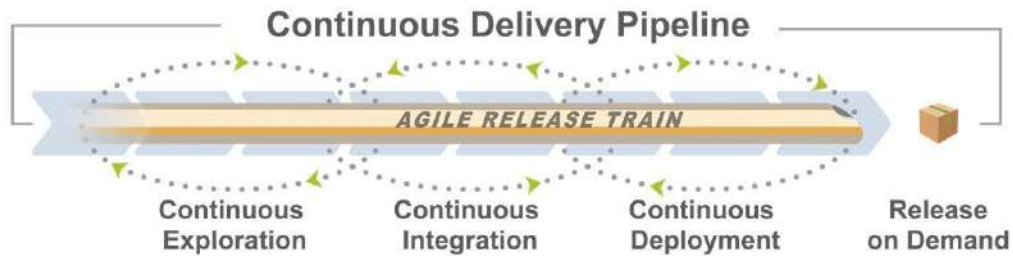
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Notes:

4.5 Build a Continuous Delivery Pipeline with DevOps

The Continuous Delivery Pipeline enables the flow of value

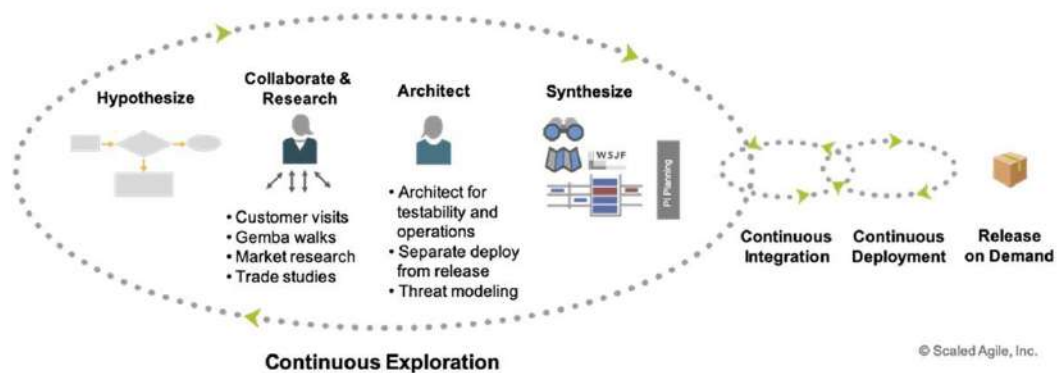


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Notes:

Continuous Exploration – Understand Customer needs



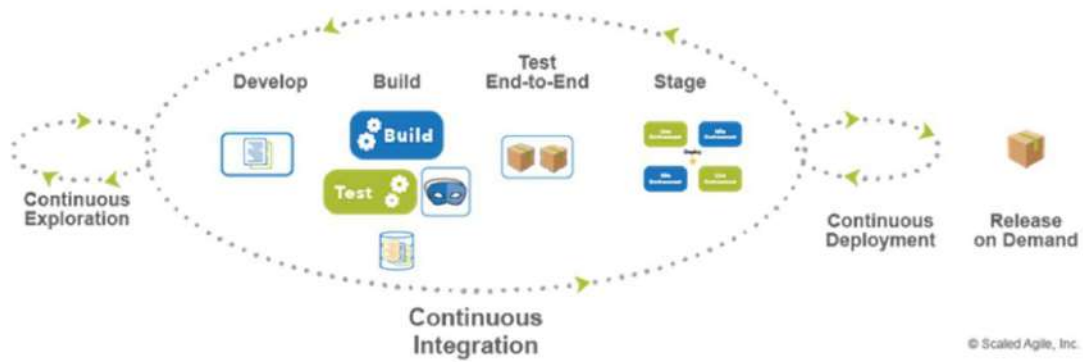
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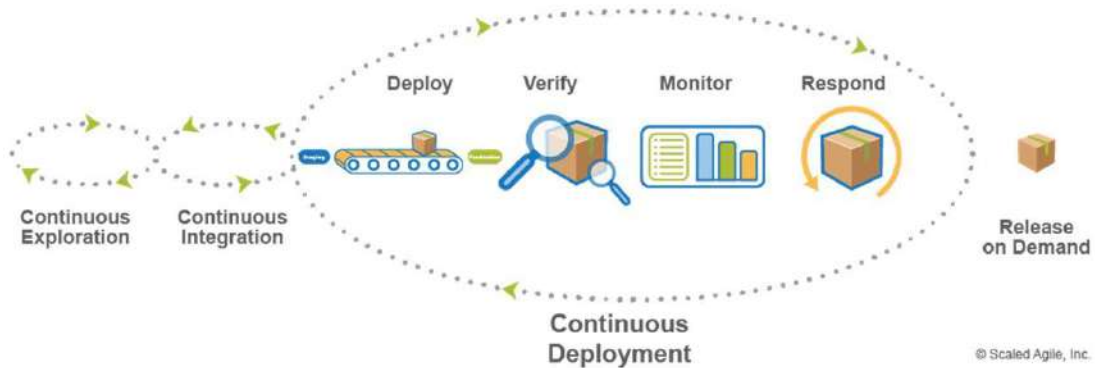
Notes:

Continuous Integration – A critical technical practice of the ART



Notes:

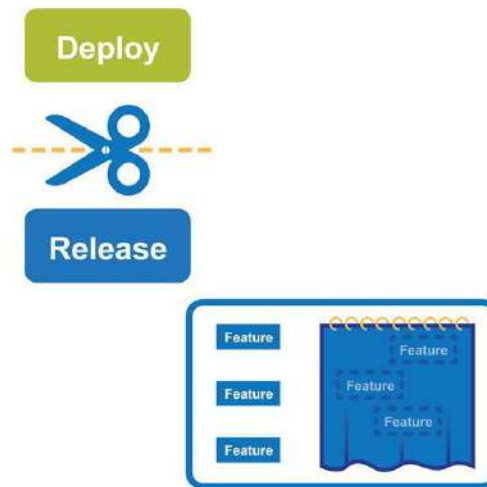
Continuous Deployment – Getting to production early



Notes:

Separate deploy from release

- ▶ Separate deploy to production from release
- ▶ Hide all new functionality under feature toggles
- ▶ Enables testing background and foreground processes in the actual production environment before exposing new functionality to users

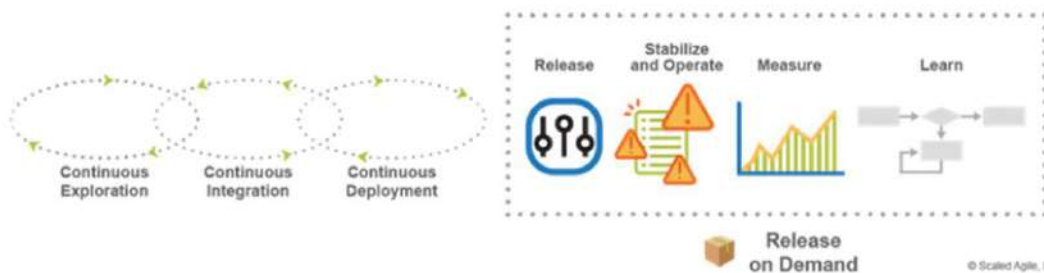


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Notes:

Release on Demand – Making value available when it's needed



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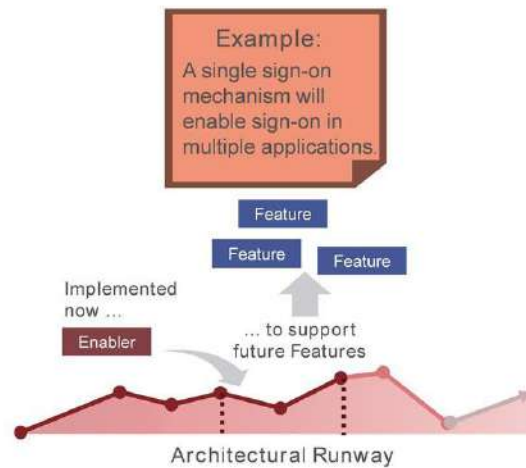
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Notes:

Architect for releasability

Architectural Runway is existing code, hardware components, marketing branding guidelines, etc., that enable near-term business Features.


- ▶ Enablers build up the runway
- ▶ Features consume it
- ▶ Architectural Runway must be continuously maintained
- ▶ Use capacity allocation (a percentage of train's overall capacity in a PI) for Enablers that extend the runway



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Notes:




Taking Action: Improving Agile Product Delivery

Prepare
5 min

Share
3 min

- ▶ **Step 1:** Consider the practices and the events that support Agile Product Delivery, as discussed earlier
- ▶ **Step 2:** Identify three minimum viable improvements you could execute to improve Agile Product Delivery. Write them down in your Action Plan
- ▶ **Step 3:** Share your insights with the class



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Notes:

Lesson review

In this lesson you:

- ▶ Applied Customer Centricity with Design Thinking
- ▶ Prioritized the Program Backlog
- ▶ Participated in PI Planning
- ▶ Explored how to develop on cadence and release on demand
- ▶ Discussed how to build a Continuous Delivery Pipeline with DevOps

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Notes:

- ▶ Scaled Agile Framework recommended reading for this lesson:
 - *Agile Product Delivery*
 - *Customer Centricity*
 - *Design Thinking*
 - *WSJF*
 - *PI Planning*
 - *DevOps*
 - *Continuous Delivery Pipeline*

Lesson 4 notes



Click below to type your thoughts.

Lesson 5

Exploring Lean Portfolio Management

Learning Objectives:

- 5.1 Define a SAFe portfolio
- 5.2 Connect the portfolio to Enterprise strategy
- 5.3 Maintain the Portfolio Vision
- 5.4 Establish portfolio flow
- 5.5 Fund Value Streams



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

5.1 Define a SAFe portfolio

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Notes:

The role of Lean Portfolio Management (LPM)

*Most strategy dialogues end up with executives talking at cross-purposes because ... nobody knows exactly what is meant by **vision** and **strategy**, and no two people ever quite agree on which topics belong where.*

That is why, when you ask members of an executive team to describe and explain the corporate strategy, you frequently get wildly different answers. We just don't have a good business discipline for converging on issues this abstract.

—Geoffrey Moore, *Escape Velocity*



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Notes:

Lean Portfolio Management empowers the portfolio

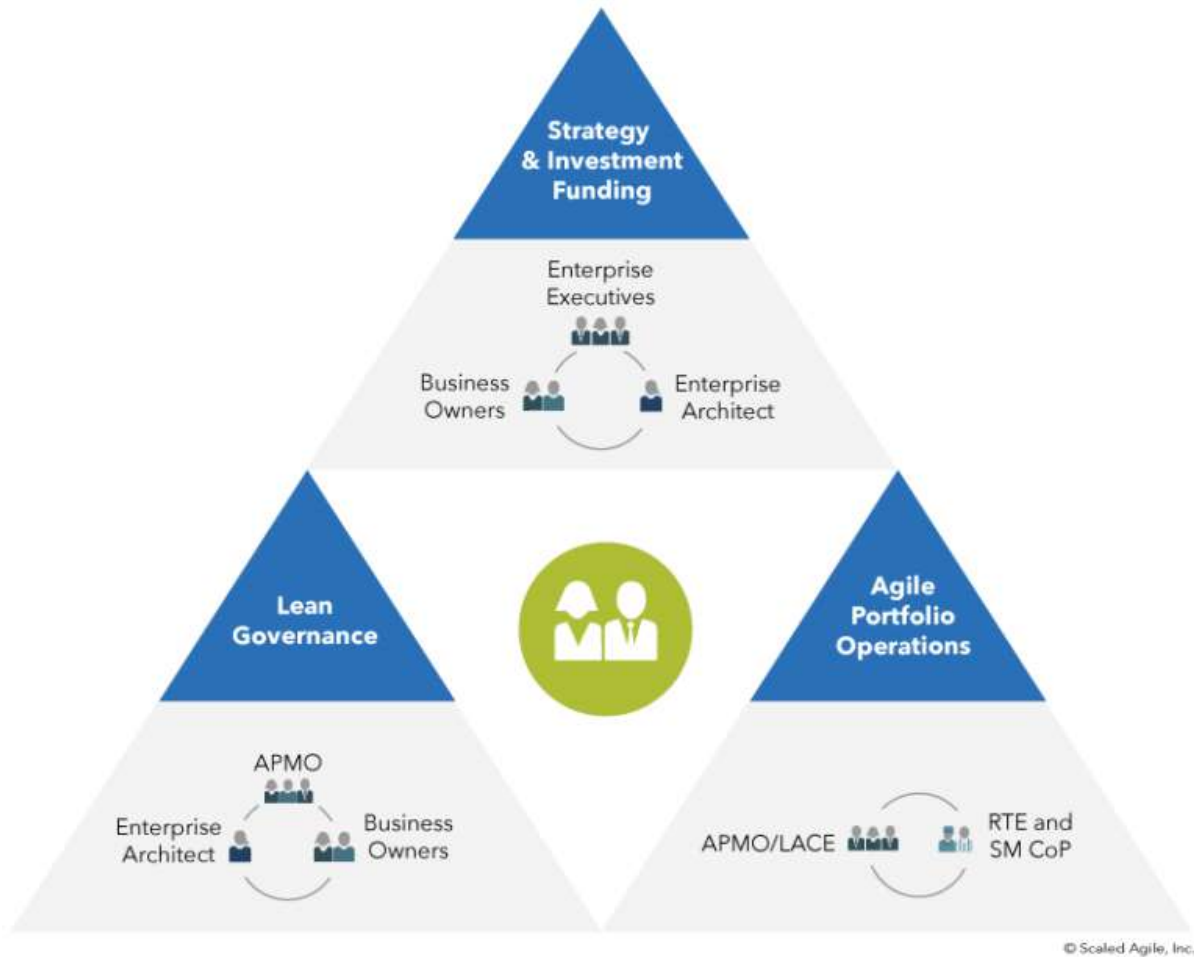
The LPM function governs a SAFe portfolio, providing three essential collaborations to realize its responsibilities:

- ▶ *Strategy and investment funding*
- ▶ Agile portfolio operations
- ▶ Lean governance



Notes:

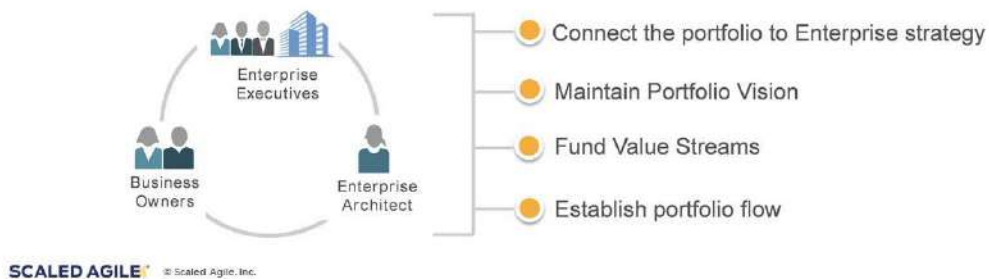
5.1 Define a SAFe portfolio



5.1 Define a SAFe portfolio

Strategy and investment funding is a collaboration

- ▶ Key stakeholders collaborate to develop and communicate the portfolio strategy
- ▶ They provide Lean Budgeting and funding to the Value Streams that develop and maintain the portfolio products and services
- ▶ They build a Portfolio Kanban system to establish flow

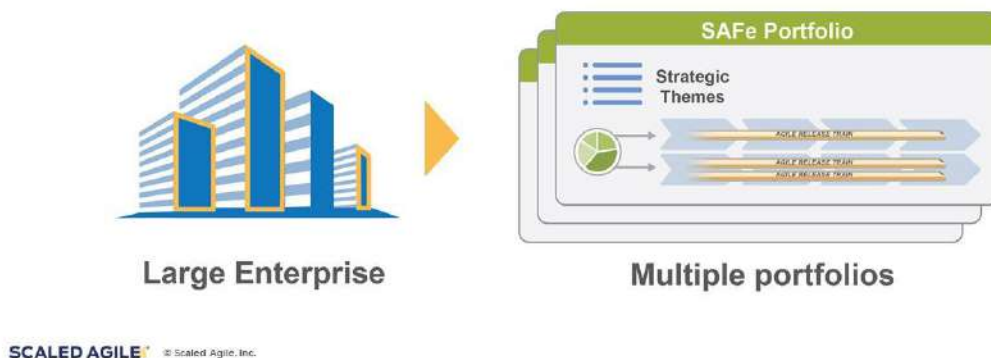


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Notes:

Large Enterprises will have multiple portfolios

In larger Enterprises, there can be multiple SAFe portfolios, typically one for each line of business, business unit, or division.



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Notes:

Define the portfolio with the Portfolio Canvas

- ▶ The Portfolio Canvas is a template for identifying a specific SAFe portfolio
- ▶ It defines the domain of the portfolio and other key elements

Portfolio Canvas Portfolio Name: _____ Date: _____ Version: _____

Value Propositions						
Value Stream	Solution	Customer	Channels	Customer Relationships	Revenue	Costs

Key Partners	Key Activities	Key Resources

Cost Structure	Revenue Streams

The Portfolio Canvas is adapted from The Business Model Canvas (<http://www.businessmodelgeneration.com>).
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Notes:

Portfolio Canvas

Portfolio Name:

Date:

Version:

Value Propositions						
Value Streams	Solutions	Customers	Channels	Customer Relationships	Budget	KPIs / Revenue

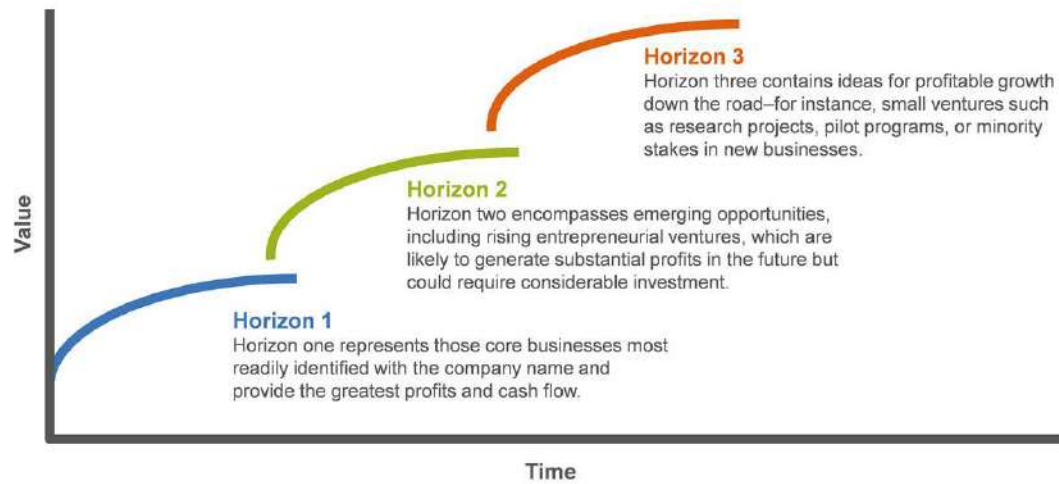
Key Partners	Key Activities	Key Resources

Cost Structure	Revenue Streams

The Portfolio Canvas is adapted from The Business Model Canvas (<http://www.businessmodelgeneration.com>). This work is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License. To view a copy of this license visit: <http://creativecommons.org/licenses/by-sa/3.0>.

5.1 Define a SAFe portfolio

Categorize investments by horizon (maturity stage)

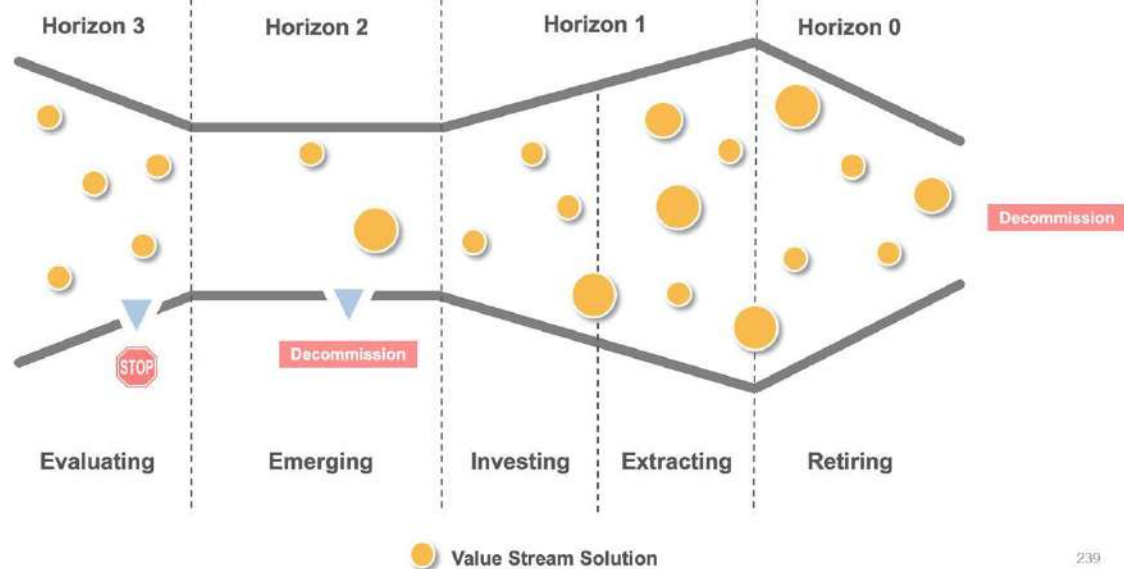


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Notes:

Map Solutions by horizon



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Notes:

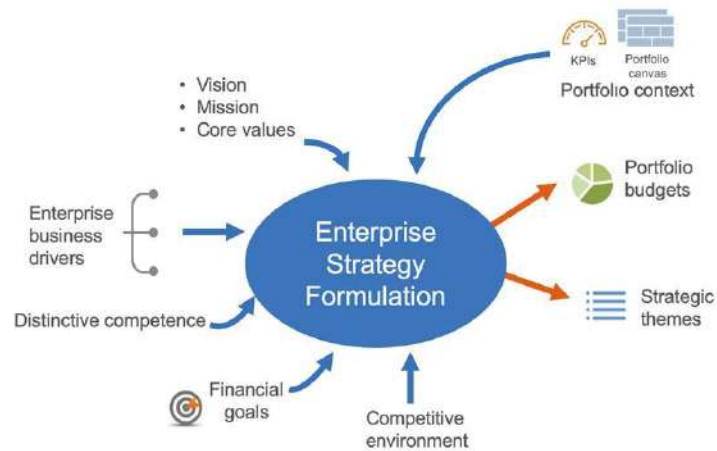
5.2 Connect the portfolio to Enterprise strategy

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Notes:

A model for Enterprise strategy formulation



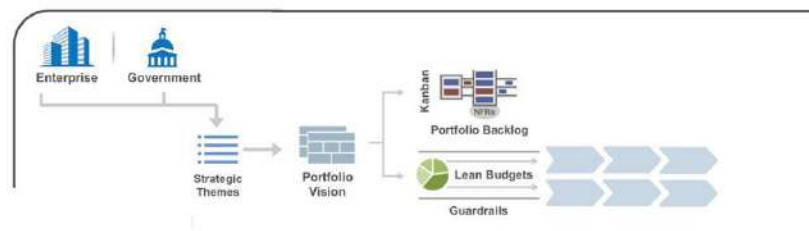
Adapted from Jim Collins, Beyond Entrepreneurship

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Notes:

Establish Strategic Themes

- ▶ Differentiation from the current state to the desired future state
- ▶ A collaboration between LPM and the larger Enterprise
- ▶ Enterprise business drivers drive Strategic Themes
- ▶ Portfolio context influences Strategic Themes

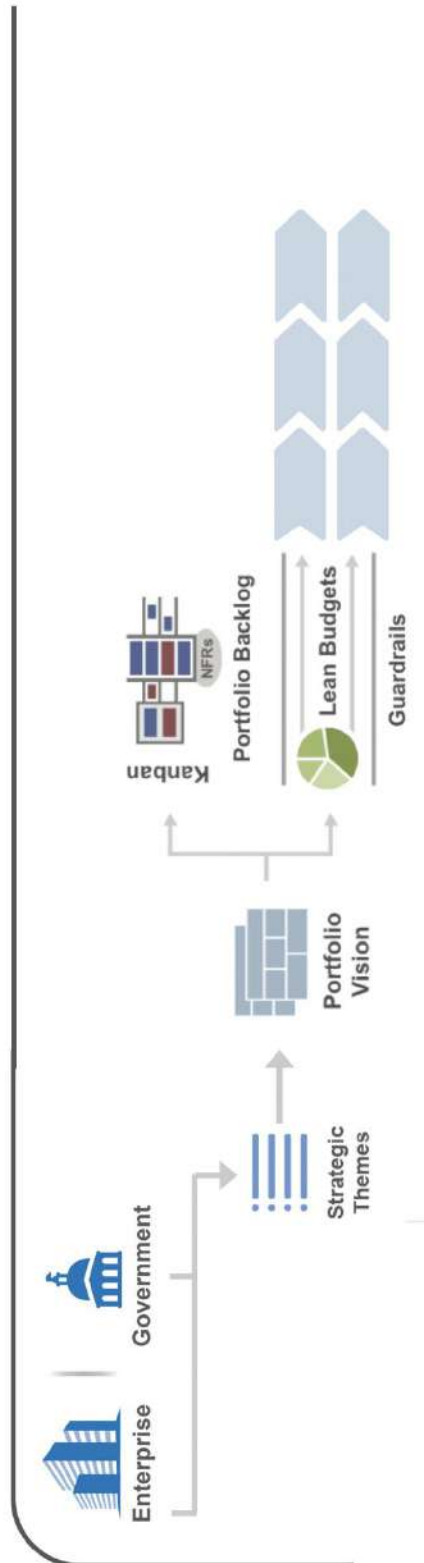


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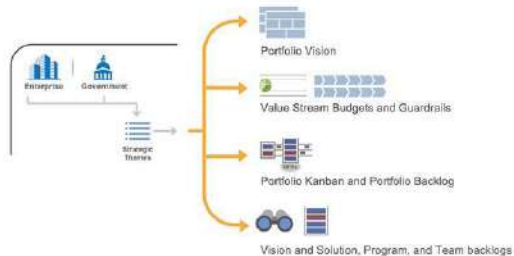
5.2 Connect the portfolio to Enterprise strategy



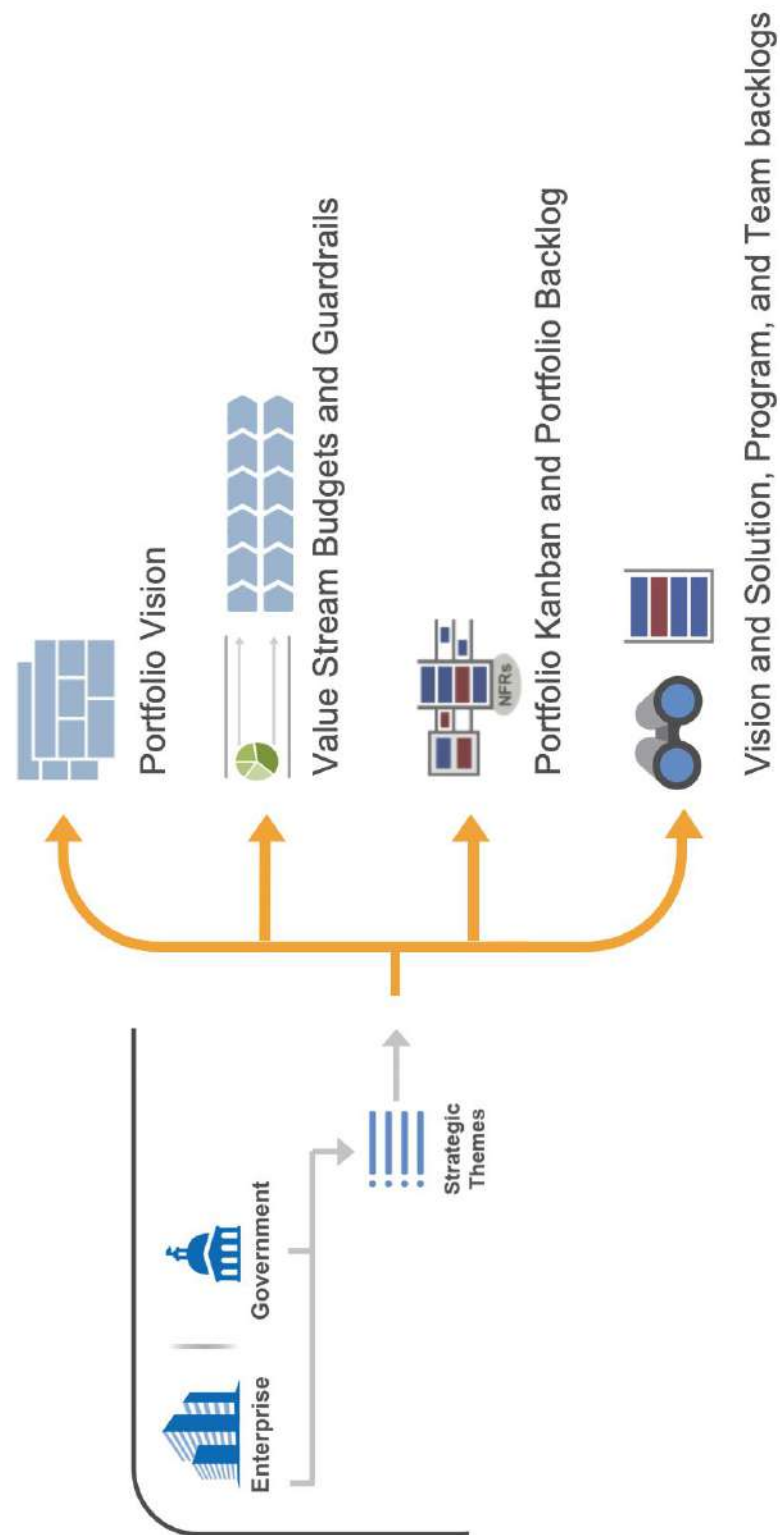
Strategic Themes influence what gets built


- Strategic Themes are differentiating, specific, and itemized business objectives that connect a portfolio to the strategy of the Enterprise.

- Provide context for decision-making, inputs to the Vision, budget, and backlogs
- Adjust ART and Value Stream funding to track changing strategic priorities
- Assist with Epic evaluation and decision-making
- Influence each Program Vision and Roadmap



Notes:






Activity: Identify Strategic Themes

Prepare
5 min

Share
2 min

- ▶ **Step 1:** Identify three Strategic Themes that help define the strategy of your portfolio in the upcoming year
- ▶ **Step 2:** Discuss:
 - Are these *differentiators* for your business, as opposed to 'business-as-usual' items?
- ▶ **Step 3:** Be prepared to share with the class



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Notes:

Strategic Theme #1

Strategic Theme #2

Strategic Theme #3

5.3 Maintain the Portfolio Vision

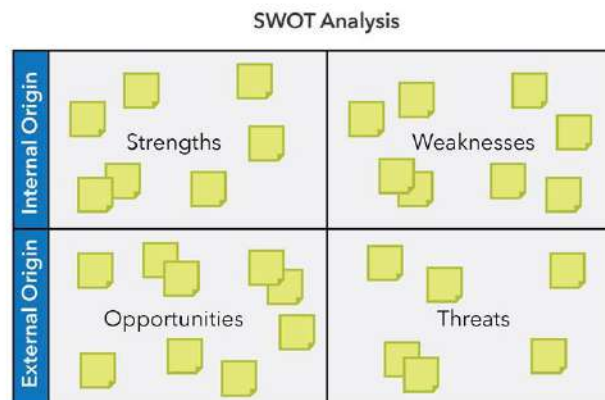
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Notes:

Identify opportunities for the portfolio's future state with SWOT

- Establishes an understanding of your organization's strengths and weaknesses
- Identifies the most significant opportunities and potential threats



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Notes:

Identify options with 'TOWS'

- SWOT and TOWS are both concerned with strengths, weaknesses, opportunities, and threats—the key difference is that TOWS focuses on action
- TOWS is used to identifying strategic options, Epics and other to create a better future state

TOWS Strategic Options Matrix

		External Opportunities (O)	External Threats (T)
		1. <input type="text"/>	1. <input type="text"/>
		2. <input type="text"/>	2. <input type="text"/>
		3. <input type="text"/>	3. <input type="text"/>
		4. <input type="text"/>	4. <input type="text"/>
Internal Strength (S)		SO	ST
1. <input type="text"/>		How can your strengths be used to exploit and maximize opportunities?	How can you apply your strengths to overcome present and potential threats?
2. <input type="text"/>			
3. <input type="text"/>			
4. <input type="text"/>			
Internal Weaknesses (W)		WO	WT
1. <input type="text"/>		How can your opportunities be leveraged to overcome weaknesses?	How can you minimize weaknesses and avoid threats?
2. <input type="text"/>			
3. <input type="text"/>			
4. <input type="text"/>			

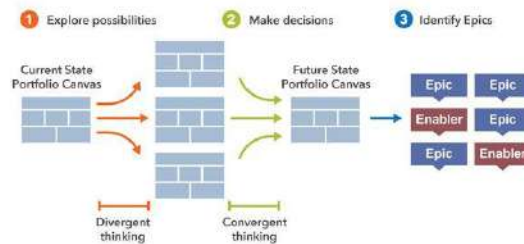
Notes:

TOWS Strategic Options Matrix

	External Opportunities (O) 1. <input type="text"/> 2. <input type="text"/> 3. <input type="text"/> 4. <input type="text"/>	External Threats (T) 1. <input type="text"/> 2. <input type="text"/> 3. <input type="text"/> 4. <input type="text"/>
Internal Strength (S) 1. <input type="text"/> 2. <input type="text"/> 3. <input type="text"/> 4. <input type="text"/>	SO How can your strengths be used to exploit and maximize opportunities?	ST How can you apply your strengths to overcome present and potential threats?
Internal Weaknesses (W) 1. <input type="text"/> 2. <input type="text"/> 3. <input type="text"/> 4. <input type="text"/>	WO How can your opportunities be leveraged to overcome weaknesses?	WT How can you minimize weaknesses and avoid threats?

Envision the future state

- ▶ The portfolio canvas captured current state
- ▶ Use SWOT and TOWS to brainstorm potential future states
- ▶ Evaluate your options, and pick a future state
- ▶ Identify the Epics that will get you there



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Notes:

Express the future state as a Vision

A long view:

- ▶ How will our portfolio of future solutions solve the larger customer problems?
- ▶ How will these solutions differentiate us?
- ▶ What is the future context within which our solutions will operate?
- ▶ What is our current business context, and how must we evolve to meet this future state?



Vision: A postcard from the future



- ▶ Aspirational, yet realistic and achievable
- ▶ Motivational enough to engage others on the journey

Result: Everyone starts thinking about how to apply their strengths in order to get there.

Switch: How to Change Things When Change is Hard, Heath and Heath, Broadway Books, 2010

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Notes:

5.4 Establish portfolio flow

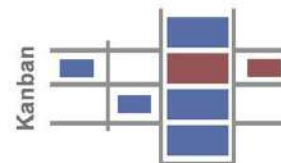
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Notes:

Govern Epic flow with the Portfolio Kanban

- ▶ Makes largest business initiatives visible
- ▶ Brings structure to analysis and decision-making
- ▶ Provides WIP limits to ensure the teams analyze responsibly
- ▶ Helps prevent unrealistic expectations
- ▶ Helps drive collaboration amongst the key stakeholders
- ▶ Provides a transparent and quantitative basis for economic decision-making

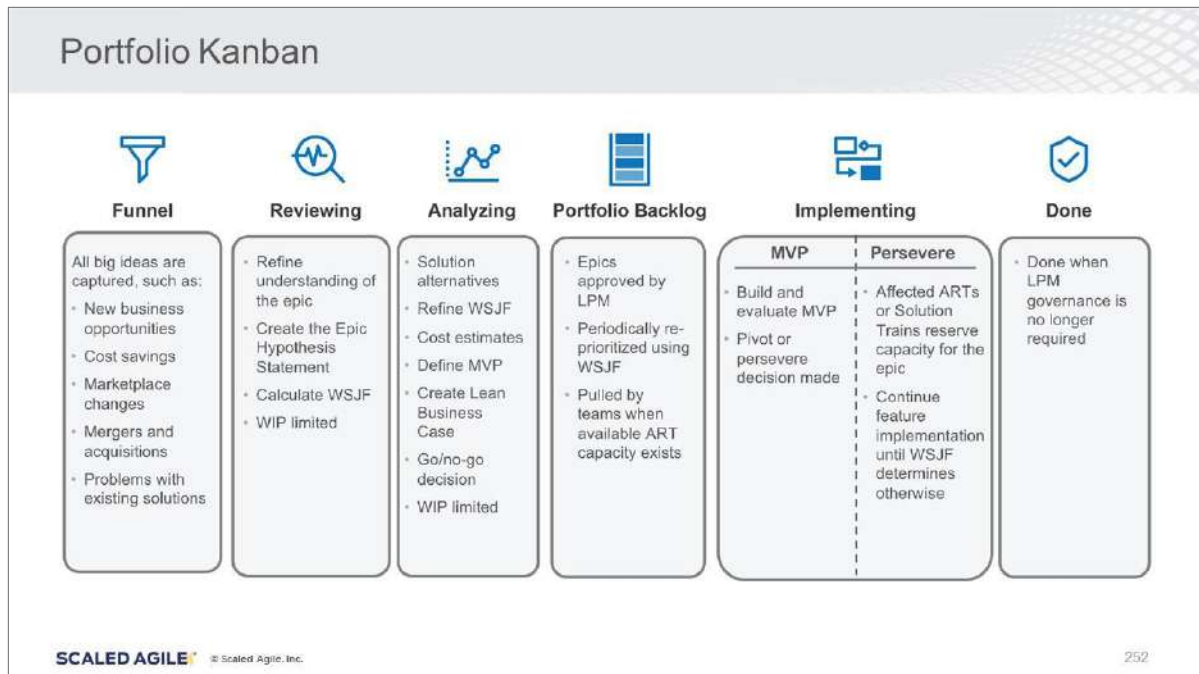


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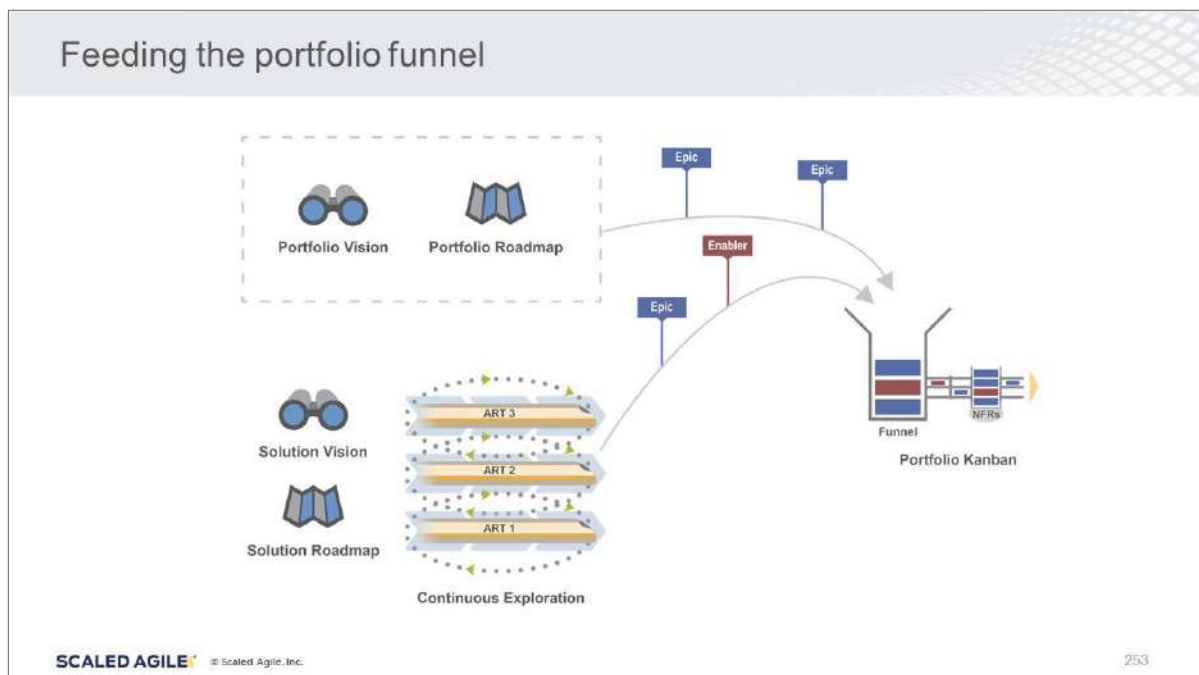
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Notes:

5.4 Establish portfolio flow

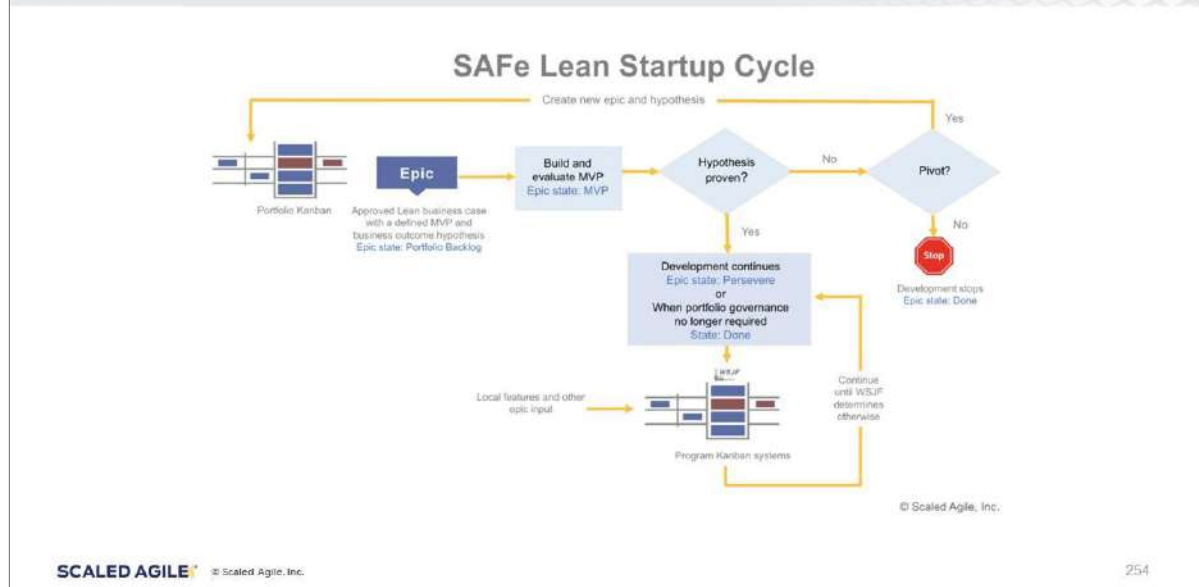


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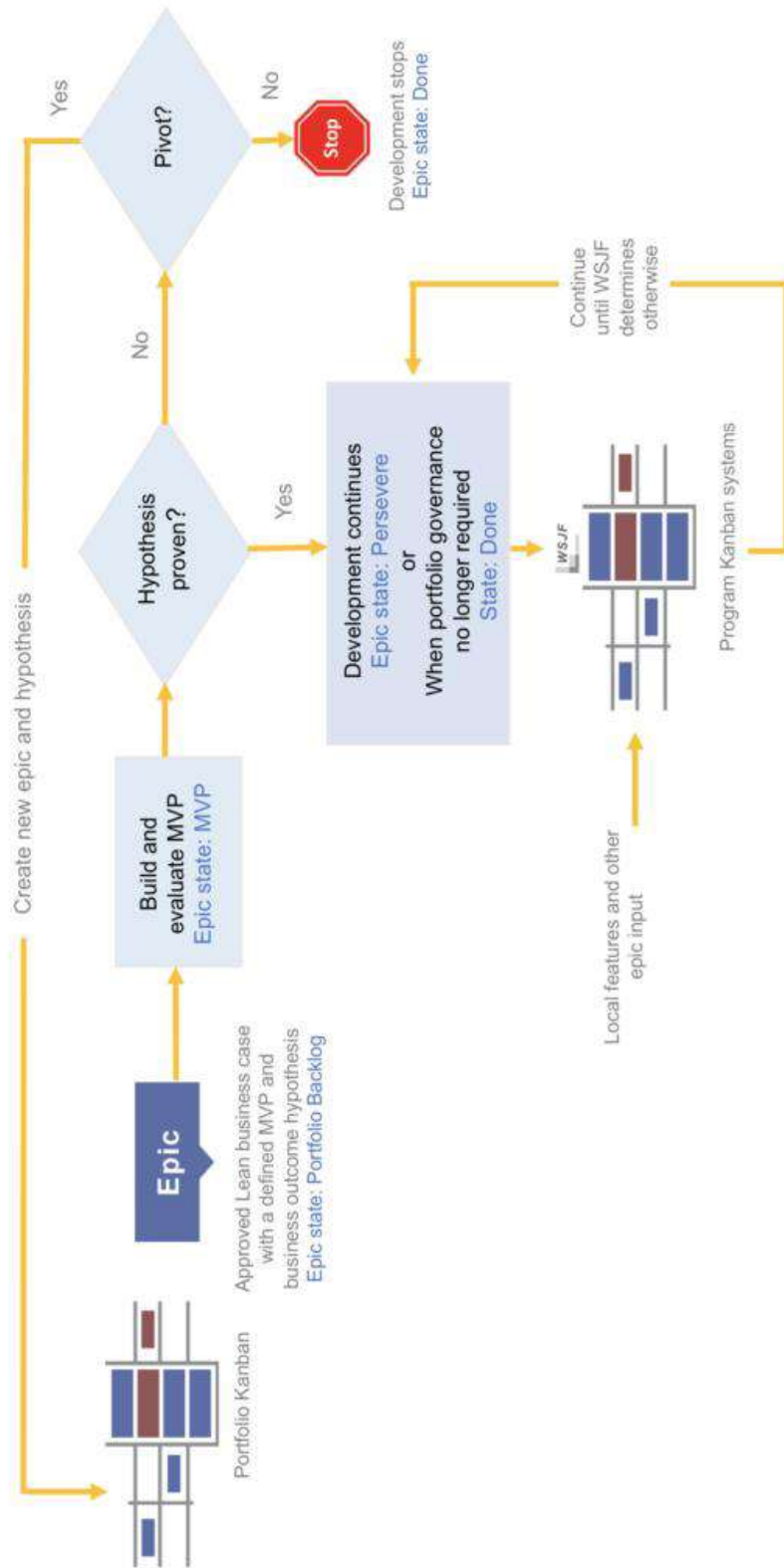
Notes:

MVPs foster innovation and control scope



Notes:

SAFe Lean Startup Cycle



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Epic hypothesis statement template


Epic Hypothesis Statement	
Funnel Entry Date:	<The date that the epic entered the funnel.>
Epic Name:	<A short name for the epic.>
Epic Owner:	<The name of the epic owner.>
Epic Description:	<An elevator pitch (value statement) that describes the epic in a clear and concise way.> For <customers> who <do something> the <solution> is a <something - the 'how'> that <provides this value> unlike <competitor, current solution or non-existing solution> our solution <does something better - the 'why'>
Business Outcomes:	<The measurable benefits that the business can anticipate if the epic hypothesis is proven to be correct.>
Leading Indicators:	<The early measures that will help predict the business outcome hypothesis. For more on this topic, see the Innovation Accounting advanced topic article.>
Nonfunctional Requirements (NFRs):	<Nonfunctional requirements (NFRs) associated with the epic.>

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Notes:



Activity: Epic writing

Prepare


Share


- ▶ **Step 1:** At your table, identify an Epic from one of your contexts
- ▶ **Step 2:** Write the Epic hypothesis statement
- ▶ **Step 3:** Discuss:
 - What could be an MVP to validate this Epic?

Epic Hypothesis Statement	
Funnel Entry Date:	<The date that the epic entered the funnel.>
Epic Name:	<A short name for the epic.>
Epic Owner:	<The name of the epic owner.>
Epic Description:	<An elevator pitch (value statement) that describes the epic in a clear and concise way.> For <customers> who <do something> the <solution> is a <something - the 'how'> that <provides this value> unlike <competitor, current solution or non-existing solution> our solution <does something better - the 'why'>
Business Outcomes:	<The measurable benefits that the business can anticipate if the epic hypothesis is proven to be correct.>
Leading Indicators:	<The early measures that will help predict the business outcome hypothesis. For more on this topic, see the Innovation Accounting advanced topic article.>
Nonfunctional Requirements (NFRs):	<Nonfunctional requirements (NFRs) associated with the epic.>

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Notes:

Epic Hypothesis Statement	
Funnel Entry Date:	<The date that the epic entered the funnel.>
Epic Name:	<A short name for the epic.>
Epic Owner:	<The name of the epic owner.>
Epic Description:	<p><An elevator pitch (value statement) that describes the epic in a clear and concise way.></p> <p>For <customers> who <do something> the <solution> is a <something - the 'how'> that <provides this value> unlike <competitor, current solution or non-existing solution> our solution <does something better – the 'why'></p>
Business Outcomes:	<The measurable benefits that the business can anticipate if the epic hypothesis is proven to be correct.>
Leading Indicators:	<The early measures that will help predict the business outcome hypothesis. For more on this topic, see the Innovation Accounting advanced topic article.>
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Epic Hypothesis Statement	
Funnel Entry Date:	
Epic Name:	
Epic Owner:	
Epic Description:	
Business Outcomes:	
Leading Indicators:	
Nonfunctional Requirements (NFRs):	

5.5 Fund Value Streams

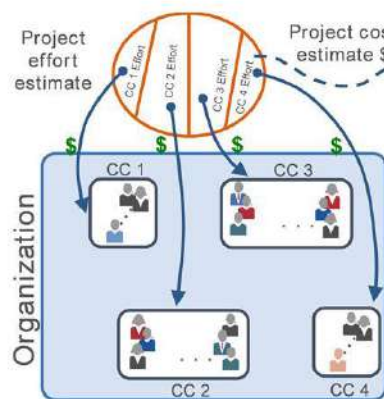
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Notes:

Problem: Cost-center budgeting

Traditional project-based, cost-center budgeting creates overhead and friction, lowers velocity.



Project

A project requires collaboration of cost centers, assignment of people, budget, and schedule. It takes multiple budgets to build a single project budget.

Result:

- ▶ Slow, complex budgeting process
- ▶ Leads to utilization-based planning and execution
- ▶ Low program throughput
- ▶ *Moves the people to the work*

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Notes:

Problem: Projects increase cost of delay

When overruns happen, project accounting and re-budgeting increases cost of delay and impacts culture.



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Notes:

Solution: Fund Value Streams not projects

Funding Value Streams provides for full control of spend, with:

- ▶ No costly and delay-inducing project cost variance analyses
- ▶ No resource reassignments
- ▶ No blame game for project overruns



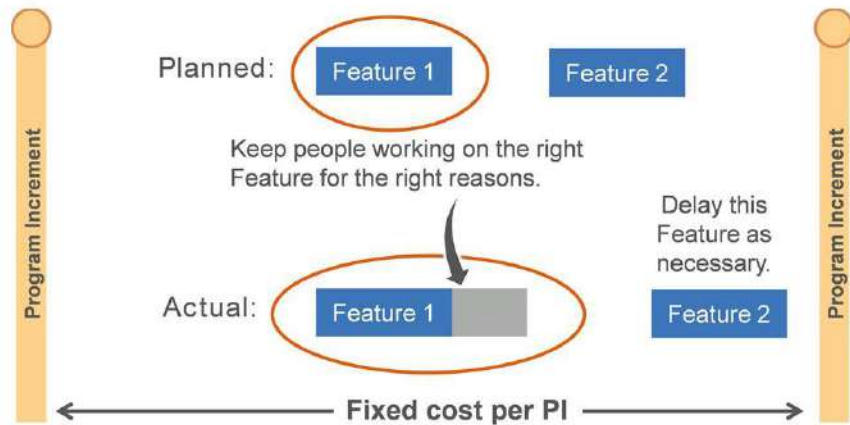
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Notes:

Control costs with increased flexibility

ART budgets and resources are unaffected by Feature cost overruns or changing priorities.



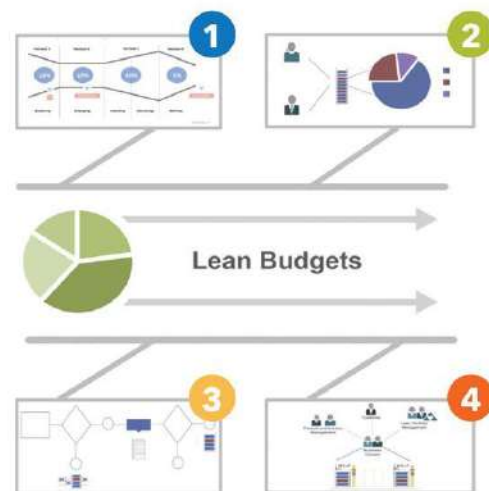
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Notes:

Maintain the Guardrails

- ▶ Apply investment horizons
- ▶ Utilize capacity allocation
- ▶ Approve Epic initiatives
- ▶ Continuous Business Owner engagement



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Notes:

Lesson review

In this lesson you:

- ▶ Defined a SAFe portfolio
- ▶ Connected the portfolio to Enterprise strategy
- ▶ Explored tools for maintaining the Portfolio Vision
- ▶ Discussed how to establish portfolio flow
- ▶ Discussed how to fund Value Streams

Notes:

- ▶ Scaled Agile Framework recommended reading for this lesson:
 - *Lean Portfolio Management*
 - *Strategic Themes*
 - *Portfolio Vision*
 - *Lean Budgets*
 - *Guardrails*
 - *Portfolio Kanban*
 - *Epics*

Lesson 5 notes



Click below to type your thoughts.

Lesson 6

Leading the Change

Learning Objectives:

- 6.1 Lead by example
- 6.2 Lead the change



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

6.1 Lead by example

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Notes:

Leading by example

Setting an example is not the main means of influencing others, it is the only means. — Albert Einstein

- ▶ **Authenticity** requires leaders to model desired professional and ethical behaviors.
- ▶ **Emotional intelligence** describes how leaders identify and manage their emotions and those of others through self-awareness, self-regulation, motivation, empathy, and social skills
- ▶ **Lifelong learning** depicts how leaders engage in ongoing, voluntary, and self-motivated pursuit of knowledge and growth, and they encourage and support the same in others
- ▶ **Growing others** encourages leaders to provide the personal, professional, and technical guidance and resources each employee needs to assume increasing levels of responsibility
- ▶ **Decentralized decision-making** moves the authority for decisions to where the information is



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Notes:

Leaders provide the organization with patterns of expected behaviors

Pathological Culture <i>Power-oriented</i>	Bureaucratic Culture <i>Rule-oriented</i>	Generative Culture <i>Performance-oriented</i>
Low cooperation	Modest cooperation	High cooperation
Messengers blamed	Messengers neglected	Messengers trained
Responsibilities shirked	Narrow responsibilities	Responsibilities shared
Collaboration discouraged	Collaboration tolerated	Collaboration encouraged
Failure leads to scapegoating	Failure leads to justice	Failure leads to improvement
Innovation crushed	Innovation leads to problems	Innovation implemented

Notes:

6.2 Lead the change

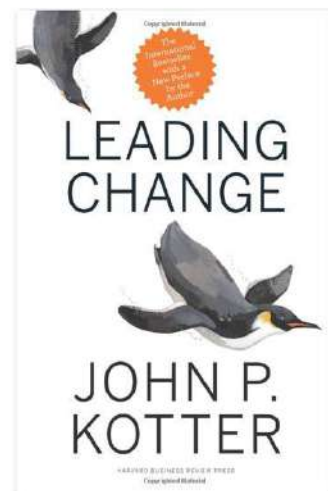
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Notes:

Keys to leading successful change

- ▶ Establish a sense of urgency
- ▶ Create a powerful guiding coalition
- ▶ Develop the vision and strategy
- ▶ Communicate the vision
- ▶ Empower employees for broad-based action
- ▶ Generate short-term wins
- ▶ Consolidate gains and produce more wins
- ▶ Anchor new approaches in the culture

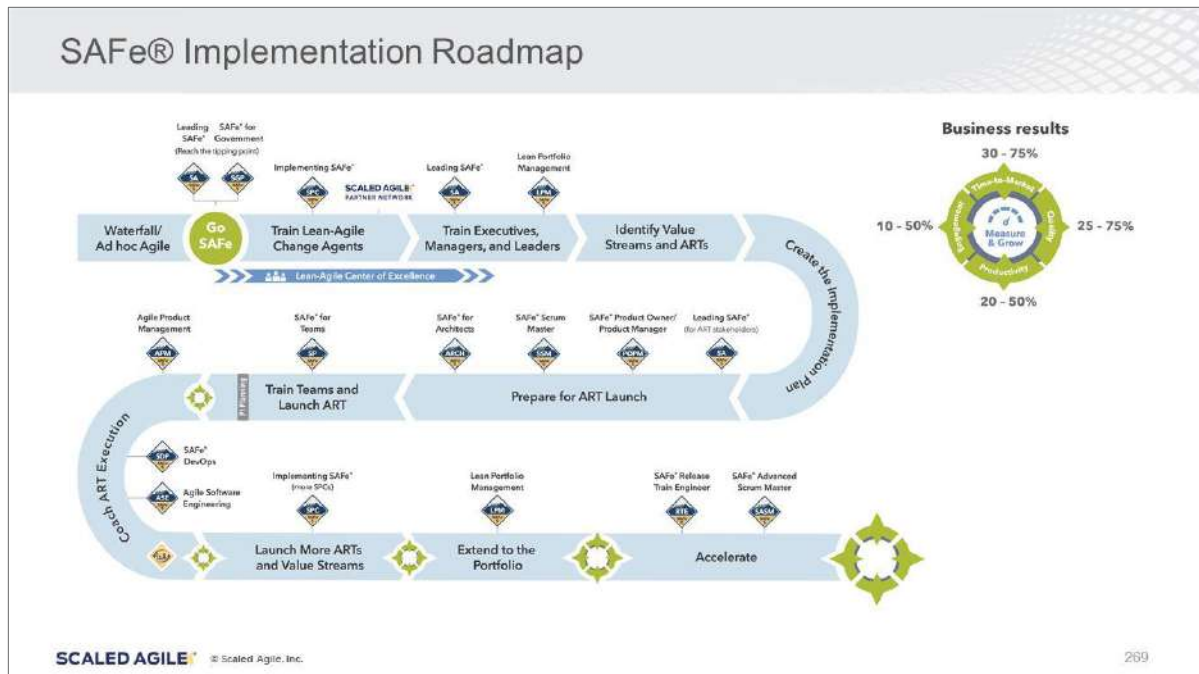


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Notes:

6.2 Lead the change



Notes:




Action Plan: Leading the change

Prepare
5 min

Share
2 min

- ▶ **Step 1:** Identify three action items you can do in the next month to start leading the SAFe transformation.
- ▶ **Step 2:** Find a partner and share your ideas.
- ▶ **Step 3:** Discuss:
 - What outcomes do you hope to achieve with your Action Plan?



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Notes:

Lesson review

In this lesson you:

- ▶ Explored how to lead by example
- ▶ Identified actions to take for leading the change

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Notes:

6.2 Lead the change

- ▶ Scaled Agile Framework recommended reading for this lesson:
 - *Lean-Agile Leadership*
 - *Implementation Roadmap*

Lesson 6 notes



Click below to type your thoughts.

Lesson 7

Becoming a Certified SAFe Agilist

Learning Objectives:

7.1 Becoming a Certified SAFe Professional



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

Make the most of your learning

**Access the SAFe Community Platform**

Manage your member profile, continue your learning with toolkits and videos, and access communities of practice and the member directory

**Prepare Yourself**

Extend your SAFe knowledge and prepare for certification with your learning plan, course workbook, study materials, and practice test before your exam

**Become a Certified SAFe Professional**


Demonstrate your validated knowledge, skills, and mindset to participate in SAFe methods

**Showcase Your SAFe Credentials**

Use your digital badge to view global insights, track market labor data, and see where your skills are in demand

Notes:

7.1 Becoming a Certified SAFe Professional



Video: Become a Certified SAFe Professional


Duration
3 min

Continue to build on the foundation of SAFe learning you began in class by studying and taking the certification exam.

Earning this certification demonstrates and establishes your new knowledge.

Certification details at:

<https://www.scaledagile.com/certification/about-safe-certification/>



<https://vimeo.com/307578726>

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Notes:



Video link: <https://vimeo.com/307578726>



About SAFe certification: <https://www.scaledagile.com/certifications/about-safe-certification/>




Video: Welcome to the SAFe Community Platform

Duration
5 min

Want to learn more about the next steps on your SAFe Journey?

Access the SAFe Community Platform and discover all the SAFe resources available for your use!



<https://vimeo.com/201877314>

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Notes:



Video link: <https://vimeo.com/201877314>

Certification Exam Sample Questions

These sample questions provide examples of the format and type of questions to expect on the exam (these are not the actual exam questions). Performance on the sample questions is NOT an indicator of the performance on the exam, and it should NOT be considered an assessment tool. A web-enabled version of the sample questions are now available in a flashcard style format (internet required). Use the link below to access the sample question bank and begin preparing for certification.



Sample questions: <http://bit.ly/3aqpP4O>

Lesson 7 notes



Click below to type your thoughts.

Lesson 8

Reaching the SAFe Tipping Point

Learning Objectives:

- 8.1 Recognize the importance of establishing a vision for change
- 8.2 Explore how to build a powerful guiding coalition



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

8.1 Recognize the importance of establishing a vision for change

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Notes:

Waterfall and ad-hoc Agile are common starting points

- ▶ Traditional waterfall development has gotten us to this point, but it is no longer up to the challenge of the fast-changing market dynamics and increasing user expectations.
- ▶ Ad-hoc Agile is an approach that has started many teams on an Agile path, to a good effect. However, a lack of common approach to team Agility, different taxonomies, and a lack of coordination between teams seriously limits the potential benefits of Agile.



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Notes:

Reaching the tipping point for Agile at scale

- ▶ To achieve effective change, every Enterprise must reach its 'tipping point' – the point at which the overriding momentum is to change, rather than resist it.
- ▶ Two primary reasons to change:
 - A burning platform – The company is failing to compete, and the existing way of working is inadequate to achieve a new solution in time.
 - Proactive leadership – In the absence of a burning platform, leadership must create the sense of urgency to proactively drive change by taking a stand for a better future state.



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Notes:

Establish the vision for the change

Without a good vision, a clever strategy or a logical plan can rarely inspire the kind of action needed to produce major change
— John Kotter

- ▶ Clarify the purpose and direction for the change and set the mission for all to follow
- ▶ Motivate people by giving them a compelling reason to make the change
- ▶ Empower and align people to take the detailed actions necessary to achieve the Vision, without the constant need for supervision

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Notes:



Activity: Advocating the change

Prepare
20 min

Share
10 min

- ▶ **Step 1:** Develop an outline for advocating the change. Consider highlighting the following:
 - Your own current context
 - Your target audience
 - The actions you hope to inspire
- ▶ **Step 2:** On a flip chart, create a storyboard that highlights how, in a 3-minute presentation, you would pitch the need to adopt SAFe.
- ▶ **Step 3:** Be prepared to present your storyboard to the class.

Storyboard




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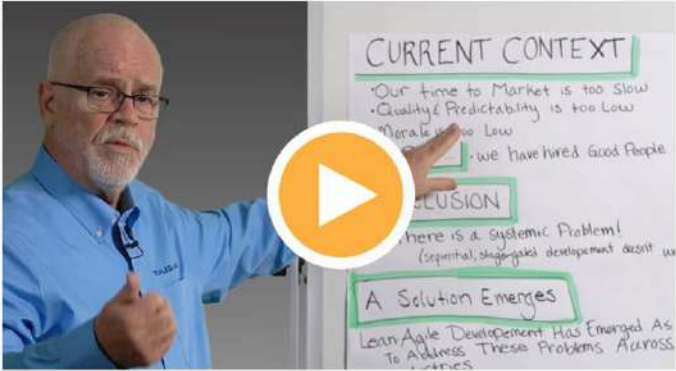
Notes:

8.1 Recognize the importance of establishing a vision for change



Video: The Three Minute Pitch

Duration
3 min



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Notes:



Video link: <https://vimeo.com/217908283/f7c3223285>

Establishing a Vision for change: Useful resources



Introducing SAFe Toolkit

This toolkit provides the resources to conduct Introducing SAFe briefings with stakeholders and others in your community. It helps lay the groundwork for a SAFe transformation and works to bring key stakeholders to the tipping point.



SAFe Executive Workshop Toolkit

Provides the resources an SPC needs to deliver a flexible, interactive three- to six-hour executive workshop to help Enterprise leadership explore their current solution development challenges, understand key SAFe concepts and benefits, determine if SAFe is the right choice for their organization, and identify the next steps in their SAFe implementation.

Notes:

8.2 Explore how to build a powerful guiding coalition

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Notes:

The importance of a 'sufficiently powerful guiding coalition'

- ▶ Transformations led by a sole leader or a low-credibility committee rarely succeed
- ▶ There is a need for an effective *team* that has:
 - Enough powerful people to drive change and deter blocks
 - The expertise to make informed and quick decisions
 - The credibility to be taken seriously
 - Leaders who can set the Vision and leaders who can implement

SAFe Guiding Coalition

- ✓ SPCs
- ✓ Trained Lean-Agile Leaders
- ✓ Lean Agile Center of Excellence

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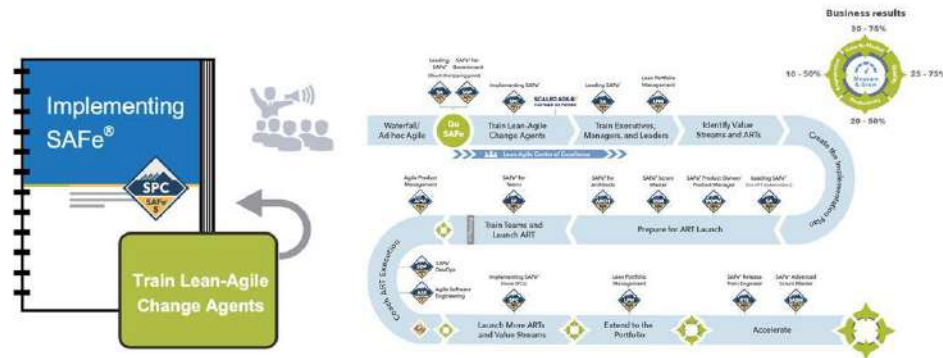
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Notes:

8.2 Explore how to build a powerful guiding coalition

The role of Lean-Agile change agents

SPCs are knowledgeable change agents – many are typically required.



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Notes:

SPCs communicate the Vision and urgency

- ▶ Motivating change requires a sense of urgency
- ▶ Leaders must communicate the challenges the company faces
- ▶ Leaders must act in a way that shows the challenges
- ▶ Too much 'happy talk' leads to complacency
- ▶ Foster trust so problems can safely rise from teams to executives



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Notes:

8.2 Explore how to build a powerful guiding coalition

Leading SAFe: Train executives, managers, and leaders

- ▶ Day 1 sets the context of SAFe by:
 - Explaining the seven core competencies of Business Agility
 - Describing the SAFe Core Values, Lean-Agile Mindset and the SAFe Lean-Agile Principles
 - Explaining SAFe's customer-centric approach to defining, building, and releasing a continuous flow of valuable products and services
- ▶ Day 2 builds knowledge and skills on:
 - How to build solutions with the Agile Product Delivery core competency
 - How to explore Lean Portfolio Management
 - How to lead the change with SAFe



With SAFe Agilist Certification

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Notes:

Implementing Lean-Agile practices in a government context

- ▶ SAFe for Government is a two-day course that includes the principles and practices in SAFe, as well as practical advice for adoption in the government context.
- ▶ Topics include:
 - Building high-performing, multi-vendor and government Agile Teams and programs
 - Managing technology investments using the principles of Lean flow
 - Acquiring Solutions with Agile contracts
 - Addressing governance and compliance challenges
 - Insights into leadership behaviors that can drive successful organizational change



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Notes:

Lean Portfolio Management establishes portfolio groundwork

- ▶ This course serves as a workshop to start, and set the groundwork for, Lean Portfolio Management
- ▶ It offers the tools and techniques for:
 - Aligning strategy with execution
 - Merging the insights of executives, Product Management, Business Owners, and Agile Teams into a new, Lean-Agile way of working
 - Establishing Lean Budgets and adjusting the budgets dynamically with participatory budgeting forums
 - Guiding investments by horizon
 - Sequencing and forecasting portfolio initiatives



With SAFe Lean Portfolio Manager Certification

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Notes:

Create a Lean-Agile Center of Excellence (LACE)



A guiding coalition that operates as an effective team can process more information, more quickly. It can also speed the implementation of new approaches because powerful people are truly informed and committed to key decisions.

— John Kotter

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Notes:

8.2 Explore how to build a powerful guiding coalition

Organization and operation of the LACE

- ▶ Typically operates as an exemplary Agile Team of 4 to 6 individuals per business unit.
- ▶ A Scrum Master facilitates the process and helps remove roadblocks.
- ▶ A Product Owner works with stakeholders to prioritize the transformation backlog.
- ▶ The team is cross-functional. Credible people from various functional organizations are integral members of the team. They can address backlog items wherever they arise, be they organizational, cultural, process, or technology.
- ▶ A senior C-level leader typically acts as the team's Product Manager.



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Notes:

LACE mission statement example

Lean-Agile Center of Excellence Mission Statement	
For	EMV Productions, inc.
who	produces automated guided vehicles and amusement park rides
the	EMV Lean-Agile Center of Excellence
is a	full-time, cross-functional, Lean-Agile change management team
that	is driving the transformation of our Enterprise to a Lean-Agile way of working using the Scaled Agile Framework
unlike	our traditional ad-hoc transformation efforts
we	Provide practitioners and the committed leadership to implement the training, process, technology, tooling, culture, and governance changes needed to achieve the business benefits of a Lean-Agile way of working
In scope	
Communication	Organization structure changes Outsourcing strategy changes ...
Leadership and team training and coaching	
ART launches and coaching	
Agile tooling	
Consultant/supplier coaching and training management	
Out of scope	
Success Criteria	
	Adoption: % trained, # ARTs Launched
	Assessment: Business Agility Assessments
	Outcome: % improvement in predictability, % decrease in time to market, % increase in customer satisfaction, % improvement in employee engagement

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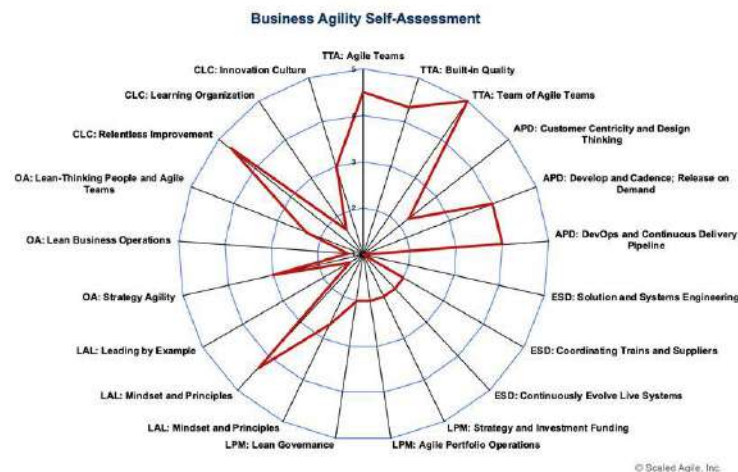
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Notes:

8.2 Explore how to build a powerful guiding coalition

Create a baseline with the Business Agility assessment

- ▶ Capture baseline Metrics to determine how close your organization is to achieving Business Agility
- ▶ Follow the recommendations and identify growth opportunities
- ▶ Prioritize and take action



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Notes:



Discussion: Identifying the LACE



- ▶ **Step 1:** At your table, discuss the following questions:
 - Do you have a Lean-Agile Center for Excellence now?
 - If not, how would you go about creating one?
 - If you have one, what 2 or 3 impediments are you currently facing?
 - Who are 3 to 5 influential people who could also become SPCs and help create a 'sufficiently powerful coalition?'
- ▶ **Step 2:** Share with the class.



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Notes:

Lesson review

In this lesson you:

- ▶ Recognized the importance of establishing the Vision for change
- ▶ Explored how to build a powerful guiding coalition

Notes:

Lesson 8 notes



Click below to type your thoughts.

Lesson 9

Designing the Implementation

Learning Objectives:

- 9.1 Identify Value Streams and Agile Release Trains
- 9.2 Explore how to create the implementation plan



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

9.1 Identify Value Streams and Agile Release Trains

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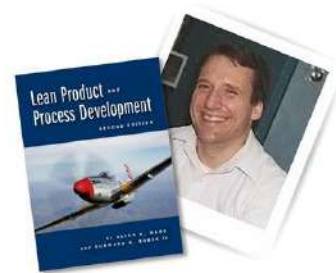
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Notes:

Why organize around value?

Align the organization around projects and product lines. — Allen C. Ward

- ▶ Fewer handoffs, faster value delivery
- ▶ Easier to build in quality
- ▶ Built-in alignment between the business and software development
- ▶ Optimizing the system as a whole
- ▶ *Result: Faster delivery, higher quality, higher customer satisfaction*



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Notes:

Value Streams show the sequence of work...

A Value Stream is the sequence of steps used to deliver value to the Customer.

- ▶ It includes the whole sequence—concept or customer order—to delivery of value and/or receipt of cash
- ▶ It contains the people who do the work, the systems, and the flow of information and materials



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Notes:

...from trigger to value

- ▶ The flow of value is *triggered* by some important event, perhaps a Customer purchase, new Feature, or Solution deployment
- ▶ It ends when some value has been delivered—a shipment, Customer purchase, or Solution deployment
- ▶ The steps in the middle are the activities the Enterprise uses to deliver the value
- ▶ The time from the trigger to the value delivery is the *lead time*



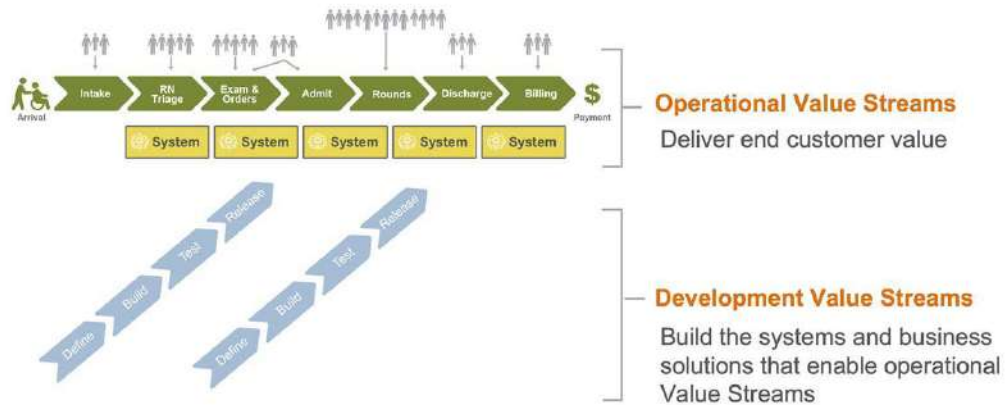
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Notes:

9.1 Identify Value Streams and Agile Release Trains

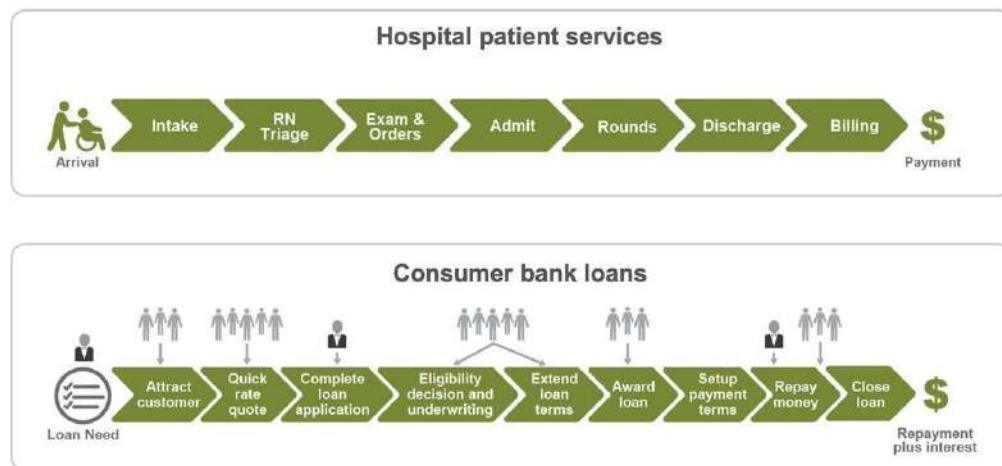
Operational and development Value Streams



! Our focus is the latter, but to understand the latter, you first have to understand the former.

Notes:

Examples of Operational Value Streams



Notes:

Development Value Streams

- ▶ Includes activities from recognizing an opportunity through release and validation
- ▶ Create two kinds of value:
 - Profitable Operational Value Streams
 - Continuous usable knowledge



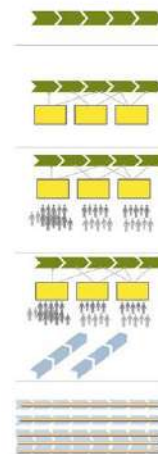
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Notes:

Steps for identifying development Value Streams

1. Identify an Operational Value Stream
2. Identify the systems which support the operational Value Stream
3. Identify the people who develop and operate the systems
4. Identify development Value Streams that build the solution
5. Realize Value Streams into ARTs



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Notes:

9.1 Identify Value Streams and Agile Release Trains

Questions for identifying Operational Value Streams

General questions	<ul style="list-style-type: none">What are the larger software, system, or solution-based objectives that differentiate the business in the market?How do external customers describe or perceive the flow of value they receive?What current initiatives have a significant number of developers and testers working together now?
Questions for the independent software vendor	<ul style="list-style-type: none">What products, systems, services, applications, or solutions does the enterprise sell?
Questions for builders of embedded and cyber-physical systems	<ul style="list-style-type: none">What products and systems does the enterprise sell? What are the larger subsystems or components? What key system operational capabilities are being enabled?What critical Nonfunctional Requirements (NFRs) are being implemented or enhanced?
Questions for IT	<ul style="list-style-type: none">What key business processes are enabled?What internal departments are supported?What internal or external customers do those departments serve? How do those departments describe the value they receive from IT?What key process, cost, KPI, or business improvement initiatives are targeted?

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Notes:

Example of Operational Value Stream identification

Name	Consumer Loans
Description	Provides customers with unsecured / secured loans
Customer(s)	Existing retail customer
Triggers	The customer wants to borrow money and approaches the bank through any of the existing channels
Value received to enterprise	Repayment plus interest
Value received to customer	Loan

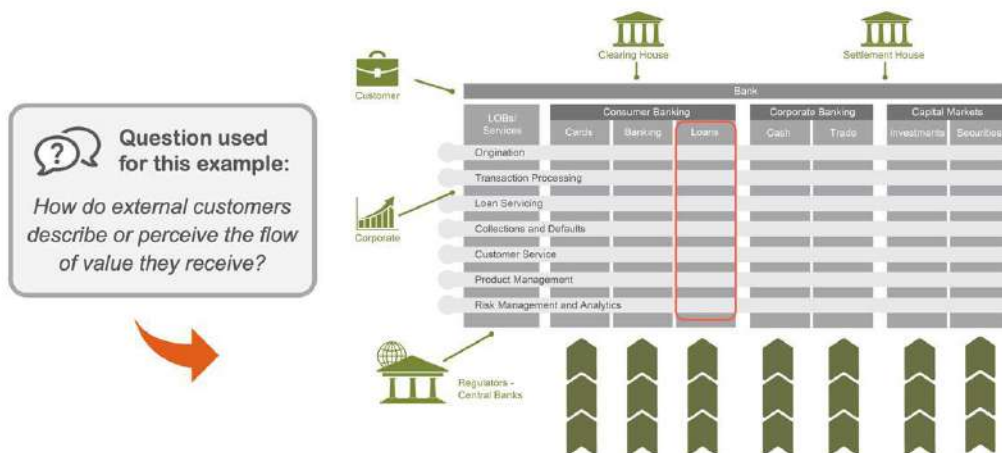
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Notes:

9.1 Identify Value Streams and Agile Release Trains

Let's take a deeper look



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Notes:


Loans: Operational Value Stream example



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Notes:



Activity: Identify your operational Value Stream

Duration



- ▶ **Step 1:** Form small teams and choose a context
- ▶ **Step 2:** Identify your operational Value Stream, using the operational Value Stream template in your Workbook as a guidance
- ▶ **Step 3:** Write down the details of the operational Value Stream, such as: Name, Description, Customer(s), Triggers, Value received to enterprise and Value received to customer

Example

Name	Consumer Loans
Description	Provides customers with unsecured / secured loans
Customer(s)	Existing retail customer
Triggers	The customer wants to borrow money and approaches the bank through any of the existing channels
Value received to enterprise	Repayment plus interest
Value received to customer	Loan

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Notes:

Example

Name	Consumer Loans
Description	Provides customers with unsecured / secured loans
Customer(s)	Existing retail customer
Triggers	The customer wants to borrow money and approaches the bank through any of the existing channels
Value received to enterprise	Repayment plus interest
Value received to customer	Loan

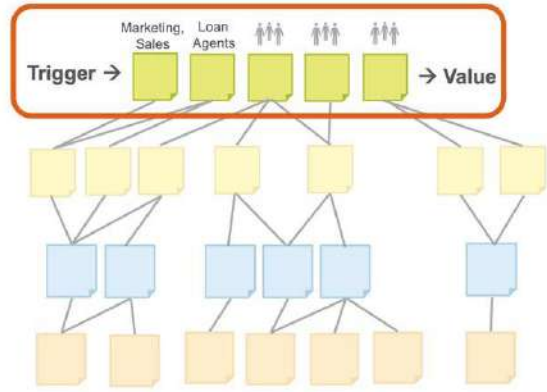
9.1 Identify Value Streams and Agile Release Trains



Activity: Illustrate the operational Value Streams

Duration
10 min

- ▶ **NOTE:** In the next series of activities you will be identifying the operational and development Value Streams.
- ▶ **Step 1:** Write the trigger and the value
- ▶ **Step 2:** Use GREEN sticky notes to identify the sequence of steps from Trigger to Value Received
- ▶ **Step 3:** Identify the people who are involved in each of the steps

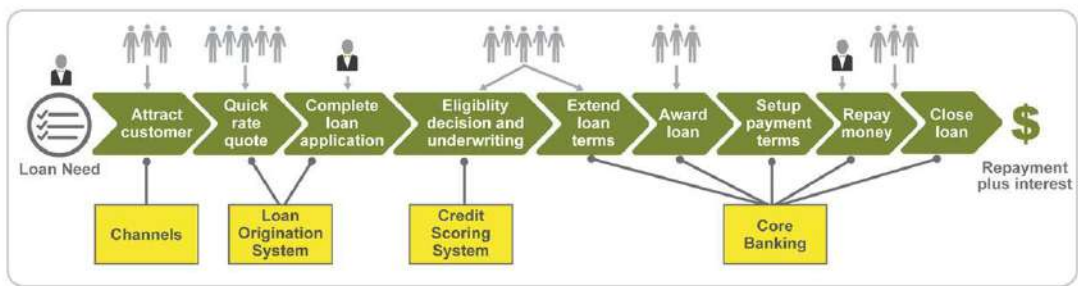


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Notes:

The systems we build support these operational Value Streams




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Notes:

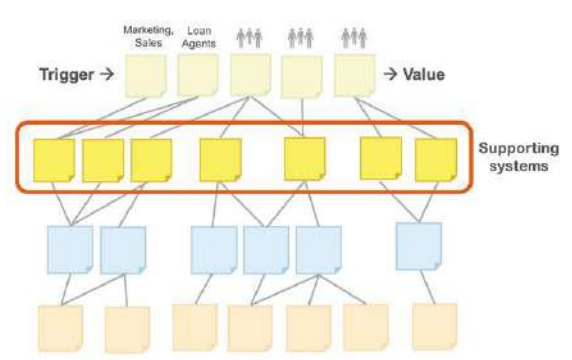
9.1 Identify Value Streams and Agile Release Trains



Activity: Identify systems and connections

Duration
10 min

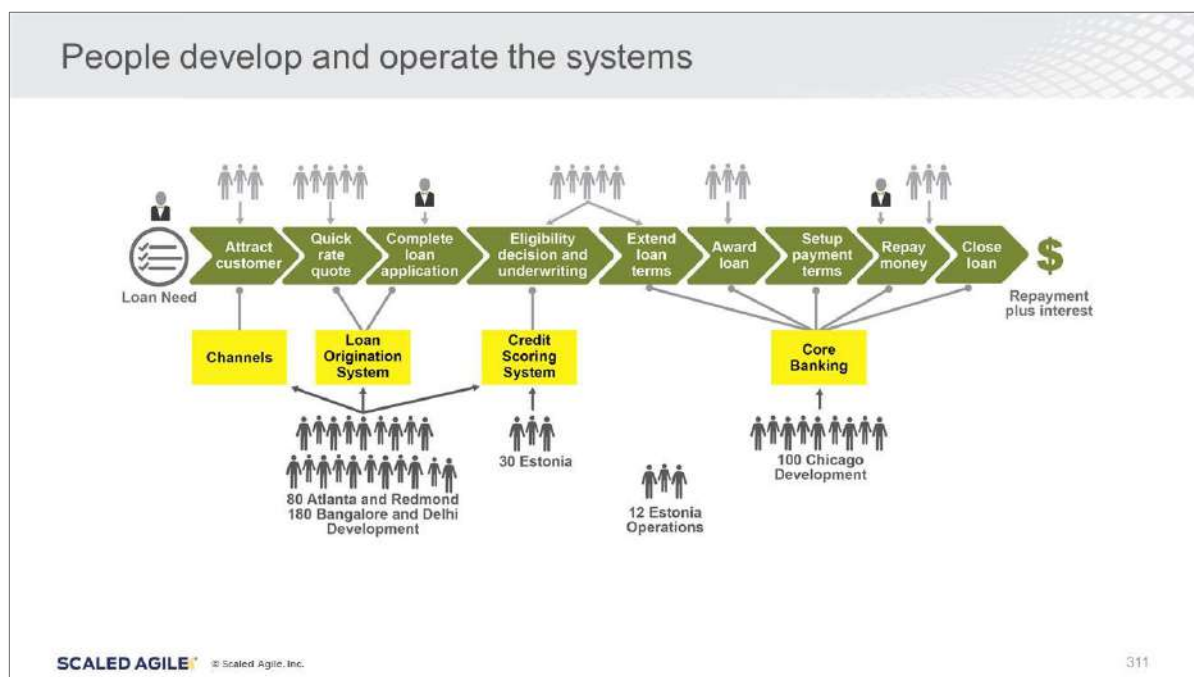
- **Step 1:** Using the YELLOW sticky notes, identify the systems supporting the Operational Value Stream
- **Step 2:** Draw the connections between the identified systems and each of the steps of the Operational Value Stream these systems support



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Notes:




Notes:

9.1 Identify Value Streams and Agile Release Trains

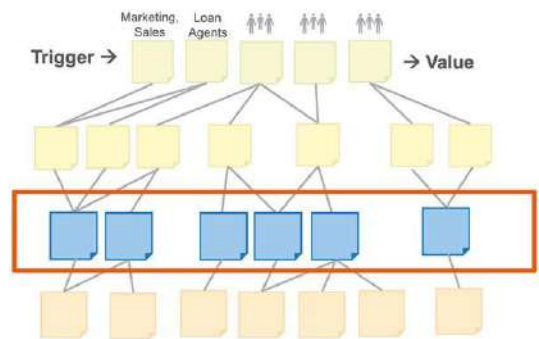


Activity: Identify the people who build and operate the systems



► **Step 1:** Using the BLUE sticky notes, identify the number of people who build the systems and their location

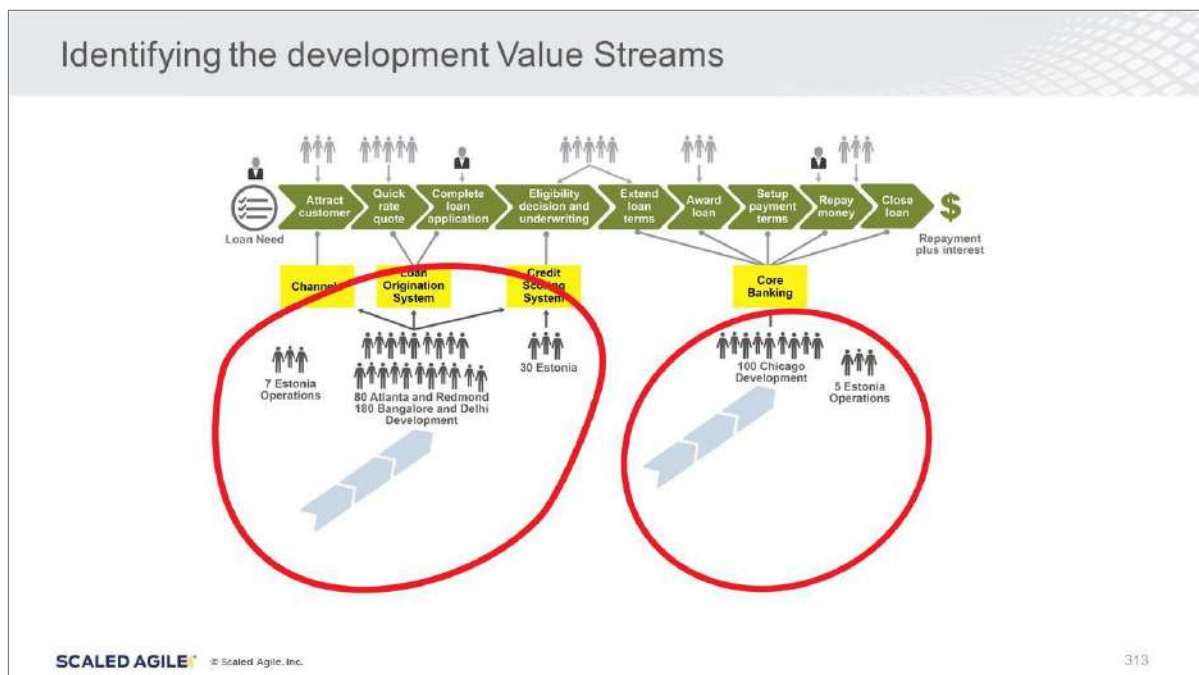
► **Step 2:** Draw the connections to the systems (or products, solutions, services) they support



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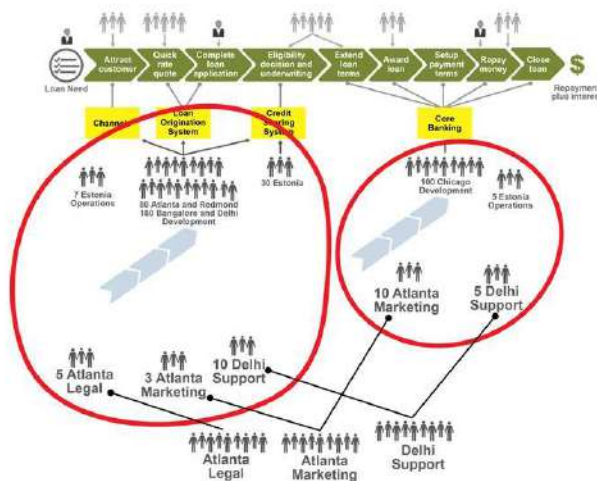
Notes:



Notes:

9.1 Identify Value Streams and Agile Release Trains

Add the people needed to build the full business solution



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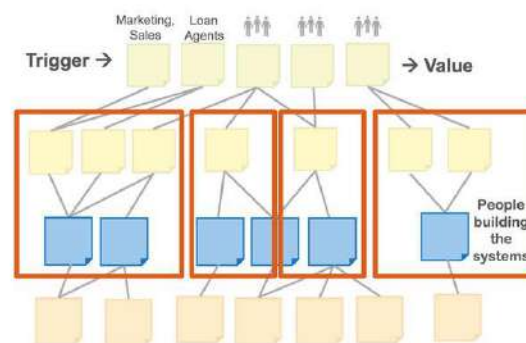
Notes:



Activity: Identify the development Value Streams



- Step 1: Considering what the Trigger and the Value are, identify the Development Value Stream(s) by drawing the a line around the people and systems
- **Step 2:** Using the BLUE sticky notes, add the people needed to build the business solution



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Notes:

9.1 Identify Value Streams and Agile Release Trains

ARTs cannot be too big

Effective Agile Release Trains are most efficient at about 50 – 125 people.

- ▶ Dunbar's number: A suggested cognitive limit to the number of people with whom one can maintain stable social relationships.
- ▶ Empirical evidence: Beyond 125, logistics and inter-team dependencies are more difficult. Alignment and governance are harder to achieve.



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Notes:

Realize Value Streams with Solution Trains and ARTs

Some Value Streams fit well within the limit, and can be realized by a single ART



Larger Value Streams require multiple ARTs in a Solution Train



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Notes:

Splitting a large Value Stream

- ▶ Focused on a holistic system, products, or set of services
- ▶ Long-lived, consistently delivers value over time; can release independently
- ▶ Minimize dependencies with other ARTs
- ▶ Can release value independently from other ARTs



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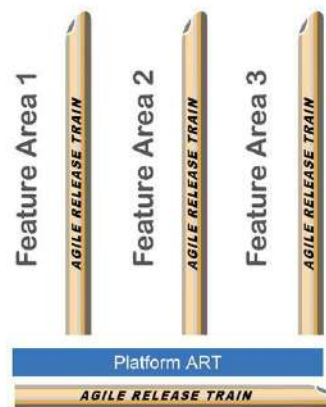
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Notes:

ARTs can be organized around subsystems or Feature areas

Aim to form trains that can release value independently.

- ▶ **Best: End-to-end value**
 - By product, Solution, or service
 - By Customer or market segment
 - By Solution feature areas
 - By value streamlets
- ▶ **Other: Constraints and other considerations**
 - By technology: subsystems/applications/components/platform
 - By source of funding
 - By location/geography



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Notes:

What are you optimizing for?

Feature trains are optimized for speed.

Subsystem trains are optimized for architectural robustness.

- ▶ Trains organized around a Feature area can be fast, but they likely require cross-train architectural governance
 - Otherwise architecture may decay over time, and the train's velocity will start decreasing
- ▶ Trains organized around subsystems require content coordination
 - Subsystems are robust, but there will be many dependencies and lots of WIP for any new Feature

Notes:

Many Value Streams have both types

Value Stream

... by Feature Area

AGILE RELEASE TRAIN

... by Feature Area

AGILE RELEASE TRAIN

... by Feature Area

AGILE RELEASE TRAIN

... by Subsystem

AGILE RELEASE TRAIN

Critical components or subsystems that are used by multiple other ARTs may have trains organized around them.

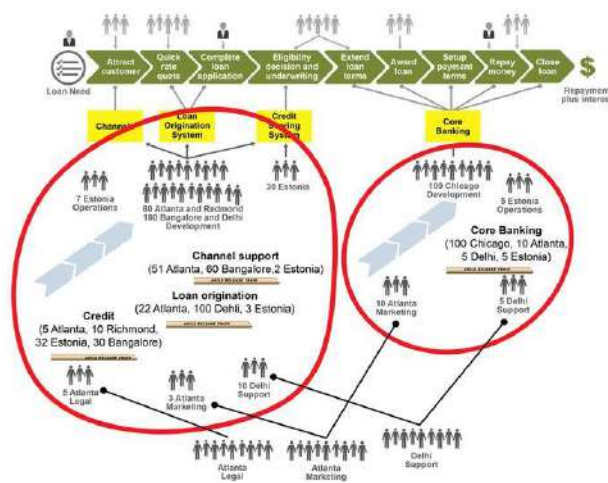
Example:

Platform ART—organized around a common platform or framework used by the rest of the ARTs in the Value Stream

Notes:

9.1 Identify Value Streams and Agile Release Trains

Realize Value Streams into ARTs



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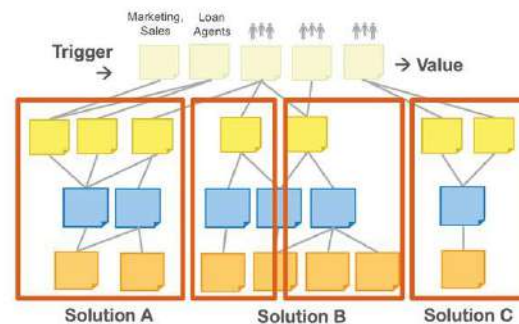
Notes:



Activity: Realize ARTs in the Development Value Streams



- **Step 1:** Using the ORANGE sticky notes identify the ARTs (draw the ART) in each Development Value Stream
- **Step 2:** Draw the connections between the people and the ARTs



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Notes:

9.2 Explore how to create the implementation plan

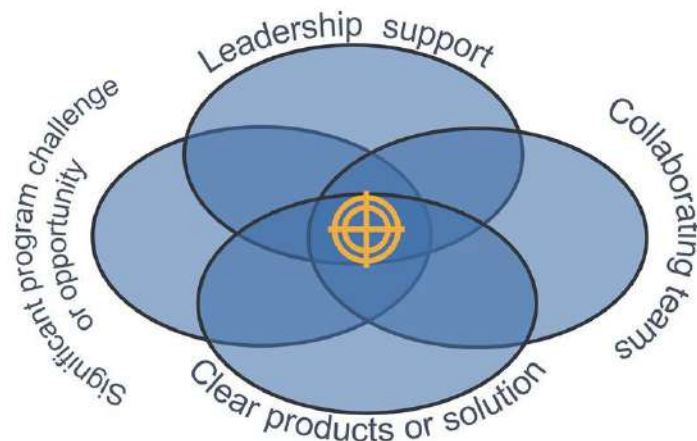
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Notes:

Selecting your first ART

Opportunistic ARTs are found at the intersection of converging factors.



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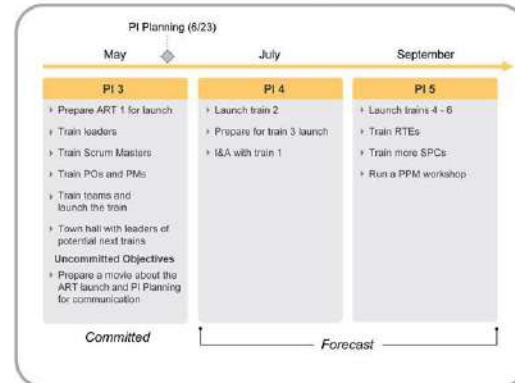
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Notes:

Create the implementation plan

- ▶ Vision without an action plan leaves people unmotivated
- ▶ A transformation roadmap defines how to:
 - Incrementally implement the transformation
 - Inspect and adapt for course correction
- ▶ The ART rollout can be done sequentially or in parallel

A three- PI rolling roadmap



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Notes:

Apply the Value Stream and ART Identification Workshop

A one-day workshop which takes the organization through:

- ▶ Examining the importance of Value Streams for continuous flow
- ▶ Identifying and validating Value Streams and ARTs



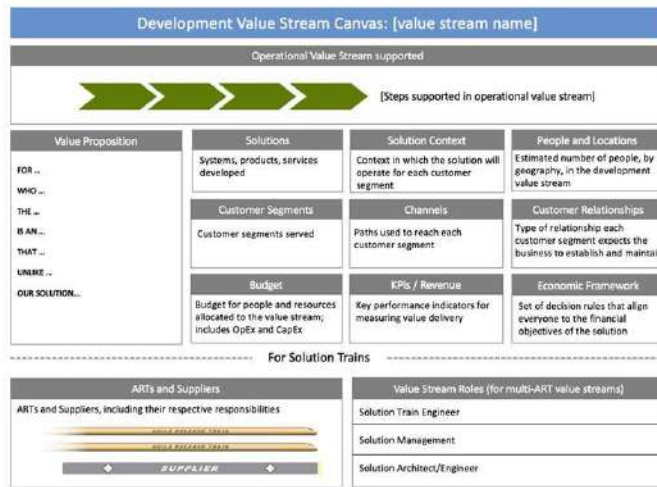
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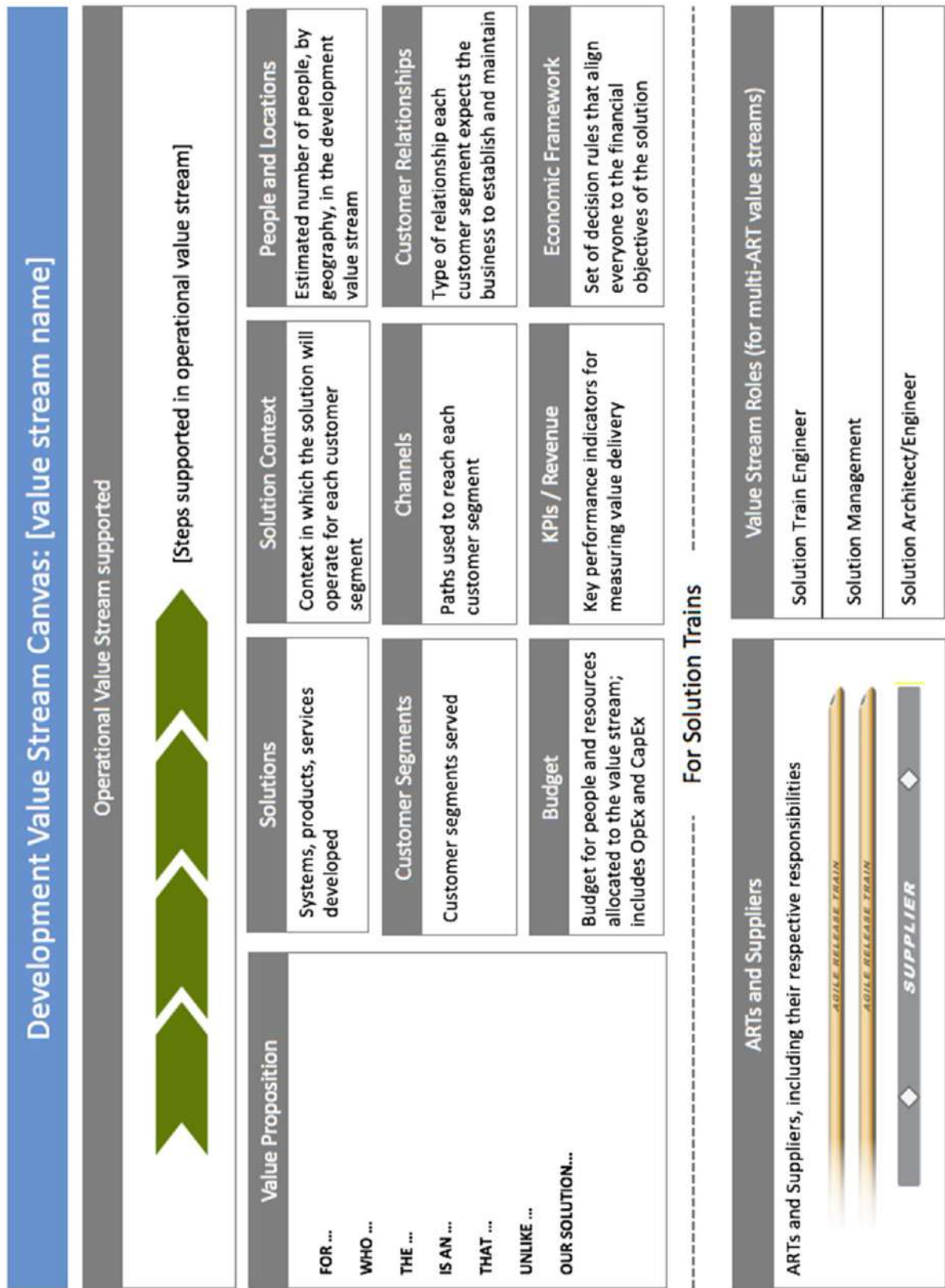
Notes:

9.2 Explore how to create the implementation plan

Create the development value stream canvas



Notes:



Your ART organization may evolve over time

- ▶ Early compromises may be made due to the impact of organizational change.
- ▶ Target optimizations may change over time.



Example:

You may initiate new Value Streams and optimize for architectural integrity and reuse subsystems, common libraries, etc., then move to flow of value (feature area, market segment, etc.)

Rules of Thumb:

1

The answer may not be clear. Consider the trade-offs, launch your initial ART(s), and I&A. Understand your pain points over time and how they may relate to your ART definitions.

2

ARTs are long-lived, but if alignment on a design cannot be reached, pick one and test it for a few PIs.

3

Many enterprises re-evaluate their ART definitions due to initial compromises, revised Portfolio investments, or new target optimizations.

Notes:

Lesson review

In this lesson you:

- ▶ Identified Value Streams and Agile Release Trains
- ▶ Explored how to create the implementation plan

Notes:

Lesson 9 notes



Click below to type your thoughts.

Lesson 10

Launching an Agile Release Train

Learning Objectives:

10.1 Prepare the ART launch

10.2 Train teams and launch the ART



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

10.1 Prepare the ART launch

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Notes:

Set the launch date

A **forcing function** is a commitment that forces a sequence of actions to happen. Use it to start your train.

- ▶ By scheduling the PI Planning event, you will create the timebox in which the preparation must happen.
- ▶ This will minimize the expansion of work during preparation. Not everything can (or needs to) be perfect.
- ▶ Assure people that the Inspect and Adapt Workshop creates a closed-loop system so that impediments can be made visible and addressed as soon as possible.



Photo courtesy of SEI Global Wealth Services

After Leading SAFe training, this leadership team launched their first Agile Release Train in just 10 days!

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Notes:

10.1 Prepare the ART launch

Train ART leaders

- ▶ Launching the first ART is crucial. It builds a framework to allow employees to apply the Vision to meaningful change.
- ▶ Training the leaders helps them create the mindset they need to empower employees for further action.
- ▶ Training gives stakeholders the skills and motivation they need to change the organization
- ▶ As a team of teams the ART removes silos that inhibit flow.



Train ART Leaders

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Notes:



Discussion: Who should attend Leading SAFe class?



- ▶ **Step 1:** Discuss who in your organization needs to be at the ART-specific Leading SAFe training.
- ▶ **Step 2:** Consider the following questions:
 - Who needs to attend and why?
 - Who are the key people who might hinder change if not invited?
 - How do you keep the training session a reasonable size?
- ▶ **Step 3:** Be prepared to share with the class.





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Notes:

10.1 Prepare the ART launch

Define the Agile Release Train

Agile Release Train Canvas: [ART Name]		
Vision statement FOR ... WHO ... THE ... IS AN ... THAT ... UNLIKE ... OUR SOLUTION ...	Business Owners Key customers Success measures 	People and locations Number of practitioners and geographic locations Principal roles Product Manager RTF System Architect Team design strategy Outline of teams and team responsibilities, System Team, Features, components
Solution Systems, products, services developed and maintained by the ART	Technical assets Development tools and environment	Other stakeholders
Development Value Stream  ART structure in development Value Stream, including steps		
Operational Value Stream supported  Steps supported in operational Value Stream		

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Notes:

Use the SAFe PI Planning Toolkit



SAFe PI Planning Toolkit

The SAFe PI Planning Toolkit provides the resources curated and distilled from hundreds of real-world implementations. It includes all the presentation slides, workbooks, and templates needed to guide an ART through these preparation activities and facilitate a successful PI Planning event.

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Notes:

10.1 Prepare the ART launch

Establish the Agile Teams

Agile Teams may already be formed, or you may influence team composition.

Capture teams, roles, and locations with the Team Roster (In PI Toolkit)

Team #	Team name	Role	Team member name	Geographic location
1	Team A	Scrum Master	Last Name, First Name	City, Country
2	Team A	Product Owner	Last Name, First Name	City, Country
3	Team A	Developer		
4	Team A	Developer		
5	Team A	Developer		
6	Team A	Tester		
7	Team A	Tester		
8	Team A	<role>		
9	Team A	<role>		



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Notes:

Determine who will play the individual ART roles

Program Roster (In PI Toolkit)

Role	Team member name	Geographic location
Release Train Engineer	Last Name, First Name	City, Country
Product Manager		
Product Manager		
Business Owner		
Business Owner		
System Team		
System Team		
System Team		
Operations		
Operations		
Operations		
System Architect/Engineering		
UX		



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Notes:

Train Product Owners and Product Managers



Audience:

Product Owners, Product Managers, Product Line Managers, Business Owners, and Business Analysts
Solution Managers, Portfolio Managers, Program Managers, and members of the LACE, Enterprise, Solution, and System Architects

Topics:

- Becoming a Product Owner/Product Manager in the SAFe Enterprise
- Preparing for PI Planning
- Leading PI Planning
- Executing Iterations
- Executing the PI
- Becoming a Certified SAFe Product Owner/Product Manager

Notes:

Train Scrum Masters



Audience:

New Scrum Masters who need to perform the role
Existing Scrum Masters who would like to understand their role in the context of a SAFe Enterprise, Team Leads, SAFe Release Train Engineers who want to coach Scrum Masters on their role

Topics:

- Introducing Scrum in SAFe
- Characterizing the role of the Scrum Master
- Experiencing Program Increment planning
- Facilitating Iteration execution
- Finishing the Program Increment
- Becoming a Certified SAFe Scrum Master

Notes:

Train Architects



Audience:

System, Solution and Enterprise Architects, Software Developers, Technical Managers, Product Leaders

Topics:

- Exemplifying Lean-Agile architecture
- Architecting for DevOps and Release on Demand
- Aligning architecture with business value
- Developing Solution Vision, Solution Intent, and Roadmaps
- Preparing architecture for Program Increment (PI) Planning
- Coordinating architecture throughout PI Planning
- Supporting Continuous Delivery during PI execution
- Supporting new Strategic Themes and Value Streams
- Leading as an Architect during a Lean-Agile transformation

Notes:

Assess and evolve launch readiness

Once an ART has been selected for launch, the SAFe ART Readiness Workbook will guide you through the preparation.

- ▶ ART Readiness Workbook
- ▶ PI Planning Overview and Briefings
- ▶ Program Backlog Workbook
- ▶ ART and Team Events Calendar
- ▶ Capacity Allocation spreadsheet
- ▶ Facilitators Guide to PI Planning and more



Notes:

ART readiness checklist

Area	Question
Planning scope and context	Is the scope (product, system, technology domains) of the planning process understood? Have we identified our Value Stream(s) and ARTs?
Release Train Engineer (RTE)	Have we identified the Release Train Engineer? Does he/she understand the scope of the role in preparing the organization and preparing for the PI Planning meeting?
Planning time frame, iteration, and PI cadence	Have we identified the PI Planning dates, the iteration cadence, and the PI cadence?
Agile Teams	Does each Feature/Component team have an identified SM and PO?
Team makeup/commitment	Are there dedicated team members on every team?
Agile Team attendance	Are all team members present in person or are arrangements made to involve them remotely?
Executive, Business Owner participation	Do we know who will set the business context and present the Product/Solution Vision?
Business alignment	Is there reasonable agreement on priorities among the Business Owners and Product Management?
Vision and Program Backlog	Is there a clear Vision of what we are building, at least over the next few PIs? Have we identified the top 10 or so Features that are the subject of the first PI?


Notes:

ART readiness checklist

Area	Question
System Team	Has the System Team been identified and formed?
Shared Services	Have the Shared Services (User Experience, Architecture, etc.) been identified?
Other attendees	Do we know what other key stakeholders (IT, infrastructure, etc.) should attend?
Agile Lifecycle Management tooling	Do we know how and where iterations, PIs, Features, Stories, status, etc., will be maintained?
Development infrastructure	Do we understand the impact on and/or plans for environments (for example, Continuous Integration and build environments)?
Quality practices	Is there a strategy for unit testing and test automation? Are there any other practice guidelines?

Notes:

10.1 Prepare the ART launch




Activity: ART readiness preparation

Prepare
5 min

Share
5 min

- ▶ **Step 1:** Determine which items on the ART readiness checklist must be in place in order to launch your ART.
- ▶ **Step 2:** In your workbook, mark each item with a Y, N, or D to determine its necessity for launching the ART.
 - (Y) Yes, must be in place
 - (N) No, doesn't need to be in place
 - (D) Depends on context
- ▶ **Step 3:** Be prepared to share with the class.



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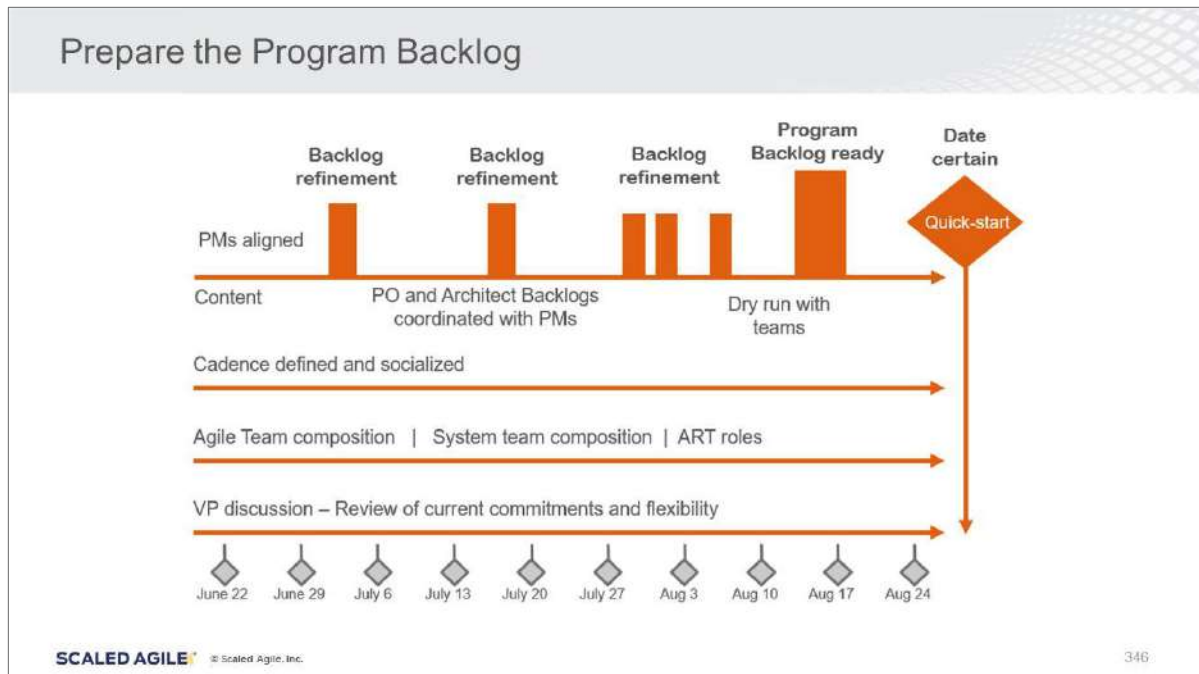
Notes:

10.1 Prepare the ART launch

ART Readiness Checklist

	Area	Question	Y/N/D
1	Planning scope and context	Is the scope (product, system, technology domains) of the planning process understood? Have we identified our Value Stream(s) and Agile Release Trains?	
2	Release Train Engineer (RTE)	Have we identified the Release Train Engineer? Does he/she understand the scope of the role in preparing the organization and preparing for the PI Planning meeting?	
3	Planning time frame, iteration, and PI cadence	Have we identified the PI Planning dates, the iteration cadence, and the PI cadence?	
4	Agile Teams (SMs, POs)	Does each Feature/Component team have an identified Scrum Master and Product Owner?	
5	Team makeup/commitment	Are there dedicated team members on every team?	
6	Agile Team attendance	Are all team members present in person or are arrangements made to involve them remotely?	
7	Executive, Business Owner participation	Do we know who will set the business context and present the product/solution vision?	
8	Business alignment	Is there reasonable agreement on priorities among the Business Owners and Product Management?	
9	Vision and program backlog	Is there a clear vision of what we are building, at least over the next few PIs? Have we identified the top 10 or so features that are the subject of the first PI?	
10	System Team	Has the System Team been identified and formed?	
11	Shared Services	Have the Shared Services (User Experience, Architecture, etc.) been identified?	
12	Other attendees	Do we know what other key stakeholders (IT, infrastructure, etc.) should attend?	
13	Agile Lifecycle Management tooling	Do we know how and where Iterations, PIs, Features, Stories, status, etc., will be maintained?	
14	Development infrastructure	Do we understand the impact on and/or plans for environments (for example, continuous integration and build environments)?	
15	Quality practices	Is there a strategy for unit testing and test automation? Are there any other practice guidelines?	

10.1 Prepare the ART launch



Notes:

10.2 Train teams and launch the ART

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Notes:

Establish Team Agility with SAFe for Teams



With SAFe Practitioner Certification

Audience:

Team members who apply Lean and Agile at scale
All members of an Agile Release Train preparing for launch

Topics:

- Introducing SAFe
- Building an Agile Team
- Planning the Iteration
- Executing the Iteration
- Executing the Program Increment
- Becoming a Certified SAFe Practitioner

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Notes:

The benefits of big room training

- 1 Accelerated learning
- 2 A common scaled Agile paradigm
- 3 Cost-efficiency
- 4 Collective learning



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Notes:

The quickstart approach to ART launch

When you find a Value Stream, go **all in** and **all at once** for each ART. The one-week launch is a proven adoption model.



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Notes:

The importance of the first PI Planning

- ▶ First impression of SAFe
- ▶ Generates a short-term win
- ▶ Builds the ART as a team
- ▶ Teaches teams about assuming responsibility for planning and delivery
- ▶ Creates visibility
- ▶ Creates confidence in the commitment of Lean-Agile leaders to the transformation



Building the ART as a team

Notes:

Prepare with the PI Execution Toolkit



SAFe PI Execution Toolkit

The toolkit includes guidance around the successful delivery of key ART activities and events as well as the slides and templates for facilitating an Inspect and Adapt event at the end of the PI. It contains: Program Performance and Predictability Metrics spreadsheet, Distributed I&A Problem-Solving Checklist, and Metrics and Assessment Resources

Notes:

Distributed planning meetings

Require significantly more preparation and facilitation.

- ▶ Have a dedicated facilitator and tech support person at each location
- ▶ Test audio, video, and presentation-sharing connectivity, and then test it again
- ▶ Have a common understanding of how plans will be shared (Video, Wiki, Email, PowerPoint, etc.)
- ▶ Establish team-based audio/video communication for breakout sessions



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Notes:

10.2 Train teams and launch the ART



Video: PI Planning with Distributed Teams






<https://youtu.be/3fsuzuA6rVM>

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Notes:



Video link: <https://youtu.be/3fsuzuA6rVM>

Distributed planning meetings: Working agreements

- ▶ Have clear working agreements to be respectful
- ▶ Compromise when it comes to time zone differences
- ▶ Avoid making people stay up all night



Working Agreements: Example

Notes:

Distributed planning meetings: Distributed teams

- ▶ **If members on the same team are distributed:**
 - Establish more planning overlap time for intra-team collaboration
 - Have more *intra*- and *inter*-team checkpoints and synchronization
 - Consider the non-ideal situation of concurrent planning (someone may stay up all night!)
- ▶ **If a program has distributed whole teams:**
 - Team planning is easier; however, dependency management with other component teams becomes more complex
 - Have more inter-team checkpoints and synchronization
 - Leverage a centralized program board



<http://www.scaledagileframework.com/infogain-case-study>

Notes:

10.2 Train teams and launch the ART

Two-site, detailed 2.5-day agenda


- ▶ For large time zone differences, such as between the U.S. and India, a 2.5-day split agenda is recommended
- ▶ The time difference between Delhi and Los Angeles is approximately 12 hours—day in the U.S. is night in Delhi
- ▶ Following the Lean principle to respect people and cultures, we want to avoid asking teams to stay up all night
- ▶ We also want to avoid asking teams to commit to their PI Objectives in a sleep-deprived state
- ▶ Using a 2.5-day format will require a shift to the overall week's schedule





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Notes:

Time Zone 1 West	Time Zone 2 East	Subject	Description and Presenter
6:30-7:00AM	7:00-7:30PM	Opening	Introduction, agenda, objectives, and working agreements (RTE or Facilitator)
			Planning Context and Deliverables (RTE or Facilitator)
			ART and PI planning context as needed (RTE or Facilitator)
			Review of PI cadence - sprints and PIs (RTE or Facilitator)
7:00-7:30AM	7:30-8:00PM	Business Context	State of the business (Executive)
			Upcoming objectives (Executive)
7:30-9:00AM	8:00-9:30PM	Product/Solution Vision	Vision of solution, products/services, and prioritized backlog (Product Management)
			Vision of solution features or components (System or Enterprise Architect)
9:00-9:15AM	9:30-9:45PM	BREAK	
9:15-9:45AM	9:45-10:15PM	Architecture Vision	Vision for architecture, new architecture and program-level NFRs (System or Enterprise Architect)
9:45-10:15AM	10:15-10:45PM	Development Practices	Update on tooling, development practices, DoD (Dev Management)
10:15-10:45AM	10:45-11:15PM	Planning Requirements	Specific planning process, draft plan reviews (RTE or Facilitator)
10:45-12:00pm		Meal Break - San Jose	
12:00-3:00pm	Time Zone 2 - Late Night 	Team Breakouts (1 of 2)	Features broken into stories (teams)
			PI plan and objectives drafted (teams)
			Risks and impediments identified (teams)
		Hourly Scrum of Scrums Checkpoint	Hourly Scrum of Scrums checkpoint to discuss planning impediments, and dependencies (Scrum Masters)
			Program Feature Board continuously updated (Scrum Masters)
			Architects, Product Managers, and Business Owners circulate

10.2 Train teams and launch the ART

Time Zone 1 West	Time Zone 2 East	Subject	Description and Presenter
Time Zone 1 - Late Night 	3:30-4:00PM		Brief overview of planning requirements (Michael)
	4:00-7:00PM	Team Breakouts (1 of 2)	Features broken into stories (teams) PI plan and objectives drafted (teams) Risks and impediments identified (teams)
			Hourly Scrum of Scrums checkpoint to discuss planning impediments, and dependencies (Scrum Masters)
			Program Feature Board continuously updated (Scrum Masters) Architects, Product Managers, and Business Owners circulate
			Distributed teams collaborate with Product Management and Business Owners to Synchronize
6:30-7:30AM	7:00-8:00PM	Team Synchronization	Synchronize
7:30-8:30AM	8:00-9:00PM	Draft Plan Review	Velocity and Load Overview of plan flow Draft PI Objectives Program risks, impediments, and Program Board dependencies
8:30-8:45AM	9:00-9:15PM	BREAK/Dinner	
8:45-9:15AM	9:15-9:45PM	Management review and problem solving workshop	Discussion of scope, challenges to plan, risks, and impediments (Product Management, Architects, Dev Managers, RTE) Adjustments of scope and resources as necessary
9:15-9:45AM	9:45-10:15PM	Planning Adjustments	Management review and problem solving meeting readout - adjustments to plan, scope, resources (RTE, Facilitator or Business Owner)
9:45-10:00AM		Break	
10:00-1:00PM	Time Zone 2 - Late Night 	Team Breakouts (2 of 2)	PI plan and objectives finalized (teams) Risks and impediments finalized (teams)
			Hourly Scrum of Scrums checkpoint to discuss planning, status, program impediments, and dependencies (Scrum Masters)
			Program Feature Board continuously updated (Scrum Masters) Architects, Product Managers, and Business Owners circulate
		Hourly Scrum of Scrums Checkpoints	Business Owners walk walls, review objectives and assign business value

Time Zone 1 West	Time Zone 2 East	Subject	Description and Presenter
	3:30-6:30PM	Team Breakouts (2 of 2)	Recap Planning Requirements (Michael) PI plan and objectives finalized (teams) Risks and impediments finalized (teams)
			Hourly Scrum of Scrums checkpoint to discuss planning, status, program impediments, and dependencies (Scrum Masters)
		Hourly Scrum of Scrums Checkpoints	Program Feature Board continuously updated (Scrum Masters) Architects, Product Managers, and Business Owners circulate
			Business Owners walk walls, review objectives and assign business value
	6:30-7:00PM	Dinner Break - Bangalore	
6:30-7:30AM	7:00-8:00PM	Team Synchronization & Finalized Objectives	Distributed teams collaborate with Product Management and Business Owners to synchronize Business Owners walk walls and review objectives and finalize business value
7:30-9:00AM	8:00-9:30PM	Final Plan Review	Changes to velocity and load Final PI objectives with business value Program risks, impediments, and Program Board Dependencies
9:00-9:15AM	9:30-9:45PM	Break	
9:15-10:15AM	9:45-10:45PM	Program-Level Risks	Remaining program-level risks are discussed and ROAMed - resolved, owned, accepted, or mitigated (RTE or Facilitator)
10:15-10:30AM	10:45-11:00PM	PI Confidence Vote	Facilitator asks team-by-team for fist of five "confidence and PI commitment" Facilitator asks entire program for fist of five confidence vote
10:30AM-??	11:00PM-??	Plan rework if necessary	If high confidence is not achieved, adjust scope and continue planning until commitment is achieved
When commitment is achieved		Planning Retrospective	Retrospective for PI planning meeting Record for continuous improvement backlog (RTE)
		Final Instructions	Process for capturing plans, risks, program feature board and improvement backlog items in tooling (RTE or Facilitator) Final instructions and closing remarks (RTE or Facilitator)

Lesson review

In this lesson you:

- ▶ Explored how to prepare for the ART launch
- ▶ Examined the importance of training teams and launching the ART

Notes:

Lesson 10 notes



Click below to type your thoughts.

Lesson 11

Coaching ART Execution

Learning Objectives:

11.1 Coach the train and the teams

11.2 Continuously improve program performance with Inspect and Adapt



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

11.1 Coach the train and the teams

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Notes:

Generating short-term wins

You just finished the ART launch—now showcase its success.

- ▶ The PI Planning event itself is a short-term win, as it creates clear commitment to goals.
- ▶ Next, it's important to showcase that the ART is meeting its PI Objectives and relentlessly improving its program performance.
- ▶ Invite stakeholders and showcase the success of the Team Demos and System Demos, as well as the PI System Demo.
- ▶ Communicate real wins, not gimmicks.
- ▶ The first PI is the most crucial to lead. Existing team, program, and organizational issues become highly visible. You must have confidence and clarity.
- ▶ You will provide ongoing program consulting and team coaching to build the organization's Lean-Agile capabilities.



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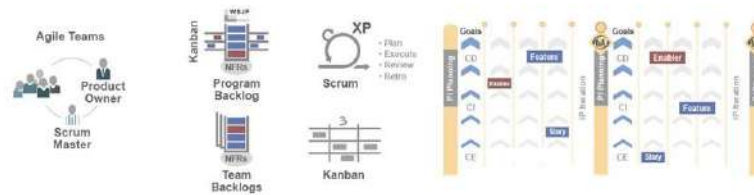
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Notes:

Team activities and events

Team activities are opportunities to coach the team.

- ▶ Helping teams plan, execute, review, and retrospect the first Iterations
- ▶ Coaching new Scrum Masters and Product Owners in their roles
- ▶ Initiating and supporting Agile technical practices
- ▶ Helping teams establish the infrastructure, practices, and culture needed for DevOps and the Continuous Delivery Pipeline



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Notes:

ART activities and events

Coaching the ART typically starts with the essential roles and events:

- ▶ Helping to build and maintain the Vision and Roadmap
- ▶ Defining and managing the Program Kanban and Program Backlog
- ▶ Coaching Product Managers, System Architects, and RTEs in their roles
- ▶ Supporting frequent system-level integration, including the System Demo
- ▶ Participating in scrum of scrums, PO sync, and ART sync meetings
- ▶ Helping to facilitate Inspect and Adapt and follow-up of backlog improvement items
- ▶ Supporting the System Team and others in building development and deployment infrastructure and automation
- ▶ Keeping a focus on the Architectural Runway
- ▶ Supporting release management in the new way of working
- ▶ Supporting or delivering additional training
- ▶ Establishing communities of practice (CoPs)

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Notes:



Discussion: Anticipating PI problems

Prepare
3 min

Share
2 min

- ▶ **Step 1:** Considering the ART and team activities and events we have just discussed, answer the following questions:
 - Which ART activities or events are most critical for your engagement?
 - Which team activities or events are most critical for your engagement?
- ▶ **Step 2:** Identify the top five activities you would support.
- ▶ **Step 3:** Be prepared to share with the class.




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Notes:

Agile Product Management



With SAFe Agile Product Manager Certification

Audience:

Product managers and directors of product management, project managers, product owners, business owners, business analysts

Topics:

- Analyzing your role as a Product Manager in the Lean Enterprise
- Continuously exploring markets and users
- Driving strategy with market segmentation
- Using empathy to drive design
- Defining product strategy and vision
- Creating roadmaps to build solutions
- Delivering value
- Managing Value Stream economics
- Creating innovation in the Value Stream

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Notes:

Optimize your Value Stream with SAFe DevOps



Audience:

All members of an Agile Release Train, Development Managers, Engineering Managers, Operations Leads

Topics:

- Introducing DevOps
- Mapping Your Value Stream
- Gaining Alignment with Continuous Exploration
- Building Quality In with Continuous Integration
- Reducing Time-to-Market with Continuous Deployment
- Delivering Business Value with Release on Demand
- Taking Action
- Becoming a SAFe DevOps Practitioner

Notes:

Building the DevOps transformation canvas



Notes:

Enable Technical Agility with Agile Software Engineering



Audience:

All technical members of an Agile Release Train (Developers and Testers), Product Owners and Managers, others with less technical background would also benefit

Topics:

- Introducing Agile Software Engineering
- Connecting Principles, and Practices to Built-In Quality
- Accelerating Flow
- Applying Intentional Architecture
- Thinking Test-First
- Discovering Story Details
- Creating a Shared Understanding with BDD
- Communicating with Models
- Building Systems with Code Quality
- Building Systems with Design Quality
- Implementing with Quality

Notes:

11.2 Continuously improve program performance with Inspect and Adapt

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Notes:

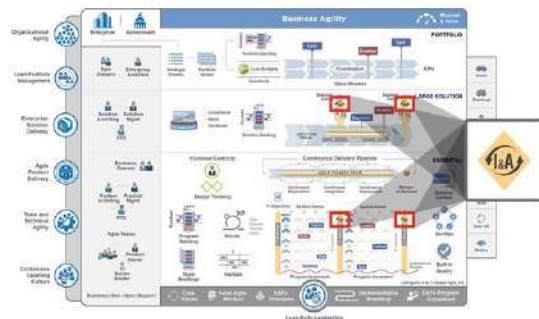
Inspect and Adapt event: Overview

Three parts of Inspect and Adapt:

1. The PI System Demo
2. Quantitative measurement
3. Problem-solving workshop

Timebox: 3 – 4 hours per PI

Attendees: Teams and stakeholders



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Notes:

PI System Demo

- ▶ At the end of the PI, teams demonstrate the current state of the Solution to the appropriate stakeholders.
- ▶ Often led by Product Management, POs, and the System Team
- ▶ Attended by Business Owners, program stakeholders, Product Management, RTE, Scrum Masters, and teams
- ▶ Suggested timebox: 45 – 60 minutes



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Notes:

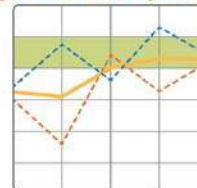
Team performance assessment

- ▶ All teams' PI Objectives were assigned a business value from 1 to 10.
- ▶ Review and rate your PI achievements:
 - How well did you do against your stated objectives, including timeliness, content, and quality?
 - Rate on a scale of 1 to 10, 10 being maximum total business value.
- ▶ Average these across all objectives and give yourself a program percent achievement score.
- ▶ Suggested time-box: 45 – 60 minutes

Team PI Performance Report

Business Value	
Planned	Actual
1	8
2	6
3	5
4	8
5	7
6	0
7	0
8	0
9	0
10	0
Total	28
% Achievement	100%

Program Predictability Measure



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Notes:

Team PI performance report

- ▶ Planned total does not include uncommitted objectives
- ▶ Actual total includes uncommitted objectives
- ▶ Percent achievement equals actual total/planned total
- ▶ A team can achieve greater than 100% (as a result of uncommitted objectives achieved)
- ▶ Effort required for uncommitted objectives is included in the load (i.e., not extra work the team does on weekends)
- ▶ Individual team totals are rolled up into the program predictability report

Objectives for PI 3		Business Value	
	Plan	Actual	
• Structured locations and validation of locations	7	7	
• Build and demonstrate a proof of concept for context images	8	8	
• Implement negative triangulation by: tags, companies and people	8	6	
• Speed up indexing by 50%	10	5	
• Index 1.2 billion more web pages	10	8	
• Extract and build URL abstracts	7	7	
Uncommitted Objectives			
• Fuzzy search by full name	7	0	
• Improve tag quality to 80% relevance	4	4	
Totals:	50	45	
% Achievement:	90%		

Notes:

Program performance Metrics

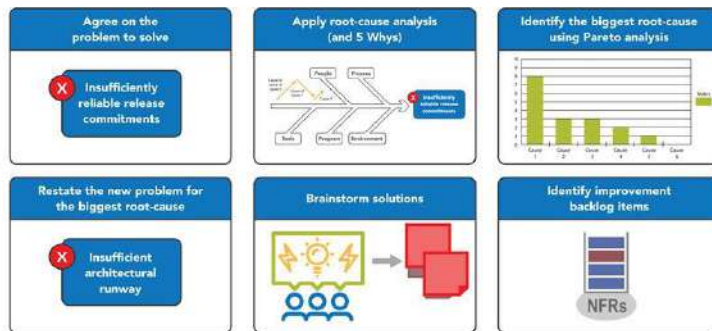
- ▶ How did we do? Collect and discuss any other program metrics that the team has agreed to collect
- ▶ Suggested timebox: 45 – 60 minutes

Functionality	PI 1	PI 2	PI 3
Program velocity			
Predictability measure			
# Features planned			
# Features accepted			
# Enablers planned			
# Enablers accepted			
# Stories planned			
# Stories accepted			
Quality			
Unit test coverage %			
Defects			
Total tests			
% automated			
# NFR tests			

Notes:

The problem-solving workshop overview

After a short retrospective, teams systematically address the larger impediments that are limiting velocity by using root cause analysis.

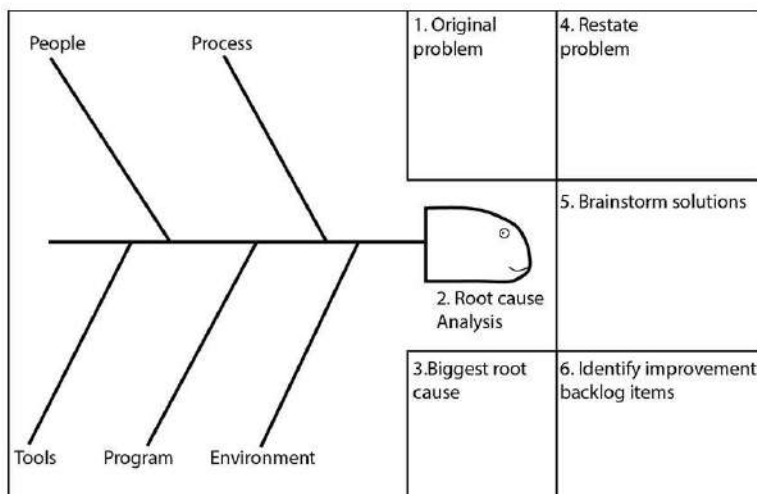


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Notes:

Build the problem-solving board



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Notes:

Agree on the problem to solve

- ▶ Clearly stating the problem is key to problem identification and correction
- ▶ You must define the undesirable problem or situation, so everyone involved in the countermeasures understands
- ▶ A clearly defined problem focuses your investigation efforts and saves time. Honest effort at careful definition will avoid the 'ready, fire, aim' approach that is so common in problem-solving
- ▶ A problem that is not well-defined may result in failure to reach the proper countermeasure



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Notes:

Anatomy of a well-defined problem

Think about the **What, When, Where, Frequency** and any gaps




Concept contributed by Beth Miller

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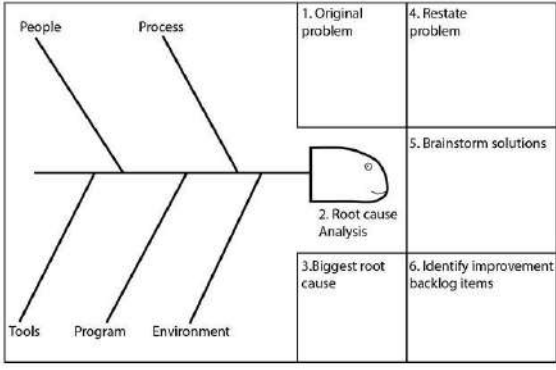


Activity: Agree on the problem

Duration

15
min

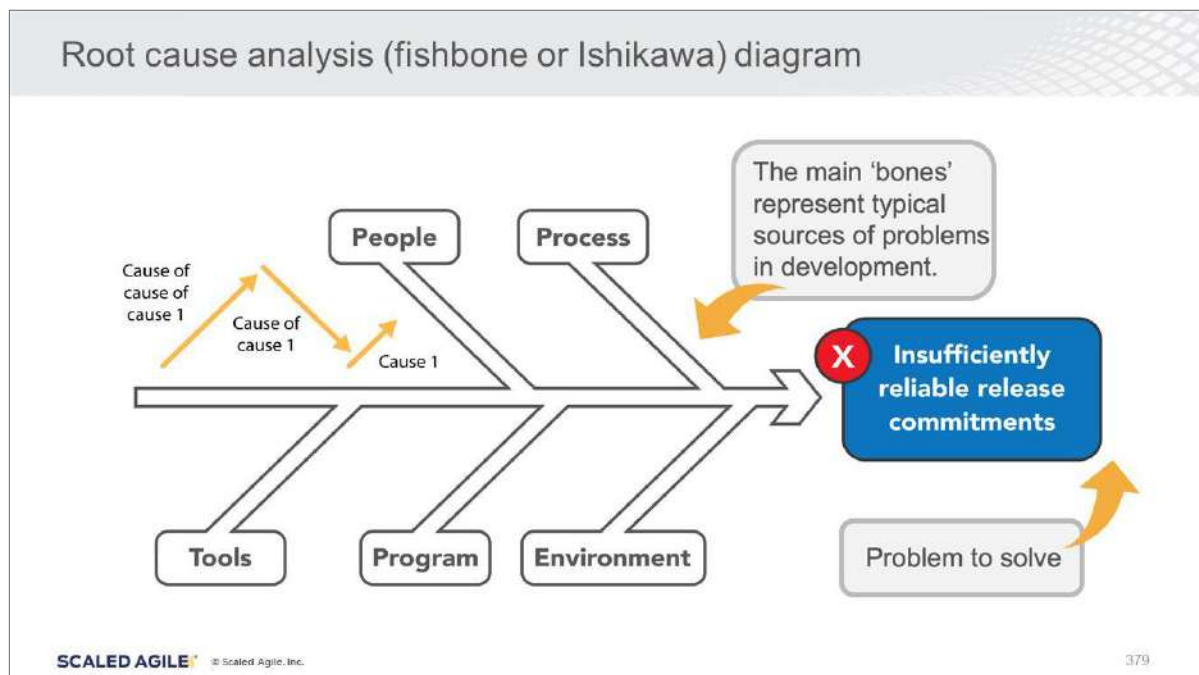
- ▶ **Step 1:** Build the problem-solving board
- ▶ **Step 2:** As a team, define the problem and create a clear problem statement
- ▶ **Step 3:** Write down the statement under the *Original problem* heading on the problem-solving board



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Notes:



Notes:

Finding the root cause: The 5 Whys

By repeating why five times, the nature of the problem, as well as its solution, becomes clear.
—Taiichi Ohno

- ▶ A proven problem-solving technique used to explore the cause-and-effect relationships underlying a particular problem
- ▶ The key is to avoid assumptions and logic traps
- ▶ Instead, trace the chain of causality in direct increments from the effect to a root cause

The Problem: My car will not start.

Why? - The battery is dead (first why).

Why? - The alternator is not functioning (second why).

Why? - The alternator belt has broken (third why).

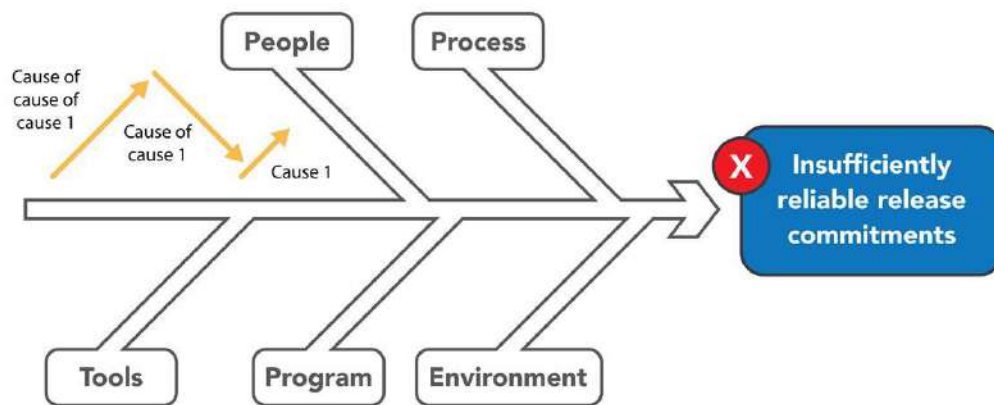
Why? - The alternator belt was well beyond its useful service life (fourth why).

Why? - I have not been maintaining my car according to the recommended service schedule (fifth why, the root cause).




Notes:

Use the Five Whys to identify root causes



Notes:

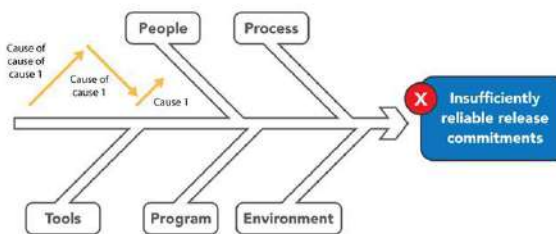


Activity: Root cause analysis

Duration

25 min

- ▶ **Step 1:** Brainstorm potential causes of the problem and write them down under the *Root Cause Analysis* heading on the problem-solving board
- ▶ **Step 2:** For each cause identified, use the Five Whys technique to get to a potential root cause

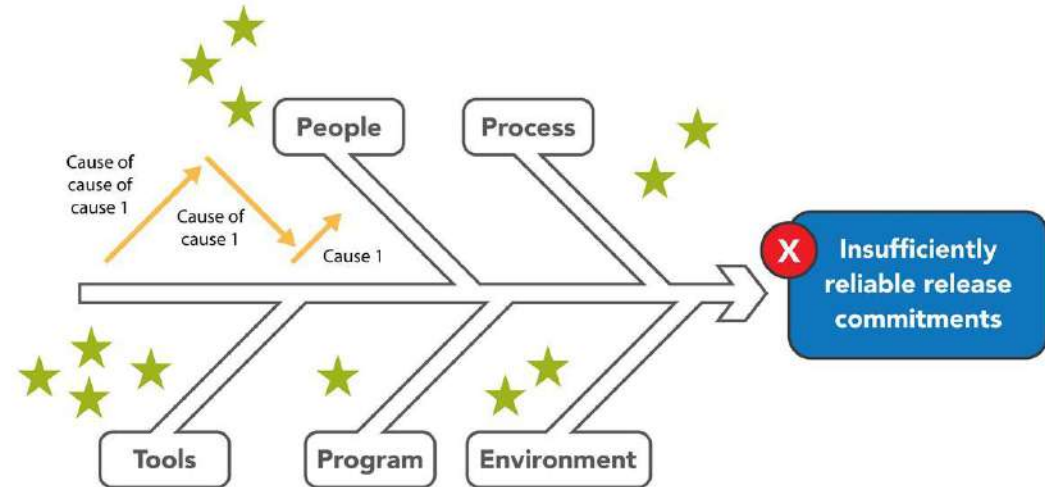


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Notes:

Vote on root causes



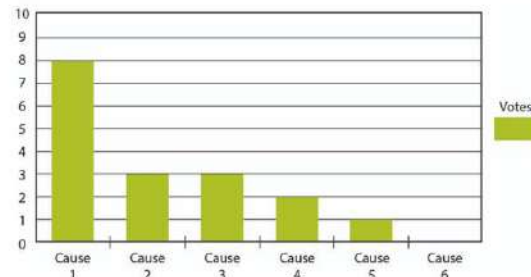
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Notes:

Pareto analysis – Identify the biggest root cause

- ▶ Also known as the 80/20 rule, the Pareto analysis is a statistical decision technique used to narrow down the number of actions that produce the most significant overall effect
- ▶ It uses the principle that 20% of root causes can cause 80% of problems
- ▶ It is useful where many possible sources and actions are competing



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Notes:



Activity: Restate the new problem



- ▶ **Step 1:** Dot vote to identify the biggest problem on your chart
- ▶ **Step 2:** Use Pareto analysis to visualize the biggest root cause under the *Biggest Root Cause* heading on the problem-solving board
- ▶ **Step 3:** Restate the problem to address the identified root cause, including the economic impact of the problem under the *Restate problem* heading on the problem-solving board

Example:

We did not have the ability to measure or test the full electrical load on vehicles in real operating conditions.


Impact:

We had to upgrade the deployed power distribution system beyond what was specified. Major cost and schedule overrun.

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Notes:



Activity: Brainstorm solutions

Duration
8 min


- ▶ **Step 1:** Individually brainstorm and write ideas on sticky notes and put them up on the board
- ▶ **Step 2:** After all ideas are captured, discuss them as a team
- ▶ **Step 3:** Organize ideas into affinity groups
- ▶ **Step 4:** Dot vote to identify the top contenders for possible solutions problem under the *Identify Improvement Backlog Items* heading on the problem-solving board



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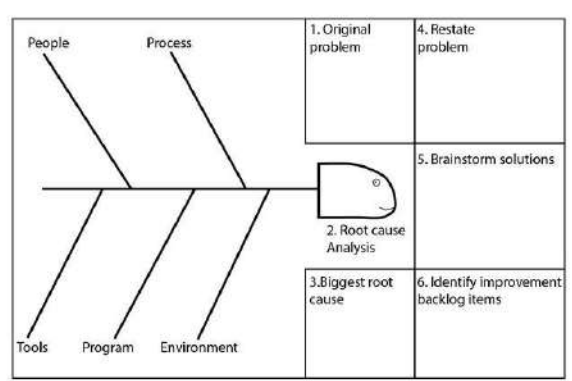
Notes:



Discussion: Problem-solving workshop readout

Duration
10 min

- ▶ **Step 1:** Select a person from your team to do a readout
- ▶ **Step 2:** Start the readout by stating the original problem and conclude with the proposed improvement backlog items



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Notes:

ART execution artifacts in the PI Execution Toolkit



SAFe PI Execution Toolkit

- SAFe ART Events and Activities presentation
- Inspect and Adapt Event template
- Program Performance Metrics spreadsheet
- Program Predictability Measure spreadsheet
- Self-Assessments and Metrics resources

Notes:

Measure and Grow with the Business Agility Assessments

Measure and Grow is the way portfolios evaluate their progress towards Business agility and determine their next improvement steps.

There are six steps in the Measure and Grow process:

1. Facilitate effective self-assessment of Business Agility
2. Analyze the results
3. Identify growth opportunities
4. Prioritize and take action
5. Integrate learning
6. Celebrate success



Notes:

Lesson review

In this lesson you:

- ▶ Explored how to coach the train and the teams
- ▶ Practiced continuously improving program performance with Inspect and Adapt

Notes:

Lesson 11 notes



Click below to type your thoughts.

Lesson 12

Extending to the Portfolio

Learning Objectives:

- 12.1 Launch more ARTs and Value Streams
- 12.2 Extend to the portfolio
- 12.3 Establish Agile portfolio operations
- 12.4 Establish Lean governance



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

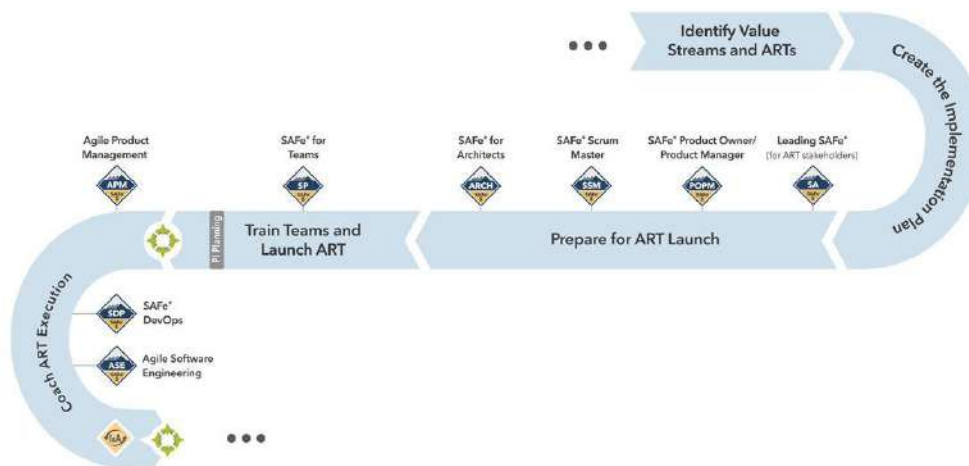
12.1 Launch more ARTs and Value Streams

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Notes:

Extend success one ART at a time



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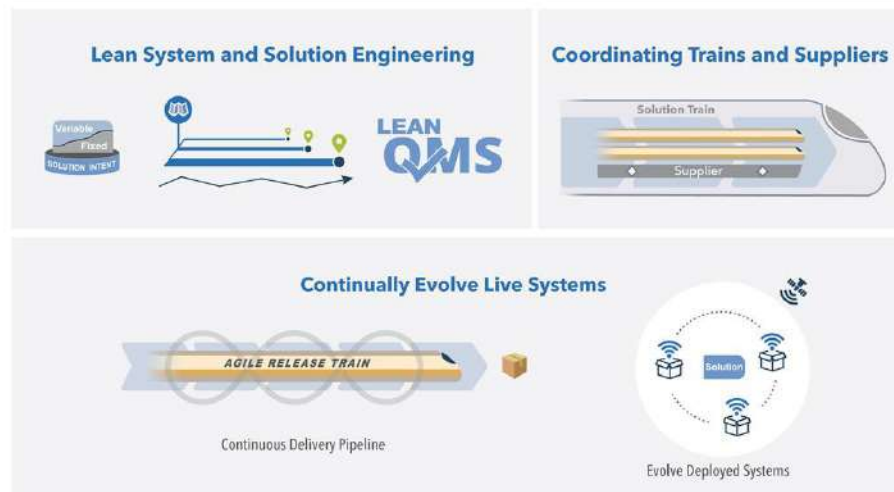
Notes:

Launch more ARTs in the same or new Value Streams

- ▶ Leverage wins to launch more ARTs and scale the implementation
- ▶ Launch all ARTs in a Value Stream
- ▶ Move to the next Value Stream
- ▶ Celebrate short-term wins but don't declare victory too soon!
- ▶ Keep urgency high
- ▶ Don't forget to support existing trains as you scale

Notes:

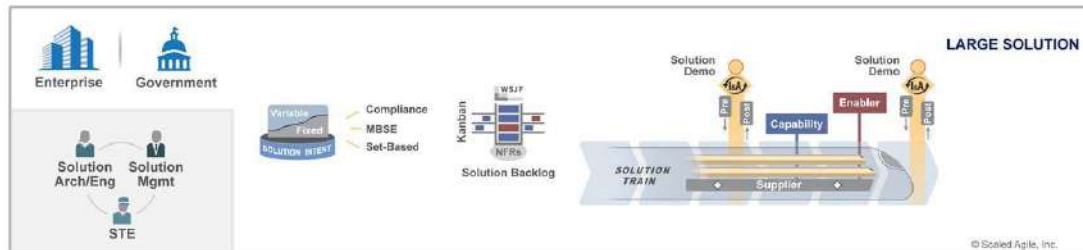
Using Enterprise Solution Delivery to deliver really big Solutions



Notes:

12.1 Launch more ARTs and Value Streams

For large systems, Solution Trains align ARTs to a common mission



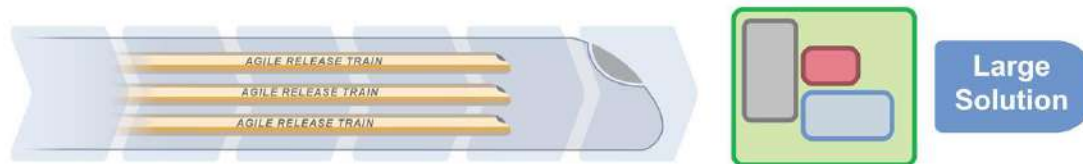
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Notes:

ARTs power the Solution Train

- ▶ Each ART within a Solution Train contributes to the development of a large Solution
- ▶ Solution Management, Solution Architect/Engineering, and the Solution Train Engineer foster the coordination and the delivery of value



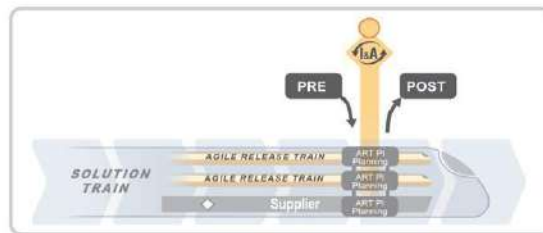
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Notes:

Coordinate planning across ARTs

- ▶ Typically attended by Customers, STE, Solution Mgmt, Solution Architects/Eng, Solution Train stakeholders, and select representatives from ARTs and Suppliers
- ▶ Pre-meeting helps build an aligned plan for the next PI and match Solution demand to ART capacities
- ▶ Post-PI Planning meeting reviews, recaps, communicates, and provides feedback



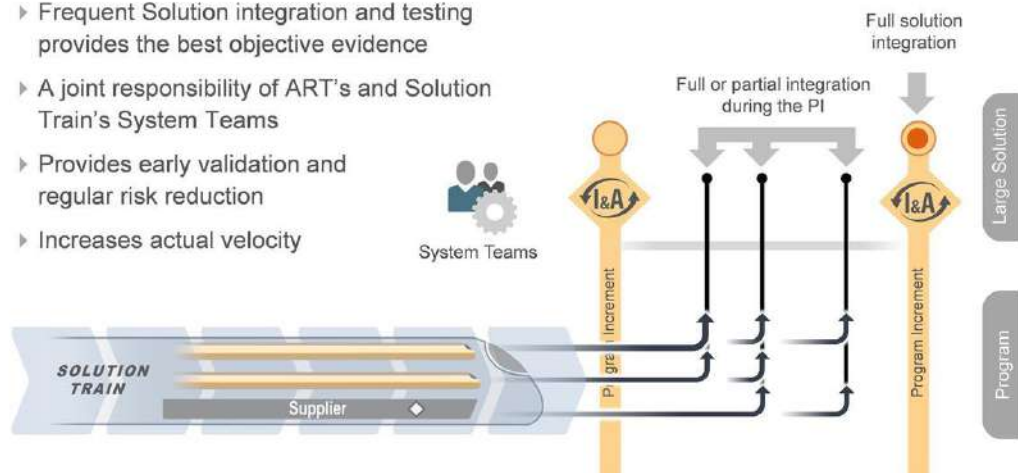
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Notes:

Solution Demo requires 'continuish' integration

- ▶ Frequent Solution integration and testing provides the best objective evidence
- ▶ A joint responsibility of ART's and Solution Train's System Teams
- ▶ Provides early validation and regular risk reduction
- ▶ Increases actual velocity



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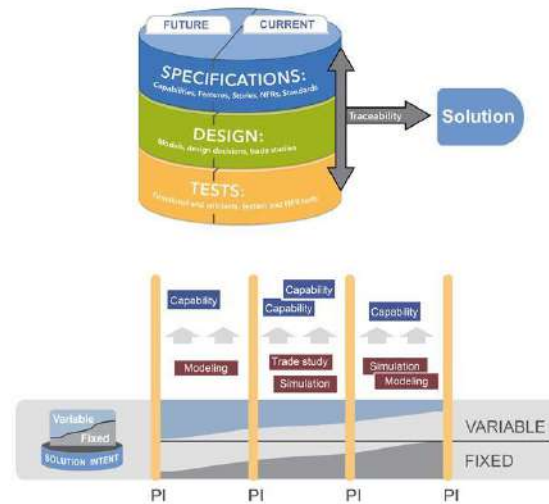
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Notes:

Capture system specification as fixed/variable Solution Intent

Solution Intent: Single source of truth as to the intended and actual behavior of the Solution

- ▶ Records and communicates requirements and design decisions
- ▶ Supports compliance, contractuality, traceability, high assurance
- ▶ Preserves flexibility to evolve toward optimum Solution alternative
- ▶ Fixes minimum requirement and designs

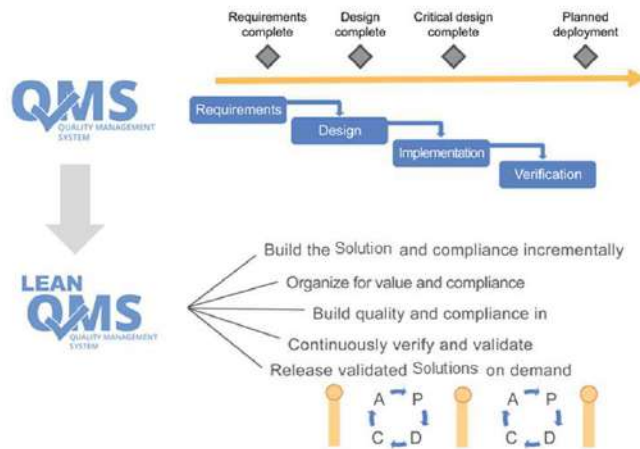


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Notes:

Continuously address compliance concerns

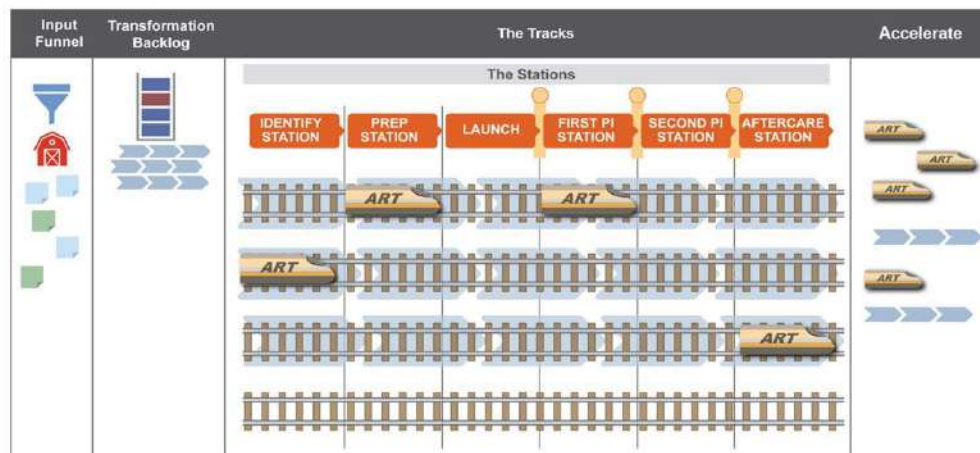


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Notes:

The 'SAFe Implementation Railway' Kanban: Example



Source: Northwestern Mutual Case Study: <https://www.scaledagile.com/case-study/northwestern-mutual/>

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Notes:

Collect data and manage impediments

- ▶ Number of practitioners on each ART
- ▶ Start and end date for each Kanban state
- ▶ Number of people trained
- ▶ Date of first PI Planning
- ▶ Date of second PI Planning
- ▶ PI predictability measure



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Notes:

12.2 Extend to the portfolio

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Notes:

Traditional mindsets handicap agility

Historically, portfolio and program management practices were based on centralized decision-making and waterfall mindsets:

- ▶ Plan out a full year of projects
- ▶ Maximize utilization
- ▶ Widget engineering (spec handoffs)
- ▶ Development as order-taker mentality – “Just build it like we said.”
- ▶ “Get it done!” – over-commitment, excess WIP
- ▶ Control through data and Milestones

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Notes:

Moving to Lean Portfolio Management

SAFe provides transformational patterns to move from traditional mindsets to Lean Portfolio Management.

Traditional Approach	to	Lean-Agile approach
#1 Centralized control	➔	Decentralized decision-making
#2 Project overload	➔	Demand management; continuous value flow
#3 Detailed project plans	➔	Lean, epic-only business cases
#4 Centralized annual planning	➔	Decentralized, rolling-wave planning
#5 Work breakdown structure	➔	Agile estimating and planning
#6 Project-based funding and control	➔	Lean budgeting and self-managing Value Stream
#7 Waterfall milestones	➔	Objective, fact-based measures and milestones

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Notes:

Lean Portfolio Management Toolkit

A toolkit with a modular approach to LPM implementation



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Topics:

- Strategy and Investment Funding
- Agile Portfolio Operations
- Lean Governance
- Build the LPM Function
- Applying CapEx and OpEx

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Notes:

Lean Portfolio Management establishes the portfolio groundwork

- ▶ This course serves as a workshop to start and set the groundwork for Lean Portfolio Management
- ▶ It offers the tools and techniques for:
 - Aligning strategy with execution
 - Merging the insights of executives, Product Management, Business Owners, and Agile Teams into a new, Lean-Agile way of working
 - Establishing Lean Budgets and adjusting the budgets dynamically with participatory budgeting forums
 - Guiding investments by horizon
 - Sequencing and forecasting portfolio initiatives



With **SAFe Lean Portfolio Manager** Certification

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Notes:

12.3 Establish Agile portfolio operations

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Notes:

Agile portfolio operations is a collaboration

- ▶ Supports SAFe implementation, relentless improvement, and Agile practices to achieve business goals
- ▶ Enables continuous flow of value through coordination of Value Streams and ARTs

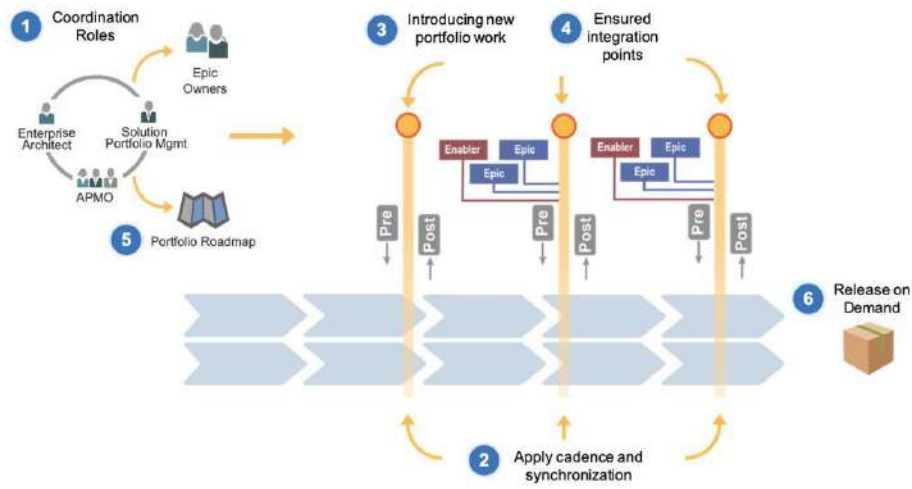


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Notes:

Coordinate across Value Streams when necessary



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Notes:

The APMO supports portfolio operations and program execution

- ▶ Facilitates the portfolio sync
- ▶ Works with the LACE to develop, harvest, and apply successful program execution patterns across the portfolio
- ▶ Facilitates Lean budgeting and coordinates portfolio governance
- ▶ Fosters decentralized PI Planning and operational excellence
- ▶ Fosters more Agile contracts and Leaner Supplier and Customer partnerships



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Notes:

APMO supports the SAFe transformation

- ▶ Sponsors and communicates the change Vision
- ▶ Participates in the SAFe rollout
- ▶ Leads the move to objective Milestones and reporting
- ▶ Leads process excellence and supports RTEs (and STEs) and Scrum Master CoPs



Notes:

Support operational excellence with a portfolio sync



Frequency

Monthly portfolio sync meeting



Facilitation

APMO or other stakeholders



Purpose

Gaining visibility into how well the portfolio is progressing towards its strategic objectives

Notes:

The purpose of the portfolio sync

Gain visibility into how well the portfolio is progressing toward meeting its strategic objectives.

Strategy & Investment Funding	Agile Portfolio Operations	Lean Governance
<ul style="list-style-type: none">▶ Review the results of MVPs and determine whether to pivot, preserve, or stop▶ Review the portfolio Kanban and Lean business cases and approve and prioritize Epics▶ Maintain the Portfolio Vision and canvas	<ul style="list-style-type: none">▶ Remove impediments across Value Streams▶ Review the progress of continuous improvement efforts to support operational excellence	<ul style="list-style-type: none">▶ Review and adjust Value Stream funding▶ Review investments by Guardrails▶ Review LPM and Value Stream Metrics▶ Review compliance concerns

Notes:

12.4 Establish Lean governance

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Notes:

Lean governance is a collaboration

- ▶ Collaborate on forecasting and dynamic budgeting with an Agile approach
- ▶ Establish the minimum Lean portfolio Metrics necessary to assure strategy is being implemented

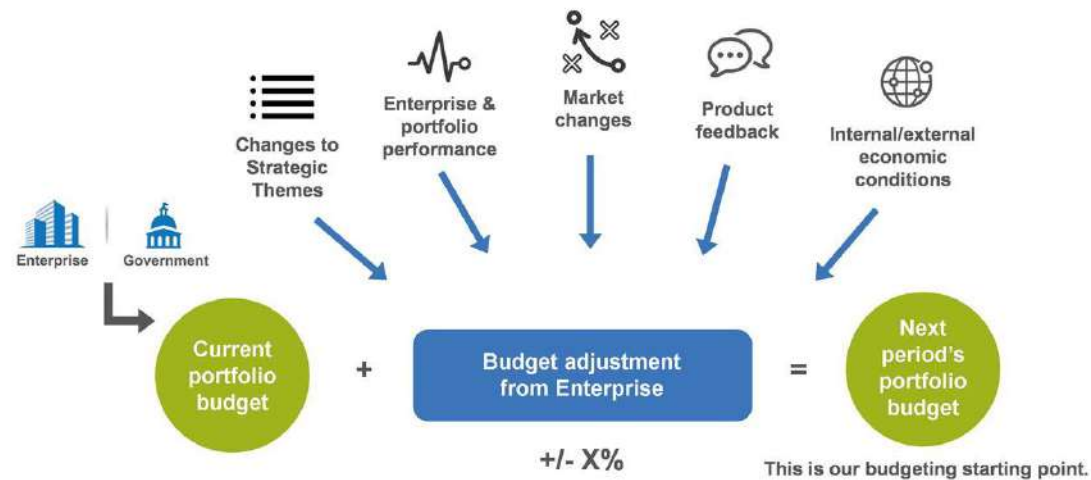


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Notes:

The Enterprise establishes the total portfolio budget



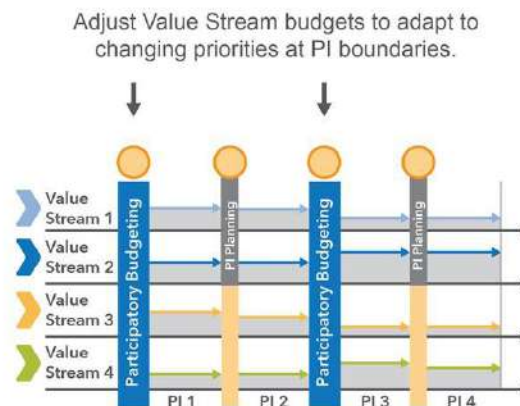
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Notes:

Value Stream budgets must be adjusted over time

- ▶ Typically, Value Stream budgets are adjusted twice annually
- ▶ Adjusted less frequently and spending is fixed for too long which may limit agility
- ▶ Adjusted more frequently and planning may be more challenging



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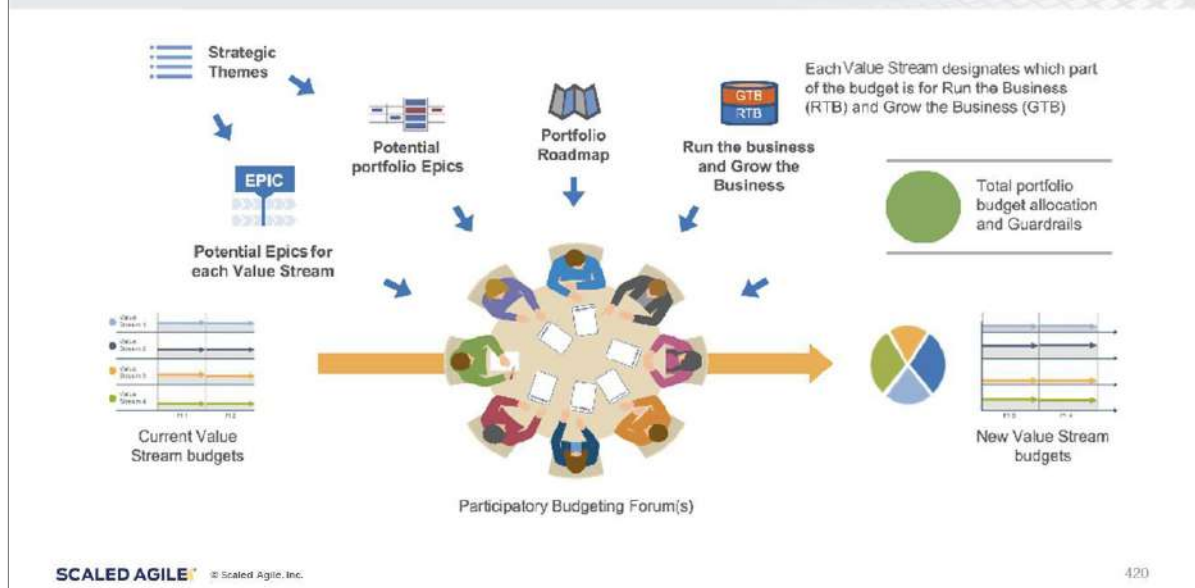
Apply participatory budgeting to adjust budgets

- ▶ Most organizations will generate more good ideas than they can fund, resulting in a portfolio prioritization challenge
- ▶ Fiduciaries and participants from different Value Streams use participatory budgeting to collaboratively determine which Epics should be chosen and prioritized
- ▶ These choices determine how the Value Stream budgets will be adjusted over time



Notes:

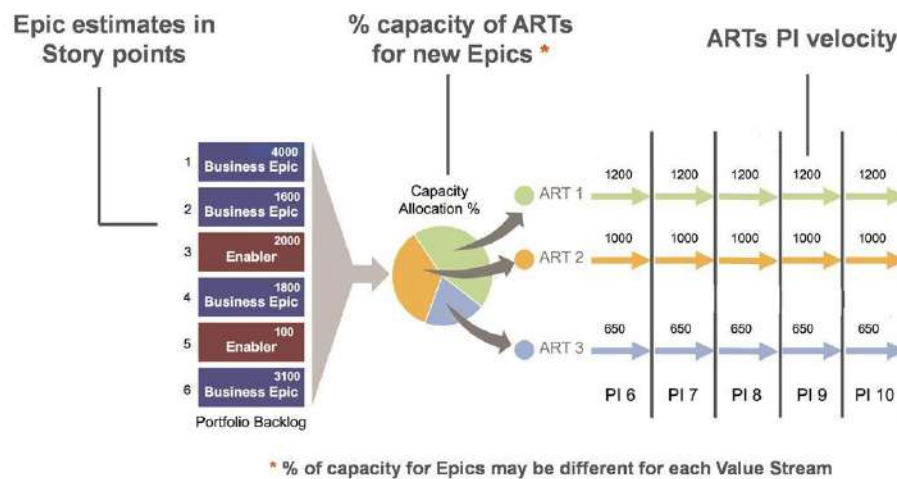
Participatory budgeting overview



Notes:

12.4 Establish Lean governance

Forecasting portfolio Epics



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Notes:

Example of Lean Portfolio Management performance measures

Dimension	Expected result	Metric used
Employee engagement	Improved employee satisfaction; lower turnover	Employ survey; HR statistics
Customer satisfaction	Improved Net Promoter Score	Net Promoter Score survey
Productivity	Reduced average Feature cycle time	Feature cycle time
Self-assessments	Continuous improvement in team and program measures	Self-assessments for each level of the Framework
Time-to-market	More frequent releases	Number of releases
Quality	Reduced defect counts and support call volume	Defect data and support call volume
Partner health	Improved ecosystem relationships	Partner and vendor surveys
Strategic Themes	Measurements against key results	Objectives and key results (OKRs)

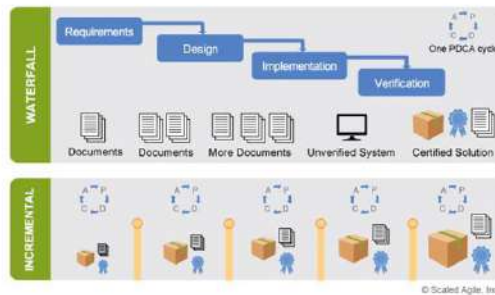
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Notes:

Coordinate continuous compliance

A Lean-Agile quality management system (QMS) improves quality and makes compliance more predictable.



Defer compliance to the end of Solution development.



Validate ongoing compliance with relevant standards and regulations.

Notes:

Lesson review

In this lesson you:

- ▶ Explored how to launch more ARTs and Value Streams
- ▶ Discussed how to move to a Lean Portfolio Management
- ▶ Explored how to establish Agile portfolio operations
- ▶ Explored how to coordinate across Value Streams

Notes:

Lesson 12 notes



Click below to type your thoughts.

Lesson 13

Accelerating Business Agility

Learning Objectives:

- 13.1 Start establishing Organizational Agility
- 13.2 Start to build a Continuous Learning Culture
- 13.3 Accelerate Business Agility



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.

13.1 Start establishing Organizational Agility

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Notes:

Organizational Agility

The Organizational Agility competency describes how Lean-thinking people and Agile Teams optimize their business process, evolve strategy with clear and decisive new commitments, and quickly adapt the organization as needed to capitalize on new opportunities.

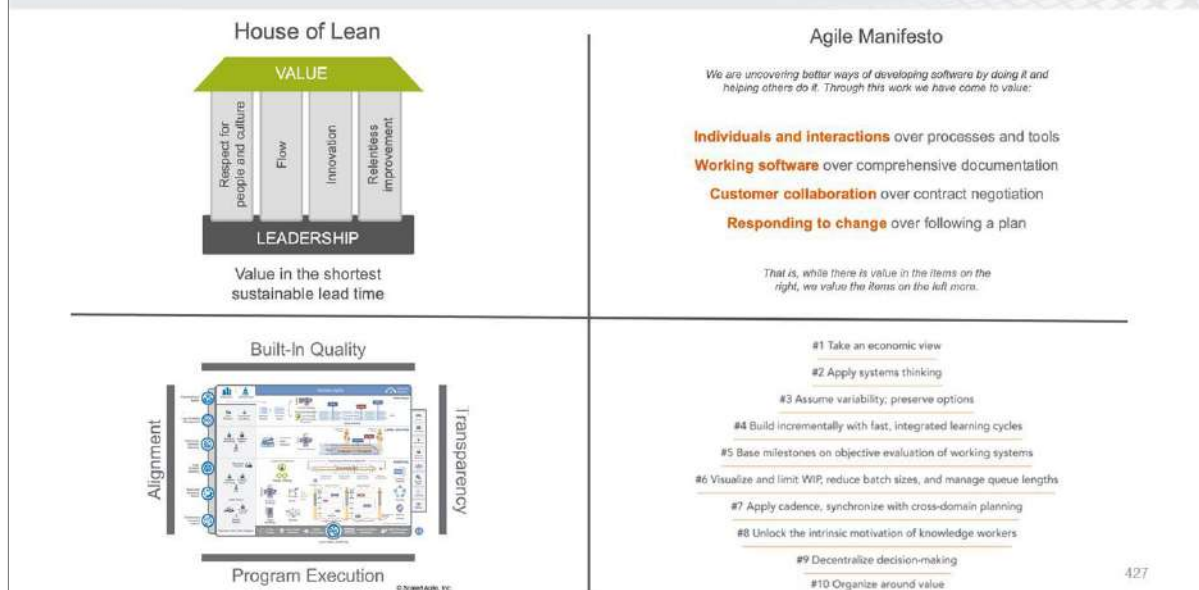


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Notes:

Grow Lean-Thinking People and Agile Teams



Notes:

Advanced skills improve Team Agility

- ▶ Overcoming Agile and Scrum anti-patterns
- ▶ Built-in quality, Agile architecture, DevOps and Continuous Delivery Pipeline practices
- ▶ Kanban for facilitating team and program flow of work
- ▶ Building high-performing teams
- ▶ Learning and communities of practice



With **SAFE Advanced Scrum Master** Certification

Notes:

Advanced RTE skills

- ▶ Executing PI Planning
- ▶ Managing ART flow and releasing value
- ▶ Enabling Innovation and Planning
- ▶ Understanding Value Stream execution
- ▶ Preparing for and executing Inspect and Adapt
- ▶ Applying systems thinking and Value Stream mapping
- ▶ Self-assessing the ART and teams on the train
- ▶ Using servant leadership and coaching models
- ▶ Applying conflict resolution techniques and group facilitation skills

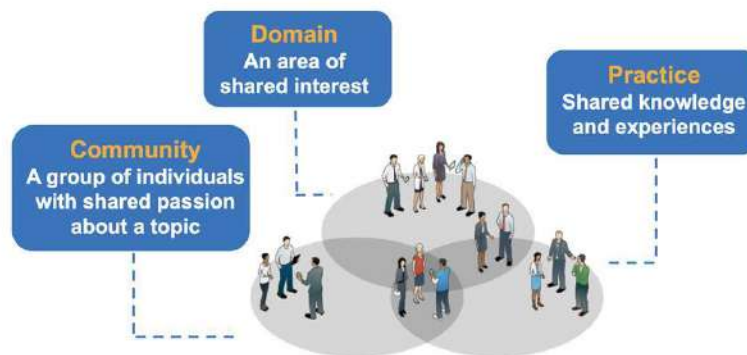


Notes:

Establish Communities of Practice (CoP)

Communities of practice are groups of people who share a common concern or a passion for something they do and learn how to do it better as they interact regularly

— Étienne Wenger, *Communities of Practice: Learning, Meaning, and Identity*



Notes:

Implement Agile HR practices

- 1 Embrace a new talent contract, explicitly acknowledge the need for value, autonomy, and empowerment
- 2 Foster *continuous* engagement, to both the business and technical mission
- 3 Hire people for Agile attitude, team orientation, and cultural fit
- 4 Eliminate annual performance reviews. Replace with continuous, iterative performance feedback
- 5 'Take the issue of money off the table.' Eliminate destructive individual financial incentives.
- 6 Support meaningful, impactful, and continuous learning and growth



Agile HR with SAgile Whitepaper <http://www.scaledagileframework.com/agile-hr-with-safe>

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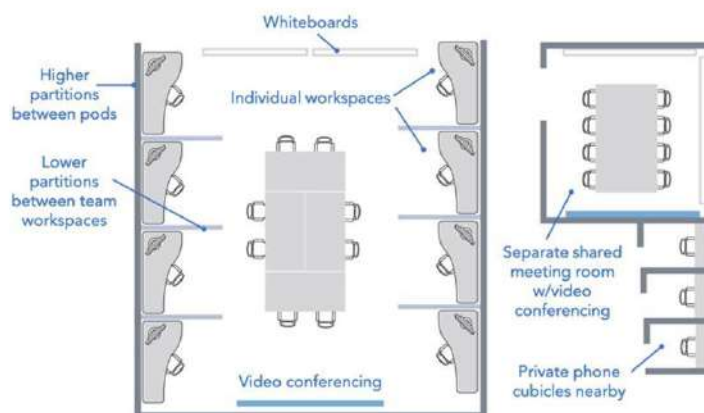
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Notes:

Create Agile workspaces

Physical spaces should encourage collaboration, communication, and innovation

- ▶ Team spaces
- ▶ Remote workforce
- ▶ Cross-team collaboration
- ▶ Innovation space

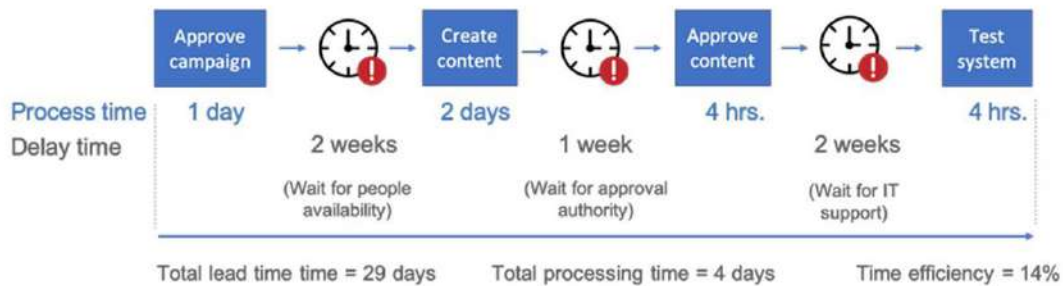


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Notes:

Map operational Value Streams



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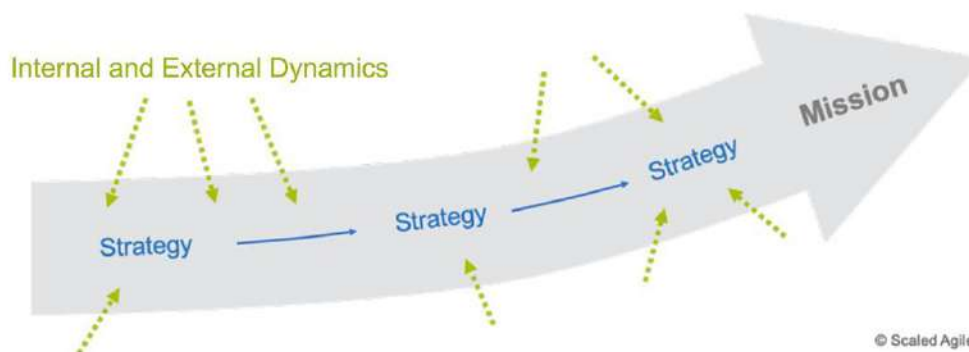
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Notes:

What is strategy Agility?

Strategy Agility is the ability to change and implement new strategies quickly and decisively when necessary, and to persevere on the strategies that are working—or will work—if given sufficient focus and time.



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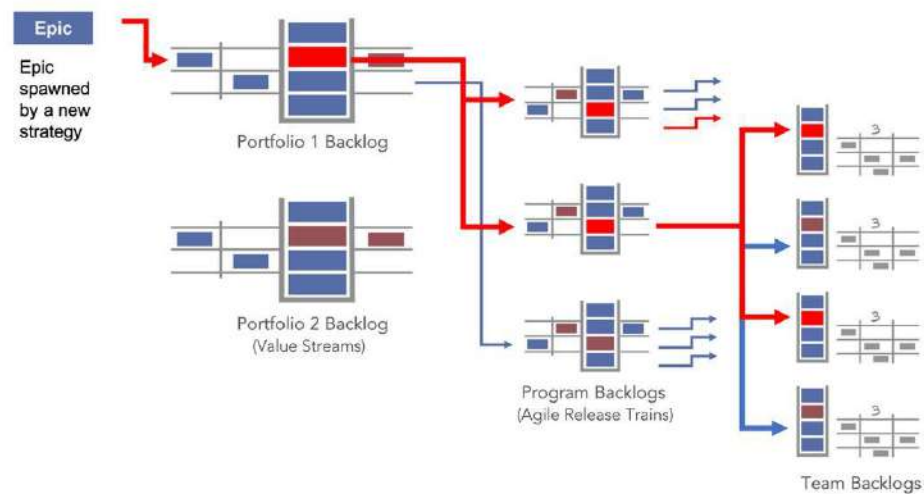
Notes:

Market sensing

- ▶ Conducting research using open and confidential sources
- ▶ Analysis of quantitative and qualitative data
- ▶ Direct and indirect user/operator feedback
- ▶ Direct observation of solutions/processes in real use

Notes:

Flow strategy changes to execution



Notes:

Ignore sunk costs

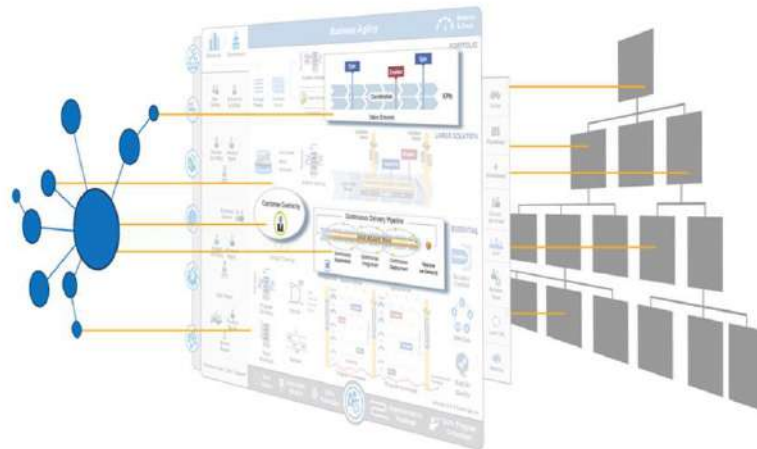
Sunk costs cannot be recovered or changed and are independent of any future costs a program may sustain.

- ▶ Because strategic decision-making affects only the future course of the mission, sunk costs are absolutely irrelevant.
- ▶ Instead, decision-makers should base all strategies solely on future costs. This way, strategy Agility provides the opportunity for the greatest economic benefit, without the need to defend past spending.



Notes:

Change the network to meet changing mission demands



Notes:



Discussion: Reorganizing around value

Prepare
3 min

Share
2 min

► **Step 1:** Discuss as a team:

- How would the current policies and practices at your Enterprise need to change in order to enable rapid re-organization around value as the strategy changes?
- Who can help remove the barriers to this level of Organizational Agility?

► **Step 2:** Be prepared to share with the class.

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Notes:

13.2 Start to build a Continuous Learning Culture

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Notes:

Continuous Learning Culture

The Continuous Learning Culture competency describes a set of values and practices that encourage individuals – and the Enterprise as a whole – to continually increase knowledge, competence, performance, and innovation.



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Notes:

Learning organization

Employees at every level are learning and growing together

- ▶ **Personal Mastery** – Build individual “T-shaped” breadth of knowledge in multiple disciplines for deep and broad expertise
- ▶ **Shared Vision** – Leaders envision and articulate exciting possibilities and invite others to contribute to a common view of the future
- ▶ **Team Learning** – Teams achieve common objectives by sharing knowledge, suspending assumptions, and ‘thinking together’
- ▶ **Mental Models** – Teams surface their existing assumptions and generalizations while working with an open mind to create new models
- ▶ **Systems Thinking** – Everyone sees the larger picture and recognizes that optimizing individual components does not optimize the system



Notes:

Relentless Improvement

The entire Enterprise as a system is continuously being challenged to improve

- ▶ **A ‘constant sense of danger’** drives improvement activities that are essential to the survival of an organization
- ▶ **Optimize the whole** - improvements are designed to increase the effectiveness of the entire system, as opposed to optimizing individual teams, silos, or subsystems
- ▶ **A problem-solving culture** is the driver for continuous improvement
- ▶ **Reflect at key Milestones** – improvement activities are treated with as much urgency as new Feature development, fixing defects, and responding to the latest outage
- ▶ **Fact-based improvement** leads to changes guided by the data about the problem rather than conjecture or opinions



Notes:

Innovation Culture

Leaders create an environment that supports creative thinking, curiosity, and challenging the status quo

- ▶ **Innovative People** - Instilling innovation requires a commitment to cultivating courage and aptitude for innovation and risk-taking
- ▶ **Time and Space for Innovation** includes providing work areas conducive to creative activities, as well as setting aside dedicated time to explore and experiment
- ▶ **Go See** - Innovation ideas are sparked by seeing the problems first-hand—witnessing how customers interact with solutions and understanding their problems
- ▶ **Experimentation and Feedback** - Conducting experiments iteratively is the most effective path to learning
- ▶ **Pivot Without Mercy or Guilt** - When fact patterns dictate that a hypothesis will be proven false, pivot quickly to a new one
- ▶ **Innovation Riptides** – Innovation flows continuously up, down and across the enterprise



Notes:

13.3 Accelerate Business Agility

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Notes:

Measure the performance of the portfolio

Use the Business Agility Self-Assessment and competency assessments to identify growth opportunities

The screenshot displays the Scaled Agile Business Agility Self-Assessment tool. It features four main assessment sections, each with a table of dimensions and statements to be evaluated on a scale from True to False.

- Self-assess your organization on Agile Product Delivery (APD)**

Dimension	Statement	True	More True than False	Neither True nor False	More False than True	False
Customer-Centricity and Design Thinking	Product Management defines and supports building value and solutions to your business customer needs.					
- Self-assess your organization on Lean Portfolio Management (LPM)**

Dimension	Statement	True	More True than False	Neither True nor False	More False than True	False
Strategy and Investment Funding	Enterprise strategy is understood, and communicated. Strategic goals are defined and visible in the Portfolio Kanban system.					
Agile Portfolio Operations						
Lean Governance						
- Self-assess your organization on Team and Technical Agility (TTA)**

Dimension	Statement	True	More True than False	Neither True nor False	More False than True	False
Agile Teams	Agile teams are trained to Self-Organize. Agile teams perform all iteration events.					
Technical Quality						
- Self-assess your organization on Enterprise Solution Delivery (ESD)**

Dimension	Statement	True	More True than False	Neither True nor False	More False than True	False
Solution and Systems Engineering	Specifications, architecture, and roadmap evolve continuously. The entire solution is frequently integrated and tested. Design options are explored at appropriate times in the system lifecycle. Compliance activities are incremental and continuous.					
Orchestrating Teams and Resources	Solution teams coordinate APIs with a common interface, breaking, making, and re-making. Suppliers participate in Solution Team decisions and events.					
Continuous Release Life Systems	The Continuous Delivery Pipeline automates from definition through operation. Live systems are updatable on demand.					

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Notes:

Progress towards mastery (Part I)

Team and Technical Agility

- ▶ Double down on the principles that drive Agile Teams and Agile Release Trains
- ▶ Train all teams in built-in practices, with Agile Teams getting trained in Agile Software Engineering
- ▶ Ensure all teams apply and improve built-in quality practices

Agile Product Delivery

- ▶ Focus on Customer Centricity and Design Thinking to help drive better Solutions.
- ▶ Train Product Management in Agile Product and Solutions Management to better understand the practices and apply the tools
- ▶ Map the delivery pipeline to identify the delays to flow, guide investments in automation, and achieve the goal of release on demand.

Notes:

Progress towards mastery (Part II)

Enterprise Solution Delivery

- ▶ Ensure specification and Roadmaps build and validate the Solution and its Continuous Delivery Pipeline together
- ▶ Include continuous delivery concerns and the cost of delayed value in system architecture decisions
- ▶ Measure and improve 'continuish' integration practices across the entire supply chain

Lean Portfolio Management

- ▶ Apply participatory budgeting
- ▶ Eliminate projects and timesheets
- ▶ Master Lean Startup practices
- ▶ Make an explicit Enterprise Architecture Roadmap

Notes:

Progress towards mastery (Part III)

Lean-Agile Leadership

- ▶ Evolve the focus from developing individual Lean-Agile leaders to building high-performing leadership teams
- ▶ Form communities of practice specifically for leaders interested in connecting with peers who are also developing as Lean-Agile leaders

Organizational Agility

- ▶ Reinforce the principles with book club readings
- ▶ Share best practices and learnings from optimizing Value Streams
- ▶ Incorporate Gemba in everyone's work activities
- ▶ Share strategy Agility success stories

Notes:

Progress towards mastery (Part IV)

Continuous Learning Culture

- ▶ Develop and visualize both quantitative and qualitative Metrics to assess the tangible results of relentless improvement
- ▶ Expand Gemba visits to Customers, partner organizations, and Enterprises in unrelated markets to gain new insights that can spark fresh innovation initiatives
- ▶ Invest in advanced digital systems for knowledge sharing, collaboration, and rapid access to accurate information

Notes:

Anchor new behaviors in the culture

- ▶ When the pressure to revert to old habits escalates, everyone looks to leaders to see how they respond.
- ▶ Leaders must demonstrate that true change has occurred and going backward is not an option, no matter the circumstances.



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Notes:


Apply learnings across the Enterprise

- ▶ Success in one portfolio does not ensure success in other portfolios
- ▶ Leverage the learnings and successes of the pioneering organization to transform the remaining portfolios
- ▶ Provide change agents from the initial portfolio with the opportunity to transplant into subsequent portfolios, bringing with them all of the experience and insights of implementing SAFe
- ▶ Cultivate the next generation of leaders in every role so they are prepared to step in when change agents move on to launch the transformation in other portfolios, to avoid crippling the previous portfolios

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Notes:



Taking Action: Implementing SAFe

Duration
5 min

- ▶ **Step 1:** Find the weaknesses in the self-assessment you filled in earlier
- ▶ **Step 2:** Identify three action items you can do to implement SAFe
- ▶ **Step 3:** Brainstorm some of the expected outcomes for each of the action items
- ▶ **Step 4:** Update your Action Plan including the expected outcomes



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Notes:

Lesson review

In this lesson you:

- ▶ Discussed how to start establishing Organizational Agility
- ▶ Explored how to start building a Continuous Learning Culture
- ▶ Explored how to accelerate Business Agility

Notes:

Lesson 13 notes



Click below to type your thoughts.

Lesson 14


Becoming a Certified SAFe Program Consultant

Learning Objectives:

14.1 Becoming a Certified SAFe Program Consultant



SAFe Course Attending this course gives students access to the SAFe Program Consultant exam and related preparation materials.




Video: Welcome to the SAFe Community Platform

Duration
5 min

Want to learn more about the next steps on your SAFe Journey?

Access the SAFe Community Platform and discover all the SAFe resources available for your use!




<https://vimeo.com/201877314>

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Notes:





Video link: <https://vimeo.com/201877314>

14.1 Becoming a Certified SAFe Program Consultant




Video: Getting Started as an SPC





<https://www.scaledagile.com/becoming-an-spc/>

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Notes:



Video link: https://youtu.be/OqmdLcyES_Q

Lesson 14 notes



Click below to type your thoughts.

Appendix 1

Action Plan

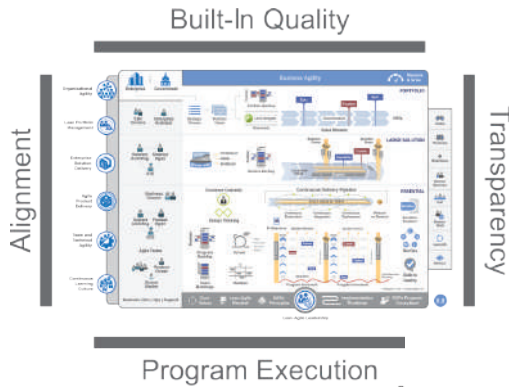
Action Plan



SAFe Program Consultant Action Plan

Exemplifying SAFe's Core Values

[Click to return to the workbook](#)



How can you exemplify one of the SAFe core values in your organization?

Improving the Lean-Agile Mindset

[Click to return to the workbook](#)



How can you improve the Lean-Agile mindset in your organization?



SAFe Program Consultant Action Plan

Advocating SAFe Principles

[Click to return to the workbook](#)

#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

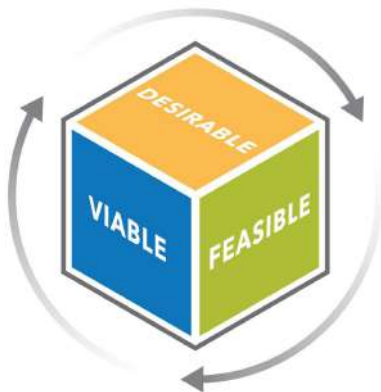
#9 Decentralize decision-making

#10 Organize around value

Identify three actions you can take to model and advocate SAFe principles in your enterprise.

Improving Agile Product Delivery

[Click to return to the workbook](#)



Identify three minimum viable improvements you could execute to improve Agile Product Delivery.

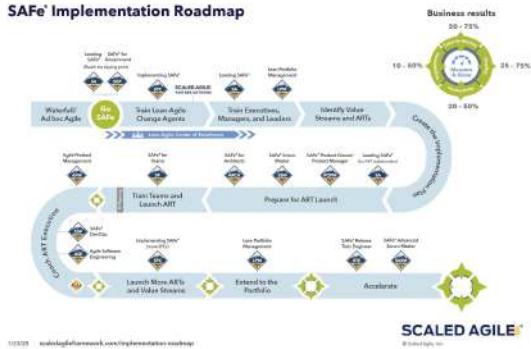


SAFe Program Consultant Action Plan

Leading the Change

[Click to return to the workbook](#)

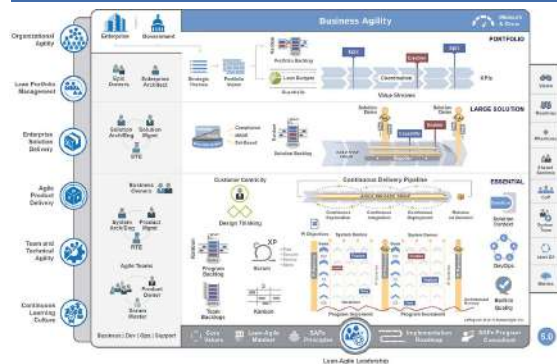
SAFe® Implementation Roadmap



Identify three actions items you can do in the next month to start leading the SAFe transformation.

Implementing SAFe

[Click to return to the workbook](#)



List the expected outcomes from the three action items you brainstormed to implement SAFe.

Appendix 2




Business Agility Self-Assessment



Self-assess your organization on Team and Technical Agility (TTA)



2 min




Dimension	Statement	True	More True than False	Neither False nor True	More False than True	False
Agile Teams 	Agile teams are trained in SAFe					
	Agile teams perform all iteration events					
	Product Owners and Scrum Masters perform their roles					
	Teams are high performing and exhibit <i>teamness</i> by working well together					
	Teams regularly apply quality practices including pairing, collective ownership, automation, and definition of done					
Built-in Quality 	Teams use a test-first and built-in-quality approach to their work					
	Agile Release Trains are organized around value					
Team of Agile Teams 	Agile Release Trains include everyone required to deliver value: business, development, operations, support, and more					



Self-assess your organization on Agile Product Delivery (APD)



2 min




Dimension	Statement	True	More True than False	Neither False nor True	More False than True	False
Customer Centricity and Design Thinking 	Product Management defines and supports building viable and sustainable products that meet customer needs					
	The ART constantly collaborates and validates with customers					
	Design thinking tools (Personas, Journey Maps, Story Maps, Prototyping) are used to continuously explore customer needs					
Develop and Cadence; Release on Demand 	Systems demos are held at every iteration to demo integrated solutions					
	PI Planning includes all people on the train and is held on a cadence					
	The IP iteration provides time for planning and innovation					
	Inspect and Adapt events drive relentless improvement					
	Solutions are released to customers whenever there is demand					
DevOps and Continuous Delivery Pipeline 	The ART displays a culture of shared responsibility across the entire value stream					
	The entire Continuous Delivery Pipeline flow is measured and improved					
	Automation is used to drive flow through the Continuous Delivery Pipeline flow					



Self-assess your organization on Enterprise Solution Delivery (ESD)



2 min

Dimension	Statement	True	More True than False	Neither False nor True	More False than True	False
<div>Solution and Systems Engineering</div> <div></div>	Specifications, architecture, and roadmaps evolve continuously					
	The entire solution is frequently integrated end-to-end					
	Design options are explored at appropriate times in the system lifecycle					
	Compliance activities are incremental and continuous					
<div>Coordinating Trains and Suppliers</div> <div></div>	Solution trains coordinate ARTs with a common cadence, backlog, vision, and roadmap					
	Suppliers participate in Solution Train cadence and events					
<div>Continuously Evolve Live Systems</div> <div></div>	The Continuous Delivery Pipeline extends from definition through operation					
	Live systems are updatable on demand					



Self-assess your organization on Lean Portfolio Management (LPM)






Dimension	Statement	True	More True than False	Neither False nor True	More False than True	False
Strategy and Investment Funding 	Enterprises Strategy is understood, and communicated					
	Portfolio Epics are defined and visible in the Portfolio Kanban system					
	Rolling wave Portfolio vision is in effect					
	Value stream funding replaces project-based funding					
Agile Portfolio Operations 	LPM stakeholders are trained in SAFe responsibilities					
	LPM guides Lean-Agile operational excellence					
	Value streams are effectively coordinated					
Lean Governance 	Lean Budgets guardrails are established and dynamically updated					
	Participatory budgeting determines budget allocation					
	Lean outcome metrics are used to measure progress and success					



Self-assess your organization on Organizational Agility (OA)



2 min



Dimension	Statement	True	More True than False	Neither False nor True	More False than True	False
Strategy Agility 	The portfolio can change strategy quickly when new opportunities arise					
	Large investments start with building a Minimal Viable Product to test the hypothesis					
	Teams and Teams of Agile Teams organize and reorganize to align with strategy					
	Teams visualize their work, monitor flow, and limit work in process					
Lean Business Operations 	Business teams operate with their own specific agile practices					
	Value streams are mapped and continuously optimized					
Lean-Thinking People and Agile Teams 	Hiring is based on Agile aptitude, team input, and cultural fit					
	Employees and contractors are trained in Lean and Agile principles and practices					
	Agile HR practices provide effective compensation, continuous feedback, and personal growth					



Self-assess your organization on Continuous Learning Culture (CLC)



2 min

Dimension	Statement	True	More True than False	Neither False nor True	More False than True	False
Relentless Improvement 	Improvement activities are fact-based, programmatic, and actionable					
	Improvements increase the effectiveness of the entire system instead of individuals, teams, departments, or silos					
	Relentless improvement is urgent, part of the culture, and is everyone's responsibility					
	The organization routinely invests in formal and informal learning opportunities, mentoring, and skill development					
Learning Organization 	Learning is shared and integrated into everyday practices					
	The organization invests in individual growth via depth and breadth of knowledge in multiple disciplines					
	People are trained, coached, and mentored in the behaviors and skills of innovation and intrapreneurship					
Innovation Culture 	The organization provides dedicated time and space for people to explore and experiment					
	People are encouraged to work directly with customers to understand the problems to be solved					



Self-assess your organization on Lean-Agile Leadership (LAL)



2 min

Dimension	Statement	True	More True than False	Neither False nor True	More False than True	False
Mindset and Principles 	Leaders are aware of their own deeply held beliefs, attitudes, and assumptions related to Lean-Agile/SAFe					
	Leaders continuously evolve their mindsets to fully embrace Lean-Agile/SAFe					
	Leaders routinely use SAFe principles and practices to carry out their responsibilities					
Leading the Change 	Leaders communicate why change is needed in ways that inspire, motivate, and engage people in the change					
	Leaders create an environment for risk-taking without fear of negative consequences to self-image, status, or career					
	Leaders <i>lead</i> the transformation to Lean-Agile/SAFe through personal advocacy and engagement					
Leading by Example 	Leaders model and foster honesty, integrity, transparency, authenticity, and emotional intelligence					
	Leaders engage in their own ongoing, voluntary, and self-motivated pursuit of knowledge and growth					
	Leaders move decision authority to where the information is					

Glossary

**SAFe Glossary:**

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