Government Enterprise Agility

Scaling to the Portfolio with SAFe

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Redefining Ingenuity
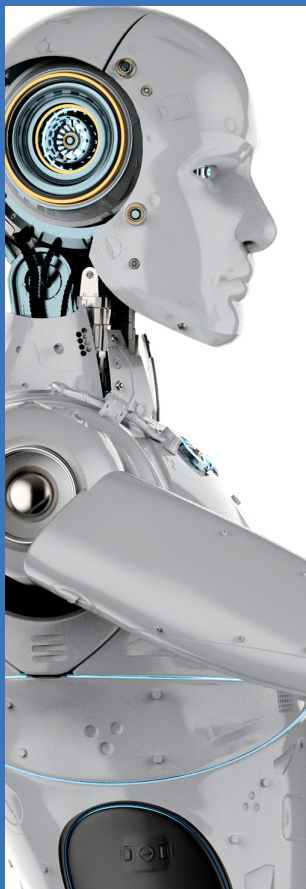
SCALED AGILE®

Digital disruption is affecting every industry across the globe.

It's not just tech companies.

From shipbuilders and farmers to banks,
airlines, and government agencies,
**virtually every major organization is on
some sort of digital transformation journey.**

In 2018, enterprises are expected to invest **$1.3 trillion** in digital transformation initiatives.

Many will not reach their stated goals.

IDC Worldwide Semiannual Digital Transformation Spending Guide

https://www.idc.com/getdoc.jsp?containerId=prUS43381817

IDC
Analyze the Future

How do you ensure that your organization will be one of those who succeed with digital transformation?

Introducing the
Lean Enterprise

The Lean Enterprise is a thriving digital age business that delivers competitive systems and solutions to its customers in the shortest sustainable lead time.
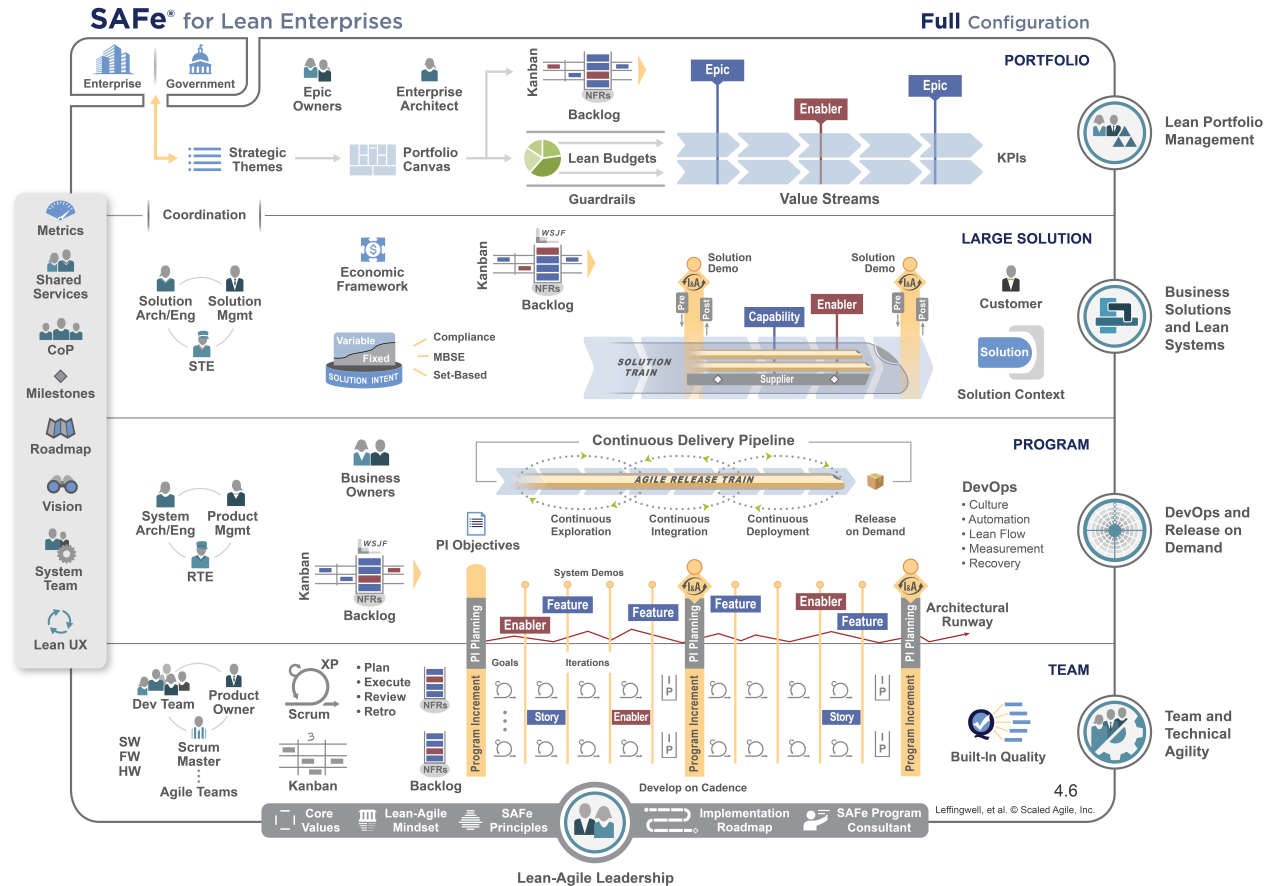
The world's leading framework for enterprise agility

SAFe® for Lean Enterprises is a knowledge base of proven, integrated principles, practices, and competencies for Lean, Agile, and DevOps

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SAFe® 4.6 for Lean Enterprises

SAFe® for Lean Enterprises — Full Configuration

Within enterprise and government

scaledagileframework.com/**case-studies**

SAFe® 4.6 introduces the
Five Core Competencies of the Lean Enterprise

Lean-Agile Leadership

Team and Technical Agility

DevOps and Release on Demand

Business Solutions and Lean Systems Engineering

Lean Portfolio Management

"We just don't have the knowledge and leadership skills to transform."

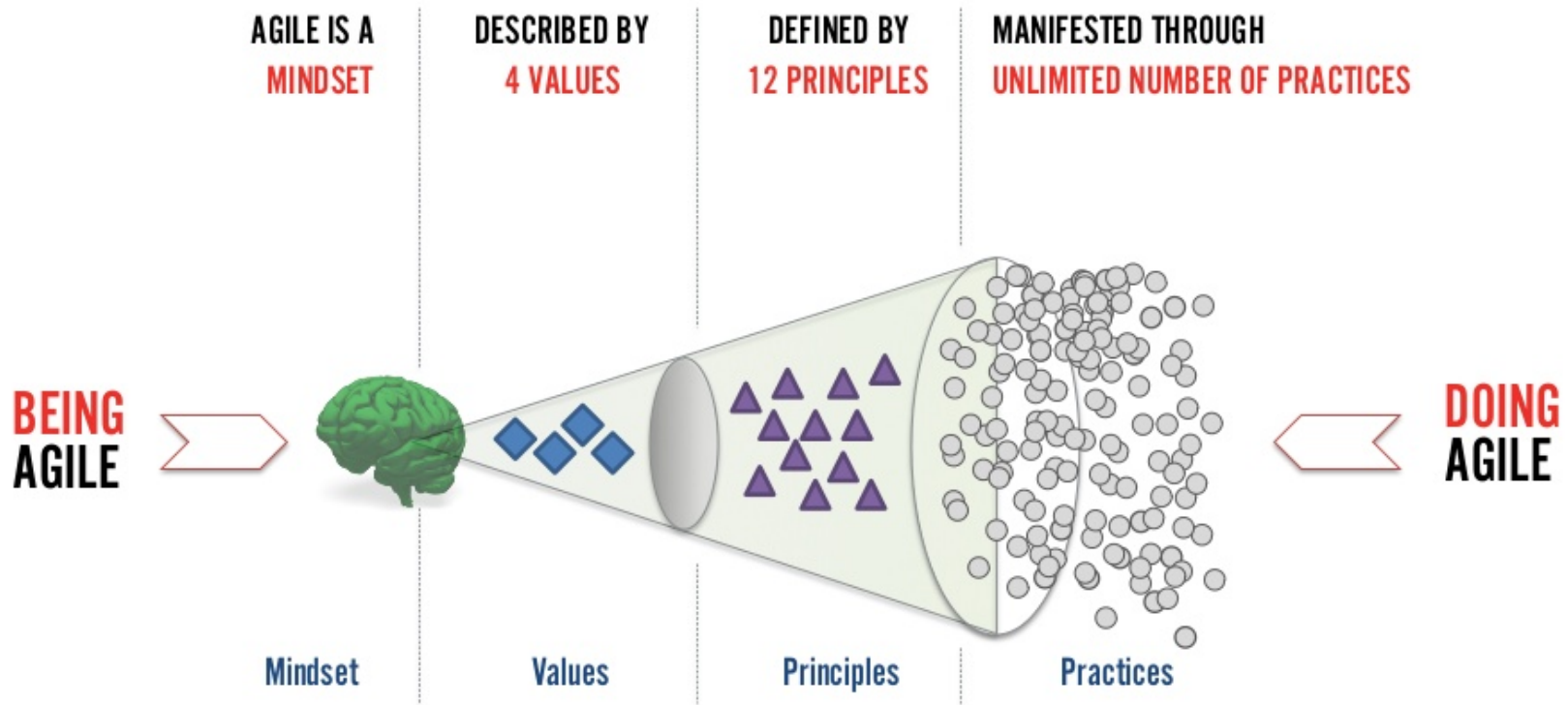## Lean-Agile Leadership

Core Competency

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.

They do this by learning, exhibiting, teaching, and coaching SAFe's Lean-Agile mindset, values, principles, and practices.

What is Agile?

AGILE IS A **MINDSET**

DESCRIBED BY **4 VALUES**

DEFINED BY **12 PRINCIPLES**

MANIFESTED THROUGH **UNLIMITED NUMBER OF PRACTICES**

BEING AGILE

DOING AGILE

Mindset

Values

Principles

Practices

Source: Ahmed Sidkey, Agile 2014

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Lean-Agile Leadership provides the basis for success

▶ Exemplify the Core Values

▶ Embrace a Lean-Agile Mindset

▶ Apply the SAFe Principles

▶ Lead the transformation

Lean-thinking manager-teachers

Core Values | Lean-Agile Mindset | SAFe Principles | Implementation Roadmap | SAFe Program Consultant
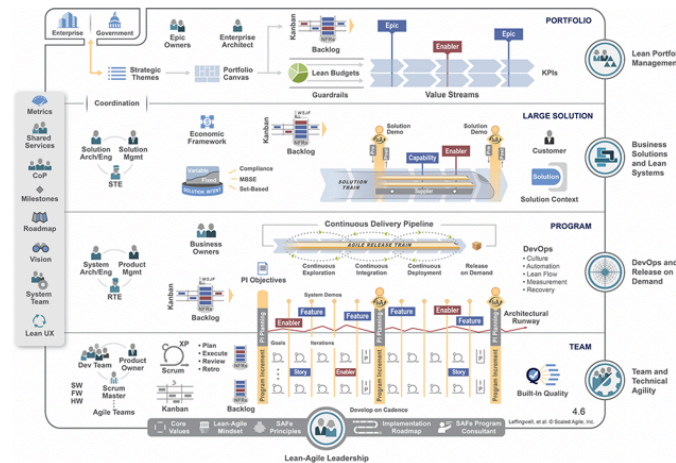
Lead the transformation

Lean-Agile Leadership

@Scaled Agile, Inc.

Exemplify SAFe Core Values

Built-in Quality

Alignment

Transparency

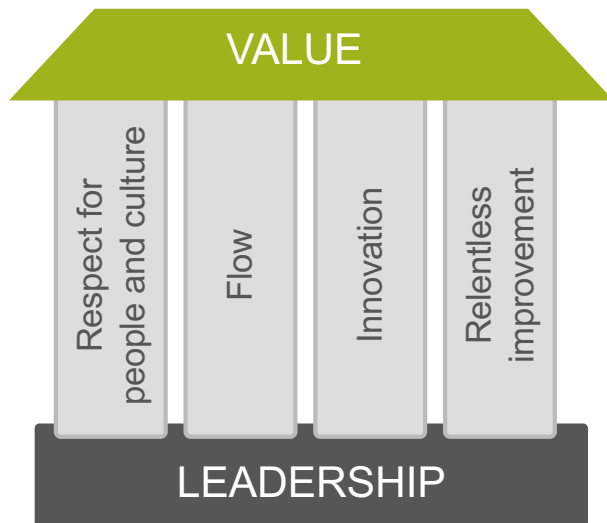Program Execution

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Embrace the Lean-Agile Mindset

House of Lean

VALUE

Respect for people and culture | Flow | Innovation | Relentless improvement

LEADERSHIP

Value in the shortest
sustainable lead time

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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.

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Apply SAFe 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
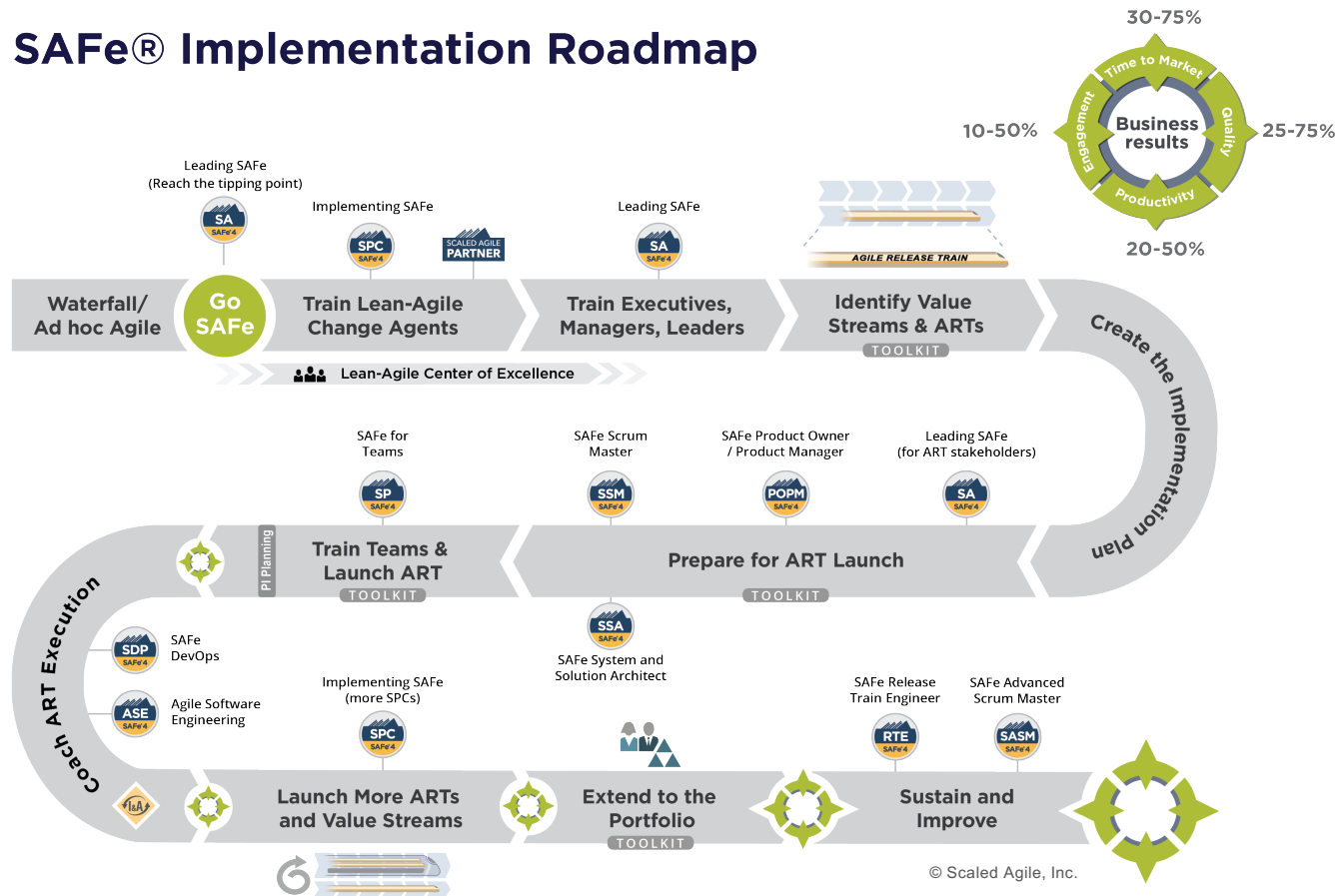
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Use the Digital Service Plays

Today, too many of our digital services projects do not work well, are delivered late, or are over budget. To increase the success rate of these projects, the U.S. Government needs a new approach.

- Understand what people need
- Address the whole experience, from start to finish
- Make it simple and intuitive
- Build the service using agile and iterative practices
- Structure budgets and contracts to support delivery
- Assign one leader and hold that person accountable

- Bring in experienced teams
- Choose a modern technology stack
- Deploy in a flexible hosting environment
- Automate testing and deployments
- Manage security and privacy through reusable processes
- Use data to drive decisions
- Default to open

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Lead the transformation

SAFe® Implementation Roadmap

"Our Agile teams are not disciplined or predictable, plus we have lots of technical debt"

Team and Technical Agility

Core Competency

The Team and Technical Agility competency describes the critical skills and Lean-Agile principles and practices that are needed to create high-performing Agile teams who create high-quality, well designed technical solutions.
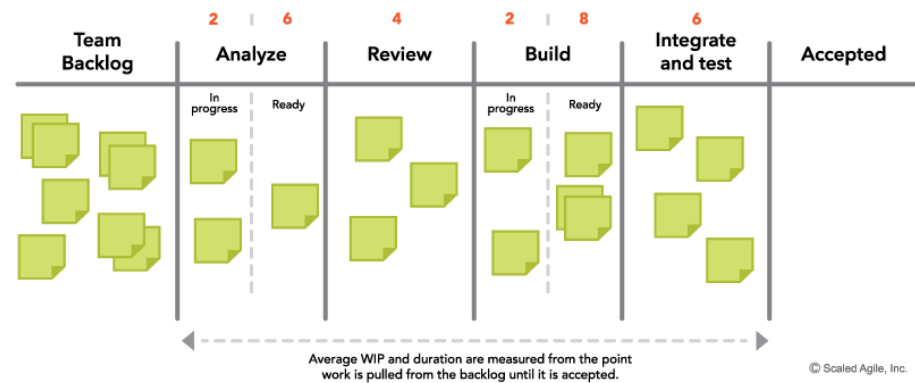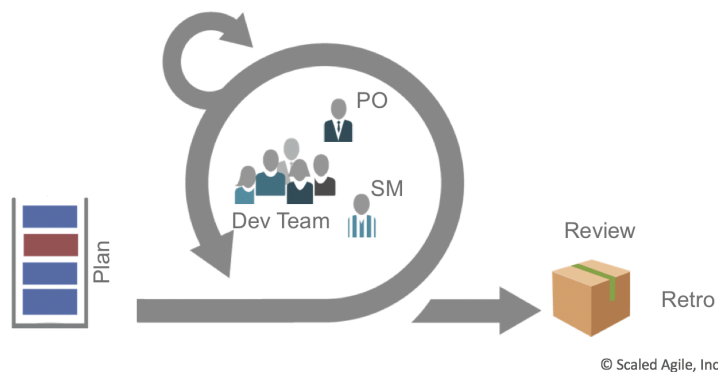
Scrum and Kanban provide the basics

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

▸ Scrum optimizes teams for communication and value delivery

▸ Kanban is applied to optimize value flow

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Average WIP and duration are measured from the point work is pulled from the backlog until it is accepted.

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"Now we need DevOps and continuous delivery to keep up with the competition!"

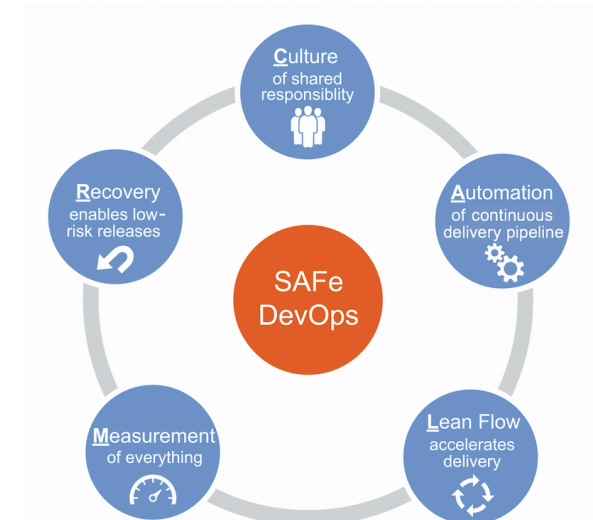## DevOps and Release on Demand

Core Competency

The DevOps and Release on Demand competency describes how implementing DevOps and a continuous delivery pipeline provides the enterprise with the capability to release value, in whole or in part, at any time necessary to meet market and customer demand.
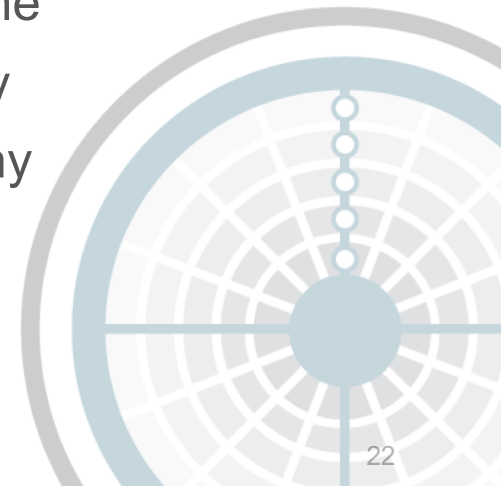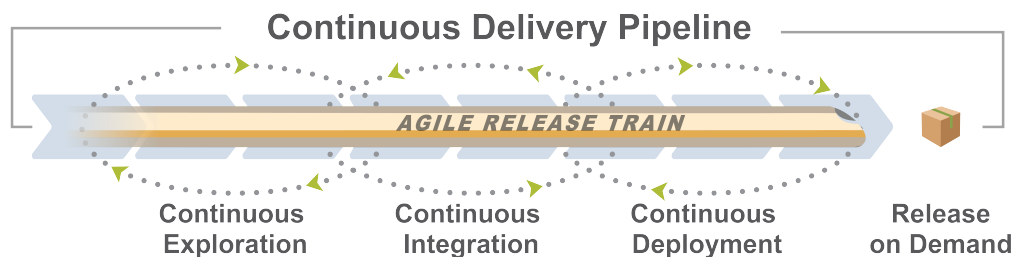
DevOps and Release on Demand

▸ DevOps provides the culture, automation, Lean-flow, measurement, and recovery (CALMR) approach that enables continuous delivery and release on demand

▸ Agile Release Trains (ARTs) are teams of agile teams that are organized to release value on demand via a *continuous delivery pipeline*


Culture
of shared responsiblity

Automation
of continuous delivery pipeline

Recovery
enables low-risk releases

SAFe DevOps

Measurement
of everything

Lean Flow
accelerates delivery

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Continuous Delivery Pipeline

AGILE RELEASE TRAIN

Continuous Exploration

Continuous Integration

Continuous Deployment

Release on Demand

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ARTs are organized to define, build, deploy and release
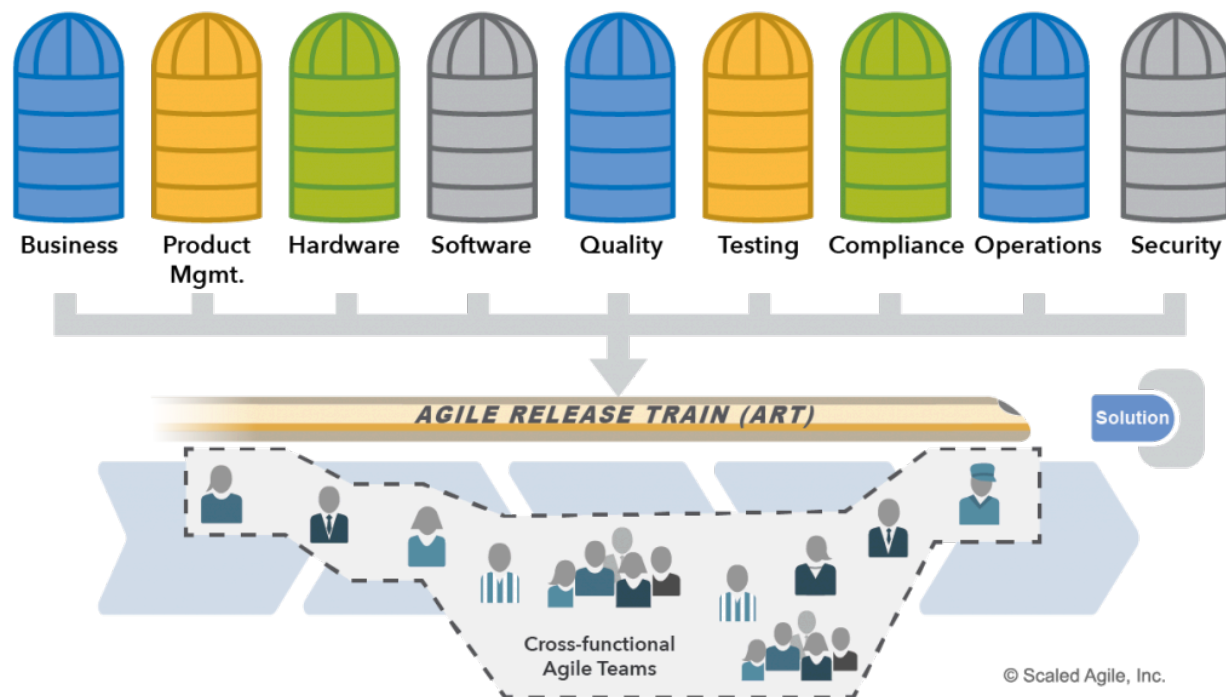
5-12 teams working together on a solution

Synchronize with PI Planning

There is no magic in SAFe . . . except maybe for PI Planning

- ▸ All stakeholders face-to-face (but typically multiple locations)

- ▸ Management sets the mission, with minimum possible constraints

- ▸ Requirements and design emerge

- ▸ Important stakeholder decisions are accelerated

- ▸ Teams create—and take responsibility for—plans

For a short PI Planning example,
see: **youtu.be/ZZAtl7nAB1M**

> *"We build really big systems, subject to rigorous compliance, it takes hundreds of people, and you can't integrate continuously."*

Business Solutions and Lean Systems Engineering

Core Competency

The Business Solutions and Lean Systems Engineering competency describes how to apply Lean-Agile principles and practices to the specification, development, deployment and evolution of large, complex software applications and cyber-physical systems.

Cooperation between the Components

Management of a system requires knowledge of the interrelationships between all of the components within the system and of everybody that works in it.
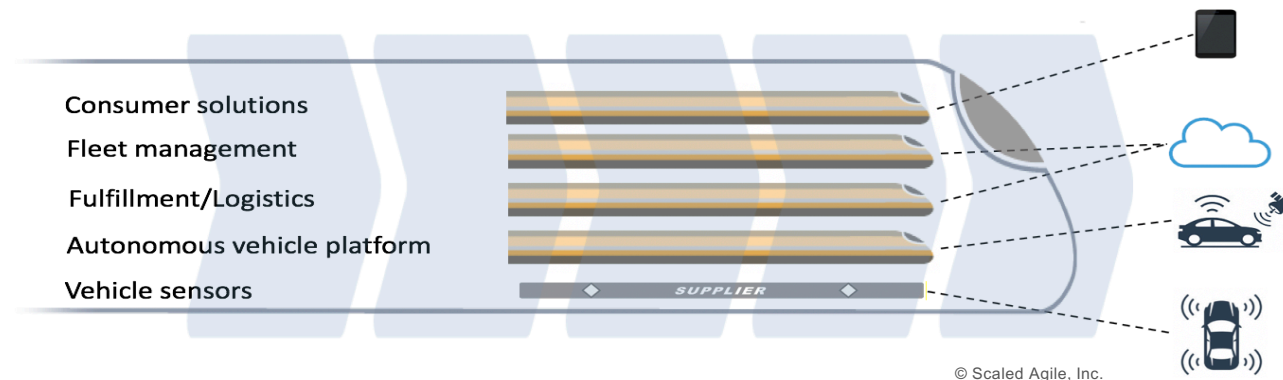
—W. Edwards Deming
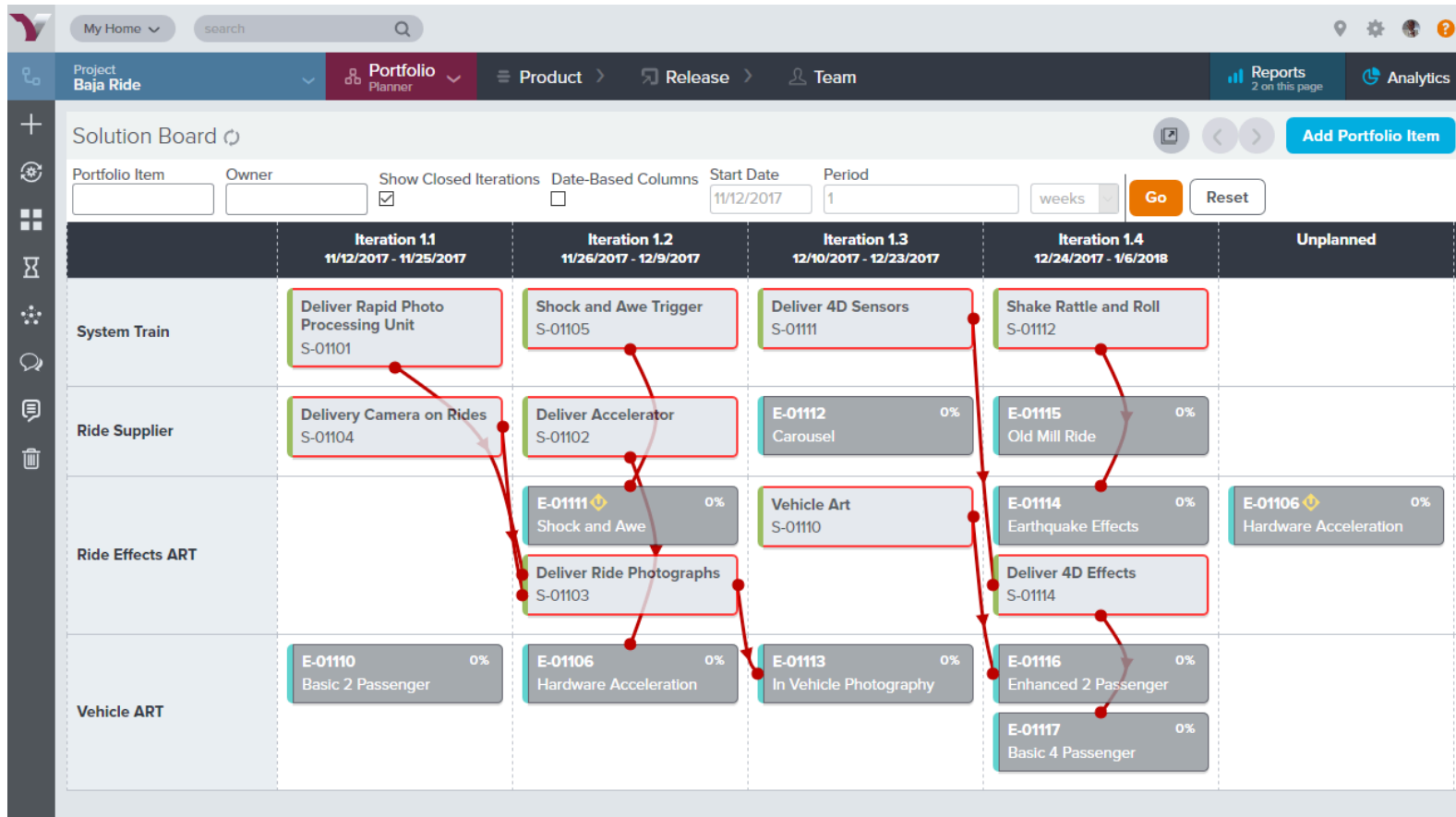
Solution Trains deliver Business Solutions and Lean Systems

▸ Solution trains coordinate multiple ARTs and suppliers

▸ Manage frequent integration

▸ Continuously address compliance concerns

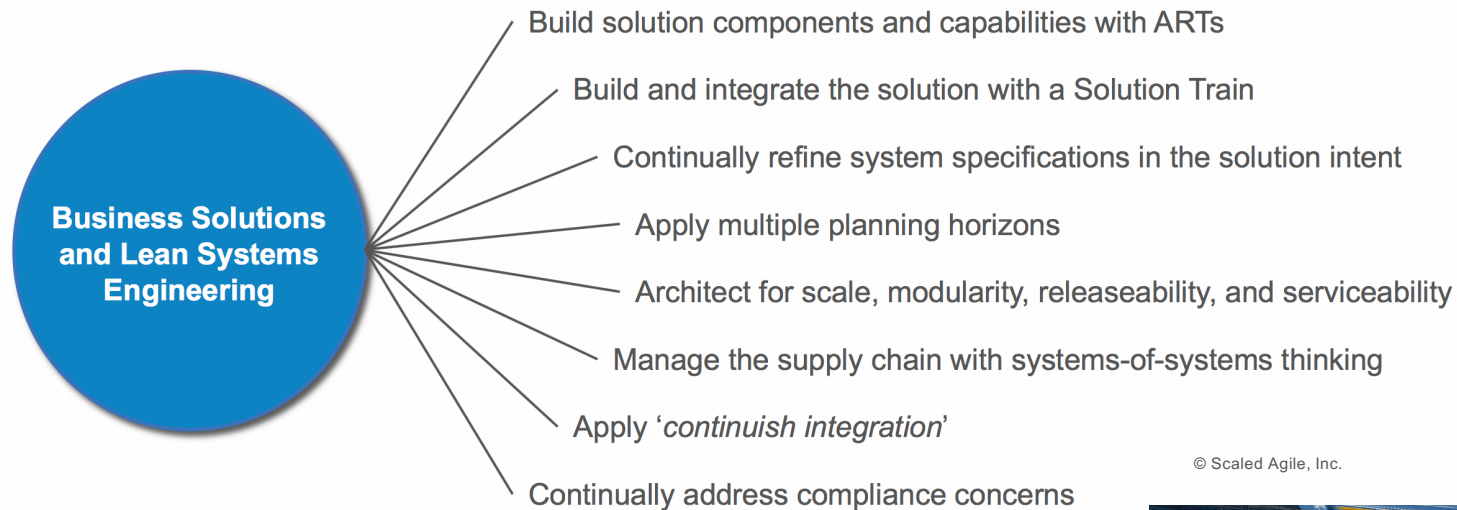▸ Architect for scale, modularity, releasability, and serviceability

Consumer solutions
Fleet management
Fulfillment/Logistics
Autonomous vehicle platform
Vehicle sensors

SUPPLIER

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Example: Solution Board

8 practices for building large and complex solutions

Business Solutions and Lean Systems Engineering

- Build solution components and capabilities with ARTs
- Build and integrate the solution with a Solution Train
- Continually refine system specifications in the solution intent
- Apply multiple planning horizons
- Architect for scale, modularity, releaseability, and serviceability
- Manage the supply chain with systems-of-systems thinking
- Apply 'continuish integration'
- Continually address compliance concerns

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Apply multiple planning horizons

Solution Roadmap

Autonomous platform integration with Vehicle

Route following and lane keeping v1.0

First field test

On-road testing certification

Terrific Transport Delivery Vehicle v1.0

Autonomous Vehicle Auto show

Q1 Q2 Q3 Q4 H1 H2 Y3 Y4

GPS	Follow route	Make turns	Perform Delivery Spike	Perform delivery tests
Surround cameras	Stay in lane	Obey traffic laws	Avoid obstacles	
Forward radar	Forward collision	Ultrasonic sensors	Go thru intersection	Self-park

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PI Roadmap

Annual Automotive suppliers event

GPS integrated with vehicle prototype

Camera integration with vehicle prototype

PI 1	PI 2	PI 3
▸ Selection of mapping software	▸ GPS	▸ Surround cameras
▸ Front camera	▸ Rear camera	▸ Change lane
▸ Radar components	▸ Follow straight path	
▸ Install communications on mule	▸ Detect fixed obstacles	
— Stretch Objectives —		
▸ Send real-time status		

Committed   *Forecast*   © Scaled Agile, Inc

"For executives and leaders who want to weave strategy and execution together into a single way of working"

Core Competency

Lean Portfolio Management

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

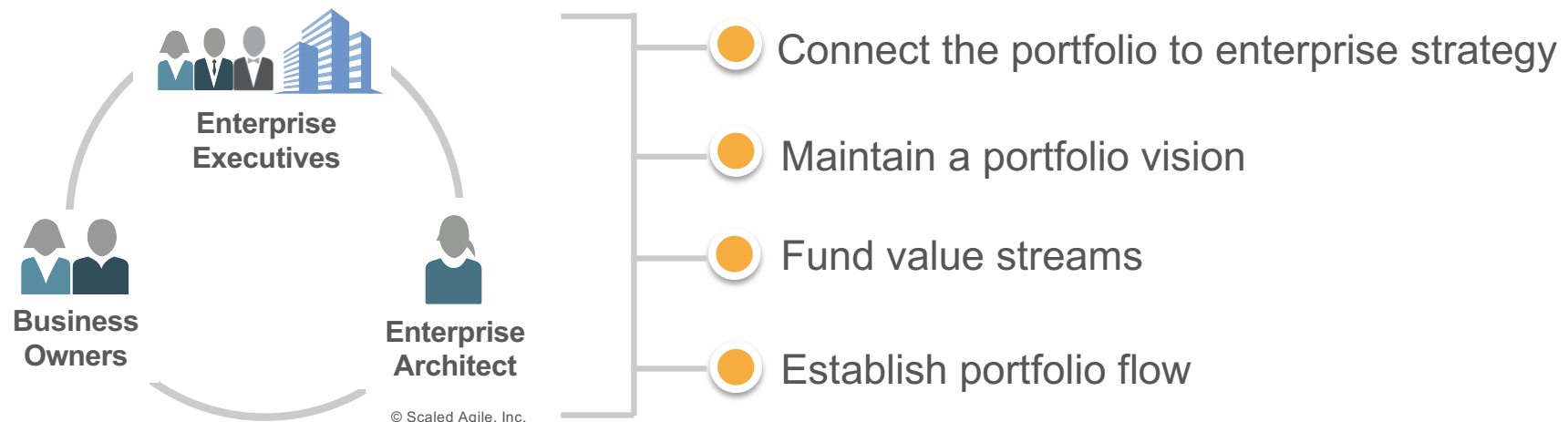# Lean Portfolio Management creates strategic alignment

▸ Connects enterprise to portfolio strategy

▸ Creates Lean budget and investment guardrails

▸ Manages portfolio operations

▸ Provide Lean governance across value streams

Lean Portfolio Management

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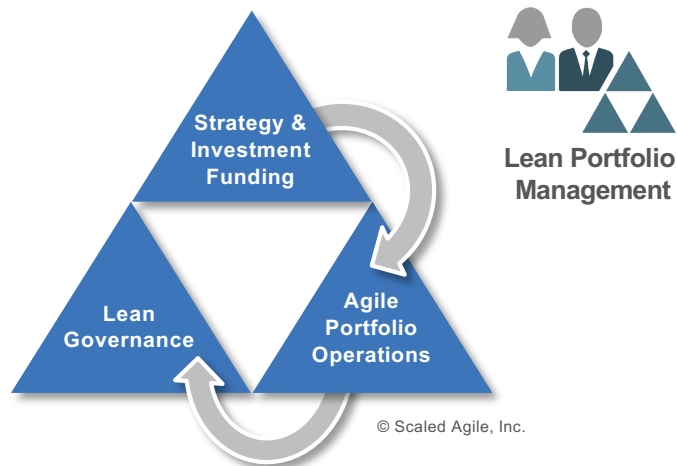
Strategy and investment funding

▶ Key stakeholders collaborate, developing and communicating the portfolio strategy

▶ They provide lean budgeting and funding to the value streams that develop and maintain the portfolio products and services

▶ Build a Portfolio Kanban system to establish flow

Enterprise Executives

Business Owners

Enterprise Architect

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● Connect the portfolio to enterprise strategy

● Maintain a portfolio vision

● Fund value streams

● Establish portfolio flow

Fund value streams aligned with the business strategy

Funding value streams instead of projects provides the following benefits:

▸ Full control of spend

▸ No costly and delay-inducing project cost variance analyses

▸ No resource reassignments

▸ No blame game for project overruns

Lean Budgets

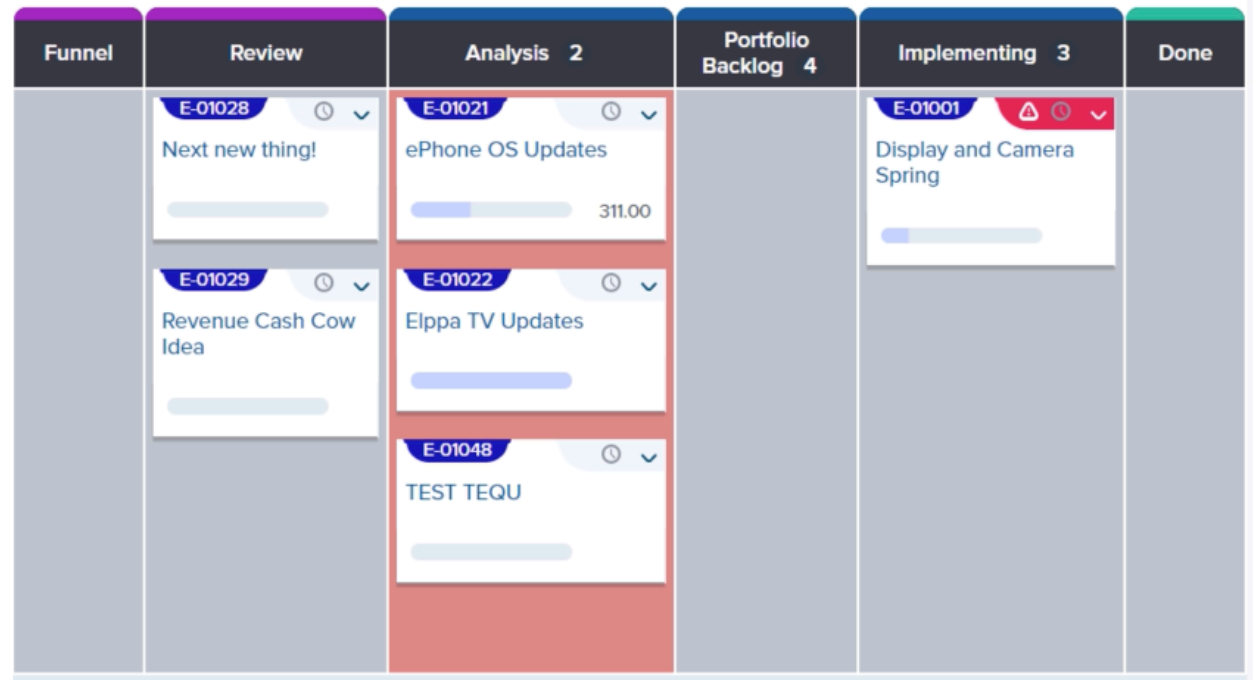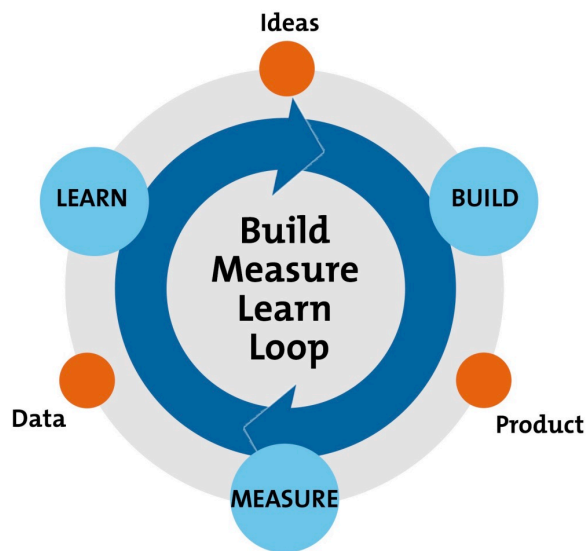**Guardrails**

Value Streams
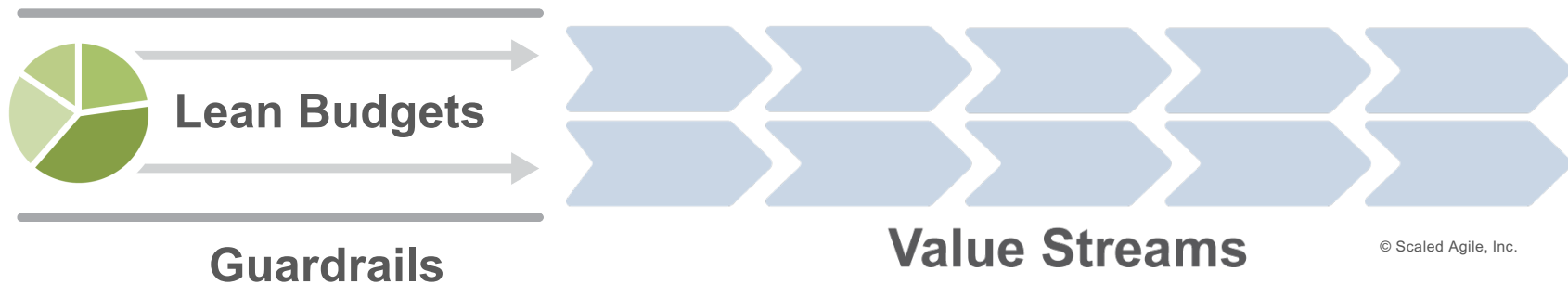
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Establish Lean Budget Guardrails

1. Guide investments by horizons
2. Apply capacity allocation to optimize value and solution integrity
3. Approve significant initiatives
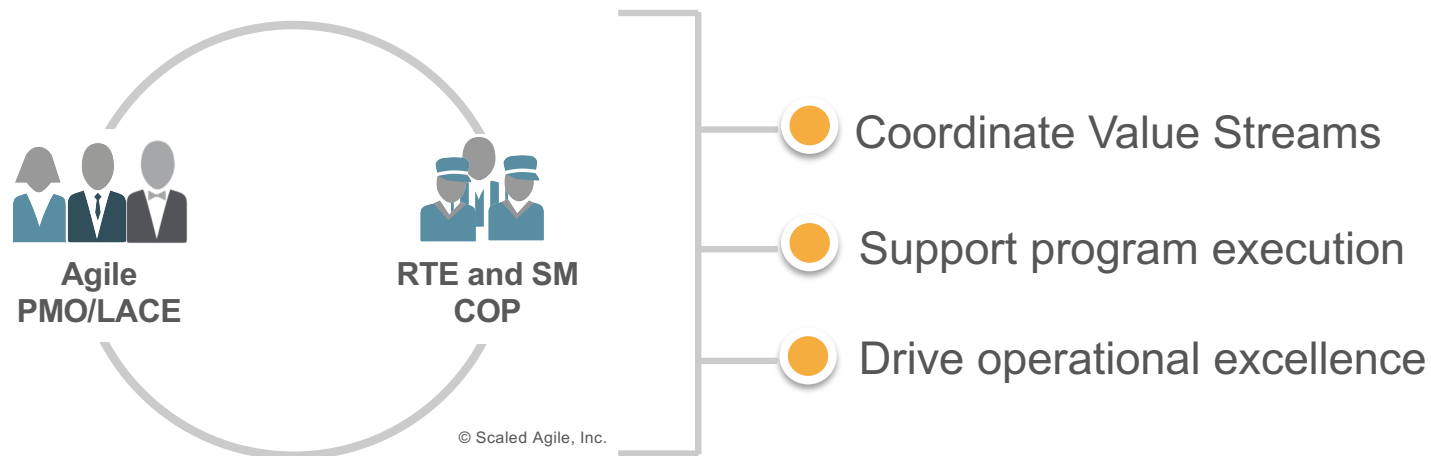4. Continuous business owner engagement
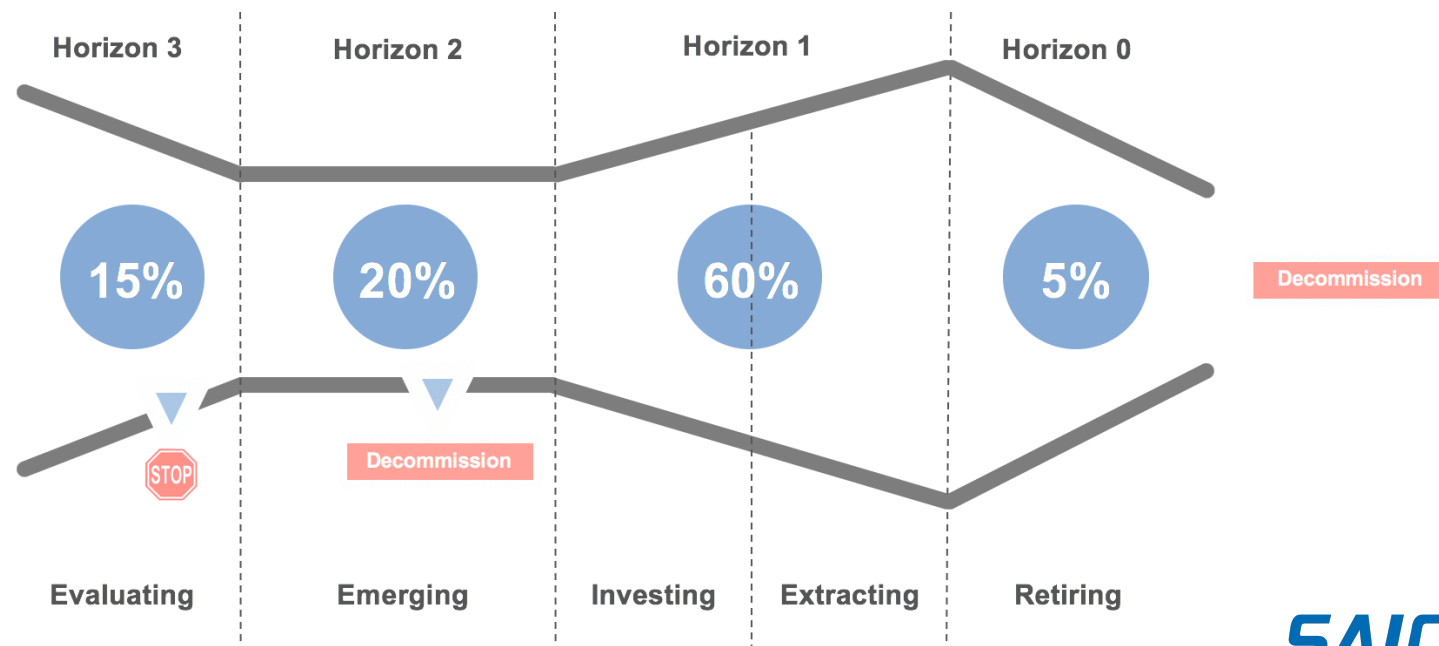
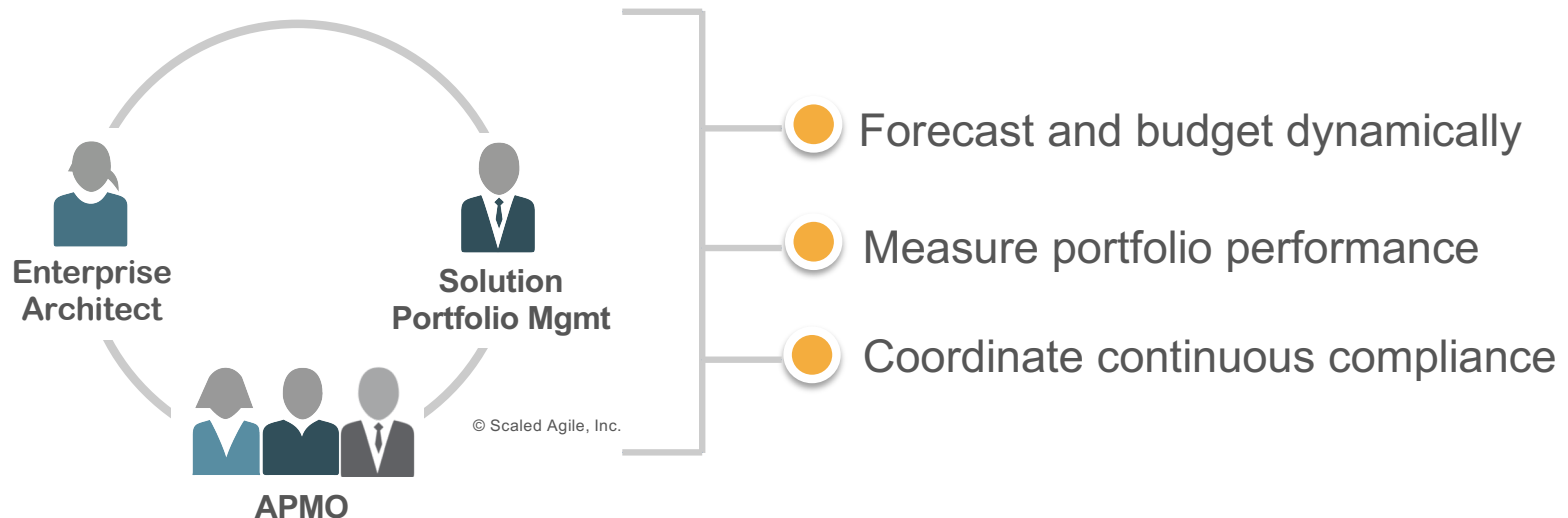# Establish Portfolio Flow

Agile portfolio operations

▸ Support SAFe implementation, relentless improvement and Agile practices to achieve business goals

▸ Enable continuous flow of value through coordination of Value Streams and ARTs

Agile PMO/LACE

RTE and SM COP

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● Coordinate Value Streams

● Support program execution
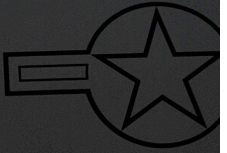
● Drive operational excellence

Lean governance

▶ Collaborate on forecasting and dynamic budgeting with an agile approach

▶ Establish minimum Lean portfolio metrics necessary to assure strategy is being implemented

Enterprise Architect

Solution Portfolio Mgmt

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APMO

● Forecast and budget dynamically

● Measure portfolio performance

● Coordinate continuous compliance

Continue your journey…

U.S. Air Force photo by Staff Sgt. Clay Lancaster

New LPM Course

Learn more and register here:

https://www.scaledagile.com/certification/courses/lean-portfolio-management/

Additional Resources

▸ SAFe Government Portal: https://www.scaledagileframework.com/government/

▸ Defense Science Board Report: https://www.acq.osd.mil/dsb/reports/2010s/DSB_SWA_Report_FINALdelivered2-21-2018.pdf

▸ FedCLASS: A Case Study of Agile and Lean Practices in the Federal Government: https://resources.sei.cmu.edu/asset_files/SpecialReport/2018_003_001_527599.pdf

▸ Section 809 Panel: https://section809panel.org/

▸ Digital Services Playbook: https://playbook.cio.gov/

▸ TechFAR Hub: https://techfarhub.cio.gov/

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Questions