

SAFe in Context for a Business Analyst

Murray Ford
SPCT Candidate
Tata Consultancy Services
May 31, 2016

SCALED AGILE®

© 2016 Scaled Agile, Inc. All Rights Reserved.

TATA CONSULTANCY SERVICES

Experience certainty.



Agenda

- ▶ SAFe Introduction
- ▶ SAFe BA Opportunities
- ▶ SAFe BA Concepts & Artefacts
- ▶ BA Transformation Challenges towards the new way of working

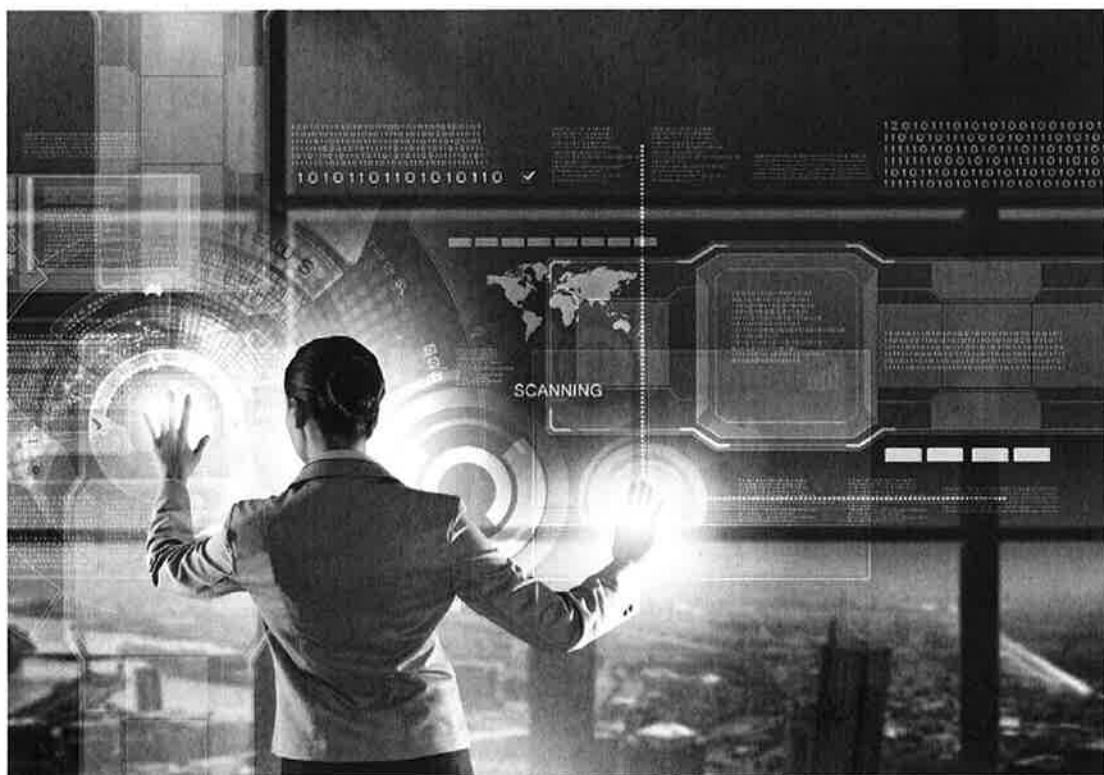


Please note the following usage restrictions for this presentation:

- This material is the property of Scaled Agile, Inc. and is protected by U.S. and International copyright laws.
- It is provided solely to promote adoption and use of the Scaled Agile Framework® (SAFe®) for the benefit of the enterprises and individuals who apply it.
- You may reproduce, distribute, and use this material for informational purposes only, and always free of charge.
- You may not modify any slides, or use anything from the slides to create derivative works, or remove any trademark or copyright notice.
- You may add slides unique to your specific context, but such content shall not change the meaning, purpose, or intent of the original material.



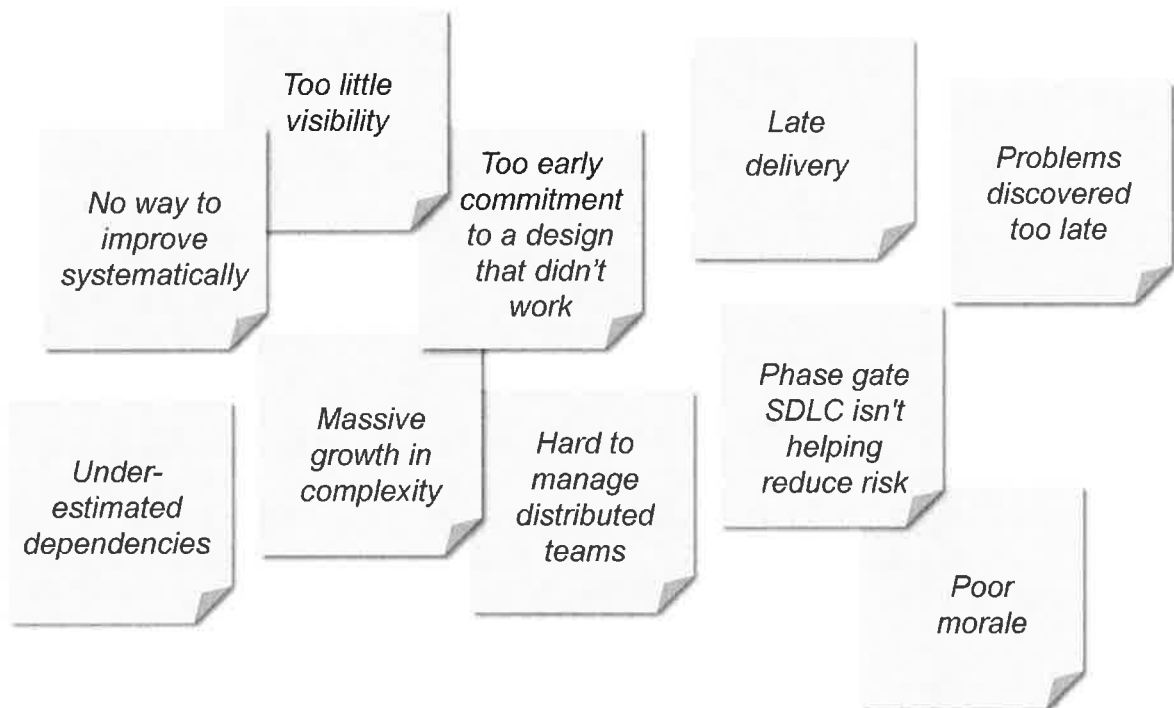
We thought we'd be developing like this:



But sometimes it feels like this:



And our retrospectives read like this:



Management's 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*, Deming, 1986*



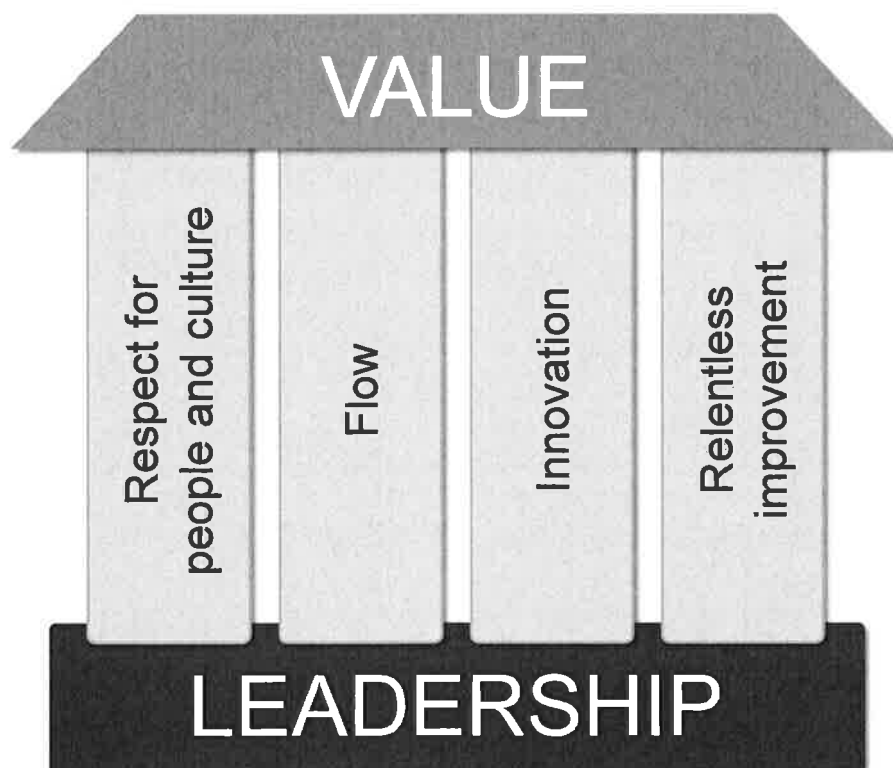
What it is they must do

- ▶ Embrace Lean-Agile values and principles
- ▶ Implement Lean-Agile practices
- ▶ Lead the implementation

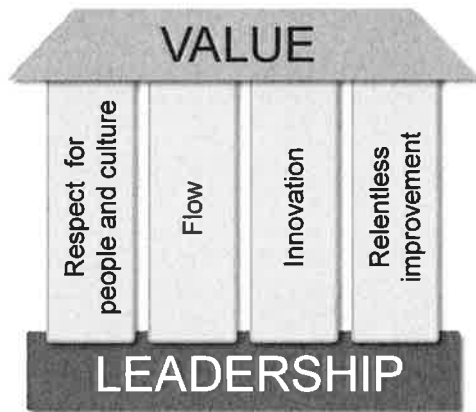


Embrace Lean-Agile values and principles

Embrace Lean-Agile values



Value in the shortest sustainable lead time



- ▶ Achieve the *sustainably shortest lead time with*
 - ▶ Best quality and value to people and society
 - ▶ High morale, safety, customer delight

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

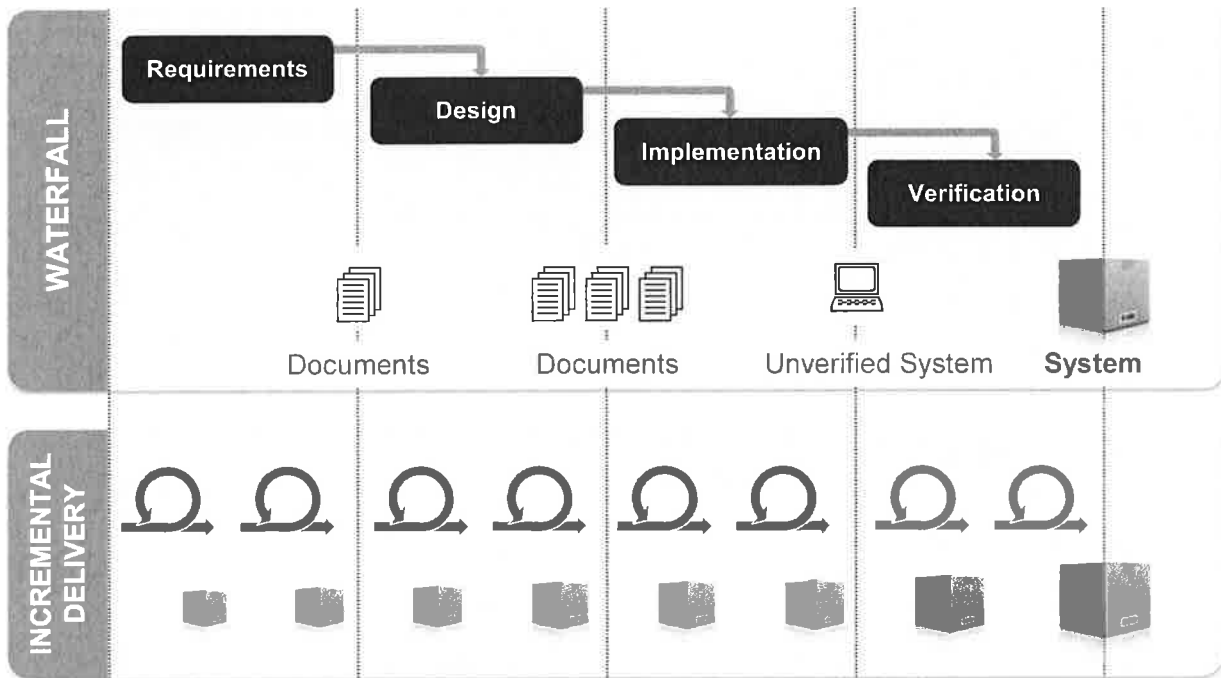
—Sam Walton



Apply Lean-Agile principles

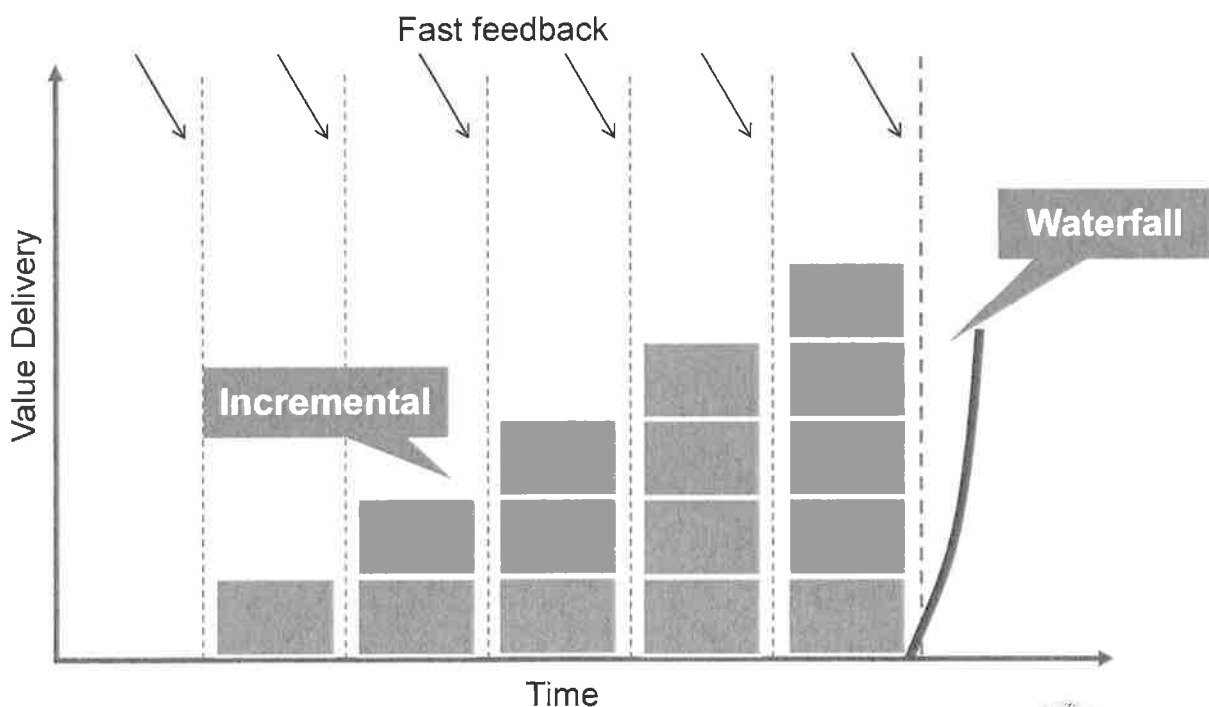
- #1-Take an economic view
- #2-Apply systems thinking
- #3-Assume variability; preserve options
- #4-Build incrementally with fast, integrated learning cycles
- #5-Base milestones on objective evaluation of working systems
- #6-Visualize and limit WIP, reduce batch sizes, and manage queue lengths
-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

Build incrementally to accelerate value delivery



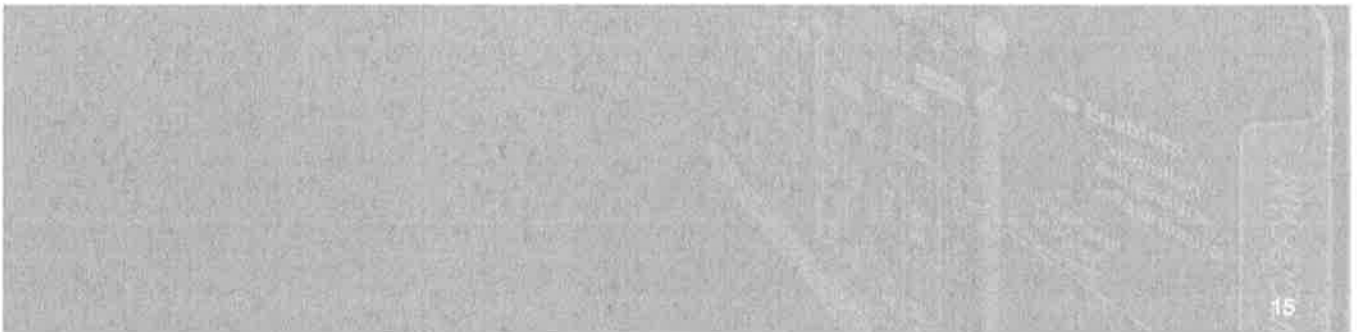
Take an economic view

Early delivery provides fast value with fast feedback



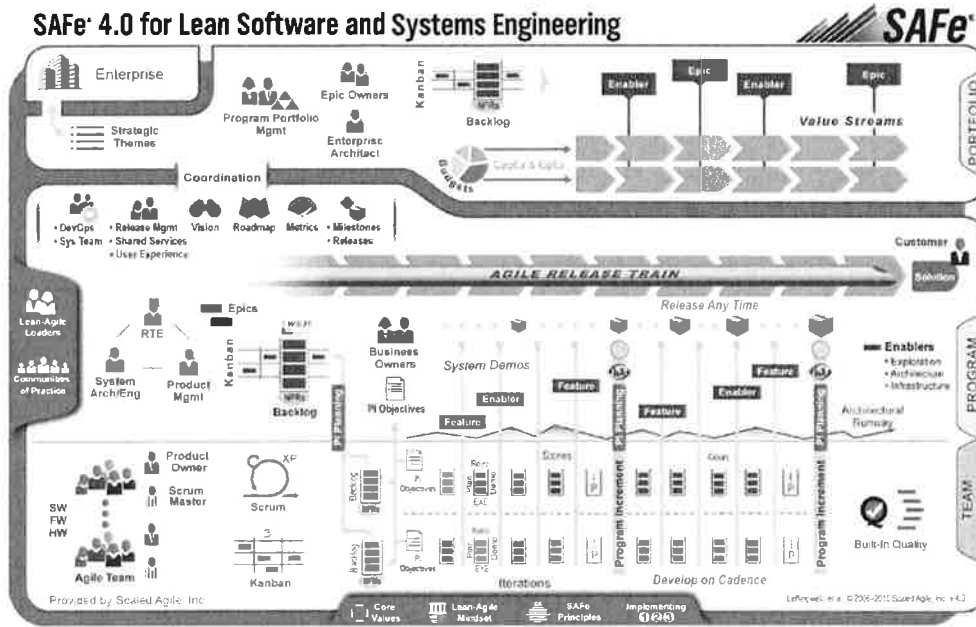


Implement Lean-Agile practices

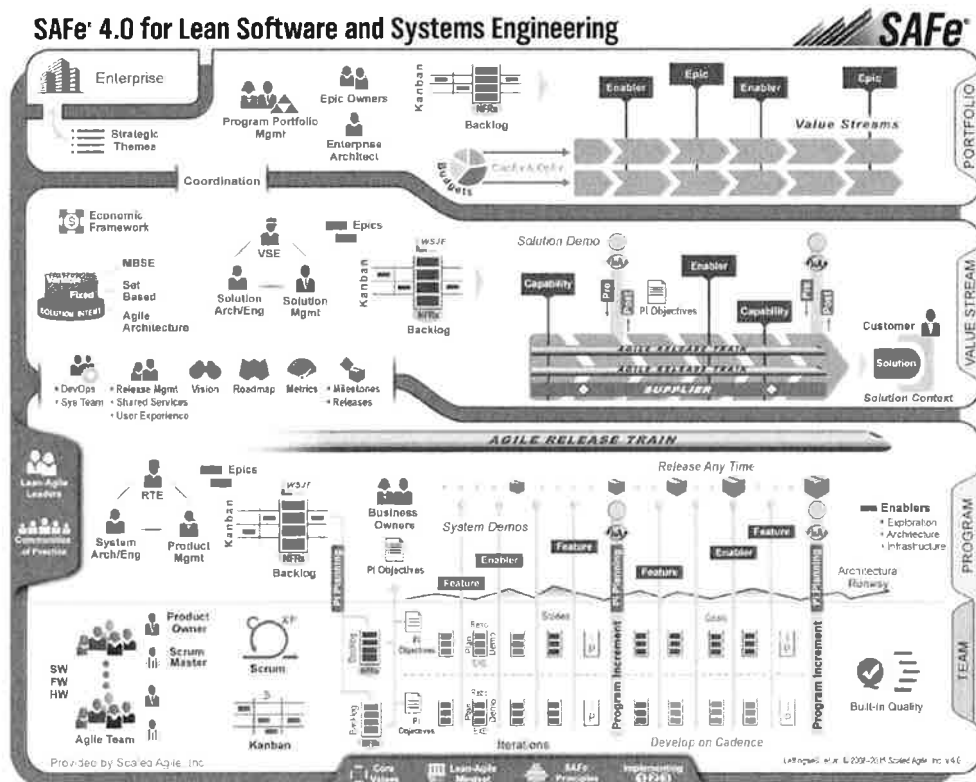


**SAFe is a knowledge base of
successful patterns
for enterprise Lean-Agile development**

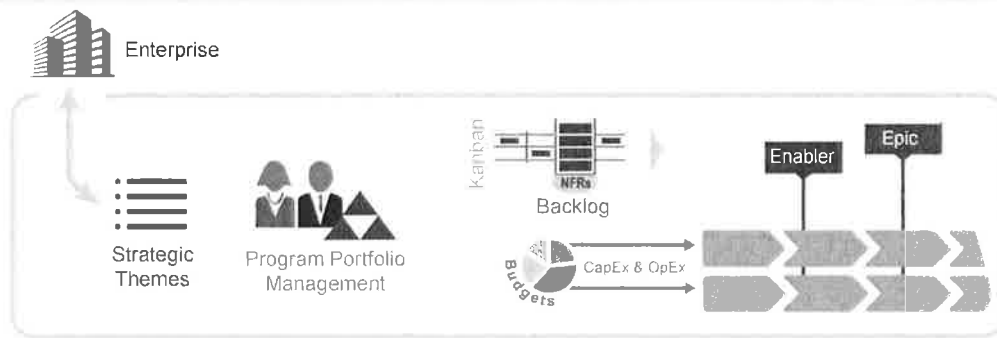
SAFe for midsize solutions



SAFe for large solutions



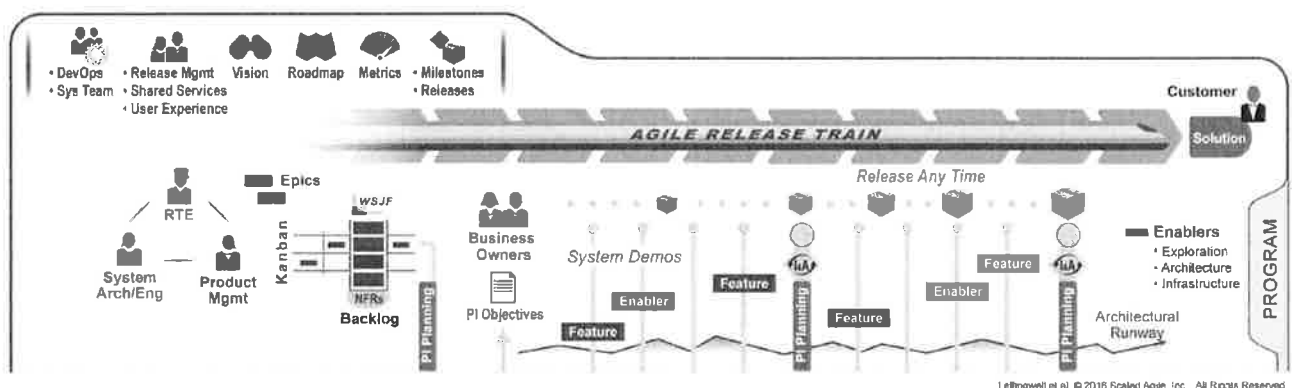
Organize around value



- ▶ Identify and organize around Value Streams
- ▶ Communicate strategy with Strategic Themes
- ▶ Empower decision makers with Lean-Agile Budgeting
- ▶ Provide visibility and governance to cross-cutting initiatives
- ▶ Guide common technology decisions with enterprise architecture



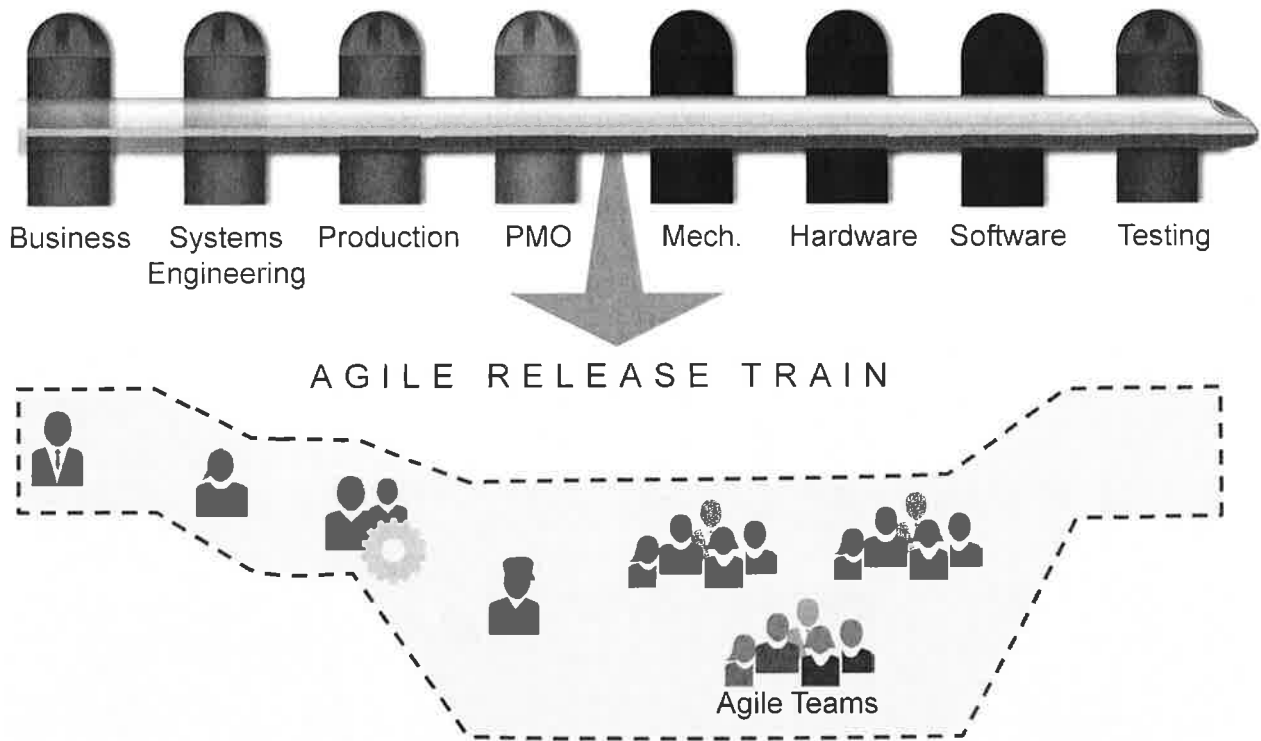
Build value with Agile Release Trains



- ▶ Apply cadence and synchronization
- ▶ Communicate with Vision and Roadmap
- ▶ Manage the flow of work
- ▶ Apply objective Milestones to measure progress



Take a systems view



Agile Teams power the train

Five to nine team members, three roles



- ▶ Runs team meetings, drives agile behavior
- ▶ Removes impediments; protects the team from outside influence
- ▶ Attends Scrum of Scrum meetings



- ▶ Defines and accepts stories
- ▶ Acts as the customer for developer questions
- ▶ Works with product management to plan PIs



- ▶ Create and refine user stories and acceptance criteria
- ▶ Define/Build/Test/Deliver stories
- ▶ Develop and commit to Team PI Objectives and iteration plans

Synchronize with PI Planning

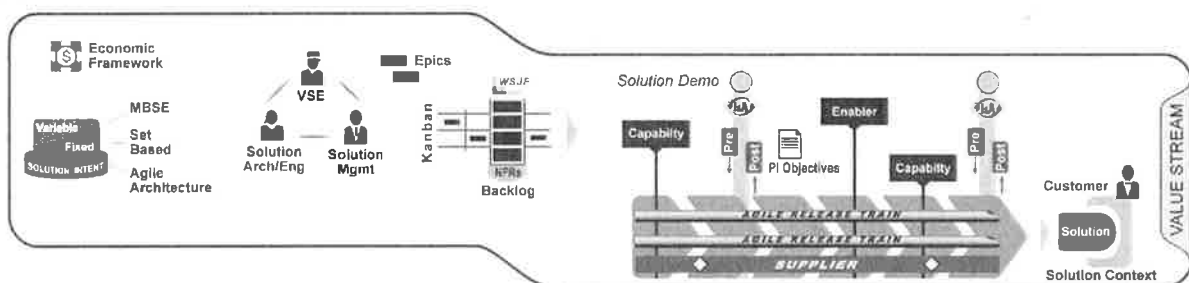
Future product development tasks can't be pre-determined. Distribute planning and control to those who can understand and react to the end results.

— Michael Kennedy, *Product Development for the Lean Enterprise*

- ▶ All stakeholders 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



Coordinate large-scale value delivery



LeFringwell et al. © 2016 Scaled Agile, Inc. All Rights Reserved

- ▶ Apply cadence and synchronization
- ▶ Establish local governance with Value Stream roles and Economic Framework
- ▶ Manage fixed and variable Solution Intent
- ▶ Manage the flow of Capabilities with the Value Stream Kanban
- ▶ Frequently integrate and validate Customer solutions



Lead the implementation

Leadership Foundation



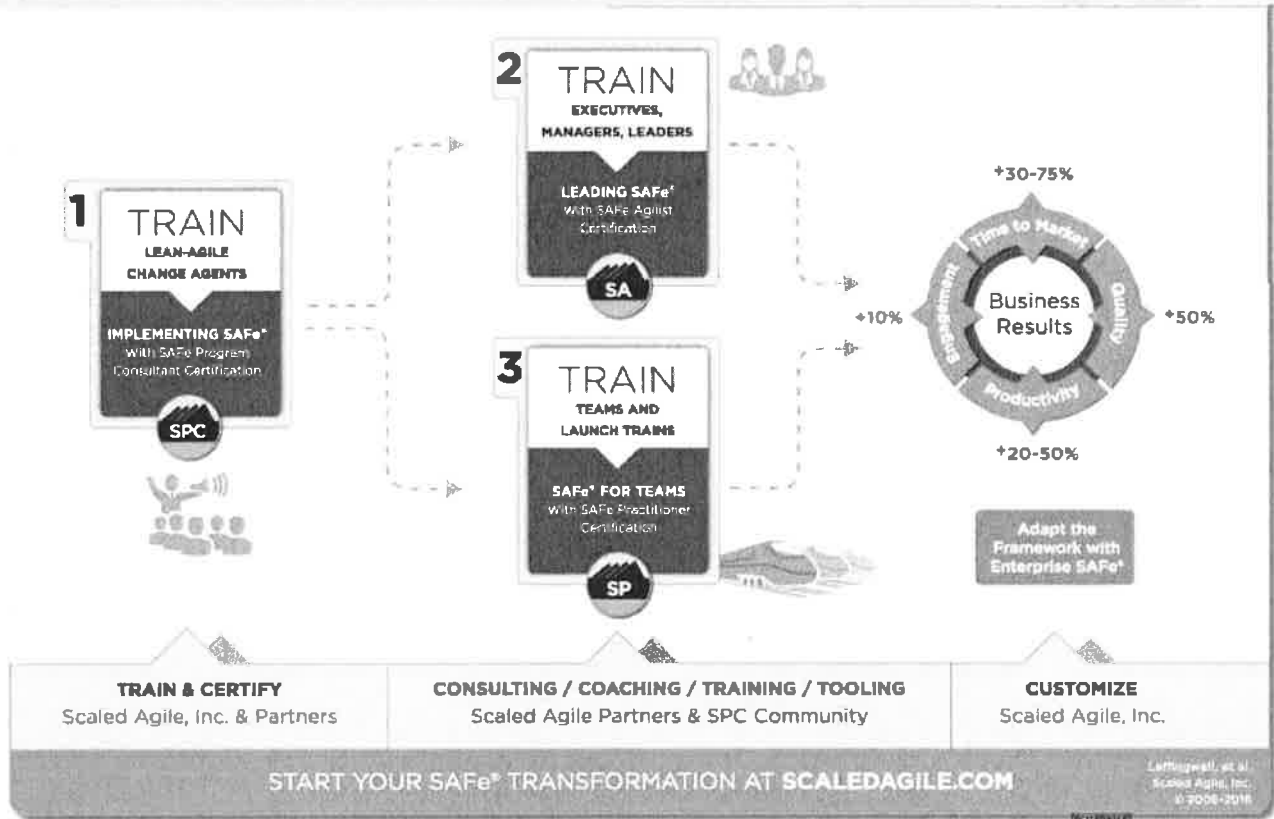
People are already doing their best; the problems are with the system.

Only management can change the system.

—W. Edwards Deming

- ▶ Lead the change
- ▶ Know the way; emphasize life-long learning
- ▶ Develop people
- ▶ Inspire and align with mission; minimize constraints
- ▶ Decentralize decision-making
- ▶ Unlock the intrinsic motivation of knowledge workers

Implementing SAFe 1,2,3

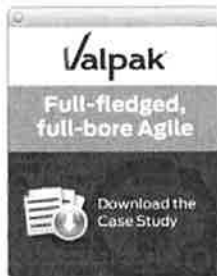
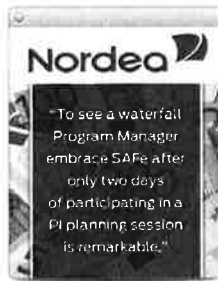


Achieve business results



See ScaledAgileFramework.com/case-studies





Dependencies and risks revealed far in advance with SAFe

Increased efficiency with aligned teams

20-25% Increase in client satisfaction

95% Decrease in product defects

Cost down 50%

20-50% Productivity increase

SAFe adoption leads to Barron's award

Dramatic improvement in quality

Better business-IT collaboration

76% Decrease in response time to customer requests

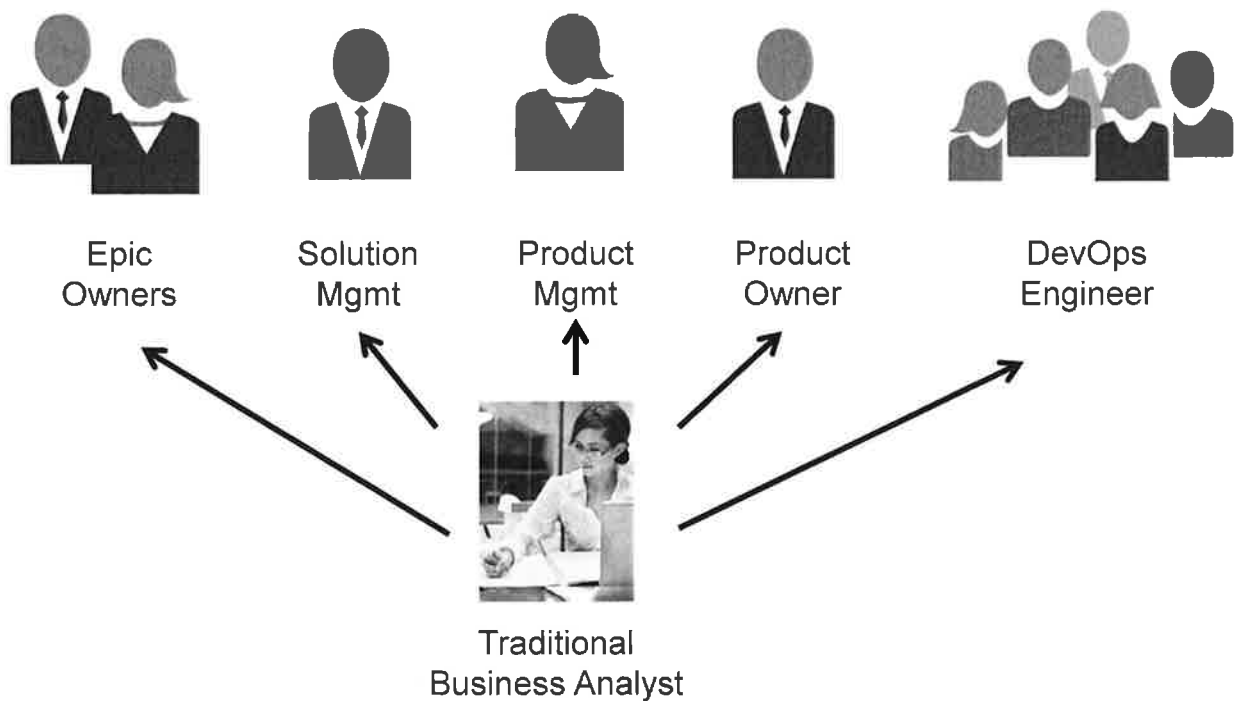
50% Warranty expense down

Better alignment to common vision



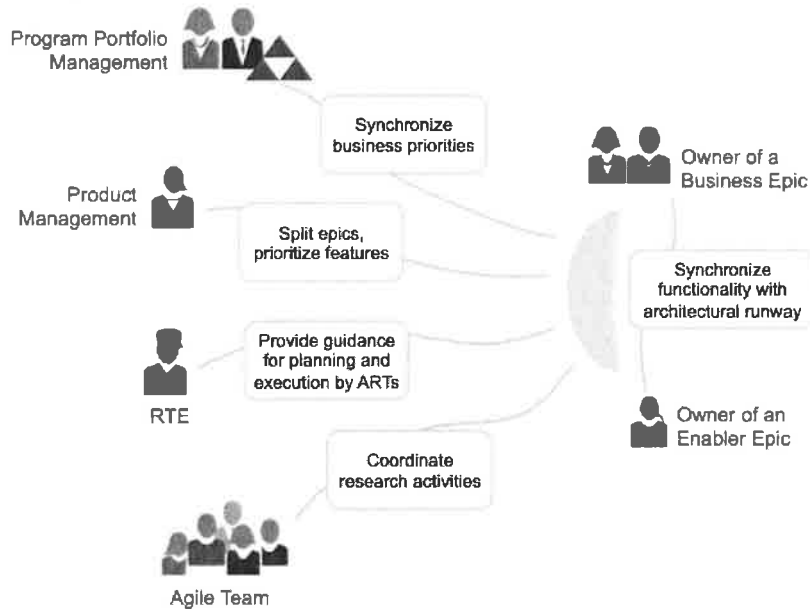
SAFe BA Opportunities

The SAFe BA Opportunities



The Epic Owner

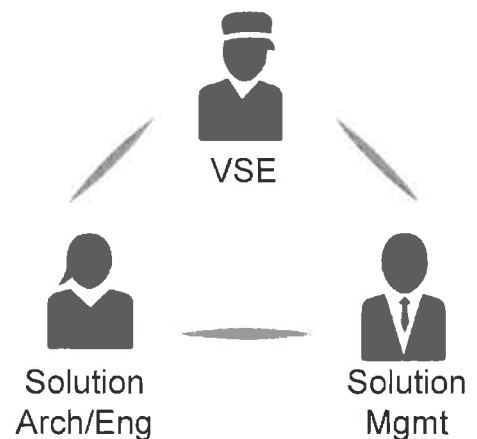
The epic owner prepares, presents and supports the implementation of the epic



The Value Stream roles

Three primary roles help ensure successful execution of the Vision and Roadmap initiatives at the Value Stream Level:

1. The Value Stream Engineer is responsible for the Value Stream and guides the work of all ARTs and solutions. They have primary responsibility for the Value Stream Backlog.
2. Solution Management is the main content authority guiding the Value Stream. They have primary responsibility for the Value Stream Backlog.
3. The Solution Enabled Engineer has the technical responsibility for the design, architecture, and engineering design of the Value Stream.



The Product Management



Responsibility	Traditional	Agile
Understand customer need	Up-front and discontinuous	Constant interaction. Customer is part of the value stream
Document requirements	Fully elaborated in documents; handed off	High-level vision; constant product and solution backlog refinement and informal face-to-face communication with Agile Teams
Schedule	Created in hard-committed Roadmaps and Milestones at the beginning	Continuous near-term roadmapping
Prioritize requirements	Not at all, or perhaps one-time only, often in requirements document form	Reprioritized at every PI boundary via WSJF; constant scope triage
Validate requirements	Not applicable; QA responsibility	Primary role. involved with Iteration and PI System Demos: acceptance criteria included; fitness for purpose understood
Manage delivery schedule	Typically one time, fixed well in advance	Released frequently, whenever there is enough value
Manage change	Change avoided—weekly change control meetings	Change embraced; adjusted at PI and Iteration boundaries



Agile Teams power the train

Five to nine team members, three Scrum roles



- ▶ Runs team meetings, drives agile behavior
- ▶ Removes impediments; protects the team from outside influence
- ▶ Attends Scrum of Scrum meetings



- ▶ Defines and accepts stories
- ▶ Acts as the customer for developer questions
- ▶ Works with product management to plan PIs

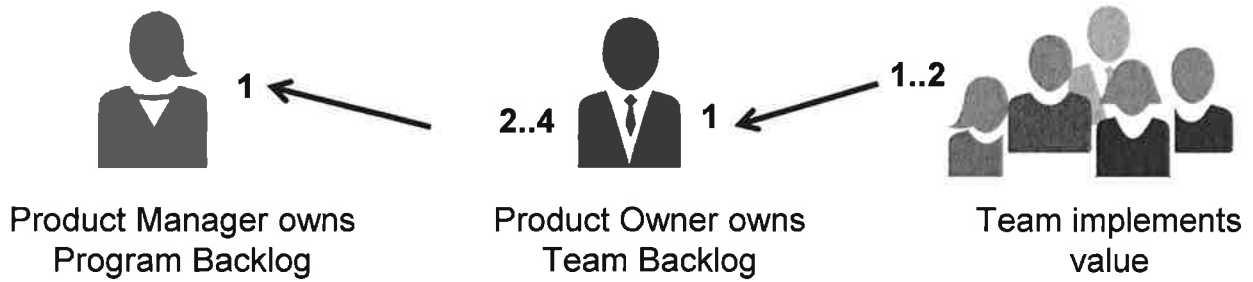


- ▶ Create and refine user stories and acceptance criteria
- ▶ Define/Build/Test/Deliver stories
- ▶ Develop and commit to Team PI Objectives and iteration plans



The PM/PO team steers the train

At scale, a single person cannot handle product and market strategy while also being dedicated to an Agile team.



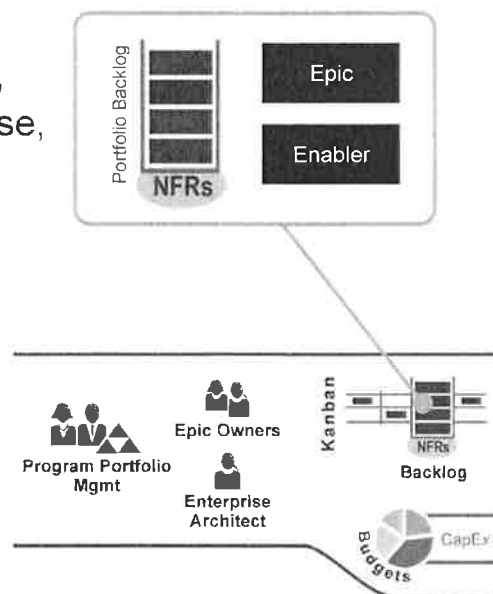
SAFe BA Concepts & Artefacts

Epics carry centralized initiatives

Approved Epics form the Portfolio Backlog.

Epics are enterprise initiatives sufficiently substantial in scope so as to warrant analysis, understanding ROI, a lightweight business case, and approval

- ▶ Portfolio Epics cut across trains
- ▶ Program Epics can be implemented in a single train
- ▶ Business Epics are customer-facing
- ▶ Enabler Epics enable solutions to address business needs
- ▶ Developed and analyzed in the Portfolio Kanban System

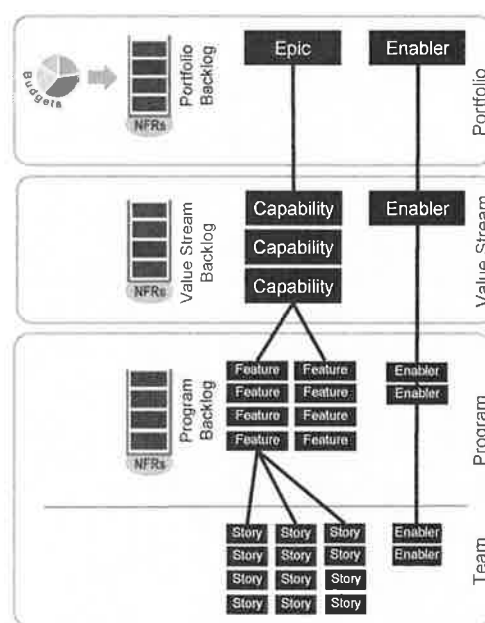


Define solution Features for the Program Backlog

Features are services that fulfill user needs.

- ▶ “Feature” is an industry-standard term familiar to marketing and Product Management
- ▶ Expressed as a phrase, “value” is expressed in terms of benefits
- ▶ Identified, prioritized, estimated, and maintained in the Program Backlog
- ▶ Fits in a PI

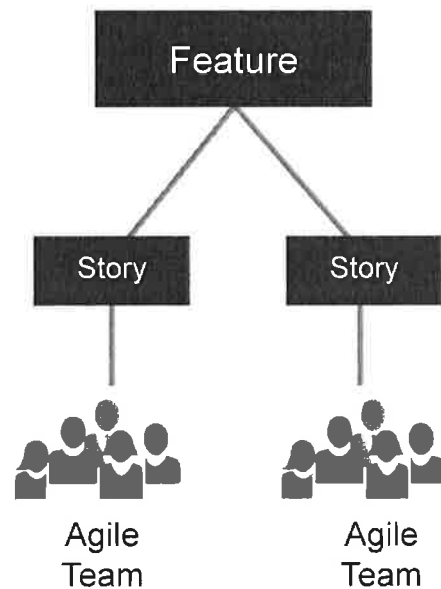
Feature	Benefit	Ping Identity
Multitenancy	One single connector enables users, consistent access to multiple cloud applications	
Standardized	Support for OAuth, SAML, ID, OpenID and SCIM eliminates the risks of storing passwords or managing password accounts in the Cloud	
Multi-factor Authentication	Support for authenticating a user by a password and a device (i.e., laptop, mobile device, etc.) for enhanced security	
Self-Service Passwording	Self-service or change users in your directory and their access is automatically updated across all supported cloud apps for centralized control. Supports the SSO standards for user management	
Cross-Platform	Customizable at both the IT administrator and user levels, the portal provides a single point of access to all SSO-enabled private and public applications.	



Features are implemented by Stories

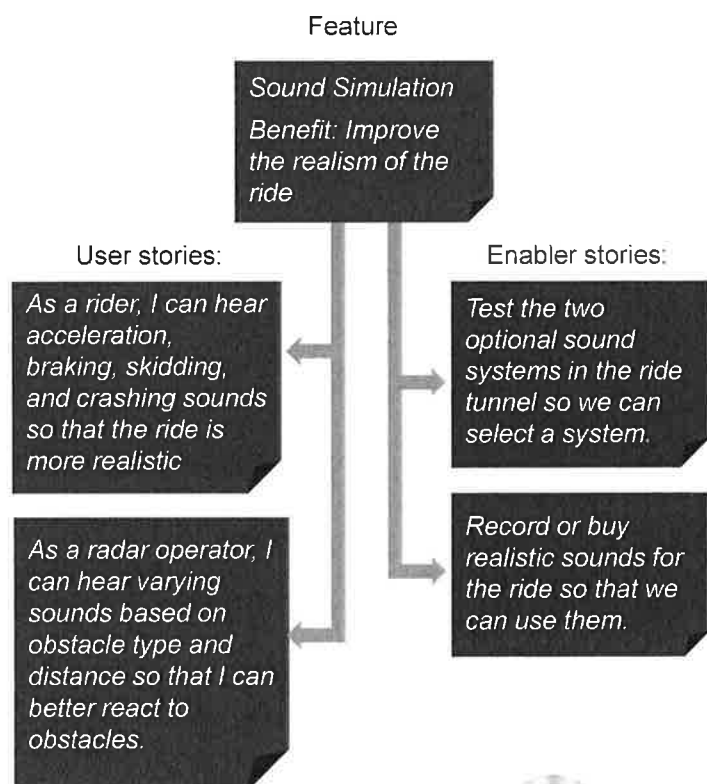
Features are decomposed into Stories by the teams on the train.

- ▶ Teams on the train collaborate to deliver features
- ▶ Features are implemented incrementally via user Stories
- ▶ Teams demonstrate working increments of features by delivering Stories on a regular cadence
- ▶ Features fit in one PI for one ART
- ▶ Stories fit in one Iteration for one Team



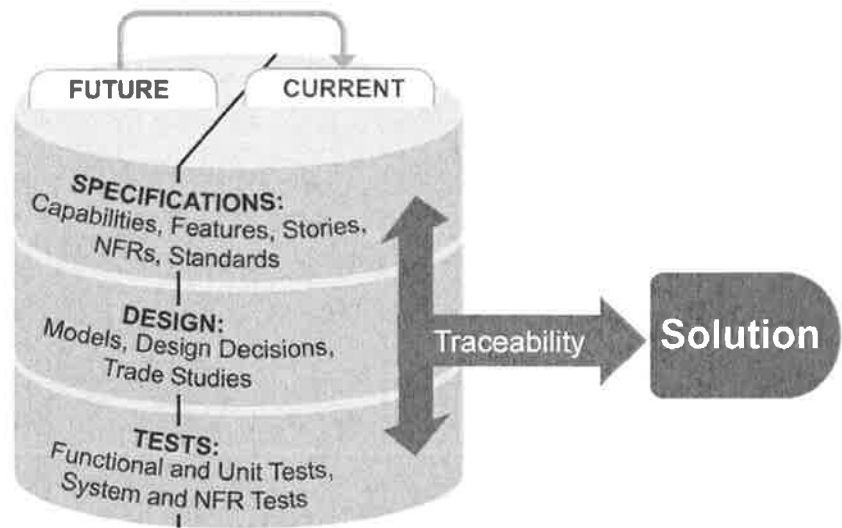
Enabler Stories support value

- ▶ They can represent different types of work:
 - Exploration
 - Architecture
 - Infrastructure
- ▶ Enabler stories are demonstrated like any other story



Capture knowledge in Solution Intent

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



- ▶ Record and communicate requirements and design decisions
- ▶ Facilitate continuous exploration and analysis activities
- ▶ Align the Customer, the system builders and Suppliers to a common purpose
- ▶ Support compliance, contractual, traceability, high assurance



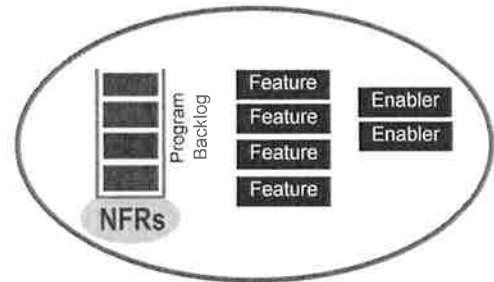
SAFe BA Activities

Prioritize Features for optimal ROI

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

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

1. What is the Cost of Delay (CoD) in delivering value?
2. What is the cost to implement the valuable thing?



If you only quantify one thing, quantify the Cost of Delay.

—Donald G. Reinertsen, *Principles of Product Development Flow E3*



Components of Cost of Delay

User and
business value

Relative value to the customer or business

- ▶ They prefer this over that
- ▶ Revenue impact?
- ▶ Potential penalty or other negative impact?

Time criticality

How User/Business Value decays over time

- ▶ Is there a fixed deadline?
- ▶ Will they wait for us or move to another solution?
- ▶ What is the current effect on customer satisfaction?

Risk Reduction &
Opportunity
Enablement
(RR & OE)

What else does this do for our business

- ▶ Reduce the risk of this or future delivery?
- ▶ Is there value in the information we will receive?
- ▶ Enable new business opportunities?



WSJF prioritization matrix

The job with the highest WSJF provides the greatest economic benefit.

$$WSJF = \frac{CoD}{Job\ size} = \frac{User-business\ value + Time\ criticality + RR\ | \ OE\ value}{Job\ size}$$

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

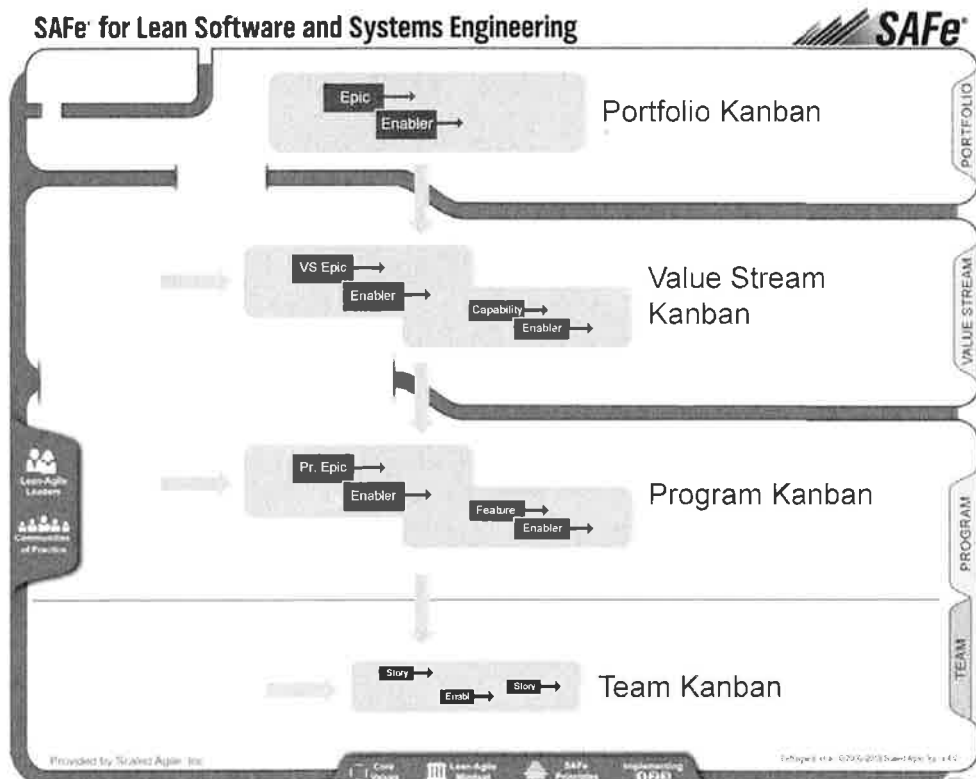
Scale for each parameter: 1, 2, 3, 5, 8, 13, 20

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

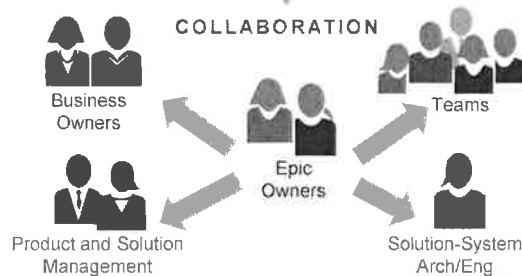
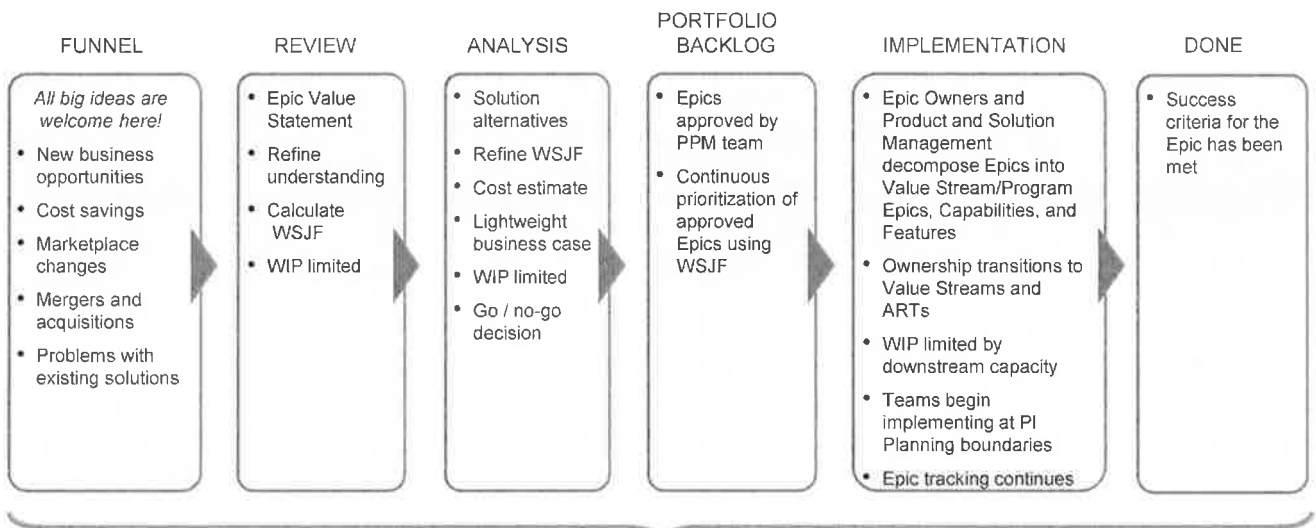
There must be at least one "1" in each column!



SAFe realizes a set of connected Kanban systems

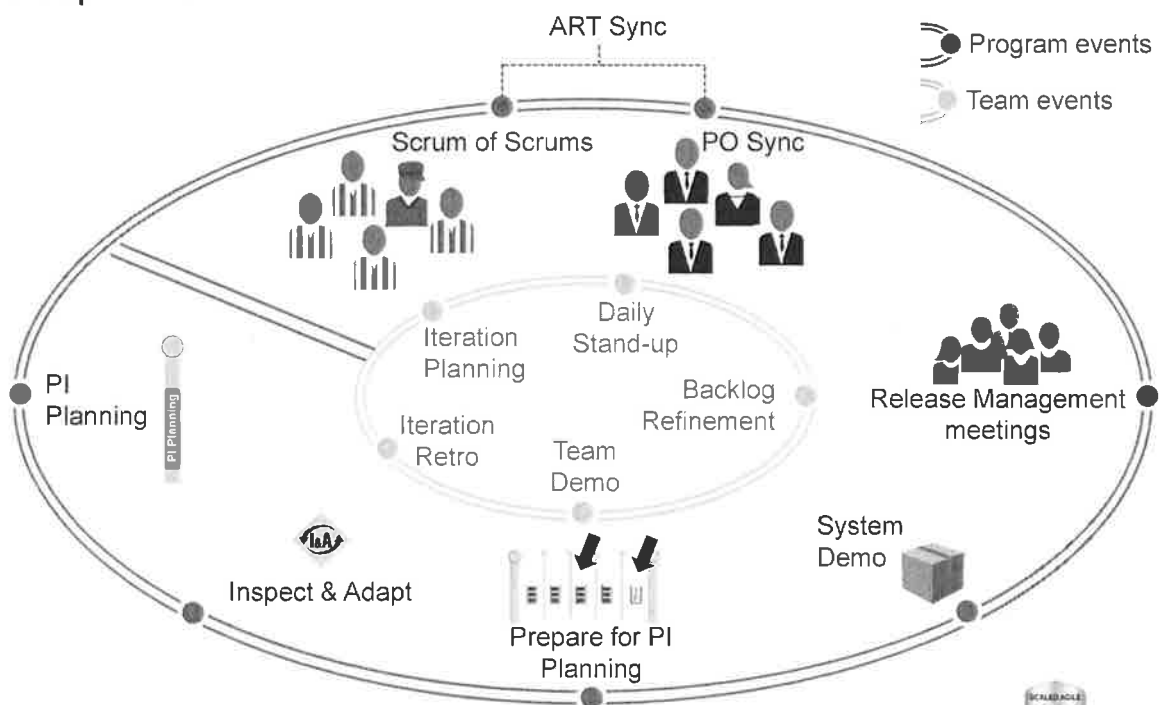


Prototypical Portfolio Kanban system










Program execution

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



Day 1 agenda

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 & development practices		<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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 & problem solving		Adjustments made based on challenges, risks, and impediments



Day 2 agenda

8:00-9:00	Planning adjustments		Planning adjustments made based on previous day's management meeting
9:00-11:00	Team breakouts		<ul style="list-style-type: none"> 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 & 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 & moving forward		<ul style="list-style-type: none"> Retrospective Moving Forward Final Instructions



Presented by RTE



Planning requirements

Iteration 1.1 Velocity 34 Load 30

Iteration 1.2 Velocity 34 Load 30

Iteration 1.3 Velocity 34 Load 30

Iteration 1.4 Velocity 34 Load 30

Iteration 1.5 Velocity 34 Load 0
IP Iteration

PI OBJECTIVES

RISKS

Velocity (Capacity): _____

Load: _____

For velocity, use historic information or 8 x (number of developers + testers)

Be sure to adjust for holidays & vacation.

Color coding gives visibility into investments

- Green = User Stories
- Yellow = Exploration Enablers
- Red/Pink = Risks and Dependencies
- Orange = Infrastructure/Enablers
- Purple = Maintenance
- Red/Pink with checkmark = Addressed Risks and Dependencies

SCALED AGILE © 2016 Scaled Agile, Inc. All Rights Reserved

TATA CONSULTANCY SERVICES Experience certainty.

Roadmap

The Roadmap guides the delivery of Features over time.

May V1.0 July E3 Expo (7/23) Sep V2.0 9/18

PI 3

- ▶ Road Rage ported (part I)
- ▶ Brickyard port started
- ▶ Distributed platform demo
- ▶ ALL GUIs for both games demonstrable
- ▶ Multiuser architecture
- ▶ New Road Rage features (see objectives for details)
- ▶ New Brickyard features (see objectives for details)
- Stretch Objectives —
- ▶ Demo of Beemer game

PI 4

- ▶ E3 Expo Tradeshow!
- ▶ Road Rage completed (single user)
- ▶ Brickyard Ported (single user)
- ▶ Road Rage multiuser demonstrable
- ▶ First multiuser game feature for Road Rage

PI 5

- ▶ Road Rage (multiuser) first release
- ▶ Brickyard ported multiuser demo
- ▶ New features for both games (see backlog)

Committed Forecast

SCALED AGILE © 2016 Scaled Agile, Inc. All Rights Reserved

TATA CONSULTANCY SERVICES Experience certainty.



BA Transformation Challenges



BA Agile Transformation Challenges

- ▶ T-Shaped cross functional adoption – being a DevOps engineer
- ▶ Transforming from a change role to an operational role
- ▶ Profile diversification
- ▶ Standardization requirements artefacts/terminology
- ▶ Articulating requirements at the right level
- ▶ Finding the right balance in detailing “Just in Time” vs. BUFD



Questions?

