Drive Results.

DevOps, SAFe and critical information bearers.

A practical approach to achieve consistent planning and communication

Erik Schumann - Lean | Agile Coach (SPC)
erik.schumann@sellegi.se

IBM
RUC2014
Rational User Conference

About Sellegi Technologies

Sellegi Technologies focus is to help companies scale their agile and lean efforts with training, consultancy and tools.

- Sellegi offers tools, services and training for complex projects with top of the line experts in the areas
  - ways of working
  - agile and lean development
  - automated information analysis
  - tool integrations
- Sellegi ACT is an agile tool for portfolio and program management
- Sellegi Technologies is a tooling and service partner to Scaled Agile Inc

SCALED AGILE PARTNERS

Agenda

- DevOps Planning Scenarios
- SAFe Overview
- Program Information Flow
- Consistent Prioritization
- References

DevOps Business Pain Points

- ***Inability t***eeds and changes b nt applications, processes, technologies, and tooling
- ***Unremark***ue stream becomes f eeds are lost in translation from business planning to deployment
- ***Unintende***ease delivery due to inab

Slow

Hard to use

Broken

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Addressing Business Pain Points

*How do we track delivery of **value** to our customers across multiple inter-dependent teams??*

Empower Program Delivery

- Synchronize program-wide changes with **multi-level planning**
- Accelerate delivery of value with **joined application delivery pipeline** in synchronized Agile Release Trains
- Focus on delivery of value through **customer & delivery analytics**

Key Scenarios – Deliver Corporate Initiative

Sub-Scenarios	Core Solution	Roles
#&@$! Happens	Synchronize program-wide changes and roadmap with **multi-level planning**	• Program Management Team • Enterprise IT Architect • Execution Teams • Business Owner
Implement and Deploy the #&@$!	Accelerate delivery of value with **continuous application delivery pipeline in synchronized Agile Release Trains**	• Program Management Team • Enterprise IT Architect • Execution Teams
Why isn't the #&@$! Getting to Customers?	Focus on delivery of value through **customer & delivery analytics**	• IT Director • Lean Improvements Team

Multi level planning

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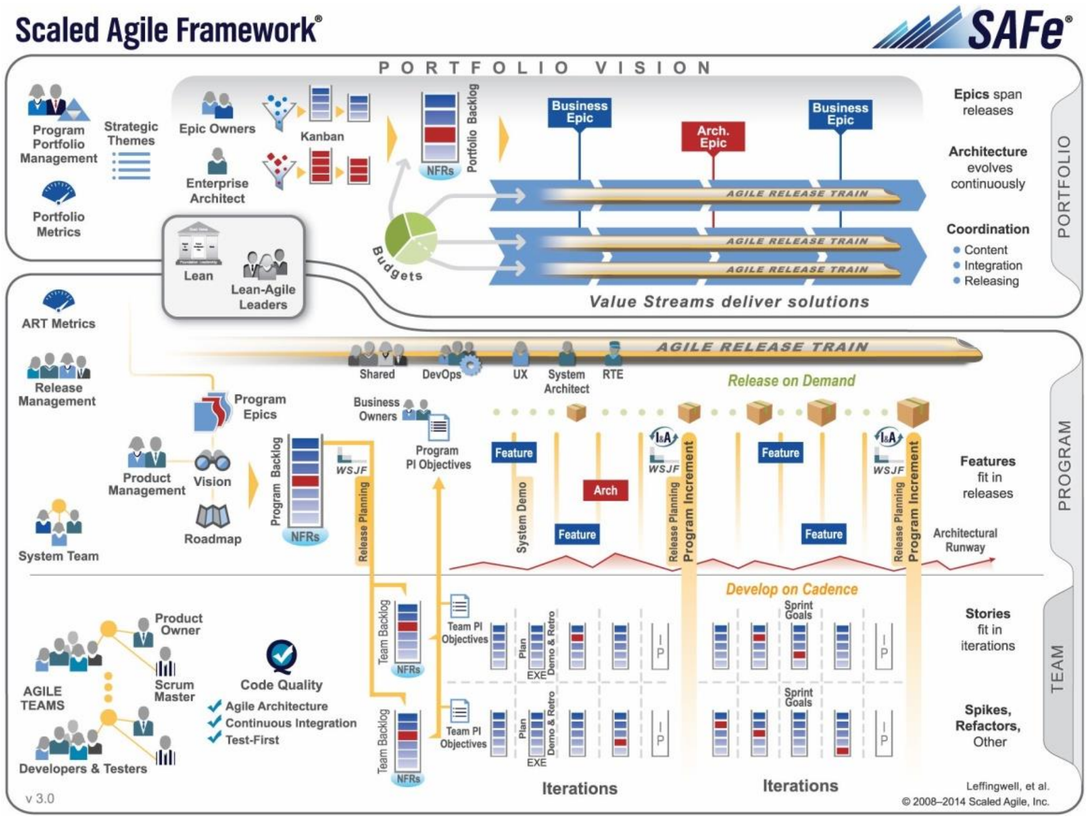
Drive Results.

SAFE OVERVIEW

The Scaled Agile Framework (SAFe)

A proven, publicly-facing framework for applying Lean and Agile practices at enterprise scale



ScaledAgileFramework.com

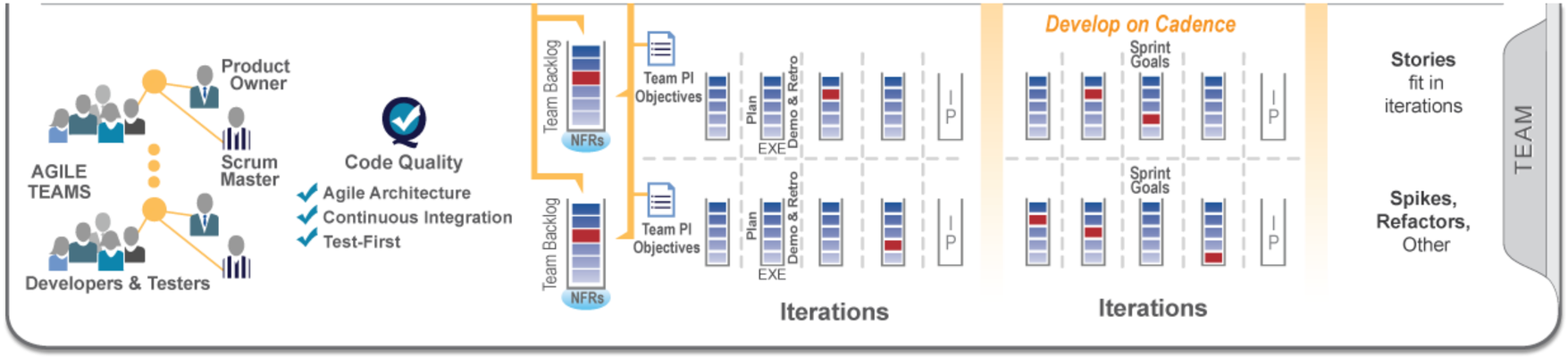
CORE VALUES

1. Program Execution
2. Alignment
3. Code Quality
4. Transparency

Synchronizes alignment, collaboration and delivery for large numbers of teams

Nothing Beats an Agile Team

- Valuable, fully-tested software increments every two weeks
- Empowered, self-organizing, self-managing cross-functional teams
- Teams operate under program vision, architecture and user experience guidance
- Scrum project management and XP-inspired technical practices
- Value delivery via **User Stories**



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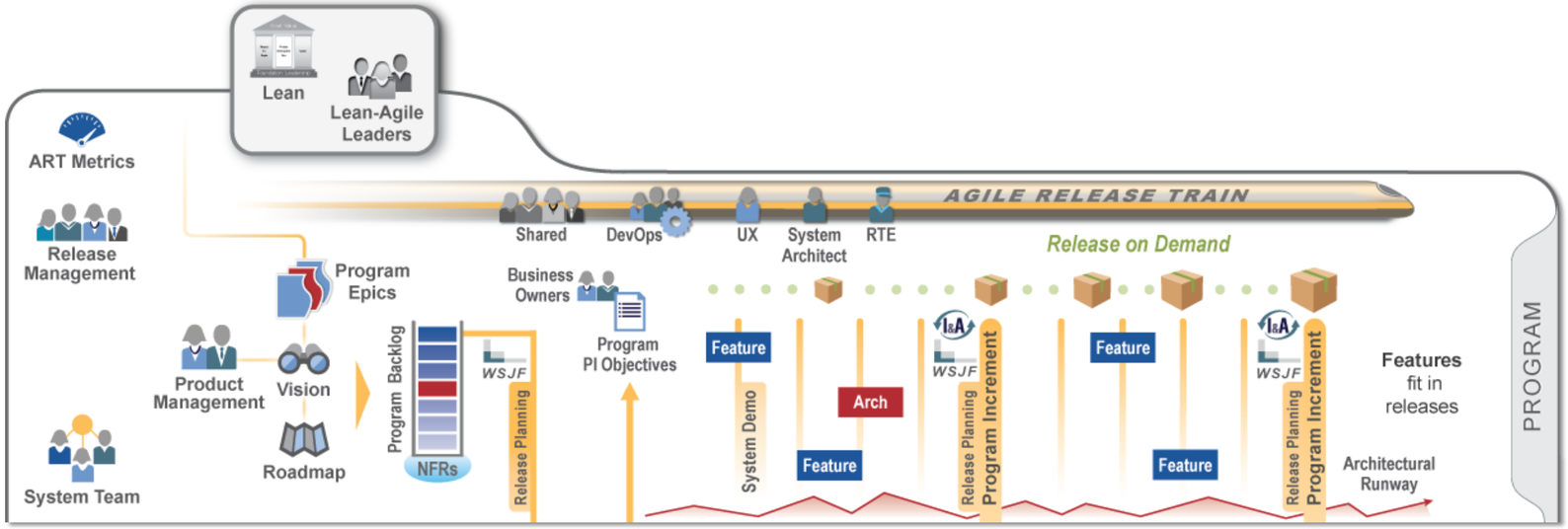
Scale to the Program Level

- Self-organizing, self-managing team-of-agile-teams
- Working, system increments every two weeks
- Aligned to a common mission via a single backlog



- Common sprint lengths and estimating
- Face-to-face release planning cadence for collaboration, alignment, synchronization, and assessment
- Value Delivery via **Features and Benefits**

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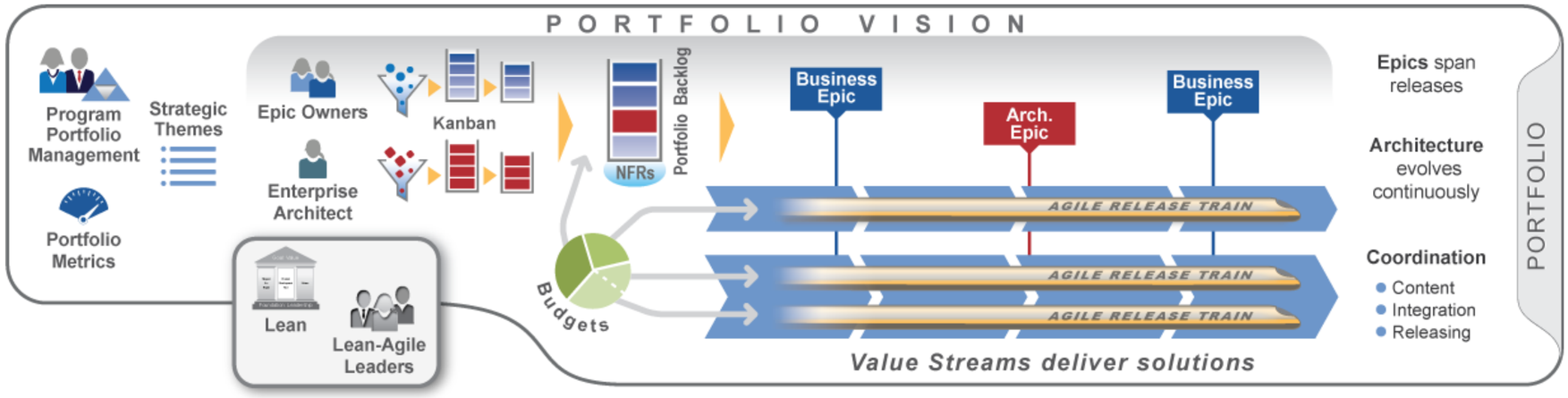
Scale to the Portfolio



- Centralized strategy, decentralized execution
- Lean-Agile budgeting empowers decision makers
- Kanban systems provide portfolio visibility and WIP limits
- Enterprise architecture is a first class citizen
- Objective metrics support governance and kaizen
- Value description via ***Business*** and ***Architectural Epics***

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Develop on Cadence. Release on Demand.

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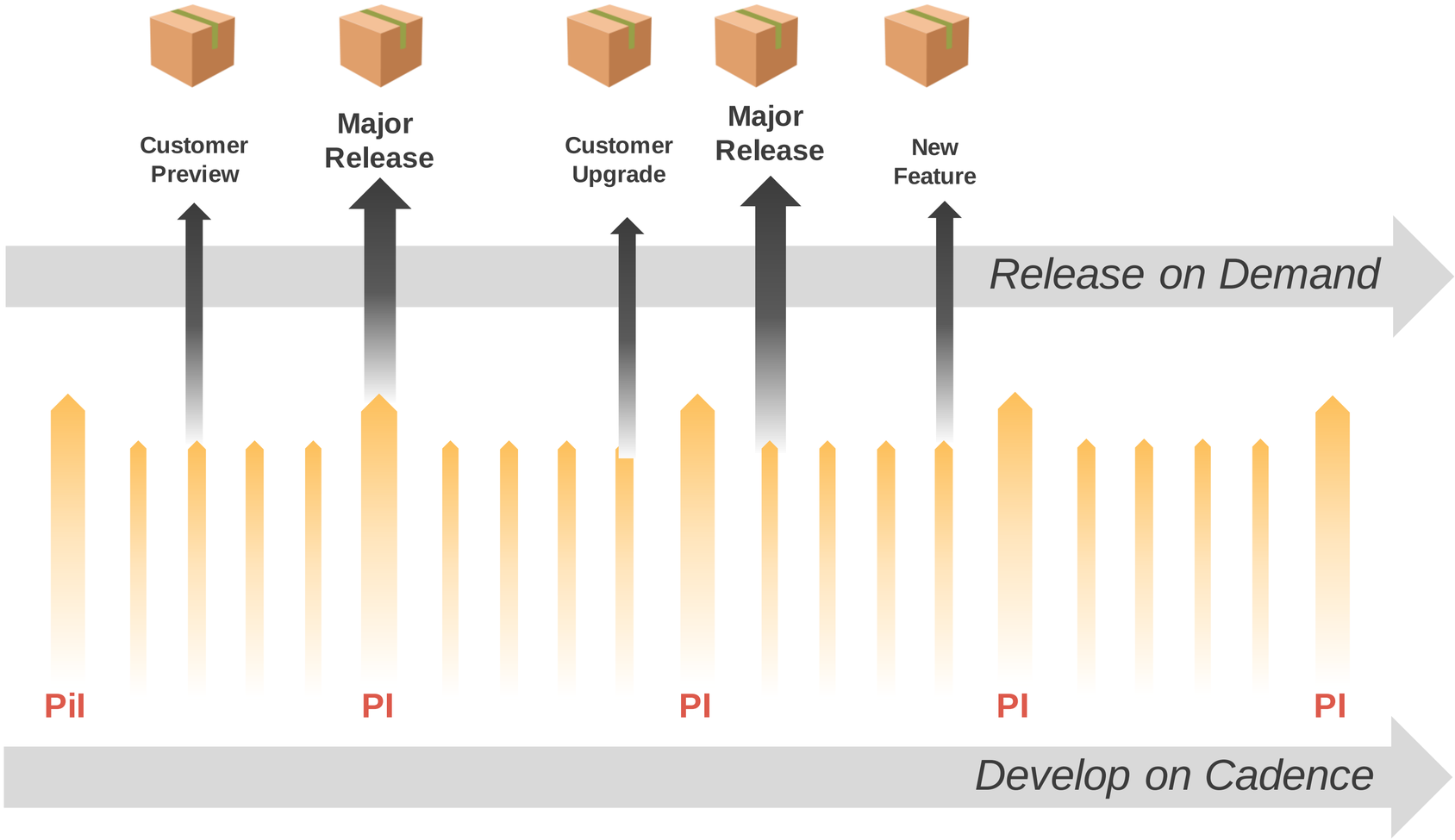
Development occurs on a fixed cadence.
The business decides when value is released.



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Transparency

Transparency builds confidence, alignment and trust

- All backlog and progress visible to all stakeholders
- Objective reporting based on working, tested, evealuated code
- Evereryone understands backlog, capacity, velocity, WIP
- Managements leads and fosters open environment

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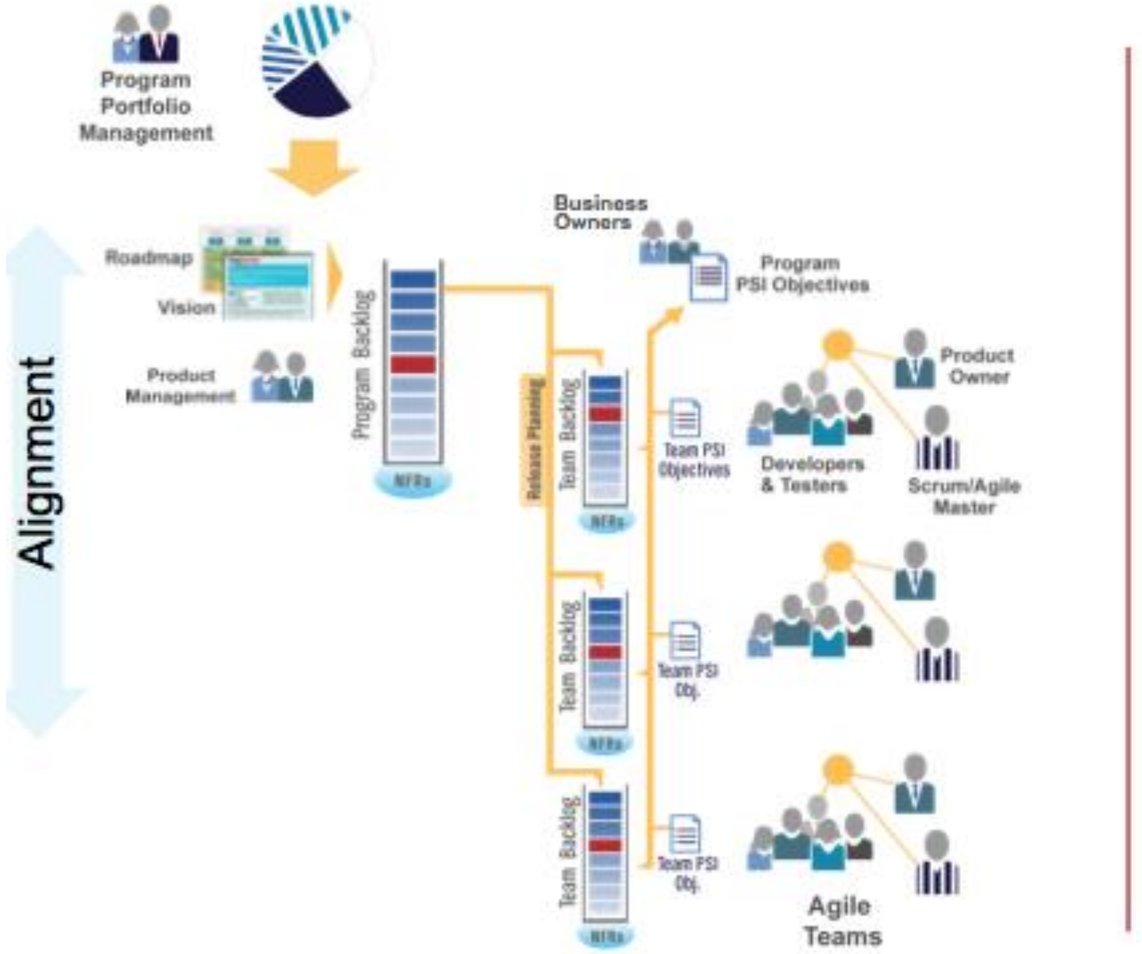
Alignment

"There is more value created with overall alignment than with local excellence." – D. Reinertsen



- Clear content authority
- Face to face planning
- Aligned Team, Program and Business owner objectives
- Cross-team and cross-program coordination
- Architecture and UX guidance
- Match demand to throughput

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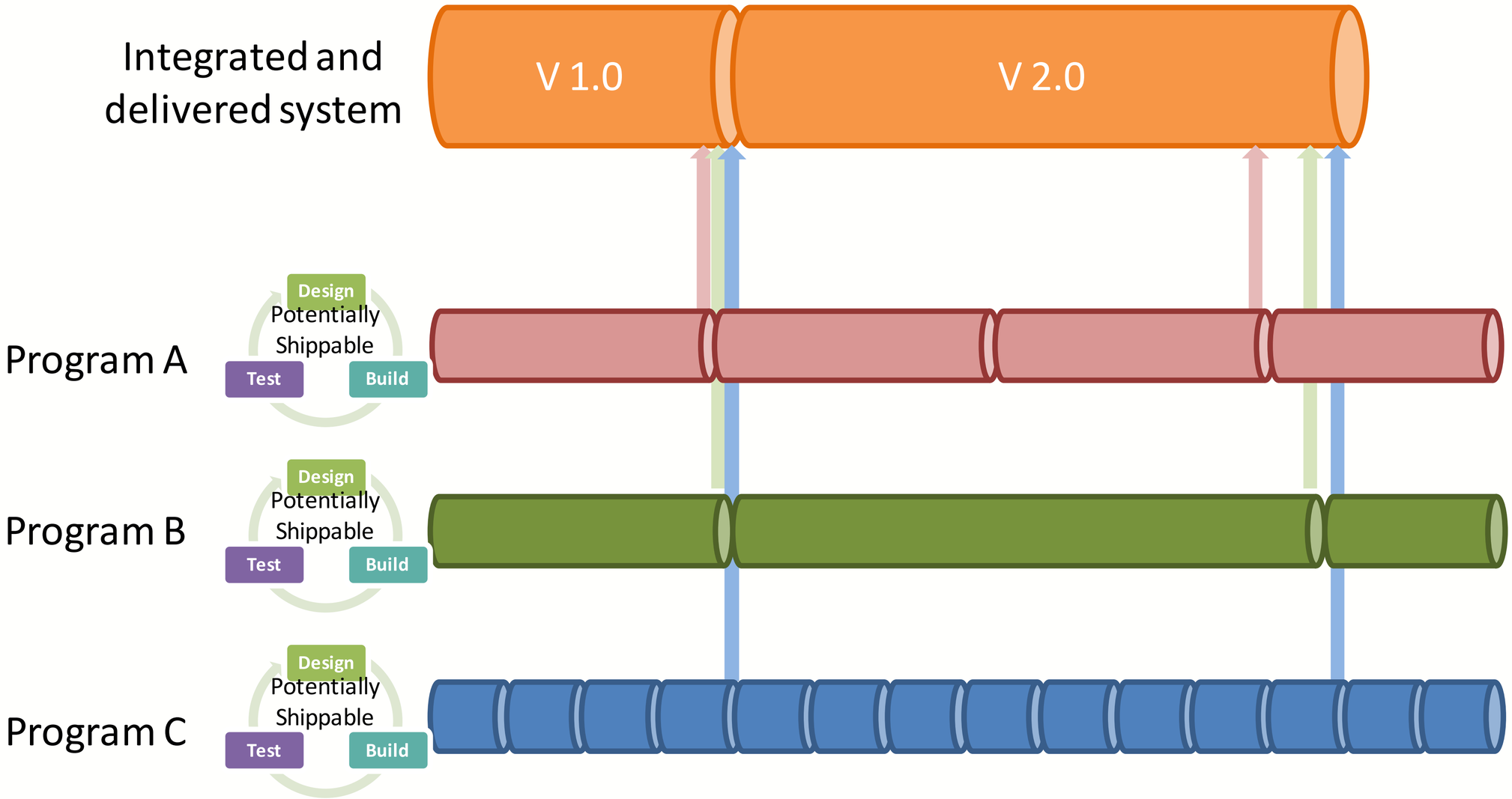
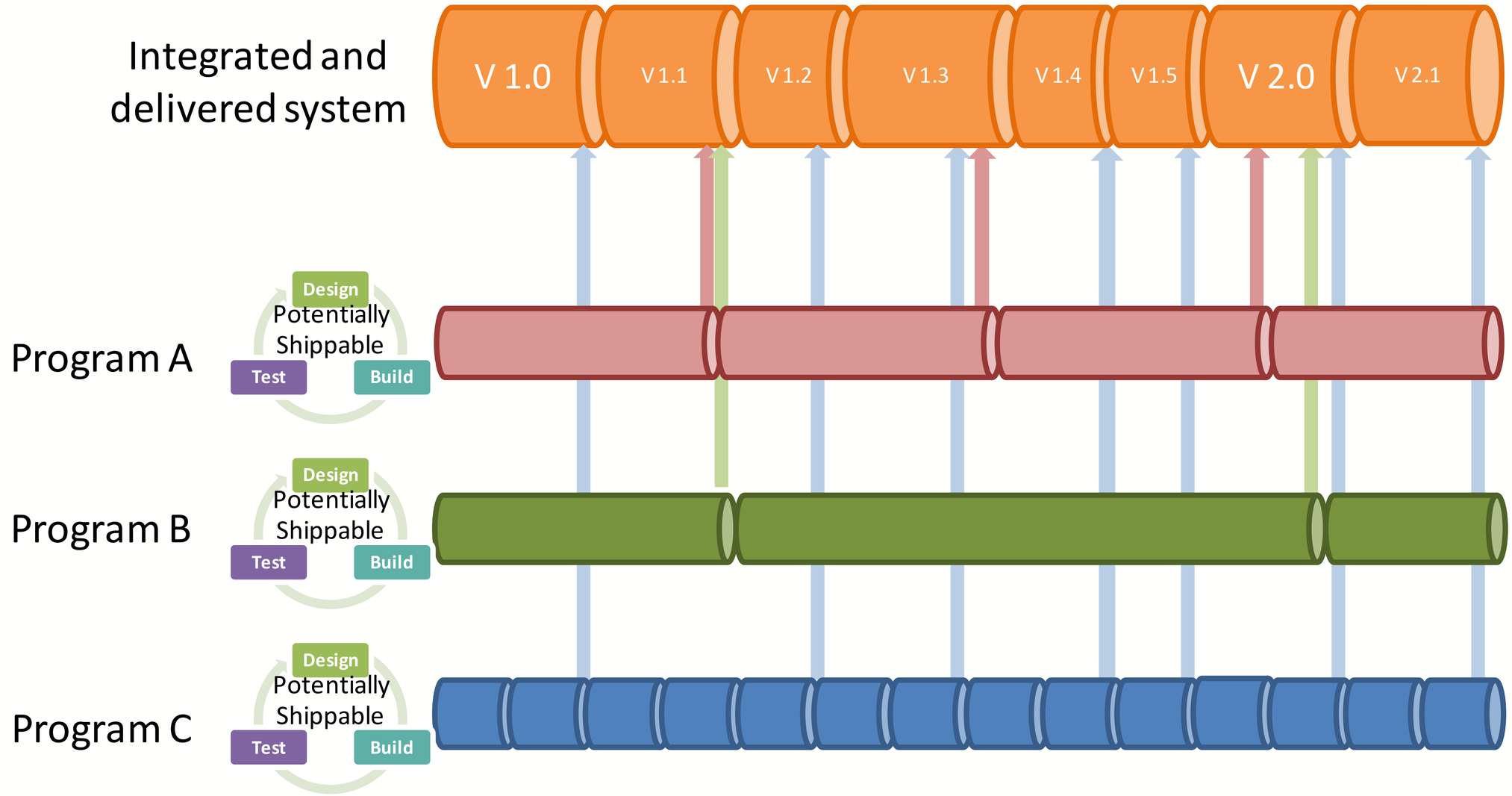
PROGRAM INFORMATION FLOW AND CONSISTENCY

Traditional, finished programs

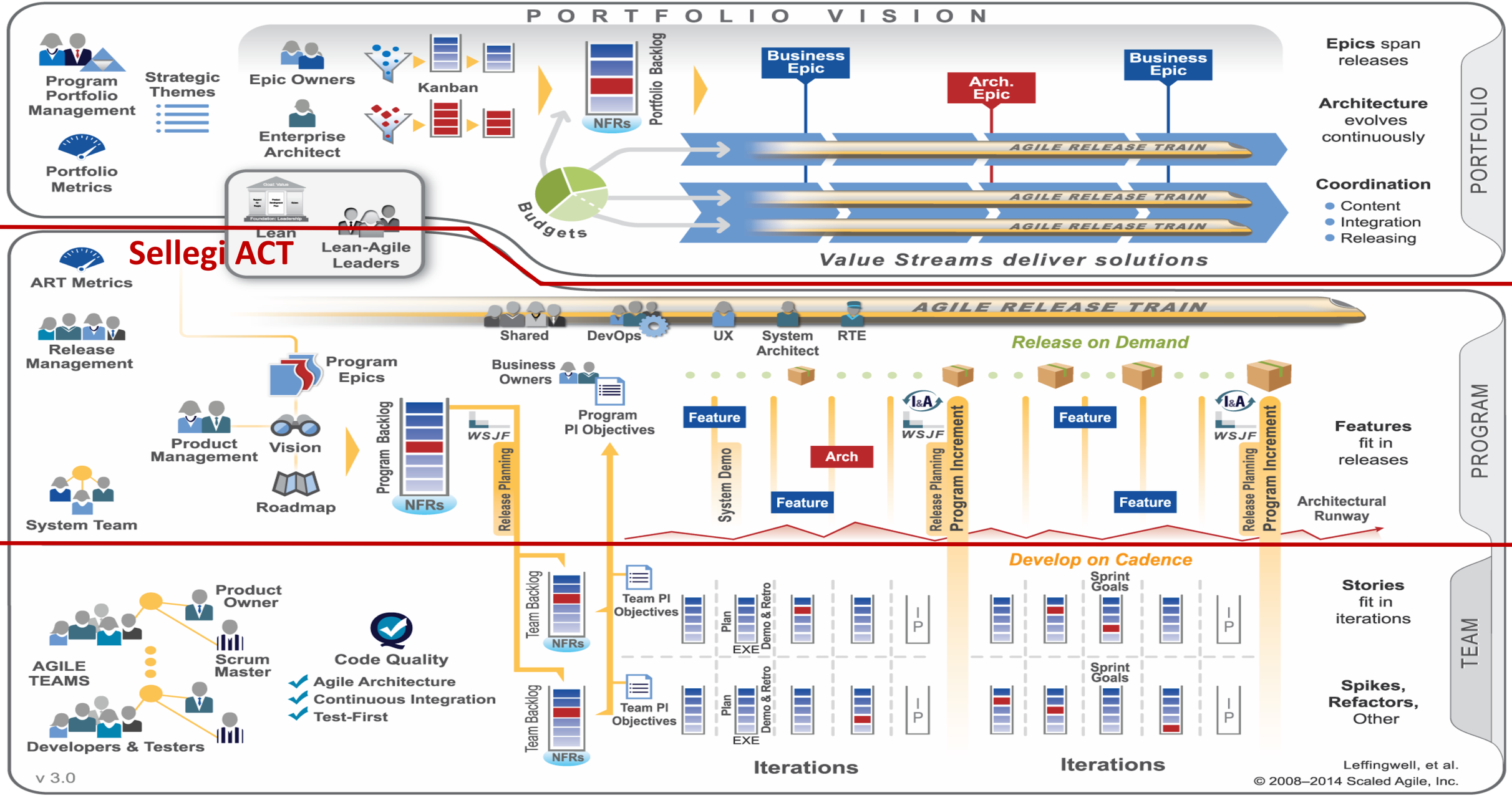


Agile, synchronized programs

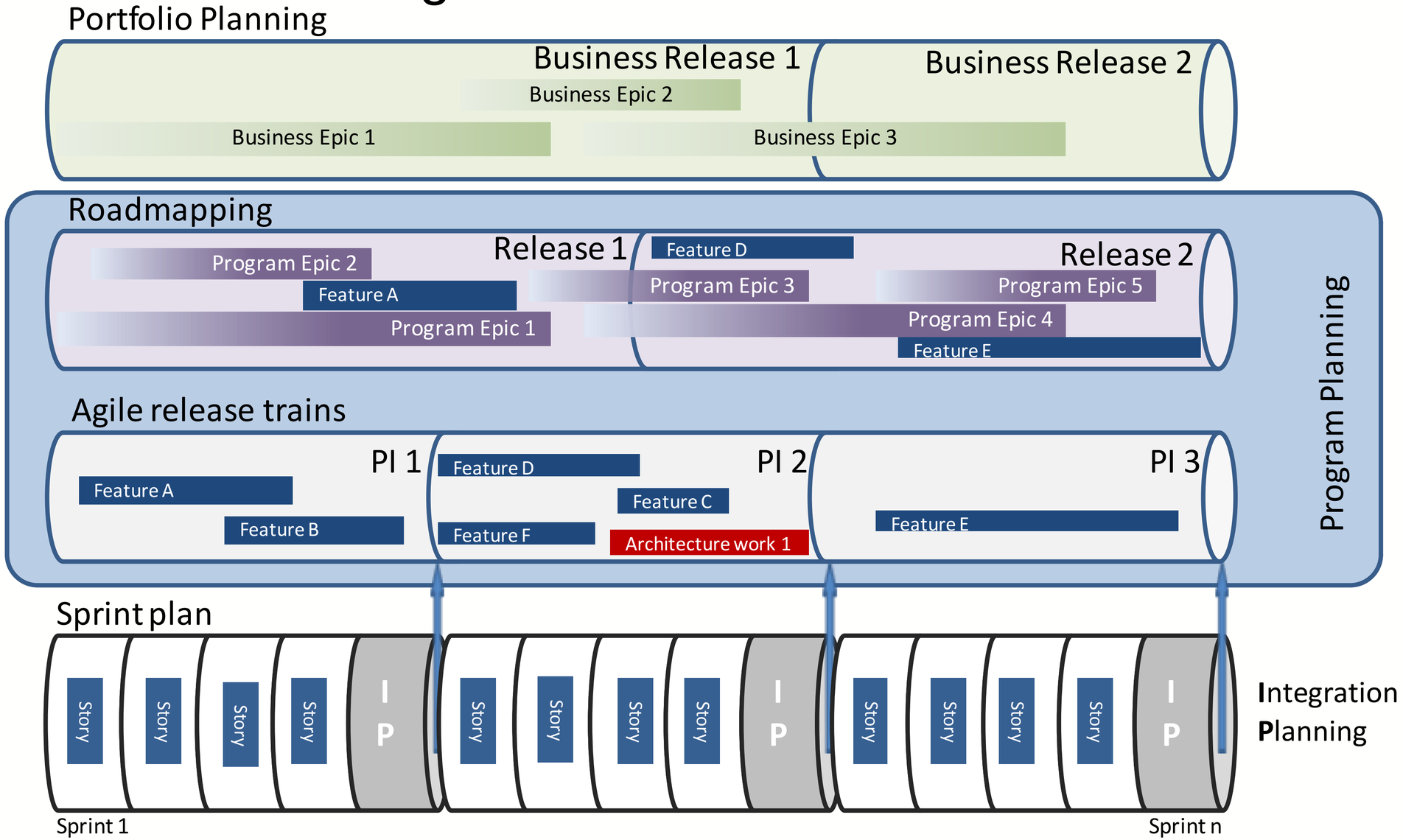


Scaled Agile Framework®

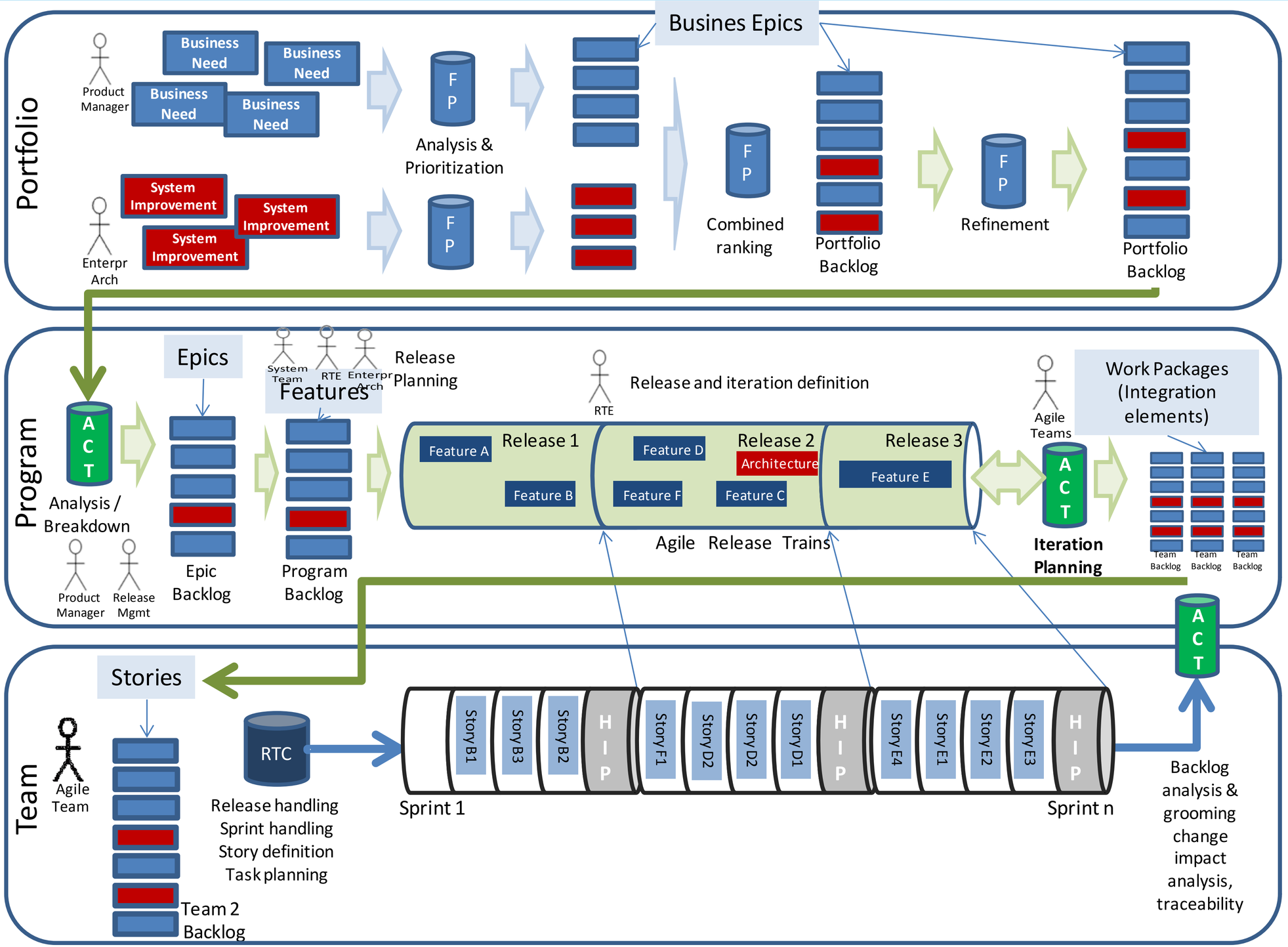
SAFe®



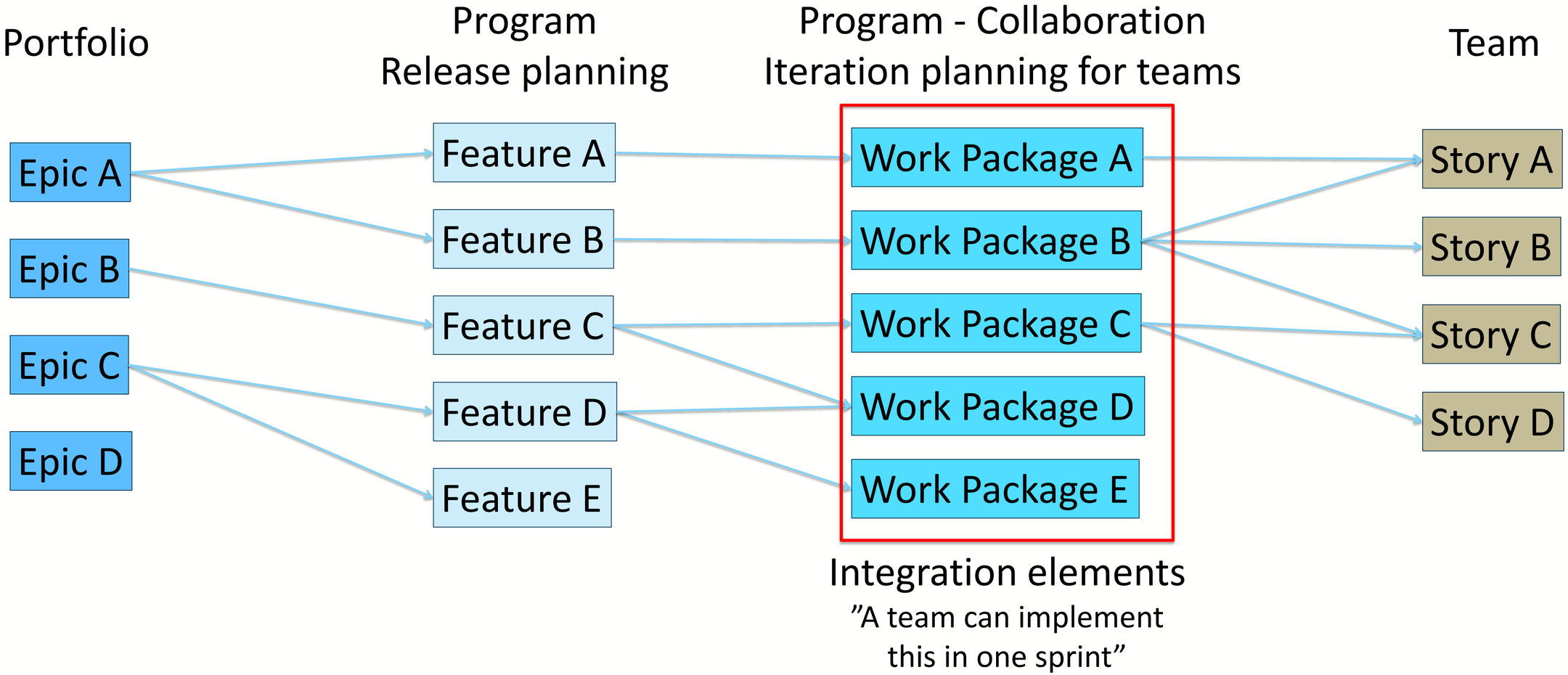
Agile Release Trains Aligned with Business Release



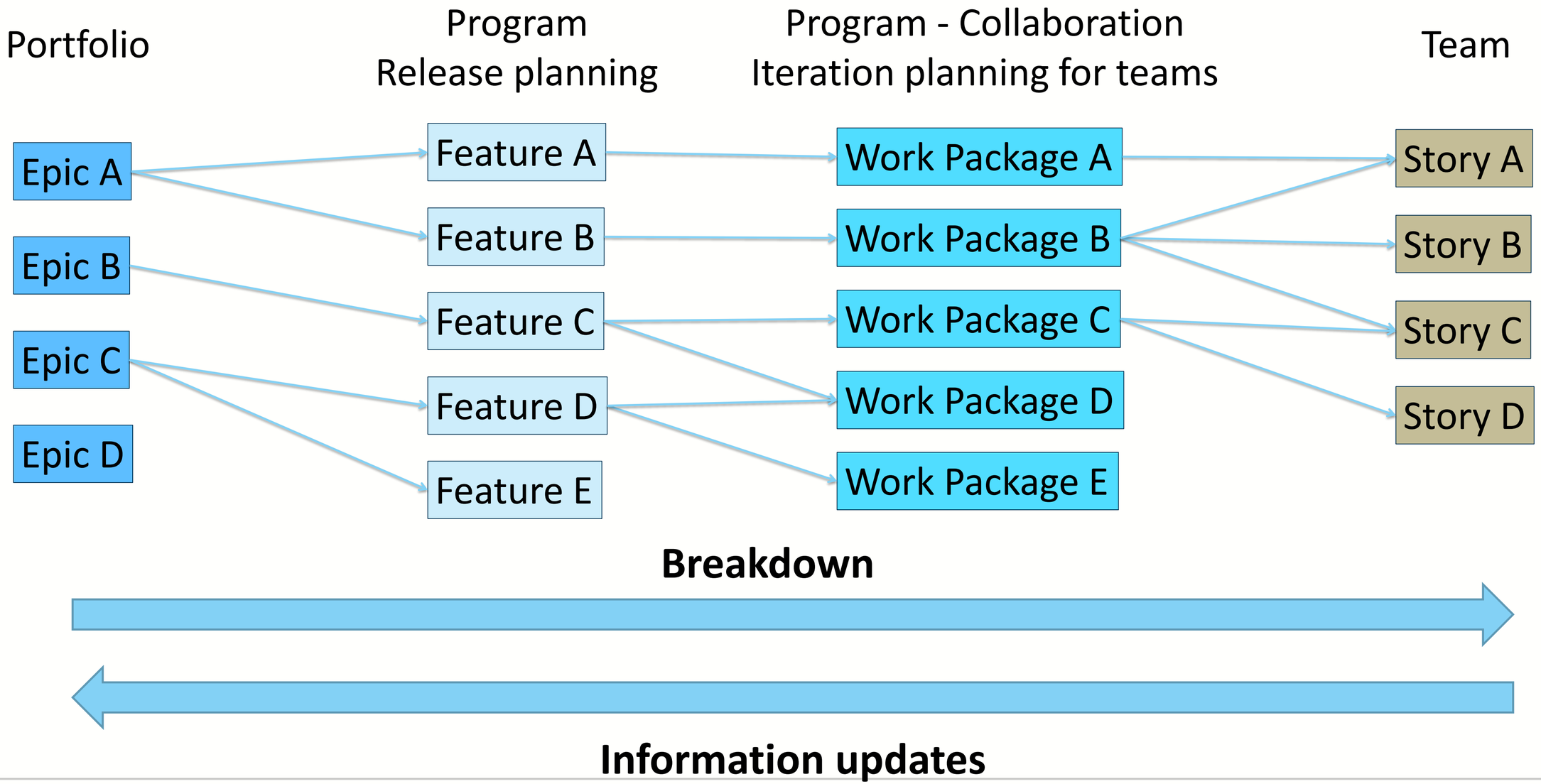
At the end of each sprint, the system is executable, testable and there are no open dependencies between teams


Portfolio
Busines Epics
Product Manager
Business Need
Business Need
Business Need
Business Need
Business Need
Enterpr Arch
System Improvement
System Improvement
System Improvement
F P
Analysis & Prioritization
Combined ranking
Portfolio Backlog
Refinement
Portfolio Backlog
Program
ACT
Analysis / Breakdown
Product Manager
Release Mgmt
Epics
Epic Backlog
System Team
RTE
Enterpr Arch
Features
Release Planning
Program Backlog
RTE
Release and iteration definition
Feature A
Release 1
Feature B
Feature D
Release 2
Architecture
Feature F
Feature C
Release 3
Feature E
Agile Release Trains
Agile Teams
Work Packages (Integration elements)
Iteration Planning
Team Backlog
Team Backlog
Team Backlog
Team
Stories
Agile Team
Team 2 Backlog
RTC
Release handling
Sprint handling
Story definition
Task planning
Story B1
Story B3
Story B2
H I P
Story F1
Story D2
Story D2
Story D1
H I P
Story E4
Story E1
Story E2
Story E3
H I P
Sprint 1
Sprint n
Backlog analysis & grooming
change impact analysis, traceability

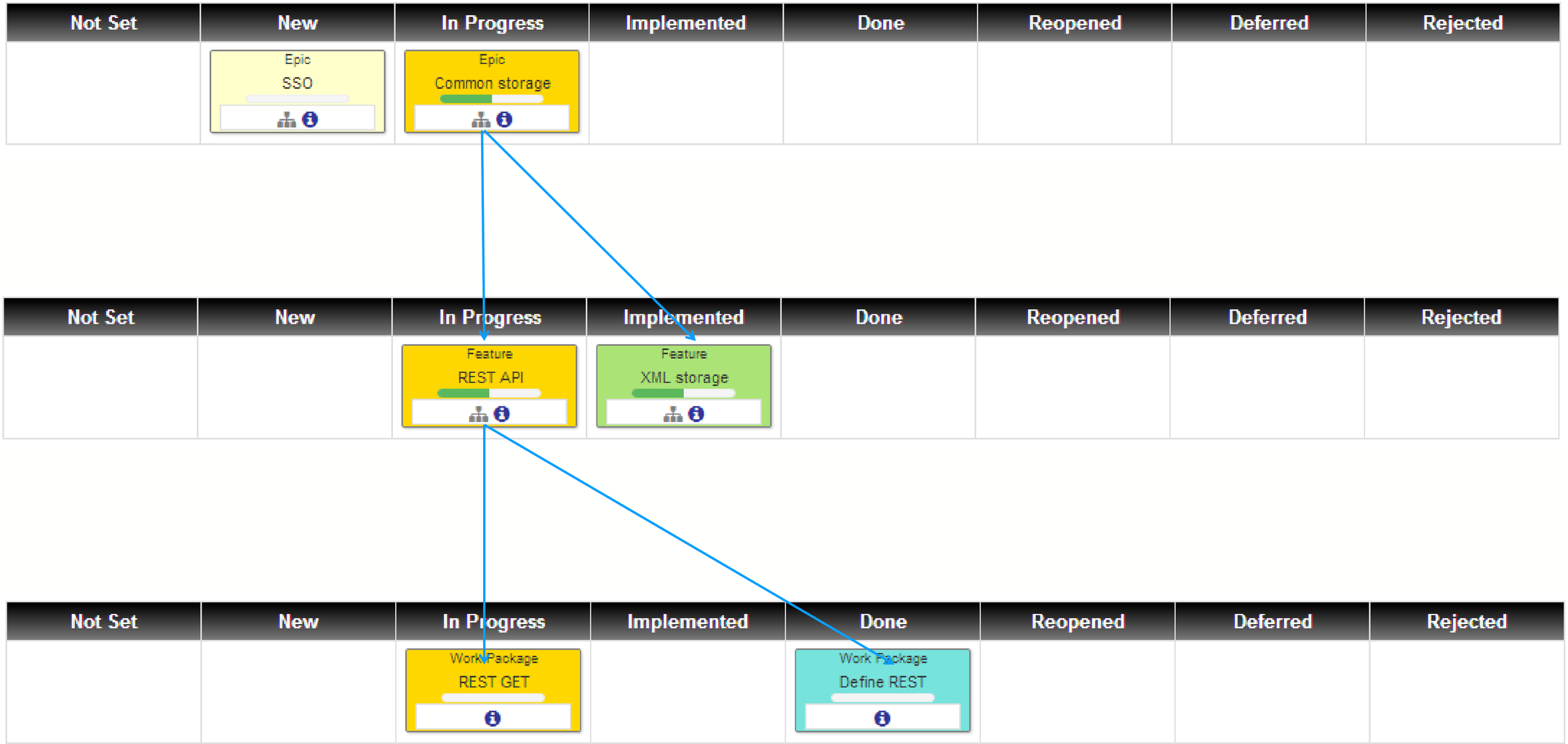
Backlog, breakdown and information flow



Backlog, breakdown and information flow

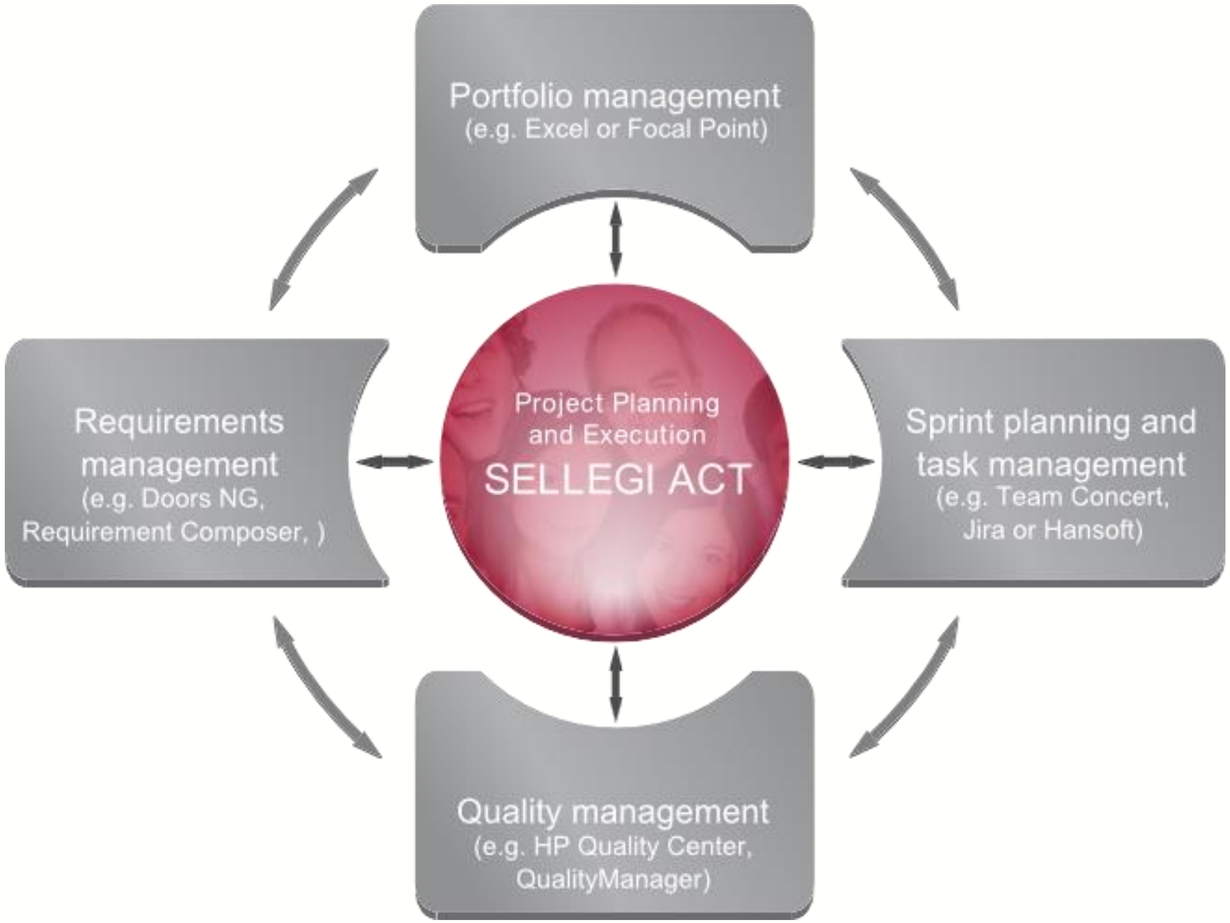


Backlog, breakdown and information aggregation



Backlog, breakdown and information aggregation

Semantic Integration with Sellegi ACT



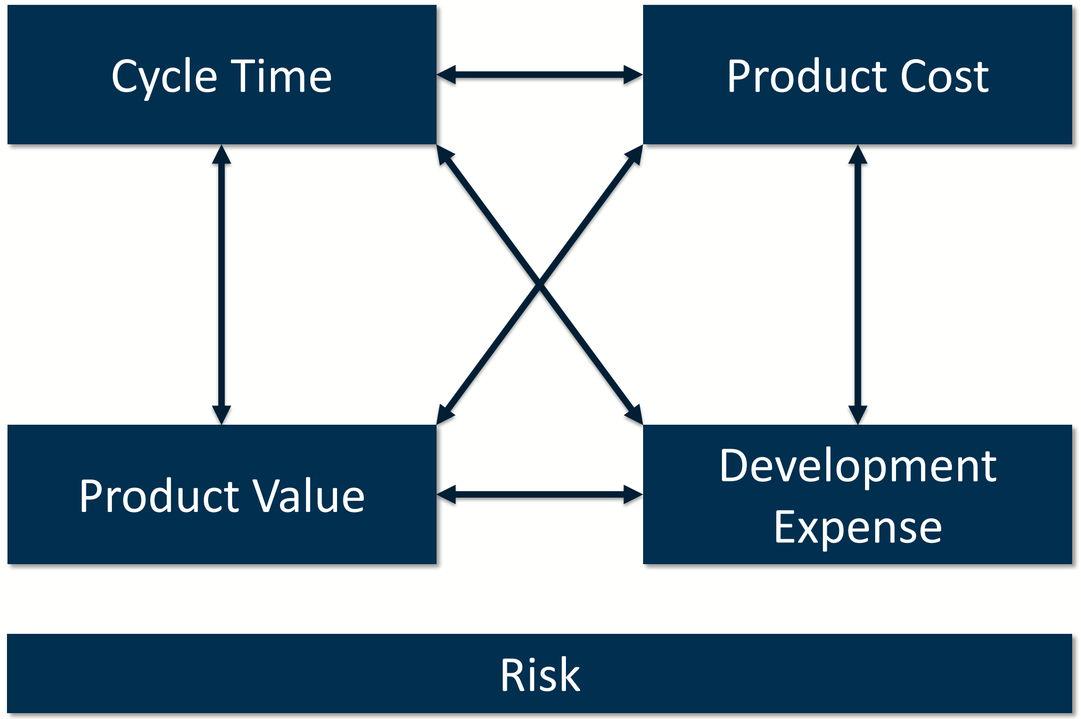
Integrations to other tools also available

CONSISTENT PRIORITIZATION

Prioritization and Cost of Delay

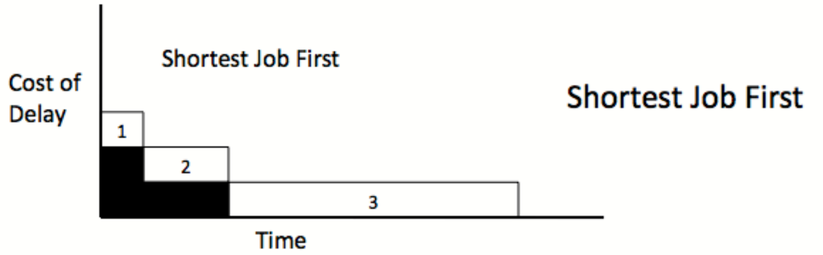
”Developers measure development cycle time and seek to make it shorter. However, when you ask them how much life-cycle profit will decrease due to a week of delay they don’t know”

”If you only quantify one thing, quantify the cost of delay”



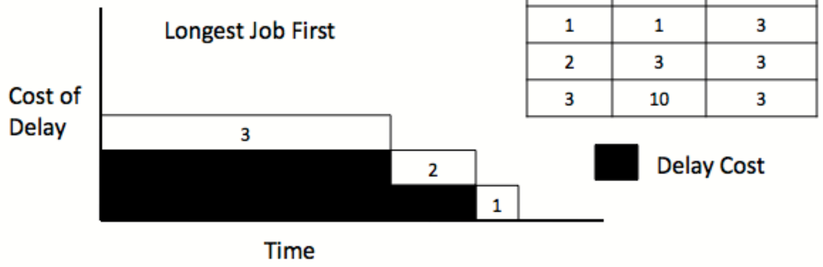
Don Reinertsen, The Principles of Product Development Flow

Prioritize fastest delivery of **business value** with WSJF



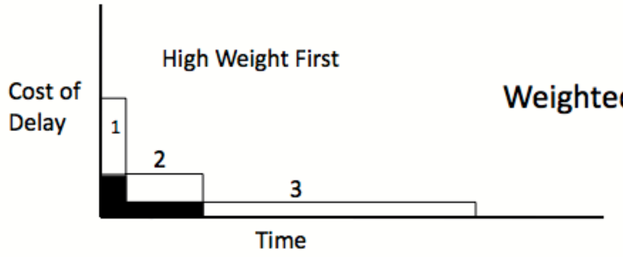
Shortest Job First

Project	Duration	Cost of Delay
1	1	3
2	3	3
3	10	3



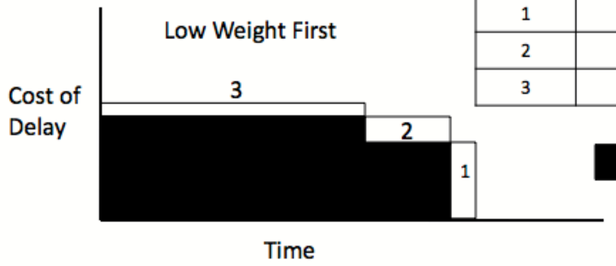
Delay Cost

From "The Principles of Product Development Flow," by Donald G. Reinertsen.
Celeritas Publishing: 2009. Copyright 2009, Donald G. Reinertsen



Weighted Shortest Job First

Project	Duration	Cost of Delay	Weight= CoD/ Duration
1	1	10	10
2	3	3	1
3	10	1	.1



Delay Cost

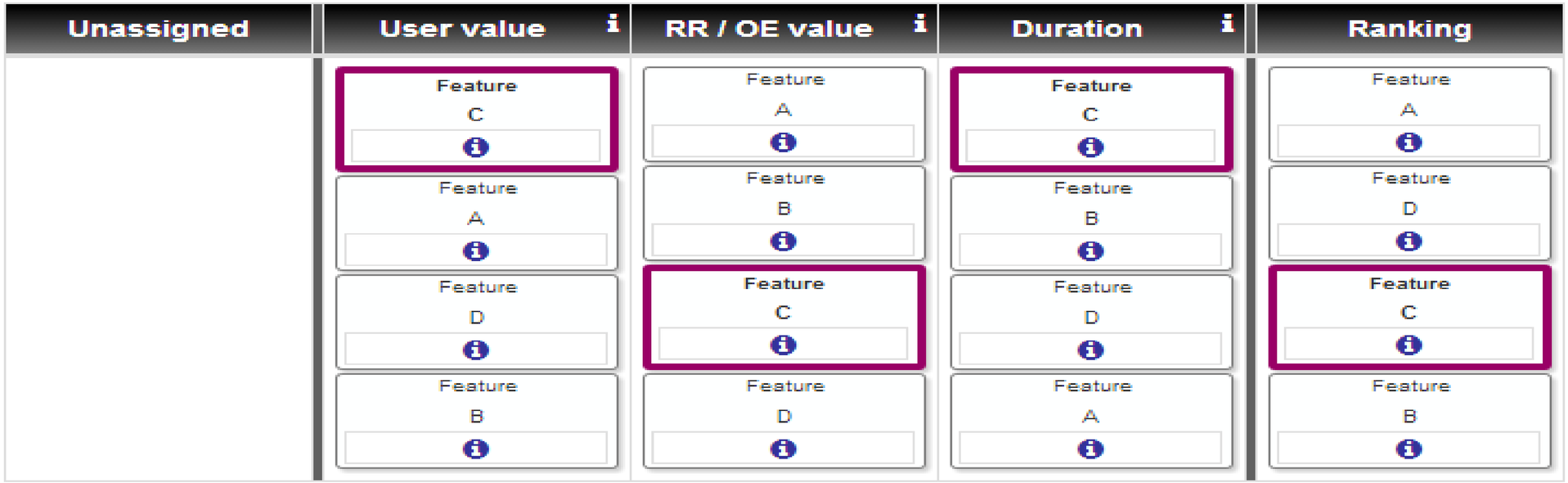
From "The Principles of Product Development Flow," by Donald G. Reinertsen.
Celeritas Publishing: 2009. Copyright 2009, Donald G. Reinertsen

Cost of Delay / WSJF according to SAFe

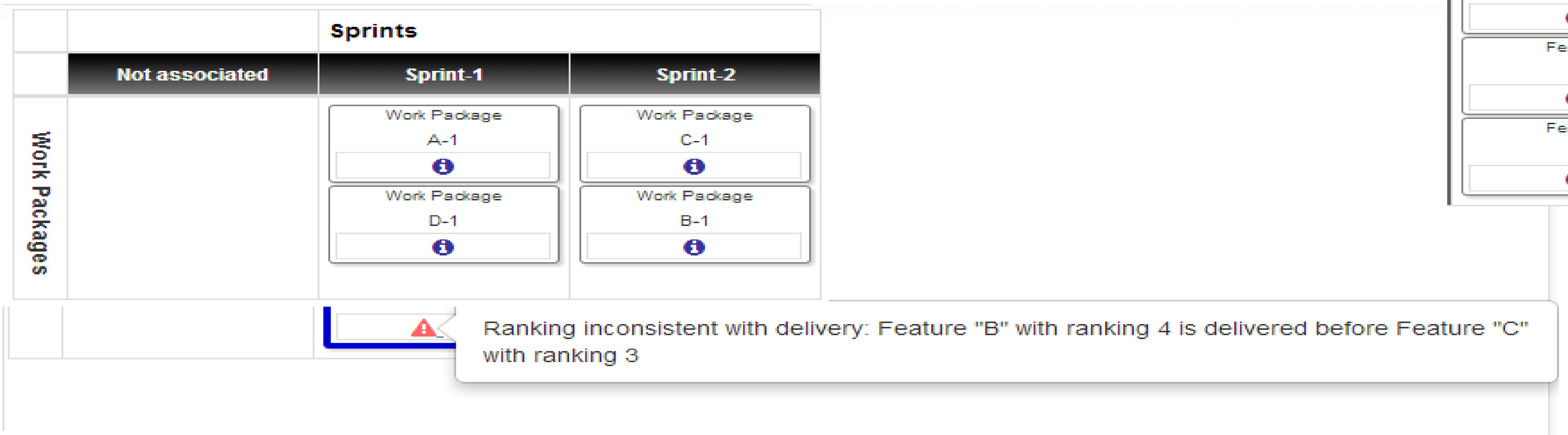
$$\text{WSJF} = \frac{\text{User|Business Value + Time Criticality + RR|OE Value}}{\text{Job Size}}$$

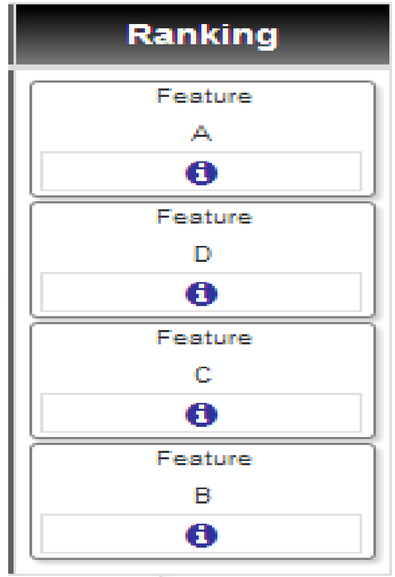
Suggestion:
Use the relative fibonacci scale for each variable

Interconnected backlogs part 1: WSJF feature prioritization



Interconnected backlogs part 2: WSJF prioritization effects on team planning





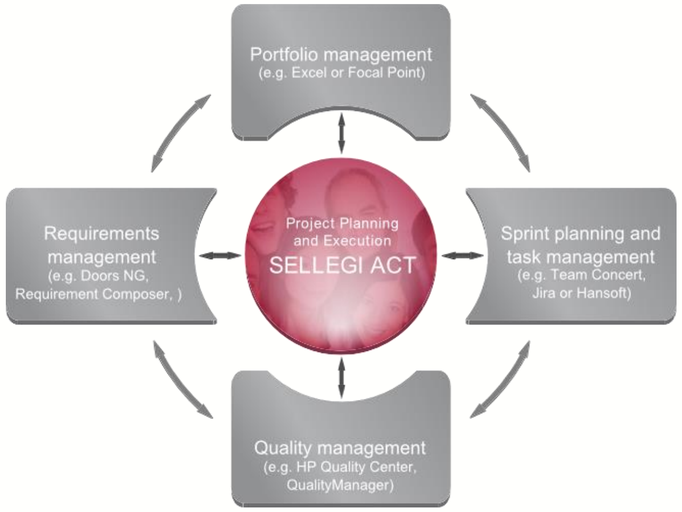
Scaling agile has two main challenges

You can scale from scratch or you can use an establised standard

- SAFe is a proven, public facing collection of **best practices**
- SAFe relies heavily on transparency, information breakdown and **connected backlogs**
- Use **regular prioritizations** to reflect on new information
- If you quantify one thing, quantify the **Cost of Delay**

Transparency with real-time Insight

- Quick decisions have to be fact-based
- Facts have to be available in real-time
- Integrated information with traceability between all levels



References

- Rational's SAFe Transformation - DevOps Blogs on jazz.net: https://jazz.net/blog/index.php/author/asilber/?tag=DevOps
- Scaled Agile Framework: scaledagileframework.com
- Don Reinertsen: "The Principles of Product Development Flow"
- Backlog prioritization with Sellegi ACT: http://sellegi-act.com