

Lesson 7

Building an Agile Portfolio

Day 1

1. Introducing the Scaled Agile Framework
2. Embracing a Lean-Agile Mindset
Break
3. Understanding SAFe Principles
Lunch
4. Implementing an Agile Release Train
Break
5. Experiencing PI Planning

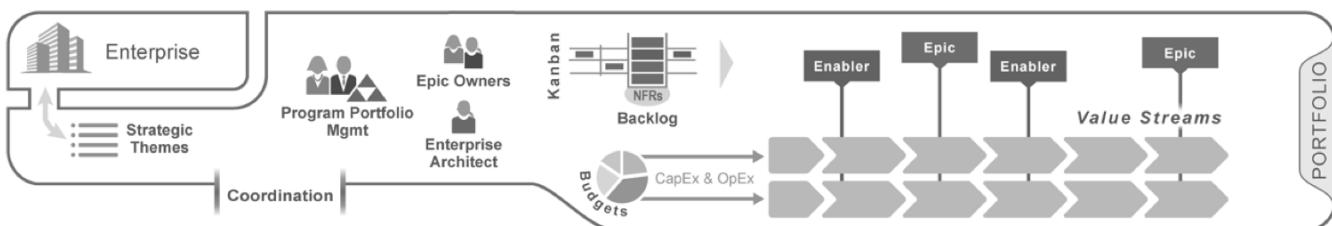
Day 2

6. Executing and Releasing Value
Break
7. Building an Agile Portfolio
Lunch
8. Building Really Big Systems
Break
9. Leading the Lean-Agile Enterprise

Learning objectives

- 7.1 Define Strategic Themes for a portfolio
- 7.2 Identify Portfolio Value Streams
- 7.3 Advance Solution behavior with portfolio Epics
- 7.4 Transition from project cost accounting to Lean-Agile Budgeting
- 7.5 Forecast Epics on a near term Roadmap

Note: This lesson contains optional material in the Appendix



The aim of the system



A system is a network of interdependent components that work together to try to accomplish the aim of the system.

A system must have an aim. Without an aim, there is no system.

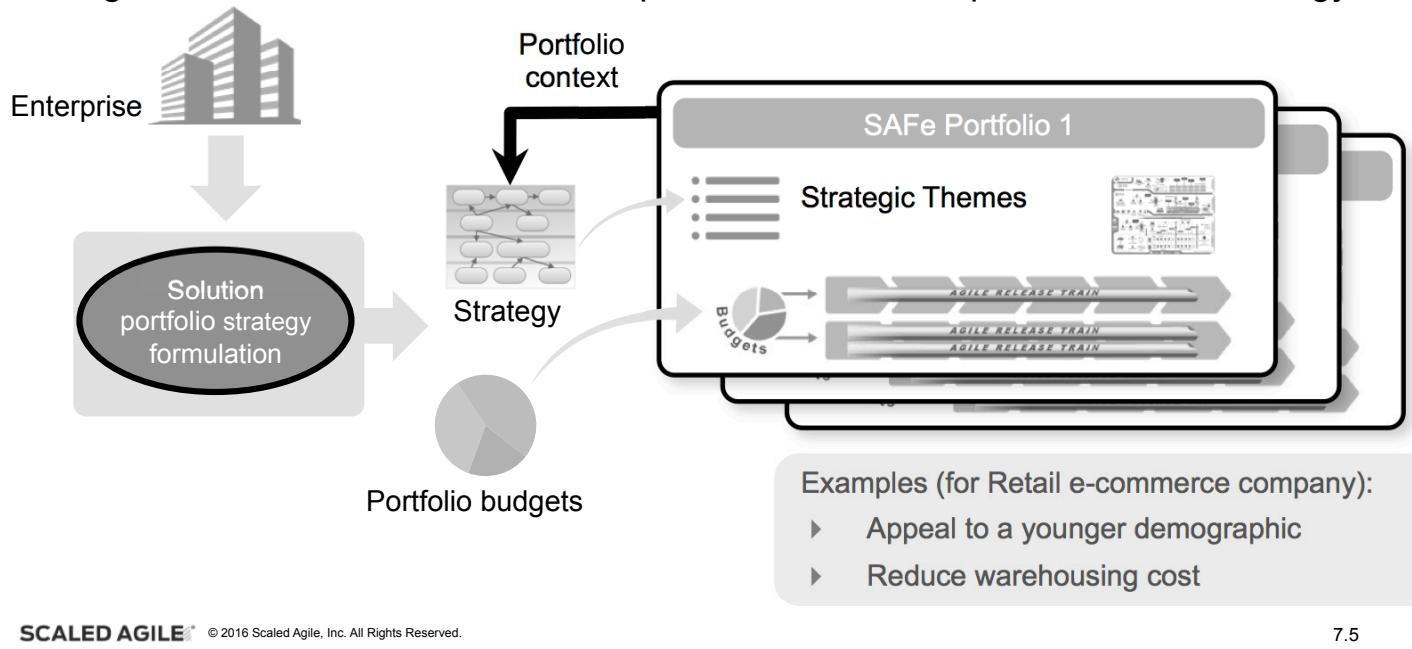
—W. Edwards Deming

Photo courtesy of the W. Edwards Deming Institute®

7.1 Define Strategic Themes for a portfolio

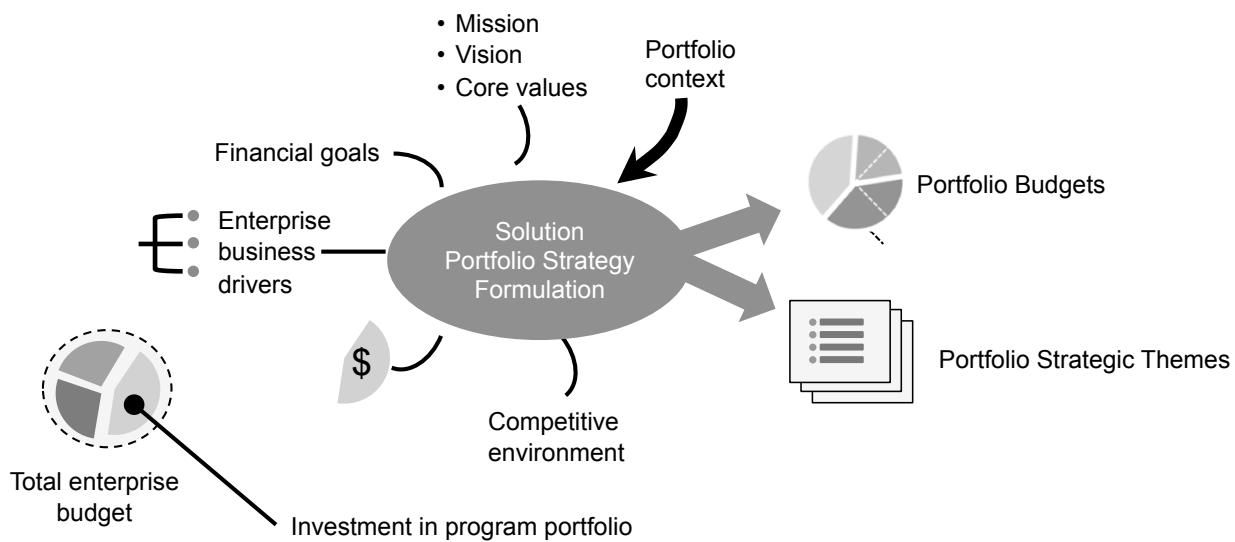
Collaborating on Strategic Themes

Strategic Themes connect each SAFe portfolio to the enterprise business strategy.



Formulating Strategic Themes

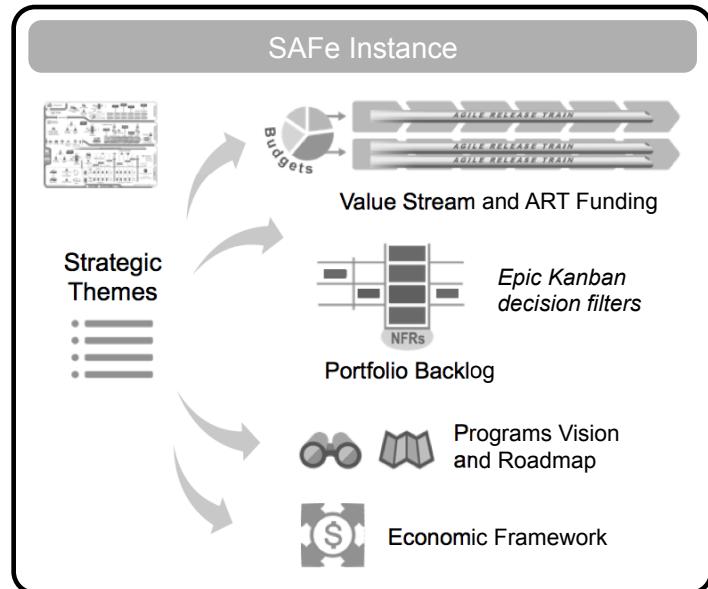
Strategic Themes are an output of a disciplined strategy formulation process.



Influence of Strategic Themes

Strategic Themes influence ART funding, Portfolio Backlog, Program Vision and Roadmap.

1. Adjust ART and value stream funding to track to changing strategic priorities
2. Assist with epic evaluation and decision making
3. Influence each Program Vision and Roadmap



Exercise: Identify Strategic Themes

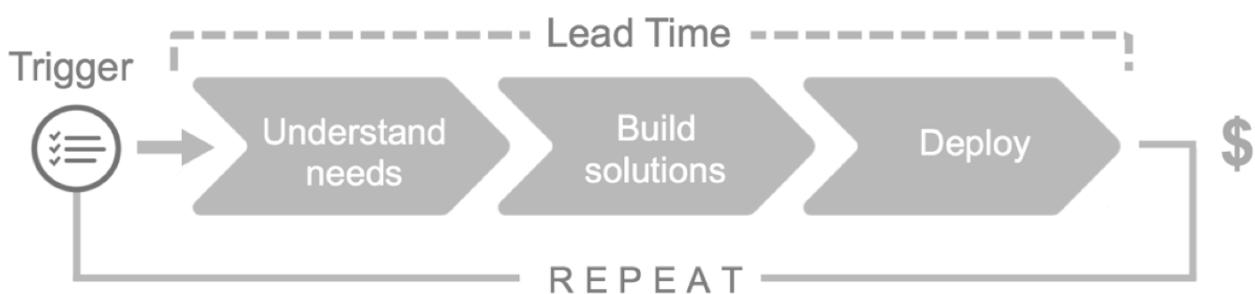
Identify three Strategic Themes that help define your strategy in the upcoming year.



7.2 Identify Portfolio Value Streams

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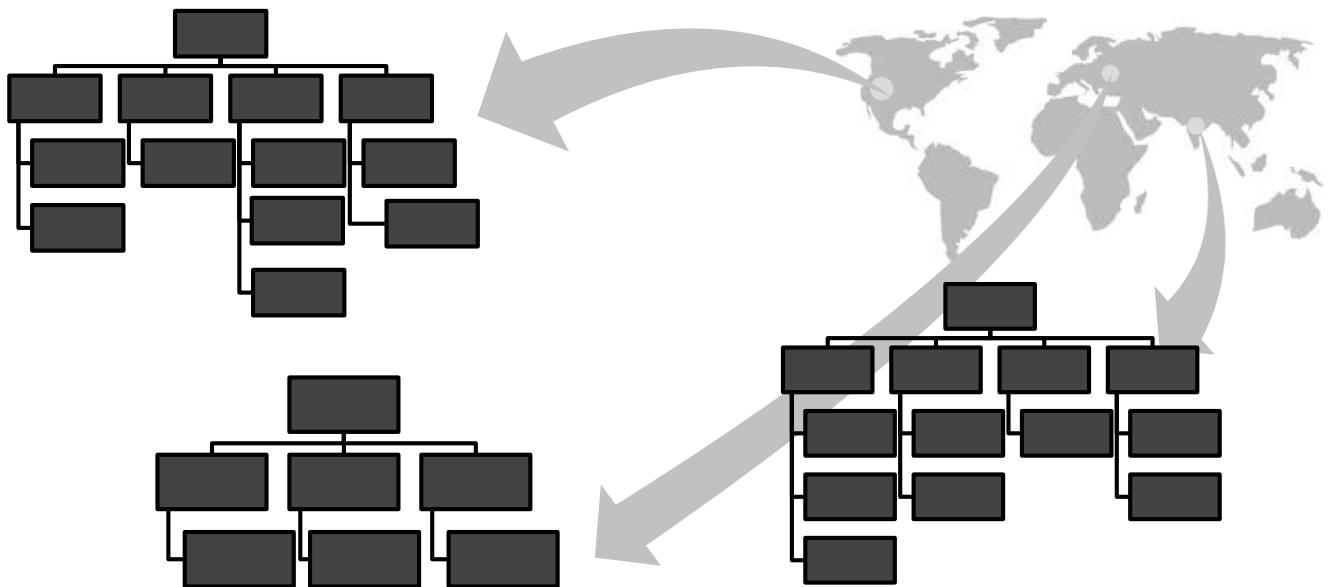
Defining development Value Streams



- ▶ 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

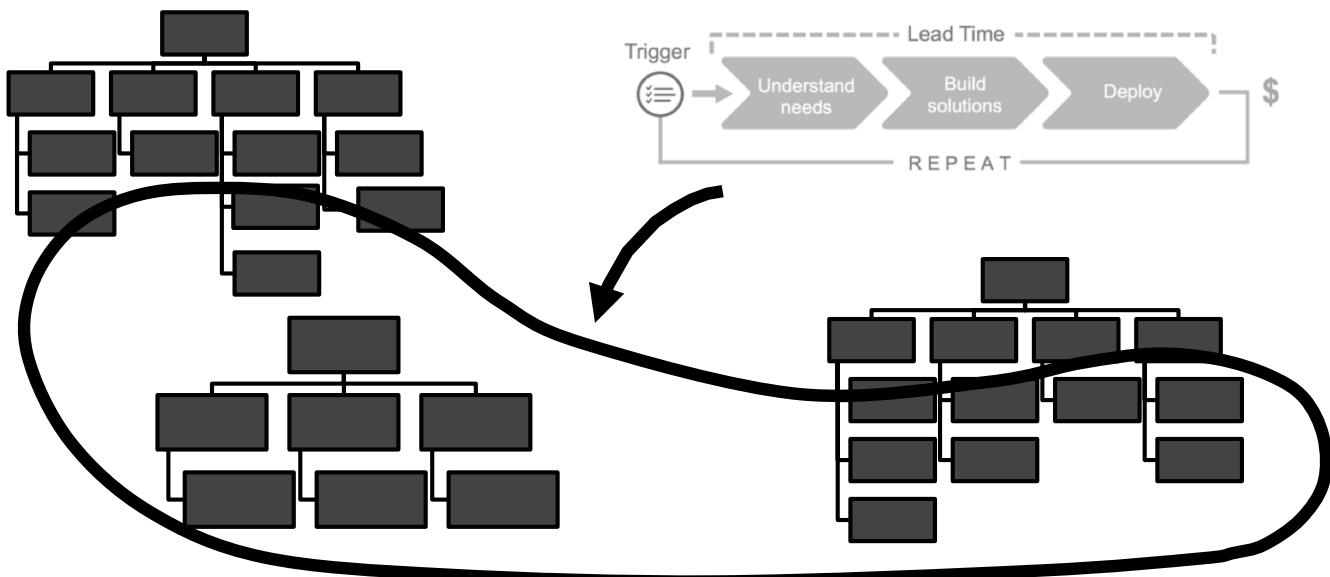
Value at scale is distributed

Value often flows across organizational boundaries.



Finding Value Streams in the Portfolio

For each Value Stream, identify how value flows, and the individuals and features that produce the value.



Realize Value Streams via ARTs

ARTs are optimized for 50-125 people.

Multiple, smaller Value Streams can be realized by a single ART



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



Larger Value Streams require multiple ARTs



Split large Value Streams into multiple ARTs

The general case is some combination of:

- ▶ By customer or market segment
- ▶ By solution capabilities
- ▶ By subsystems/applications/components/platform
- ▶ By subsets of value: Enabling flows or Value Stream segments
- ▶ Other considerations may play a role
 - Source of funding
 - Location/geography



7.3 Advance Solution behavior with portfolio Epics

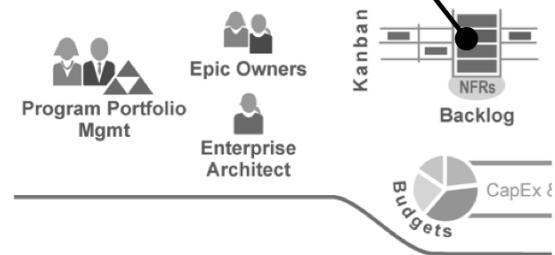
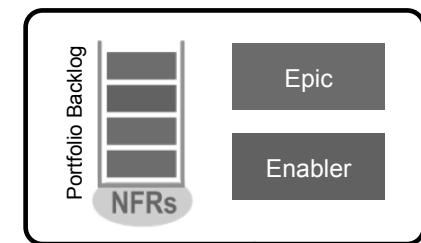
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Epics carry centralized initiatives

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



Epic Value Statement template

Forward-looking position statement	
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”>
Scope	
Success criteria:	• •
In scope:	• •
Out of scope:	• •
NFRs:	• •

Exercise: Epic writing

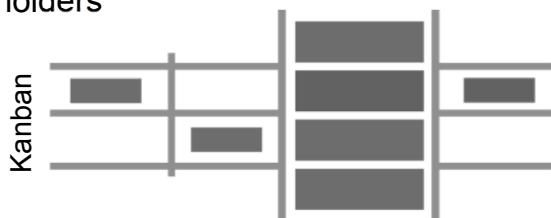
Using the prior slide as a guide, express one Epic in value statement form.



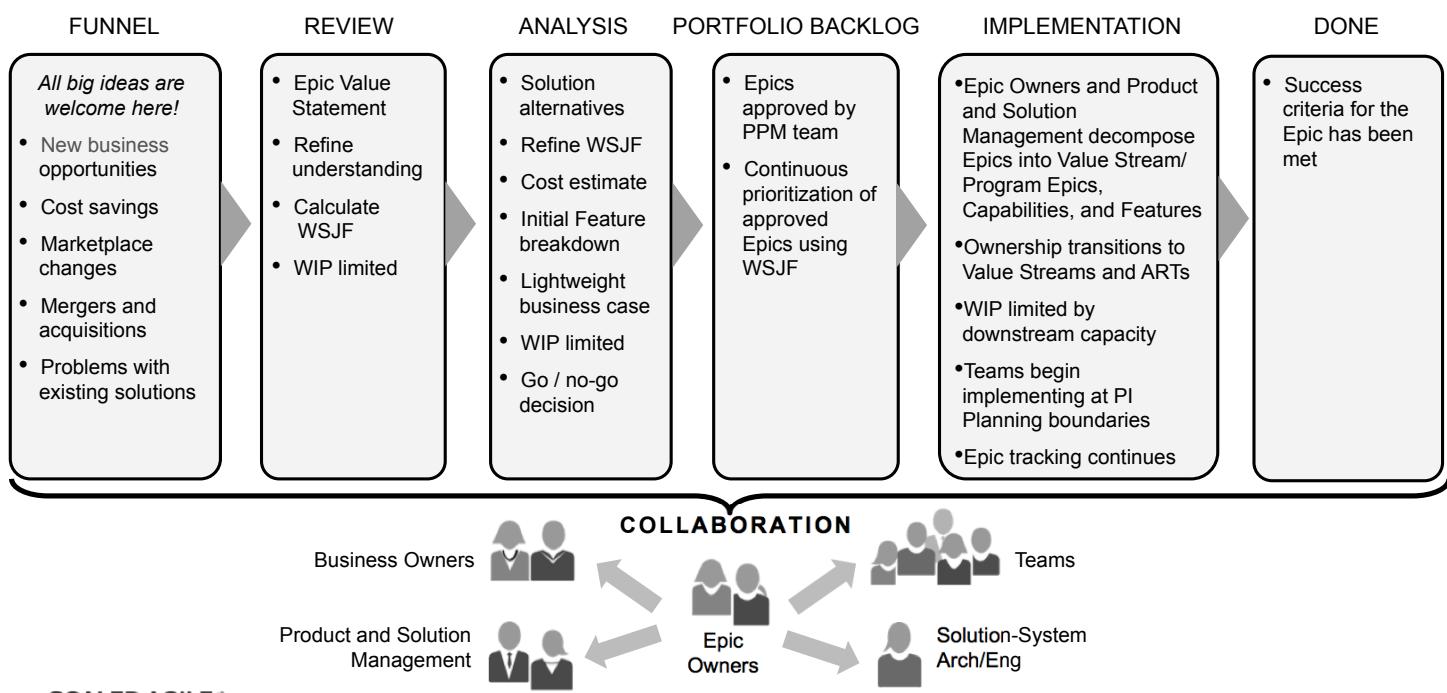
The Portfolio Kanban system

The Portfolio Kanban system manages the flow of Epics.

- ▶ 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



Prototypical Portfolio Kanban system



Epics deserve a Lightweight Business Case

Investment in Epics is a serious matter; analyses and informed decision-making are crucial.

- ▶ Just the right amount of analysis
- ▶ Avoid over-specificity
- ▶ Understand ROI
- ▶ Understand implementation impact
- ▶ Develop incremental implementation strategy
- ▶ Gain approval

Lightweight Business Case		
Epic Name:	Entered Date:	Epic Owner:
(Short name for the Epic)	(Date the Epic entered the Funnel)	(The name of the Epic Owner)
Epic Description:		
(A description of the Epic; consider using the Epic Value Statement as a starting point. See http://www.scaledagileframework.com/epic/)		
Success Criteria:		
(Describe how the success of the Epic will be measured, for example, 50% increase in shoppers under 25, Availability increases from 90% to 99.9%.etc.)		
In Scope:	Out of Scope:	Non-Functional Requirements
• --	• --	• --
• --	• --	• --
• --	• --	• --
Stakeholders Sponsors:		
(Key business sponsors who will be supporting the initiative)		
Users and Markets Affected:		
(Describe the user community of the solution and any markets affected)		
Products, Programs, Services Affected:		
(Identifies products, programs, services, teams, departments, etc. that will be impacted by this Epic)		
Impact on Sales, Distribution, Deployment:		
(Describes any impact on how the product is sold, distributed, or deployed)		
Analysis Summary:		
(Brief summary of the analysis that has been formed to create the business case.)		
Estimated Investment:	Estimated Story Points:	Estimated Monetary Cost:
(Weighted Shortest Job First)	(Estimated story points for the Epic)	(Example: Estimated story points * cost per story point)
Type of Return:	Estimated Revenue:	
(WIF relative to other Epics in the Analysis sum)	(Market share, increased revenue, improved productivity, new markets served, etc.)	
In House or Outsource Development:		
(Provide recommendations for where the Epic should be developed)		
Estimated development Timeline:	Start Date:	Completion date:
(Estimated start date)	(Estimated calendar date or estimated number of PIs)	
Incremental Implementation Strategy:		
(Epics are defined as a single whole, but each epic undergoes incremental implementation. Visit http://www.scaledagileframework.com/implementation-strategies-for-business-epic/ for details on potential strategies. Many parts of this guidance can be applied to Architectural Epics)		
Sequencing and Dependencies:		
(Describe any constraints for sequencing the Epic and identify any potential dependencies with other Epics)		
Milestones or Checkpoints:		
(Identify potential milestones or checkpoints for re-evaluation of the Epic)		
Attachments:		
(Links to any attachments including documentation, links to other data, feasibility studies, models, market analysis, etc., that was used in the creation of the business case)		
Other Notes and Comments:		
(Any additional miscellaneous information)		

Epic Lightweight Business Case Template

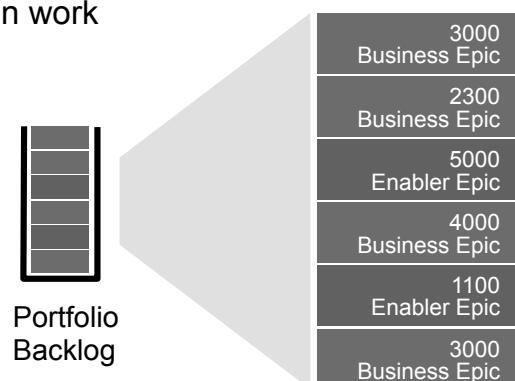


Online template download in SAFe at
www.scaledagileframework.com/epic/

Portfolio Backlog

Portfolio Backlog holds Epics approved for implementation.

- ▶ These epics have made it through the portfolio Kanban with go approval
- ▶ Low-cost holding pattern for upcoming implementation work
- ▶ Sizing estimates are in story points
- ▶ Avoid excess WIP, await implementation capacity



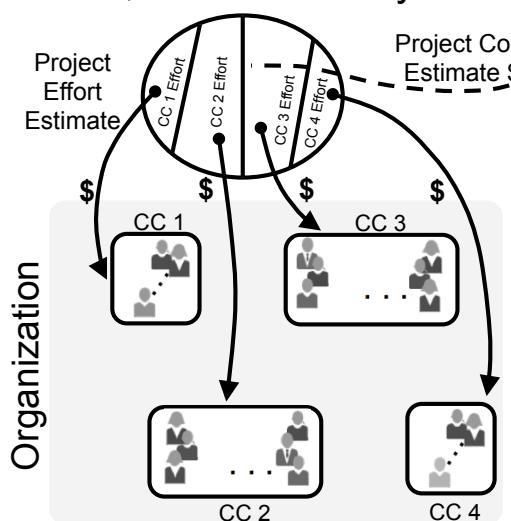
7.4 Transition from project cost accounting to Lean-Agile Budgeting

Agile software development and traditional cost accounting don't match.
—Rami Sirkia and Maarit Laanti

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Problem: Cost Center Budgeting

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



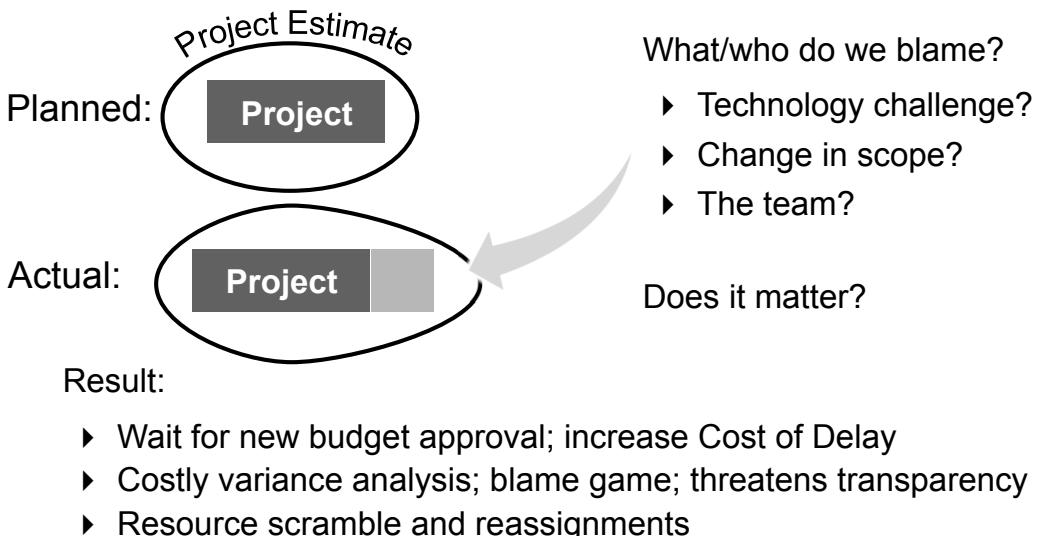
A project requires collaboration of cost centers, assignment of people, budget, and schedule. It takes multiple budgets to build a single project budget.

Result:

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

Problem: “Projects” increase Cost of Delay

When overruns happen, project accounting and re-budgeting increases Cost of Delay and impacts culture.



Solution: Lean-Agile Budgeting

Fund Value Streams, not projects

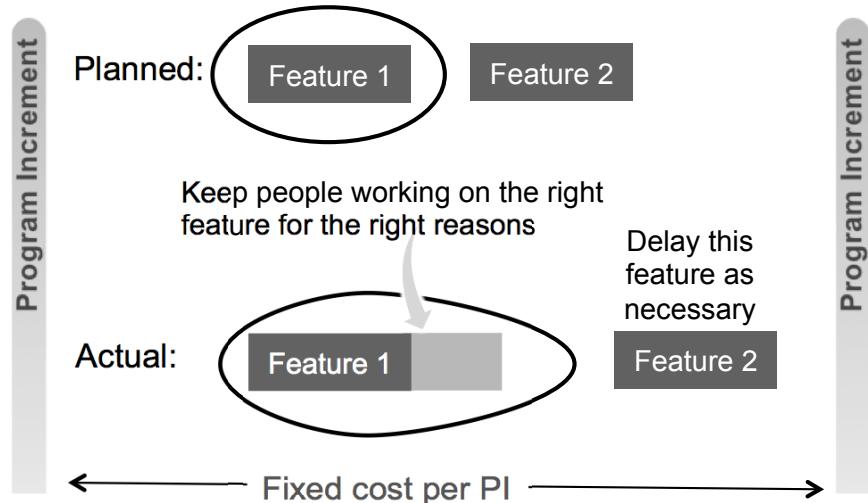
Funding Value Streams provides for full control of spend, with:

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



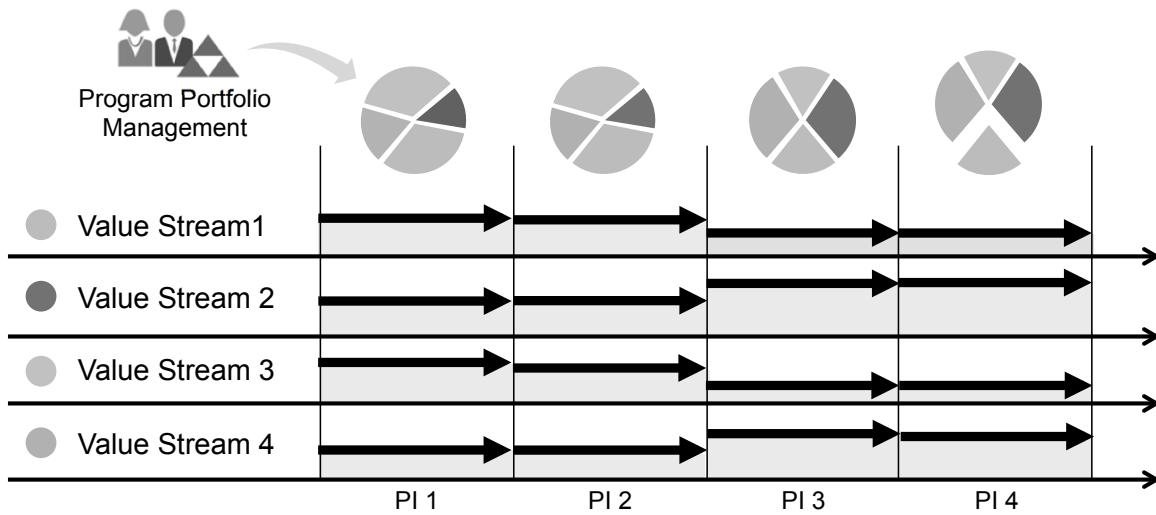
Control costs with increased flexibility

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



Governance and agility with dynamic budgeting

Financial governance is still in place. Adjust budgets dynamically to meet changing business needs.



Thought exercise: Agile budgeting

- ▶ What challenges do you see with this approach?
- ▶ When is the time to have this discussion in your enterprise?



7.5 Forecast Epics on a near term Roadmap

Enablers
• Exploration
• Architecture
• Infrastructure

The business needs to forecast

- ▶ SAFe enhances enterprise adaptability, providing faster response to changing market opportunities
- ▶ Yet, the enterprise, its partners, and customers need to plan some sense of the future
- ▶ The ability to do effective, Agile forecasting is a key economic driver for the enterprise
- ▶ Solution Visions both define, and track to enterprise strategy
- ▶ Roadmaps capture strategic intent in forecasted deliverables

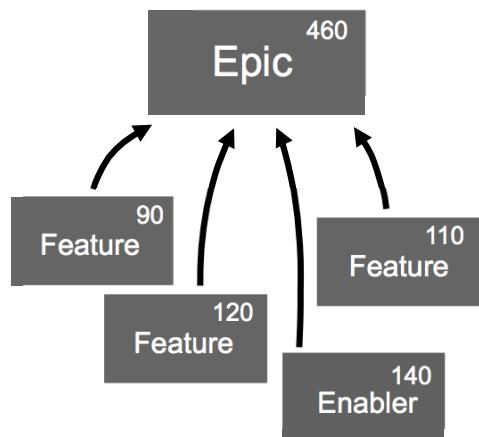


Roadmap forecasting requires estimating

- ▶ Estimating must:
 - Be fast, efficient and as reasonably accurate, as possible
 - Support “what if “ analysis of various implementation scenarios
- ▶ Traditional Work Breakdown Structure to task-level estimating binds the teams to waterfall practices
- ▶ A different approach is required

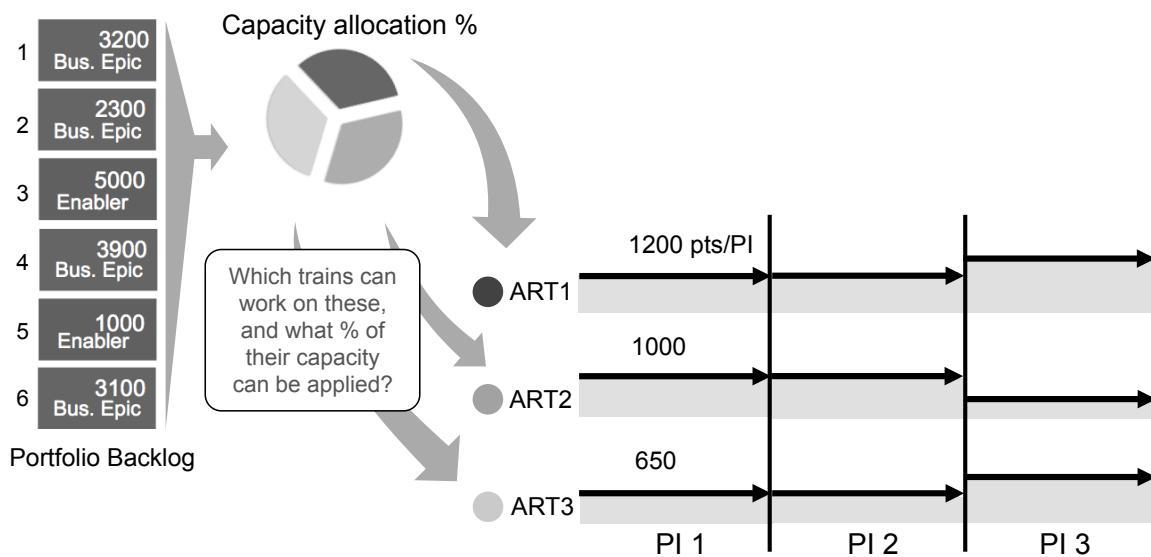
Estimating Epics in SAFe

1. Epics are broken down into potential features during the Portfolio Kanban analysis stage
2. Potential features are estimated in story points
 - Typically performed at the PM-System Architect level, based on history and relative size
 - Individual teams are engaged as necessary
3. Feature estimates are aggregated back into the Epic estimate as part of the lightweight business case



Forecasting from the Portfolio Backlog

Given knowledge of Epic sizes and ART velocities, applying “what if” capacity allocations informs decisions and forecasting.



Exercise: Forecasting

If ART 2 is capable of doing Epic 5 by themselves, but they can only dedicate half of their capacity to that initiative, how long might it take?

Instructions

- ▶ Use chart on previous slide



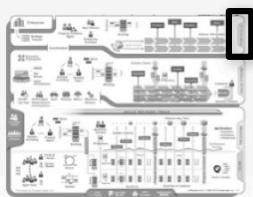
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Lesson summary

In this lesson, you learned how to:

- ▶ Define Strategic Themes for a portfolio
- ▶ Identify the Portfolio Value Streams
- ▶ Advance Solution behavior with portfolio Epics
- ▶ Start the transition from project cost accounting to Lean-Agile Budgeting
- ▶ Forecast Epics on a near term Roadmap



*Suggested Scaled Agile Framework reading:
“Portfolio Level” article*

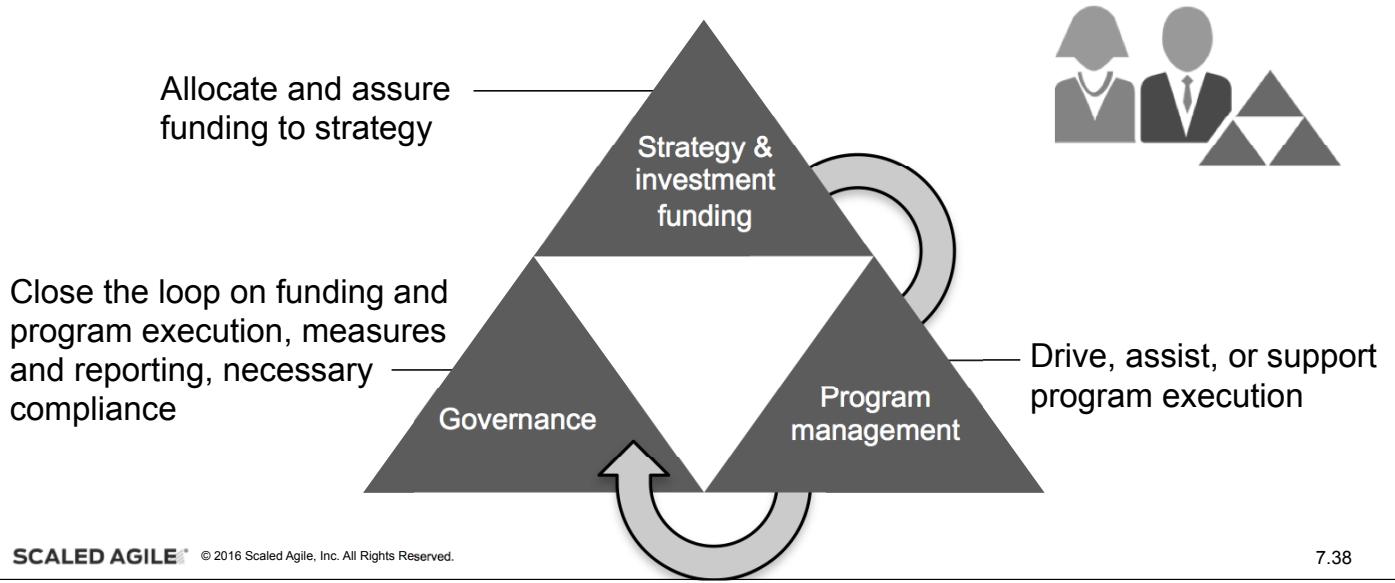
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Appendix: Introducing the Agile PPM

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PPM responsibilities

Central role in strategy and investment funding, program management and governance



Traditional mindsets handicap agility

Historically, PMO practices were based on centralization of decision-making and waterfall development.

Traditional mindsets:

- ▶ Centralized planning and control
- ▶ Plan out a full year of projects
- ▶ Maximize utilization
- ▶ Widget engineering
- ▶ Just “*Get it done!*”
- ▶ Development in order-taker mentality
- ▶ Control through data and milestones

Thomas and Baker, *Establishing an Agile Portfolio to Align IT Investments with Business Needs*, DTE Energy

Moving to Agile PPM

SAFe provides transformational patterns to move from traditional mindsets to Lean-Agile PPM.

From traditional approach	To Lean-Agile approach
#1 Centralized control	Decentralized decision-making
#2 Project overload	Demand management; continuous value flow
#3 Detailed project plans	Lightweight, 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-Agile budgeting and self-managing Agile Release Trains
#7 Waterfall milestones	Objective, fact-based measures and milestones

Measuring success

Lean Program Portfolio Metrics example

Benefit	Expected result	Metric used
Employee engagement	Improved employee satisfaction; lower turnover	Employee survey; HR statistics
Customer satisfaction	Improved Net Promoter Score	Net Promoter Score survey
Productivity	Reduced average feature cycle time	Feature cycle time
Agility	Continuous improvement in team and program measures	Team, program, and portfolio self-assessments; predictability measure
Time to market	More frequent releases	Number of releases per year
Quality	Reduced defect counts and support call volume	Defect data and support call volume
Partner health	Improving ecosystem relationships	Partner and vendor surveys

The Agile PMO

It's better to lead than to follow.

- ▶ Leads the Lean-Agile transformation
- ▶ Applies objective Milestones
- ▶ Leads the move to Lean-Agile Budgeting
- ▶ Coaches ARTs in effective practices
- ▶ Fosters Agile contracts
- ▶ Develops Lean models for Supplier and Customer partnerships

