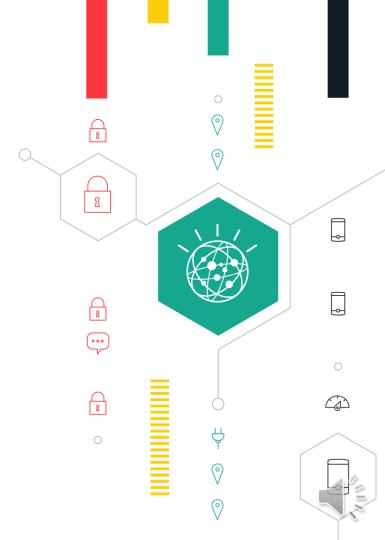# Enterprise Scaled Agile Overview

Overview of Enterprise Scaled Agile methodology, the SAFe framework and IBM's tooling support in the Continuous Engineering solution

Amy Silberbauer

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Enterprise Scaled Agile, Watson IoT ALM Offering Management Team

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IBM

Agenda

Run in slide show mode to view the topics you're interested in…

The (home) button will bring you back!

IBM

Myths debunked

Why Scale Agile?

Look familiar?

The Myths (or excuses)

We can't do agile because…

We have zero risk tolerance

We must have requirements documents

We work with suppliers

We are driven by quality over schedule

Our cost of failure is too high
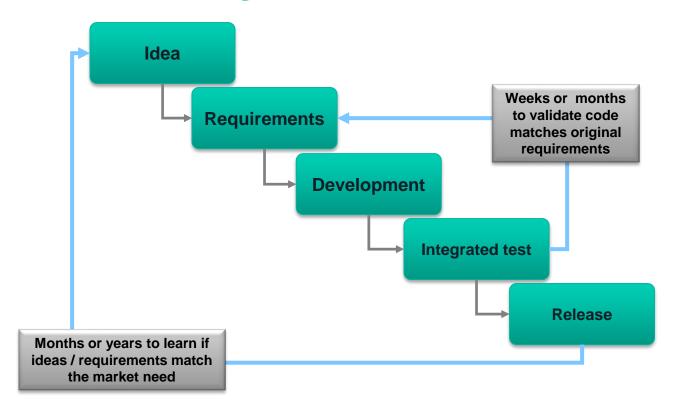
Our products/systems/applications are just "too big to fail"

We have too much complexity

Blah blah blah …
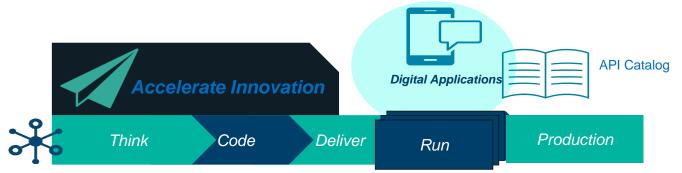
What's wrong with waterfall?

Idea

Requirements

Development

Integrated test

Release

Weeks or months to validate code matches original requirements

Months or years to learn if ideas / requirements match the market need

Nothing really *except*… **delayed learning** which leads to slower feedback response times and that negatively impacts your organization's need to achieve faster time to value

Agile in a bi-modal environment?
Multiple development patterns are becoming the norm

Accelerate Innovation

Digital Applications

API Catalog

| Think | Code | Deliver | Run | Production |
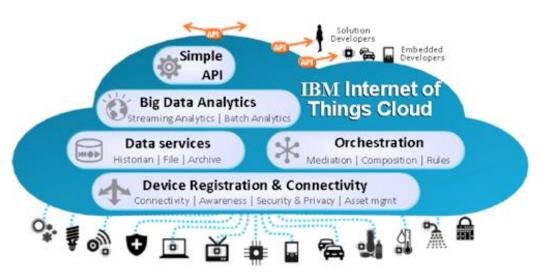
Systems of engagement: *Explore, adopt, quick feedback, pivot and re-pivot*

Operational Excellence

Enterprise Applications

Shared Services

| Think | Code | Deliver | Run | Production |

Systems of Records: *Always on, always available, compliance, control, and governance*

IoT adds additional layers of complexity

- Connected devices need to support multiple usage patterns and workflows
- Proliferation of variants often implies meeting multiple regulatory requirements
- Variants of devices can't be developed using Paste & Own
- Strategic Reuse / PLE for all artifacts is a major IoT enabler

Lean and Agile @ an Enterprise level needs more than just SCRUM

Manage development and delivery across teams

Get visibility into development and non-development tasks in a single place

Balance Speed and Quality

Work together across distributed teams

Maintain process of formal governance

Deliver Quality

Manage dependencies

Outsource some work in order to deliver more quickly

Orchestrate deliver across teams delivering at different speeds

Collaborate effortlessly and support the principles of independent, self-governing teams

CHALLENGE - How do we *orchestrate* all of this _consistently_?

Scaled Lean-Agile Principles

Address aspects of waste and ineffectiveness in traditional processes

Take an **economic view**

Apply **systems thinking**

Assume **variability**; preserve alternatives

Manage risk and efficacy with **fast, synchronous learning cycles**

Develop systems **incrementally**; integrate and test **frequently**

Facilitate flow by **limiting WIP, reducing batch sizes** and manage queue lengths

Base milestones on objective evaluation of **working systems**

IBM

Enterprise Agile

IBM's Viewpoint

General Industry Trends

Business Models

• Products turning into Services

Core Competencies

• Cloud Transformation
• DevOps in IT, and Integration between Engineering, Manufacturing & Operations in IoT

End to End Optimizations

• Leverage the full lifecycle to further optimize, reduce cost and improve quality

Business Analysts and Systems Engineers

• Becoming key orchestrators across the full lifecycle

Cognitive

• Game changer for predictive analysis and business transformation

Enterprise Agile – Our Viewpoint

Orchestration
- Regardless of agile maturity
- Regardless of process, speed

Design Thinking
- Focus on user experience
- Modeling, requirements, governance as necessary

Continuous Value Delivery
- Economic thinking and prioritization
- Maximizing value delivery with each iteration

Application Complexity

Lean Startup

Simple

Agile

Cloud / Mobile Native

Cloud Enabled

Traditional

Business Aligned

Complex

Slower

Rapid

Delivery

The relationship between Lean, Agile and DevOps

LEAN
- Eliminating waste
- Visual workflow management
- Root-cause problem solving
- Leaders engagement

PURPOSE

Capability to ID & solve problems

PEOPLE   PROCESS

AGILE
- Independent, self-governing teams
- Faster feature cycle time
- Embrace change

DEVOPS
- Automation
- Continuous delivery
- Continuous feedback
- Engineering components of Lean IT

MULTI-SPEED DELIVERY
- Different speeds needed for different value propositions
- Adaptive business mind-set
- Multi-platform, Multi-technology, Multi-process
- Varied development and deployment environments
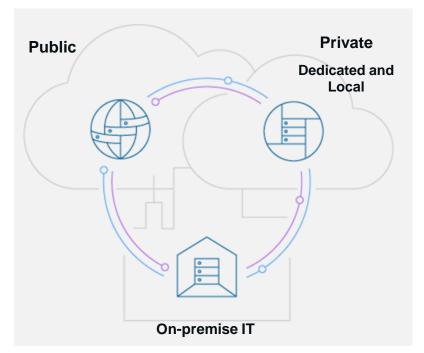
How is the market evolving?

Business models: changes fueled by digital services and the API economy

Users: expectations are defined by the last interaction

Technology: devices, unstructured data, open source, mix of public, private and hybrid cloud models

Digital is a land grab for those that move fast

Public

Private

Dedicated and Local

On-premise IT
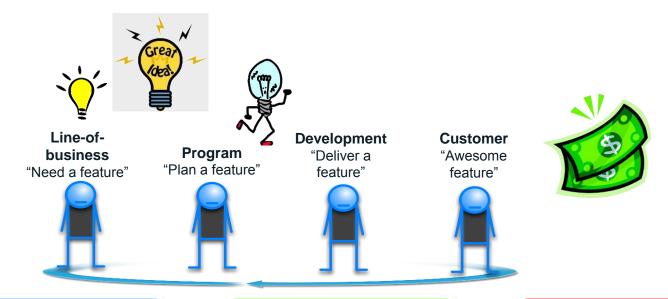
- Deliver apps for Multi-speed IT with DevOps
- Optimize and cloud-enable existing applications
- Ensure operational excellence across all platforms

How is the practice evolving?

Line-of-business
"Need a feature"

Program
"Plan a feature"

Development
"Deliver a feature"

Customer
"Awesome feature"

Shift from "make money" to "delight customers"

Lean and agile adoption regardless of teams' agile maturity and speed
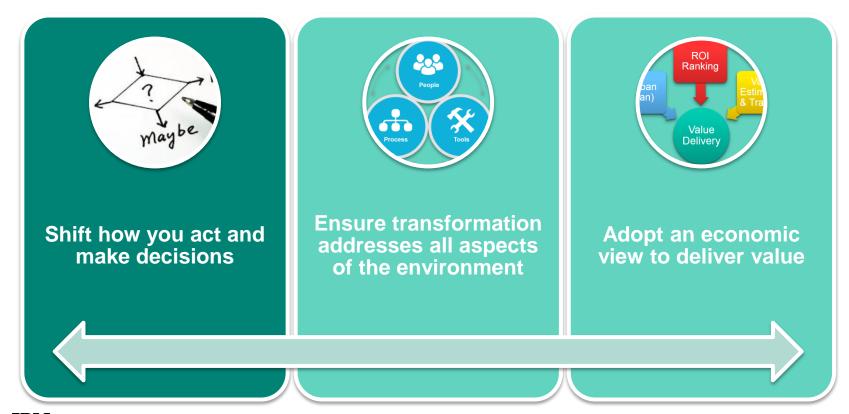
Not just about engineering, business critical to influence notion of value

The recipe

Scaling Agile

Addressing the Enterprise Challenge

Shift how you act and make decisions

Ensure transformation addresses all aspects of the environment

Adopt an economic view to deliver value

Shift how you act and make decisions

Value Delivery First

- Making money is the result, delighting the customer is the goal
- Take an economic view

Management's Role

- Enable those doing the real work to be as efficient as possible by identifying and removing impediments

Collaborate Everywhere!
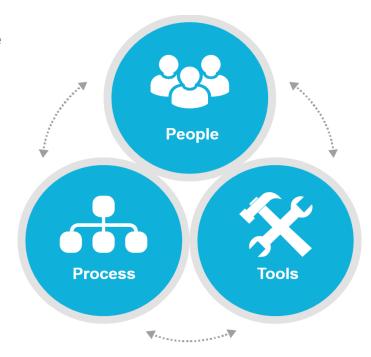
- Avoid exclusively top-down or bottom-up planning – neither leads to success

Transform the environment

People: Establish an organization-wide culture with the right set of skills to embrace lean and agile values – everywhere, across all teams, every day

Process: Apply lean and agile principles in the planning, development, deployment and delivery of value and then monitoring feedback to improve – continuously

Tools: Provide a framework that enables the implementation of lean and agile practices – easily – while also providing traceability and visibility of work across multi-disciplinary teams

People

Process

Tools

Adopt an economic view to deliver value

What is "Value"? Depends on who you ask

As a Business Owner, I must understand what will delight my customers and deliver on that!

As a Product Manager, I must respond to customer feedback to deliver differentiating capabilities for my product

As a Customer, I will pay for something I actually use – and LOVE to use!

Value = ROI

Maximizing Value Delivery

Invest "Just Enough"

Invest only as much as necessary to get feedback quickly and then "rinse and repeat"

Reduce or eliminate wasted resources consumed too early in the process

"Capacity Rules"

Only utilize resources for estimating, analysis and solution exploration as we have capacity to work on ideas

Move ideas through to implementation as teams have capacity

Apply Economic Thinking

Ranking based on "biggest bang for the buck" (ROI)

Lightweight, relative ranking that favors lower investment in analysis over precision until later

… and measure and track value delivery

Focus on people, process AND tools…

Collaborate
- Unite the tribes
- Speak the same language, use the same vocabulary
- *Let the tools do their thing and leave the teams alone!*

Orchestrate
- Unify delivery of value
- Teams can deliver at different speeds, but the cadence of delivery is unified
- *Use tooling to enable visibility and eliminate waste*

Leverage
- Adopt Agile and Lean practices, regardless of "process"
- Reduce batch size uniformly, develop and deliver more quickly
- *Govern where necessary, simplify where possible*

The Scaled Agile Framework®

SAFe® Overview

Recipe: Based on SAFe "Core Values"

Align	Build quality in	Be transparent	Execute: Plan & Adjust
• The best agile teams do not make a successful, agile business • Adopt lean and agile principles everywhere! Top-down, bottom-up • Unify the cadence to reduce variability and risk	• Align requirements, construction and test • Validate quality at every increment • Leverage MBSE and design thinking • Build with Enablers (exploration, infrastructure, architecture)	• Develop a "single source of truth" for solution intent and context • Record knowledge • Instill trust through visibility and collaboration • Reduce waste! • Evaluate progress of solution AND progress toward compliance	• Deliver value predictably and continuously improve • Plan for change and respond quickly • Reduce time to feedback by working with smaller batch sizes • Demonstrate value at each increment
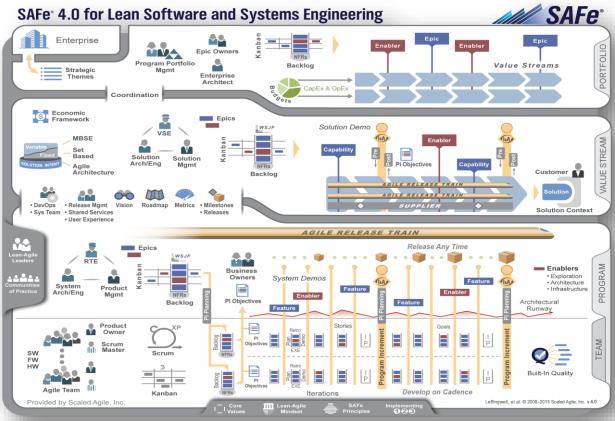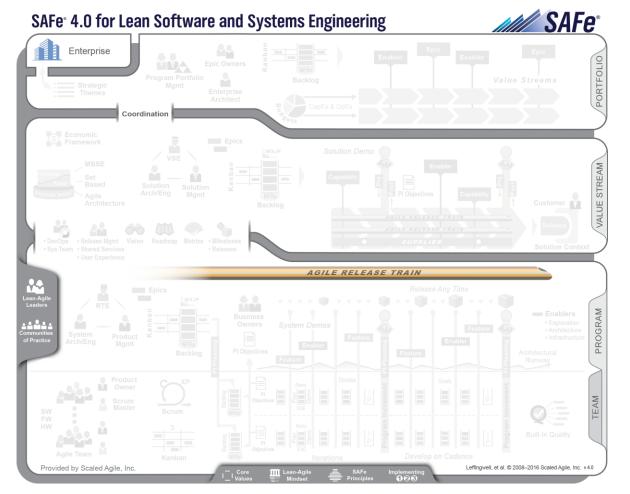
Industry-Leading Scaled Agile Framework®
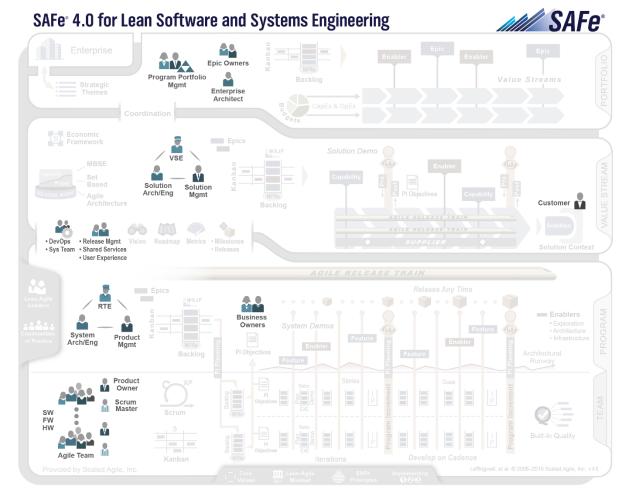
- ➤ Orchestrate
- ➤ Collaborate
- ➤ Unify
- ➤ Learn
- ➤ Respond
- ➤ Improve

The Levels

SAFe® 4.0 for Lean Software and Systems Engineering

The People

SAFe® 4.0 for Lean Software and Systems Engineering

Provided by Scaled Agile, Inc.

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The Backlogs

SAFe® 4.0 for Lean Software and Systems Engineering

SCALED AGILE

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The Cadence

SAFe® 4.0 for Lean Software and Systems Engineering
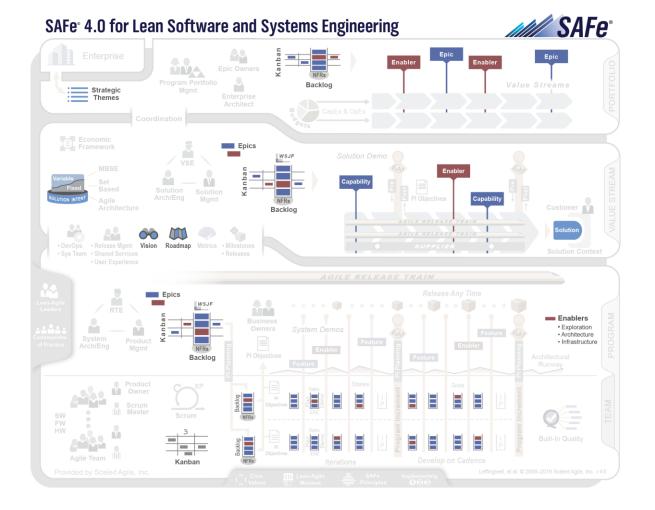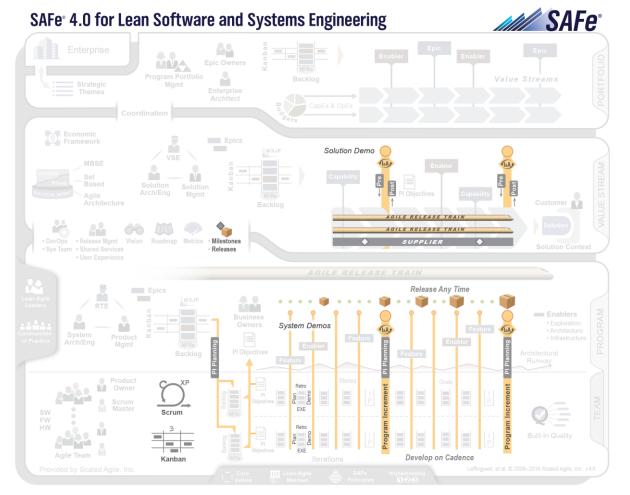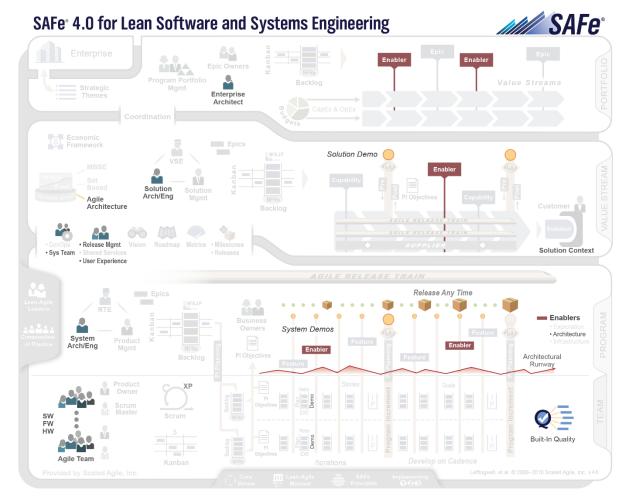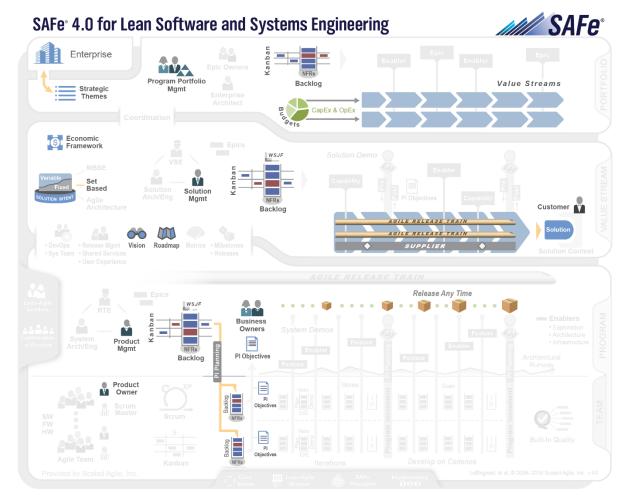
Quality

Relentless Improvement

SAFe® 4.0 for Lean Software and Systems Engineering

Value Delivery

SAFe® 4.0 for Lean Software and Systems Engineering

SAFe 4.0 Summary

Portfolio

- Strategy formulation and portfolio communication
- Organizing and funding Value Streams
- Managing the flow of larger initiatives
- Governance and cross-Value Stream orchestration

Value Stream

- Solution Intent & Management
- Engineering and Architecture
- Customer and Supplier relationships
- Program (ART) coordination
- Unified Vision & Roadmap

Program

- Teams of Agile Teams that build solution capabilities and subsystems
- Common mission
- Architectural & User Experience governance
- Evidence of progress and delivery of value
- Organized by solution or subsystem delivery

Team

- Scrum, Kanban, hybrid processes
- Delivery of technology
- Organized by feature or component delivery

Foundation
Core Values, Lean-Agile Principles, Center of Competency
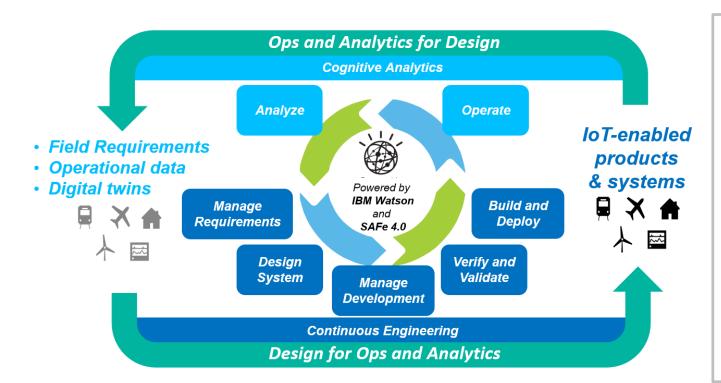
CLM & CE tooling instrumented for scaled agile

IBM's Support for SAFe

Continuous Engineering Powered by SAFe

Ops and Analytics for Design

Cognitive Analytics

Analyze

Operate

- **Field Requirements**
- **Operational data**
- **Digital twins**

Manage Requirements

Design System

Manage Development

Build and Deploy

Verify and Validate

Powered by
IBM Watson
and
SAFe 4.0

IoT-enabled products & systems

Continuous Engineering

Design for Ops and Analytics

The IBM Continuous Engineering solution is an *enterprise capability* for *continuous delivery of value* that enables clients to seize market opportunities and *reduce time-to-customer feedback*

The SAFe methodology supported by the IBM CE solution enables *continuous business planning* to *manage and drive change* throughout the product and software delivery lifecycles
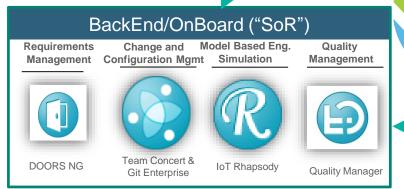
IBM Watson IoT Landscape

Cross-domain end-to-end collaboration

Field Operations / Deployment

Asset Management	Preventative Maintenance	Real Time Analysis	Cognitive services	Machine Learning
IoT Real-Time Insights IBM	IoT Real-Time Insights IBM	IoT Real-Time Insights IBM	IBM Watson	IBM SPSS
Maximo	PMQ	RTI		

- *Operational Insights*
- *Engineering insights*
- *Cognitive Analytics*

- *Operational Insights*
- *Engineering insights*
- *Cognitive Analytics*

Powered by **IBM Watson** *and* **SAFe 4.0**

BackEnd/OnBoard ("SoR")

Requirements Management	Change and Configuration Mgmt	Model Based Eng. Simulation	Quality Management
DOORS NG	Team Concert & Git Enterprise	IoT Rhapsody	Quality Manager

Cloud Services ("SoE")

API Management	Cloud logic	DevOps Services	IoT Platform Services
	Node-RED	IBM Bluemix DevOps Services	IBM Bluemix DevOps Services

Lean Development Orchestration

IBM

IBM Collaborative Lifecycle Management

Synchronizes teams by…

- **Planning** based on a single, cross-domain source of truth

- **Automating** full traceability

- **Managing** with dashboards and reports

- **Demonstrating** compliance

- **Orchestrating** multi-speed IT

- **Supporting** multiple platform / processes / languages

- **Enabling** simple collaboration

*"With IBM's solution, we already realize that **the different roles within the development lifecycle are cooperating much closer** "*
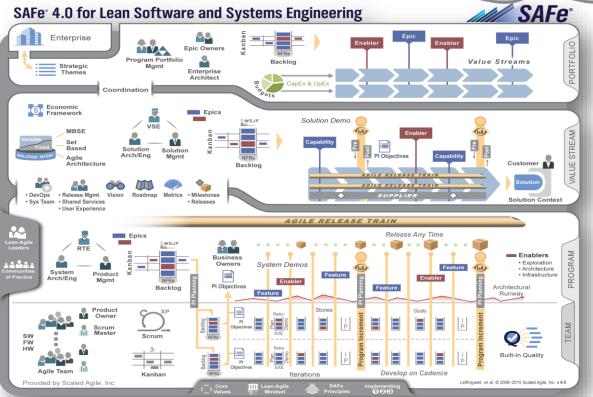
Christof Hammel, Product Manager, Automotive ALM at Bosch Automotive
referencing IBM Rational solution for CLM

IBM is a Leader! Gartner Magic Quadrant for Application Development Life Cycle Management (Feb 9, 2015)

SAFe 4.0 support

SAFe® 4.0 for Lean Software and Systems Engineering

- ✓ *Tooling configuration*
- ✓ *Artifacts and attributes*
- ✓ *Key concepts: Economic ranking, lean thinking, value-based delivery*
- ✓ *Plans to support key activities: Roadmap, Kanban, WSJF Ranked List*
- ✓ *Agile Team-based Planning*
- ✓ *Reports*
- ✓ *Built-in process guidance*

Using Collaborative Lifecycle Management for Enterprise Scaled Agile Transformations

Organizational alignment

- *Real-time consolidated Roadmap at all SAFe levels*
- *Reports that provide insight into work driven from business strategy and priorities*

Lean: Invest within capacity to deliver quickly

- *WIP-limited*
- *Enforced workflow*
- *WSJF triage and sorting*
- *"Soft" dependency identification*

Focus on client value

- *ROI ranking using auto calculated WSJF*
- *Value tracking at all levels aligned to changes delivered*

Measure, learn and improve

- *Dashboards for visibility*
- *Align work based on business strategy and priorities*
- *Value-based portfolio metrics*
- *Track value delivery and trends*

Get Up and Running Quickly

- *Templates speed-up the creation project areas*
- *Starter sets to create Dashboards*
- *Structure*
- *Artifacts*
- *Attributes*
- *Activities/Workflow*

… And more…

Address cultural transformation challenges

- *Process guidance embedded in the tooling through work item templates and links for common SAFe activities*

Align teams with different processes and speeds

- *Programs provide the framework to coordinate individual teams*

Build in quality

- *Manage Test Assets and Test results mapping to all levels of SAFe*

Requirements governance as needed

- Solution modeling and design
- Non-Functional, System, User requirements
- Standards

Configure for "practical" SAFe adoption

- *Take what is valuable, ignore the rest*
- *Customize for organization needs*
- *Flexible implementation patterns to fit 'structure' and 'size'*

Why CLM for enterprise scaled agile?

5 Simple Value Propositions

Top 5 Quick Start Demonstrations

1. Organizational Alignment
   Value Proposition: Cross-domain collaboration and end-to-end visibility

2. Invest Within Capacity to Deliver Quickly
   Value Proposition: Adopt lean principles at all levels, rank smarter to deliver the right things right

3. Focus on Client Value
   Value Proposition: Elaborate solutions by applying design thinking methods to get feedback early and often

4. Measure, Learn and Improve
   Value Proposition: Demonstrate measured improvement and plan more effectively

5. Get Up & Running Quickly
   Value Proposition: Complete SAFe 4.0 alignment out of the box

1. Organizational Alignment

Complete cross-domain lifecycle support

Change Management (RTC)	Requirements Management (RDNG)	Quality Management (RQM)

Cross-domain reporting for planning & execution status

End-to-end traceability reports	Planning Progress	Execution Status & Risk

Taxonomy

Solution Intent, Solution Context, Requirements (System, User, Non-Functional), Lifecycle Scenarios (Acts, Scenes, Roles), Graphics (wireframes, architecture), Models (link to Rhapsody/DM)

Solution Elaboration Artifacts (RDNG)

Business Artifacts (RDNG)

Strategic Themes, Lightweight Business Cases, Value Streams, Programs, Vision

Epics, Capabilities, Features, Learning Milestones, PI Objectives

Change Artifacts (RTC)

Quality Artifacts (RQM)

Test Suites, Test Plans, Test Cases

Portfolio Business Artifacts

JK Enterprises Portfolio (Requirement Management) Project Dashboard

Auto-save | Save

Portfolio Overview | Value Stream Overview | General | Add Widget

My Projects (8)

Change and Configuration Management (/c...
- JK Enterprises Portfolio (Chang...
- JKE Account Mgmt Program
- JKE Meters Program
- JKE Money That Matters Program
- JKE Shared Services Program
- All Projects

Quality Management (/qm) (2)
- JK Enterprises Portfolio (Quality Management)
- JKE Banking (Quality Managem...
- All Projects

Requirements Management (/rm) (1)
- JK Enterprises Portfolio (Requirement Management)
- ...

Page 1 of 2

Project Members in JK Enterprises Portfolio (Requirement Management) (7)
- Rebecca
- Al
- Catherine
- Paul
- Pete
- Tanuj
- clmadmin

Strategic Themes

Business Cases

Value Streams

Strategic Themes (JK Enterp... in JK Enterprises Portfolio (Requirement Management) (4)
- Superior Customer Experience (372)
- Reach Under-Served Markets (373)
- Reward and Grow Loyal Customers (385)
- Attract Small Business Owners (374)

[SAFe] Business Cases - Por... in JK Enterprises Portfolio (Requirement Management) (10)
- Consistent Account Management Business Case (381)
- Accessibility Business Case (382)
- Consistent Loan Management Experience Business Case (378)
- Expand Banking Capabilities Business Case (384)
- Charitable Contributions Business Case (380)
- Seasonal Loan Offer Business Case (371)
- Mobile Device Support Business Case (379)
- Multi-Language Support Business Case (383)
- Targeted Loan Business Case (436)
- Supervised Account Business Case (438)

[SAFe] Value Streams - Portfo... in JK Enterprises Portfolio (Requirement Management) (2)
- JKE Financial Services (395)
- JKE Meter Reader (396)

54

Portfolio Budget Disbursed

Strategic Theme – Links Explorer View

Strategic Theme – Links Explorer View

Strategic Theme

Implemented By

211: "Push Button" Seasonal Loan Offer Campaign

Implements

371: Seasonal Loan Offer Business Case

Initiatives (Portfolio Epics)

Business Case

385: Reward and Grow Loyal Customers

Implemented By

210: Expand banking capabilities to existing customers

Implemented By

217: Charitable Contributions Program

Value Stream

395: JKE Financial Services

Work Alignment with Business Strategy

Progress Reports (Epic, Capability, Feature)

Click on any bar to view the details…

Program	Feature PI	Feature	Feature Status	Feature Type	Team	Story Iteration	Story Points	Story Type	Story Project	Story	Blocked (Custom)
JKE Account Mgmt Program	PI 4	Offer summer vacation loan when customer uses mobile banking	Implementing	Feature	JKE Account Management/JKE Acct Mgmt - Mobile	Sprint 4.6	8	Story	JKE Account Mgmt Program	As a banking customer, I would like a special summer vacation loan offer based on my loyalty	1

Quick visualization of Work by state, as well as any Blocked work.

Dependencies

Which Programs block work of Retirement Planning

Filters ✏

10 ▾ Items Per Page |◀ Previous   1 - 1 of 1 items   Next ▶|

Blocker Project	Blocker	Blocker Status	Blocker Planned For	Blocker Filed Against	Blocked Project	Blocked	Blocked Status	Blocked Planned For	Blocked Filed Against
JKE Banking - Acct Mgmt Program	Support auto-deduction from bank account to retirement plan	Implementing	PI 4	JKE Banking - Acct Mgmt	JKE Retirement Planning Program	Support auto-deduction from bank account to retirement plan	Implementing	PI 1	JKE Retirement Planning

Open in a new window...

Blocked Work for Programs

Filters ✏   View as: Table ▾   Open in a new window...

10 ▾ Items Per Page |◀ Previous   1 - 4 of 4 items   Next ▶|

Work Item Filed Against	Work Item Type	Work Item	Reason
JKE Banking - Acct Mgmt/JKE Acct Mgmt - Mobile	Story	As a banking customer, I must be able to view the status of my loan requests on my Android device	Need service
JKE Banking - Acct Mgmt/JKE Acct Mgmt - Mobile	Story	As a banking customer, I would like a special summer vacation loan offer based on my loyalty	Need service
JKE Banking - Acct Mgmt	Feature	Offer summer vacation loan to online users	Need to have mobile support finished first
JKE Banking - Acct Mgmt	Program Epic	Support Spanish for all applications	this is blocked by blah

Blocked Program

Blocking Program

"Hard" dependencies between work items

"Soft" Dependencies – Blocked for a reason

IBM Watson IoT 60

"Definition of Done"

"Houston, we have a problem…"

2. Invest Within Capacity to Deliver Quickly

Lean
- Define iterative delivery plan
- Invest "just enough"
- Abide by "work in progress" (WIP) limits
- Adopt economic thinking from multi-year initiatives through execution priorities

Agile
- Get early feedback through requirements
- Deliver the "right" stuff based on feedback
- Iterate, embrace changing requirements and execution plans

Value
- Identify "MVP"
- Articulate vision outside-in
- Apply design thinking

Kanban Planning

SAFe Kanban "queues"

WIP Limits (green = ok, red = violation!)

Business (blue) and Enabler (yellow) Epics

Kanban process enforced through:
- **WIP Limits:** Warning shown in red, Error prevents violation
- **Workflow:** Inability to move Epics in violation of the process
- **Calculated WSJF** that automatically sorts

WSJF Ranked Backlog

User/Business Value
+
Time Criticality
+
Risk Reduction/Opportunity Enablement

| Cost of Delay | ÷ | Investment | Job Size |

Estimate the Story Points during planning

WSJF Ranked List | Exclude ▼ (7 items excluded) | Type to Filter | Add Wo

Summary	Id	Status	WSJF (integer)	Job Size	User/Business	Time Critica	RROE	Proposed	Estimated Story Points	Tracks
Cap 3	53	⚙ Implementing	38	1	5	20	13	PI 1	20	Links (2): 1, 2
Cap 2	52	⚙ Implementing	16	2	8	5	20	PI 1	35	Links (2): 1, 2
Cap 4	54	⚙ Implementing	6	8	13	20	20	PI 1	70	Links (3): 1, 2, 3
Cap 5	55	⚙ Implementing	4	5	2	8	13	PI 1	40	Links (2): 1, 2
Cap 6	56	⚙ Implementing	2	13	20	13	5	PI 1	90	Links (3): 1, 2, 3
Cap 1	38	Ready (for Approval)	1	13	1	13	3	PI 1	0	--
Cap 7	57	Approved	1	13	13	3	8	PI 1	90	--
Cap 8	58	◆ Draft	0	Unassigned	Unassigned	Unassig	Unassig	Backlog	0	--
Cap 9	59	◆ Draft	0	Unassigned	Unassigned	Unassig	Unassig	Backlog	0	--
Cap 10	60	◆ Draft	0	Unassigned	Unassigned	Unassig	Unassig	Backlog	0	--

Set WSJF Component Values - WSJF automatically recalculates and list of Features is resorted

IBM

Tracking Value

What is the planned business value for this PI?

Filters ✏   View as: Graph ▾

Planned Business Value

Planned Value (1-10)

0	
8	
10	
5	
6	
4	
7	

0

■ JKE Account Mgm

What is ready to be demonstrated?

Filters ✏   View as: Table ▾   Open in a new window... ➔

10 ▾ Items Per Page   ⏮ Previous   1 - 1 of 1 items   Next ⏭

PI Objective Iteration	Owning Team	PI Objective	PI Objective Type	Planned Value	Contributing Work Item	Contributing Work Item Type
Sprint 4.3	JKE Account Management/JKE Acct Mgmt - Mobile	Demonstrate ability to transfer money between accounts on Windows devices	Team	6	As a mobile banking customer, I must be able to transfer between accounts on my Windows device	Story

IBM

3. Focus on Client Value

As a Business Owner, I must understand what will delight my customers and deliver on that!

As a Product Manager, I must respond to customer feedback to deliver differentiating capabilities for my product

As a Customer, I will pay for something I actually use – and LOVE to use!

What is "Value"? Depends on who you ask

Value = ROI

Lean & Agile practices encourage you to shift your thinking…

Line-of-business
"Need a feature"

Program
"Plan a feature"

Development
"Deliver a feature"

Customer
"Awesome feature"

Shift from "make money" to "delight customers"

Lean and agile adoption regardless of teams' agile maturity and speed

Not just about engineering, business critical to influence notion of value

Navigate from a change artifact to the vision

Solution Elaboration

Elaborate solutions in a Value Stream during Portfolio and Value Stream Epic Analysis

- Links to change and quality management artifacts
- System, Non-Functional and User Requirements
- Modeling & Architecture
- Design, Usage Models, Scenarios
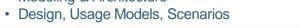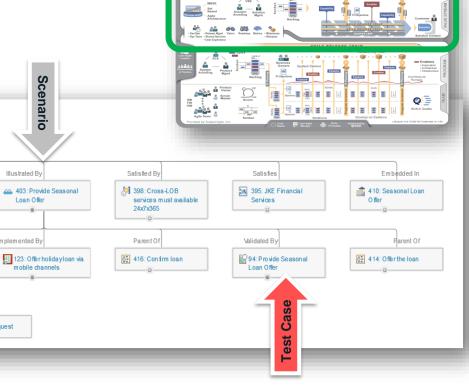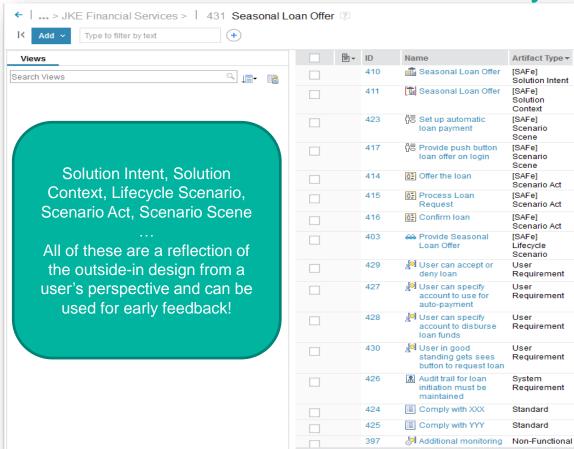
Solution artifacts can be used for early feedback

Solution Intent, Solution Context, Lifecycle Scenario, Scenario Act, Scenario Scene
…
All of these are a reflection of the outside-in design from a user's perspective and can be used for early feedback!

4. Measure, Learn and Improve

Are we getting better?

Value Delivery Over Time

What is our PI Performance in terms of "achieved value"?

Effort Estimation

Progress Measures & Alignment with Estimates

Estimation Improvements Over Time

Velocity

Are we improving our velocity?

How many Features have we delivered?

Feature Progress and Estimation

Velocity

Value Delivery

Average achieved value by PI

Table view allows you to drill down into details for each achieved value

How are my Value Streams doing on value delivery?

Filters | View as: Table

10 | Items Per Page | Previous | 1 - 6 of 6 items | Next

Project	Filed Against	Planned For	Average Achieved Value
JKE Account Mgmt Program	JKE Account Management	PI 1	100
		PI 2	70
		PI 3	97
		PI 4	133
JKE Shared Services Program	JKE Shared Services Program	Testing 1.0	0
		Testing 1.3	112

How are my Value Streams doing on value d

Filters | View as: Graph

Team PI Performance

100, 70, 97, 133, 112

Average Achieved Value

Planned For

How are my Value Streams doing on value delivery?

<< PI Performance Report [Value Stream/Program/Team]

Open in a new window...

10 | Items Per Page | Next

What value was delivered?

Project	Filed A...		ItemID	Work Item	Achieved Value (%) (Custom)
JKE Account Mgmt Program	JKE Account Management		200	Provide ability to view account balances and activities and initiate transfers on iPhone	100
			275	Demonstrate iOS loan management interface	100

5. Get Up & Running Quickly

- Out-of-the-box CLM templates allow you to create a SAFe-based Program or Portfolio infrastructure in 10 minutes

- Start simple and evolve

RTC	
Complete support for SAFe Programs and Teams	Lightweight requirements management (via RTC work items)

RTC	
Partial SAFe Portfolio/Value Stream	Lightweight requirements management (no formal requirements or solutioning artifacts)

CLM (RTC + RDNG + RQM)	
Complete support for SAFe, all levels	Cross-domain support for requirements, change and quality management

SAFe Project Templates

Structure for all levels of SAFe

Roles in Project Area Configuration

Structure, artifacts, attributes…

Team Area Hierarchy

- ▼ 📦 SAFe 4.0 Portfolio
  - 👥 Value Stream 1 (re
  - 👥 Value Stream 2 (re

Defined Timelines

- ☐ 🏛 Portfolio (rename) [Project Timeline]
  - 📁 Backlog
  - ☐ 🏳 Value Stream PI Ca
    - 🏳 PI 1 [2/10/2016 -
    - 📁 PI 2 [5/4/2016 -
    - 📁 PI 3 [7/27/2016 -

Types and Attributes [?]

Define work item types, their attributes

Choose the Work Item Type to edit:

| Value Stream Epic |
| Portfolio Epic |
| Task |
| Value Stream Epic |
| Capability |
| Learning Milestone |

Types and Attributes [?]

Define work item types, their attributes, a

Choose the Work Item Type to edit:

| Risk |
| Program Epic |
| Feature |
| Story |
| Task |
| Defect |
| PI Objective |
| Retrospective |
| Risk |

Attributes

☑ Show only custom attributes

Name

- 📝 Actual Story Points
- 📝 Blocked
- 📝 Estimated Story Points
- 📝 Job Size
- 📝 Proposed
- 📝 Reason
- 📝 RROE
- 📝 SAFe Enabler Type
- 📝 SAFe Work Type
- 📝 Success Criteria
- 📝 Time Criticality
- 📝 User/Business Value
- 📝 Value Statement
- 📝 WSJF

Artifact Templates

Artifacts [?]

- ⊕ Create New [SAFe] Lifecycle Sc ▾
- Views ▸
- Filter by Tag ▸
- Filter by Attribute ▸
- Filter by Folder ▾
  - 📁 SAFe 4.0 Portfolio (RM)
    - 📂 SAFe Artifact Templates
    - 📂 SAFe Artifacts
      - 📁 Lightweight Business Cases
      - 📁 Strategic Themes
      - 📁 Value Streams
        - 📁 Value Stream 1 (rename)
        - 📁 Value Stream 2 (rename)

	☐	📄	ID	Name	Artifact Type
	☐		19	[SAFe] Vision Template	[SAFe] Vision
	☐		25	[SAFe] Solution Context Template	[SAFe] Solution Context
	☐		20	[SAFe] Scenario Scene Template	[SAFe] Scenario Scene
	☐		21	[SAFe] Value Stream Template	[SAFe] Value Stream
	☐		23	[SAFe] Strategic Theme Template	[SAFe] Strategic Theme
	☐		22	[SAFe] Lightweight Business Case Template	[SAFe] Lightweight Business Case
	☐		26	[SAFe] Scenario Act Template	[SAFe] Scenario Act
	☐		27	[SAFe] Lifecycle Scenario Template	[SAFe] Lifecycle Scenario
	☐		24	[SAFe] Solution Intent Template	[SAFe] Solution Intent

Implementation considerations

Evolving to SAFe

One size does not fit all…

Many teams, different needs

Small Teams

Simple Applications

Simple process

Cloud-based development and deployment

High risk tolerance

Minimal or no orchestration or planning requirements
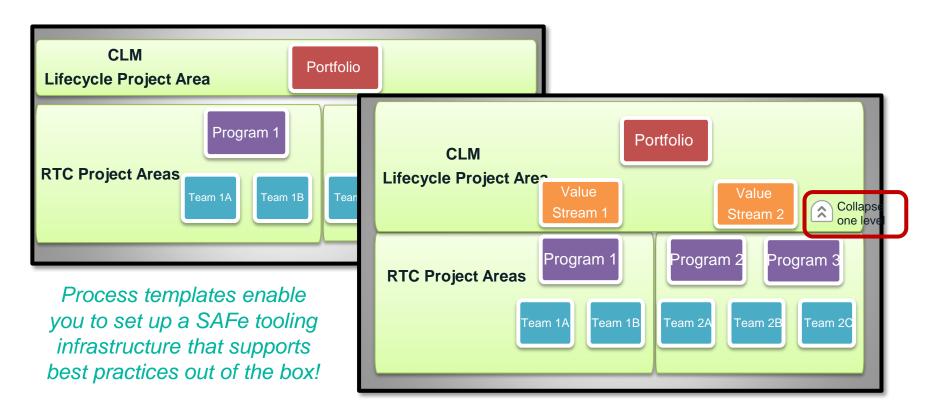
Large teams

Complex, Regulated Development

Multiple processes, rigorous governance and compliance

Multi-platform, multi-technology development and deployment

Low risk tolerance
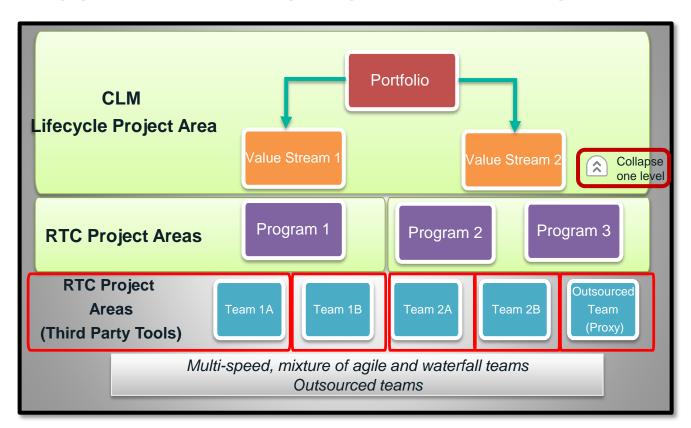
Complex orchestration and planning with dependency management across many teams

Support for 3- or 4-level SAFe topology

Process templates enable you to set up a SAFe tooling infrastructure that supports best practices out of the box!

Support for multiple processes, speeds, …

Flexible configuration options allow you to choose what works for you!

Typical Adoption Paths: Two Patterns

SAFe Portfolio (with or without Value Streams)

- How does IT investment support business strategy?
- What is on our delivery roadmap?
- Where do we have delivery risk?

Meet in the Middle
➢ Establish an "orchestration" layer at the Program or Portfolio Level
➢ Scale from the bottom up or manage delivery from the top down
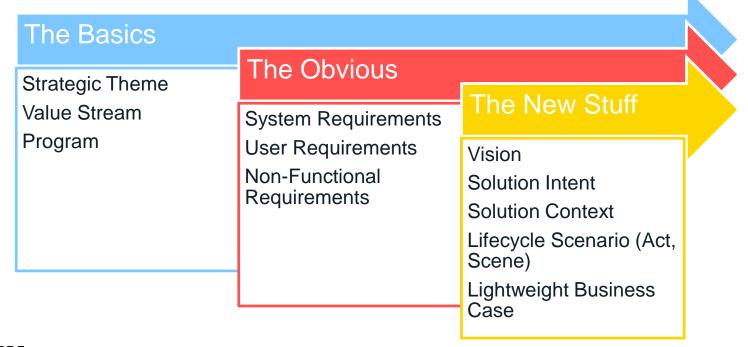
SAFe Program (with or without Teams)

- How do we orchestrate delivery of features across teams?
- How can we support agile and waterfall teams that need to collaborate?
- What are the dependencies across teams?

Evolving to Agile Requirements Management with SAFe

The Basics

Strategic Theme

Value Stream

Program

The Obvious

System Requirements

User Requirements

Non-Functional Requirements

The New Stuff

Vision

Solution Intent

Solution Context

Lifecycle Scenario (Act, Scene)

Lightweight Business Case

Eating our own dog food…

How IBM uses SAFe to deliver ALM tooling

Our motivation to change…

Increase *efficiency* and *effectiveness* of our continuous delivery process

Pressures

- Wasted time on low-value activities

- Feature delivery cycle time too slow

- No insight into ability to deliver value

Improvements

- Adoption of lean and agile principles organization-wide

- Portfolio-level planning on business release boundary

- Data persistence through tooling for visibility, traceability, reporting

But first, we had to address the hardest part →
Change the way we work!

Why SAFe?

It's important to our customers

- Not vendor-specific, independently developed
- Based on sound lean and agile principles applied across all layers of an enterprise organization
- Well-defined
- Addresses issues current enterprises face today

It's important to us

- Consistent terminology that is well-defined (so we don't have to do that!)
- Standard framework known across the industry (so we don't have to prove the value!)
- Experts that can help
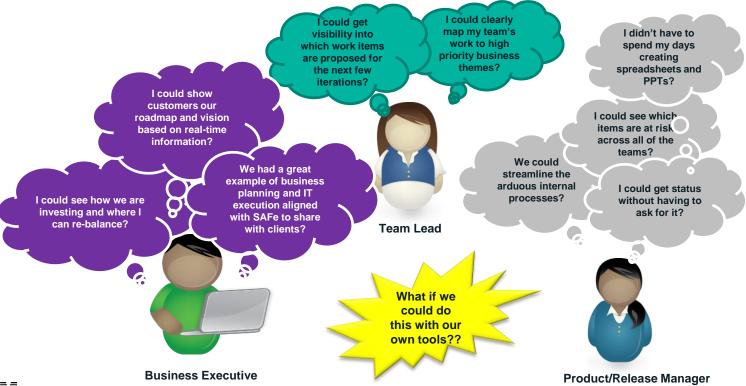
Lead by example

- By leading a SAFe-based transformation internally, we have personal understanding of the challenges and benefits specifically when applying our own tools to address the issues

Addressing the culture shift – Find our WOW! factor

"What if… ?"

I could get visibility into which work items are proposed for the next few iterations?

I could clearly map my team's work to high priority business themes?

I didn't have to spend my days creating spreadsheets and PPTs?

I could show customers our roadmap and vision based on real-time information?

I could see which items are at risk across all of the teams?

We had a great example of business planning and IT execution aligned with SAFe to share with clients?

We could streamline the arduous internal processes?

I could get status without having to ask for it?

I could see how we are investing and where I can re-balance?

What if we could do this with our own tools??

Team Lead

Business Executive

Product/Release Manager

Our SAFe Portfolio

Our SAFe Portfolio environment uses CLM* with SAFe
4.0 to orchestrate the planning and delivery of the CLM
and CE tooling:

    RTC

    RDNG

    RQM
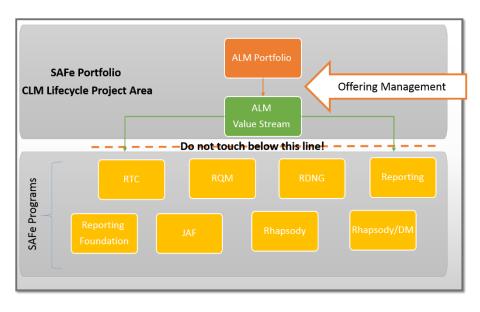
    Rhapsody

    Rhapsody/DM

    RELM

    Jazz Foundation

    Jazz Reporting Service

We self-host on the latest CLM environment – always!

Our evolutionary approach to SAFe adoption
Mapping SAFe's key concepts to ALM Portfolio processes

Kanban

- Do not use the Kanban view and do not enforce WIP limits
- Use Kanban workflow and Roadmap views to apply workflow and WSJF

Economic Ranking

- Use WSJF to come up with initial ranked list of Epics and Capabilities
- Apply priority to further refine the Capability ranked list to include those "must do" items

Value & Quality

- Some articulation of Acceptance/Success Criteria, not widespread
- Some solution test related to Solutioning artifacts
- Not yet capturing the notion of Value

Solutioning

- Some articulation of solution intent and context, lifecycle scenarios
- Not widespread
- Do not articulate any other formal requirements

Our Portfolio Kanban process

Input:
- *Portfolio Epics (business initiatives)*

Output:
- *Value Stream Epics*
- *Capabilities → Value Stream Backlog*
- *(Some "solution level" work)*

"New Ideas"

Portfolio Epic

Funnel
- Ideas from any stakeholders (marketing, sales, support, customers)
- New business opportunities
- Infrastructure and architectural issues
- Cost reduction initiatives

Review
- Value Statement defined
- Initial WSJF triage

Analysis
- Solution trade-offs and analysis
- Customer feedback (Design Partner Program)
- Refined WSJF
- Go/No-Go decision
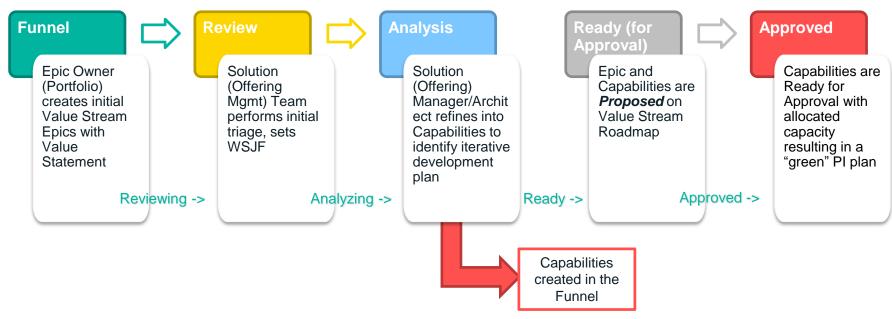
Backlog
- Approved Portfolio Epics
- Continuous re-prioritization (WSJF)

Our "next PI" Planning Process
Review Value Stream Epics on roadmap and in backlog
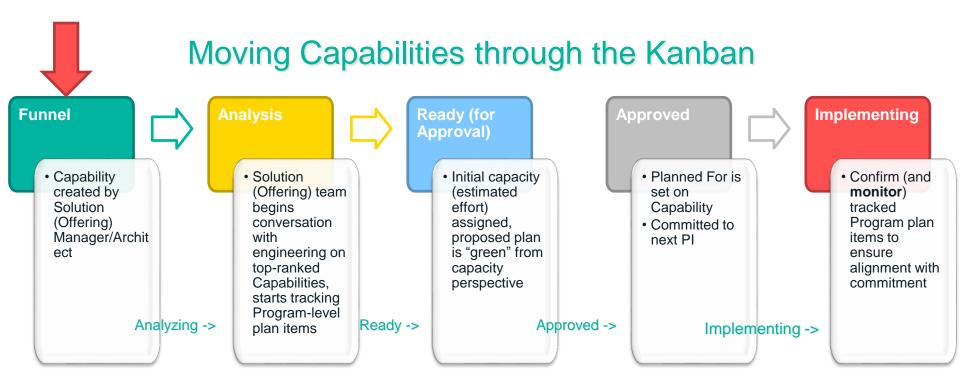
Moving Epics through the Kanban

Funnel

Epic Owner (Portfolio) creates initial Value Stream Epics with Value Statement

Reviewing ->

Review

Solution (Offering Mgmt) Team performs initial triage, sets WSJF

Analyzing ->

Analysis

Solution (Offering) Manager/Architect refines into Capabilities to identify iterative development plan

Ready ->

Ready (for Approval)

Epic and Capabilities are *Proposed* on Value Stream Roadmap

Approved ->

Approved

Capabilities are Ready for Approval with allocated capacity resulting in a "green" PI plan

Capabilities created in the Funnel

Our "next PI" Planning Process
Review Capabilities on roadmap and in backlog

Moving Capabilities through the Kanban

Funnel
- Capability created by Solution (Offering) Manager/Architect

Analyzing ->

Analysis
- Solution (Offering) team begins conversation with engineering on top-ranked Capabilities, starts tracking Program-level plan items

Ready ->

Ready (for Approval)
- Initial capacity (estimated effort) assigned, proposed plan is "green" from capacity perspective

Approved ->

Approved
- Planned For is set on Capability
- Committed to next PI

Implementing ->

Implementing
- Confirm (and **monitor**) tracked Program plan items to ensure alignment with commitment

Our "taxonomy"

Portfolio Strategy and Initiatives
"What" will differentiate us – aligned with business strategy
"Why" will it do that
Definition of solution/project that realizes the value delivery and ROI proposition
Economic thinking!!!

Analysis (Solutioning)
Detailed definition of Solution Intent and Context
Formal requirements "live" here (if necessary): System, User, Non-Functional Requirements
Use Cases: Scenarios, Roles, Wireframes

Refinement of "what" and "how"
Demonstrable value at each iteration

Technology Delivery
"How" will we deliver capabilities
Technology decisions live here

Strategic Theme

Portfolio Epic
Scope: Cross-Value Stream, Multi-year

Value Stream Epic
Scope: Cross-Program, > 1 Program Increment

Capability
Scope: Cross-Program, Program Increment

Top-Level "Plan Item" (any work item type)
Scope: Cross-Team, Program Increment

Story (Use Case)
Scope: Sprint

Task (Technology)
Scope: < Sprint

Program Increment = Release

Breakdown into lower levels of granularity –
Portfolio > Value Stream > Program > Team

Refinement and re-prioritization is a collaborative effort between Offering Management and Engineering

IBM

High-Level Domain Model

Artifacts in play across RM and CCM (QM is separate at the moment)

Legend

- Portfolio Level
- Value Stream Level
- Program Level

Requirements Management (RDNG)

Portfolio Artifacts
+ Strategic Theme
+ Lightweight Business Case
+ Vision

Value Stream Artifacts
+ Value Stream
+ Program
+ Vision
+ Solution Intent
+ Solution Context
+ Lifecycle Scenario
+ Scenario Act
+ Scenario Scene
+ Collection
+ Wireframe
+ Free-Form Diagram

implemented by

Change Management (RTC)

Portfolio Artifacts
+ Portfolio Epic
+ Milestone
+ Task
+ Risk
+ Retrospective

Value Stream Artifacts
+ Value Stream Epic
+ Capability
+ *PI Objective*
+ Milestone
+ Task
+ Risk
+ Retrospective

Quality Management (RQM)

Value Stream Artifacts
+ Test Suite
+ Test Plan
+ Test Case
+ Test Script

Program Artifacts
+ Test Suite
+ Test Plan
+ Test Case
+ Test Script

Traceability Model

How our SAFe artifacts "hang together"

"Working" dashboard for *all* Stakeholders

Executive View

Roadmaps – By Customer, By Program, By PI

Potential issues, scope changes, planning discrepancies… thinks we want to keep an eye on

Current PI status – The "Execution" views

All ALM Portfolio (CCM...

ALM Portfo

| Portfolio Overview ▾ | Program/Customer Roadmaps | Weekly Review | My Process Exceptions | Portfolio Planning (2017) | Current PI Status | Affected Programs (6.0.4) |

| Program Release Plans | Process Guidance | Capacity Planning | General | Junk ✛ | | Add Widget |

Executive Summary: What does this mean?

Shows the Capabilities Proposed on the roadmap along with tracked Program Work Items (if they exist) with associated development commitment and DCP Boca values.

Submit New Idea!

Click here to create a new Portfolio Epic

Stuff we need to know about to plan the next two Pis and watch planning progress

📊 **Executive Summary**

| Filters ✎ | View as: ▾ | Open in a new window... ⊕ |

Executive Summary

Strategic Theme
- Cognitive & Engineering Analy…
- Compliance (ours and our clie…
- Continuous Improvement
- Differentiating User Experience

Important Plan Views

Portfolio Roadmap (Portfolio Epics > Value Stream Epic > Capabilities):
Roadmap (by Strategic Theme)
Roadmap (by PI)

Next Steps & Resources

Summary

SAFe support in CLM - Mapping

IBM Rational Collaborative Lifecycle Management (CLM)

	RTC Tracking & Planning	**DNG** Requirements Management	**RQM** Quality Management
Portfolio Value Streams	• Portfolio backlog • Value Stream backlog • Roadmap & Kanban views	• Value Stream • Strategic Theme • Lightweight Business Case • Solution Content \ Intent	• Value Stream Test Plan
Program	• Program backlog • WSJF Ranked List • Roadmap & Kanban views		• Program Test Plan
Team	• Scrum based: Ranked Backlog, Sprint Planning • Kanban & Taskboard views		• Team Test Plan

Reports and Dashboards

Enabling key SAFe concepts in tooling

Lean & Agile principles

- Apply leaning thinking across the portfolio – at ALL levels! – to eliminate waste and respect work-in-process (WIP) limits
- Provided through Kanban planning at each SAFe level

Economic thinking

- Avoid the "loudest voice, biggest stick" syndrome
- Rank and prioritize based on "biggest bang for the buck" – greatest value at lowest cost
- Provided through calculated WSJF and WSJF-ranked backlogs for planning at all SAFe levels

Value-based delivery

- Capture the notion of value, track it, report on it – improve it!
- Provided through PI Objective at Value Stream, Program and Team levels with reports to track value delivery and trends

Process guidance

- Help your team learn by doing
- Process guidance embedded in the tooling through work item templates for common SAFe activities and methodology support

Where can I learn more?

SAFe Landing Page: http://jazz.net/safe

Videos:
- Watson IoT Video: Agile and the Scaled Agile Framework® for IoT
- Enablement Videos

Enterprise Scaled Agile Reporting: SAFe Reports

Configuring Existing Environments: Configuring the SAFe Methodology in CLM

Enablement: IBM CLM® for SAFe® Level 1 Program Enablement Course

Blogs:
- What's new with SAFe® in CLM 6.0.3
- Explore SAFe® quickly, easily and cheaply with IBM's SAFe® in a Box!
- Keep your organization on track with CLM and SAFe® 4.0
- New and improved SAFe support is here!
- Need SAFe 4.0 Support? Look no further…
- Introducing SAFe in CLM V6.0.1

One customer's story: Pole Emploi

Thank you!

IBM