An aside: Overview of the larger territory

- **Strategy, governance, and reporting**
- **Execution**

**Focus areas**
- Grow the business (Development)
- Run the Business (Operations)

- **TBM Business of IT**
- **ITIL IT Service Management**
- **SAFe (Dev and DevOps)**
## Table of contents

- Overview of SAFe
- Overview of TBM
- Positioning for Value with TBM and SAFe
- Supporting the TBM Four Core Disciplines
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### Overview of SAFe
SAFe® for Lean Enterprises is a knowledge base of proven, integrated principles, practices, and competencies for Lean, Agile, and DevOps

http://www.scaledagileframework.com/
SAFe 4.6 introduces the Five Core Competencies of the Lean Enterprise

- Lean-Agile Leadership
- Team and Technical Agility
- DevOps and Release on Demand
- Business Solutions and Lean Systems Engineering
- Lean Portfolio Management

The Lean-Agile Leadership competency describes how Lean-Agile Leaders drive and sustain organizational change and operational excellence by empowering individuals and teams to reach their highest potential.

They do this by learning, exhibiting, teaching, and coaching SAFe’s Lean-Agile mindset, values, principles, and practices.
The Team and Technical Agility competency describes the critical skills and Lean-Agile principles and practices that are needed to create high-performing Agile teams who create high-quality, well-designed technical solutions.

The DevOps and Release on Demand competency describes how implementing DevOps and a continuous delivery pipeline provides the enterprise with the capability to release value, in whole or in part, at any time necessary to meet market and customer demand.
The Business Solutions and Lean Systems Engineering competency describes how to apply Lean-Agile principles and practices to the specification, development, deployment and evolution of large, complex software applications and cyber-physical systems.

The Lean Portfolio Management competency describes how an enterprise implements Lean approaches to strategy and investment funding, Agile portfolio operations, and Lean governance.
Configure SAFe to meet your needs

- **Full** Configuration
- **Large Solution** Configuration
- **Portfolio** Configuration
- **Essential** Configuration

Overview of TBM
Introduction to TBM

The TBM Framework for “running IT with greater business acumen” is designed to provide “a shared decision-making model for technology and business leaders” and a structure for IT executives to have “conversations with the CEO and the board of directors about the value of IT investments”.

The TBM Council publishes an agreed-upon taxonomy for classifying IT expenses and a set of TBM best practices with the goal of helping business technology leaders benchmark their success in those practices using the TBM Index. The index follows the structure of the TBM Framework.

The TBM Council

Who is the TBM Council?

The TBM Council is a nonprofit professional organization dedicated to advancing the discipline of technology business management (TBM). TBM provides technology leaders with standards and validated best practices to communicate the cost, quality, and value of IT investments to their business partners. In turn, IT is able to drive innovation for their organization.

The TBM Council and its community focus on collaboration, standardization, and education to advance TBM and the IT profession.

Become a Member

| 5800+ Members | 40% I&O / Finance | 45% CXOs |
The Tools of TBM

Framework

Taxonomy

KPIs and Metrics

TBM Framework

2 Organizational Elements

4 Core Disciplines

2 Organizational Changes

Continuously Improve

Plan and Govern

Run-the-Business

Change-the-Business

Deliver Value for Money

Cost for Performance

Business-Aligned Portfolio

Investment in Innovation

Enterprise Agility

Create Transparency

Shape Business Demand

Position for Value

Value Conversations

Run-the-Business vs. Change-the-Business

Projects On Time, On Budget, On Spec

Investments against Targets by Value Category

KPIs

<table>
<thead>
<tr>
<th>KPI</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run-the-Business vs. Change-the-Business</td>
<td></td>
</tr>
<tr>
<td>Projects On Time, On Budget, On Spec</td>
<td></td>
</tr>
<tr>
<td>Investments against Targets by Value Category</td>
<td></td>
</tr>
</tbody>
</table>

© Scaled Agile, Inc.
TBM Taxonomy

TBM Model (dynamic view)
# TBM KPIs and Metrics

<table>
<thead>
<tr>
<th>KPIs</th>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run-the-Business vs. Change-the Business</td>
<td>Run-the-business (RtB) spending includes both capital and operating expenditures needed to operate and sustain business operations. RtB activities are vital to your business, but there is a tendency for them to increase year-over-year as previous change-the-business investments impact ongoing operations.</td>
</tr>
<tr>
<td>Investments against Targets by Value Category</td>
<td>A view of investments by category (e.g., replace, maintain, enhance, or new) against targets should be produced quarterly.</td>
</tr>
<tr>
<td>Projects On Time, On Budget, On Spec</td>
<td>A view of total project spending and headcount split by those that are tracking to scope, budget and deadline should be produced quarterly. It should be split by executive (BU) sponsors and reviewed during the quarterly business review.</td>
</tr>
<tr>
<td>Economic Value Added of the IT Investment Portfolio</td>
<td>EVA of the IT portfolio should be calculated quarterly or annually based on the business benefits of new or enhanced services that drive revenue or productivity.</td>
</tr>
</tbody>
</table>
The IT Value Chain

- **Business Capabilities**: Employing people, processes, data and services to drive a business outcome such as increased revenue, cost reduction, and higher employee productivity.
- **Business Application Services**: Partnering business and technology owners to improve business processes through automation or by exploiting information.
- **Tech/End-User Services**: Delivering, supporting and maintaining infrastructure and workplace productivity tools. Includes Infrastructure- and Platform-as-a-Service (IaaS/PaaS).
- **IT Towers (Resources)**: Procuring technologies (e.g., networks, servers, storage, software), data, facilities, utilities and people to deliver services and capabilities.
Positioning for Value

TBM Asks

Are you a true partner with your line of business leaders?

Do you and your people collaborate with leaders on business decisions?

Do you jointly define your business strategy and infuse your knowledge?

Do you plan together or is “they plan the business and then we plan IT approach?”

SAFe Portfolios are aligned around value streams

Each value stream has the people and resources necessary to define and deliver value
ARTs realize the value stream across silos

Are you a true partner with your line of business leaders?

Line of business leaders are in the ART and integral to the value stream

5-12 teams working together on a solution

Value streams align you with your business partners

Operational value streams run the business

Development value streams grow new business opportunities
The Four Disciplines of TBM
Shape business demand

Lean Portfolio Management empowers the portfolio

- Connect the portfolio to enterprise strategy
- Maintain portfolio vision
- Fund Value Streams
- Establish portfolio flow

- Forecast and budget dynamically
- Measure portfolio performance
- Coordinate continuous compliance

- Coordinate Value Streams
- Support program execution
- Drive operational excellence
Business and IT jointly define the portfolio strategy

- Key stakeholders collaborate on developing and communicating the portfolio strategy
- They provide lean budgeting and funding to the Value Streams that develop and maintain the portfolio products and services

Know your portfolio

- The Portfolio Canvas is a template for defining a specific SAFe Portfolio
- It defines the domain of the portfolio and other key aspects
Shape by mapping Solutions by horizon

Plan and govern
Align IT business with Strategic Themes

- Context for decision-making, inputs to the vision, budget, and backlogs
- Adjust ART and Value Stream funding to track changing strategic priorities
- Assist with Epic evaluation and decision-making
- Influence each Program Vision and Roadmap

Planning the future state together

- The Portfolio Canvas captures current state
- SWOT opportunities brainstorm potential future states
- Evaluate your options, and pick a future state
- Identify and agree on the Epics that will get you there

Potential Epics

- Epic
- Epic
- Enabler
- Epic
- Epic
- Enabler
Plan with your Business Owners every PI

Aligning teams, ARTs and Business Owners

- All stakeholders face-to-face (but typically multiple locations)
- Management sets the mission, with minimum possible constraints
- Requirements and design emerge
- Important stakeholder decisions are accelerated
- Teams create—and take responsibility for—plans

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

Plan and govern with the Portfolio Kanban

Future state epics go into the funnel

Visibility and WIP limits help match supply and demand
Funding Value Streams, not projects

Traditional project based funding creates overhead and temporary work for temporary people "bring people to the work"

Funding the teams instead of projects means that teams can flex to the work

Funding Value Streams increases Agility and decreases overhead "bring the work to the teams"

Funding Value Streams provides for full control of spend, with:
- No costly and delay-inducing project cost variance analyses
- No resource reassignments
- No blame game for project overruns
### Govern with Portfolio Guardrails

<table>
<thead>
<tr>
<th>Apply investment horizons</th>
<th>Utilize capacity allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approve Epic initiatives</td>
<td>Continuous Business Owner engagement</td>
</tr>
</tbody>
</table>

#### Continuous Business Owner engagement

**Do you and your people collaborate with leaders on business decisions?**

- Lean budgets allocate money, but it has not been spent!
- Business owner engagement assures it is spent on the right things at the right time
- Business Owners actively participate before, during and after PI Execution
Govern with dynamic budgeting

Adjust budgets dynamically to meet changing business needs.

Deliver Value for Money
Measure program performance

As part of the PI System Demo, teams compare planned vs. actual PI Objectives.

- Teams meet with their Business Owners to self-assess the business value they achieved for each objective.
- Each team’s planned vs. actual business value is then rolled up to the Program-level in the Program Predictability Measure.

<table>
<thead>
<tr>
<th>Objectives for PI 3</th>
<th>Business Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>Actual</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Stretch Objectives</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Totals</td>
<td>50</td>
</tr>
<tr>
<td>% Achievement:</td>
<td>90%</td>
</tr>
</tbody>
</table>

Quantitative measurement

The PI Predictability Measure shows whether achievements fall into an acceptable process control band.

- Target: Effective process control range
- Predictability sufficient to run the business
- Handles common variations
- Special causes may still cause excess variation
Create Transparency

- The TBM Taxonomy
  - provides standard categories for costs, consumption and other metrics
  - includes views (perspectives) for finance, IT and line-of-business leaders

- The TBM Model
  - translates between the three perspectives (views)
  - allocates (apportions) costs from lower layers to the upper layers
  - is usually a software tool
SAFe core values

**Alignment**
- Provide the relevant briefings and participate in PI Planning
- Help with backlog visibility, review and preparation
- Help with value stream organization and coordination
- Constantly check for understanding
- Communicate the mission, visions and strategy at every opportunity

**Transparency**
- Visualize all relevant work
- Take ownership and responsibility for errors and mistakes
- Admit your own mistakes
- Support others who acknowledge and learn from their mistakes. Never punish the messenger.

**Built-in quality**
- Demonstrate quality by refusing to accept or ship low quality work
- Support investments in capacity planning for maintenance and reduction of technical debt
- Ensures UX, architecture, operations, security, compliance, and others, are part of the flow of work

**Program execution**
- Participate as an active business owner in PI execution
- Celebrate high quality and predictably delivered program increments
- Aggressively remove impediments and demotivators

Tracking progress and investments with Tooling

Leading ALM Tools support SAFe Taxonomy and TBM/Apptio Integrations

Story points reflect effort complete and work in process

Labor rolls up from individual assignment through internal labor category to IT application tower and to business application services
Alignment and transparency in SAFe and TBM

Portfolio and backlog transparency

Epic funding and governance

Implementation, demos and reporting

ALM tooling and story points

Continuously improve
Relentless improvement in the SAFe House of Lean

VALUE
- Respect for people and culture
- Flow
- Innovation
- Relentless improvement

LEADERSHIP

RELENTLESS IMPROVEMENT
- A constant sense of danger
- Optimize the whole
- Consider facts carefully, then act quickly
- Apply lean tools to identify and address root causes
- Reflect at key milestones; identify and address shortcomings

Those who adapt the fastest, win.
Measure Portfolio performance

Lean Portfolio Metrics Example

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

Improving results with Inspect and Adapt event

Three parts of Inspect and Adapt:

1. **The PI System Demo**
2. **Quantitative Measurement**
3. **Problem-Solving Workshop**

**Timebox:** 3 – 4 hours per PI

**Attendees:** Teams and stakeholders
Inspect and Adapt

Teams conduct a short retrospective, then systematically address the larger impediments that are limiting velocity.

<table>
<thead>
<tr>
<th>Agree on the problem to solve</th>
<th>Apply root-cause analysis (and 5 Whys)</th>
<th>Identify the biggest root-cause using Pareto analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficiently reliable release commitments</td>
<td><img src="image" alt="Diagram showing root-cause analysis" /></td>
<td>![Graph showing Pareto analysis]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restate the new problem for the biggest root-cause</th>
<th>Brainstorm solutions</th>
<th>Identify improvement backlog items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient architectural runway</td>
<td><img src="image" alt="Diagram showing brainstorming" /></td>
<td>![Diagram showing identification of NFRs]</td>
</tr>
</tbody>
</table>

Summary: SAFe and the Four TBM Value Conversations
Cost for Performance

<table>
<thead>
<tr>
<th>TBM</th>
<th>SAFe Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automate software testing and deployment</td>
<td>SAFe DevOps, test-first, BDD and TDD</td>
</tr>
<tr>
<td>Adopt Agile for software development</td>
<td>SAFe, Team and Technical agility, DevOps and Release on Demand</td>
</tr>
<tr>
<td>and maintenance</td>
<td></td>
</tr>
<tr>
<td>Reduce customization and minor</td>
<td>ART Design, MVPs and Weighted Shortest Job First prioritization</td>
</tr>
<tr>
<td>enhancements</td>
<td></td>
</tr>
<tr>
<td>Rationalize applications</td>
<td>ART Design, Backlog prioritizations, investment horizon 0 and PI Planning</td>
</tr>
<tr>
<td>Establish reusable application services</td>
<td>Feature and component teams and platform ARTs, architectural runway, system</td>
</tr>
<tr>
<td>to reduce duplication</td>
<td>solution and enterprise architect</td>
</tr>
</tbody>
</table>
## Business Aligned Portfolio

<table>
<thead>
<tr>
<th>TBM</th>
<th>SAFe Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape demand by making costs transparent</td>
<td>Agile work physics effort reporting</td>
</tr>
<tr>
<td>Empower service owners to offer service options</td>
<td>Role of Product and Solution Managers</td>
</tr>
<tr>
<td>Gather data to rationalize applications and services</td>
<td>ART Design, PI Planning, portfolio visibility</td>
</tr>
<tr>
<td>Pivot cost to support new initiatives</td>
<td>Epic MVP process</td>
</tr>
<tr>
<td>Make decisions based on what if scenarios</td>
<td>Explore at Portfolio Backlog, lean business cases and PI planning</td>
</tr>
</tbody>
</table>

## Investment in Innovation

<table>
<thead>
<tr>
<th>TBM</th>
<th>SAFe Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shifting from projects to services. Services at center of portfolio</td>
<td>From projects to value streams</td>
</tr>
<tr>
<td>Away from upfront defined costs estimated</td>
<td>Rolling wave budgets, empowered product management, funding value streams, budget guardrails</td>
</tr>
<tr>
<td>Service orientation supports DevOps and spirals into accuracy agile development</td>
<td>SAFe ARTs are organized for end to end. DevOps is in the value stream</td>
</tr>
<tr>
<td>Service connotes value and effective portfolio management</td>
<td>SAFe solutions</td>
</tr>
<tr>
<td>Service funding model allows stable teams (6 mos to 1 yr)</td>
<td>Agile Teams, ARTs, Value streams and Lean Budgets</td>
</tr>
</tbody>
</table>
## Enterprise Agility

<table>
<thead>
<tr>
<th>TBM</th>
<th>SAFe Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business leaders view discretionary investment as business option</td>
<td>Rolling wave lean budgets, dynamic budgeting and forecasting</td>
</tr>
<tr>
<td>Managing fixed and variable costs</td>
<td>Understanding Agile CapEx and Opex</td>
</tr>
<tr>
<td>KPIs- investments against targets by category</td>
<td>Value stream KPIs, investment horizons and capacity allocation guardrails</td>
</tr>
<tr>
<td>Projects in time, on budget, on spec</td>
<td>Agile Release Trains program predictability measures</td>
</tr>
</tbody>
</table>