The TBM Movement in Government
Friend or Foe to Agile Adoption?

Dr. Steve Mayner
SAFe Fellow and Principal Consultant
Scaled Agile, Inc.

steve.mayner@scaledagile.com
Session outline

- Federal IT spending and Technology Business Management (TBM)
- Overview of TBM
- Overview of SAFe
- Synergies of SAFe and TBM
- Lessons from early TBM adoption in government
Federal IT Spending and TBM
The problem to be solved

- The U.S. government spends over $90B annually in IT
- Many IT programs miss budget, schedule, and outcome targets
- 80% of the IT budget is spent on sustaining aging legacy systems
- What is unclear is the value of government IT investments
  - Is the spend cost effective?
  - Are costs inflated due to redundant, duplicative systems?
  - Do users understand how consumption patterns drive cost?
  - Is there full visibility into the long term sustainment costs?
The intersection of TBM and FITARA

- The Federal IT Acquisition Reform Act (FITARA) of 2014 established requirements for improvements in IT acquisitions
  - Greater authority and accountability of CIOs for IT spend
  - Enhanced transparency and risk management
  - Regular reviews of IT portfolios
- However, FITARA has been hindered by a lack of transparency and fidelity of data on IT spend and performance
- Technology Business Management (TBM) seeks to close that gap with a disciplined model for decision-making and IT cost benchmarking
Questions that need to be answered

- What are the top drivers of IT spending?
- Who are the top consumers of IT and what do they cost the agency?
- Where are the best opportunities to cut spending while maintaining mission effectiveness?
- What is the fully loaded cost to build and run the applications and services we use?
- Are our operations and maintenance (O&M) resources being used effectively?
- Are development, modernization, and enhancement (DME) funds being used wisely?

Source: The Federal IT Cost Commission Report
Overview of TBM
What is TBM?

The Technology Business Management (TBM) framework provides a decision-making model for maximizing the business value of a technology portfolio, enabling organizations to run IT with greater business acumen.

“industry best practices for running technology organizations like a business…”

“provide a comprehensive and understandable ‘bill of IT’”

Who is the TBM Council?

The TBM Council is a non-profit organization of forward-thinking CIOs and senior IT executives with a mission to establish and promote business management standards and practices that empower IT executives to collaborate with their business partners to identify and execute impactful technology strategies to achieve corporate objectives.

- Reveal the true costs and consumption of services, projects, infrastructure, apps, etc.
- Measure the total cost of ownership (TCO) to support managing technical debt and other often-hidden costs
- Accelerate business-aligned decisions with clear, trusted facts
- Empower productive conversations to establish a common language between IT, finance, and business units

www.tbmCouncil.org
## 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>
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Overview of SAFe
The world’s leading framework for enterprise agility.

SAFe® for Lean Enterprises is a knowledge base of proven, integrated principles, practices, and competencies for Lean, Agile, and DevOps

http://www.scaledagileframework.com/
Scaled Agile Framework ‘Big Picture’
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

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The Lean Portfolio Management competency describes how an enterprise implements Lean approaches to strategy and investment funding, Agile portfolio operations, and Lean governance.
SAFe Adoption in Government
Scaled Agile’s commitment to the government market

SAFe for Government

SAFe for Government is a set of core practices in a government context. The foundations of Lean and Agile thinking and systems development in the private sector using these same patterns—however, the transformations. The recommendations address these concerns.

New Case Study for SAFe in Government Released!

Learn about transformation at the Centers for Medicare and Medicaid Services. Read the announcement here. See the case study here.

Recommended Resources

- Defense Science Board Report on Design and Acquisition of Software for Defense Systems, February 2018
- Section 899 Panel/Briefing: Task Force on Streamlining and Improving the Defense Acquisition System
- Digital Services Playbook: Successful practices from the private and public sector for effective delivery of technology-based "digital" services.
- TechFAR Hub: The comprehensive portal for digital service and Agile acquisition practices.
- Anonymous case study for a new software system undertaken by a key federal government program using Lean-Agile methods.

Related Videos

- SAFe Principles and Practices Case Study of Effective Government Projects
- SAFe Principles and Practices Case Study of Agile Acquisitions in Government

Upcoming Events

Agile 2018
5-8
Gaylord Convention Center, National Harbor, Maryland

2018 SAFe Global Summit
29-31
Marriott Marquis, San Diego, CA
Synergies of SAFe and TBM
Position for Value

- Clearly define where and how IT delivers value by enabling the business to execute its strategy.

Technology Business Models and Partnership

- Ask yourself:
  - Are you a true partner with 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 it a 'they plan the business' and then we plan the IT' approach?
Position for Value supported in SAFe

IT aligned to business with strategic themes

Continuous business owner engagement

Organize and fund around value

Measure predictability of value delivery

Value is the aim of the House of Lean

Leadership

Objectives for PI 3
- Business Value
- Program Predictability Measure
Continuous improvement of IT financial management and operations is critical to identifying opportunities to optimize technology costs and investments.
Continuous Improvement supported in SAFe

Relentless Improvement is a pillar of the SAFe House of Lean

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Expected Result</th>
<th>Metric Used</th>
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<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>
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Lean Portfolio Metrics

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 & Adapt w/Problem Solving Workshop at the end of every Program increment
Continuous improvement of IT financial management and operations is critical to identifying opportunities to optimize technology costs and investments.
Transparency supported in SAFe

**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

**Transparency and Alignment are built into SAFe Core Values**

**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

Tracking progress & investments with tooling

SAFe Events

SAFe Events

- PI Planning
- Iteration Planning
- Iteration Refinement
- Daily Iteration Review
- PO Sync
- System Demo
- Inspect & Adapt
- Prepare for PI Planning
- Scrum of Scrums
- ART Sync
- Program events
- Team events

Lean Portfolio Management

- Enterprise Executives
- Lean Governance
- Agile Portfolio Operations
- Strategy & Investment Funding

Business Owners

Enterprise Architect

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Deliver Value for Money in SAFe

<table>
<thead>
<tr>
<th>Feature</th>
<th>Duration</th>
<th>CoD</th>
<th>WSJF</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>10</td>
<td>1</td>
<td>0.1</td>
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Prioritized using **WSJF**

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

**Business Owners** use Weighted Shortest Job First (WSFJ) to prioritize the most valuable work.

**Business Owners** score the value of PI Objectives (planned and actual) and track the trend of value delivery over time.

*The new SAFe Agile Product & Solution Management course includes an in-depth lesson on value stream economics.*
Shape Business Demand in SAFe

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

- Coordinate Value Streams
- Support program execution
- Drive operational excellence

Lean Portfolio Management (LPM)

Supporting tools – Portfolio Canvas, Horizons of Planning, Lean Budgets with Guardrails, etc.

Check out our LPM articles and our new Lean Portfolio Management course.
Plan and Govern in SAFe

Strategic Themes

Lean Budgets and Guardrails

PI Planning

Dynamic Budgeting
SAFe and the Four TBM Value Conversations
## Cost for Performance

<table>
<thead>
<tr>
<th>TBM</th>
<th>SAFe Practices</th>
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<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 and maintenance</td>
<td>SAFe, Team and Technical agility, DevOps and Release on Demand</td>
</tr>
<tr>
<td>Reduce customization and minor enhancements</td>
<td>ART Design, MVPs and Weighted Shortest Job First prioritization</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 to reduce duplication</td>
<td>Feature and component teams and platform ARTs, architectural runway, system solution and enterprise architect</td>
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## Business Aligned Portfolio

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<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>
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## Investment in Innovation

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<th>TBM</th>
<th>SAFe Practices</th>
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<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>
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## Enterprise Agility

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<th>TBM</th>
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<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>
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</table>
Possible friction points between TBM and Lean-Agile

- Lean-Agile and SAFe promote moving from project-centric planning and funding to value streams.
- While TBM does not prevent or inhibit that shift, project-centric language in TBM has the potential to be interpreted as requiring a waterfall process model.
Lessons from Early TBM Adoption
Experienced SAFe customer also implementing TBM

What they have learned so far:

- Strong synergy between Agile/SAFe and TBM
- See TBM as a way to provide structure and a taxonomy to describe value
- Key success factor – integration of TBM stakeholders (specifically finance and acquisitions) into the flow of value, frequent interactions, etc. Challenge: low Agile maturity in these communities, identifying engagement frequency
- Early challenge: some product licensing models (ERPs) make it difficult to allocate costs to demand
Experienced SAFe customer also implementing TBM

What they have learned so far:

- There is an exceptional intersection of SAFe and the TBM framework
- TBM provides strong practical support for Lean Portfolio Management
- Business lines now have a better understanding of the holistic cost of IT and how mission decisions correlate to IT expenditures
- TBM with SAFe has increased transparency, clarity, accountability, agility, and has improved decision making and lean budgeting
- Incorporating TBM taxonomy and processes in contracts will be a critical next step as they evolve their implementation
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Tim Argabrite
IT Planning and Control Unit
Federal Bureau of Investigation

Tim Wiles
Financial Management Unit
Federal Bureau of Investigation

Learn more at the SAFe Global Summit!

Combining SAFe and TBM to Deliver More Value
Lessons from the FBI CJIS (ongoing) journey

Sept 29 – Oct 4, 2019
global.safesummit.com
TBM rollout strategy and timing

- From OMB through the President’s FY 2019 Budget:
  
  *In FY 2019, the Administration will continue driving Federal Government-wide adoption of the TBM framework and release implementation guidance to agencies…*

- The CIO Council, General Services Administration (GSA), and the Office of the Federal CIO (OFCIO) are guiding a phased approach to agency implementation.

- A TBM Community of Practice meets monthly for agencies to share demos, best practices, get update on policies, develop a “playbook”

- While the aim is government-wide adoption of TBM, no mandatory implementation date has been set (yet)
Questions