



Then a miracle occurs: UX Designers in SAFe

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About this talk

Presented at the SAFe Summit in Nashville Tennessee August 16, 2023 by James McElroy
(recording available to anyone with SAFe Studio access)

Represents joint work by Catherine Cartright, Lys Maitland, and James McElroy

Scott Paradis created the opportunity for us to share this work at the summit

Our goal: persuade Scaled Agile to update their training to explain how to produce better customer experiences by integrating UX Design teams into SAFe

This is **Digital's** experience integrating Design into SAFe over 5+ years; while we believe these principles are universal, your needs and experiences may vary



Let's get to know each other



**James
McElroy**

Engineer turned Product Designer

Passionate about helping Designers
be more efficient and effective

25+ years in Tech and Design

Veteran of more product development
methodologies than I can remember

Converted SAFe skeptic



**Scott
Paradis**

Industrial Engineer by trade/
Agilist by heart

25+ years of making things better

Coaching is my passion

My go to Motto: “There has to be
a better way”



Help us understand your background

Please sit down/lower your hand if any of these generally describes your role

(exact match not necessary)

Solution
Architect

Business
Analyst

Solution
Manager

Software
Engineer

Product
Manager

Agile
Coach

QA
Engineer

Enterprise
Architect

Lean Portfolio
Manager

DevOps
Engineer

Lean
Coach

Scrum
Master

Portfolio
Manager

Product
Owner

Solution Train
Engineer (STE)

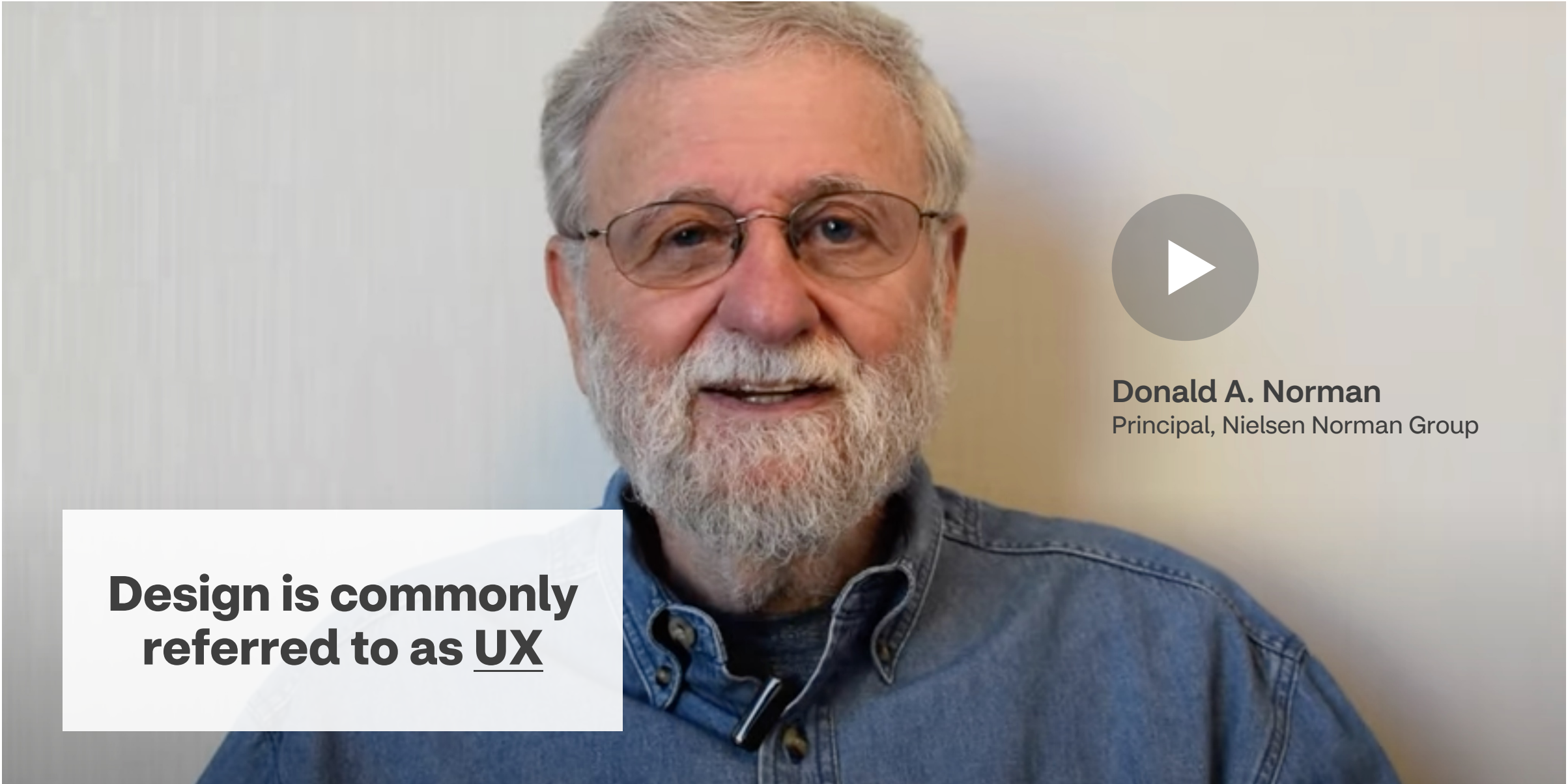
System
Architect/Engineer

Release Train
Engineer (RTE)

—

Who are we missing?

—



Donald A. Norman
Principal, Nielsen Norman Group

Design is commonly referred to as UX

**For decades, leading tech companies have deliberately done something most do not:
Create dedicated design teams as equals of product and engineering teams.**

**Why do some companies
take this step?**

**We're making a bet when we
build products/services**



One of the tragedies in software development, and all product development for that matter, is that much of what we build doesn't succeed.

It doesn't deliver the benefit we'd hoped...

The truth is, we're always making a bet that we'll get value"

Jeff Patton,
Dual Track Development is not Duel Track

Specifically, we're betting

Our customers will:

- Have the problem we think they do
- Realize we have a solution to their problem
- Try our solution
- Figure out how to use it
- Keep using it

Our solution will:

- Solve their problem better than the alternatives
- Be feasible to build with our technology
- Be viable (produce an ROI)

That's a lot to bet on

If we're wrong on any of
those bets, we won't have
a successful product.

**FAIL EARLY
FAIL FAST
FAIL OFTEN.**



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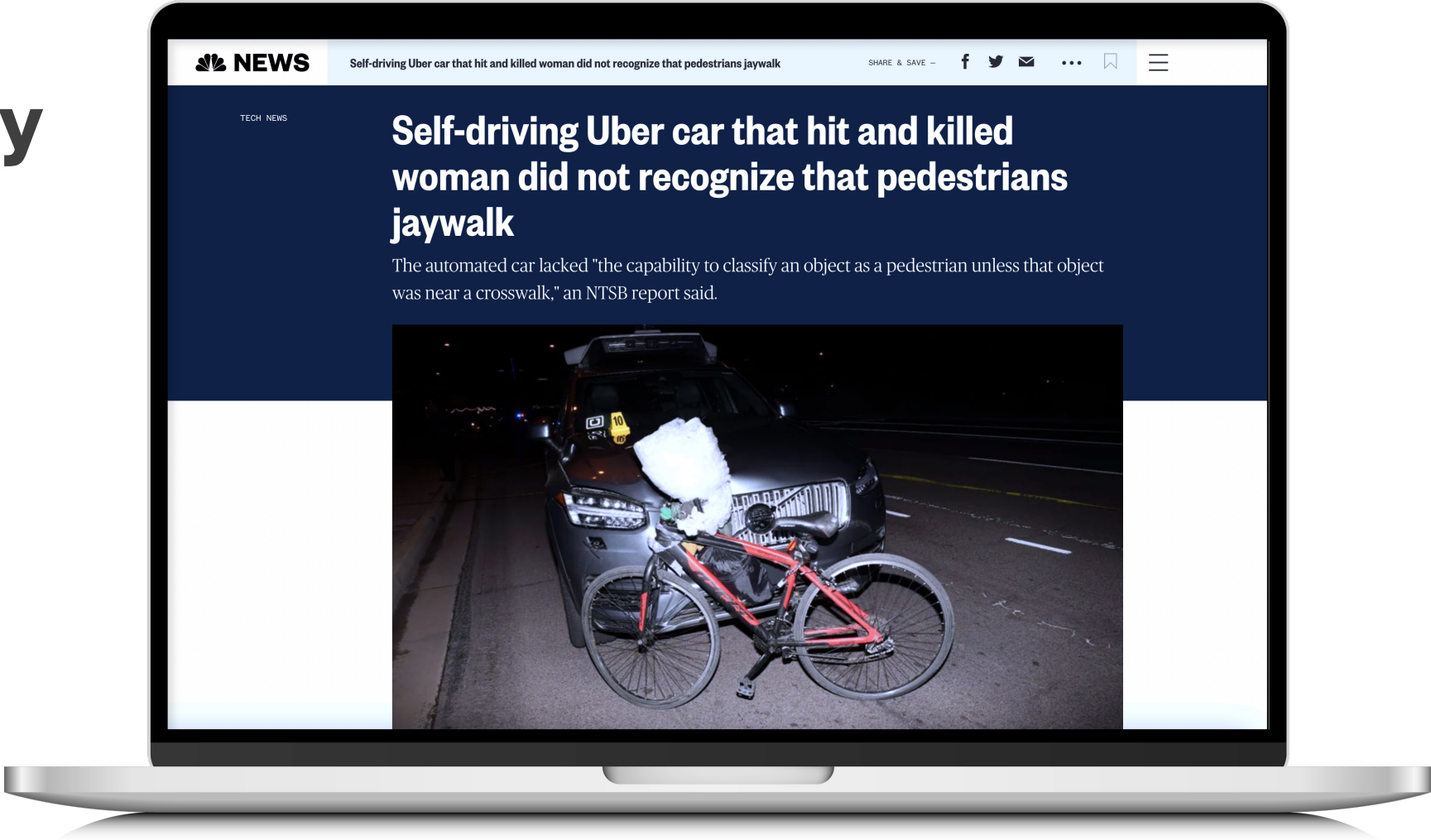
Failing fast is expensive

“The most expensive way to test your idea
is to build production quality software”

Jeff Patton



Failing fast can be deadly





—

What is the implication of failing fast in healthcare?

—

An Alternative

Learn Fast

“Failure isn’t a goal.
Learning is.”

- Jeremiah Gardner

~~FAIL~~
LEARN
FAST

@JeremiahGardner

Discovery



Discovery describes **a range of activities that enable us to learn fast** before we invest the time and expense required to develop shippable software, hardware, or services

**Discovery helps beat
the odds.**





“The purpose of product discovery is to make sure we have some evidence that when we ask the engineers to build a production-quality product, it won't be a wasted effort.”

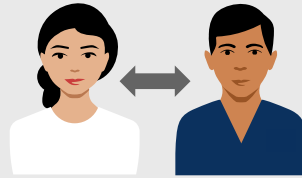
Marty Cagan
Silicon Valley Product Group

**Design (UX) Teams facilitate
Discovery**

How design can help: in Marty's words



In strong teams today, **the design informs the functionality** at least as much as the functionality drives the design



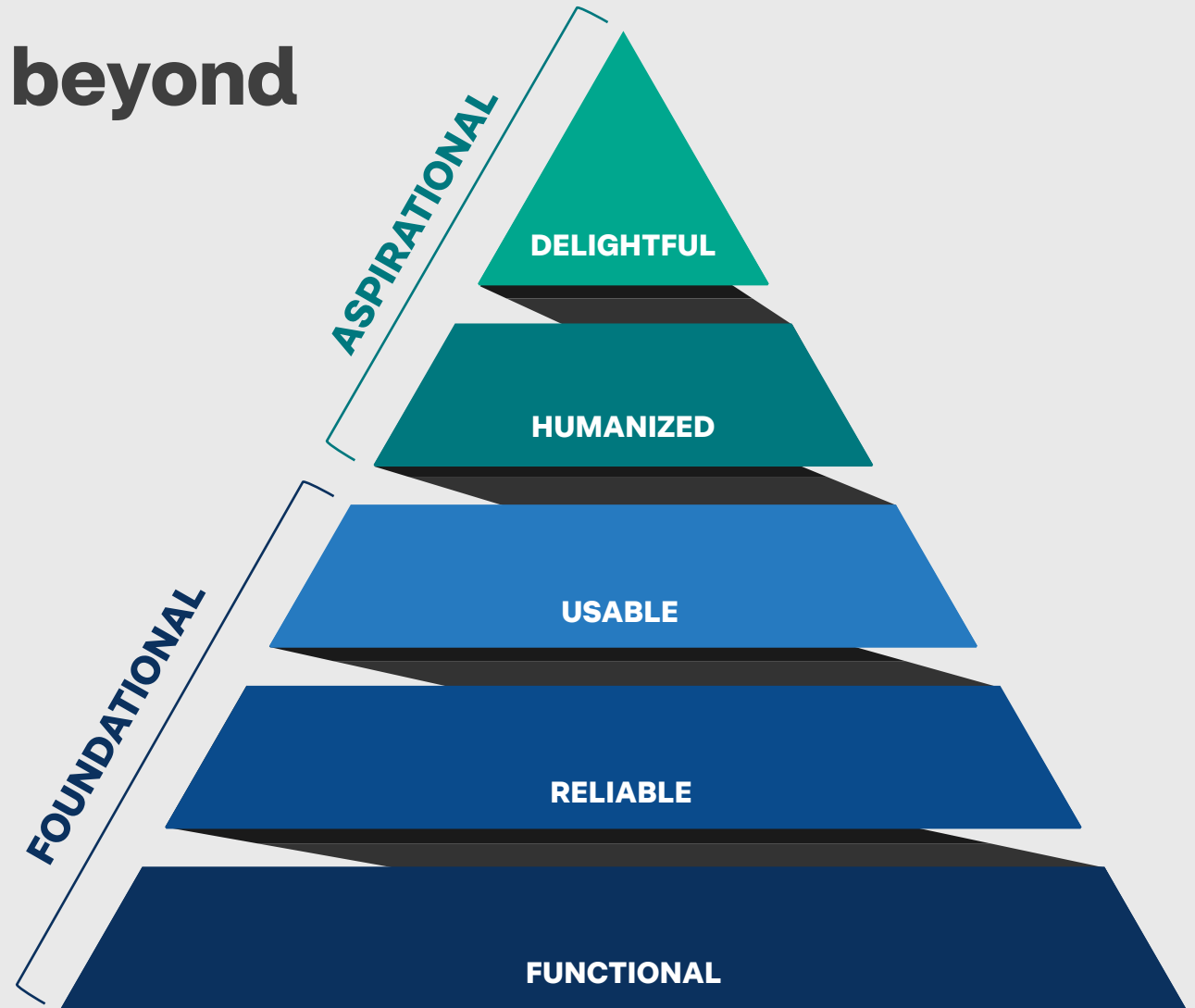
For this to happen, we need to make design a first-class member of the product team, **sitting side by side with the product manager**, and not a supporting service.



We need design—not just as a service to make our product beautiful—**but to discover the right product.**

The right product goes beyond function and reliability

(and far beyond aesthetics)

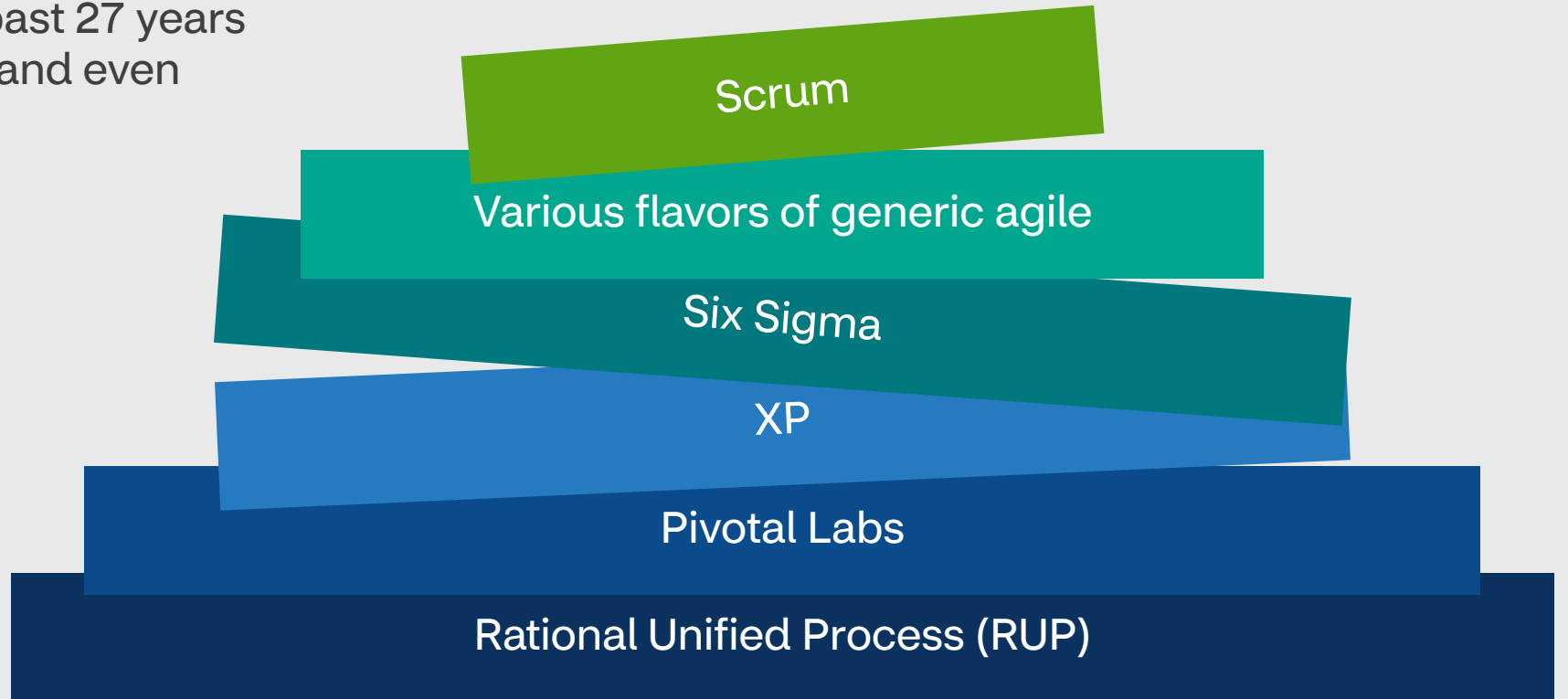


A blue-tinted photograph of three men in a meeting. The man in the center is smiling and looking at a laptop. The man on the left is looking at the center man. The man on the right is gesturing with his hand. The text 'My story' is overlaid in the center.

My story

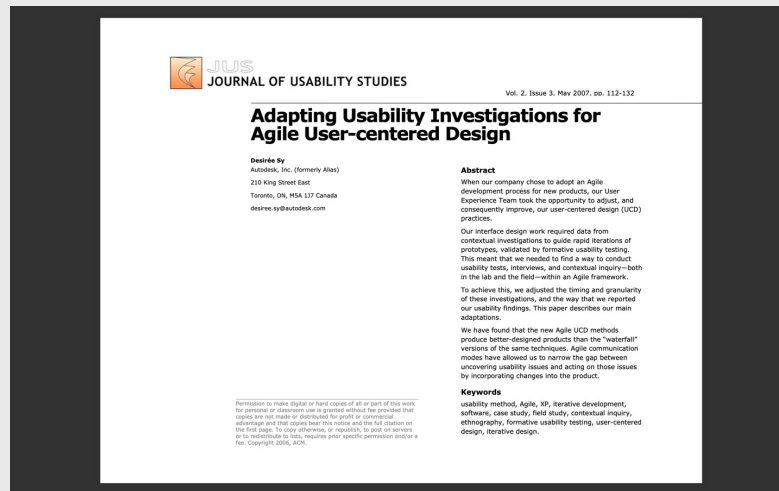
My story

I've been through a LOT of process frameworks over the past 27 years in hardware/software and even more training.



My first experience with agile was amazing

Desiree Sy and her team at Alias Software figured out how to integrate UX into agile in 2007



Desiree Sy

**As agile become more
common, so did the challenges**

**Agile frameworks often
focused on delivering code
efficiently**

In these models, we're back to making high risk bets:

We already understand the problem you're solving:

Our customers will:

- Have the problem we think they do
- Realize we have a solution to their problem
- Try our solution
- Figure out how to use it
- Keep using it

Our very first idea on how to solve it will be successful (just iterate!).

Our solution will:

- Solve their problem better than the alternatives
- Be feasible to build with our technology
- Be viable (produce an ROI)

With a focus on code, designers struggled

Design is often seen as a story to fit into a dev sprint

Design becomes a dependency/risk to coding, called out at as a bottleneck

Estimation focused on engineering only; design and discovery activities don't fit into roadmap (if there even is a roadmap)

Feature throughput valued over solving problems for users

Shippable code viewed as the only place for experimentation

Flash forward: I get introduced to SAFe

A particularly worrying variant is the Scaled Agile Framework or SAFe. Essentially this is codified bureaucracy, in which the customer is almost totally absent. It is now pervasive in large firms because it gives the management a mandate to call themselves agile and keep doing what they have always done. May 23, 2019

 Forbes
<https://www.forbes.com> › [stevedenning](#) › 2019/05/23

[Understanding Fake Agile - Forbes](#)

 Medium
<https://seandexter1.medium.com> › [beware-safe-the-sca...](#)

[Beware SAFe \(the Scaled Agile Framework for Enterprise\), an ...](#)

Jan 1, 2020 — SAFe is not Agile. By now many of the ways SAFe is inconsistent with an Agile mindset should be pretty clear. It's plan focused, bureaucratic, ...

 UX Collective
<https://bootcamp.uxdesign.cc> › [why-safe-is-the-safest-...](#)

[Why SAFe is the safest choice to fail with Agile](#)

SAFe isn't agile. It's a marketing framework. Companies opting to use SAFe are opting to have control over everything instead of empowering teams. That's not ...

In short, SAFe is not agile.

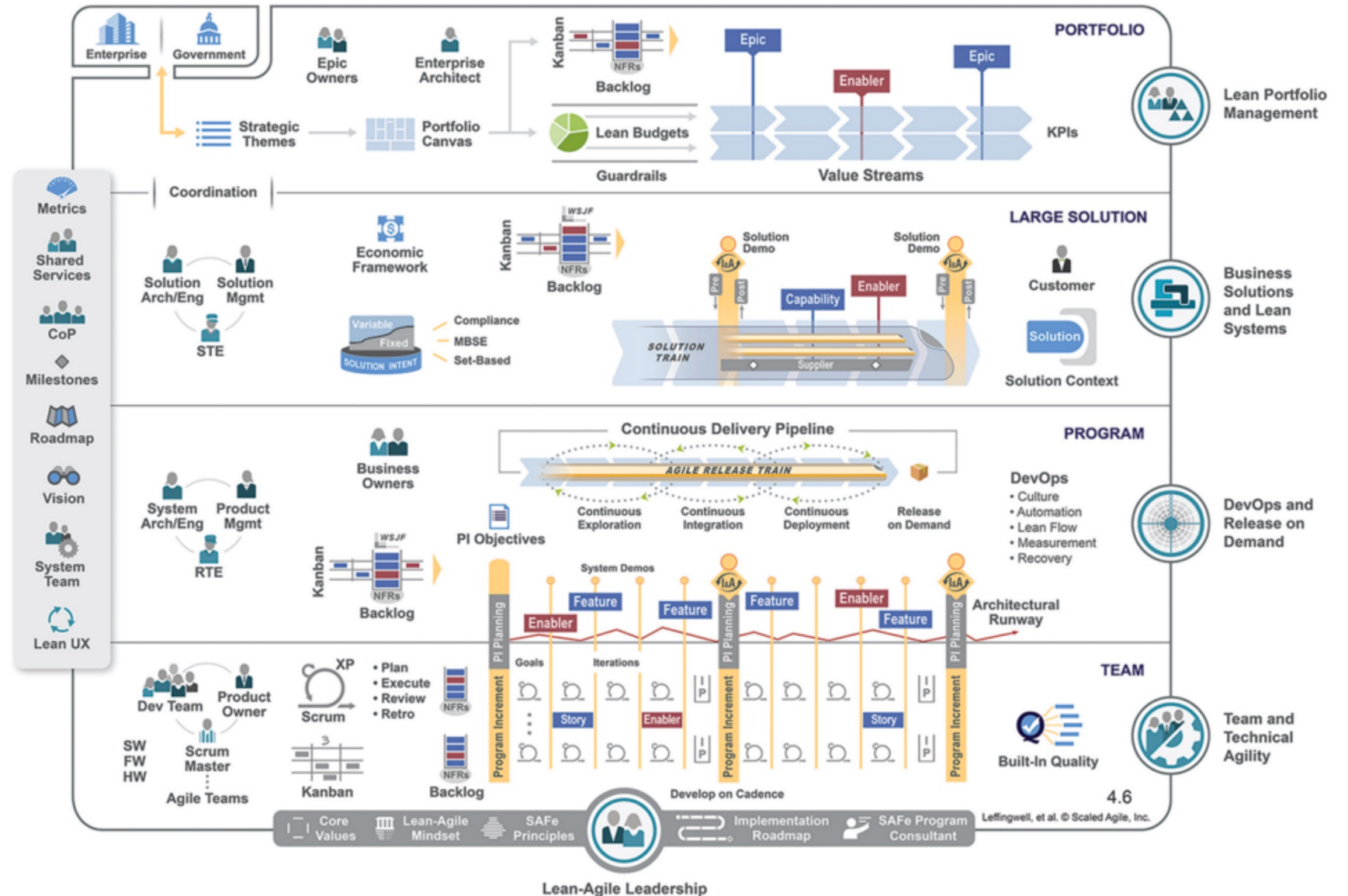
They've been trained to work in a very specific way — a way focused solely on predictable delivery, not learning, not course correction and certainly not agility. The activities that make teams truly agile require flexibility in planning. May 10, 2021

 Jeff Gothelf
<https://jeffgothelf.com> › [Blog](#)

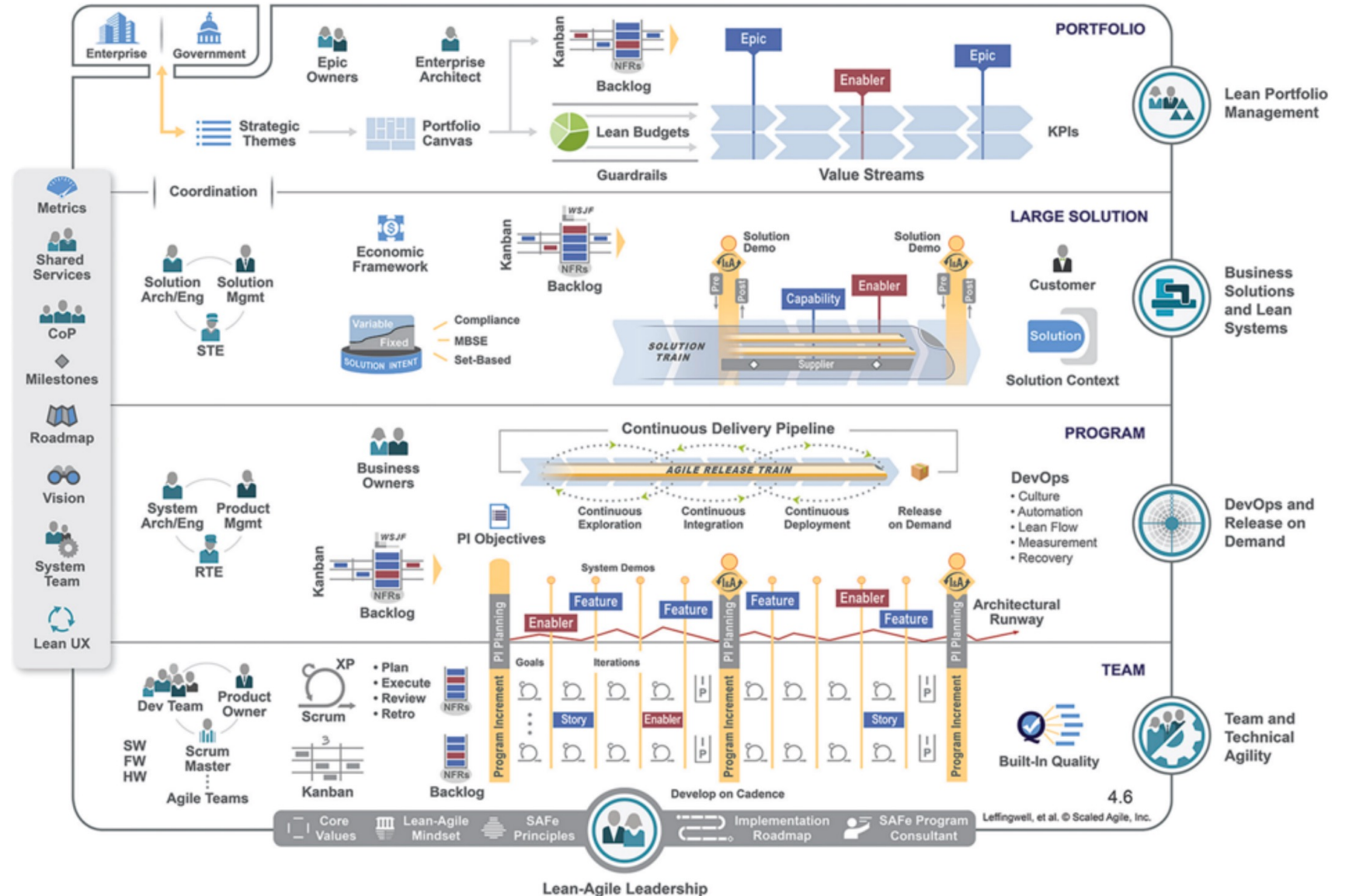
[SAFe? Agile? SAFe is not agile. What you need to know.](#)

**I was skeptical,
but willing to give it a try**

My first question: how do designers participate in SAFe?



Aha: Lean UX!

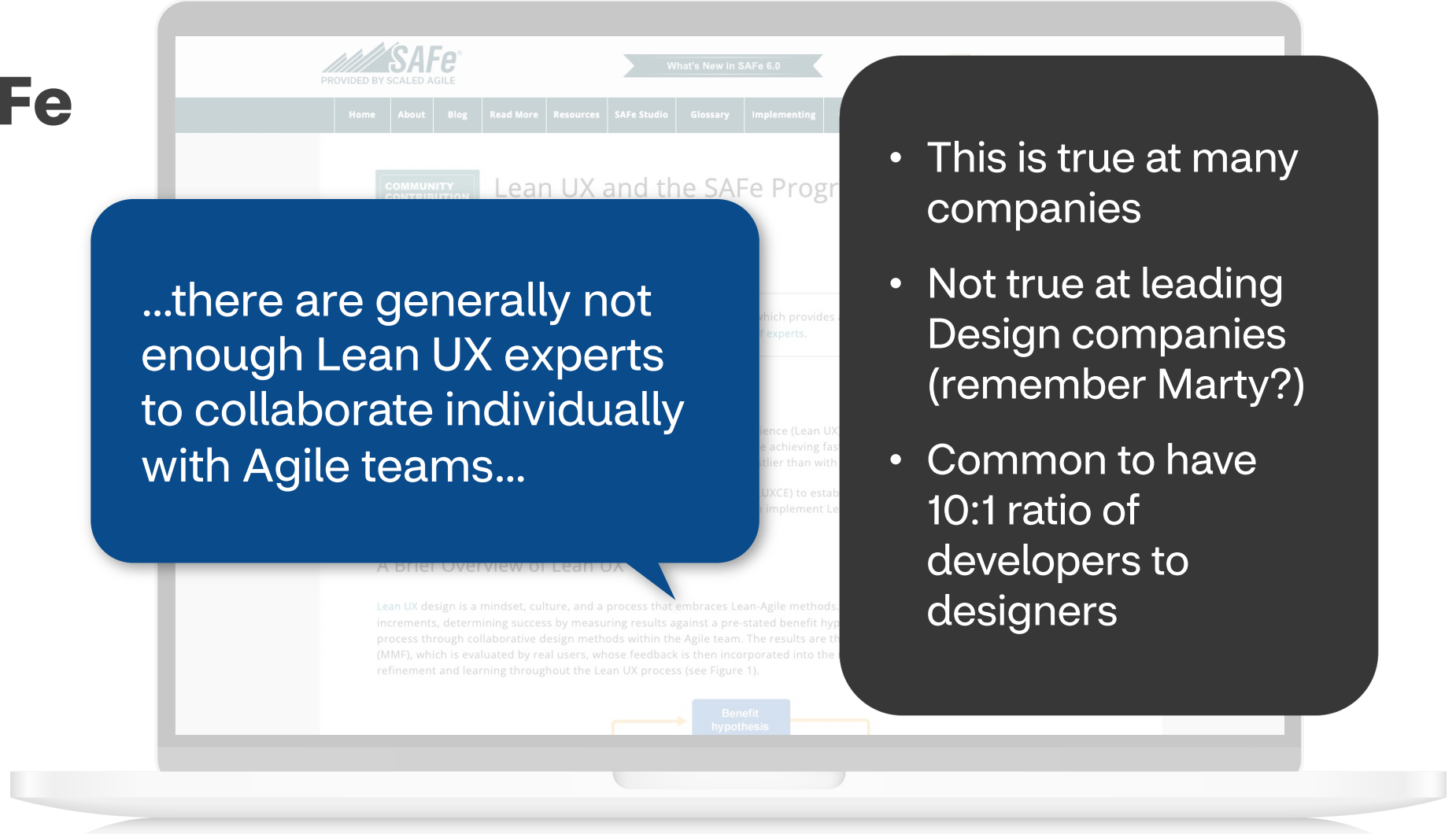


Lean UX Article

Implementing new designs is primarily the responsibility of the Agile Teams, working in conjunction with Lean UX experts.

“For more on coordinating and implementing Lean UX — specifically how to integrate Lean UX in the PI cycle—read the advanced topic article Lean UX and the PI Lifecycle.”

Lean UX and the SAFe Program Increment Life Cycle Article



...there are generally not enough Lean UX experts to collaborate individually with Agile teams...

- This is true at many companies
- Not true at leading Design companies (remember Marty?)
- Common to have 10:1 ratio of developers to designers

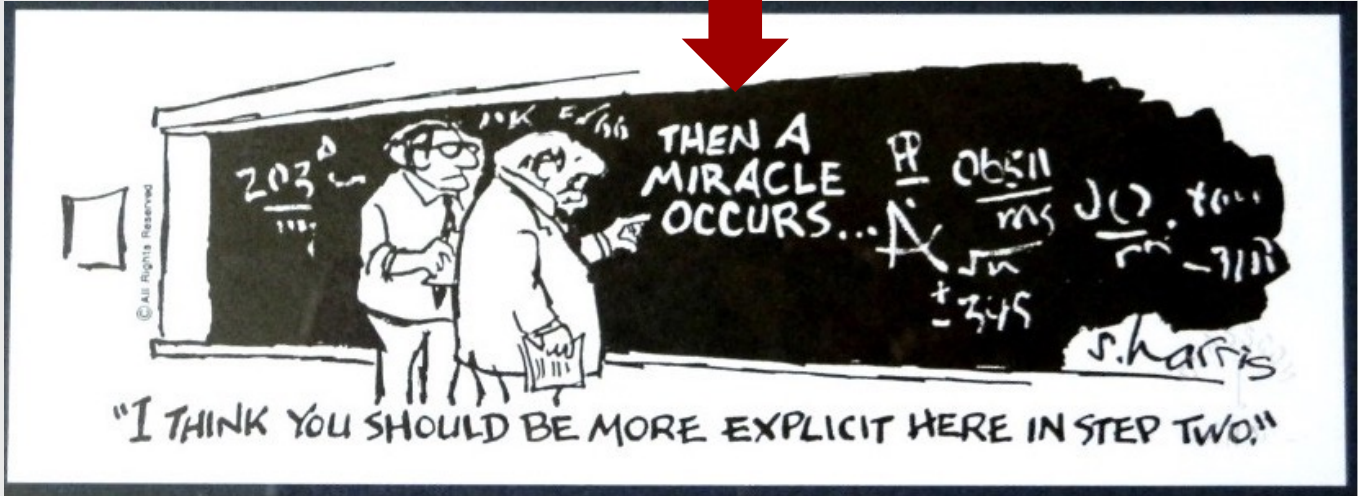
Lean UX and the SAFe Program Increment Life Cycle Article

...to address the potential of a lack of consistency and governance across the components of a solution, we suggest creating a small, centralized Lean UX Center of Excellence (LUXCE) for each value stream.

Collaborates to determine design standards (e.g., pattern libraries, user controls, navigation principles, corporate branding, style guides, and other governance), which are implemented as UX enablers across the value stream.

- Yes, design standards are important – but they are just one of many roles played by a design team.
- In leading tech companies, standards are typically produced by a dedicated team *supporting* other designers. They are not *the* design team.

My view of
UX in SAFe



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I started taking training – and became THAT student

I asked a LOT of questions about Design (we started with 4.6, before Design Thinking was added)

I was filling the parking lot with my concerns

I was getting “let’s take that offline”

Instructors told me other courses would answer my questions

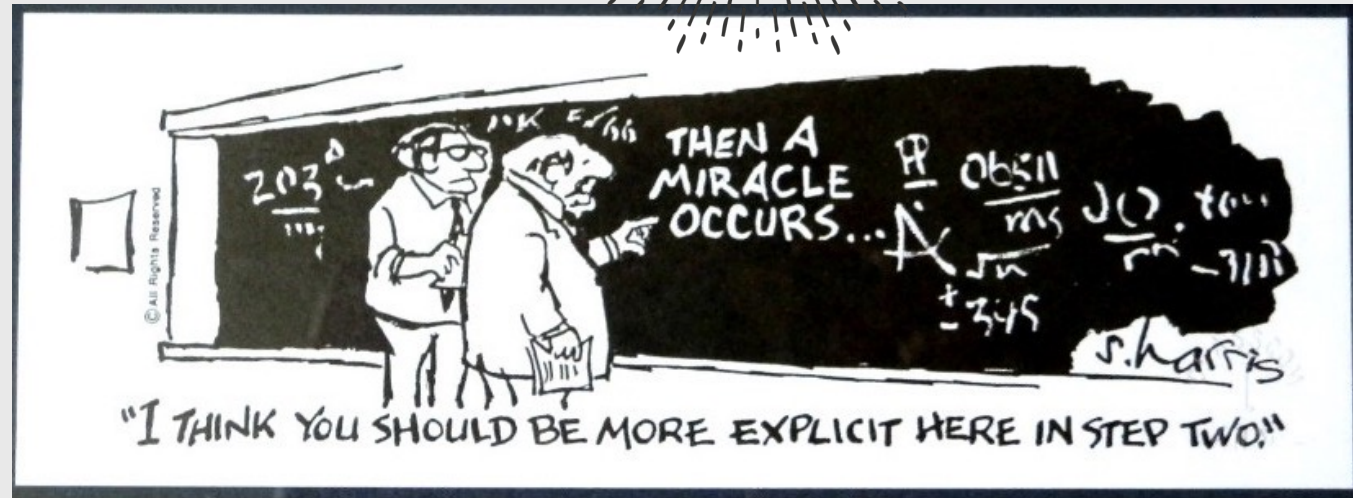
I kept taking more courses

The more courses I took, the more questions I had

My questions turned into complaints

Why is SAFe ignoring designers?

**Then a miracle
DID occur**



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**Enter
Rebecca
Davis**

In response to one of my complaints, Rebecca asked a brilliant question along the lines of...

**“So James,
what are you going
to do about it?”**

What I did



Read every article
I could find
referencing
design principles.

So. Many. Articles.



Earned
my SPC



Sought out others
in the Design
world asking
similar questions



I wasn't alone

Found kindred
spirits at CVS:



**Catherine
Cartright**

Agile Coach

Took every class and read every article looking for how design and SAFe come together. Reached out to many SAFe and Design experts.

Began teaching the APM course to elaborate on Designer's role in SAFe and had the opportunity to co-teach with Luke Hohmann.

Got to work filling the gaps and generating content to help design understand how they can work effectively in SAFe.

Found kindred
spirits at CVS:



Lys Maitland

UX Research

25+ years in digital design I have lived through a plethora of processes: Waterfall, RUP, Agile, and SAFe always seeking how Research, Strategy and Design fit in

Helped define how Design adopted SAFe when introduced at Aetna (pre-CVS acquisition). Led UX Research; developed training and guidance to support how we work effectively in SAFe

Had the grand opportunity to work with James, Catherine, Scott and Luke on the CVS APM course

We kept seeing missed opportunities to

Reduce Risk

**Accelerate time to release a
successful product**

Through our convergence...

Produced “Design in SAFe” roadshow (700+ CVS attendees)

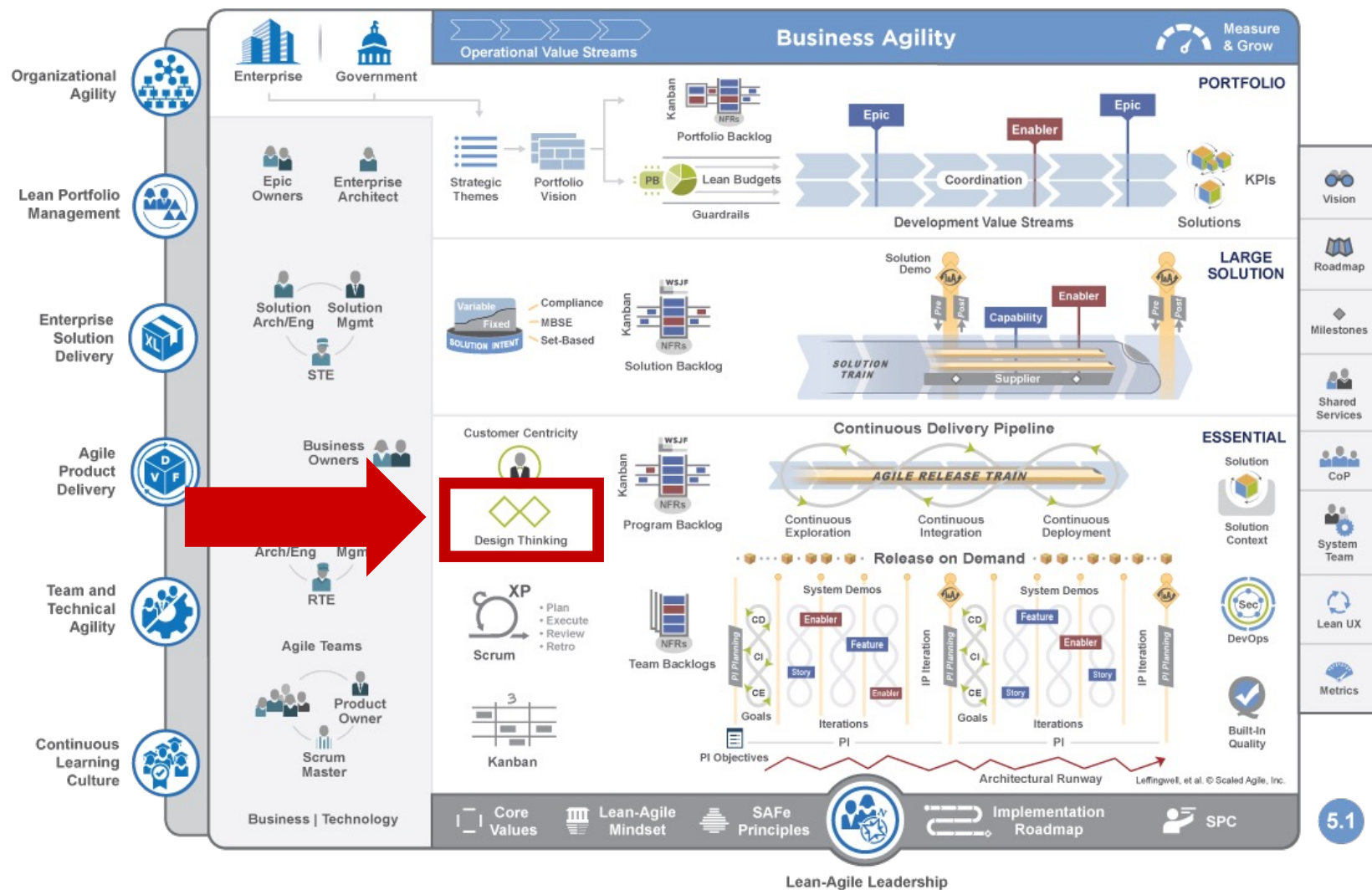
Worked with Luke Hohmann to customize APM training for CVS

Coach teams across CVS on how to integrate Designers and their work into SAFe



**SAFe discovers Design!
(But not Designers)**

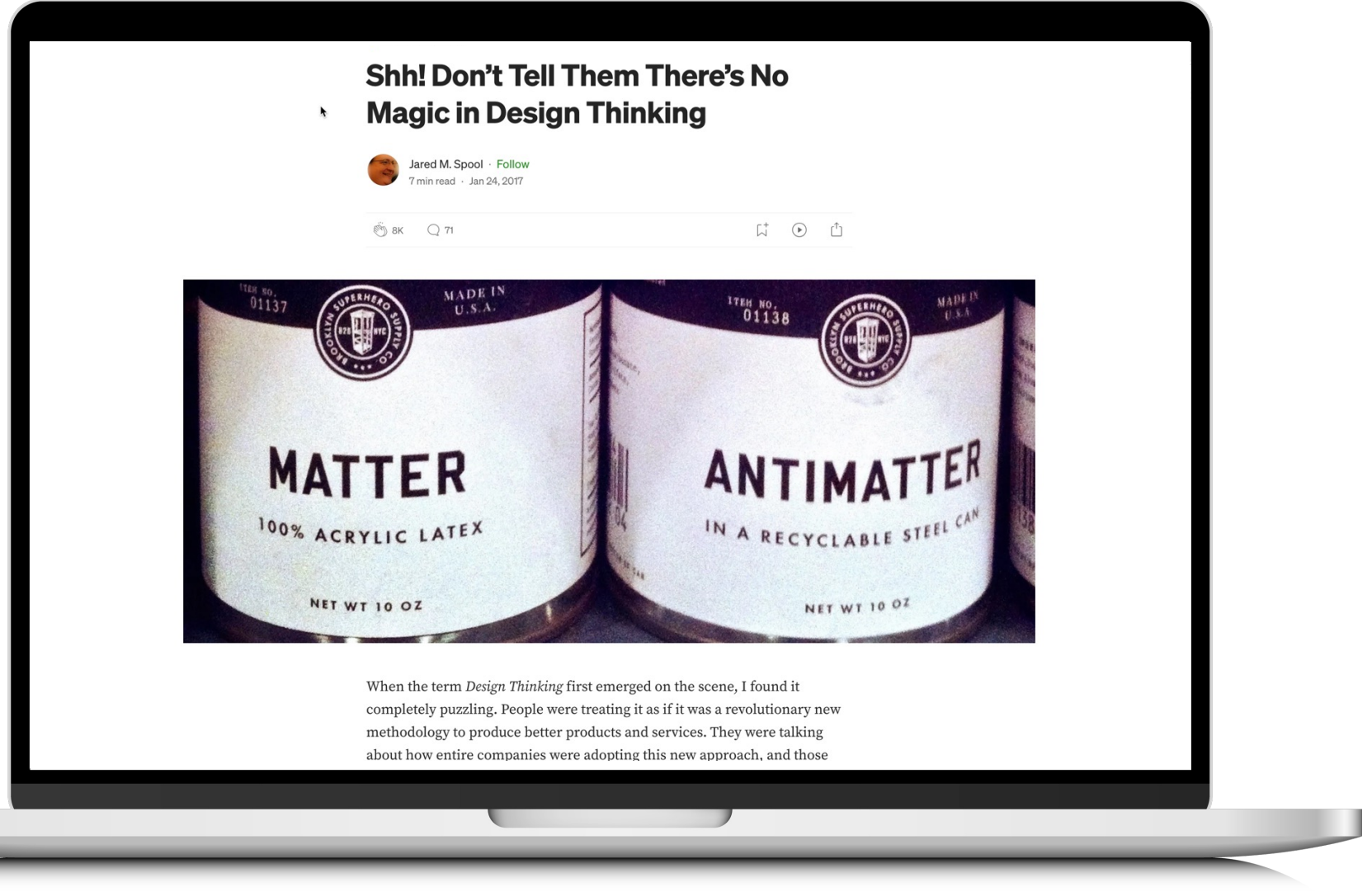
SAFe 5: Design Thinking!



Design Thinking

“To those of us who’ve been doing this for a long time, design thinking doesn’t mean anything new. But it also doesn’t mean ‘make it pretty.’

And that’s why it works..”



In short

Design Thinking is what design teams
have been doing for 4+ decades



A woman with long brown hair in a ponytail, wearing a yellow knit sweater, is standing in a bright office. She is holding a black marker and writing on a whiteboard. The whiteboard is covered with various sticky notes and papers. The background is a bright, modern office space with large windows.

Design Thinking

Great start!

Useful tool to help bring design to companies that don't have designers

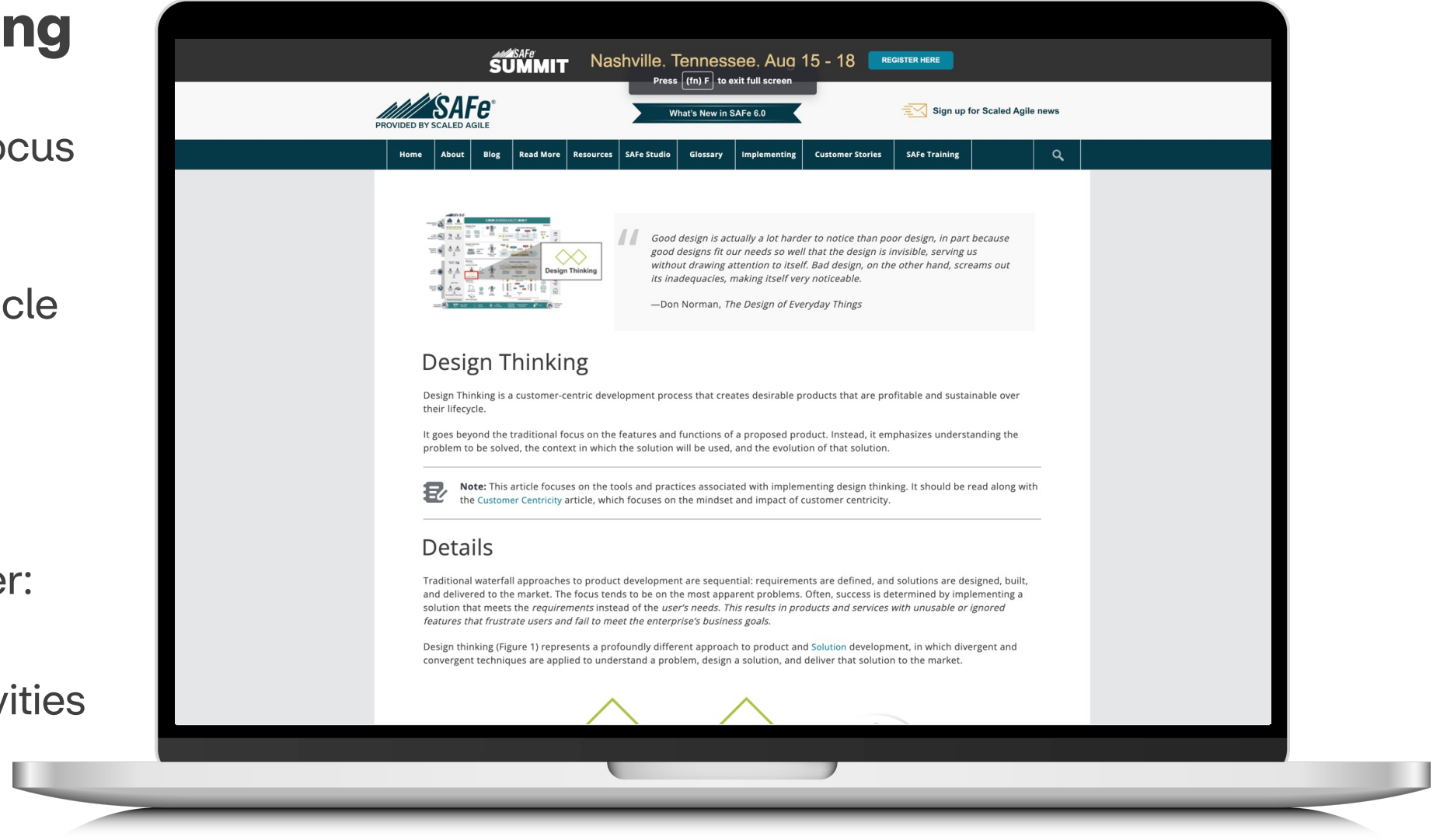
But what about companies that do have designers?

Design Thinking

We loved the new focus on design thinking

Design Thinking article highlighted some common design activities

What it didn't answer: how can *designers* integrate these activities into SAFe



Our Answer

Our Approach



▶ **SAFe recognizes the importance of intentional architecture** (primarily referring to code and software architects)

▶ **Designing Customer Experiences** is a form of architecture

▶ We've extended SAFe architecture principles and practices **to the design of customer experiences by Designers**

Architectural Runway

Consists of:

Items needed to implement near-term features without excessive redesign and delay:

- Existing code, components, and technical infrastructure

Provides:

Technical foundation for:

- Developing business initiatives
- Implementing new Features and/or Capabilities.

Architectural Runway

Consists of:

Items needed to implement near-term features without excessive redesign and delay:

- Existing code, components, and technical infrastructure (**Software architecture**)

Provides:

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SAFe definition is code-based

Architectural Runway

Consists of:

Items needed to implement near-term features without excessive redesign and delay:

- Existing code, components, and technical infrastructure (**Software architecture**)
- **Discovery insights, user research findings, user experience design deliverables (Design Architecture)**

Provides:

Technical and design foundation for:

- Developing business initiatives
- Implementing new Features and/or Capabilities.



We clarify to include Design

Uses of Enablers

Evolving the architecture, improving infrastructure and compliance activities.

Uses of Enablers

Evolving the architecture, improving infrastructure and compliance activities. **(Software architecture)**

Uses of Enablers

Evolving the architecture, improving infrastructure and compliance activities. **(Software architecture)**

Discovering customer needs, validating design hypothesis through research, and iterating on design solutions (Design Architecture)



We clarify to include Design

Extending Enablers to Design

Types of Enablers

SAFe Enabler Definitions

Exploration enablers – These support research, prototyping, and other activities needed to develop an understanding of customer needs, including the exploration of prospective Solutions and evaluating alternatives.

Architectural enablers – These are created to build the Architectural Runway, which allows smoother and faster development.

Infrastructure enablers – These are created to build, enhance, and automate the development, testing, and deployment environments. They facilitate faster development, higher-quality testing, and a faster Continuous Delivery Pipeline.

Compliance enablers – These facilitate managing specific compliance activities, including Verification and Validation (V&V), documentation and signoffs, and regulatory submissions and approvals.

Design Teams have been evolving the practice of these activities for decades



**Where are designers in SAFe?
There we are!**

Source: <https://www.scaledagileframework.com/enablers/>, SAFe for Architect's training, and CVS adaptation

We've found it useful to distinguish between design and discovery

SAFe Enabler Definitions

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CVS Adaptations

Discovery Enablers

Design Enablers

Source: <https://www.scaledagileframework.com/enablers/>, SAFe for Architect's training, and CVS adaptation

Clarifying Exploration Enablers

Discovery

- *Understand the problem we are trying to solve*
- Allow teams to clarify the problem we're trying to solve before committing to a solution

Design

- *How are we going to solve this problem?*
- Allow teams to iterate and validate a solution before committing to code

How this all fits together: Design Work in SAFe

Discovery Enablers



- Learn user expectations, goals, motivations through research
- Clarify our target customers
- Define a set of Guiding
- Design Principles

Design Enablers



- Define / refine concepts that adhere to Guiding Principles
- Align to existing solutions, best practices
- Validate design concepts solve customers' problem through user research

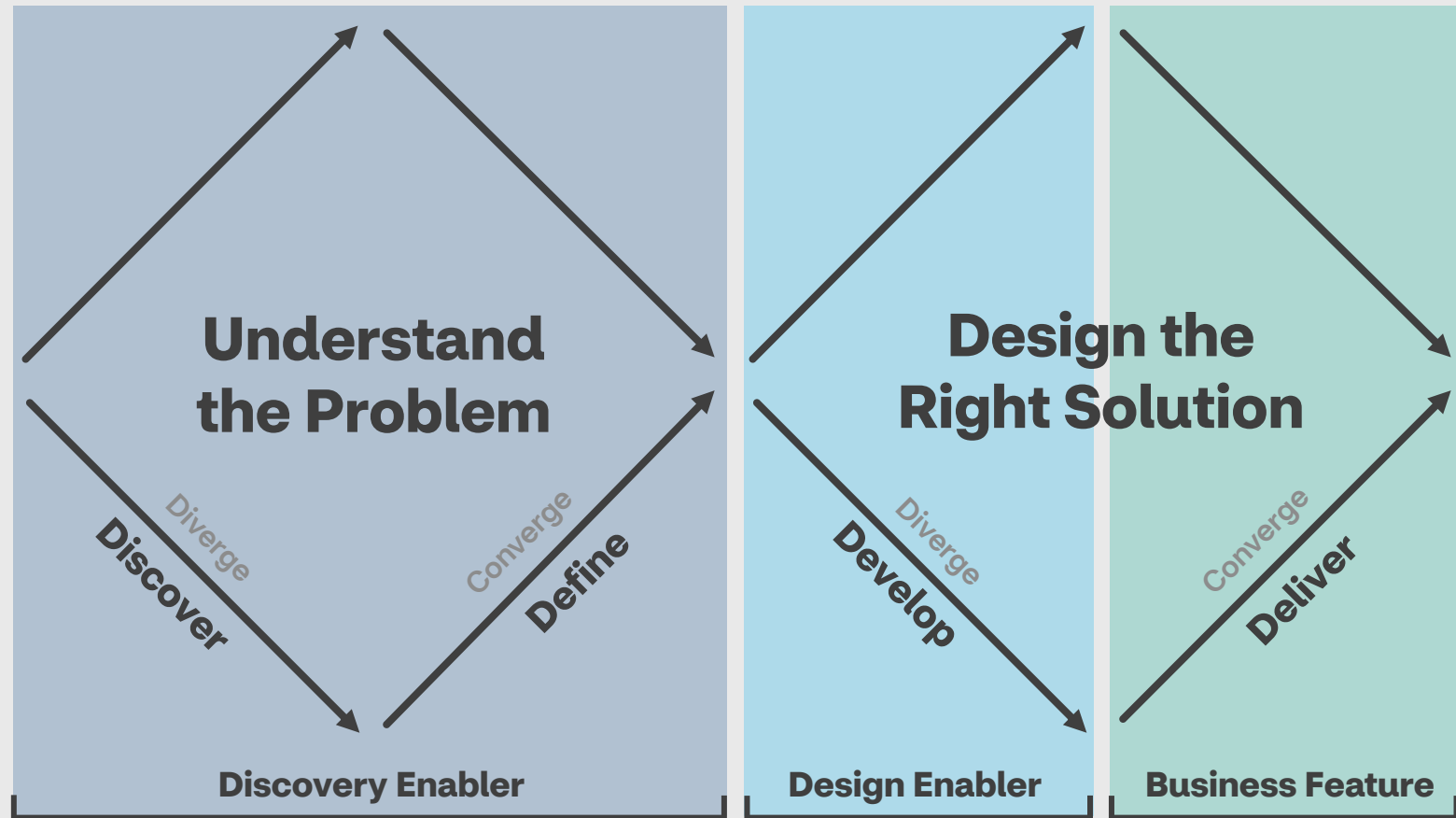
Business Feature



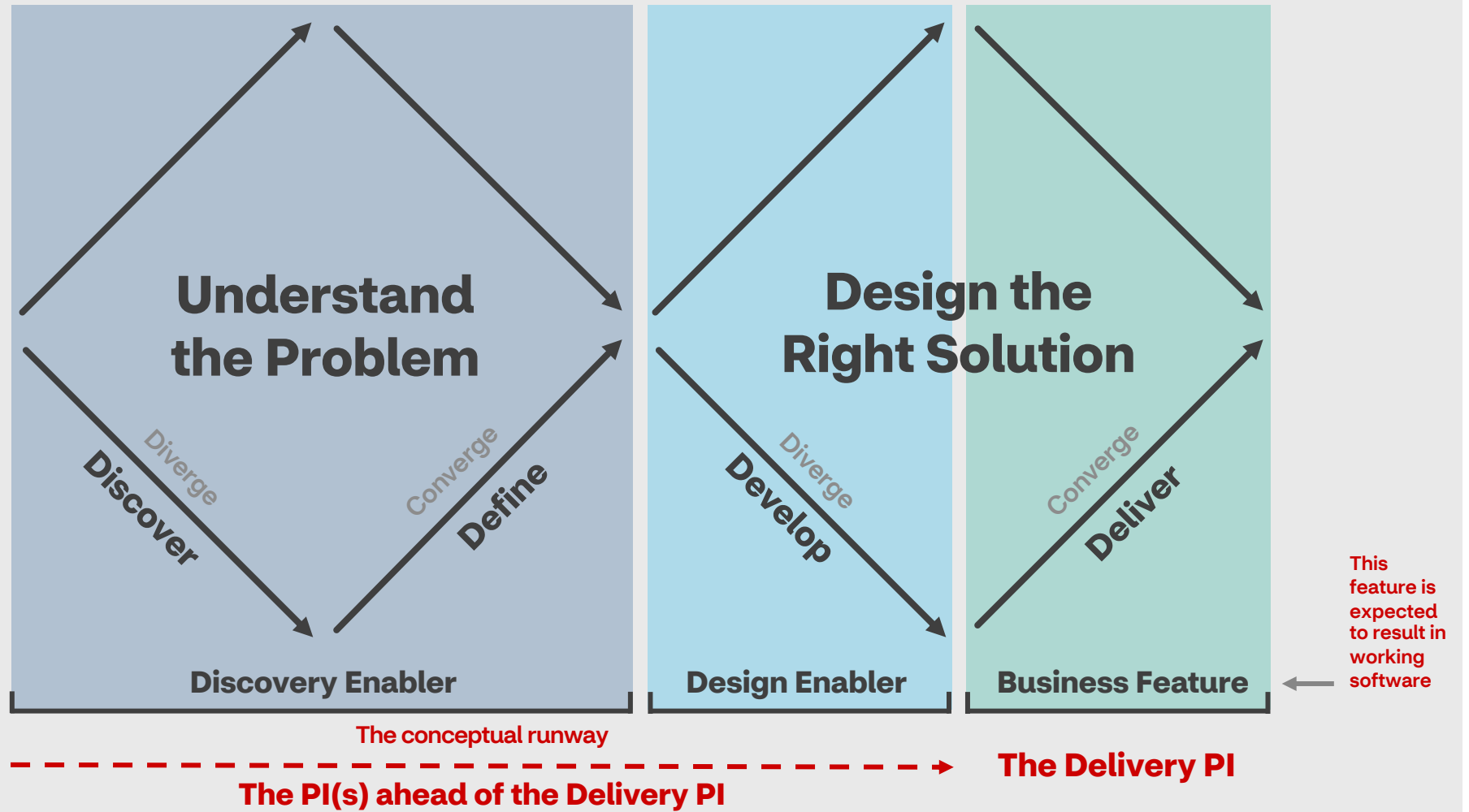
- Finalize design details leveraging our Design System
- Get legal, regulatory approval
- Validate final design meets KPIs

What Does it Mean for Design Work?

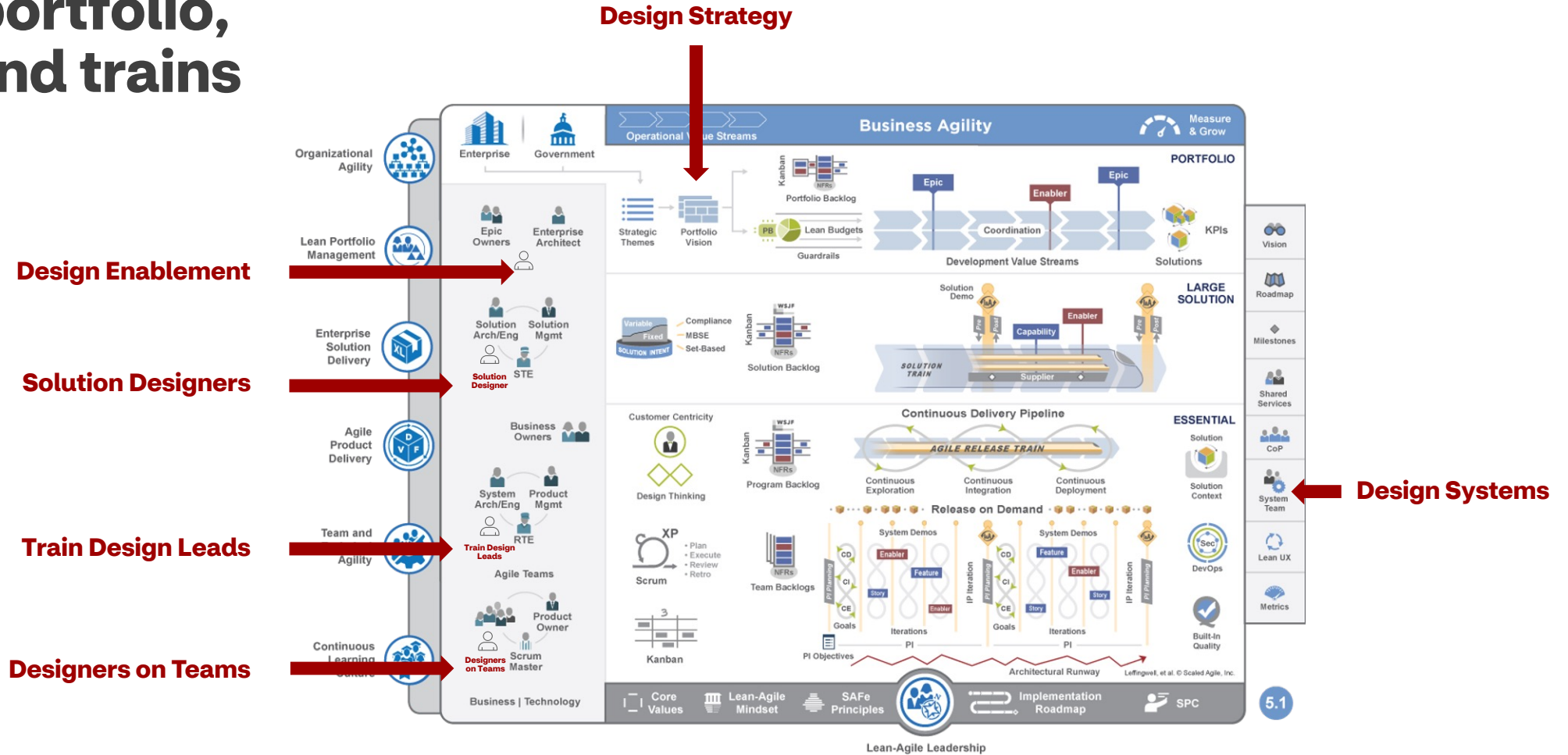
**At CVS,
we've found
this mapping
useful**



Timing of Enablers



CVS Design teams supports portfolio, solution, and trains



Success Factors

Partner with architecture and product to embed Discovery and Design enablers in your roadmap

Remember the hypothesis in benefit hypothesis statements

Reduce risk by using discovery and design enablers to test those hypotheses (learn fast)

Embrace multiple time horizons to support range of design scope (minor enhancements to new products)

Align Design team enablers with Architecture team enablers

Example

COVID Vaccine Scheduler

Discovery Enabler:

- Dedicated design team led discovery in partnership with our product, engineering, and store staff
- Started with service blueprinting to understand differences between flu and COVID vaccine flows in store

Design Enabler:

- Prototyped multiple designs while federal govt and pharmaceutical companies decided on details
- Shared prototype with federal government to demonstrate CVS readiness to handle

Business Feature:

- Rolled out product by aggressive deadline
- Agile team made daily changes as needed



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CVS Health surpasses 10 million COVID-19 vaccine doses administered

April 01, 2021 | Pharmacy

Download Share



Now offering vaccinations in 44 states at nearly 2,000 stores, with ca

WOONSOCKET RI — CVS Health (NYSE: CVS) has surpassed 10 mill

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CVS Health to Administer COVID-19 Vaccines at Over 80 Pharmacy Locations in Florida as Part of Multi-State Activation

February 23, 2021 | Pharmacy

Download Share

Successful rollout for CVS and the Pfizer vaccine against COVID-19

100 seniors signed up for the first day CVS has offered the COVID-19 vaccine



Challenges

Demos

“You can’t demo prototypes – that’s not production”

“You can’t demo customer research – that’s not production”

“The system demo tests and evaluates the complete solution in a production-like context (often a staging environment) to receive feedback from stakeholders”

PI Objectives

“You can’t have PI objectives for discovery – they aren’t technical goals”

“PI Objectives summarize the business and technical goals that teams and trains intend to achieve in the upcoming PI and are either committed or uncommitted.”

PI Readouts

“Designers can’t present at PI readouts”



**That's just
waterfall**

“waiting a PI to code will slow us down”



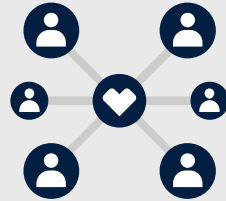
Why do we need do discovery or design enablers a PI ahead?

- **You don't**; can choose to do discovery or design work in the same PI as feature delivery
- The risk is that you're assuming you know the problem or solution before you've designed or validated it
- Spacing discovery and delivery across different PIs cuts down on unnecessary planning waste; in effect, you're allowing emergent planning instead of big planning up front

Takeaways

Key Takeaways

Understand the value designers bring to your product



Embed designers in every aspect of your SAFe process

It's never too early to include designers in the conversation

Use enablers to fail/learn quickly

Understand how to apply Lean UX

Hire a designer or agency to help you get started, *if you haven't started already*



If you hire a designer find someone with experience bringing design to a company that doesn't have it



If you hire an agency, make it clear that your goal is to build the competency in-house and make the agency redundant

IN SUMMARY:

**Enablers
enable us to
inject discovery
and design into
SAFe**



Support:

Research, prototyping, and other activities needed to develop an understanding of customer needs

Exploration of prospective Solutions and evaluating alternatives.

Suggested reading




Read [this book!](#)
(2nd edition)



Read [this book!](#)
(3rd edition)

Suggested viewing


We're writing a book! [Join our waitlist](#) and follow along every step.



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Hold onto your hats: The Scaled Agile Framework might be a good thing for design



DISCIPLINE	USER EXPERIENCE
TOPICS	AGILE, STORYTELLING
EVENT	UXPA
SPEAKER	JEN FABRIZI

[+ SAVE TALK](#)

[VIEW SPEAKER PROFILE](#)

Design and the Scaled Agile Framework... Maybe you've heard about SAFe. Maybe others have told you it's a terrible, scary-looking, confusing diagram of how corporations try to "do agile." Or maybe you've experienced the scrum-of-scrums-from-hell where no one knows what's really going on, what the product you're all working on is really supposed be, or why you're even doing it in the first place. So you might be skittish about talking about it altogether!

Share your learnings with us!

Thank you

