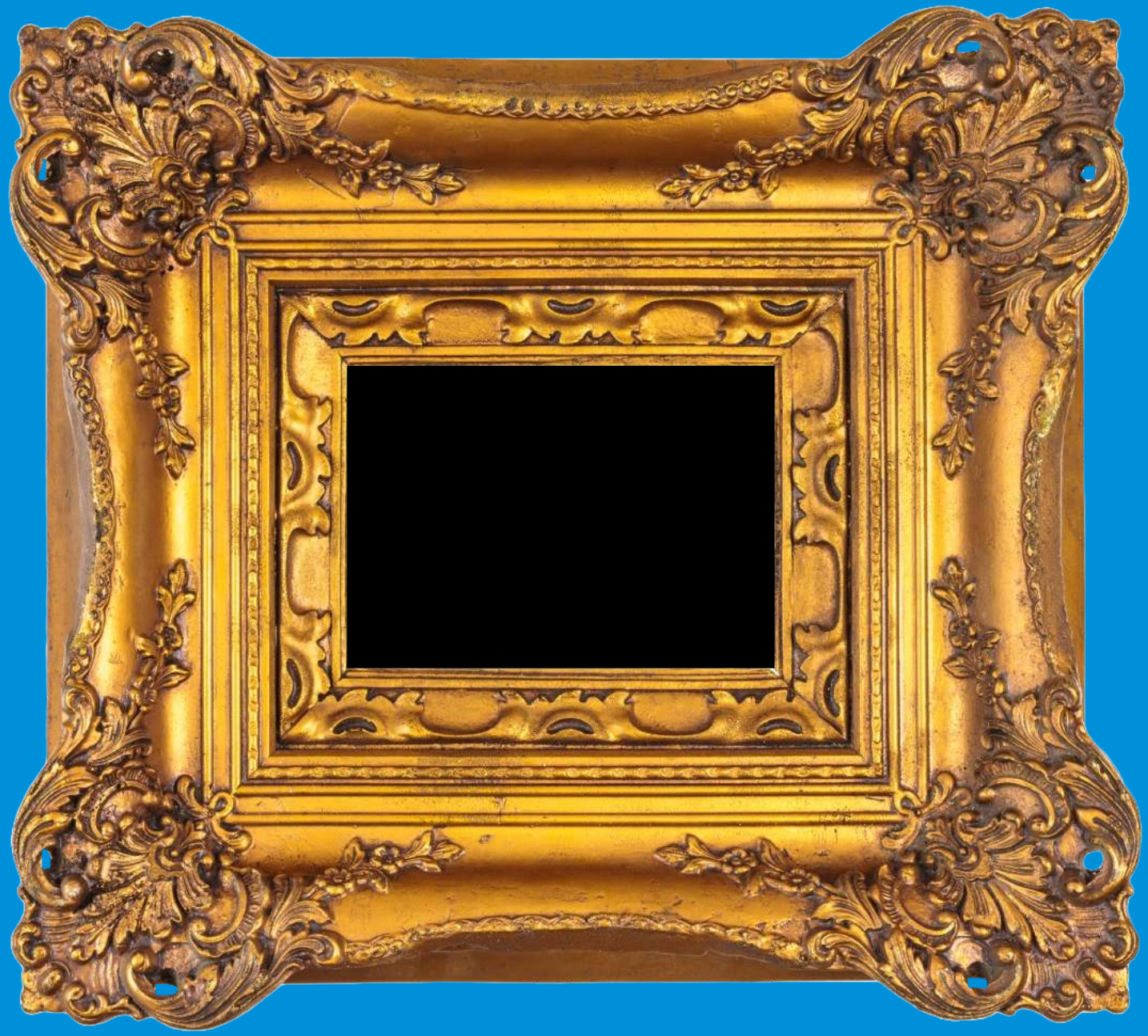

Understanding why people resist using your platform

Coté - February 6thth, 2024

Build it and they don’t come

“Accountability”

The Business Bullshit Dictionary

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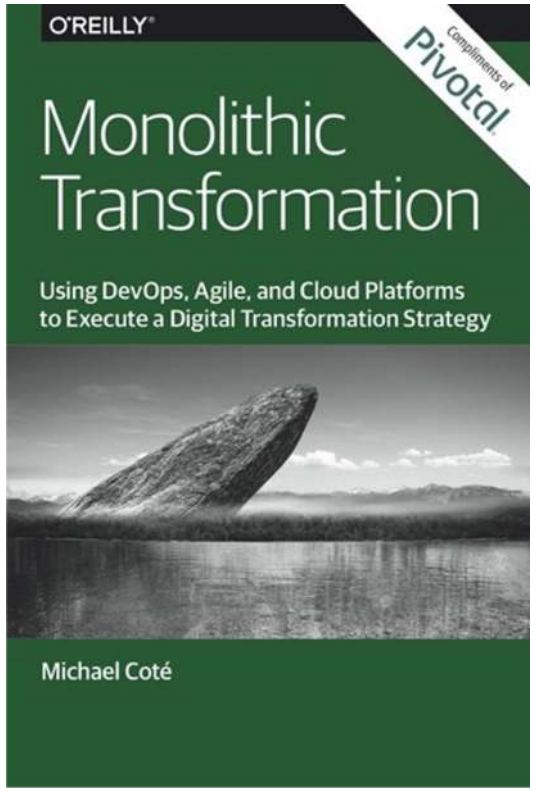
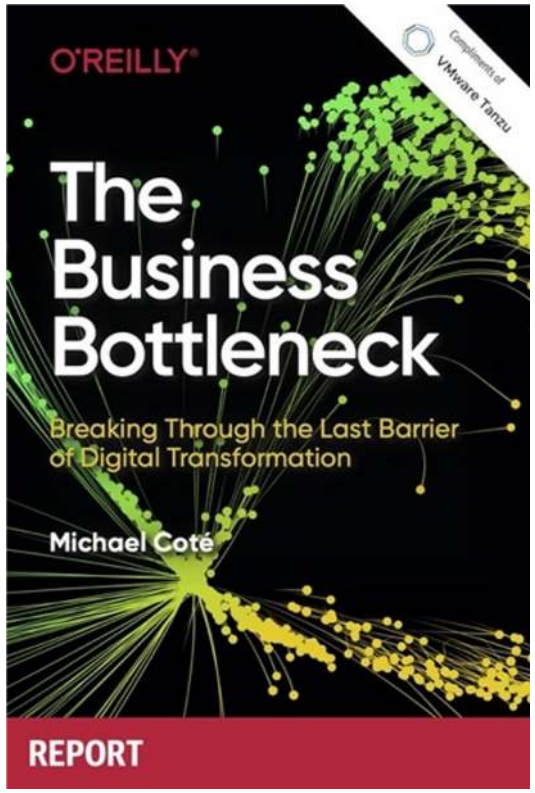
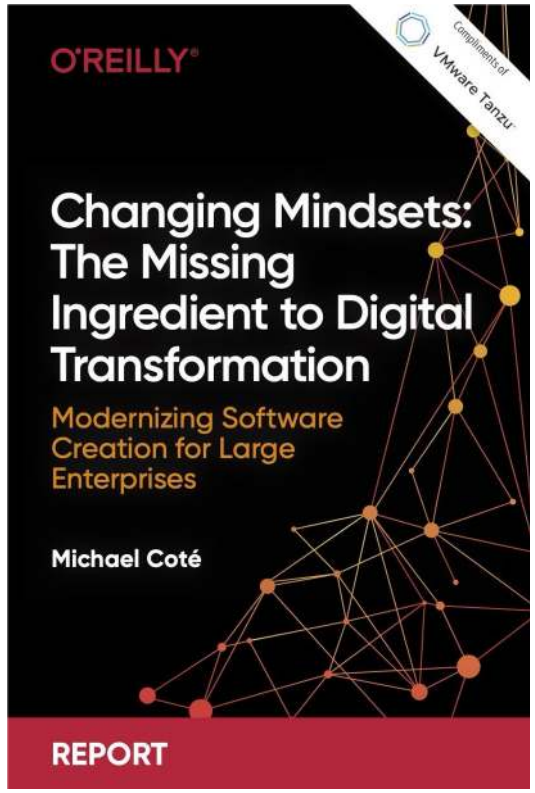
Coté

https://newsletter.cote.io/ | cote@broadcom.com



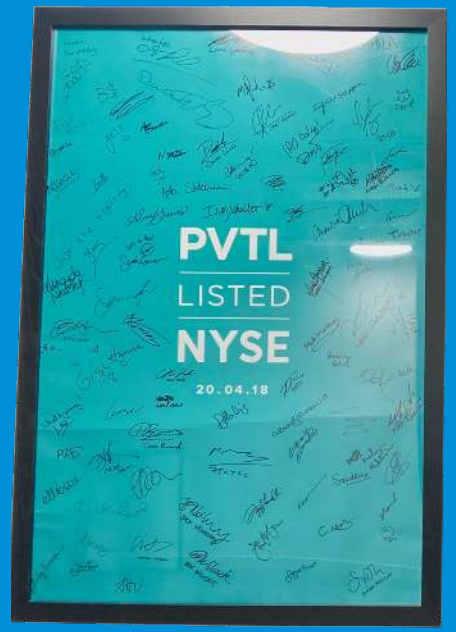




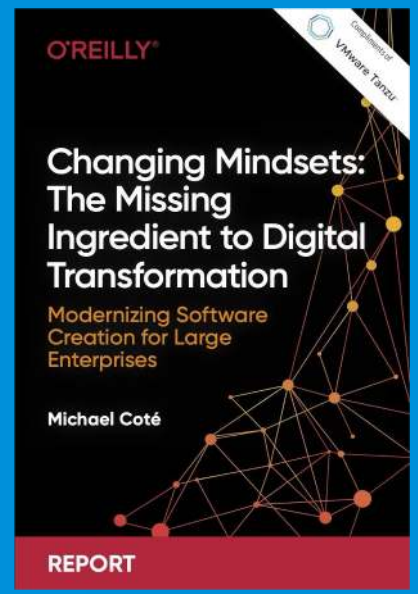
RedMonk DELL 451 Research Pivotal vmware Tanzu by Broadcom

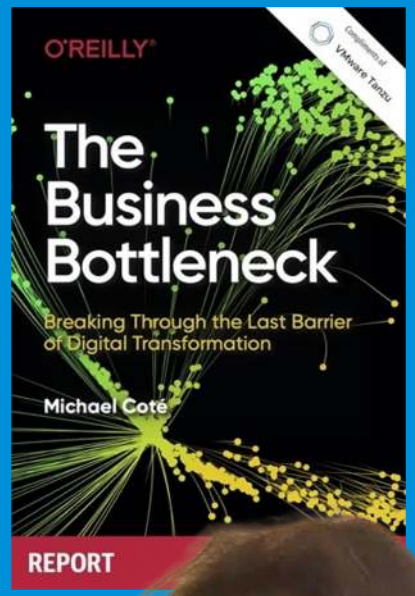
. . . and,
I'm a recovering
thought-leader

Yes,



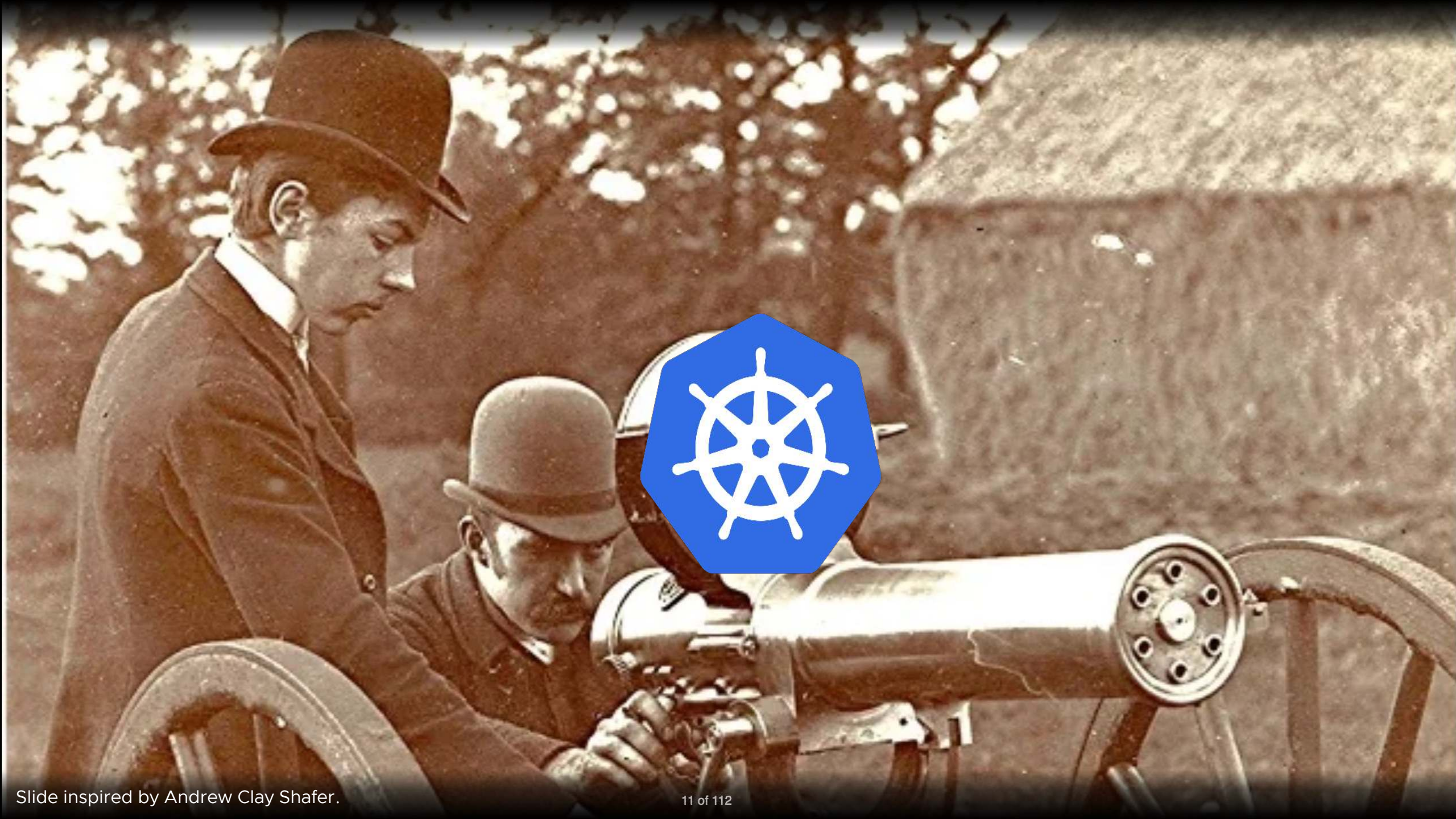
SOFTWARE DEFINED TALK





Photos: Simon Phipps, Andrew Shafer, Mark Hinkle(?),Tasha Isenberg, Bridget Kromhout.

But



Slide inspired by Andrew Clay Shafer.

Error:
No Thoughts
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“Let’s take a step back.”

The Business Bullshit Dictionary

https://cote.io/bigco/

We all know that

Changing organizations fails 70% of the time.

Sources: "Mind-sets matter in transformations," McKinsey, 2019, many other sources; "How Studying Organizational Change Lost Its Way," Journal of Change Management, Mark Hughes, 2022.

Actually,

We have no idea how frequently changing organizations succeeds or fails.

Sources: "Mind-sets matter in transformations," McKinsey, 2019, many other sources; "How Studying Organizational Change Lost Its Way," Journal of Change Management, Mark Hughes, 2022.

We all know that

Technology is easy.

People are hard.

Actually,

Technology is very hard!

(People are hard too.)

My Theory

Management needs to change, and then people will change.

Feedback from American Managers

The Business Bullshit Dictionary

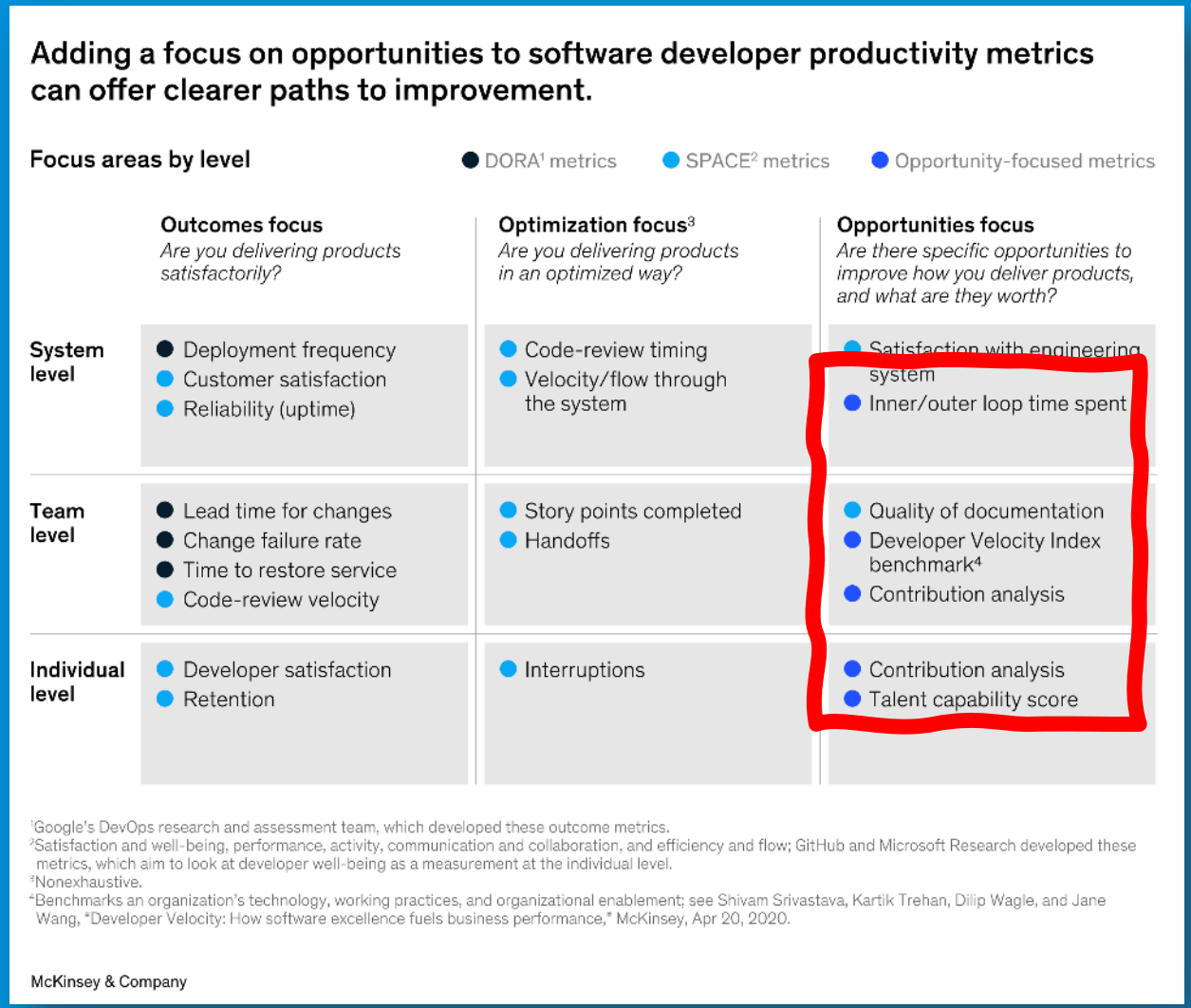
https://cote.io/bigco/

Part One: The Wonderful World of Management

“This is a 1 ½ CIO Job.”

Sources: “Fortune 500 C-Suite Snapshot: Profiles in Functional Leadership,” SpencerStuart, 2023 (analysis done as of June 30, 2023).

Management & workers often have different incentives & motivations



Adding a focus on opportunities to software developer productivity metrics can offer clearer paths to improvement.

Focus areas by level — ● DORA[1] metrics ● SPACE[2] metrics ● Opportunity-focused metrics

	Outcomes focus *Are you delivering products satisfactorily?*	**Optimization focus**[3] *Are you delivering products in an optimized way?*	**Opportunities focus** *Are there specific opportunities to improve how you deliver products, and what are they worth?*
System level	● Deployment frequency ● Customer satisfaction ● Reliability (uptime)	● Code-review timing ● Velocity/flow through the system	● Satisfaction with engineering system ● Inner/outer loop time spent
Team level	● Lead time for changes ● Change failure rate ● Time to restore service ● Code-review velocity	● Story points completed ● Handoffs	● Quality of documentation ● Developer Velocity Index benchmark[4] ● Contribution analysis
Individual level	● Developer satisfaction ● Retention	● Interruptions	● Contribution analysis ● Talent capability score

[1]Google's DevOps research and assessment team, which developed these outcome metrics.
[2]Satisfaction and well-being, performance, activity, communication and collaboration, and efficiency and flow; GitHub and Microsoft Research developed these metrics, which aim to look at developer well-being as a measurement at the individual level.
[3]Nonexhaustive.
[4]Benchmarks an organization's technology, working practices, and organizational enablement; see Shivam Srivastava, Kartik Trehan, Dilip Wagle, and Jane Wang, "Developer Velocity: How software excellence fuels business performance," McKinsey, Apr 20, 2020.

McKinsey & Company

Sources: "Great Attrition' or 'Great Attraction'? The choice is yours," Aaron De Smet, Bonnie Dowling, Marino Mugayar-Baldocchi, Bill Schaninger, McKinsey, Sep 2021; "Yes, you can measure software developer productivity," Chandra Gnanasambandam, Martin Harrysson, Alharith Hussin, Jason Keovichit, and Shivam Srivastava, McKinsey, August, 2023. "The SPACE of Developer Productivity," March, 2021 . See also further commentary from Coté.

A thriving organization focuses on satisfaction, flow, ease, happiness

Causes of thriving	Because a developer is…
Agency	1) able to voice disagreement with team definitions of success 2) has a voice in how their contributions are measured
Motivation & Self-Efficacy	1) motivated when working on code at work 2) can see tangible progress most of the time 3) is working on the type of code work they want to work on 4) is confident that even when working in code is unexpectedly difficult, they will solve their problems
Learning Culture	1) learning new skills as a developer 2) able to share the things they learn at work
Support & Belonging	1) supported to grow, learn, and make mistakes by their team 2) agrees they are accepted for who they are by their team

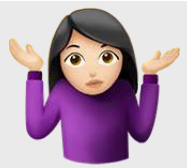
TABLE 1: **EXAMPLE DEVEX METRICS**

	FEEDBACK LOOPS	COGNITIVE LOAD	FLOW STATE
PERCEPTIONS *Human attitudes and opinions*	• Satisfaction with automated test speed and output • Satisfaction with time it takes to validate a local change • Satisfaction with time it takes to deploy a change to production	• Perceived complexity of codebase • Ease of debugging production systems • Ease of understanding documentation	• Perceived ability to focus and avoid interruptions • Satisfaction with clarity of task or project goals • Perceived disruptiveness of being on-call
WORKFLOWS *System and process behaviors*	• Time it takes to generate CI results • Code review turnaround time • Deployment lead time (time it takes to get a change released to production)	• Time it takes to get answers to technical questions • Manual steps required to deploy a change • Frequency of documentation improvements	• Number of blocks of time without meetings or interruptions • Frequency of unplanned tasks or requests • Frequency of incidents requiring team attention
KPIS *North star metrics*	• Overall perceived ease of delivering software • Employee engagement or satisfaction • Perceived productivity		

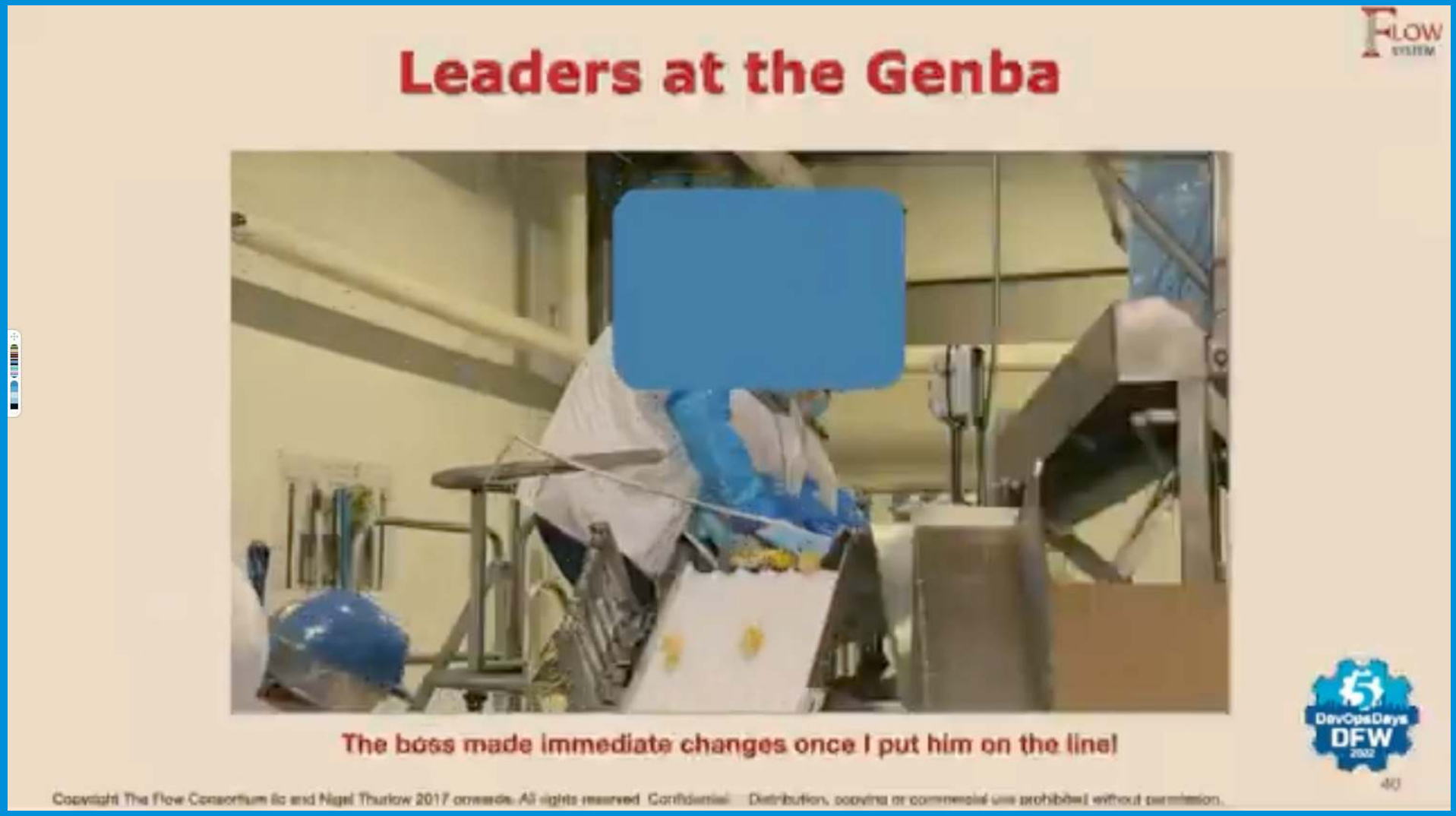
Source: "Developer Thriving: The four factors that drive Software Developer Productivity across Industries," March, 2023; "DevEx: What Actually Drives Productivity," Abi Noda, Margaret-Anne Storey, Nicole Forsgren, Michaela Greiler, April 2023; "DevEx in Action: A study of its tangible impacts," Dec 2023.

Management vs. workers often have different urgency & motivation to change

Exec's View	Work the Same	Transform!
Compensation	$	$$$$
Risk	HIGH	HIGH
Outcome		

Staff's View	Work the Same	Transform!
Compensation	$	$
Risk	LOW	HIGH
Outcome		

The people who do the work (should) decide how to change the work



Sources: "DevOps is Enterprise Wide," Nigel Thurlow, DevOpsDays Dallas 2022.

360 review

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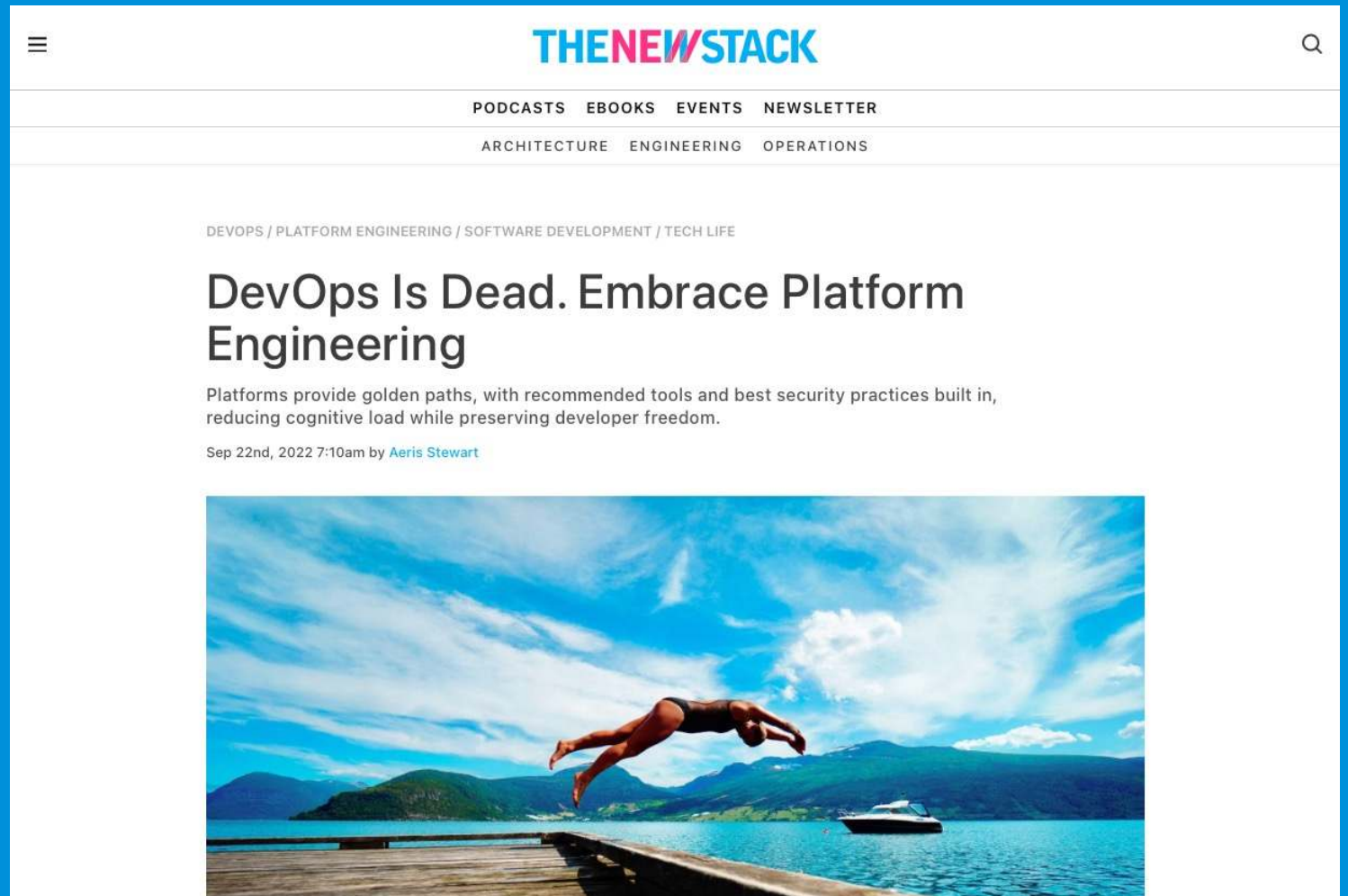
Part Two: Platforms



“Let’s take a step back.”

The Business Bullshit Dictionary

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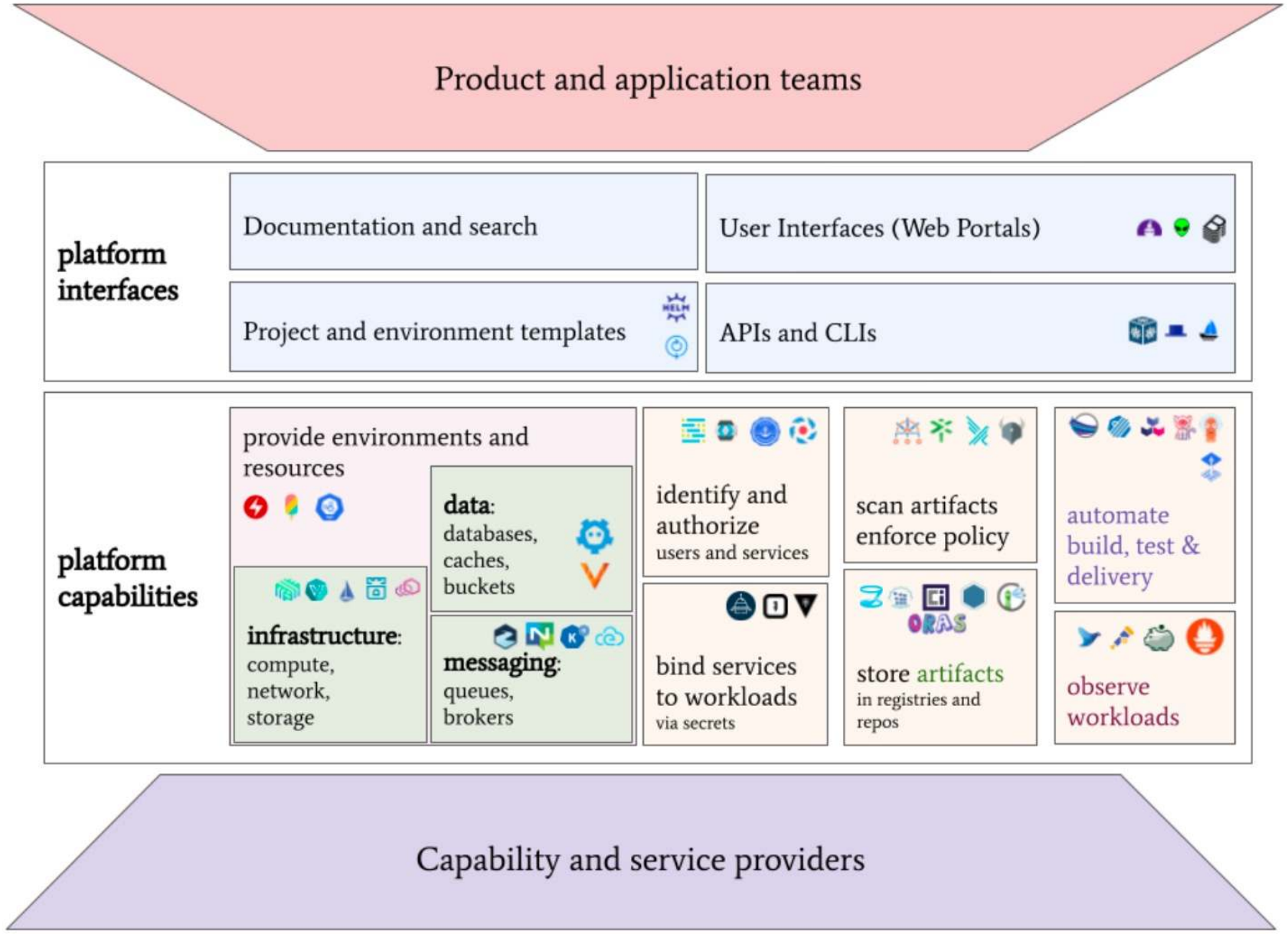


Source: "CNCF Platforms White Paper," March 2023.

Aspect		Provisional	Operational	Scalable	Optimizing
Investment	*How are staff and funds allocated to platform capabilities?*	Voluntary or temporary	Dedicated team	As product	Enabled ecosystem
Adoption	*Why and how do users discover and use internal platforms and platform capabilities?*	Erratic	Extrinsic push	Intrinsic pull	Participatory
Interfaces	*How do users interact with and consume platform capabilities?*	Custom processes	Standard tooling	Self-service solutions	Integrated services
Operations	*How are platforms and their capabilities planned, prioritized, developed and maintained?*	By request	Centrally tracked	Centrally enabled	Managed services
Measurement	*What is the process for gathering and incorporating feedback and learning?*	Ad hoc	Consistent collection	Insights	Quantitative and qualitative

Source: "Platform Engineering Maturity Model," CNCF, Oct 2023.

“We are building this platform not for us, we are building it for Mercedes-Benz developers.”

Thomas Müller, Mercedes-Benz

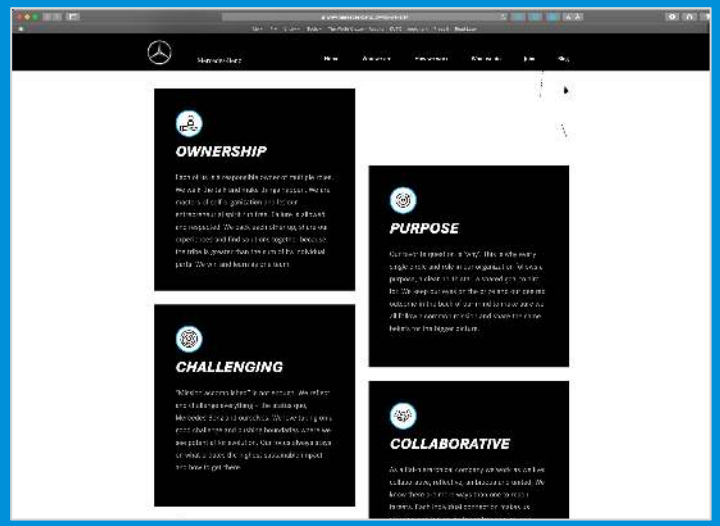
Find the Developer Toil, Confusion, Blockers

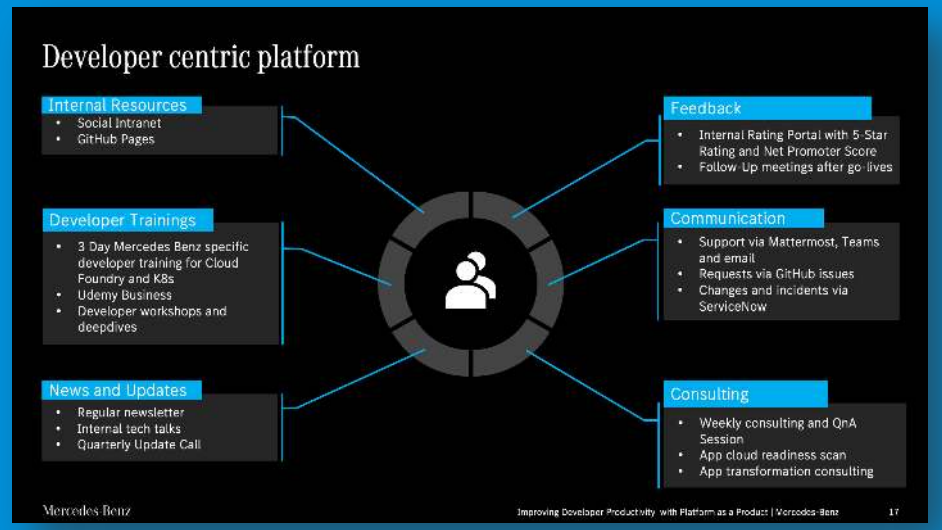
Find the Developer Toil, Confusion, Blockers

- What are we making?
- We have a strong vision for our product, and we're doing important work together every day to fulfill that vision.
- I have the context I need to confidently make changes while I'm working.
- I am proud of the work I have delivered so far for our product.
- I am learning things that I look forward to applying to future products.
- My workstation seems to disappear out from under me while I'm working.
- It's easy to get my workstation into the state I need to develop our product.
- What aspect of our workstation setup is painful?
- It's easy to run our software on my workstation while I'm developing it.
- I can boot our software up into the state I need with minimal effort.
- What aspect of running our software locally is painful? What could we do to make it less painful?
- It's easy to run our test suites and to author new ones.
- Tests are a stable, reliable, seamless part of my workflow.
- Test failures give me the feedback I need on the code I am writing.
- What aspect of production support is painful?
- We collaborate well with the teams whose software we integrate with.
- When necessary, it is within my power to request timely changes from other teams.
- I have the resources I need to test and code confidently against other teams' integration points.
- What aspect of integrating with other teams is painful?
- I'm rarely impacted by breaking changes from other tracks of work.
- We almost always catch broken tests and code before they're merged in.
- What aspect of committing changes is painful?
- Our release process (CI/CD) from source control to our story acceptance environment is fully automated.
- If the release process (CI/CD) fails, I'm confident something is truly wrong, and I know I'll be able to track down the problem.
- What aspect of our release process (CI/CD) is painful?
- Our team releases new versions of our software as often as the business needs us to.
- We are meeting our service-level agreements with a minimum of unplanned work.
- When something is wrong in production, we reproduce and solve the problem in a lower environment.

Sources: "Developer Toil: The Hidden Tech Debt," Susie Forbath, Tyson McNulty, and Coté, August, 2022. See also Michael Galloway's interview questions for platform product managers.

Platform marketing, advocacy, consulting





Sources: BT Canvas team; MB.io; Duke Energy; Allstate; "Take DevOps to 11 and Sprinkle Cloud on it with Rainbows and Unicorns," Matt Curry, s1p 2017. "Improve Developer Productivity with Platform as a Product," VMware Explore, Nov. 2022.

“If that crusty, old .Net developer can do it, anyone can.”

Source: “Navigating the Sea of ’No’s,’” John Osborn, GAIC, Dec 2017; Dealing with Grumps, Coté, May 2018.

TECHNICAL IMPROVEMENTS

Daily deploys

+30% developer productivity

+78% operational efficiency

60% reduction in incidents

Repaving prod months->weeks->daily

BUSINESS IMPROVEMENTS

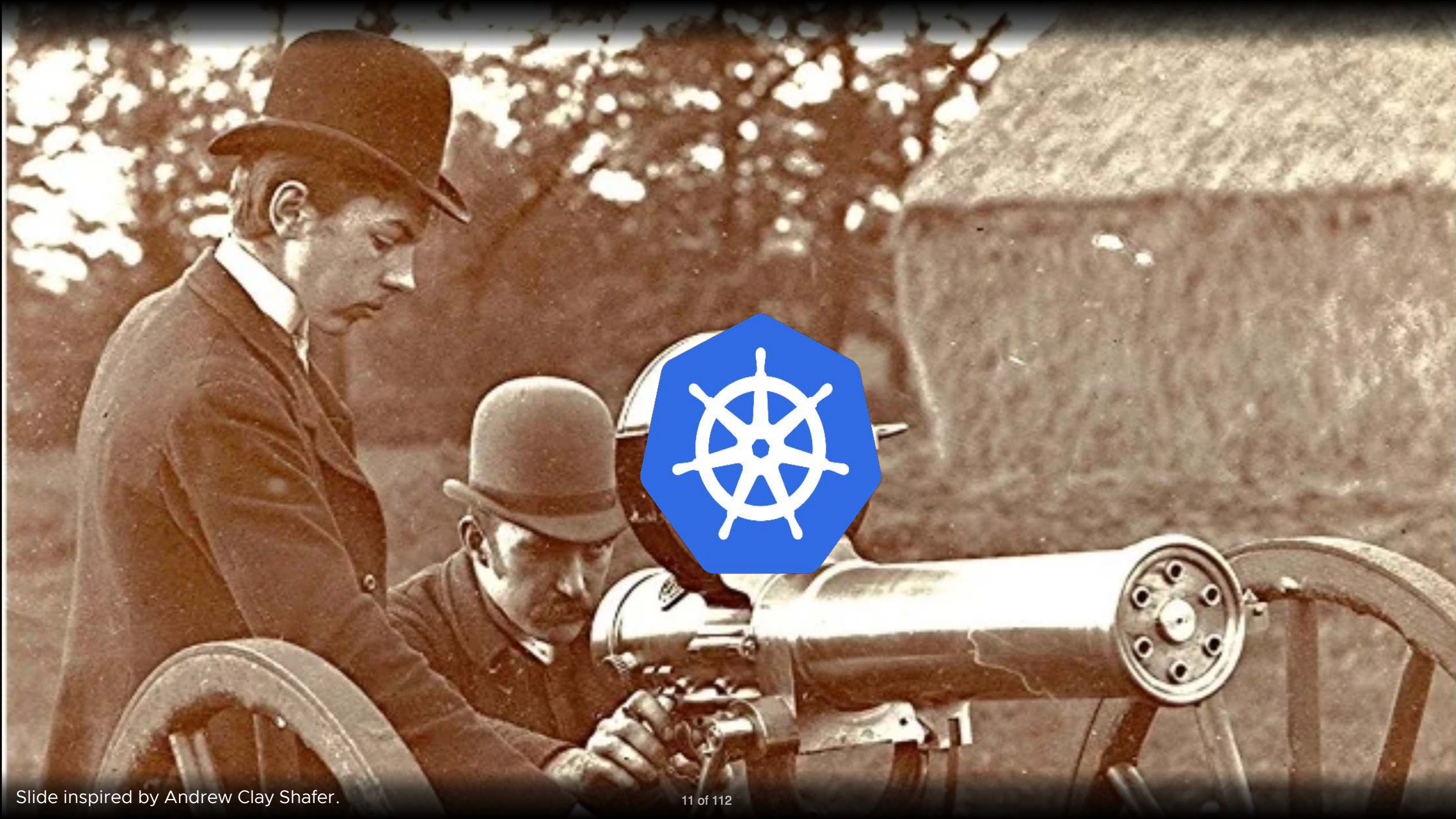
65% shift to in-app ordering

+46% enrollment rates

3 ½ weeks to retool loan program

6 months to launch a new business

142% ROI on platform investment



Slide inspired by Andrew Clay Shafer.

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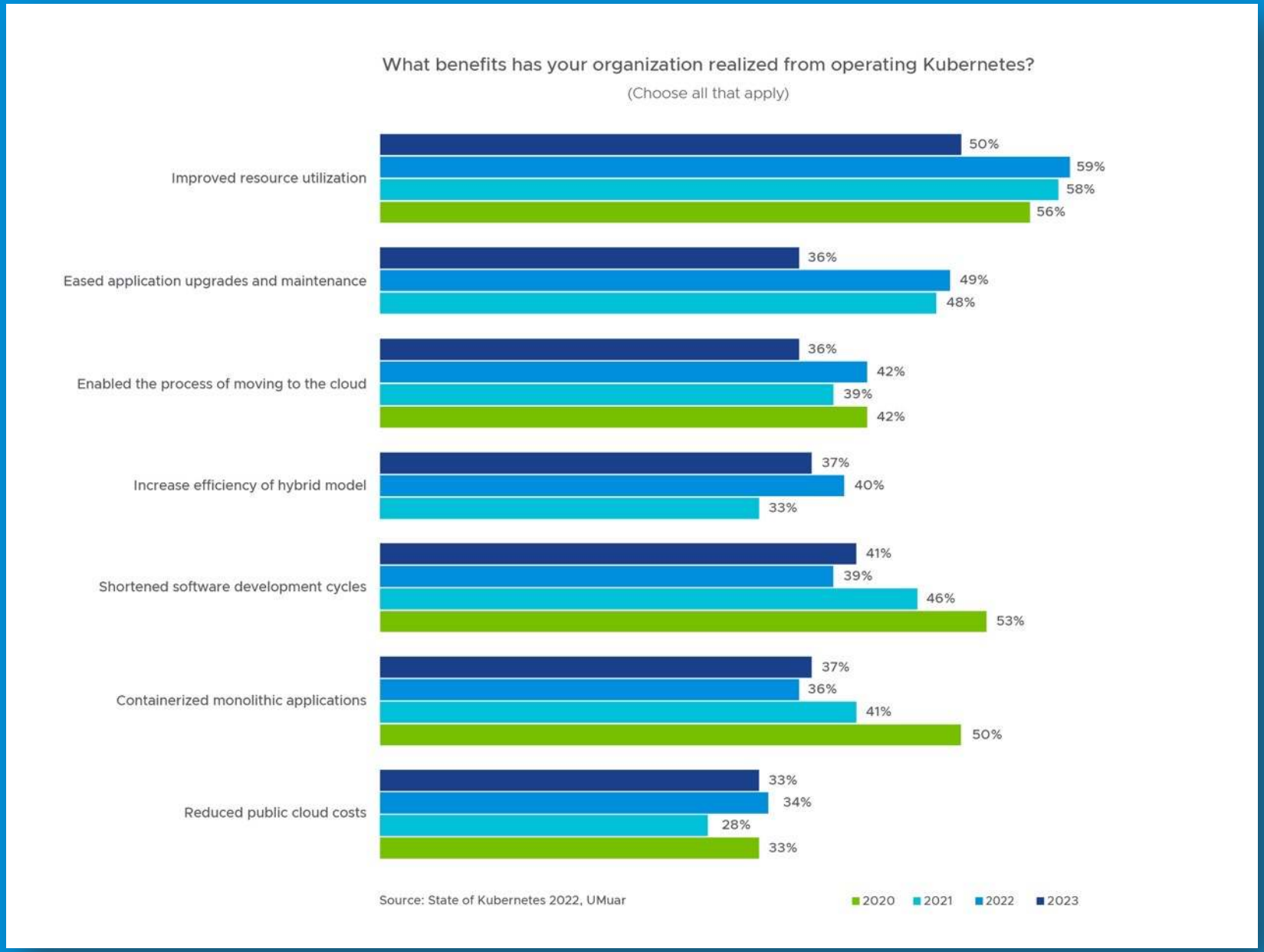
Part Thre: A Plea



Source: State of Kubernetes survey, VMware, 2020 to 2023.

The Eternal Recurrence of (Platforms, PaaS, DevOps, Cloud Native)

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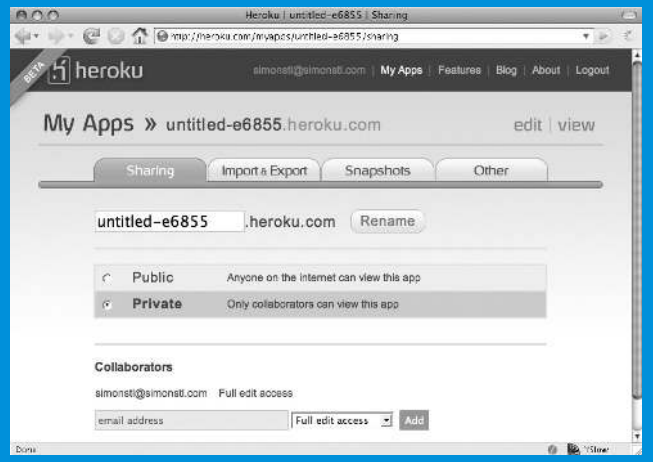

2007

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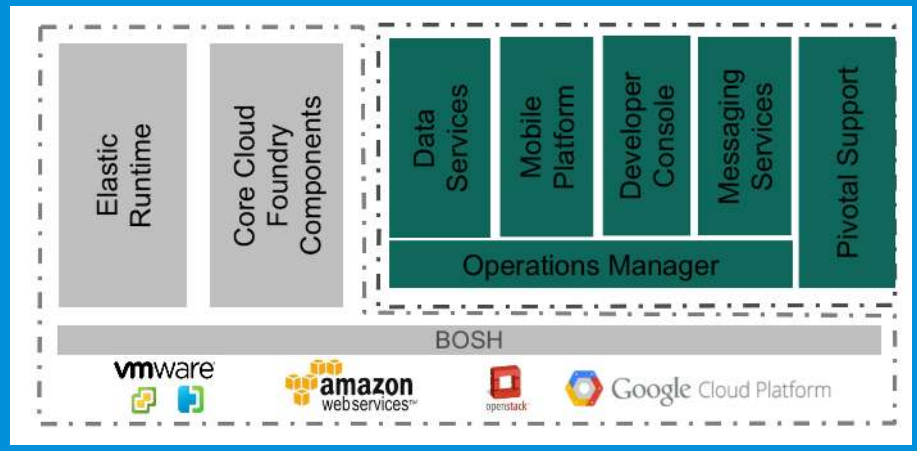
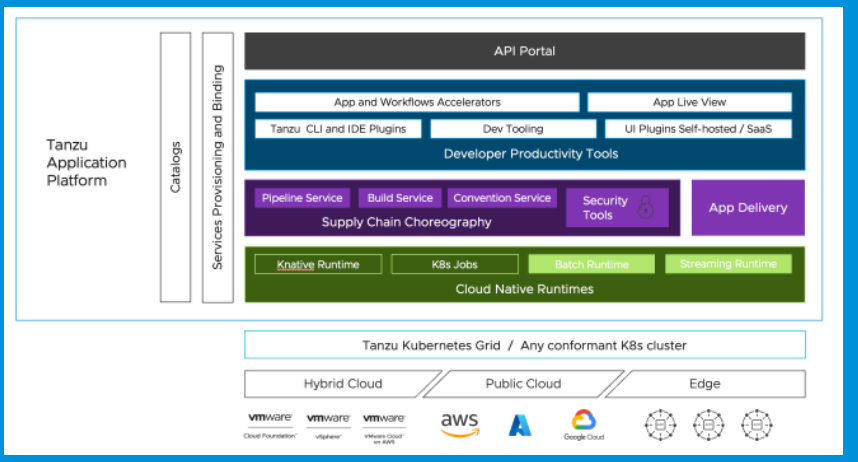


2015



2023 & Beyond

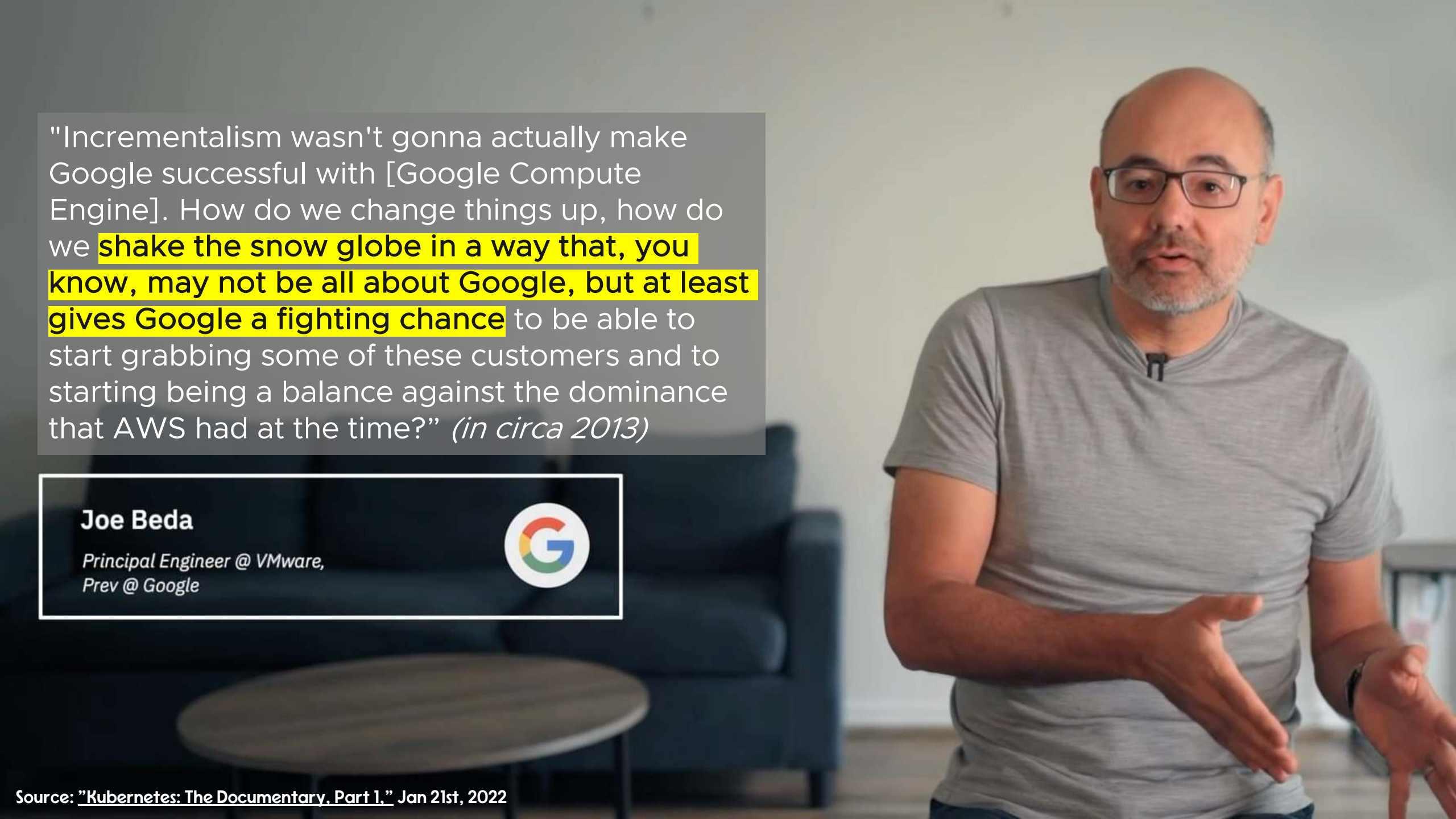
Not pictured:

OO, Small Talk, RUP, CORBA, J2EE/.Net, SOA & WS-*, RAD, Low Code, Public Clouds

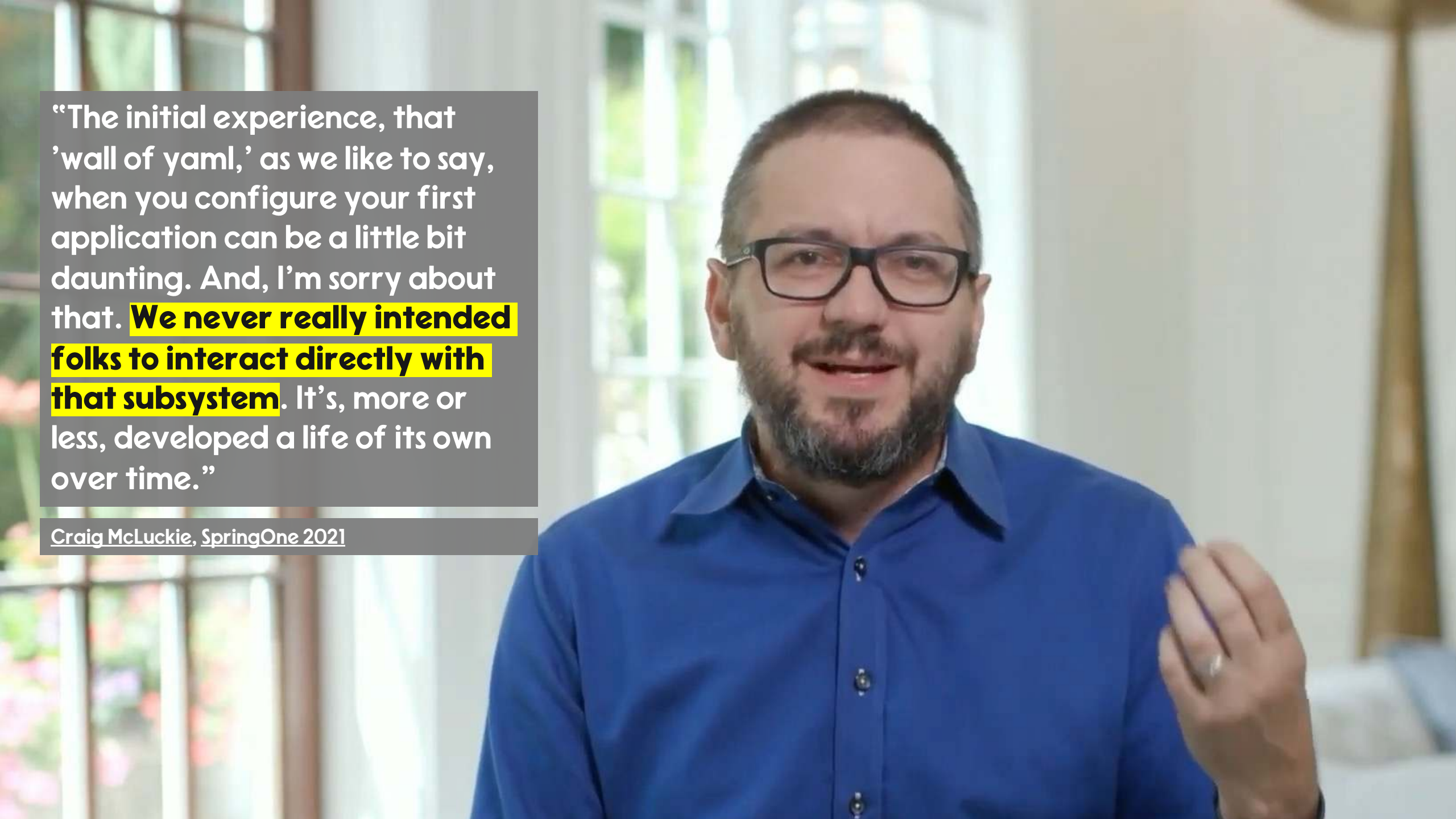
"Incrementalism wasn't gonna actually make Google successful with [Google Compute Engine]. How do we change things up, how do we shake the snow globe in a way that, you know, may not be all about Google, but at least gives Google a fighting chance to be able to start grabbing some of these customers and to starting being a balance against the dominance that AWS had at the time?" *(in circa 2013)*

Joe Beda

Principal Engineer @ VMware,
Prev @ Google



Source: "Kubernetes: The Documentary, Part 1," Jan 21st, 2022

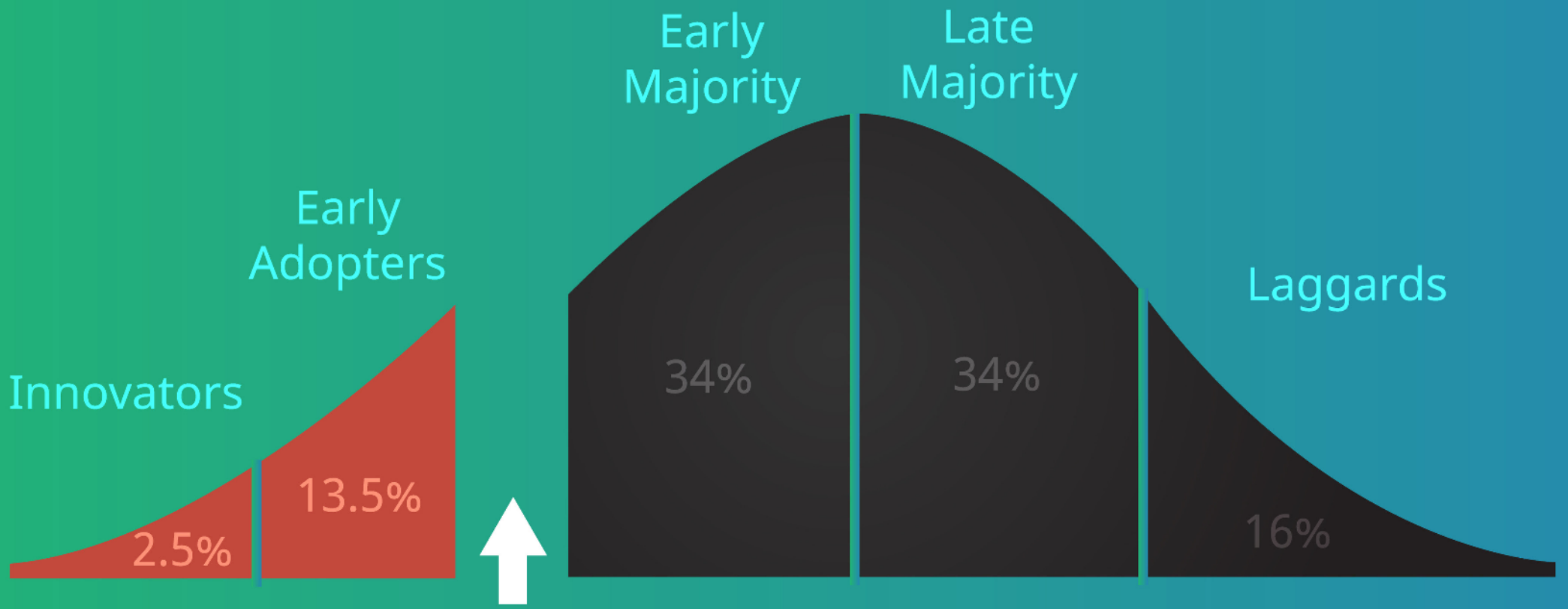

"The initial experience, that 'wall of yaml,' as we like to say, when you configure your first application can be a little bit daunting. And, I'm sorry about that. We never really intended folks to interact directly with that subsystem. It's, more or less, developed a life of its own over time."
Craig McLuckie, SpringOne 2021

Kubernetes is great, but it's been a 7 year distraction

The snow globe is shook, 3 major problems are solved, & now it's back to developers. Plus, reconsidering potatoes in omelettes, the lifespan of S&P 500...

FEB 2 • COTÉ

Source: "Kubernetes is great, but it's been a 7 year distraction," Coté, Feb. 2023.


Innovators
2.5%
Early Adopters
13.5%
Chasm
Early Majority
34%
Late Majority
34%
Laggards
16%


THIS IS FINE.

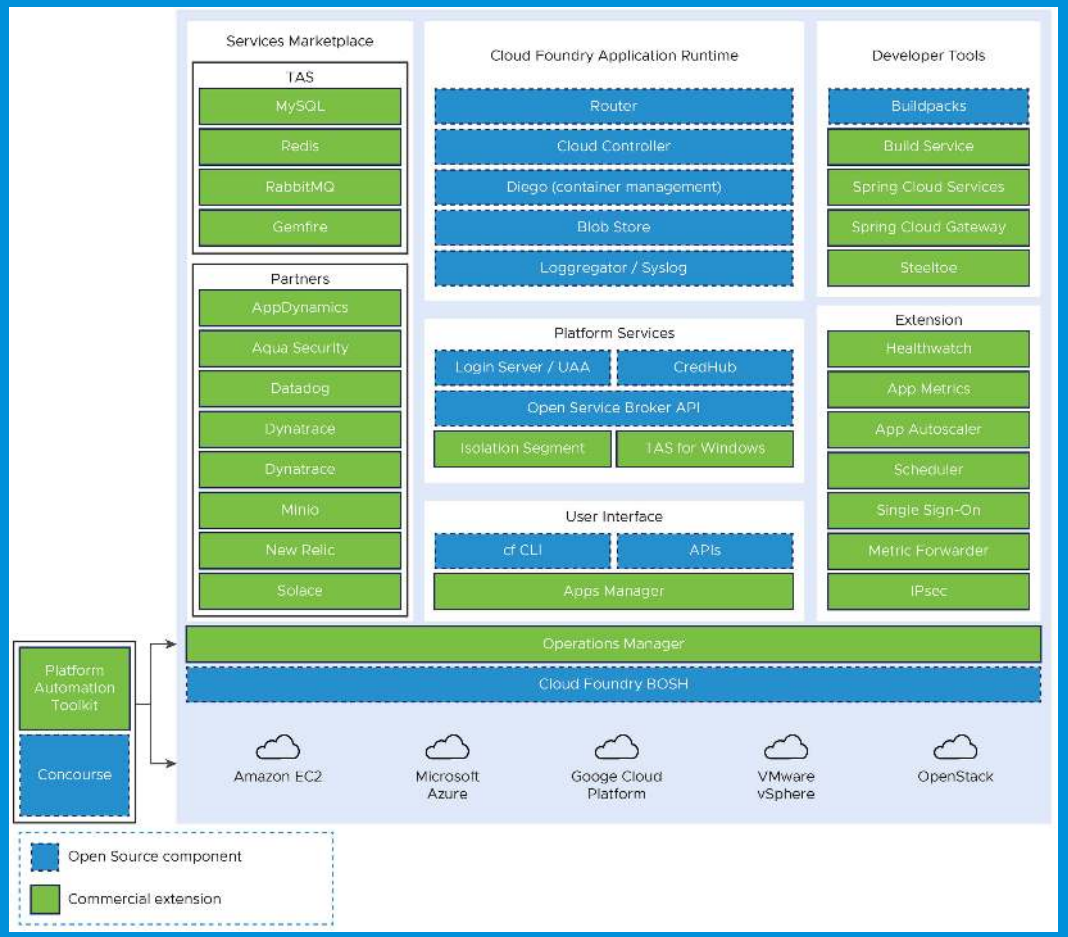
“We believe that we need to reimagine banking to make banking simple, seamless, and invisible to allow our customers to live more, bank less”.

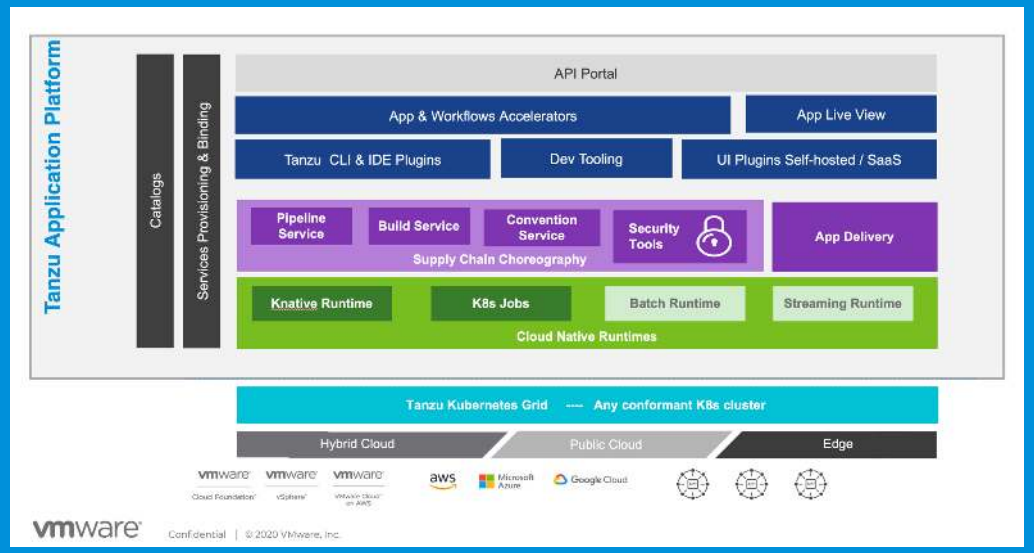
Siew Choo Soh, DBS Bank

Don’t build platforms.

Build apps.

A fine selection of pre-shaved yaks
https://tanzu.vmware.com





“At the end of the day.”

The Business Bullshit Dictionary

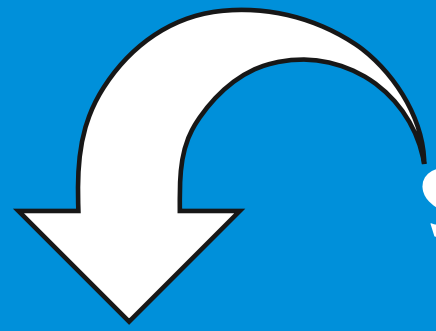
https://cote.io/bigco/

The Business Bullshit Dictionary, a selection

1. Synergies.
2. “We should get lunch!”
3. Pre-wire.
4. Deck.
5. Executize
6. Accountability
7. Optimizing
8. Parking lot/”Take it offline.”
9. 360 Review
10. “Let’s socialize this deck.”
11. Politics.
12. Bureaucracy
13. “Let’s take a step back.”
14. Input.
15. American Manager Feedback.
16. “Make sure they’re in the loop.”
17. “At the end of the day.”
18. Riffing.

https://cote.io/bigco/

Thanks!



Slides & stuff

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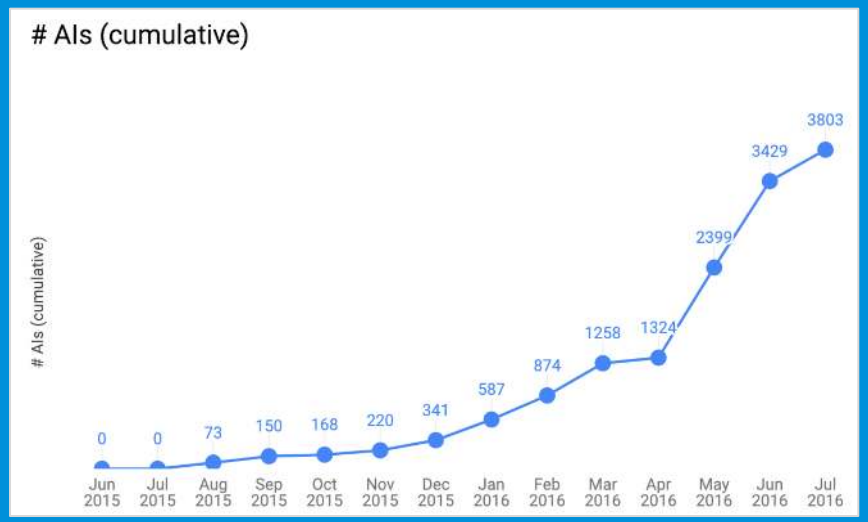
Scaling Phase – Pairing & Seeding to build trust & training



1. Create platform team.
2. Pick one or two apps, *real* apps.
3. Develop the apps & platform together.
4. Do this for three months.
5. Pick some more apps, to taste.
6. Seed app people to new teams.
7. GOTO 3.

Sources: "From 0 to 1000 Apps: The First Year of Cloud Foundry at The Home Depot," Anthony McCulley, The Home Depot, Aug 2016; "Cloud Native at The Home Depot, with Tony McCulley," Pivotal Conversations #45; USAF presentations and write-ups; "Driving Business Agility Without Large-Scale Transformation Programs," Venkatesh Arunachalam, Sep 2021; The Home Depot 2022[?]Q4 earnings call; *The Business Bottleneck*, Coté.