

Not actually a DevOps talk

Or, DevOps for Normals - What's Happening as Donkeys Adopt DevOps

@cote

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Slides: <http://cote.io/better-software>

Hello!



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A dimly lit, open-plan office with many people working at computers. The text "How we got here" is overlaid in the center.

How we got here



“Since 2000, 52 percent of the names on the Fortune 500 list are gone, either as a result of mergers, acquisitions or bankruptcies.” [R. Ray Wang](#)

Expected BigCo Lifespan

1960s: 60 years on S&P 500

2020s: 12 years on S&P 500



In order to grow Citi, we first have to grow our own perspective, skills and capabilities... Our curiosity, our openness to learning and trying new things, our ability to adjust and adapt quickly and our willingness to fail fast and fail small are the essence of a culture that innovates and exposes new value to our clients in real time.

Stephen Bird, CEO Citi Global Consumer Group

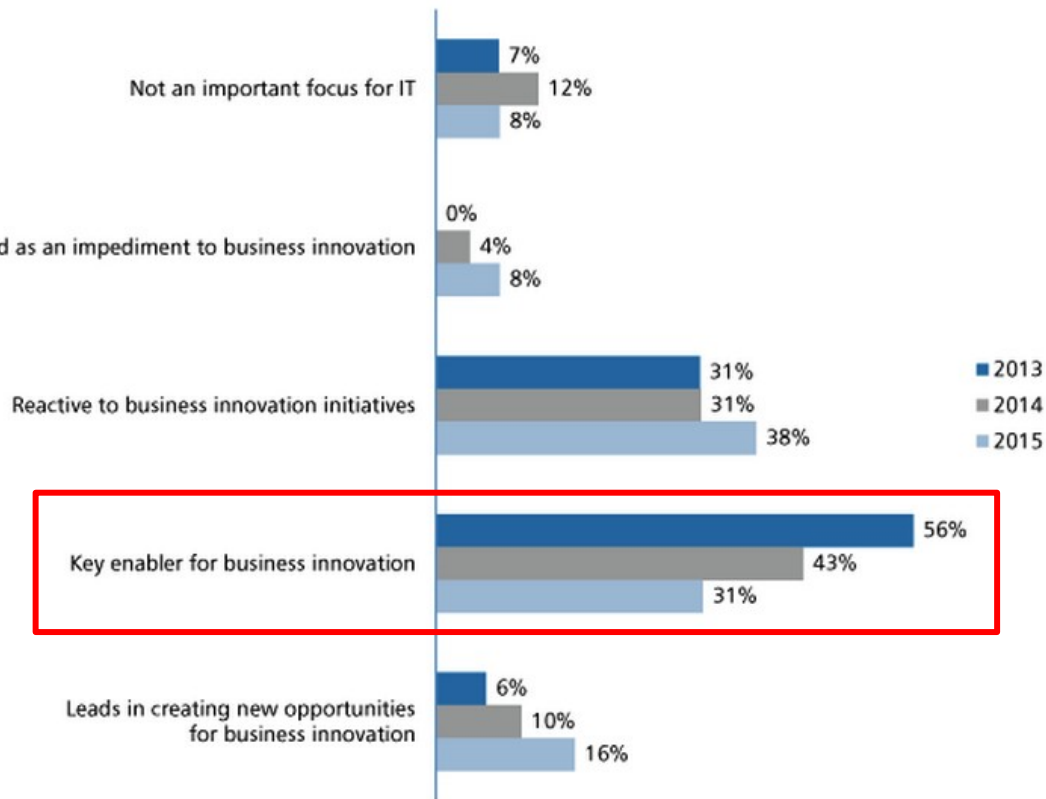
When it comes to digital strategy, it's pretty much "drunk and disorderly" out there

Which of the following best describes your company's status with regards to a digital transformation effort?



Organizations are held back by an IT agility gap

*What is your
IT
organization's
role in
business
innovation?*



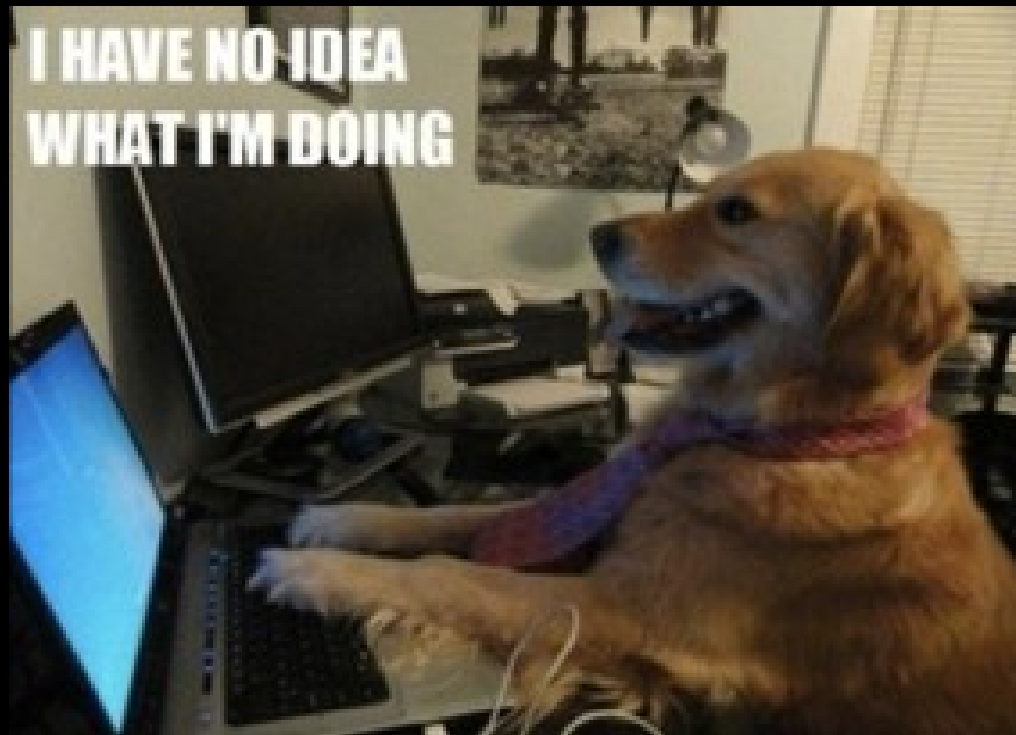


A dimly lit office environment with several people working at desks. The desks are equipped with multiple computer monitors and laptops. The office has a modern, open-plan feel with visible ceiling lights and various office equipment. The overall atmosphere is professional and focused.

Making IT Matter With Small Batches



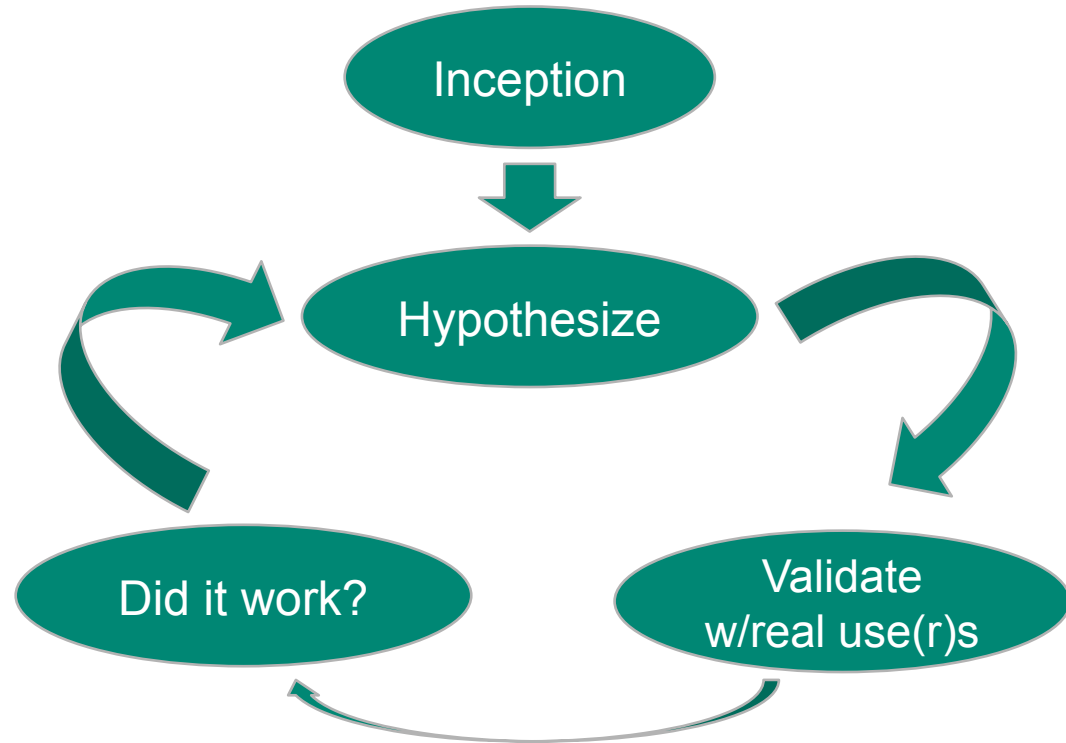
*How most
businesses think
they're doing*



*How smart businesses know they're
doing*

Use small batch thinking, at all levels

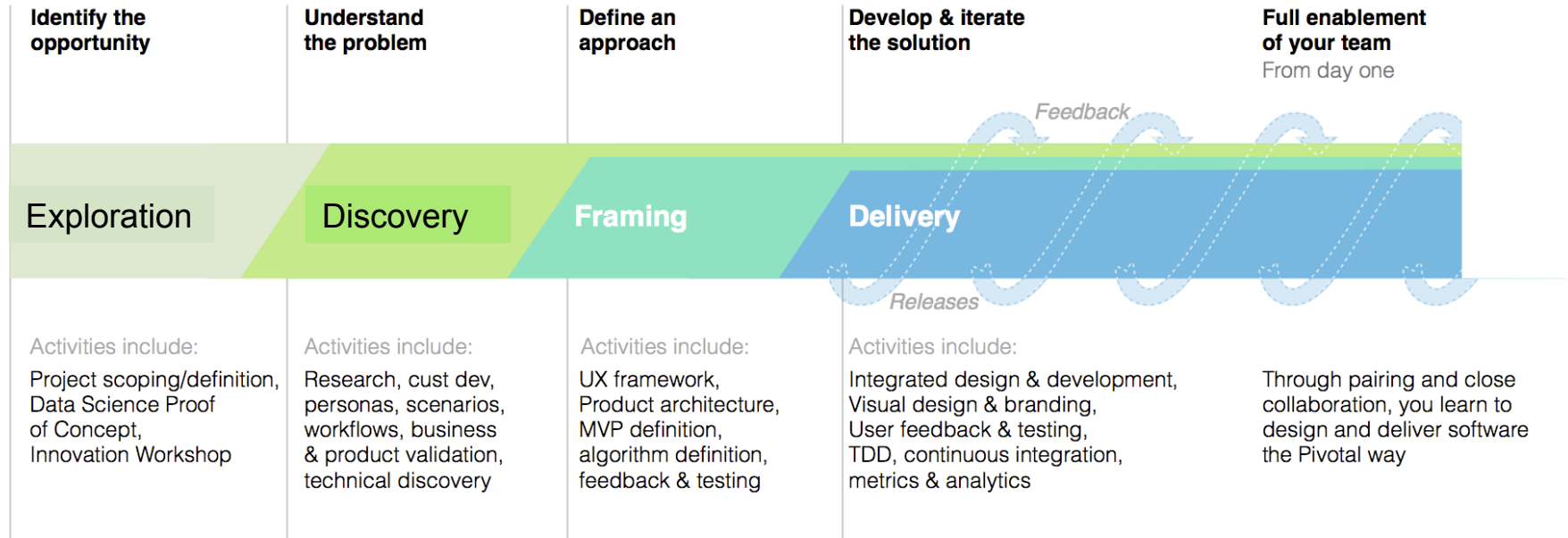
“We did an analysis of hundreds of projects over a multiyear period. **The ones that delivered in less than a quarter succeeded about 80% of the time, while the ones that lasted more than a year failed at about the same rate.** We’re simply not very good at large efforts.”



Large financial institution

Sources: [“Good Software is a Series of Little Failures,”](#) Coté, April 2016; [The Lean Startup](#), Eric Ries, 2011. [The Lean Enterprise](#), Barry O’Reilly, Jez Humble, and Joanne Molesky. See [also overview of this approach at the IRS from Dec 2015](#). [“Application Modernization, Service By Microservice,”](#) Kurt Bittner and Randy Heffner, Forrester, Dec 2015; [“Best Practices For Agile-Plus- Architecture,”](#) Randy Heffner, Forrester February, 2015.

Example approach, The Pivotal Way



A dimly lit, modern office environment with several people working at desks equipped with multiple computer monitors. Whiteboards and a clock are visible on the left side of the frame. The overall atmosphere is professional and collaborative.

User-centric Design

User-centric design

How Projects Really Work (version 1.5)

Create your own cartoon at www.projectcartoon.com



How the customer explained it



How the project leader understood it



How the analyst designed it



How the programmer wrote it



What the beta testers received



How the business consultant described it



How the project was documented



What operations installed



How the customer was billed



How it was supported



What marketing advertised



What the customer really needed

How much do I owe the IRS?

Before

Overview by Year			
YEAR	STATUS	AMOUNT	
2014	Balance Due	\$644	>
2013	Taxes Paid	\$685	>
2012	Refund/Applied	\$100	>
2011	No Information Available	--	

After

Overview by Year	
YEAR	BALANCE DUE
2014	\$644.00 >
2013	\$0.00
2012	\$0.00
2011	No Return on File >

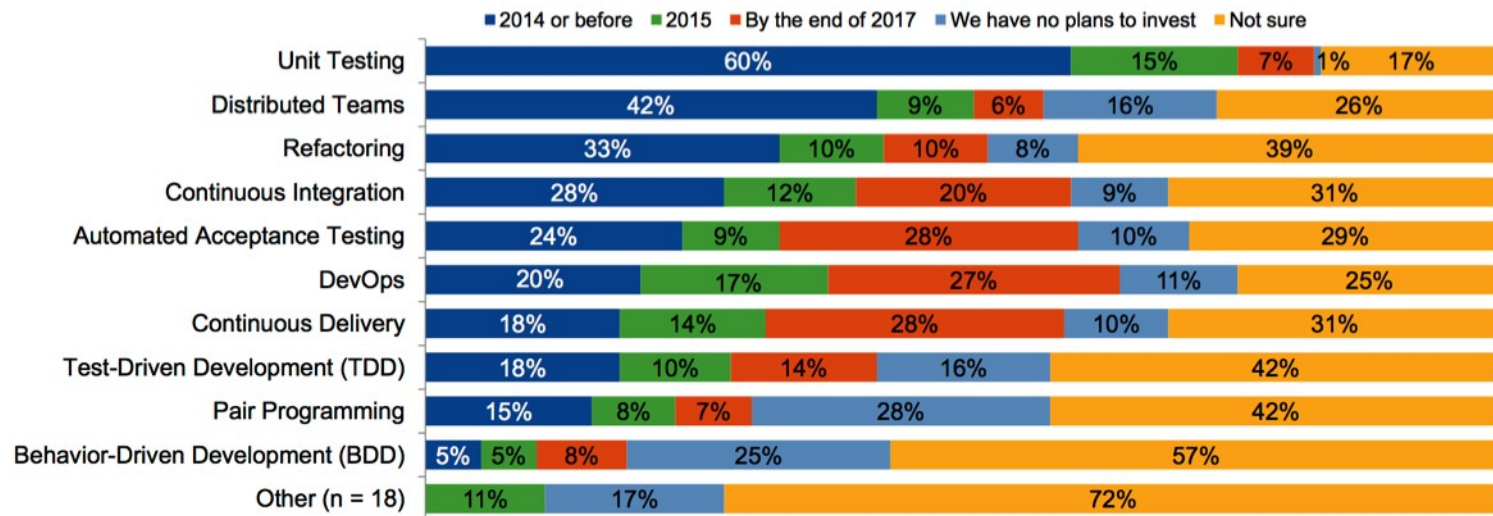


Low-level Meatware: Agile & DevOps

After 17 years, “Agile” is not as wide-spread as we think it is – make sure you’re actually doing it

When did or will your organization begin to use each of the following agile enterprise practices?

n = 155; Base: Organization uses agile or is in pilot implementation phase



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Gartner

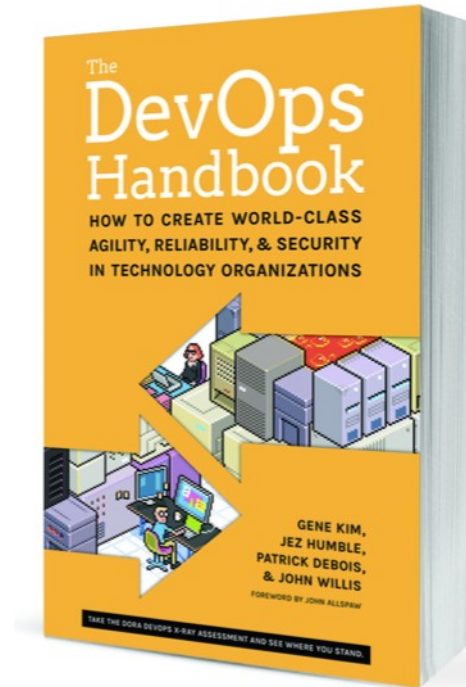
DevOps, the word defines itself

(1.)

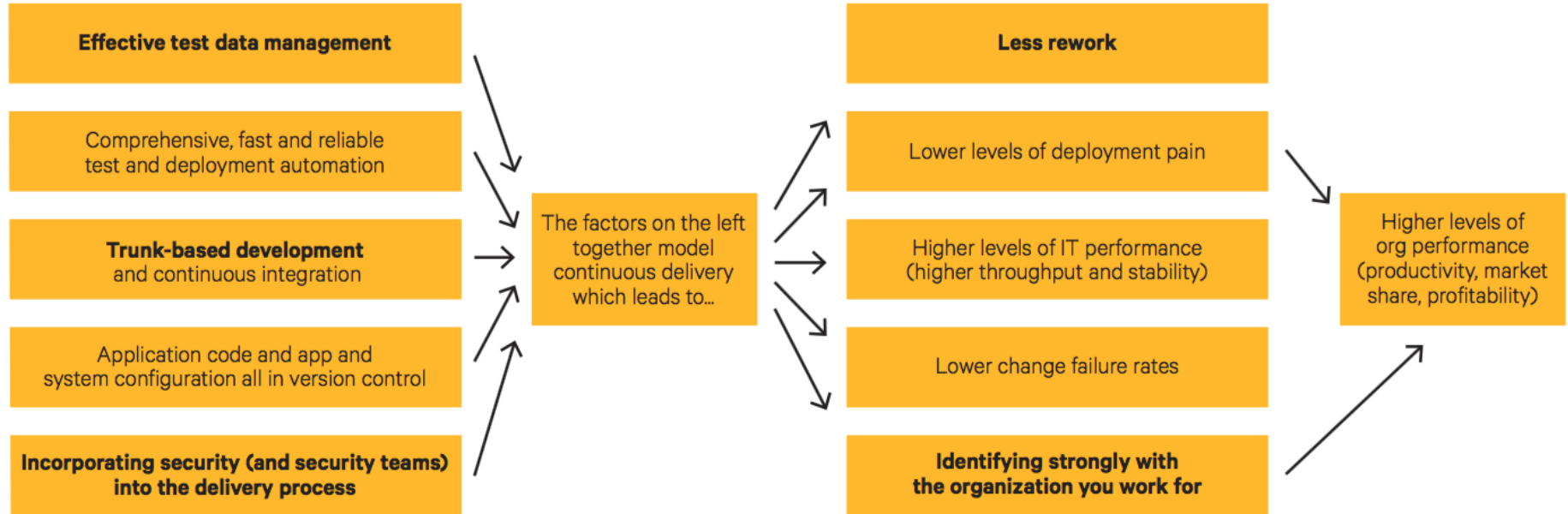
DevOps is the practice of operations and development engineers participating together in the entire service lifecycle, from design through the development process to production support.

(2.)

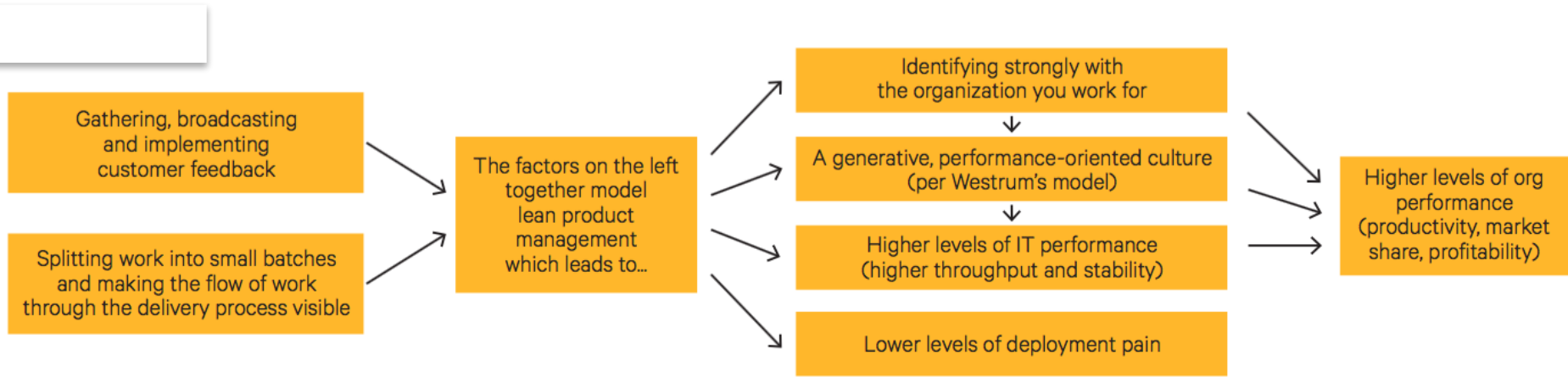
DevOps is also characterized by operations staff making use of many of the same techniques as developers for their systems work.



Goals, practices, and process are more durable



Goals, practices, and process are more durable



A dimly lit office environment with several people working at desks equipped with multiple computer monitors. The scene is viewed from behind the workers, showing a busy workspace with various pieces of technology and office furniture. The overall atmosphere is professional and focused.

High-level Meatware: Cultural Transformation

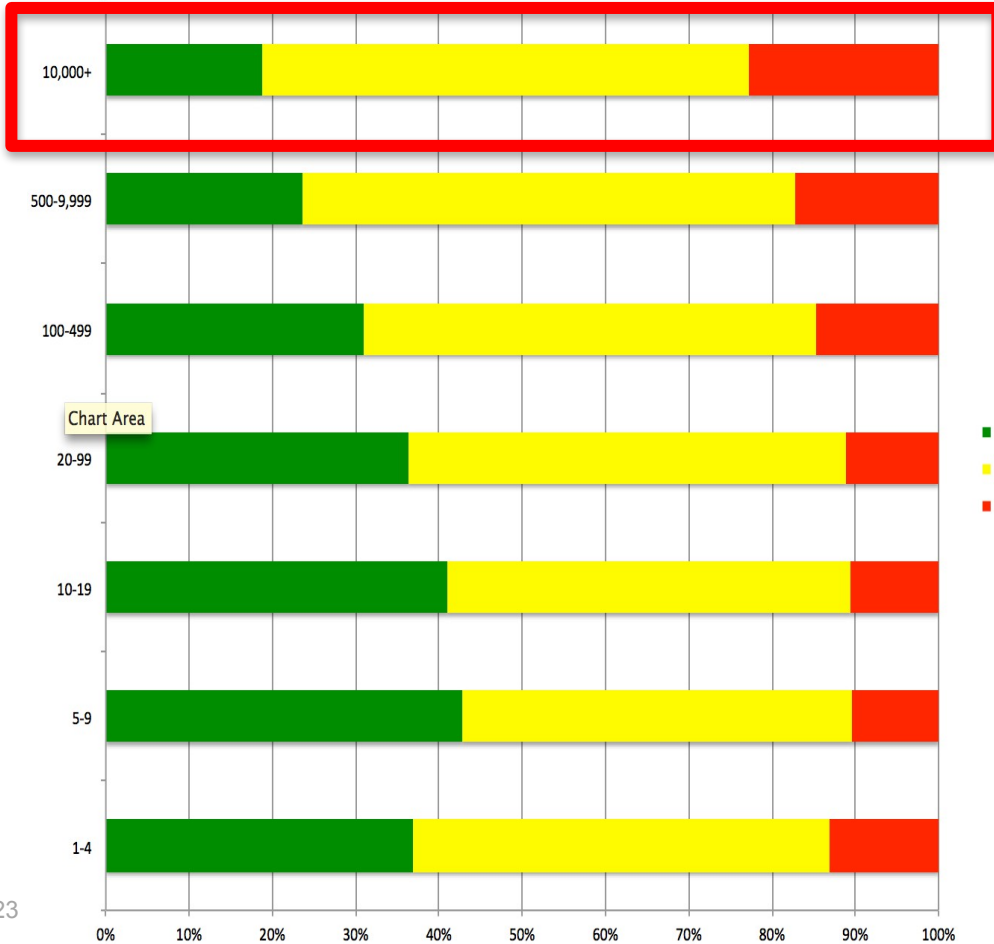


What's in the box?

*Put your right
hand in the box.*

Pain.

Can large organizations do the DevOps?



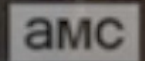
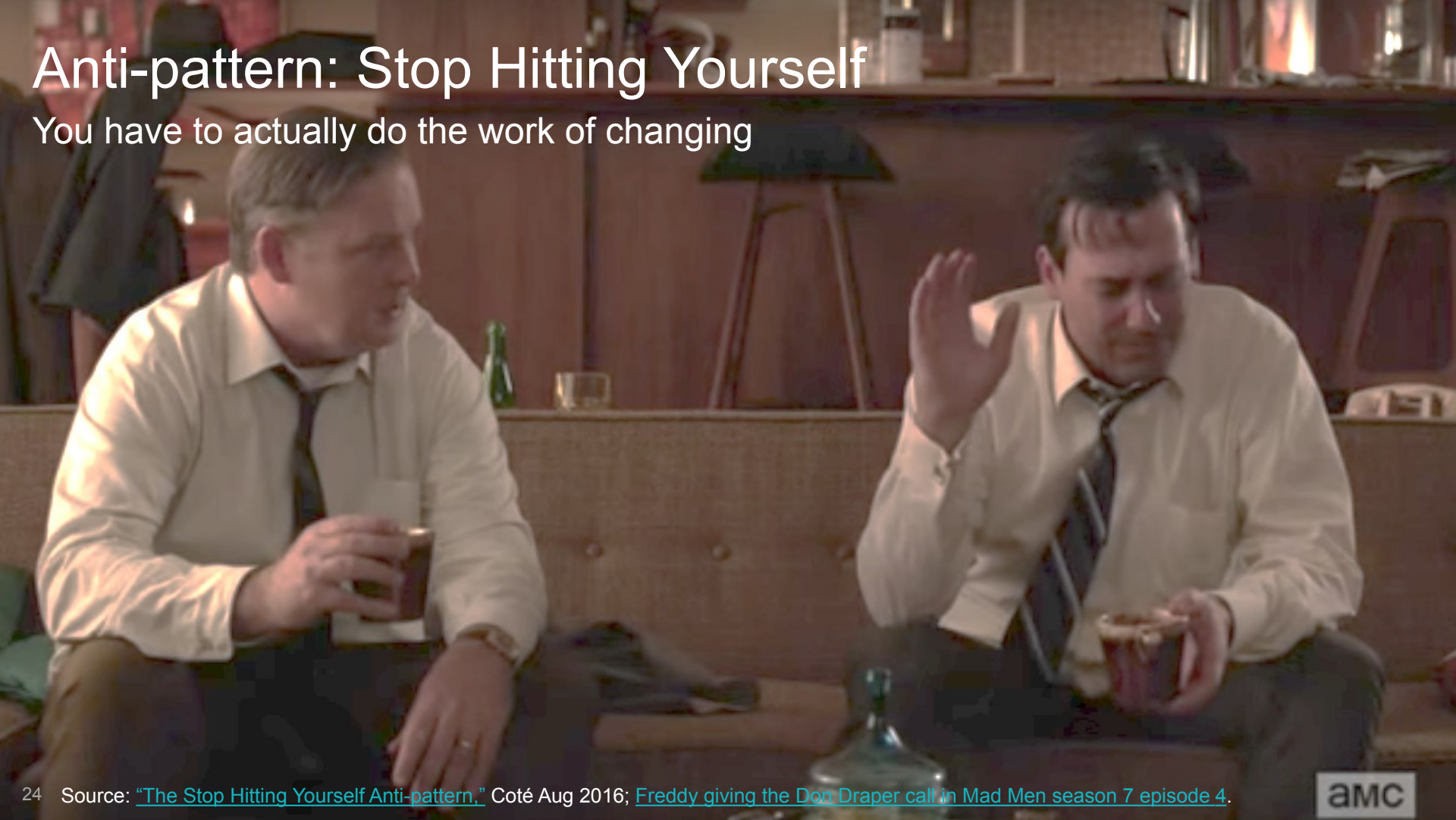
Sort of.

*But orgs with
10,000+ employees
40% less likely to be
high performing vs.
500 employee
orgs...*

Source: ["DevOps Means Business."](#) Nicole Forsgren
Velasquez, Jez Humble, Nigel Kersten, Gene Kim,
June 2014. Question from Donnie Berkholz.

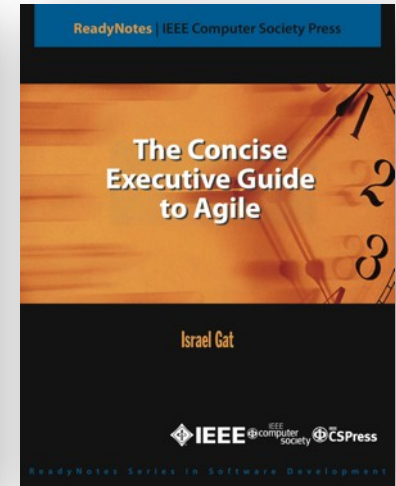
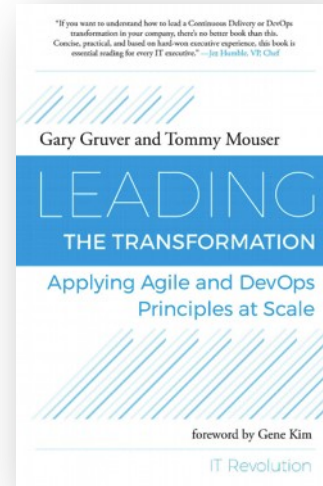
Anti-pattern: Stop Hitting Yourself

You have to actually do the work of changing



Management creates the game

- Leading change management
- Setting, communicating, tracking goals
- Dramatic organization change, gradually
- E.g.: from autocrat to self-directed teams



Two pizza teams with end-to-end involvement

“The best way to do this stuff is to get a multi-disciplinary team of people in house – designer, user researcher, developer, content person – you’re talking a team of about twelve people”



Source: “[Why Britain banned mobile apps; Interview with Ben Terrett, former design chief at the GDS,](#)” GovInsider, June 2016. See also “[From Aristotle to Ringelmann,](#)” June 2016. Picture from [Pivotal SafeMeds scrapbook;](#) “[Roles and Responsibilities for DevOps and Agile Teams,](#)” Coté, May 2016.

Dealing with legacy: the stuff that makes all the money

Quarantine

- Low impact applications
- Lacks good testing, risky to change
- Change resistant priorities

Migration Strategies

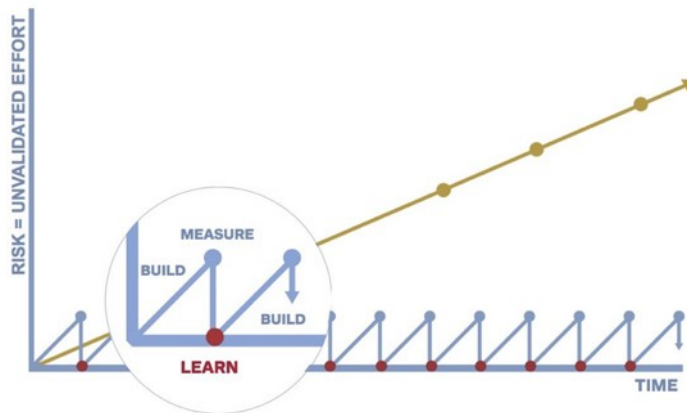
- Virtualize & re-platform to control costs and maximize management
- API gateways combined with the strangler pattern
- Portfolio management (cf. The Three Horizons)

Sources: ["DevOps isn't just about the new: It's about cleaning up the old, too,"](#) Coté, April 2016; [The Cloud Native Journey](#), Coté, 2016; [Es cape Velocity](#), Geoffrey Moore, Sep 2011 and ["To Succeed in the Long Term, Focus on the Middle Term,"](#) Geoffrey Moore, August 2007.

“We don’t want to pave over [old controls]...automating ineffecincies”

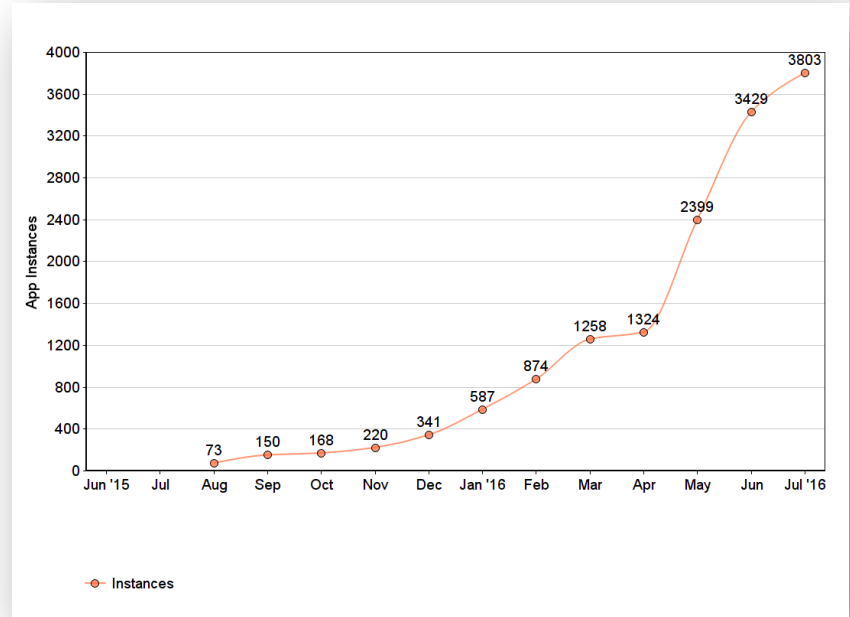
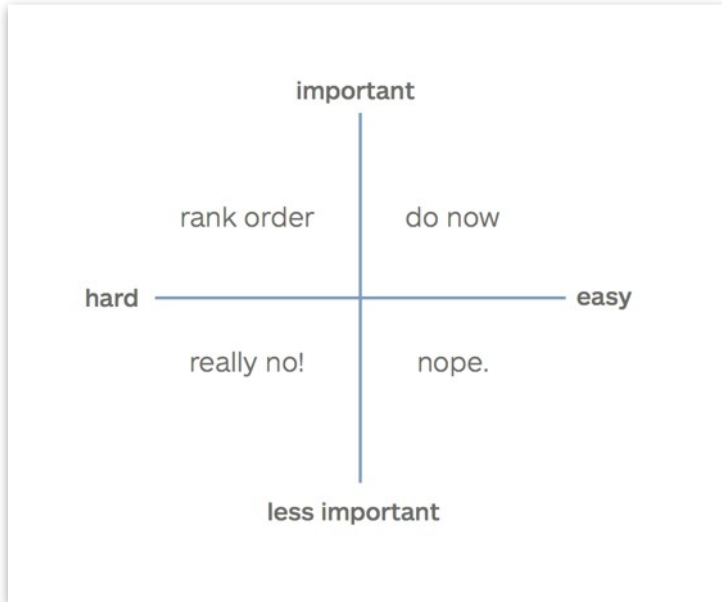
Dealing with GRC, according to a US Federal government agency

- Include auditors & security staff from the start, embed on the team even
- Give auditors access to the platform to “go see”
- Re-visit processes and controls that no longer apply



“Pilot low-risk apps, and ramp-up”

Picking your initial apps, according to Home Depot



Sources: [Home Depot meetup, Oct 2015](#); [Humana at CF Summit 2015](#); EU payday loan company; Pivotal Labs on large auto company; [“Getting started,”](#) Coté, Oct 2016. See also a general pattern [applied to analytics from BCG, July 2016](#).

Staffing: There is no talent shortage

F100 CTO:

“But Netflix has a superstar dev team, we don’t!”

@adriano:

“We hired them from you.”

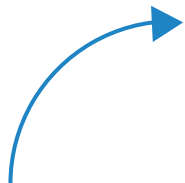


Pivotal Big Data Suite

Big Data & Analytics

Modern, open, highly
parallelized platform

- Big data, in-memory, and database software
- Industries most complete big data analytics offering



Pivotal Labs®

Agile Product Development

Agile practices and collaboration for
product and culture transformation

- World class application development services
- Proven transformational methodology



Pivotal Cloud Foundry®

Cloud Native Platform

Modern, open, highly
automated cloud platform

- Platform-as-a-Service (PaaS) software with multi-cloud support
- Record-breaking sales growth and adoption



“We are uncovering better ways of developing software by doing it and helping others do it.”

- [The Agile Manifesto](#), 2001

Thanks!

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