

# DevOps for Normals

DevOpsDays Austin ,2016

@cote

May 2016

Slides: <https://cote.io/devops-for-normals/>

# Hello!



- [@cote](#) – Director, Technical Marketing at Pivotal for Pivotal Cloud Foundry
- Former industry analyst at 451 Research and RedMonk
- Corporate strategy & M&A at Dell
- Former software developer
- Podcasts: [cote.io/podcasts](http://cote.io/podcasts)
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# Conclusions

## **Businesses are hungry for IT, but IT is doing a bad job:**

- Businesses are finding it harder to maintain their competitive advantage, must innovate more frequently, and are looking to IT to help stay alive
- But IT is in bad shape: roughly 66% of IT is not helpful for innovation

## **DevOps, Cloud, and Agile are riding to the rescue:**

- Knowing what those are, in particular, DevOps is very elusive
- We have a good definition of practices and outcomes now

## **Large organizations need more and different types help to transform:**

- Large organizations find it harder to be successful at DevOps than small organizations
- Focus on actually doing the work, thinking in small batches, and staffing accordingly

# Avoiding the donkey apocalypse



## It's harder to make money because traditional advantages are less defensible

Since 2000,  
52% of the F500  
are no longer on  
the list

“If advantages eventually disappear, it only makes sense to have a process for filling your pipeline with new ones. This in turn means that, rather than being an on-again, off-again mishmash of projects, your innovation process needs to be carefully orchestrated.”

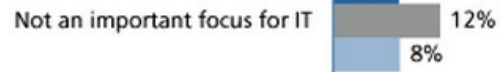
- Prof. Rita McGrath, “[Transient Advantage](#),” HBR, June 2013

# Thriving with transient advantage is held back by an IT gap

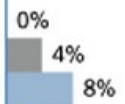
*75% of application development supporting digital business will be built not bought by 2020*



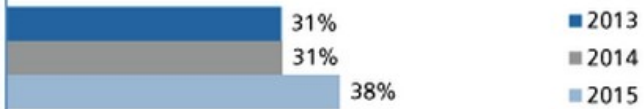
Not an important focus for IT



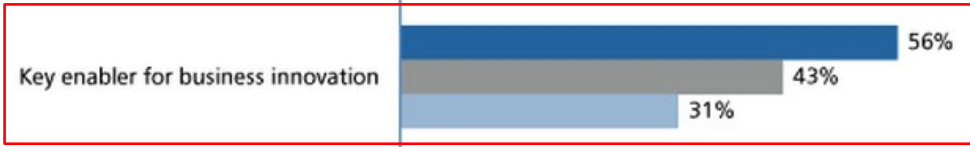
Viewed as an impediment to business innovation



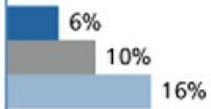
Reactive to business innovation initiatives



Key enabler for business innovation



Leads in creating new opportunities for business innovation



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



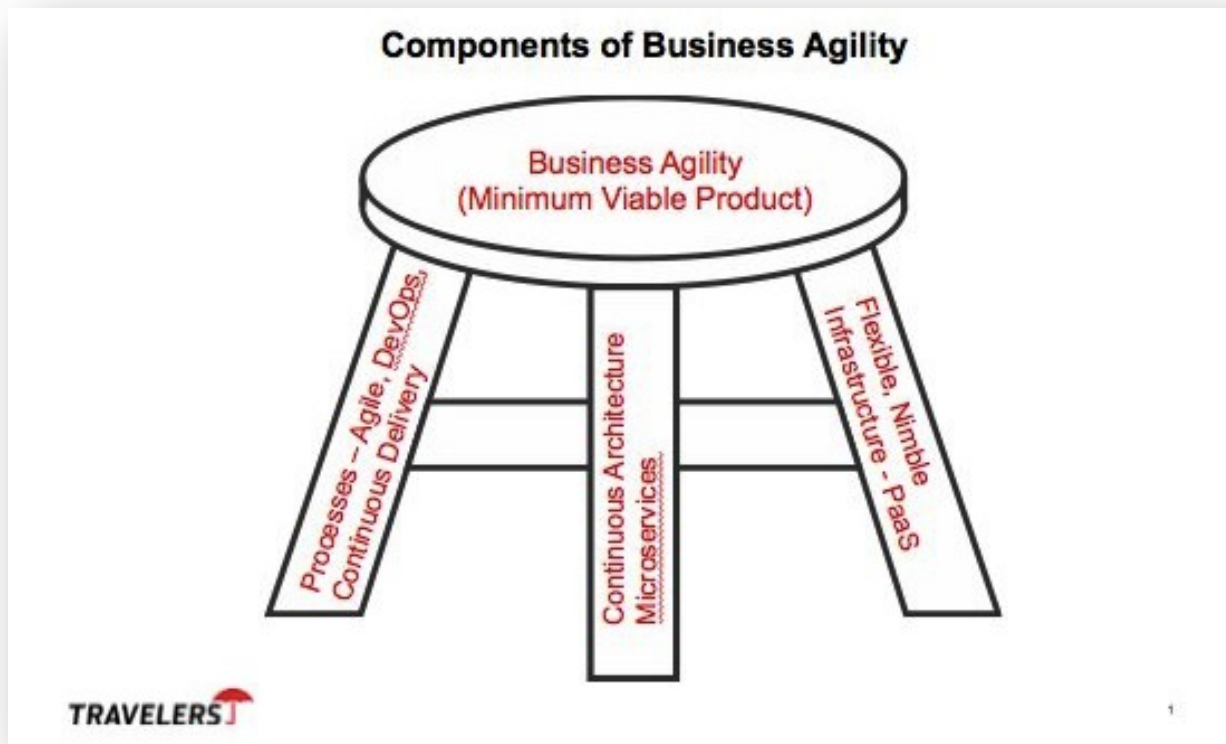
# Cloud Native Business Theory

(1.) In an era of transient advantage, the inherent agility of software is one of the best strategic tools.

(2.) However, software in large organizations does not currently “work like that.”

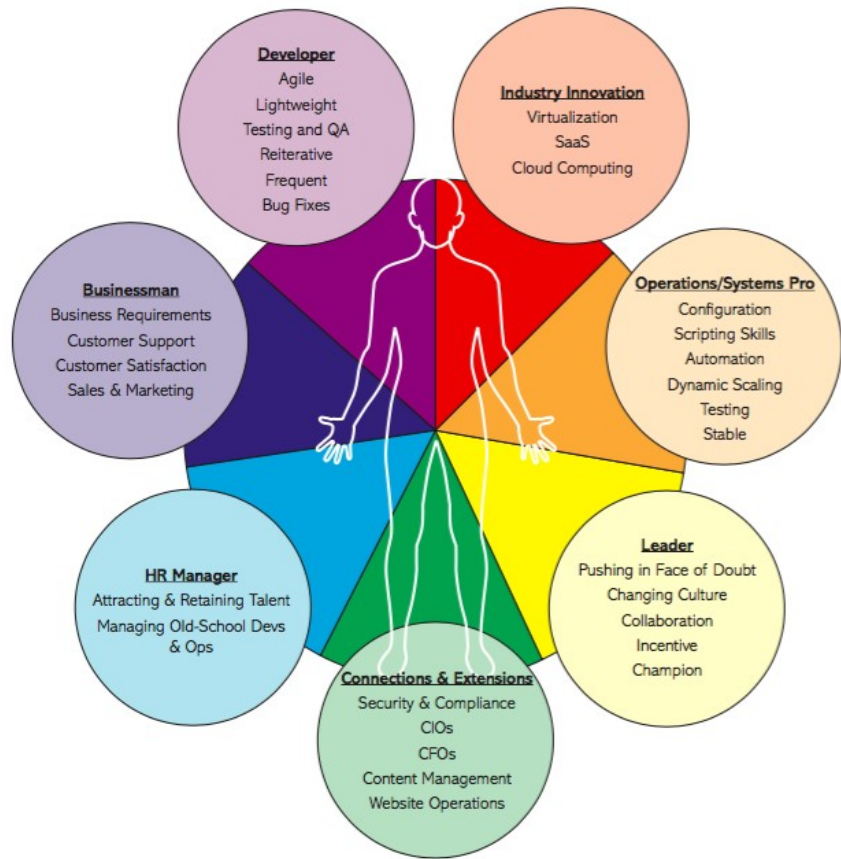
(3.) The fix is changing how we think of the process of software, supported by cloud native technologies & practices.

# DevOps is becoming the process answer, supported by cloud native technologies & practices



# Characterizing DevOps

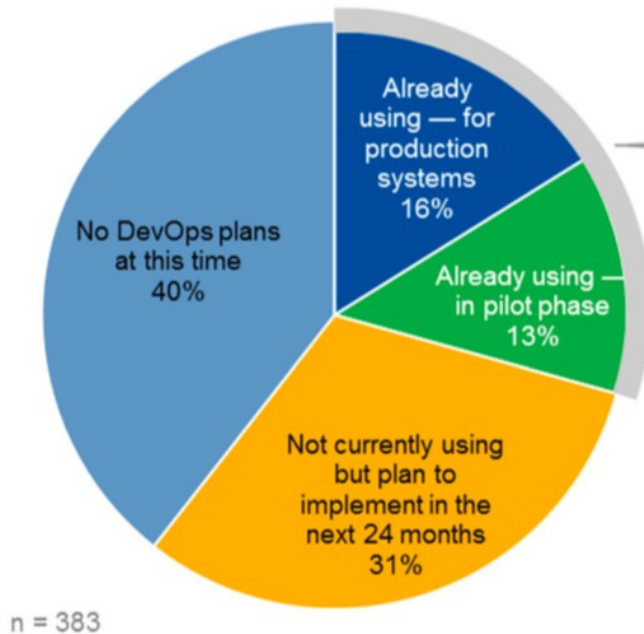
FIGURE 3: THE IDEAL DEVOPS PRO



From [“The Rise of DevOps.”](#) Jay Lyman, 451 Research, Sep 2010.

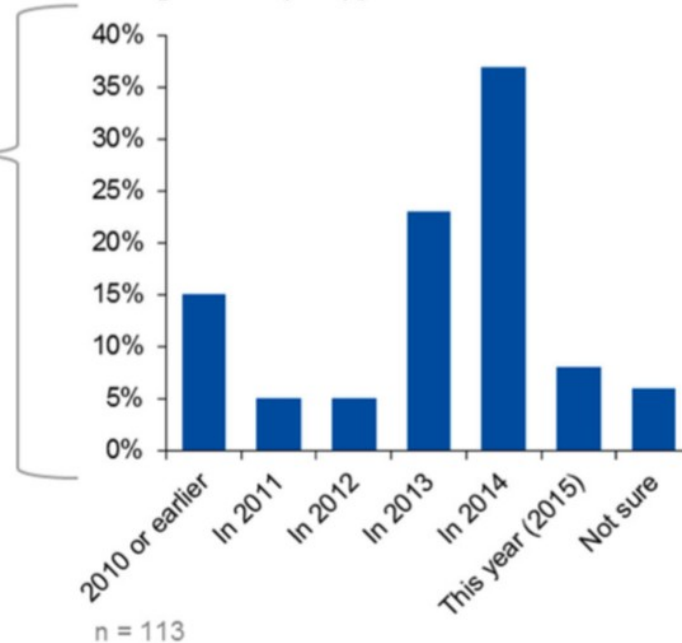
# It's finally happening! Most surveys show wide use and belief in DevOps

Does your organization use, or plan to use a DevOps approach to IT?



Source: Gartner (September 2015)

When did your organization first start using a DevOps approach to IT?



Source: ["Survey Analysis: DevOps Adoption Survey Results,"](#) Gartner, Sep 2015. Also see ["You, yes YOU: DevOps' people problem"](#) for more momentum figures.

# People have no idea what we're talking about



Coté  
@cote

I can't figure out if getting just 7 caustic comments in [@TheRegister](#) versus 40+ is a good sign or a bad sign.

Jason Bloomberg

1 month

Report abuse

## DevOps - it's got electrolytes

It sure would be great if someone could actually explain DevOps, how it works and how it benefits, in a simple to understand format, which doesn't require an expensive indoctrination course.

That no one can has it looking like snake oil, simply labelled "new and improved" with evangelists once again telling us how it's better than the last snake oil we were sold. And, oh boy, have we all drunk a lot of snake oil over the years.

I am sure there is a germ of an idea in DevOps, something useful to be had, but there seems to be plenty of over-hype as well. Anything too complicated to be explained in a couple of paragraph always makes me suspicious about its plausibility. I can read pages and pages about how it's great but very little which shows how and why.

If it's so great, so fundamentally obvious, a no-brainer, I really shouldn't need to sign-up with the Great Profit Žerqu to have it explained to me.

👍 4 👎 1

Reply



Disko

3 months

Report abuse

## Re: Is it just me?

nope.

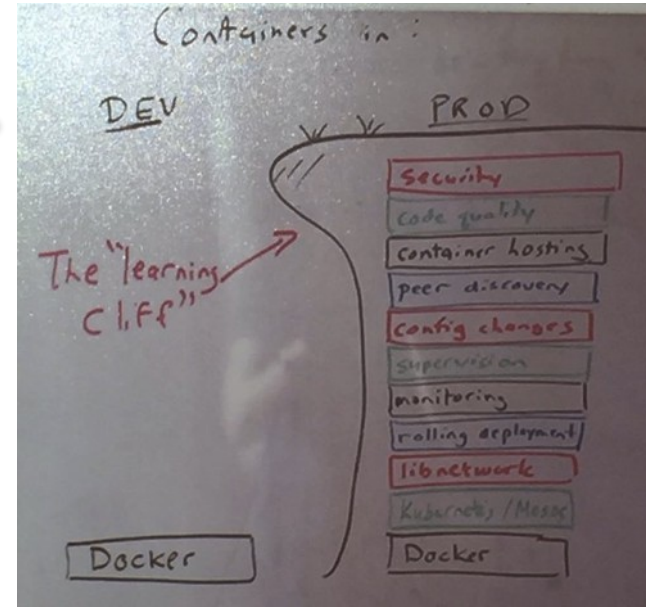
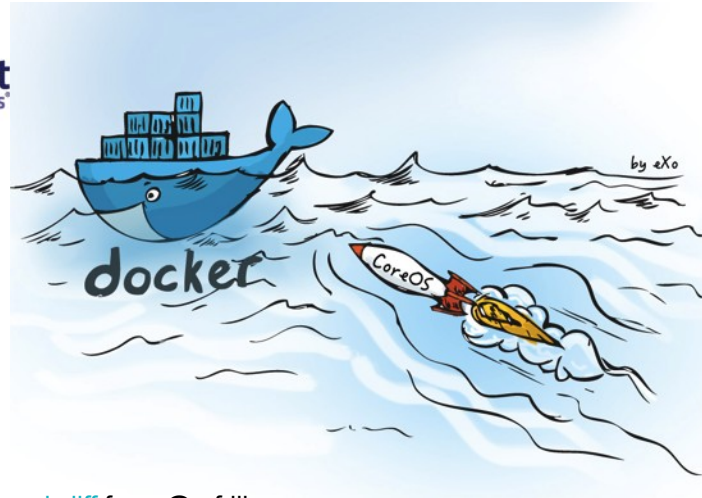
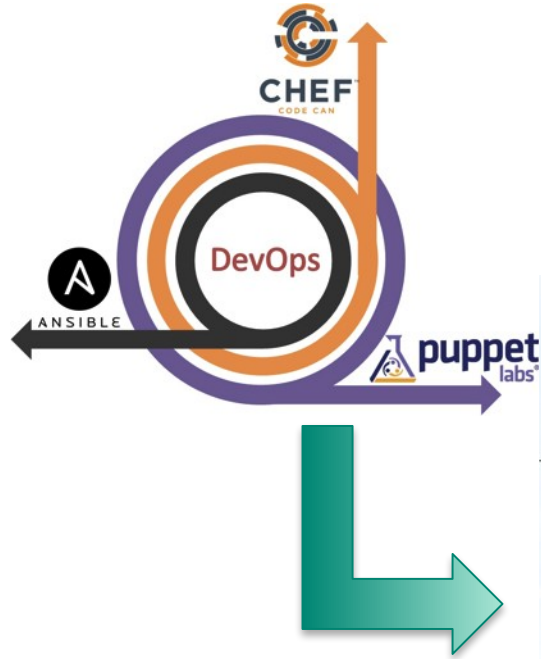
YOU! WRITER! You've no doubt heard of readers, and read some of those pesky little tidbits that are commonly called "Comments", that seem to want to drag you out of your comfy cubicle kicking and screaming, and pour gasoline over you to see if you go WOOSH and how fast you can run.

Let me stoop down to a slightly more condescending tone, as I tell you what you already know: words are made of letters, and require proper coordination to form useful sentences. Now that your brain has exploded in a rage of annoyance, nothing. It was just a trick to get your attention. I will not really tell you anything new, meaningful, or even funny.

I know, I know, Dear Typist: you've been doing this ever since writing about that AS/400; no one really needs weekly storage articles; and, of course, the favorite: "this is just the current way for lazy writers to make money."

Now if you let me continue I will lock the door of the conference room and allow you to listen to some Metallica covers, as played by the Westboro Short Bus Marching Band and recorded over a Japanese telephone line while I skip out and breathe in some fresh winter air to clear this smell of cheap cologne and carpet glue.

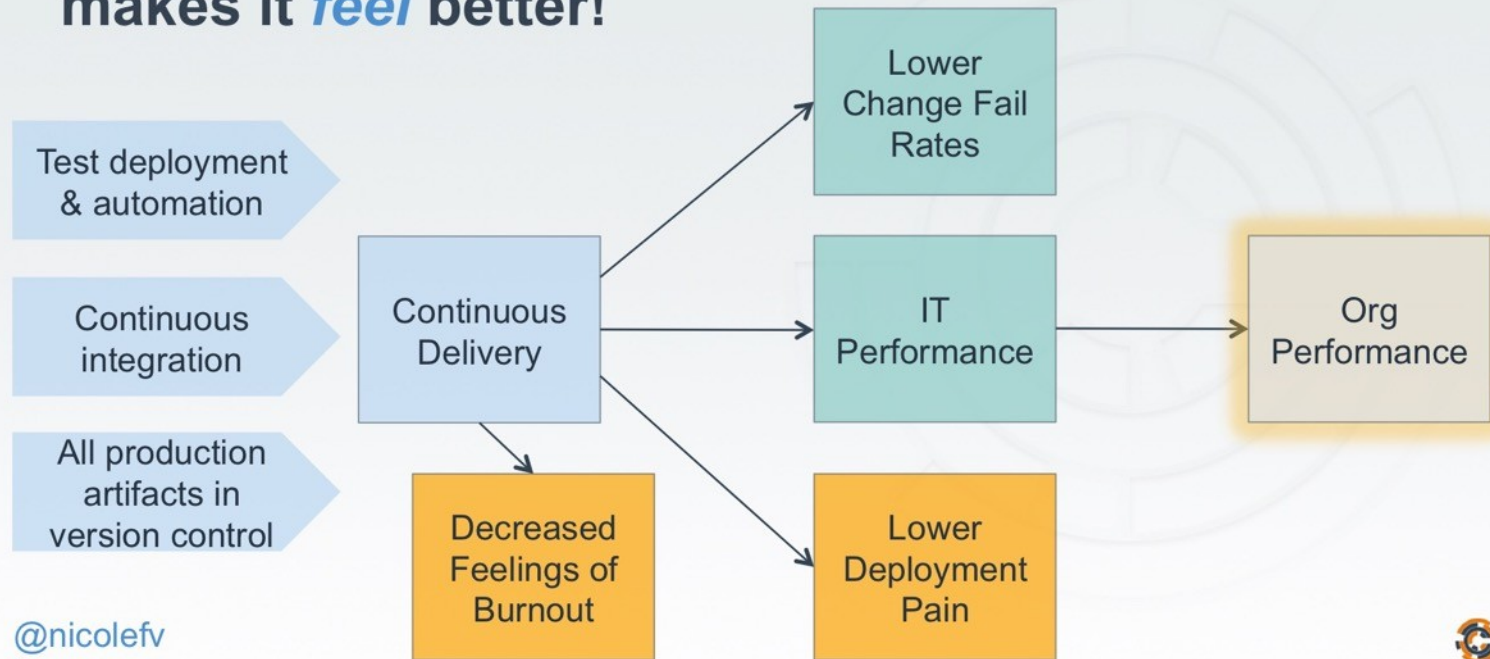
# Technology-driven definitions of DevOps are easy, but not resilient over time



# Goals, practices, and process are more durable

If you're not into "culture" & common sense...

## Continuous Delivery makes our work better... and makes it *feel* better!

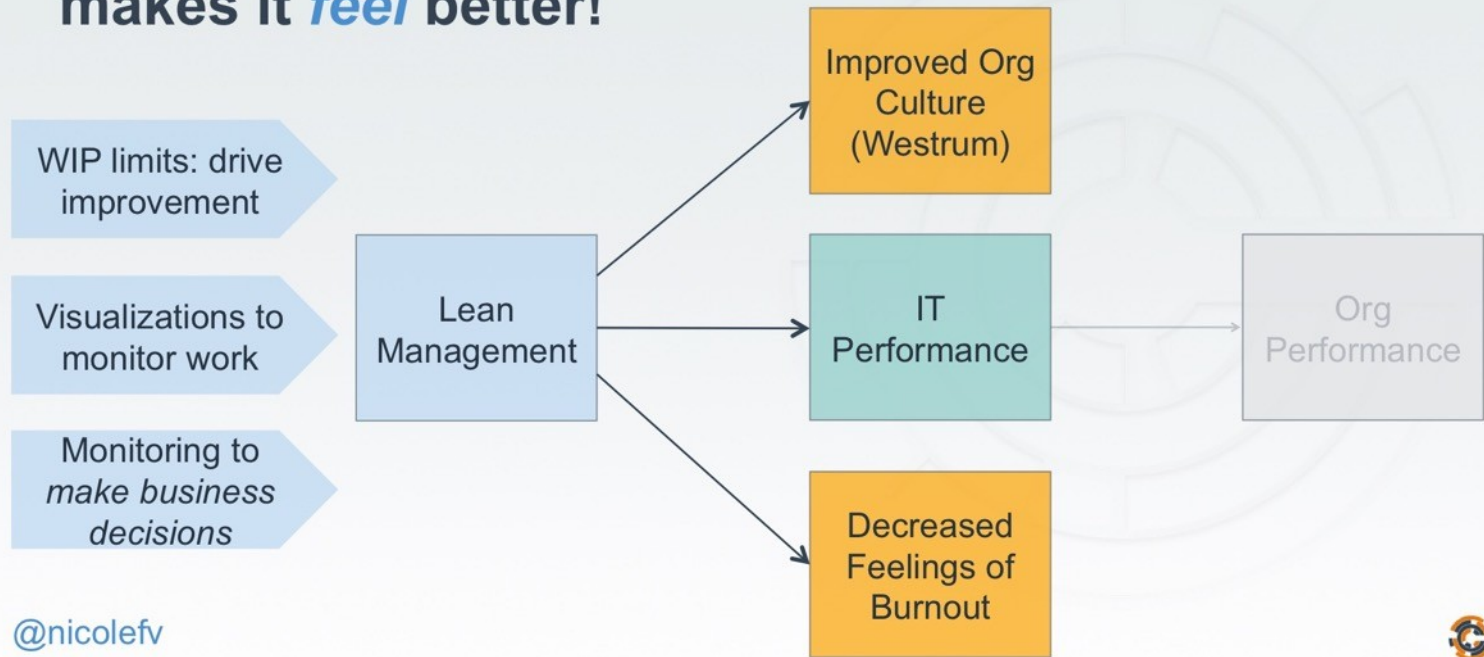


@nicolefv

# Goals, practices, and process are more durable

If you're not into "culture" & common sense...

## Lean Management makes our work better... and makes it *feel* better!

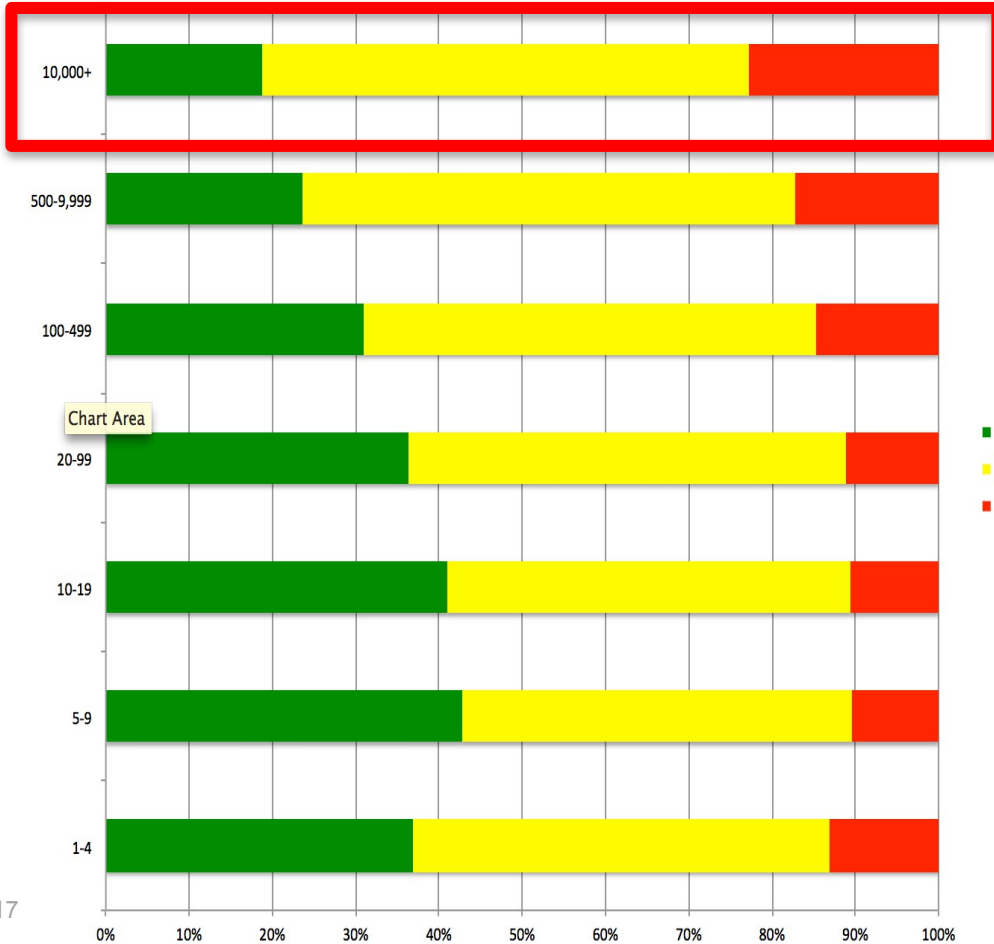


@nicolefv

# Large DevOps



# 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: DevOps Theater

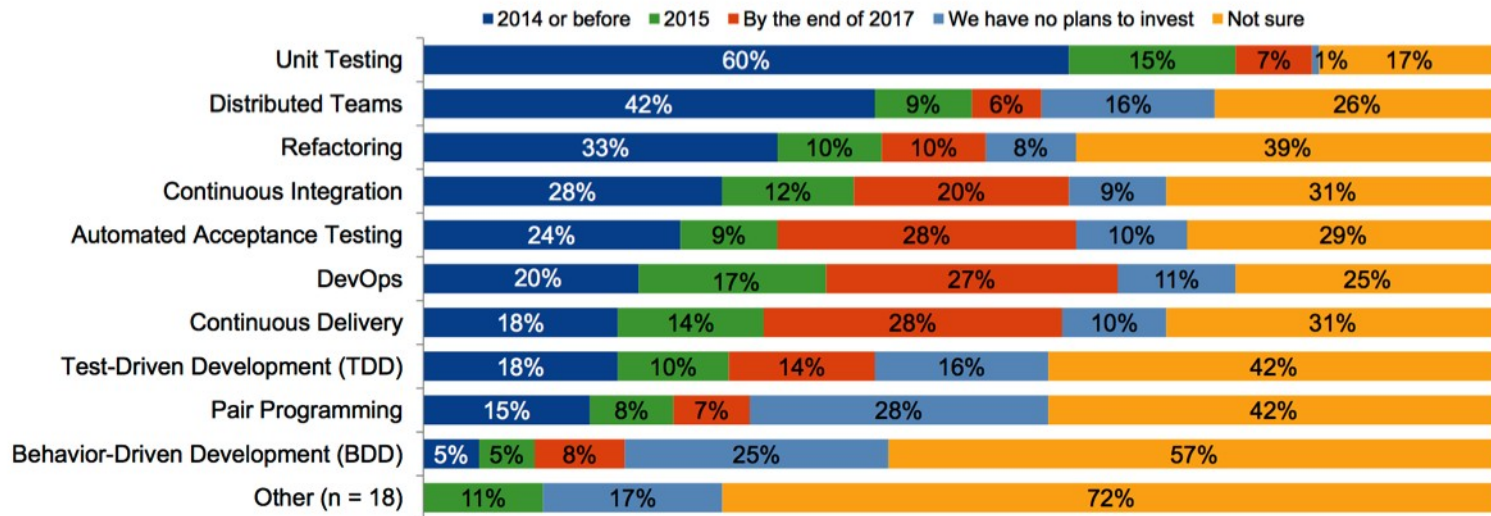
You have to actually do the work of changing



# 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

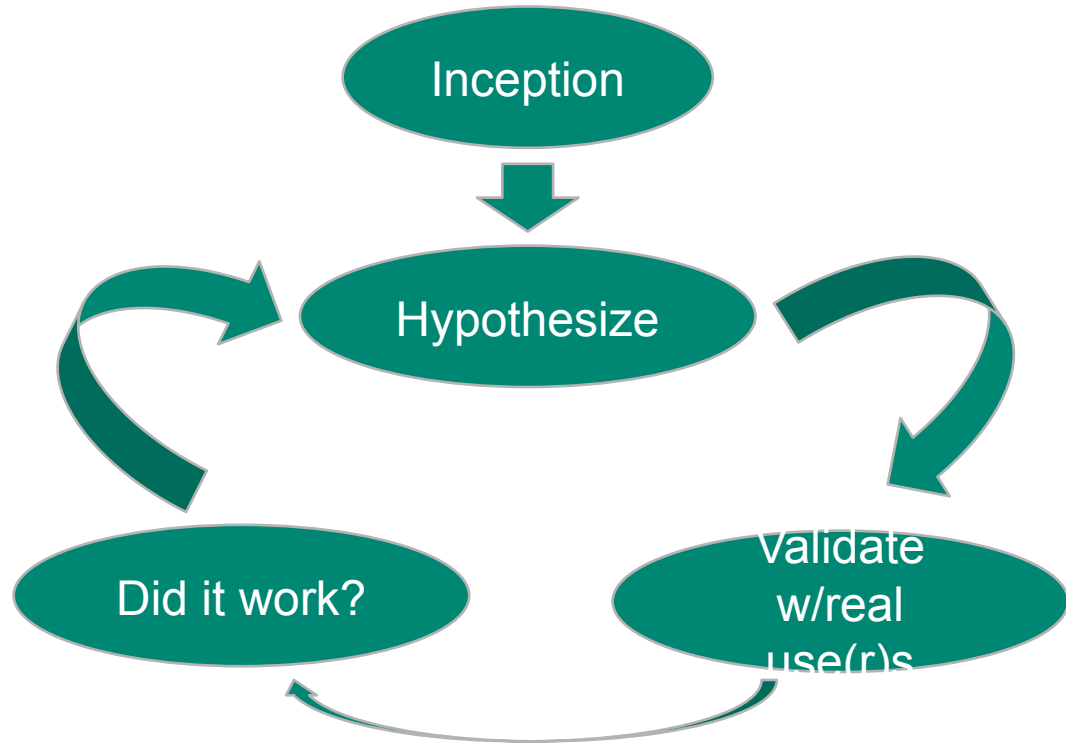


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Gartner

# Use small batch thinking, at all levels

- Deploy to production each time, avoid waterscrumfall
- Relies on:
  - Product approach
  - Small batch oriented pipeline and process
  - Cloud native automation



# A small batches approach is more successful

"When we were doing big design upfront, downstream changes had to go through a rigid change control process. **We wound up being busy with our own process rather than delivering value, and either we didn't deliver or we delivered late.**"

*Large European retail bank*

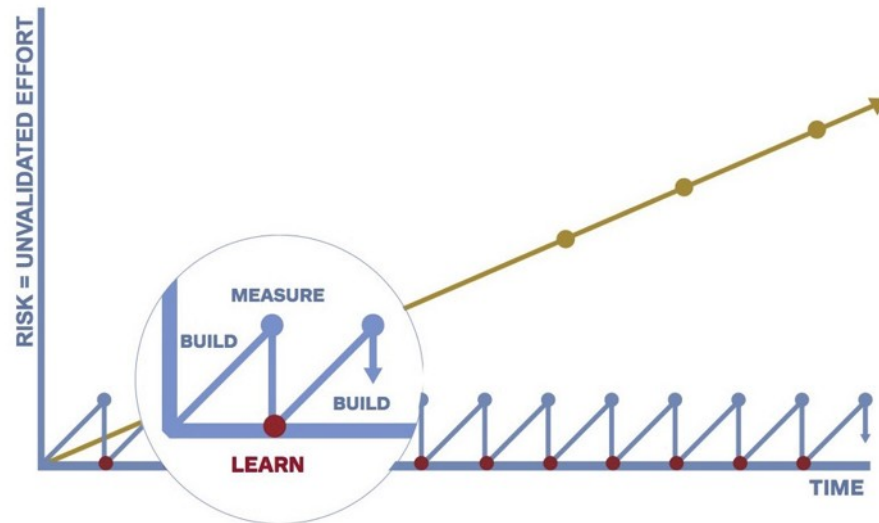
"We did an analysis of hundreds of projects over a multiyear period. **The ones that delivered in less than a quarter succeeded about 80% of the time, while the ones that lasted more than a year failed at about the same rate.** We're simply not very good at large efforts."

*Large financial institution*

Source: "[Application Modernization, Service By Microservice](#)," Kurt Bittner and Randy Heffner, Forrester, Dec 2015; "[Best Practices For Agile-Plus- Architecture](#)," Randy Heffner, Forrester February, 2015. More case studies in Brian Gracely's "[Evolving Organizational Dynamics for Cloud Native Applications](#)," Wikibon, Nov, 2015.

# Fighting bureaucracy self-FUDing - addressing “risk”

1. Bug swarms
2. Useless software
3. Stymied innovation
4. Budget overruns
5. Schedule elongation



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



You have died of dysentery.

(Staffing)

# Theory: balance cowboys and city-folk



Likes shiny objects,  
gets bored easily.



Likes knowing what to do,  
thrives with stability.

“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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