

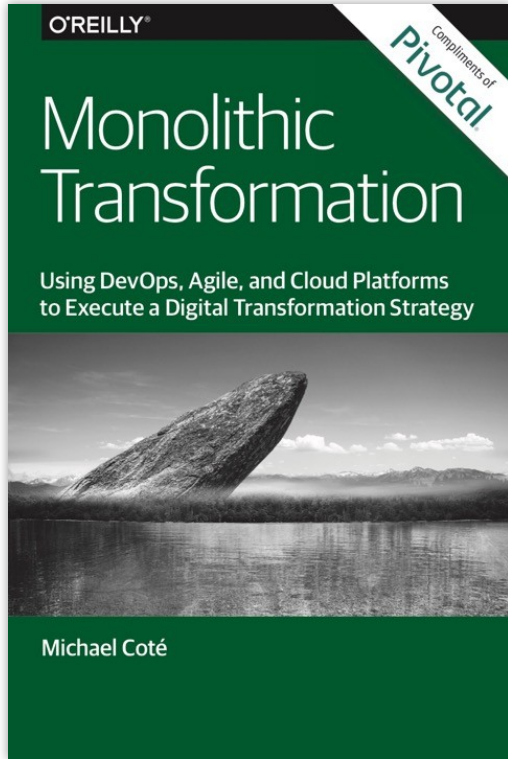
Pivotal

The meatware, it stinks

DevOps, product thinking, & cloud native

April, 2019
Cape Town
@cote

cote.coffee/bettersoftware



<http://cote.coffee/bettersoftware/>

Pivotal

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Pivotal™



The Register®

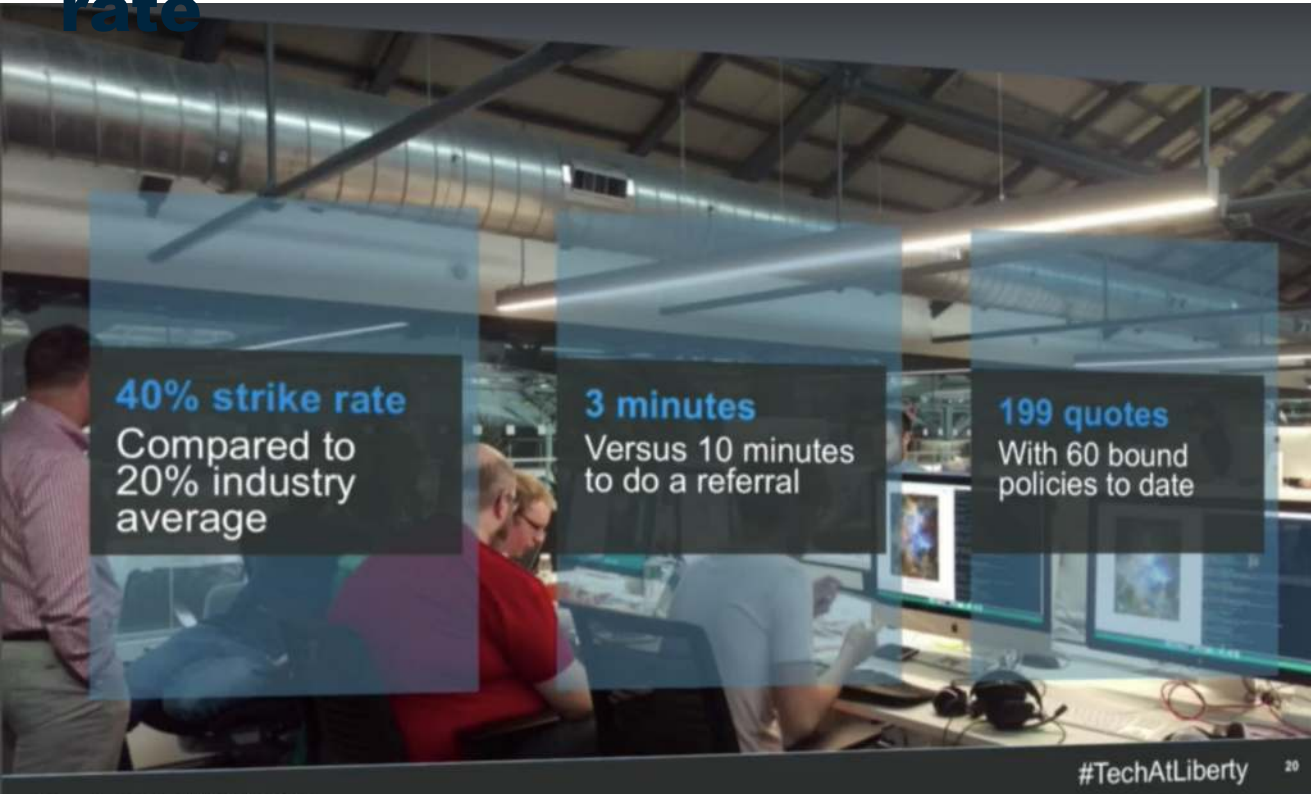
RedMonk

451 Research®



bmc software

A new business in 6 months, doubling avg. sales rate



JUNE 13-15 | SILICON VALLEY

Liberty Mutual Insurance

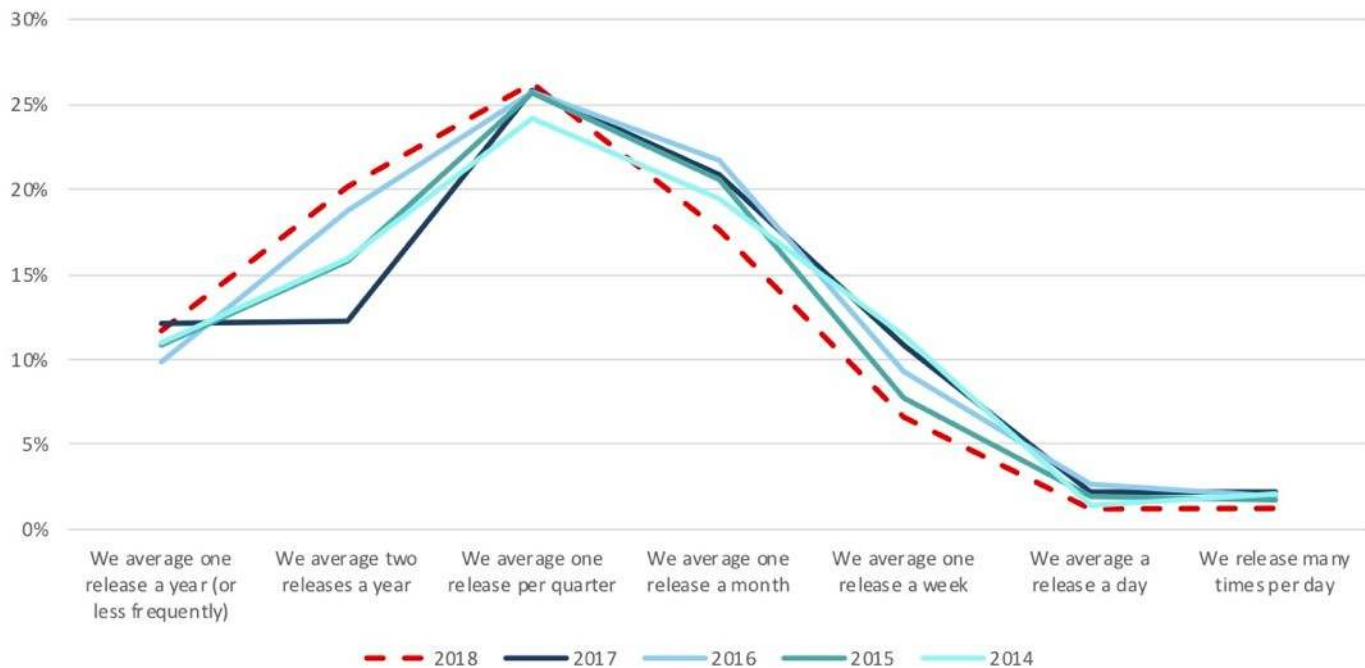
#TechAtLiberty 20

HA HA!



BUSINESS

“How often does your team or teams release applications?”

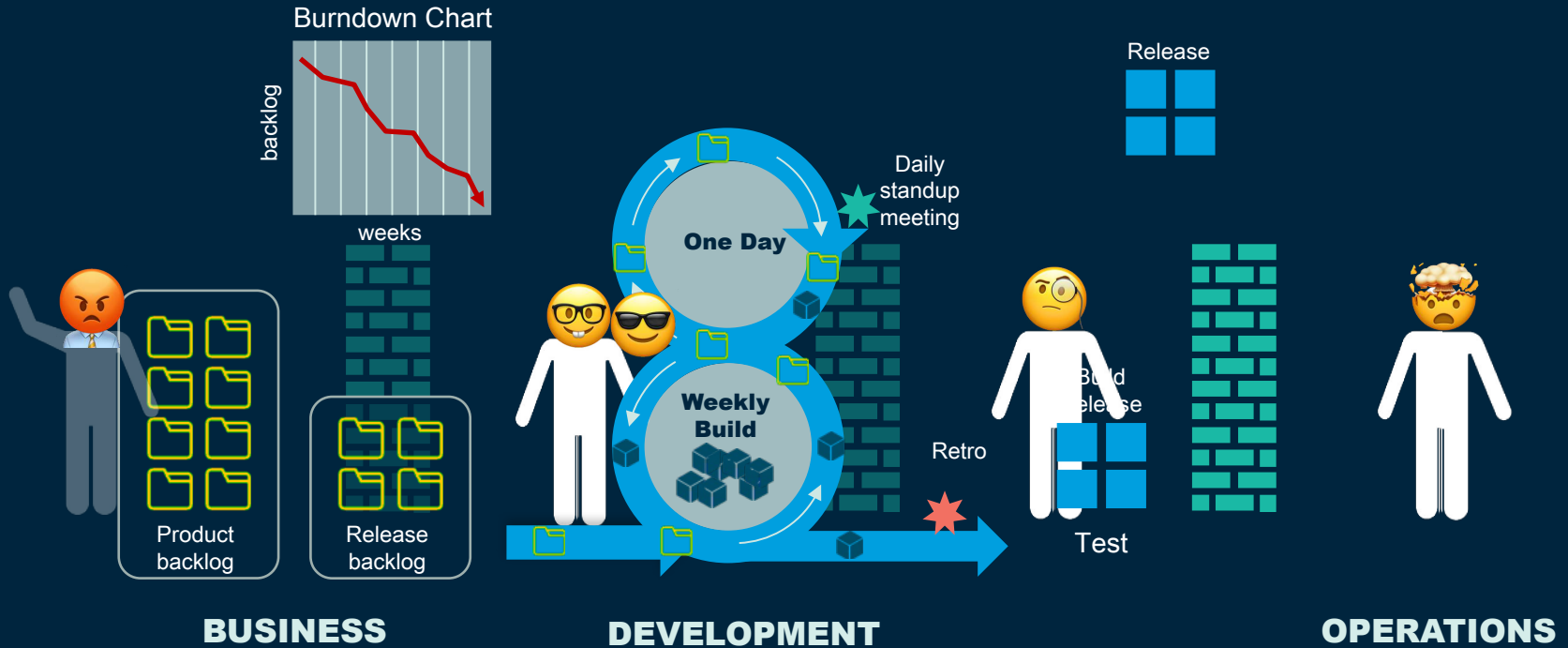


Base (2018): 3,228 Developers

Base: 546-719 Developers who work for a software company, for internal IT, or in technology services

Source: Forrester Business Technographics Developer Survey, 2014-2018.

DevOps creates developer autonomy



App Definition and Development

Database:

Streaming & Messaging:

Application Definition & Image Build:

Continuous Integration & Delivery:

Orchestration & Management

Scheduling & Orchestration:

Coordination & Service Discovery:

Remote Procedure Call:

Service Proxy:

API Gateway:

Service Mesh:

Runtime

Cloud-Native Storage:

Container Runtime:

Cloud-Native Network:

Provisioning

Automation & Configuration:

Container Registry:

Security & Compliance:

Key Management:

Cloud

Public:

This landscape is intended as a map through the previously uncharted terrain of cloud native technologies. There are many routes to deploying a cloud native application, with CNCF Projects representing a particularly well-traveled path.

CLOUD NATIVE
CONCERN FOUNDATION

CLOUD NATIVE
LANDSCAPE

Special

Platform

Certified Kubernetes - Distribution:

Certified Kubernetes - Hosted:

Certified Kubernetes - Installer:

Multi-Container Service:

Observability and Analysis

Monitoring:

Logging:

Tracing:

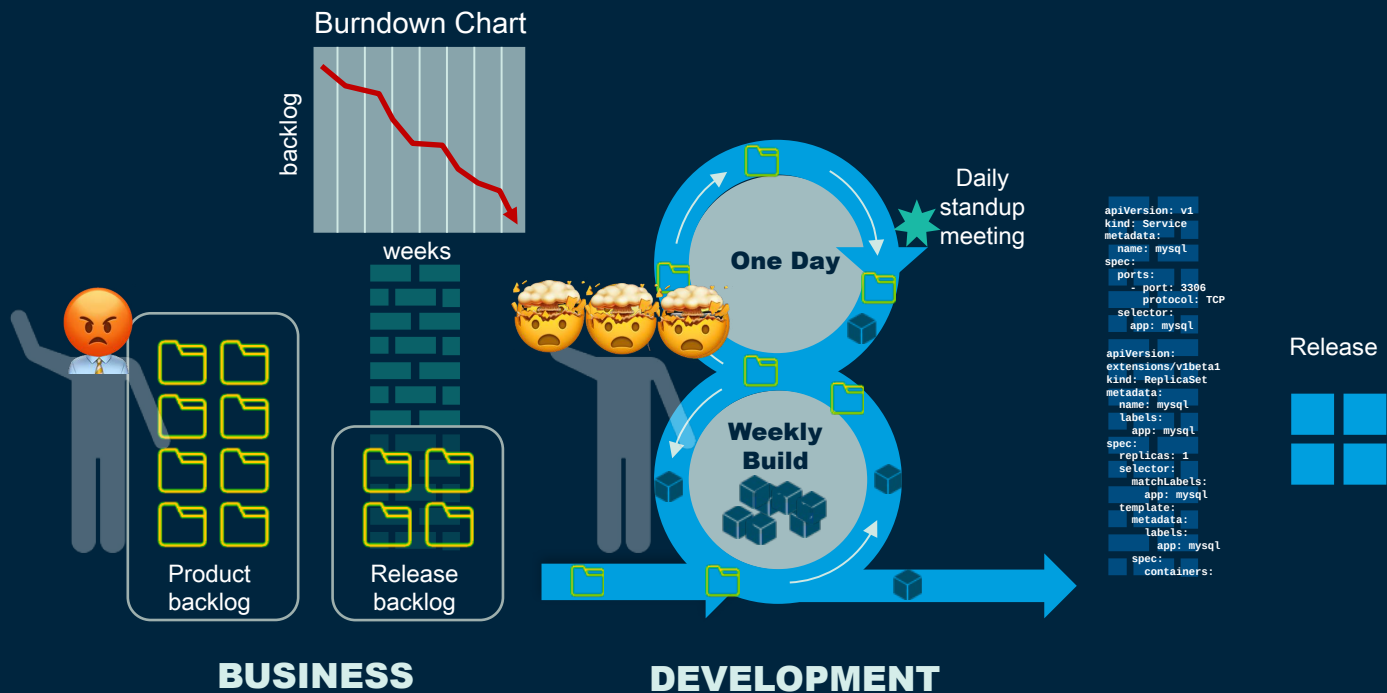
Chaos Engineering:

Serverless:

Kubernetes Certified Service Provider

Kubernetes Training Partner

DevOps has pushed developers too far down the stack



“The Business”



Corporate strategy, revenue goals, mission, etc.

Leadership, EAs, etc.



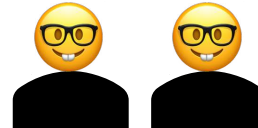
Culture, process, methodology, governance, compensation, etc.

Product teams



Platform Engineers

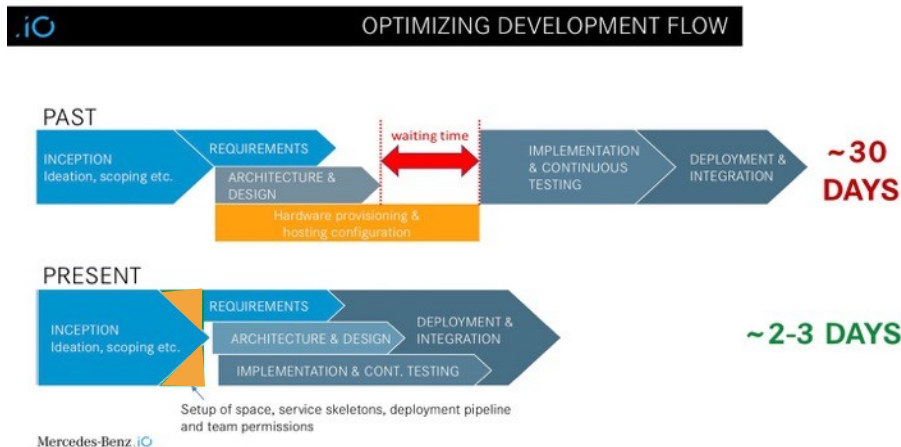
Pivotal



☁️ Private or public IaaS ☁️



Platform as a Product by removing toil



DAIMLER

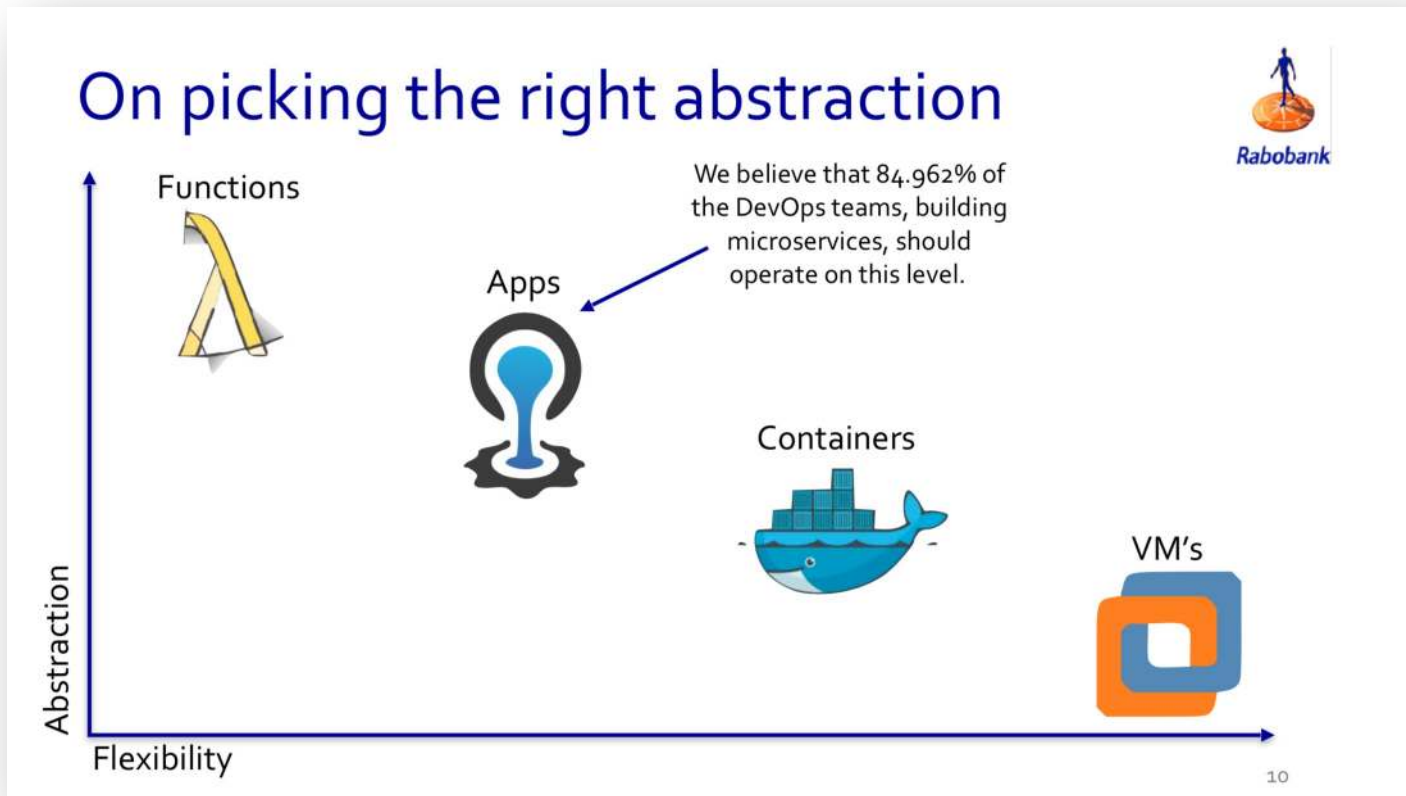
Functions

- Removes toil with automation & programming
- Stands up & manages the platform
- Creates shared services/middleware/etc.
- Consults with initial projects

Insane staff efficiency

- T-Mobile USA: 8 ops to 300 developers, 11k containers
- Dick's Sporting Goods: 6 ops to 120 devs.

Choose, govern, and garden the right platform

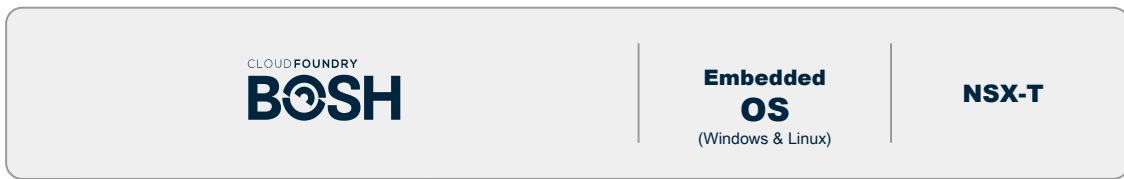
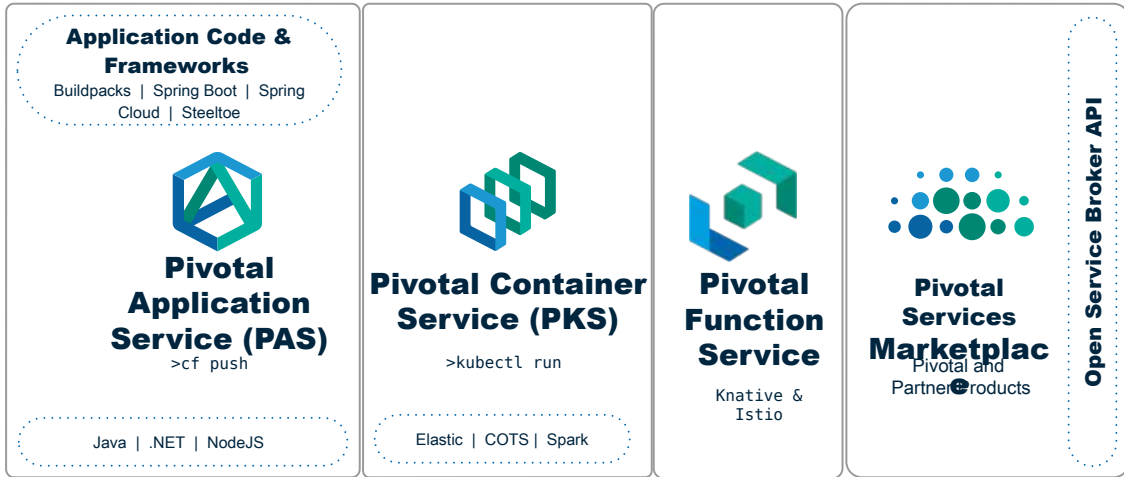




Pivotal Cloud Foundry®



Spring Boot
(or whatever else)



CPI (15 methods)



- 400% toil reduction**

- 47% reduction MTTR**

- 11.5k prod deploys a month**

- 81% reduction in downtime**

- 18,000 containers, 1,700 devs supported by 10 ops**

A consistent,
trusted platform
automates
waste, focusing
on product
support

automategrc

- 80-90% of Risk Management Framework **controls inherited** via IaaS/PaaS
- Cut **Authority-to-Operate process** from ~10 months to <1 week for ~40 remaining controls at application layer



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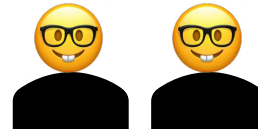


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Product teams

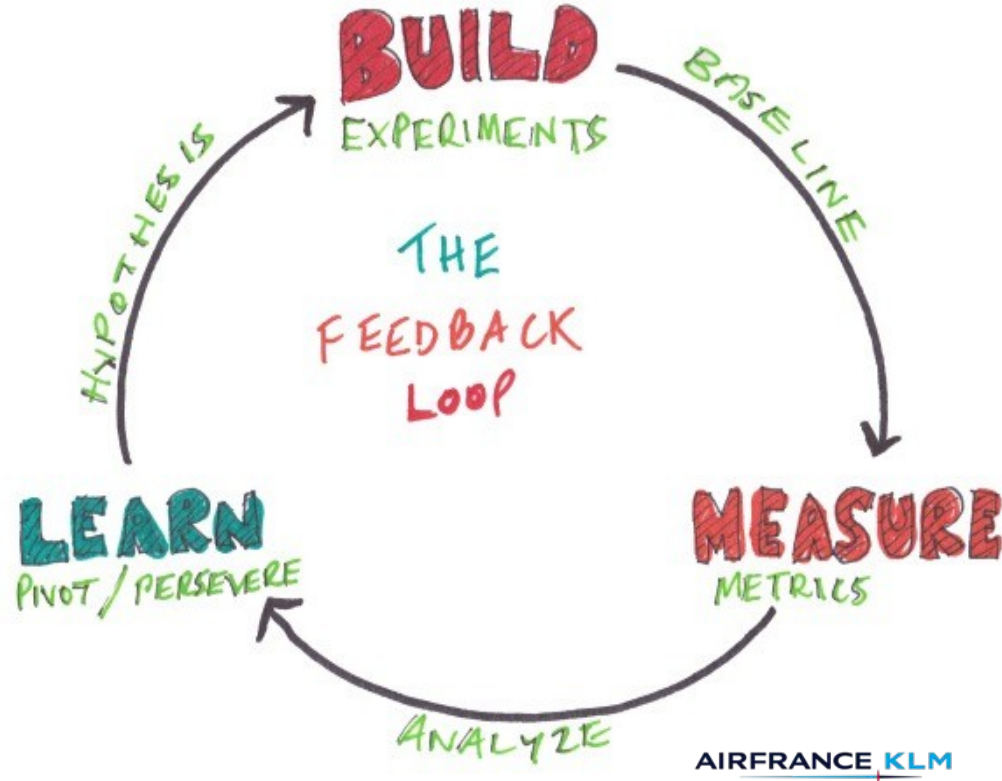


Platform Engineers



☁️ Private or public IaaS ☁️

A consistent product process



From 37% availability to \$440m in back taxes

Before

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

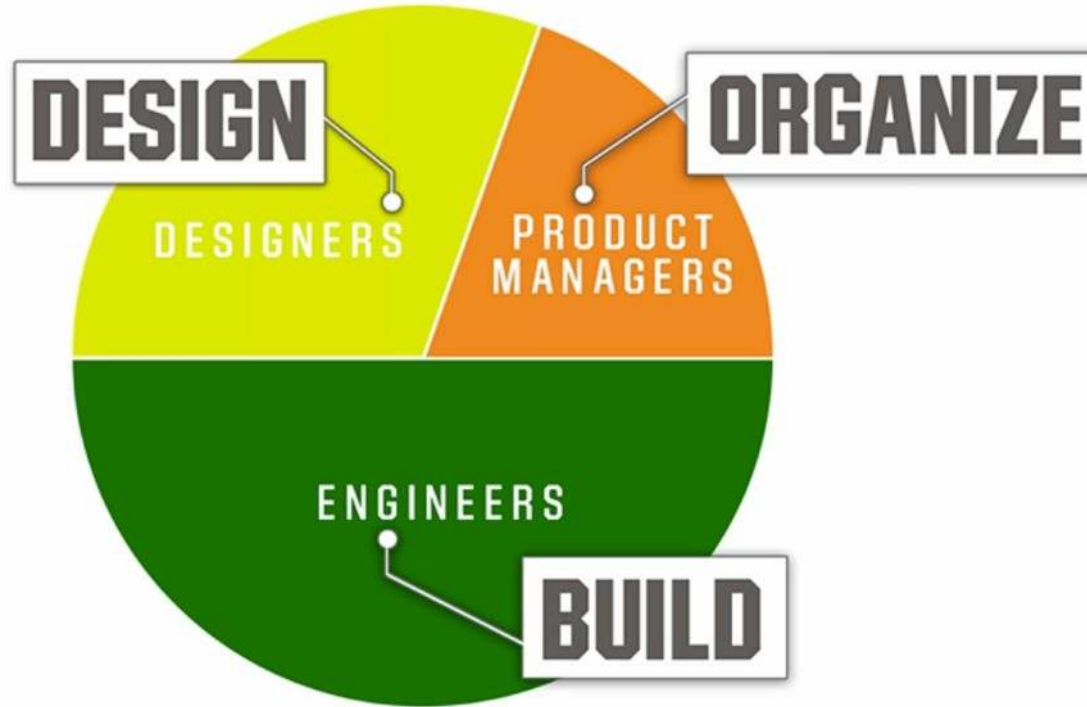
After

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

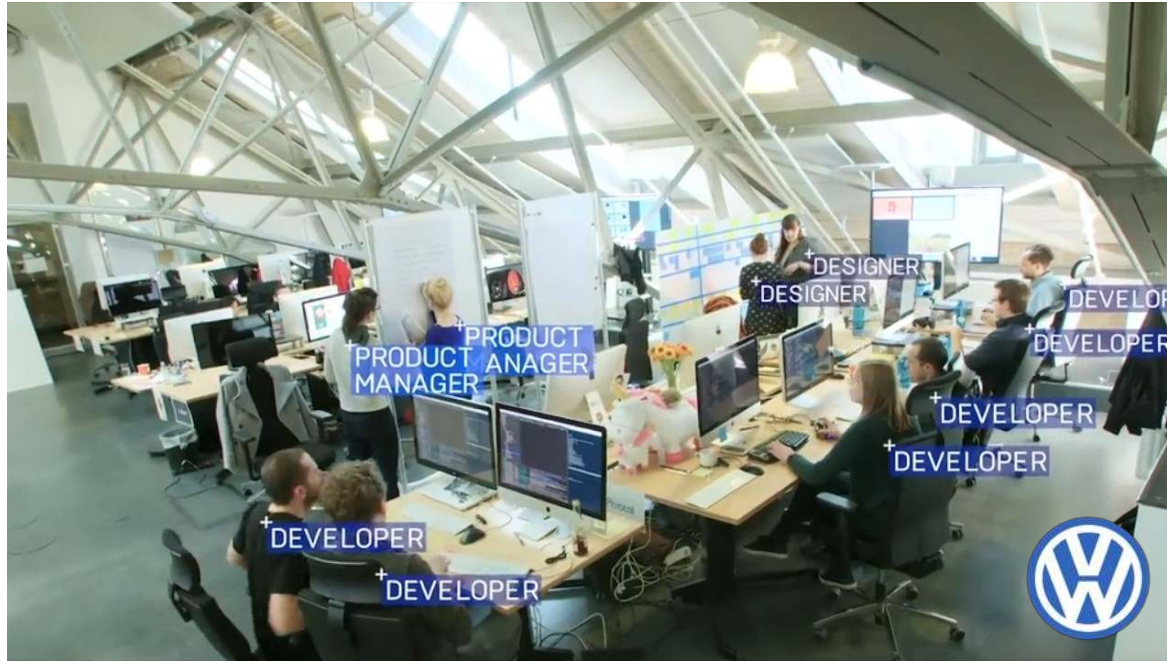
- **User-centric, small batch**
- **Only 37% of calls answered, shrinking budgets**
- **From 2 year to 9 week releases**
- **2m+ users paid \$440m in taxes**



Product centric, balanced teams



From coding 20% of the time coding to coding 90% of the time



**An agile methodology,
proven over 25+ years:**

- **Balanced teams w/all roles needed, dedicated to the product**
- **Paired programming, & beyond**
- **Test-driven Development**
- **Short iterations**
- **Continuous Integration & Continuous Delivery**

“The Business”



Corporate strategy, revenue goals, mission, etc.

Leadership, EAs, etc.

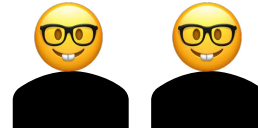


Culture, process, methodology, governance, compensation, etc.

Product teams



Platform Engineers



☁️ Private or public IaaS ☁️

~~OPPRESS~~
~~ANARCHY~~

DON'T Tell Me
What To Do!!

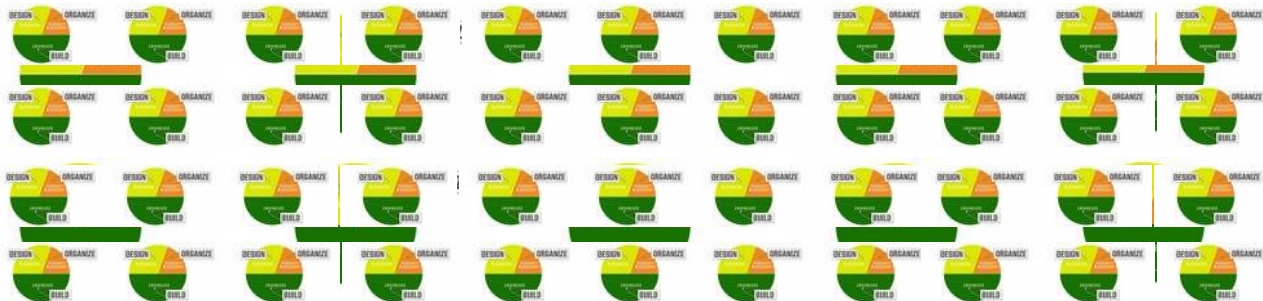
Enterprise architects are key to scaling

**Leadership, EAs,
etc.**

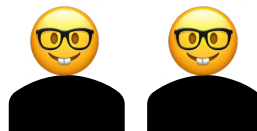


Culture, process, methodology, governance, compensation, etc.

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**Platform
Engineers**



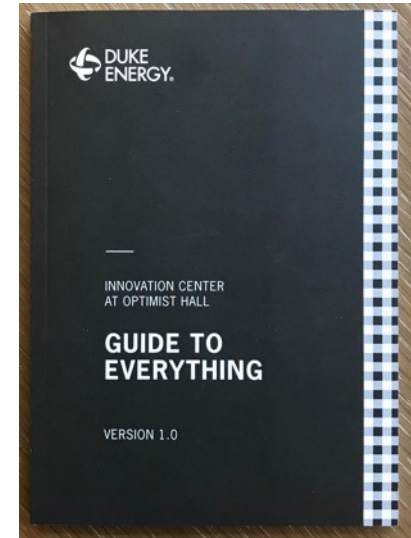
☁️ Private or public IaaS ☁️

Changing is often too hard, so create a new organization



Internal marketing, branding, etc.

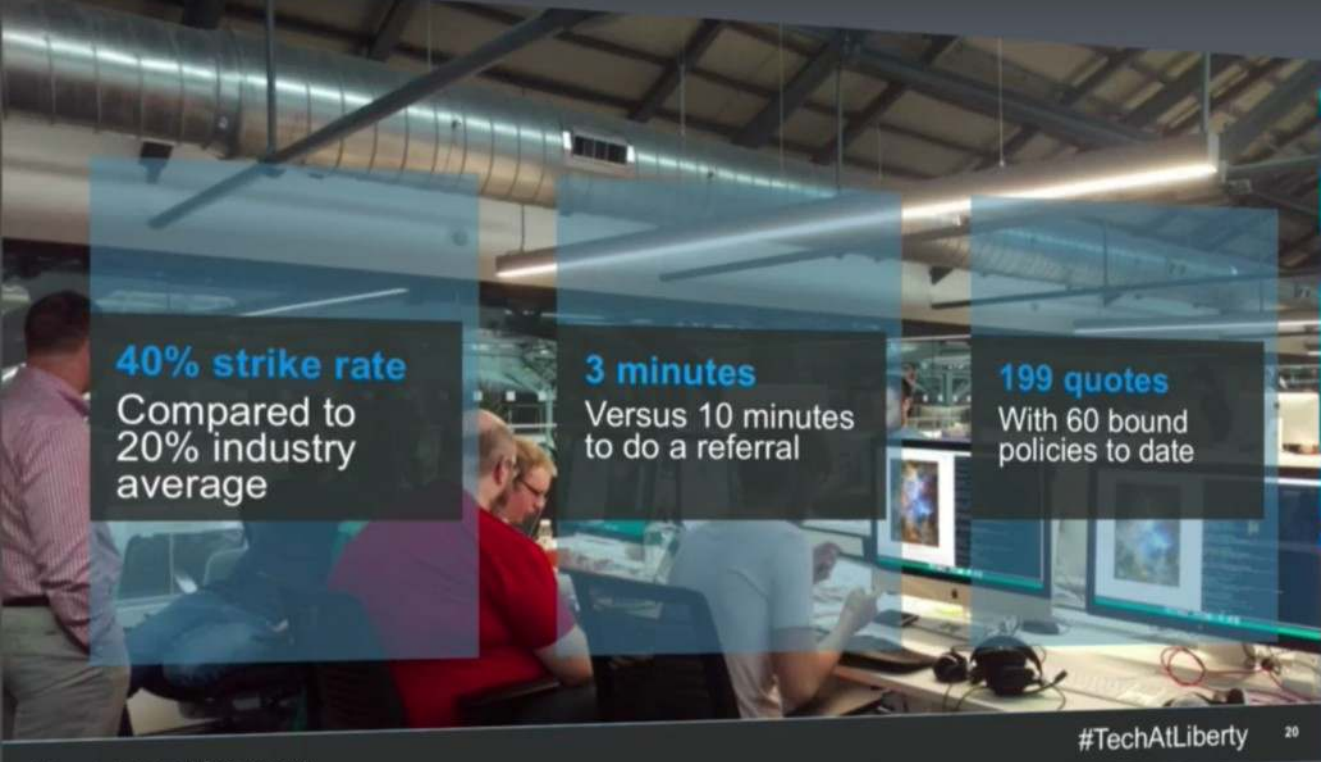
Organizational Learning



“ We hire people with the required capabilities and pair them up with the incumbents, and the result is that those capabilities are multiplied across the organization. This is rooted in the simple belief that in order to learn something, you must experience and practice it rather than hear about it in a classroom setting.”

Piyush Gupta, DBS Bank

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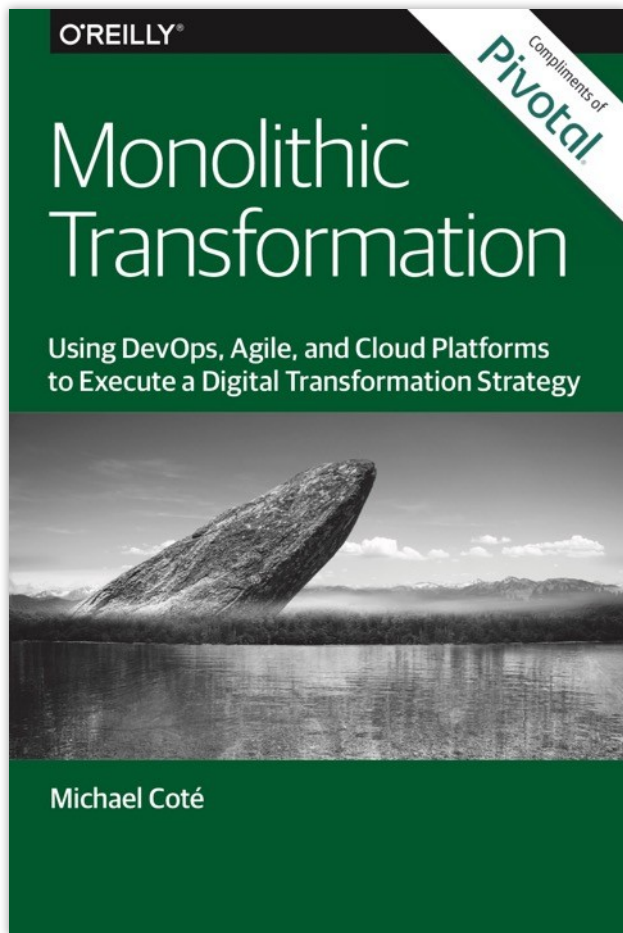


Liberty Mutual Insurance

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