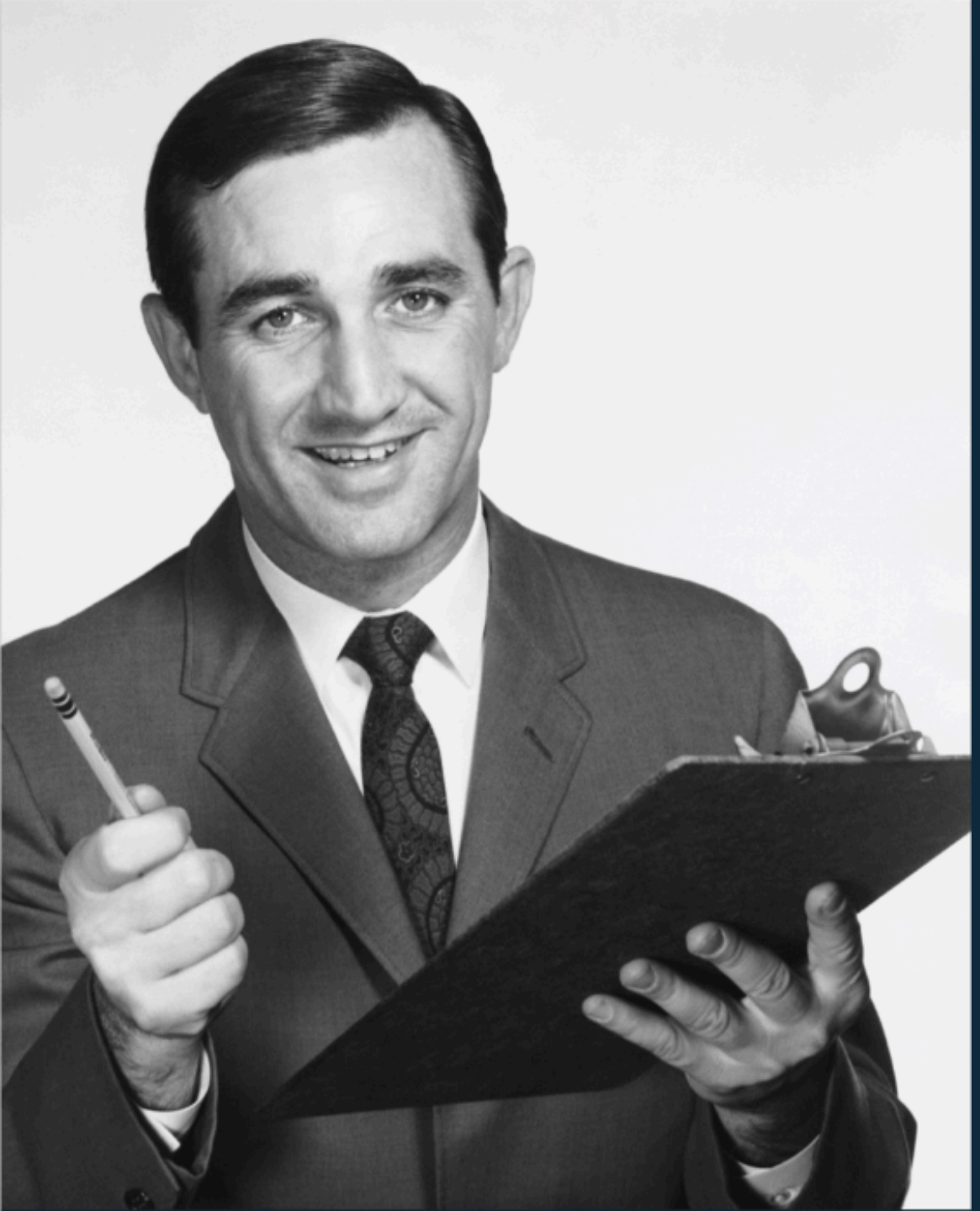


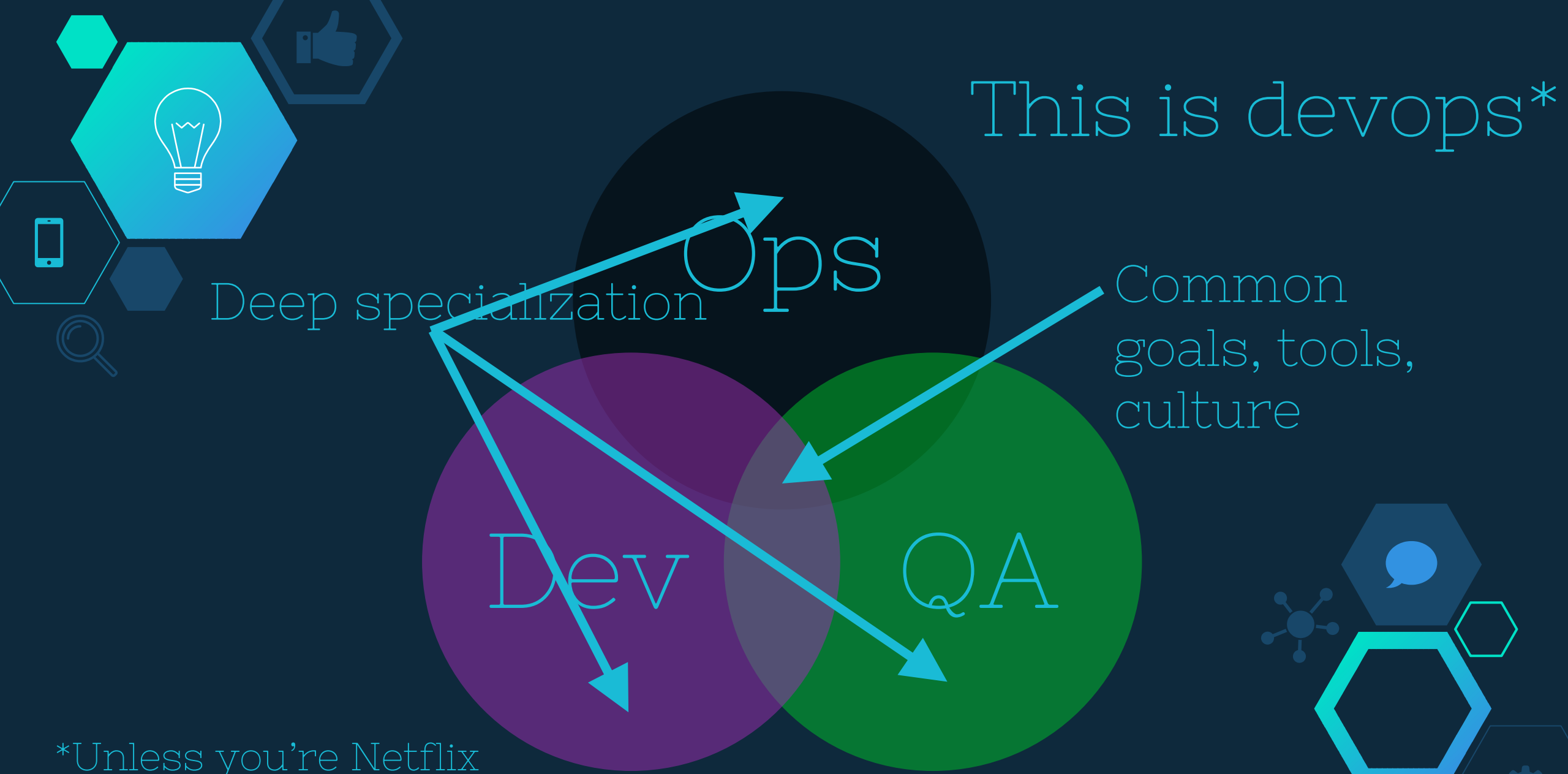
Research into DevOps bottlenecks

Why “research”?
We interview people

- VP R&D @ JFrog
- CTO @ Bugsee
- CTO @ Top Israeli Finance Firm
- VP Engineering at CA Technologies
- CTO @ ScentBird
- Architect, a top Fortune-Rated Privately-Held Tech Firm
- Applications Engineering Manager at Fortune 500 SW Company
- Architect, US Army (Contractor)

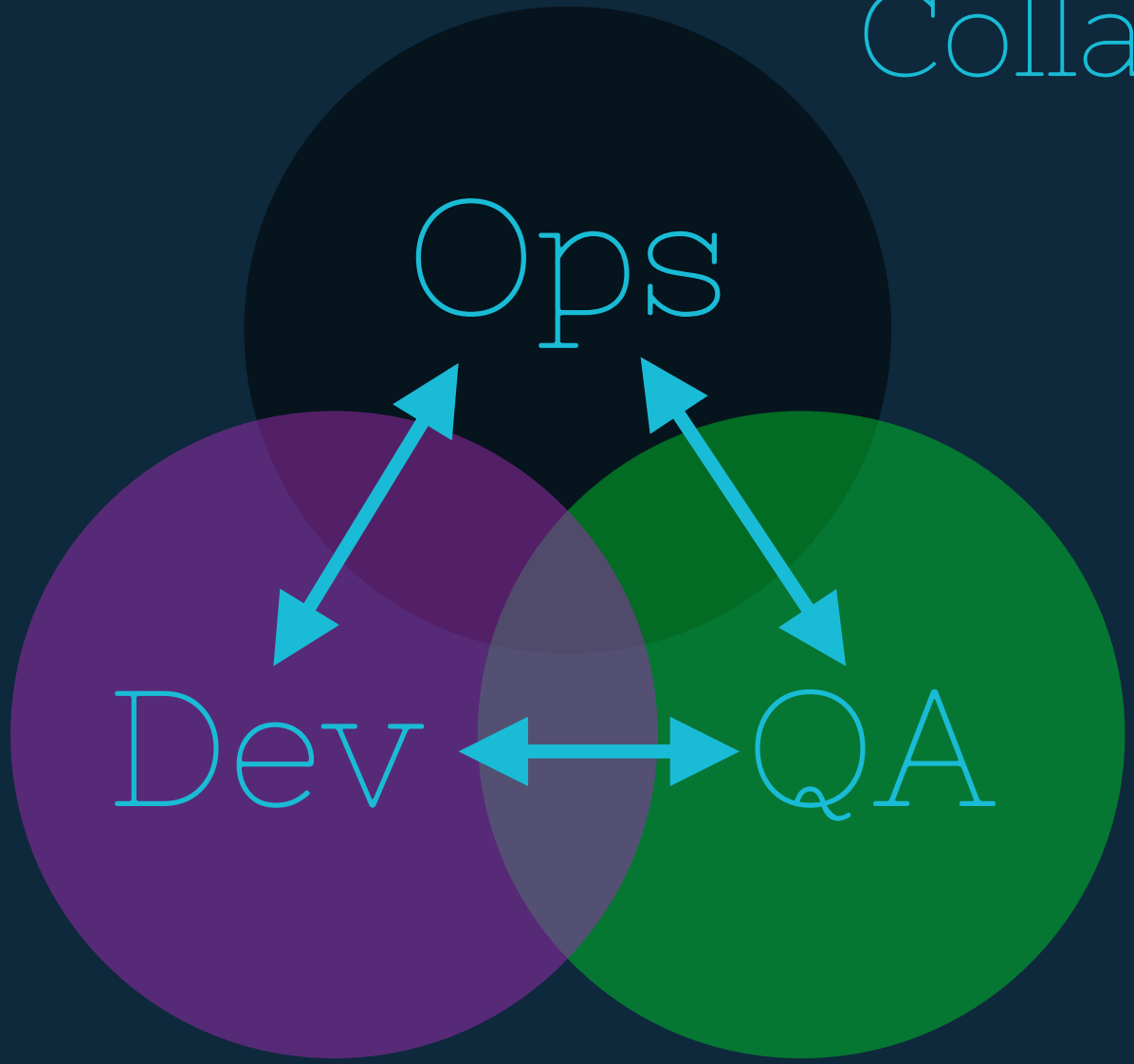
What is DevOps?

This is devops*

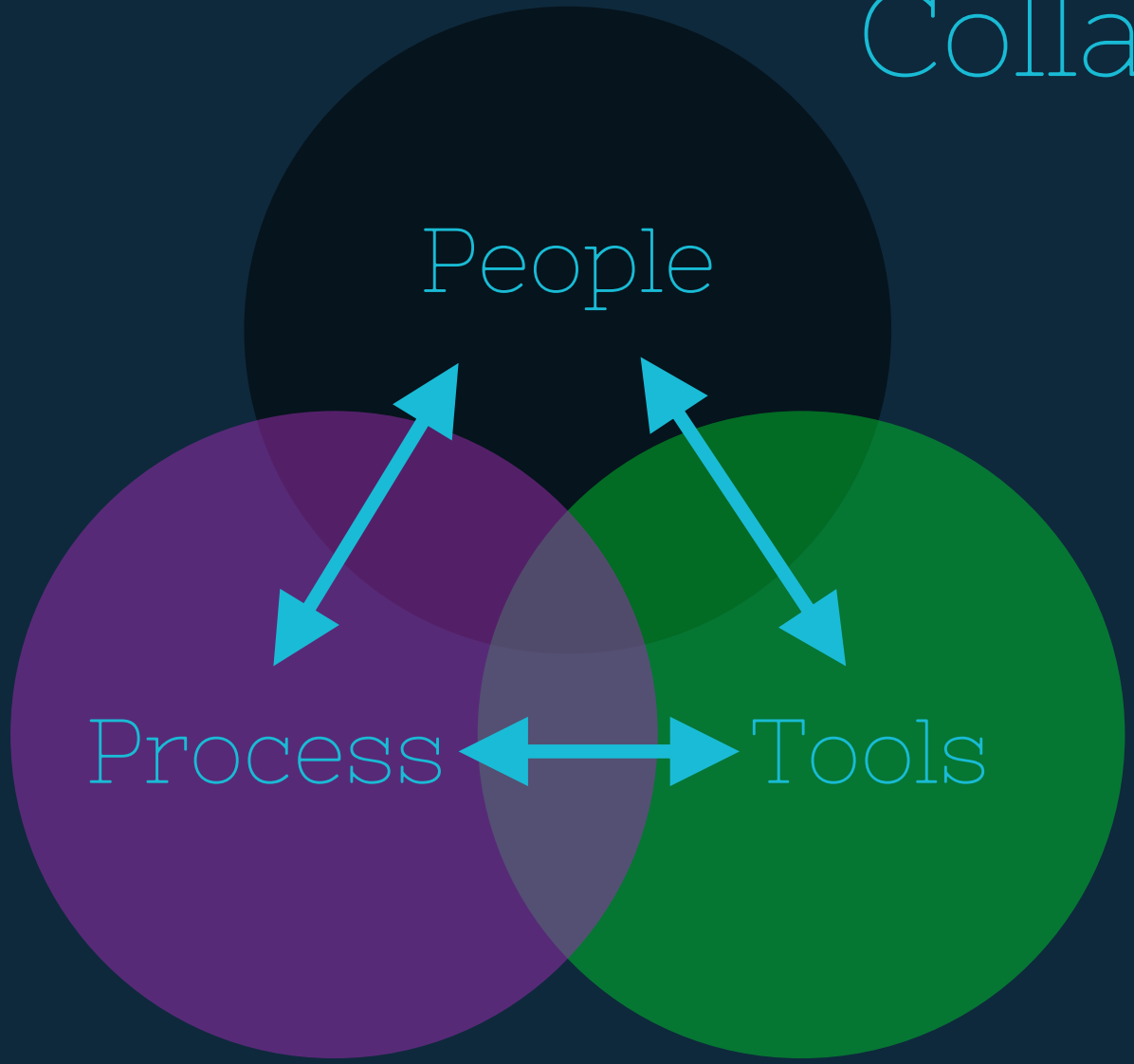


*Unless you're Netflix
**You're not

Collaboration



Collaboration



BARUCH SADOGURSKY

CHIEF STICKER OFFICER

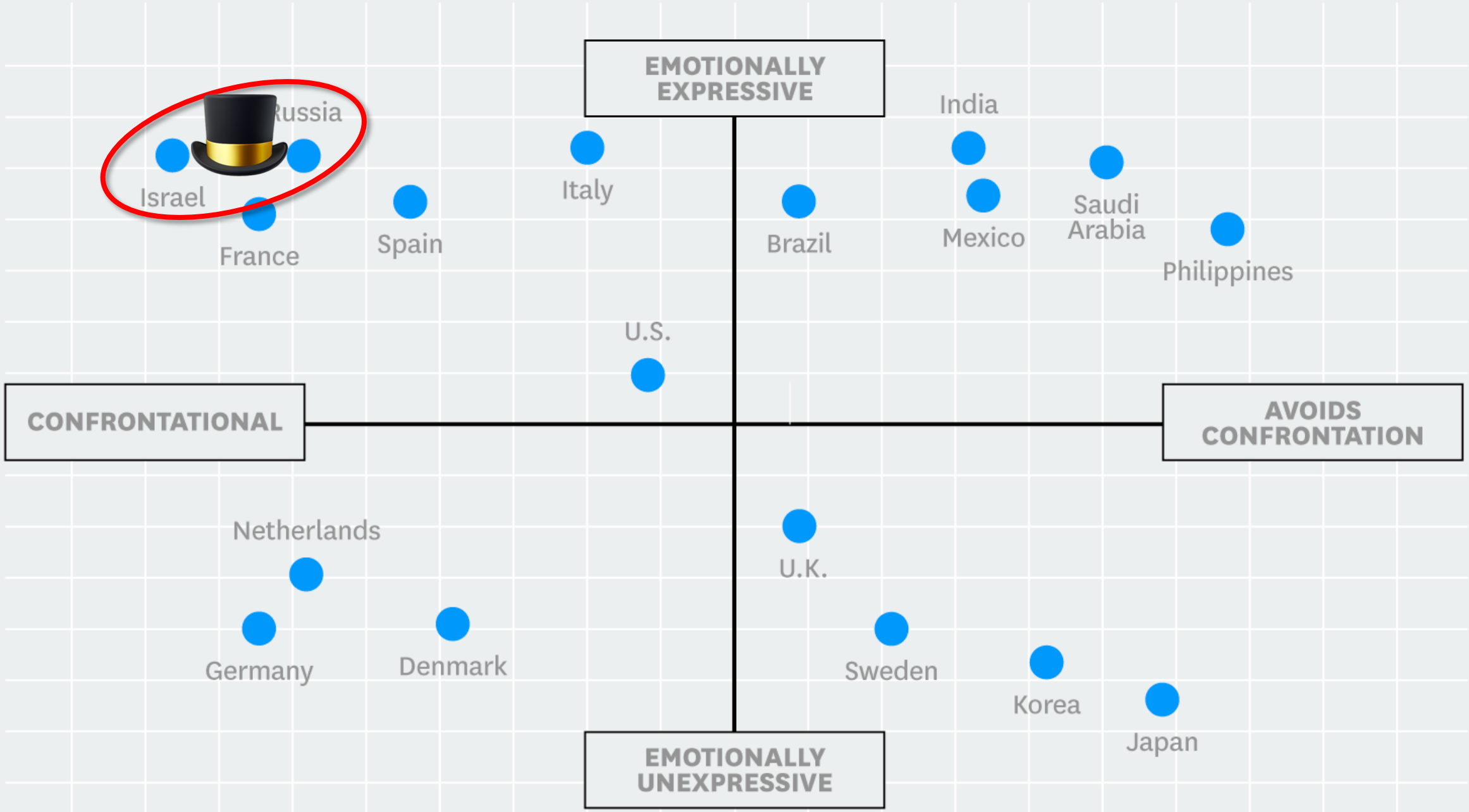
(ALSO 🎩 OF DEVELOPER ADVOCACY)

JBARUCH@JFROG.COM

@JBARUCH

+1(408)890-9281

JFrog



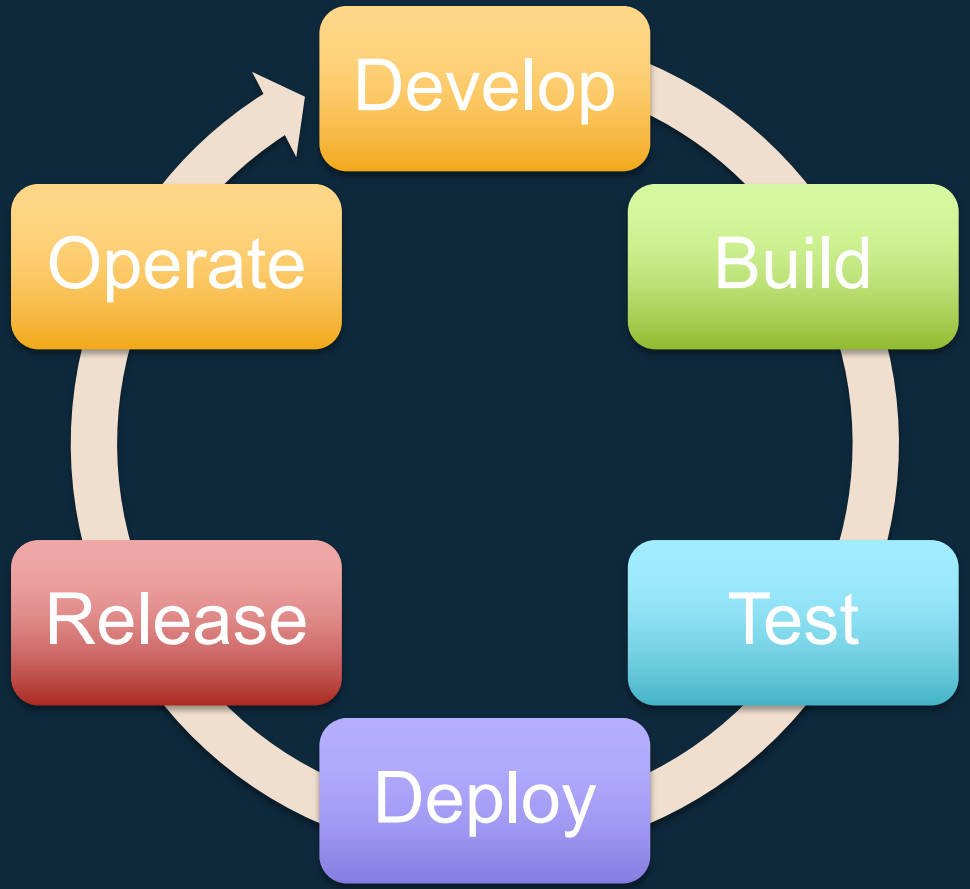
@ErinMeyerINSEAD's "Culture Map"

Shownotes

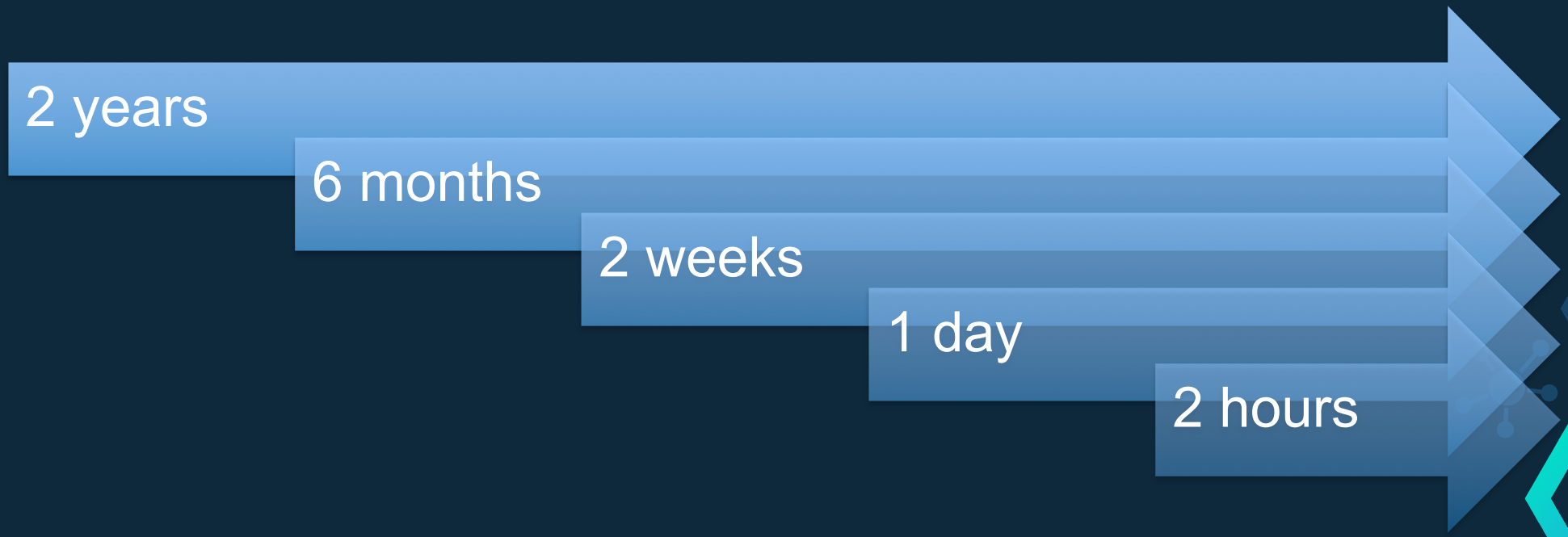
- The slides
- The video
- All the links
- Comments, ratings
- Raffle!

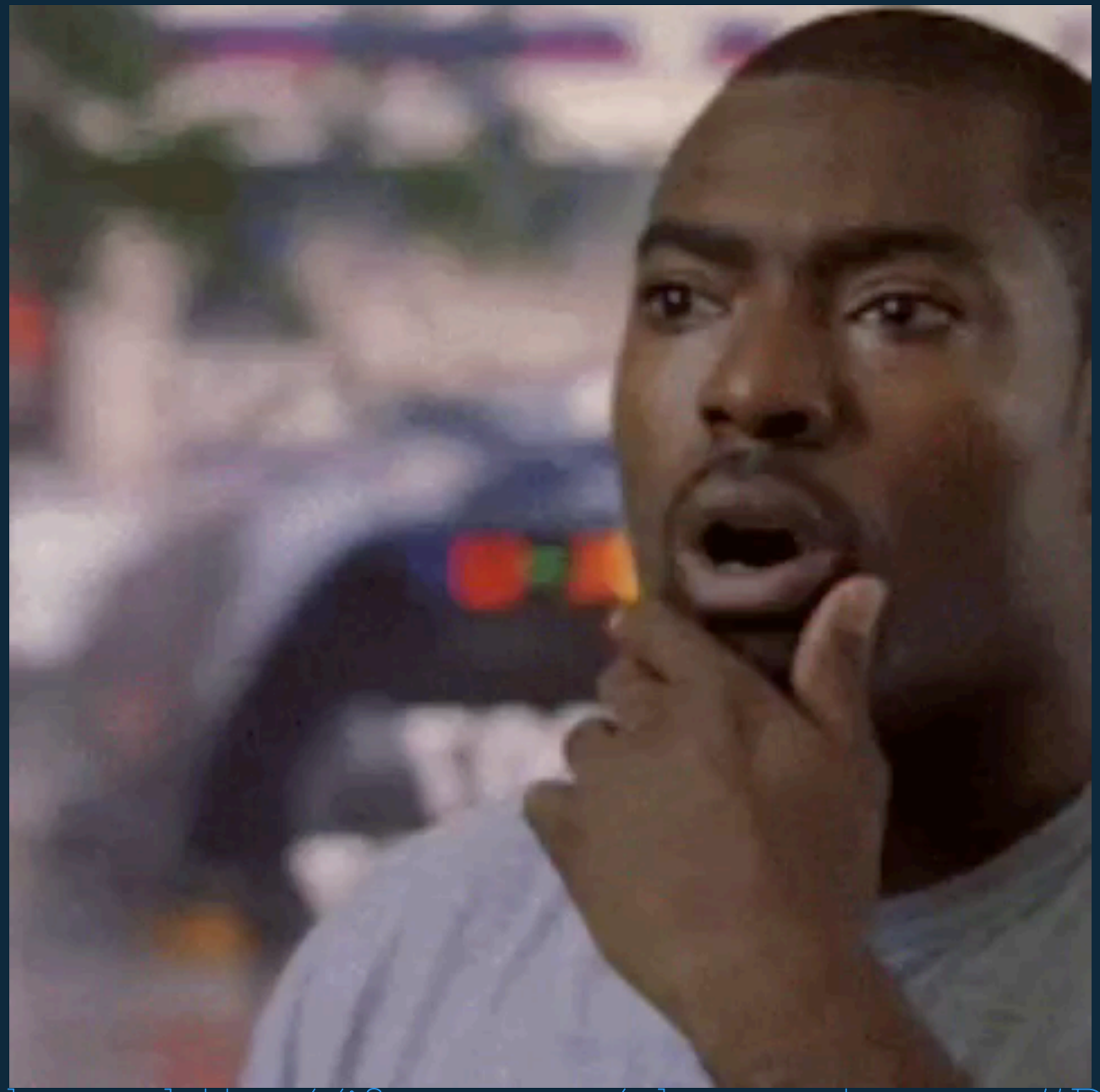
What bottlenecks?

DevOps and Delivery



Release cycles





Are they happy with it?

0% Satisfied

20% Satisfied

50% Satisfied

80% Satisfied

100% Satisfied

How do you know it's good?

“

I don’t measure it because I’ve had no complaints

> When the bug queue is empty, we are good

“

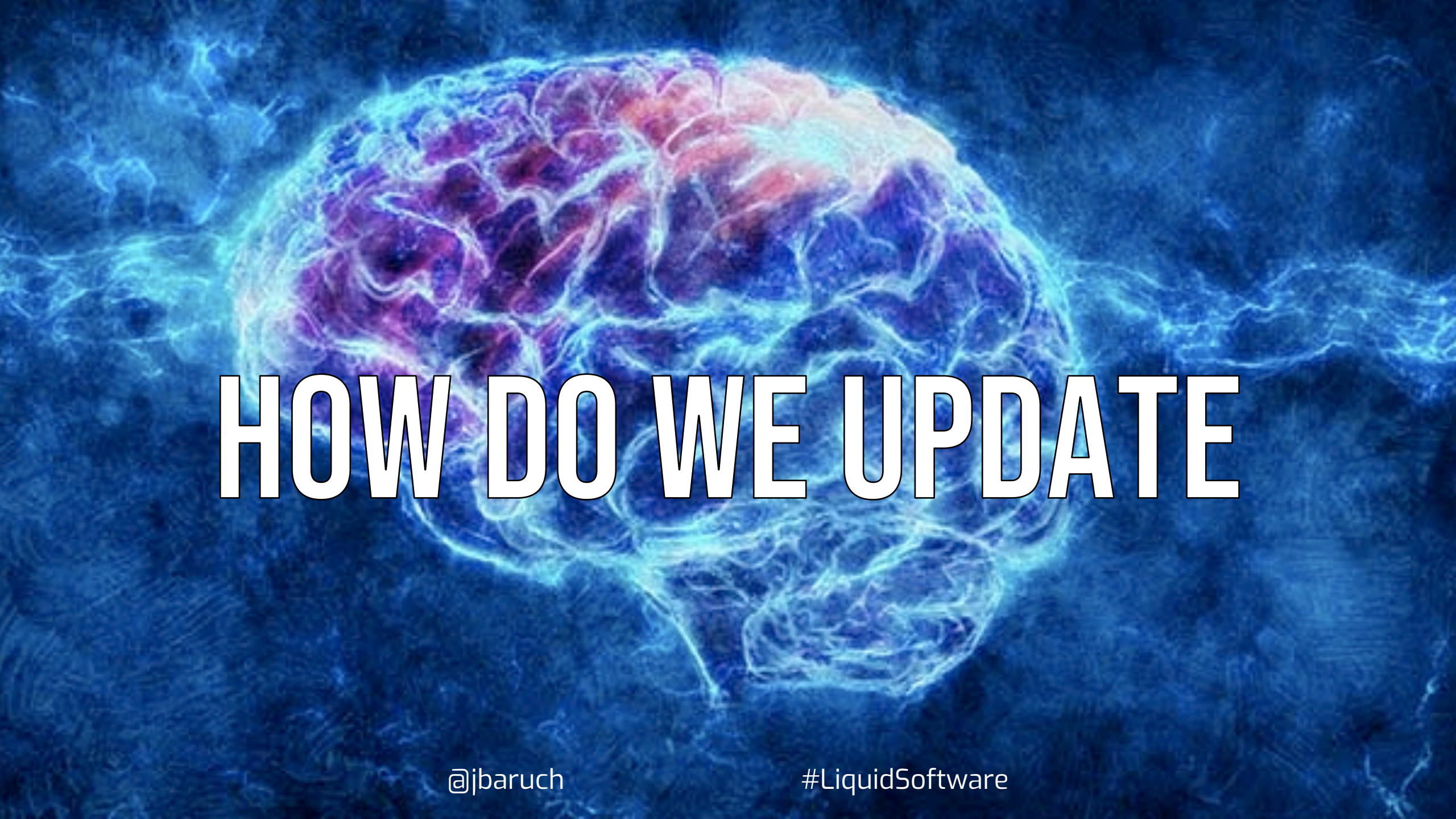
When I get fewer tickets on the process

> Automation of every single piece

Other measures

- Version adoption
- Bug Burn-down diagram
- Productivity Gains “used to be 2 days, now its 2 minutes”
- Quality, No Regressions!
- MTTR
- Business metrics

What's the right release cycle?


HOW DO WE UPDATE
@jbaruch
#LiquidSoftware

Update available

Do we want it?

Yes

No

Are there any high risks?

Yes

No

Do we trust the update?

No

Yes

Let's update!

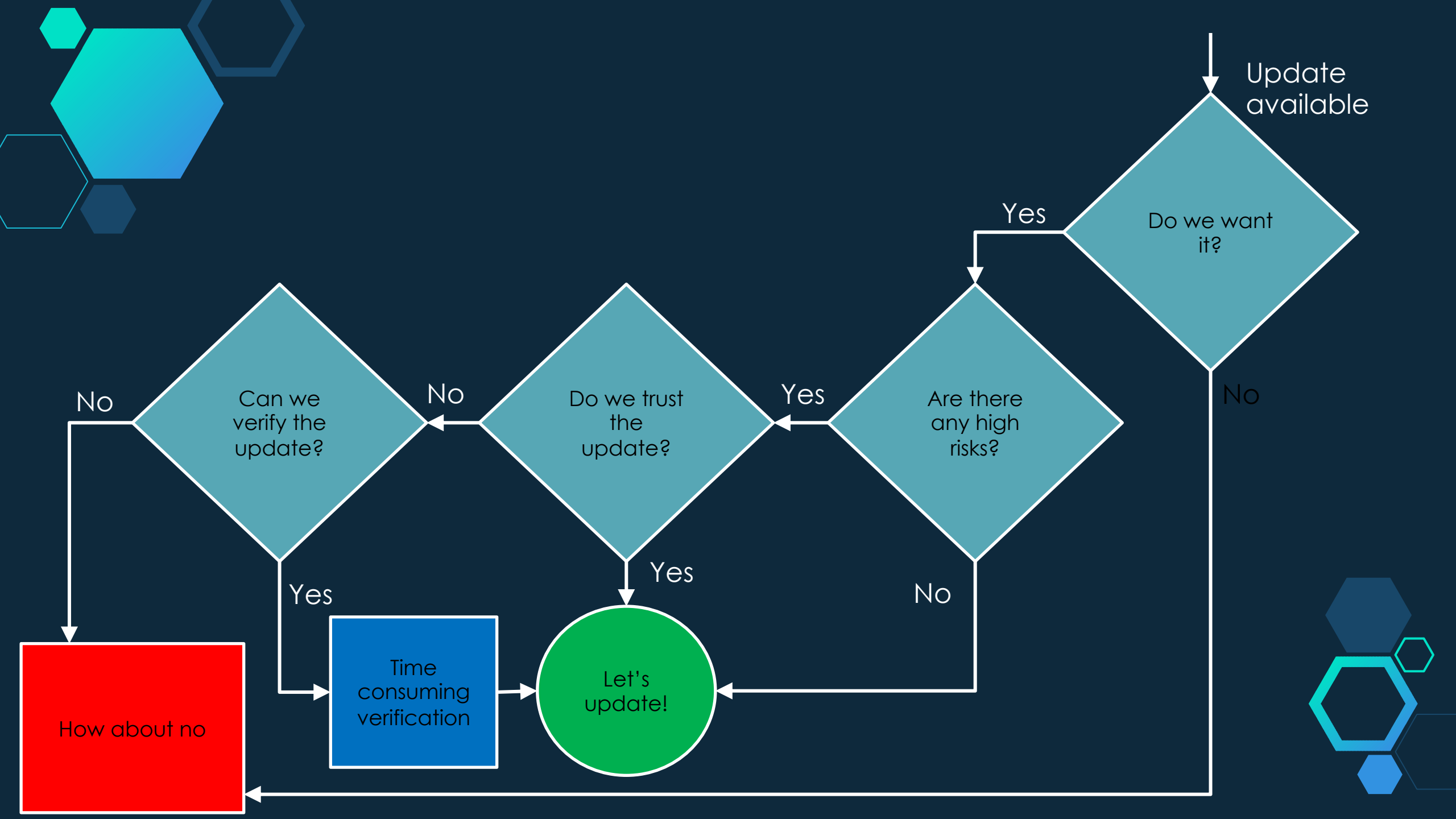
Yes

How about no

- Acceptance tests

- The dreadful updates

- Impossible dilemma: we need the update, but it will break things


Update available
Do we want it?
Yes
No
Are there any high risks?
Yes
No
Do we trust the update?
No
Yes
Can we verify the update?
No
Yes
How about no
Time consuming verification
Let's update!

Features that we want

Acceptance tests costs

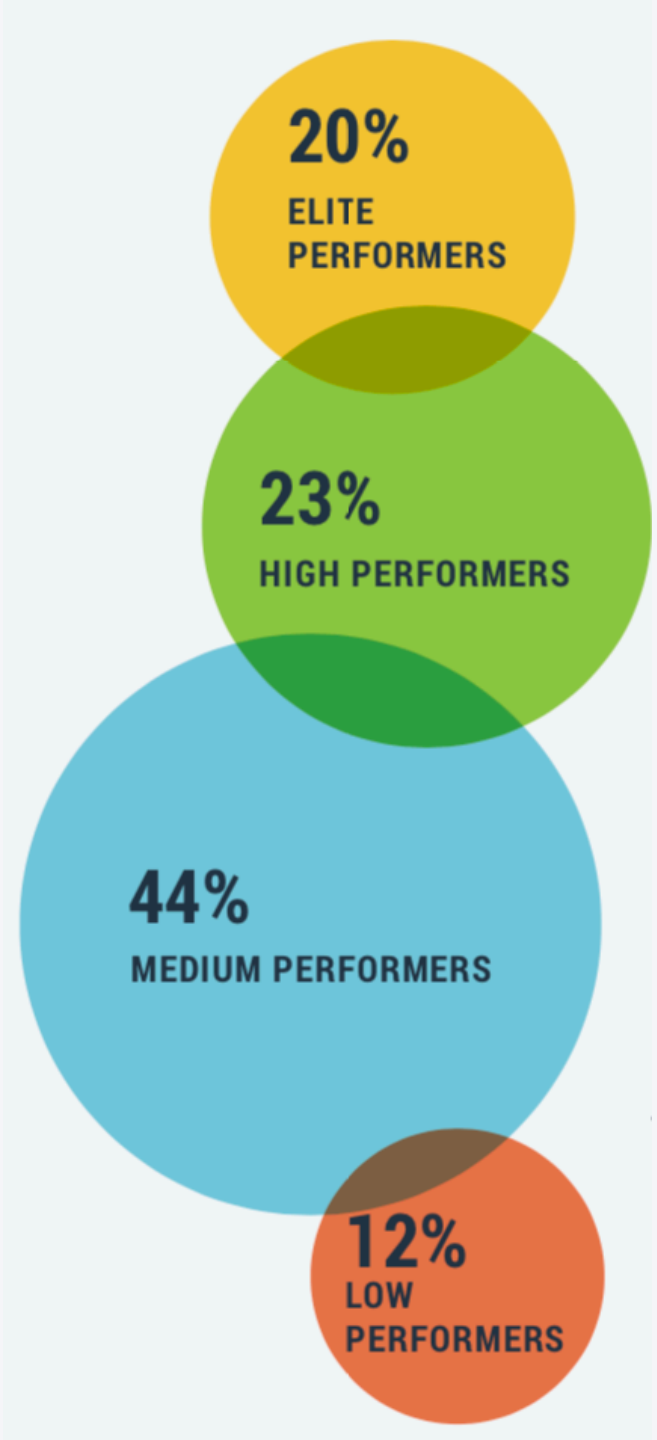
ACCELERATE

State of DevOps 2019

Sponsored by

WHO TOOK THE SURVEY?

DORA's research provides insight into software development and DevOps practices applied in industry, backed by scientific studies spanning six years with over 31,000 survey responses from working professionals. This year, almost 1,000[2] individuals from a range of industries around the world added their voices to the 2019 Report. Overall, we see similar representation across key demographic and firmographic measures when compared to last year, other than a noticeable drop in the reported percentage of women on teams.


20%
ELITE
PERFORMERS
23%
HIGH PERFORMERS
44%
MEDIUM PERFORMERS
12%
LOW
PERFORMERS

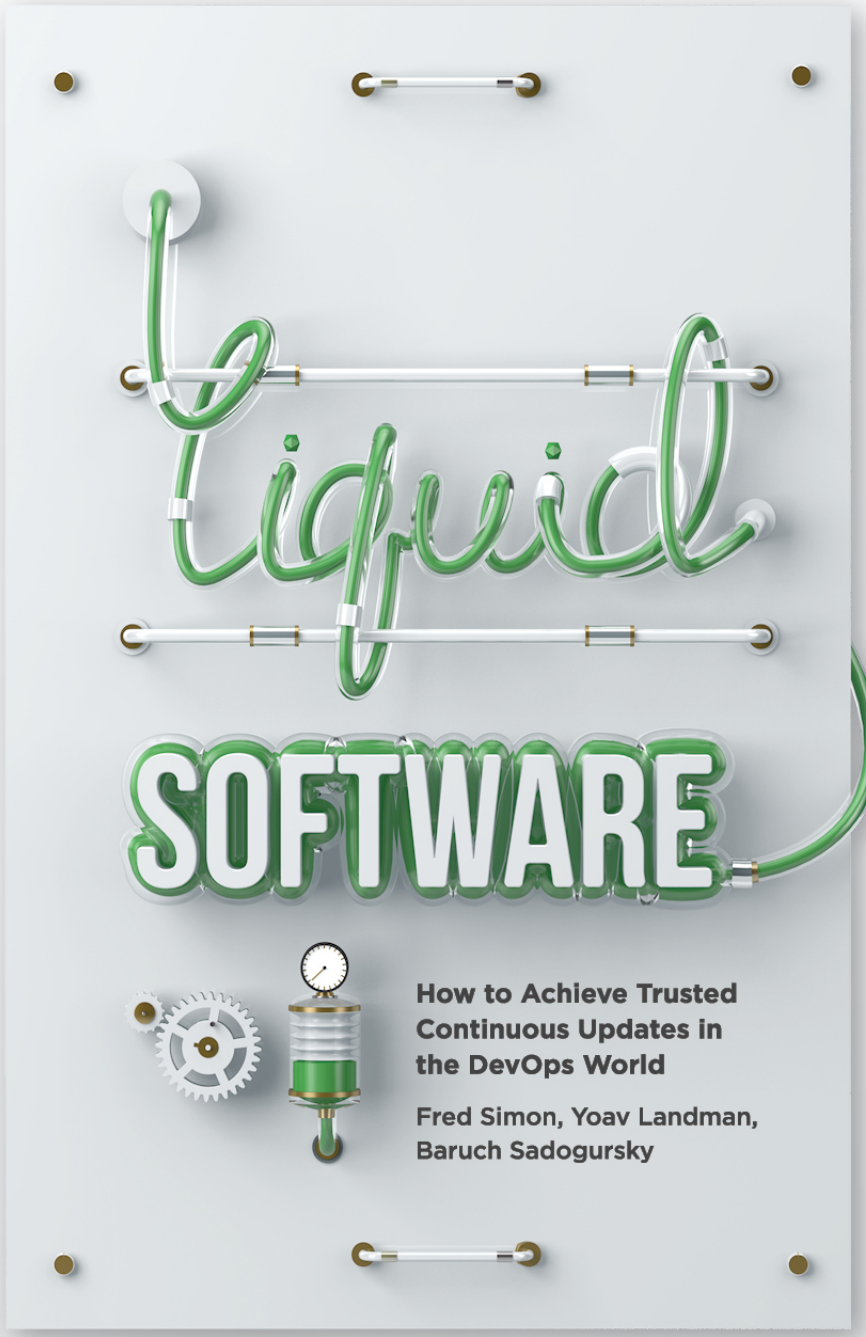
Aspect of Software Delivery Performance*	Elite
Deployment frequency For the primary application or service you work on, how often does your organization deploy code to production or release it to end users?	On-demand (multiple deploys per day)

This is not a new idea!

- XP: short feedback
- Scrum: reducing cycle time to absolute minimum
- TPS: Decide as late as possible and Deliver as fast as possible
- Kanban: Incremental change

Continuous updates

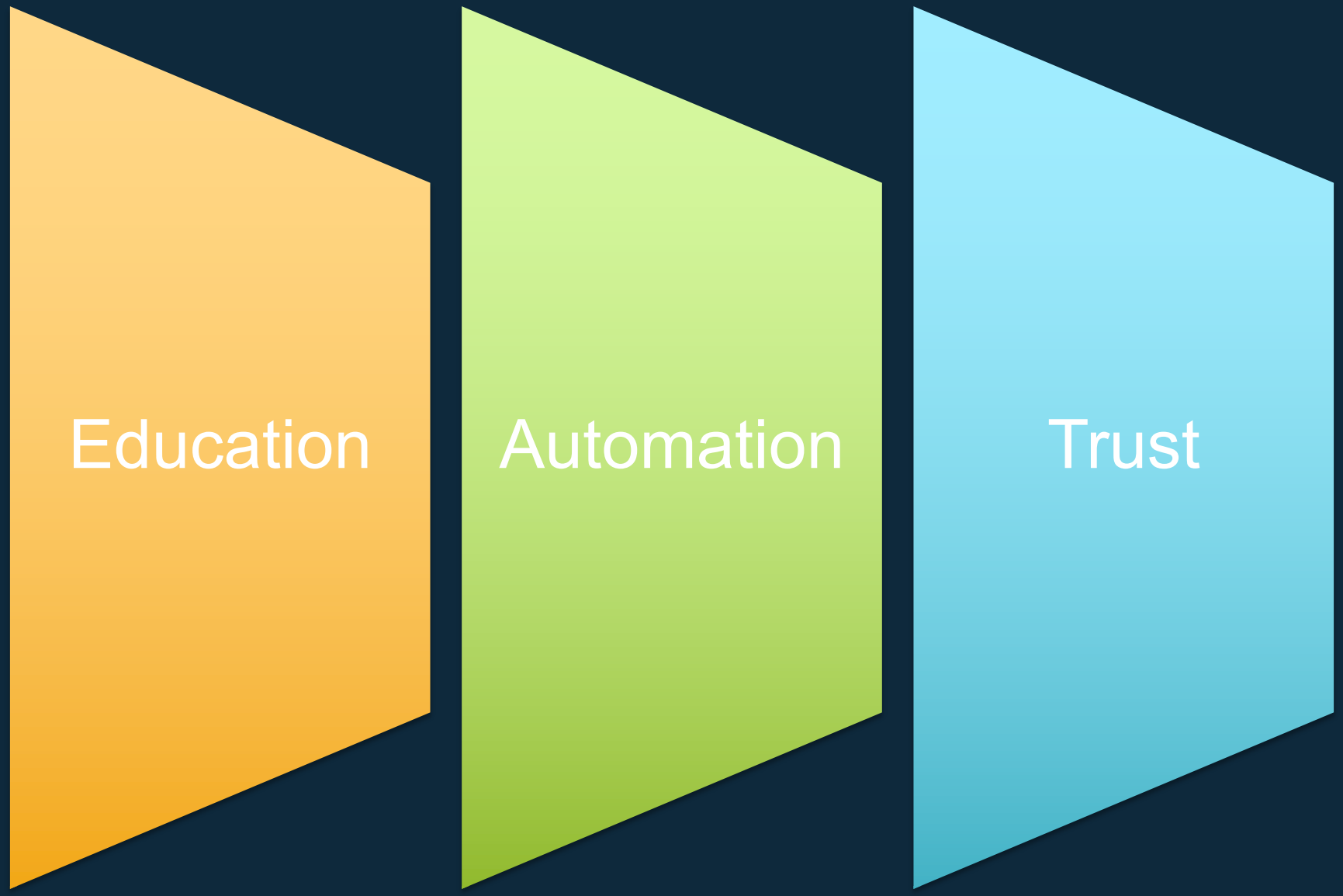
- Frequent
- Automatic
- Tested
- Canary
- State-aware
- Observability
- *Local Rollbacks


liquid
SOFTWARE
How to Achieve Trusted Continuous Updates in the DevOps World
Fred Simon, Yoav Landman, Baruch Sadogursky

You don't offload quality tests to customers

The customers are always ready to update

You just lost the last excuse for not releasing fast


Education
Automation
Trust

> Pain is instructional

“

You need to know,
You need to believe,
You need to give a sh*t

Also,

“Activation Energy”

CITY EXAMINER
LATE EDITION
HUNDREDS OF JOBS LOST AFTER COMPANY ADOPTS DEVOPS
NEWS UPDATE
SPECIAL REPORT
Island Vacations
GOSSIP
ImageChef.com

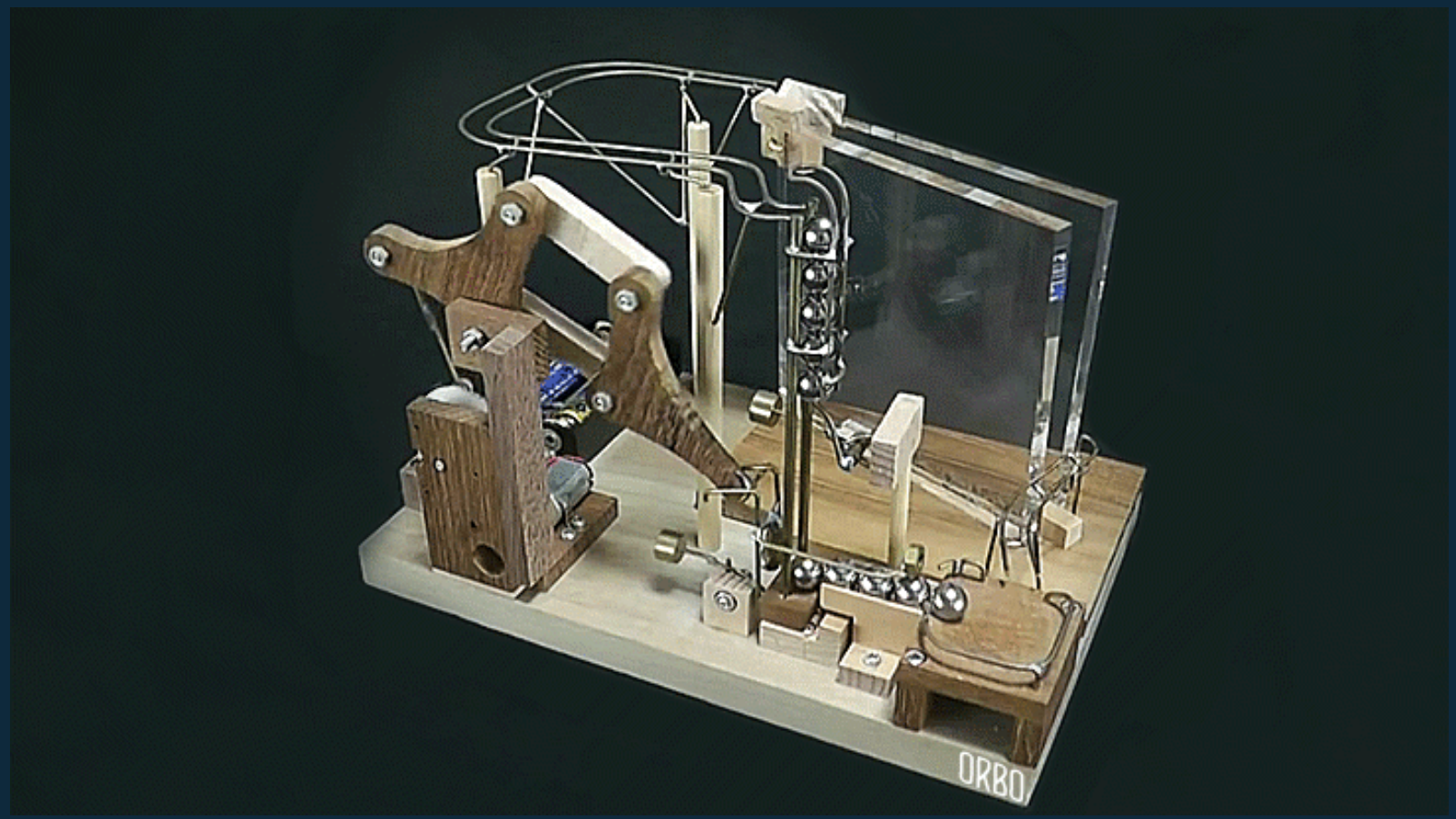
RESIST
FAKE
NEWS
CITY EXAMINER
LATE EDITION
HUNDREDS OF JOBS
LOST AFTER COMPANY
ADOPTS DEVICES
NEWS UPDATE
Island Vacations
GOSSIP
ImageChef.com

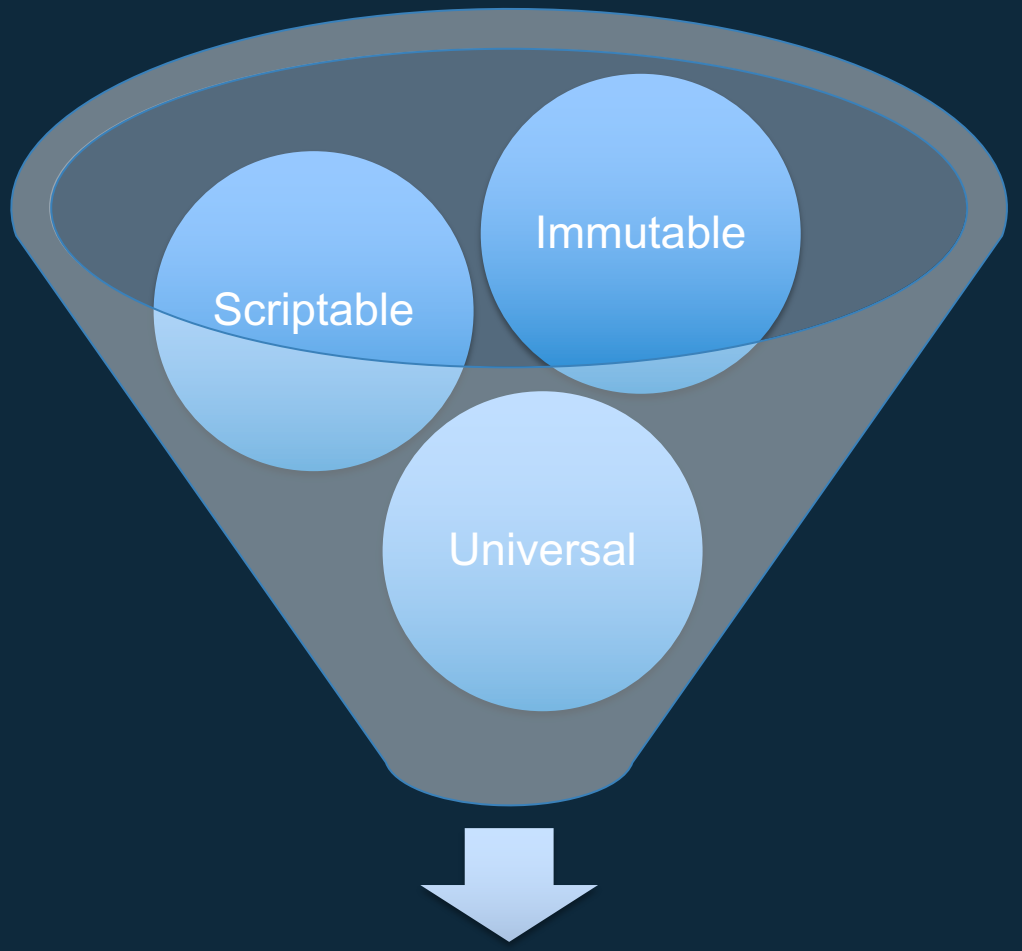
First push is hard

Keep your eye on the prize

For an older code base this could take more than a year to achieve, but its still worth it

Tools





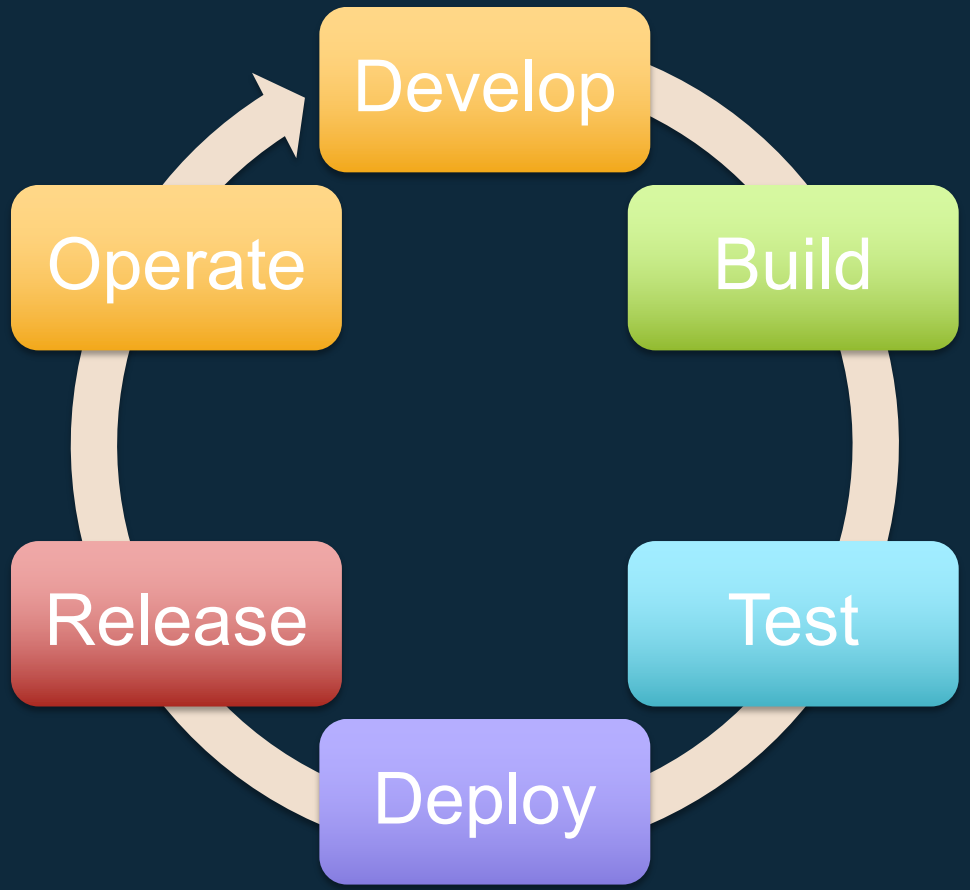
Repeatable!

Guide, don't dictate
Aim for the 80%

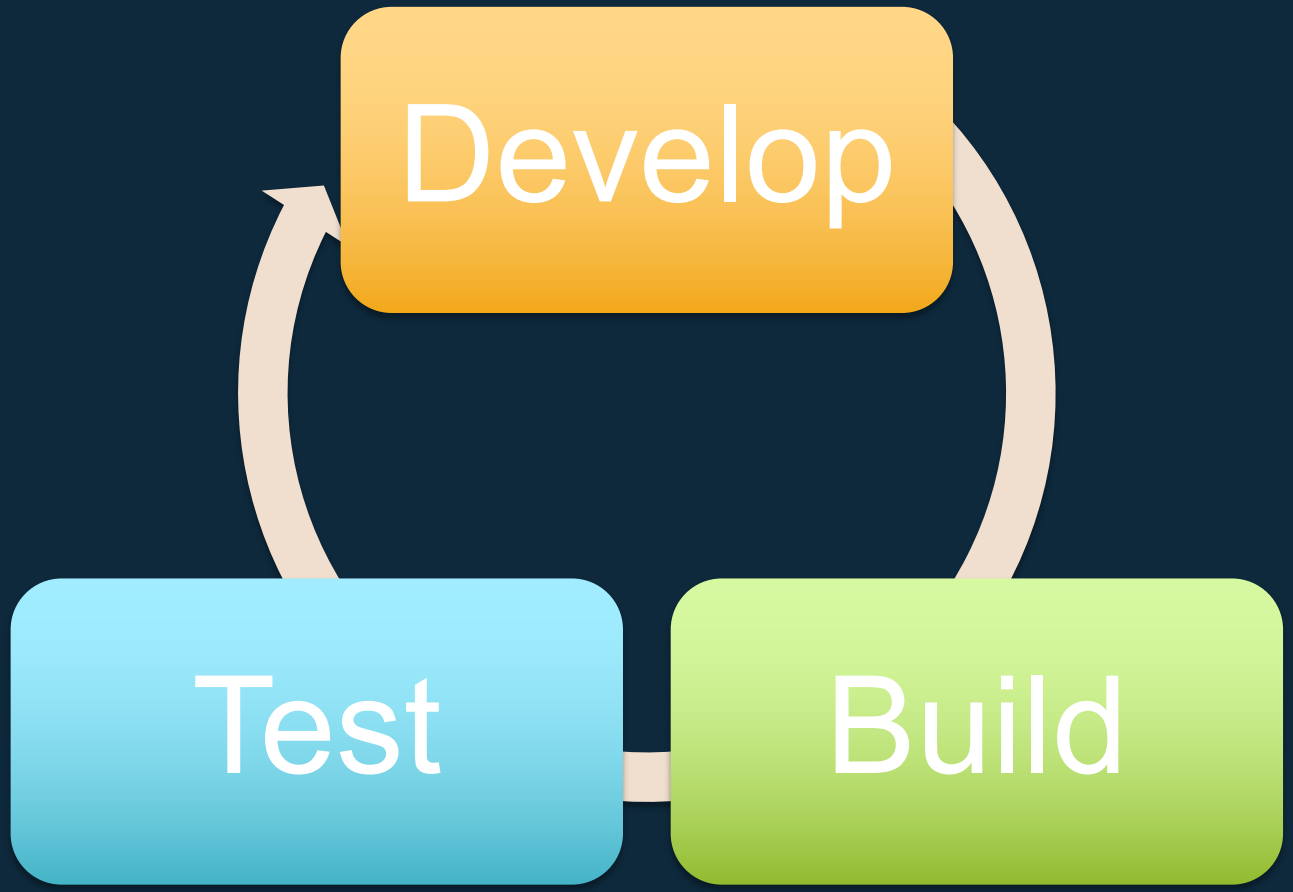
Tool	Rating
Java	Invest
JFrog Artifactory	Invest
JFrog Xray	Research
Gradle	Invest
Maven	Maintain
Ant	Divest

Let's talk about trust

Remember this?



Some commits should fail!



INATTENTION TO RESULTS
AVOIDANCE OF ACCOUNTABILITY
LACK OF COMMITMENT
FEAR OF CONFLICT
ABSENCE OF TRUST

Quality is the bottleneck

Automatic testing is not enough

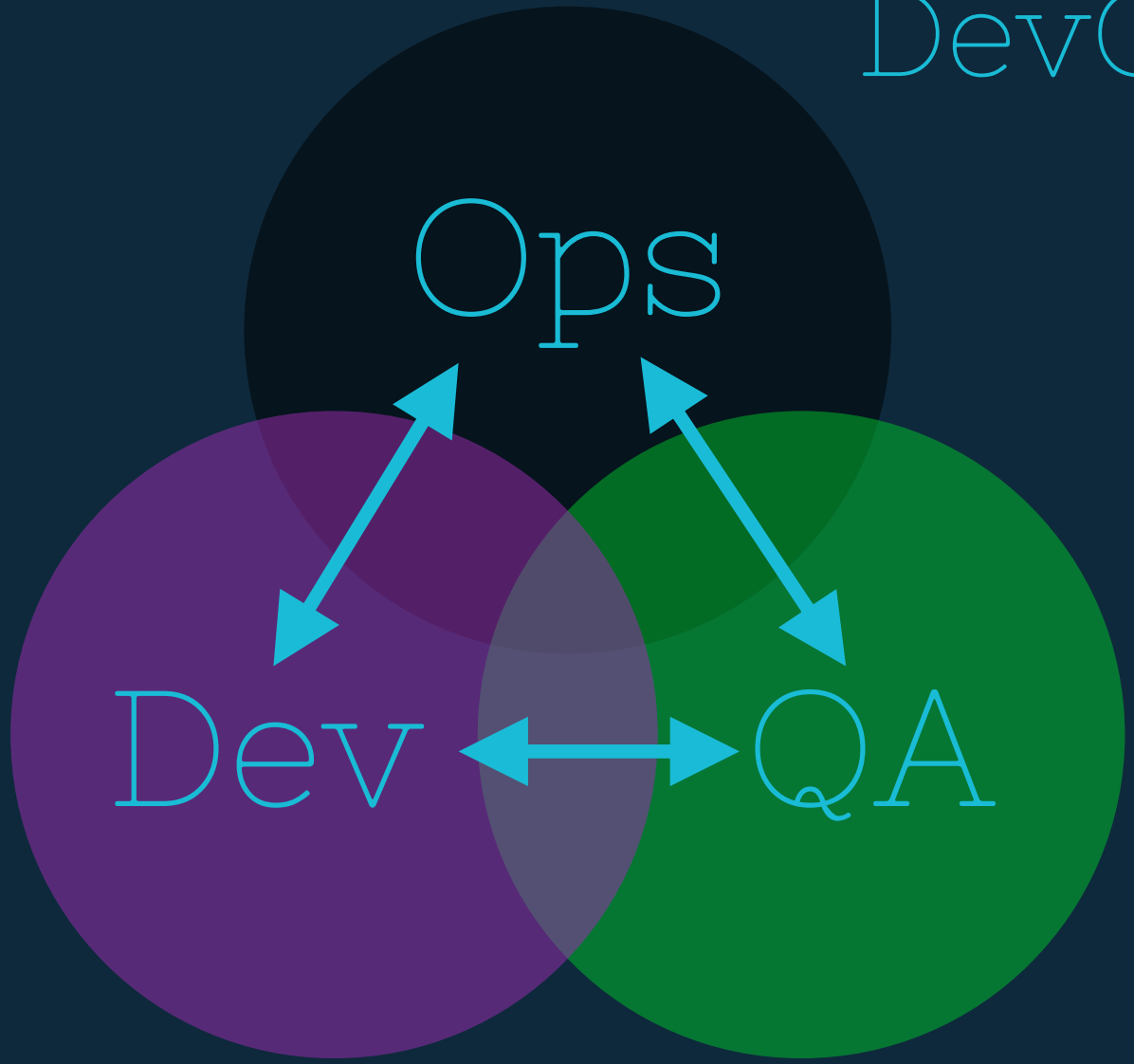
The “big green button” concept is lack of trust in quality

Quality is the bottleneck

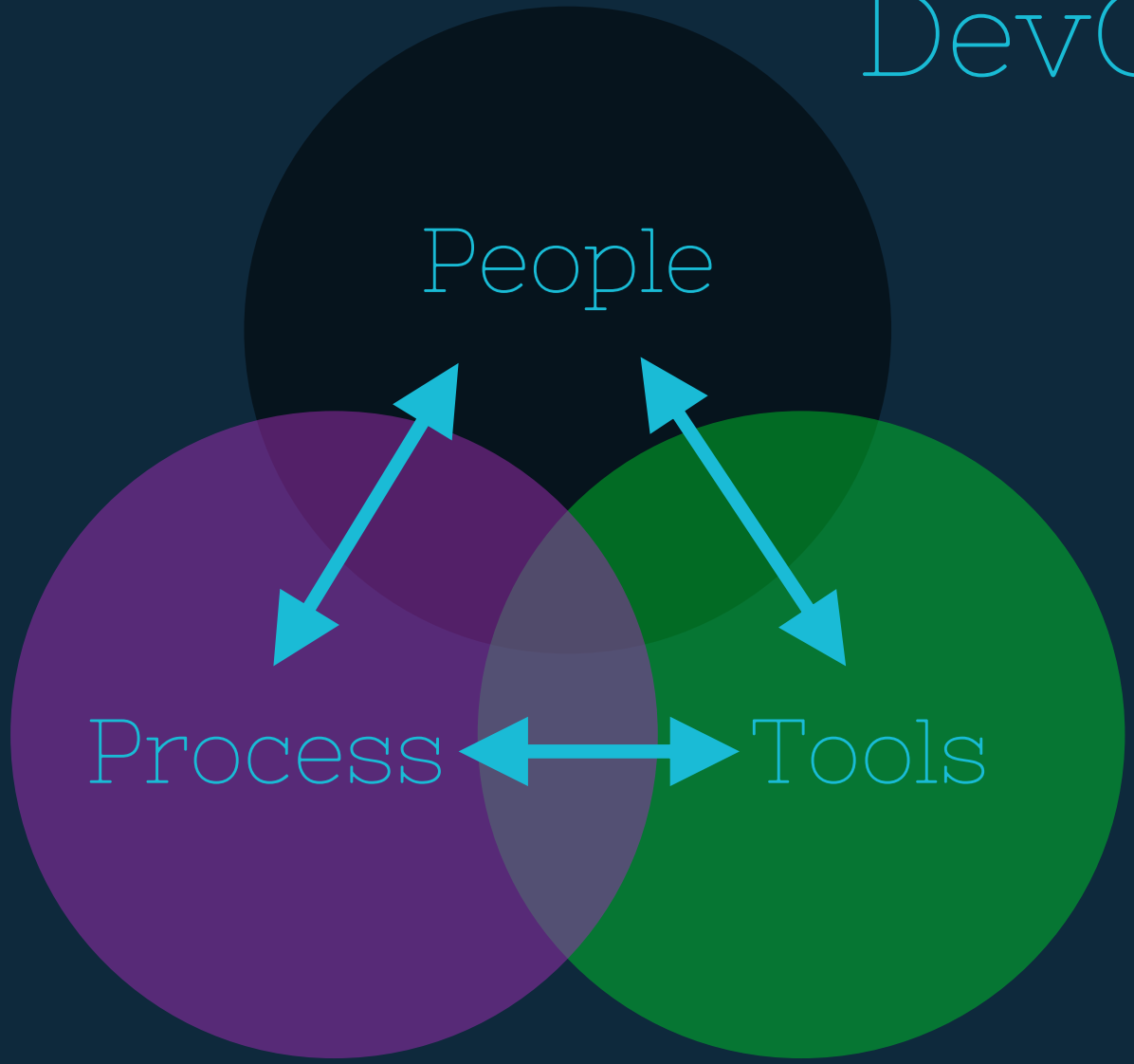
Automatic testing is not enough, but we can use our customers as testers

Canary releases

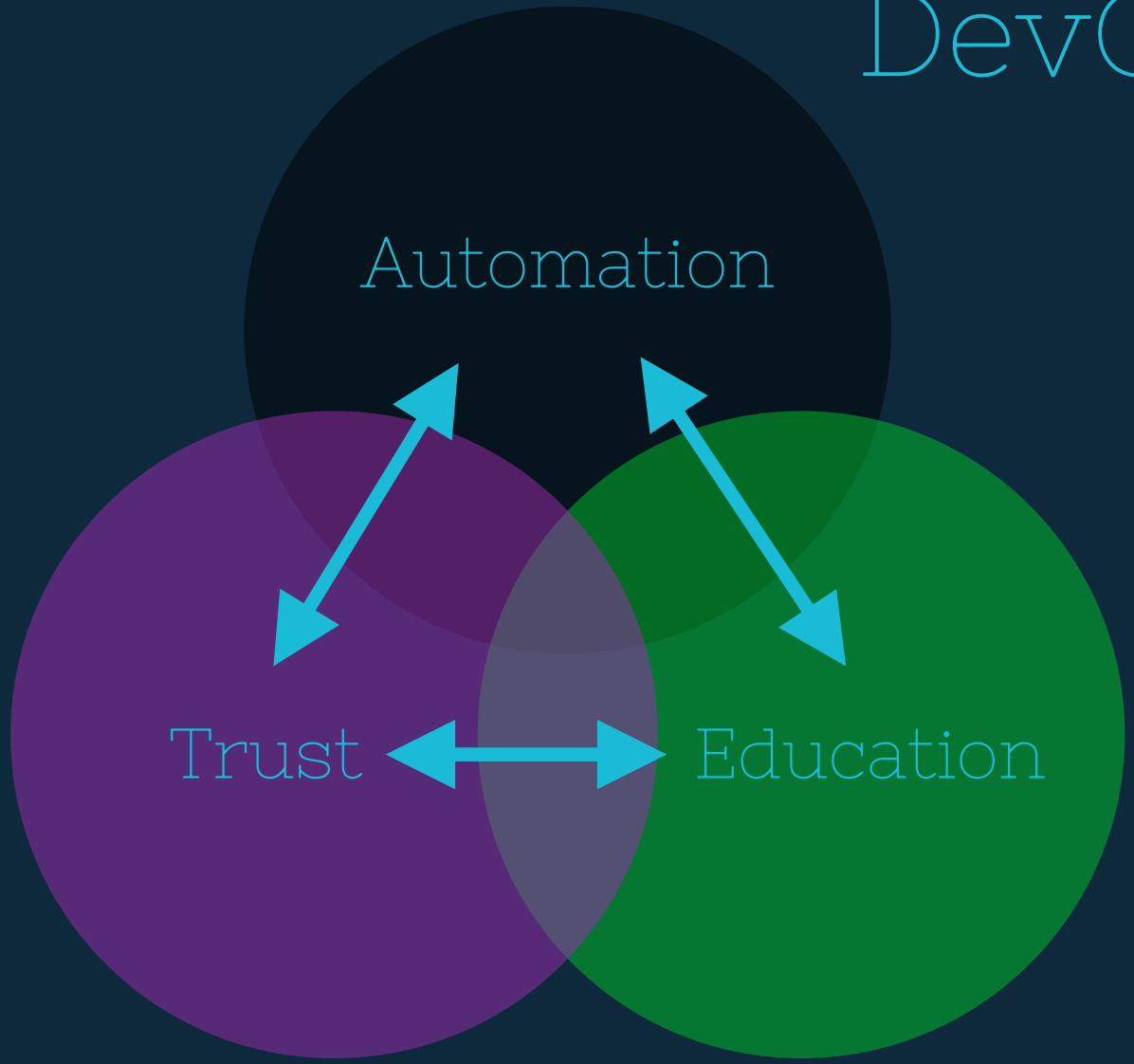
DevOps



DevOps



DevOps



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