

**WE THOUGHT WE WERE  
DOING CONTINUOUS  
DELIVERY AND THEN...**

Aravind and Suzie  
ThoughtWorks

# **WHAT WE WILL COVER**

Define Continuous Delivery (CD)

Tell some stories :)

Review learnings and share tips



Aravind SV (“Duck”)

Product Manager for GoCD

10+ years of helping different clients with Agile/XP, CI and CD practices

Tweeting from @arvindsv





Suzie Prince

Head of Product for  
ThoughtWorks products group

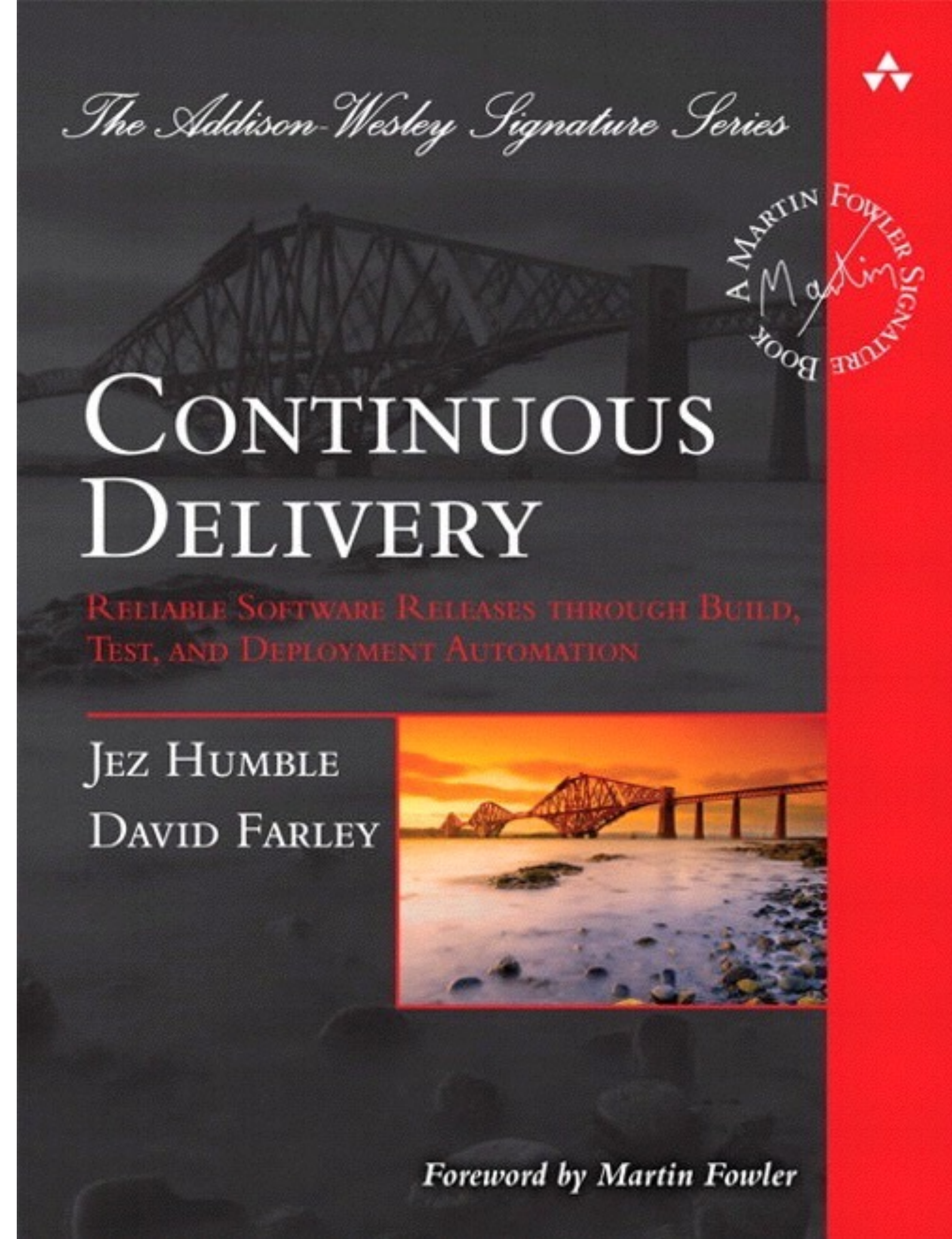
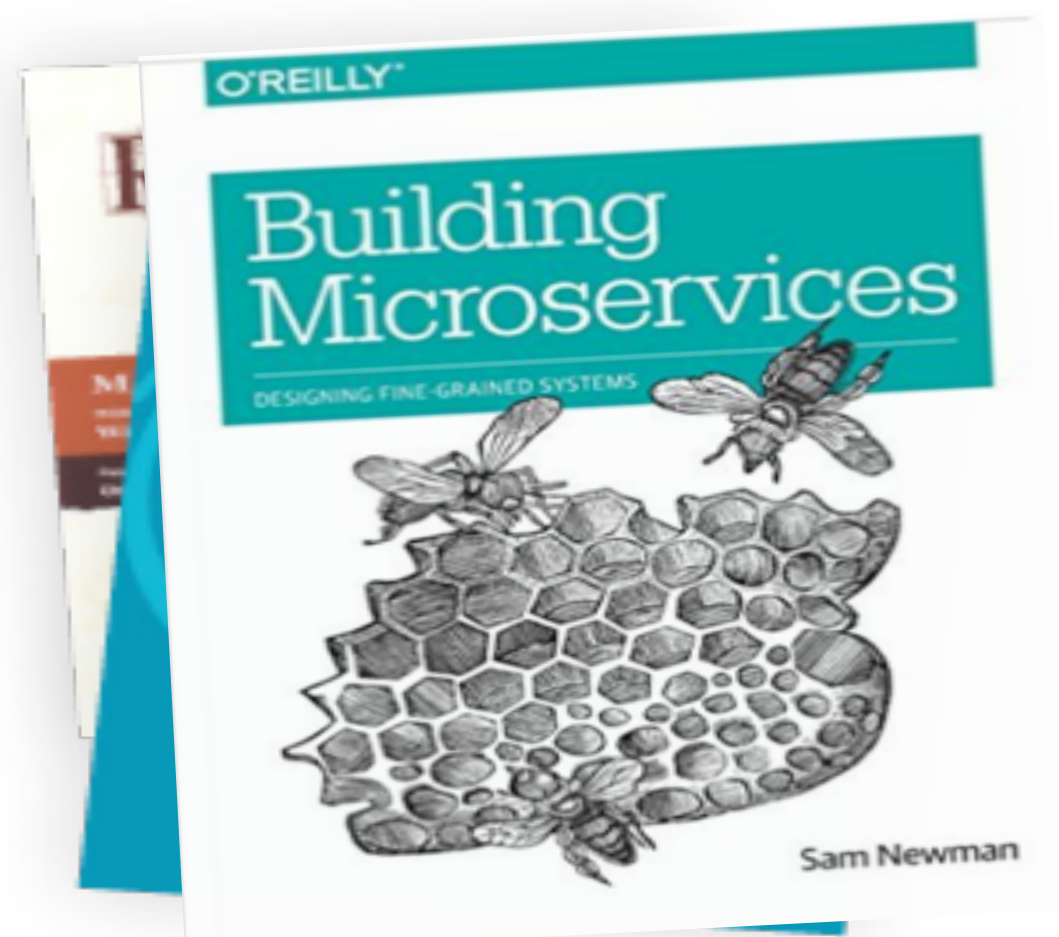
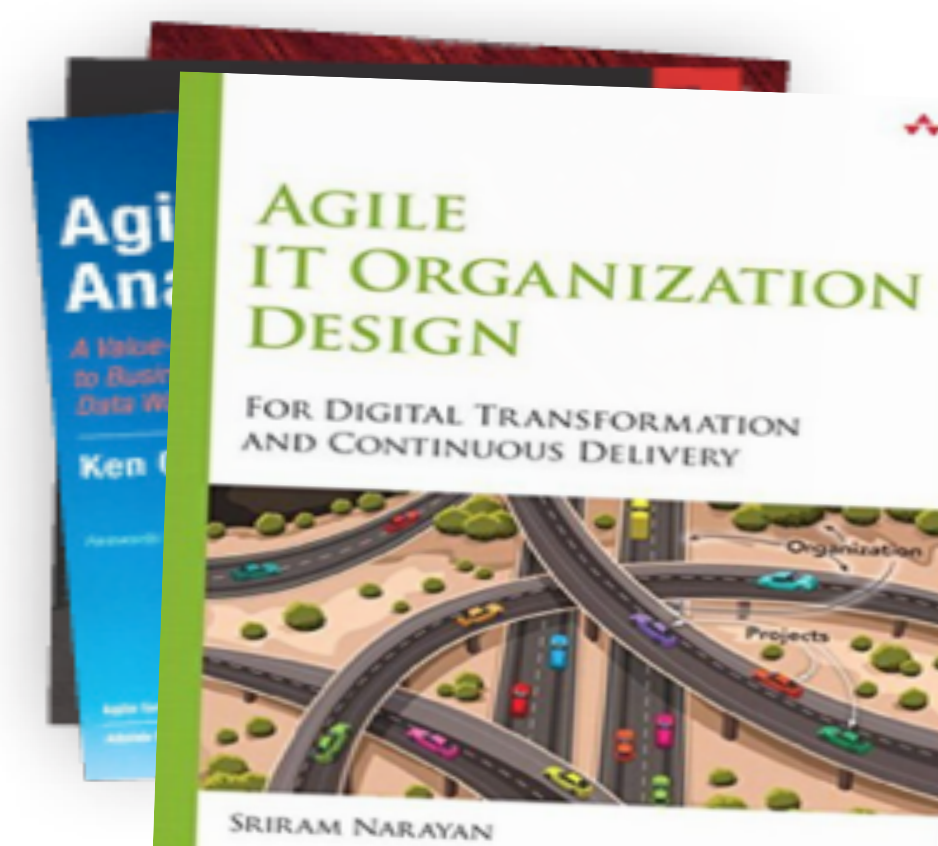
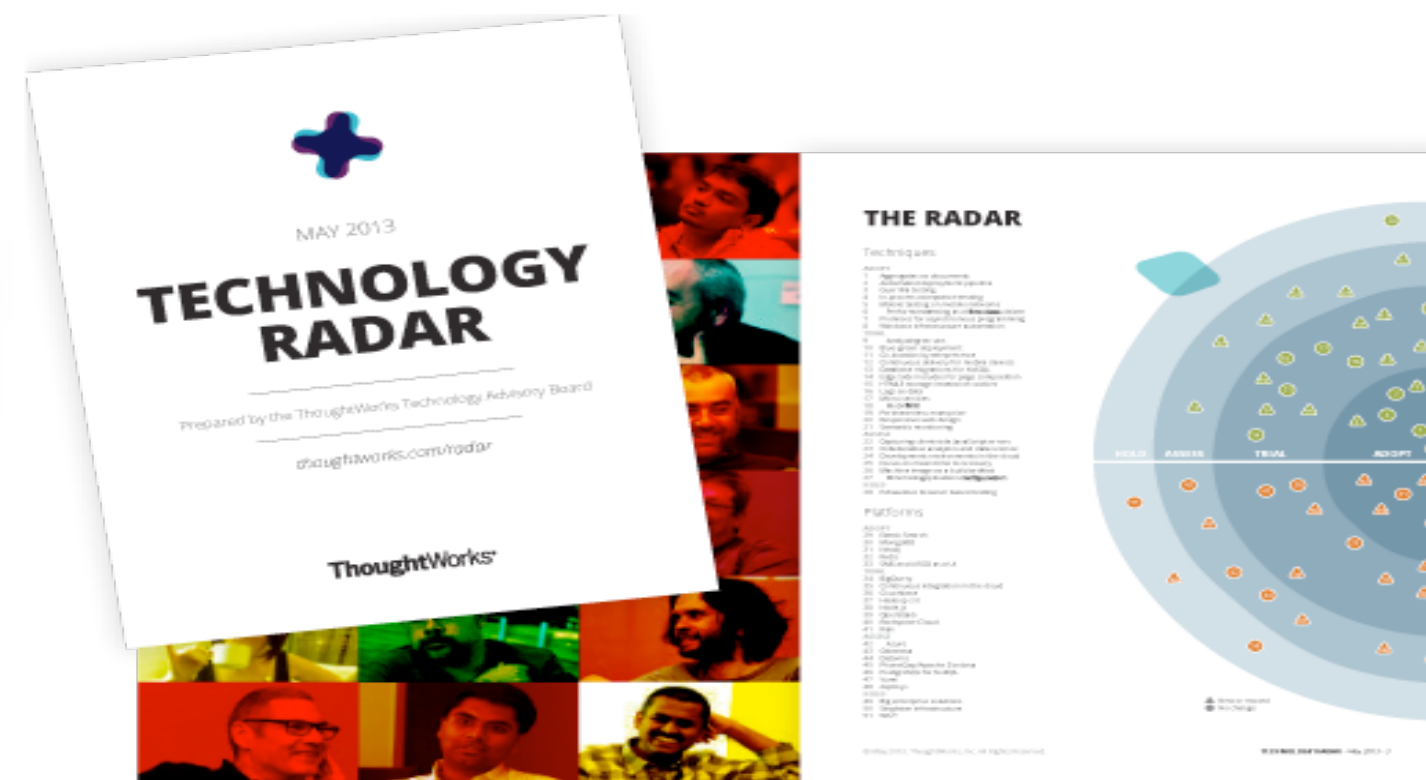
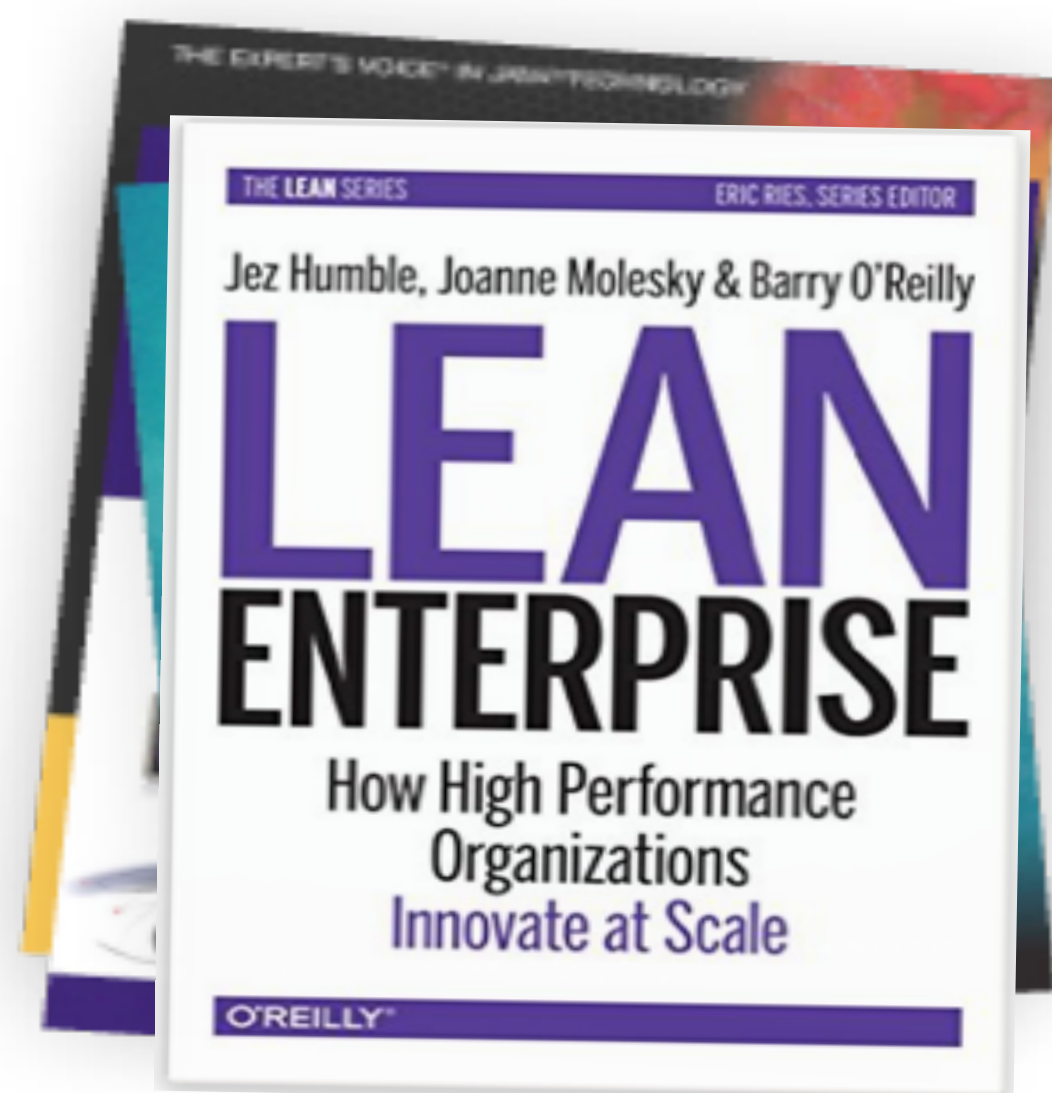
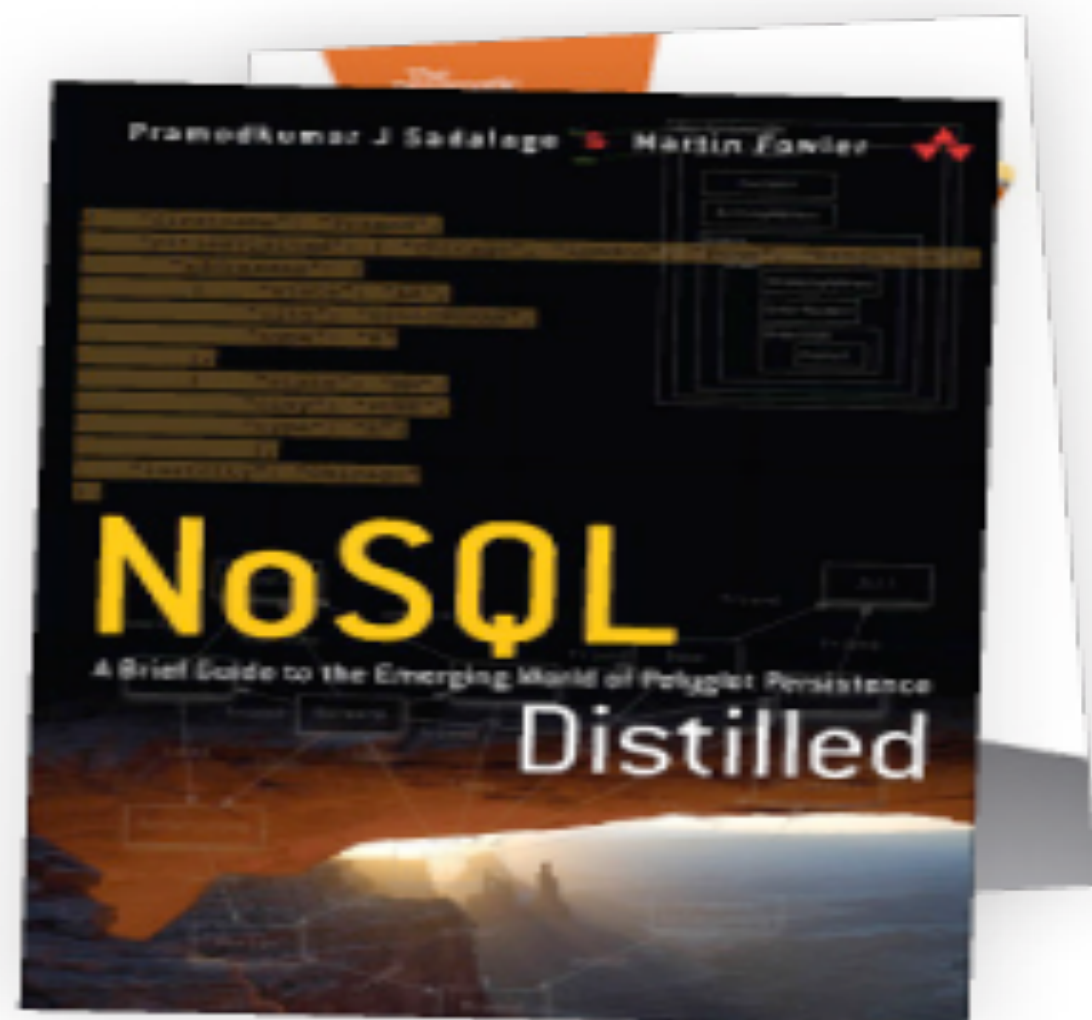
Product Manager for Snap CI

10 + years experience with agile  
including CI and CD practices

Tweeting @pm\_suzie



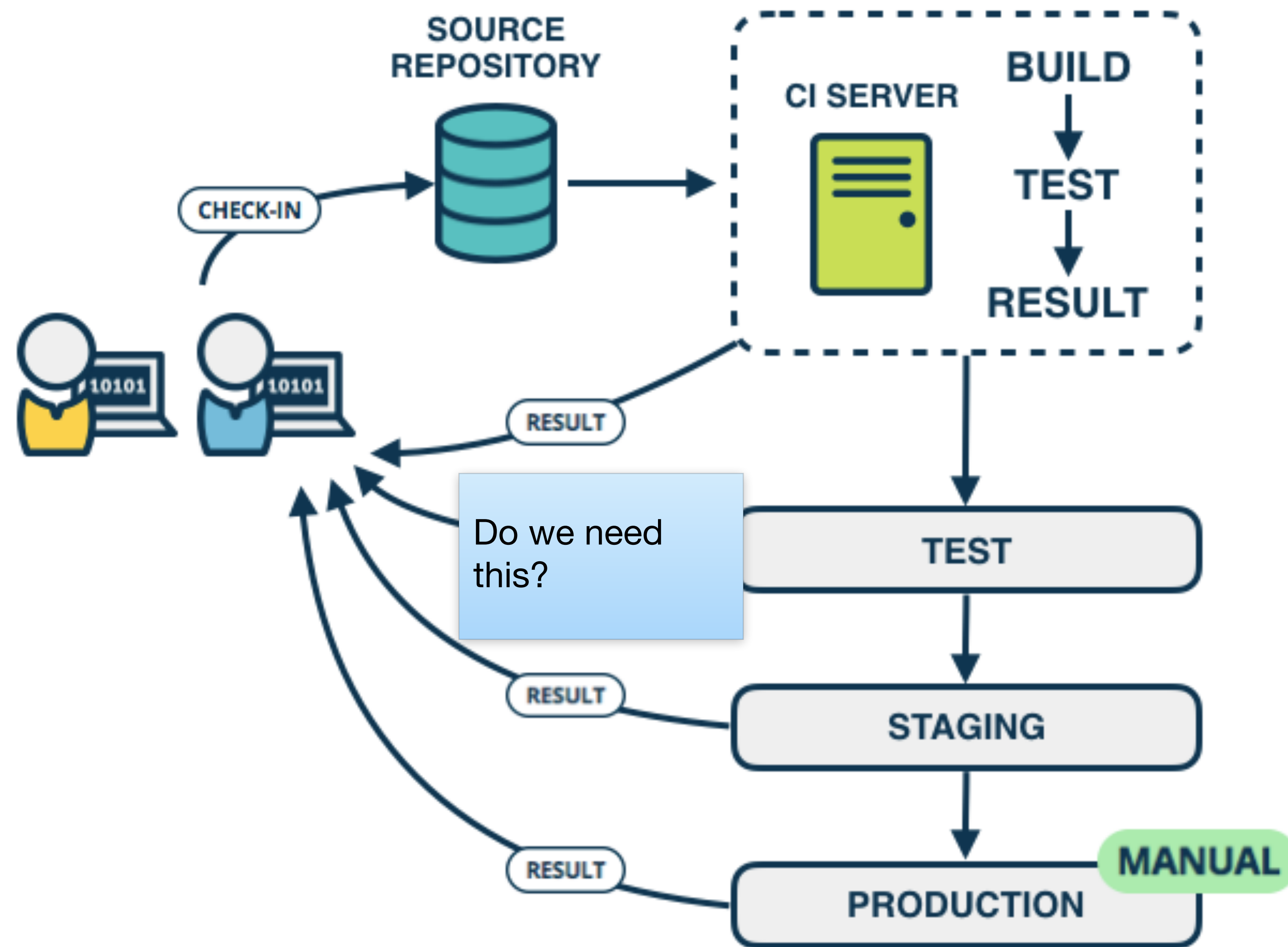






**WHAT IS CD?**

**“Continuous Delivery is the ability to **get changes of all types**—including new features, configuration changes, bug fixes and experiments—into production, or **into the hands of users, safely and quickly in a sustainable way.**”**



# CONTINUOUS DELIVERY

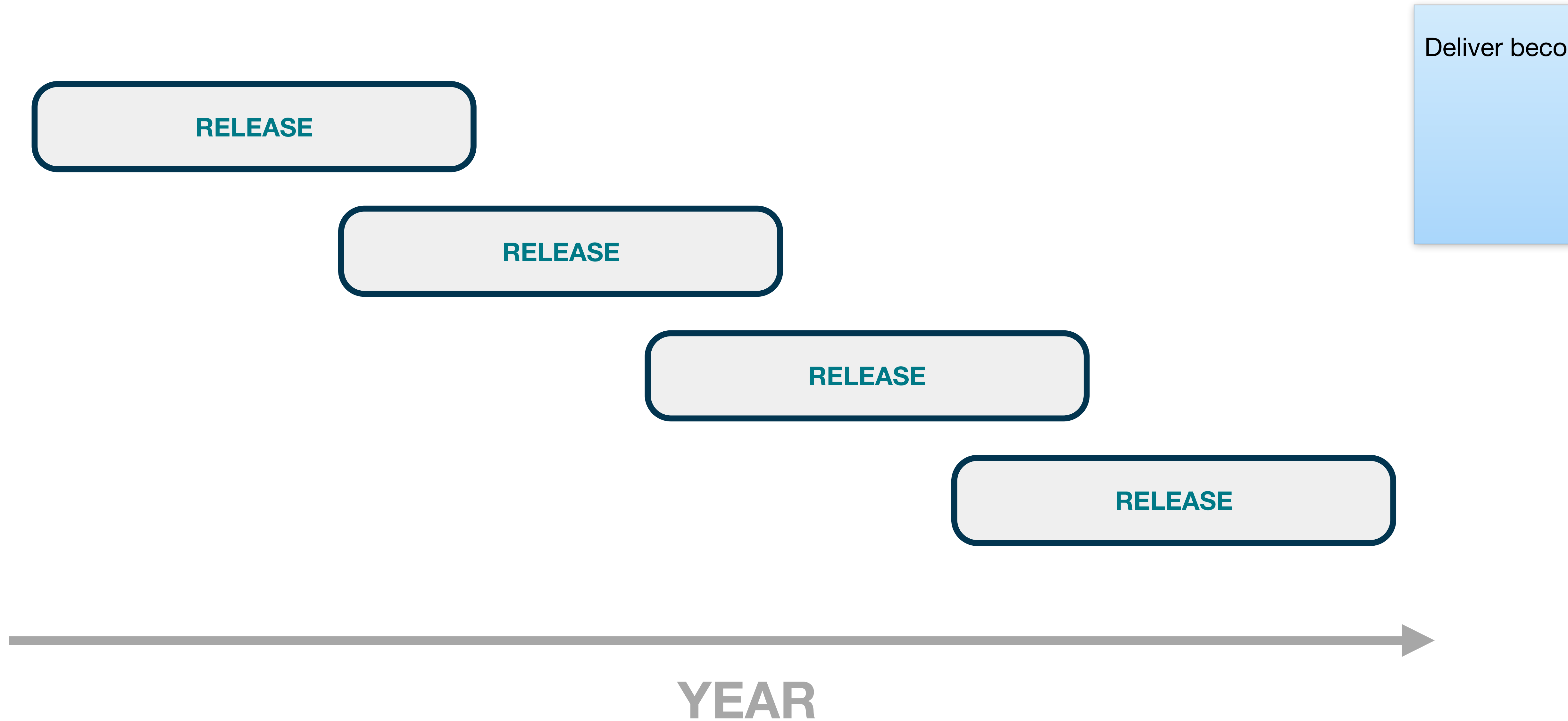




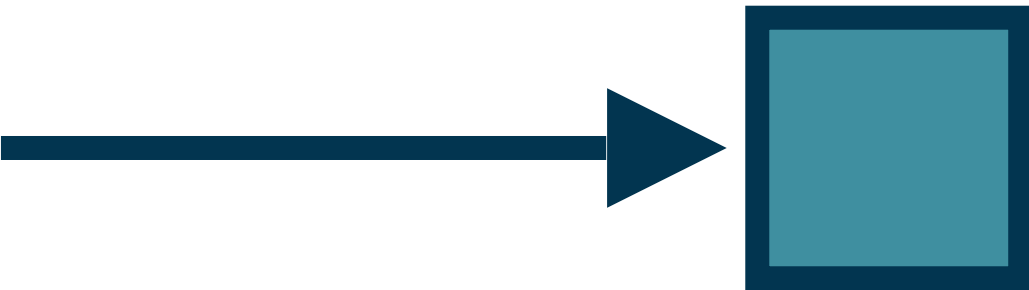


Under Consideration (130)	Open (13)	In Progress (9)	docs and blogs (0)	Waiting for deployment (4)	Did this achieve what we wanted it to? (2)	Done (14)
<div>Understand how caching is impacting users <b>#2725</b></div> <div>Caching</div> <div>Identify if fixing current caching issues resolve container creation time <b>#2714</b></div> <div>Caching</div> <div>Improve caching strategy <b>#2705</b></div> <div>Caching</div> <div>RSS feed for blogs <b>#2717</b></div> <div>Newsletter sign up for Snap CI <b>#2718</b></div>	<div>Switch to IAM roles <b>#2727</b></div> <div>Rotate passwords because Fernando left <b>#2726</b></div> <div>May 31st decommission and stop sign in to Orca and Prev <b>#2693</b></div> <div>Docker</div> <div>Should we upgrade to LXC 2.0 (so we can upgrade Docker) <b>#2604</b></div> <div>Docker</div> <div>[Regression] Babysitters is not logging gnocci output anymore <b>#2716</b></div>	<div>Stop caching on Cybele <b>#2731</b></div> <div>Short term caching bandaid on Aurora <b>#2724</b></div> <div>Rebuild Go Agents to get Chrome working <b>#2730</b></div> <div>Upgrade OpenSSL <b>#2721</b></div> <div>Chrome build <b>#2673</b></div>		<div>+</div> <div>Disable https between ELB and www <b>#2722</b></div> <div>Investigate database connection issue in production <b>#2686</b></div> <div>Go server - logrotate issue <b>#2700</b></div> <div>Stuck build issue on Aurora <b>#2723</b></div>	<div>Get data to Marketo for new drips and nutures <b>#2590</b></div> <div>Create a yum/apt/deb mirror <b>#2669</b></div>	<div>Rotate passwords because Akshay and Henrique left <b>#2631</b></div> <div>Badri and Jen Q: Serverless blog from Applauze <b>#2694</b></div> <div>Pull request security issue <b>#2630</b></div> <div>Ensure docs and packaged Heroku make sense after Heroku changes <b>#2710</b></div> <div>Fix the Gravatar icons on the blog <b>#2636</b></div>



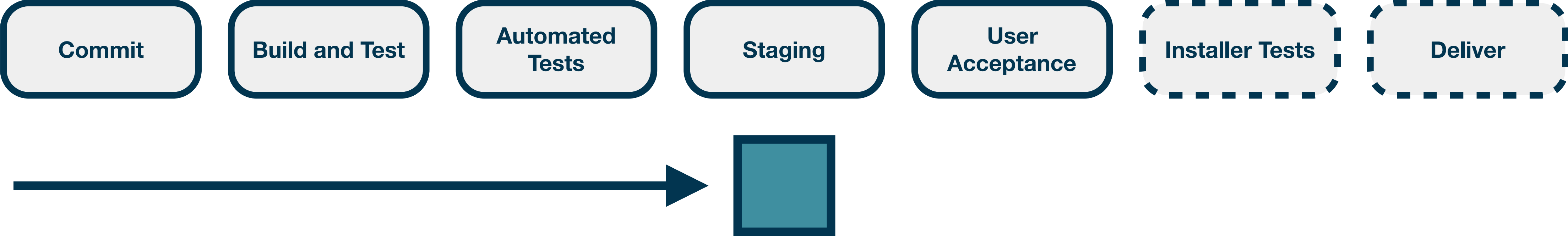




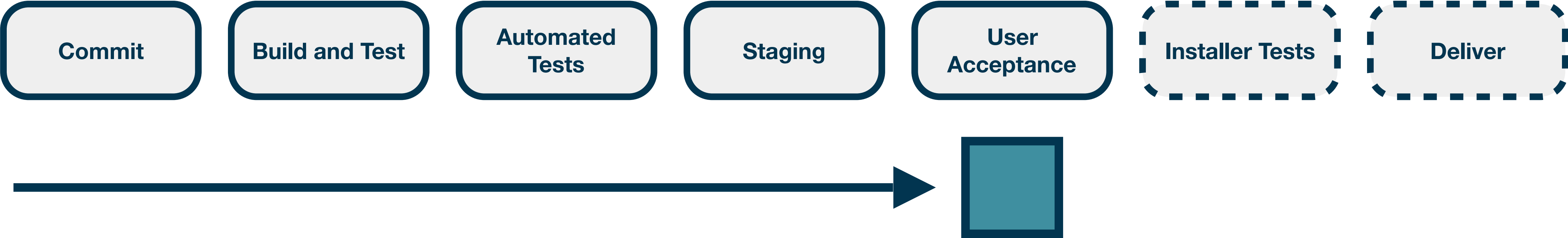


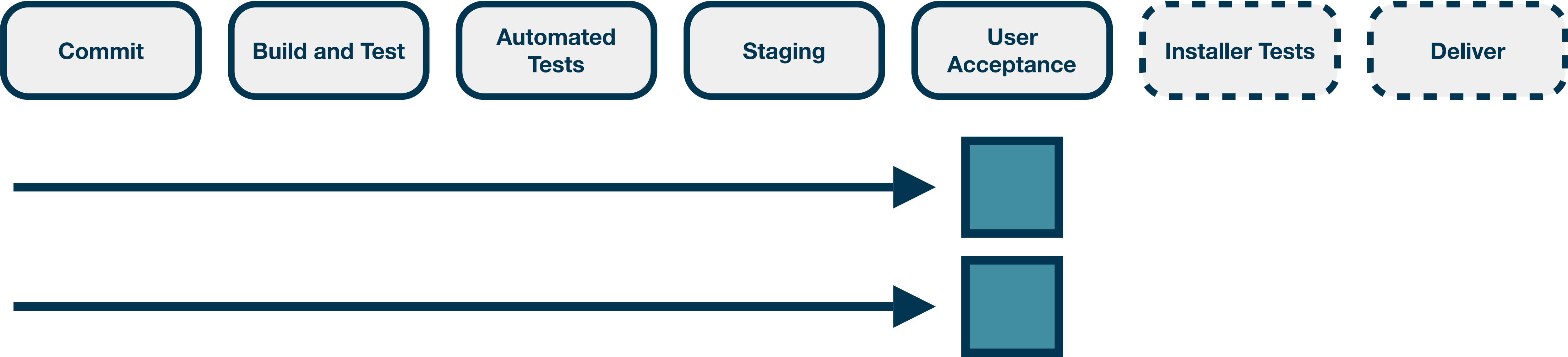




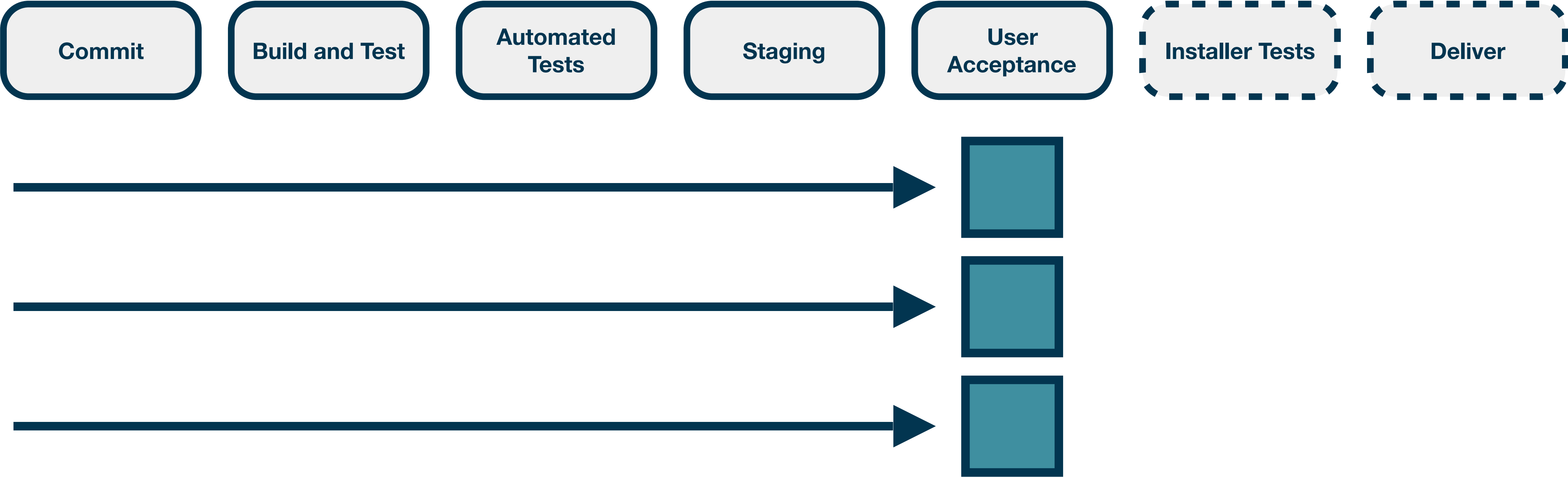


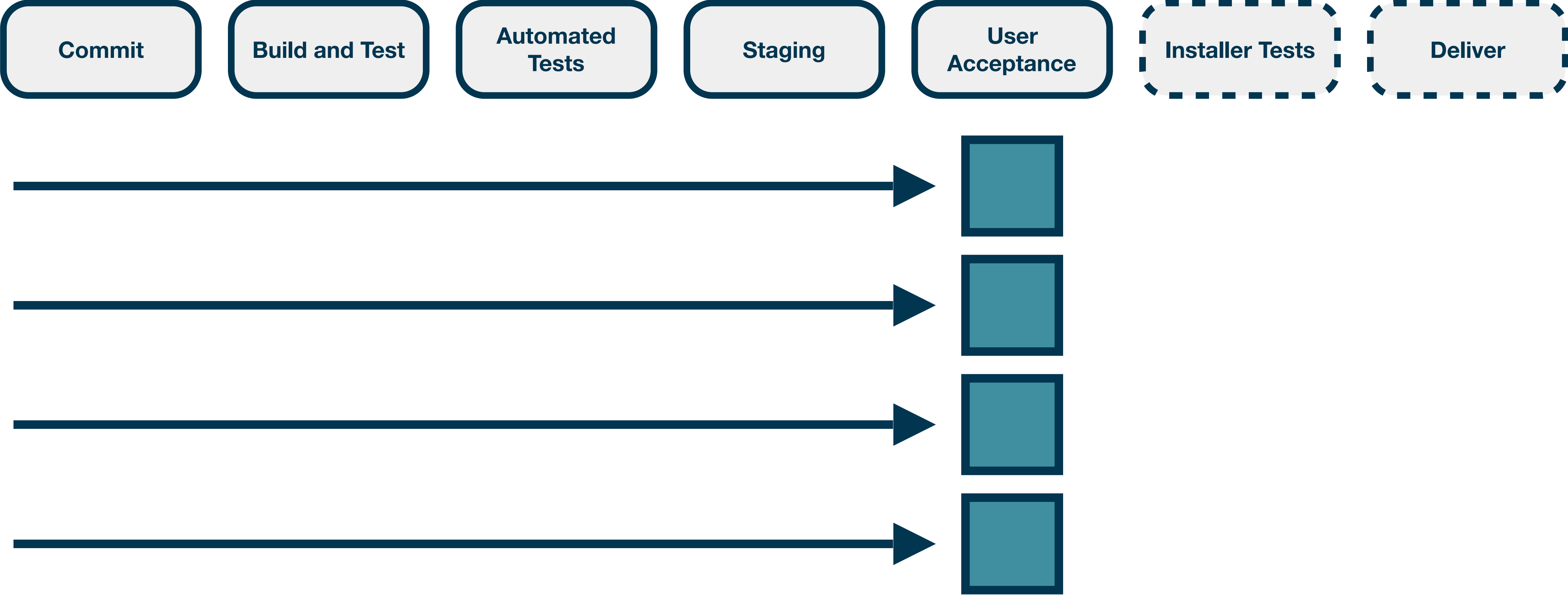




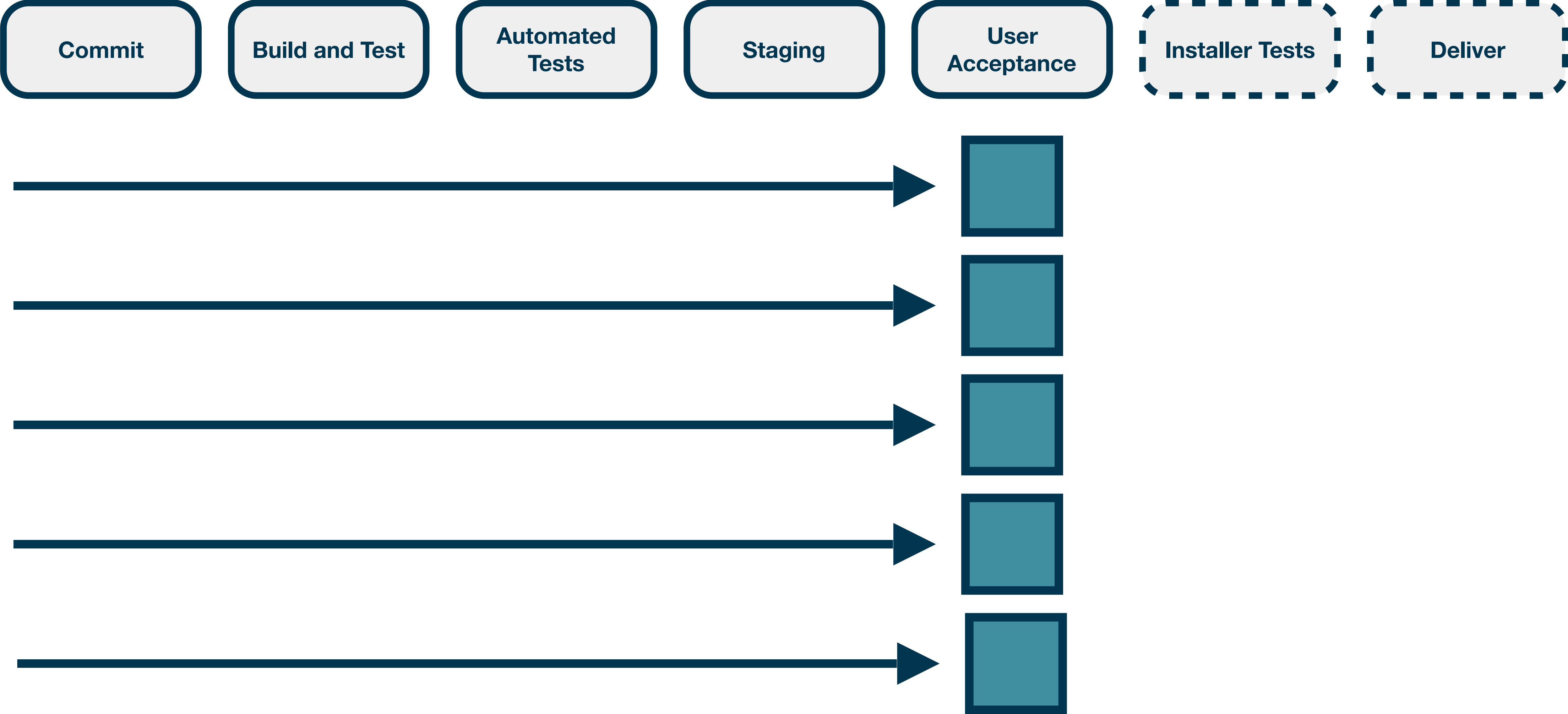


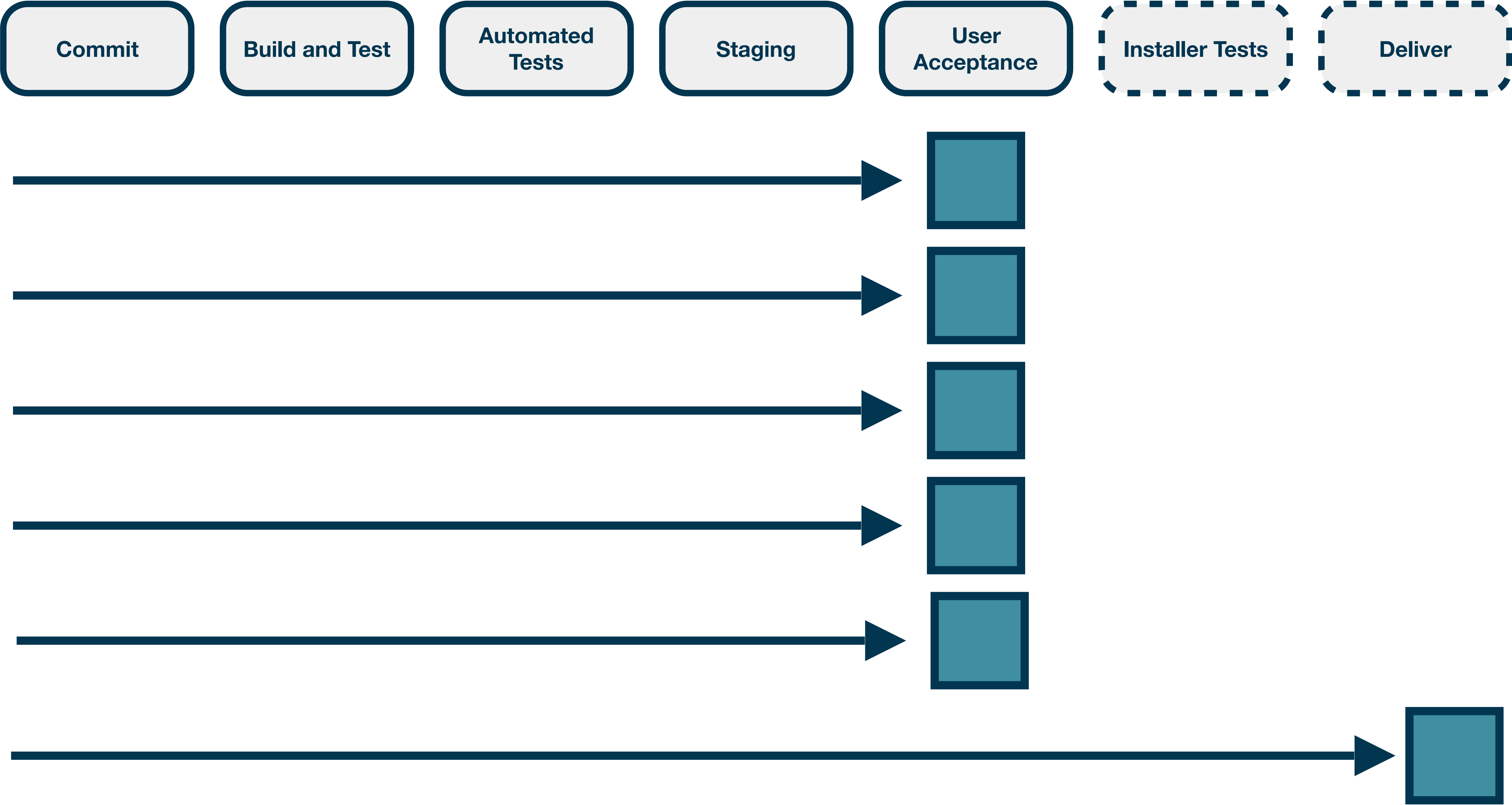




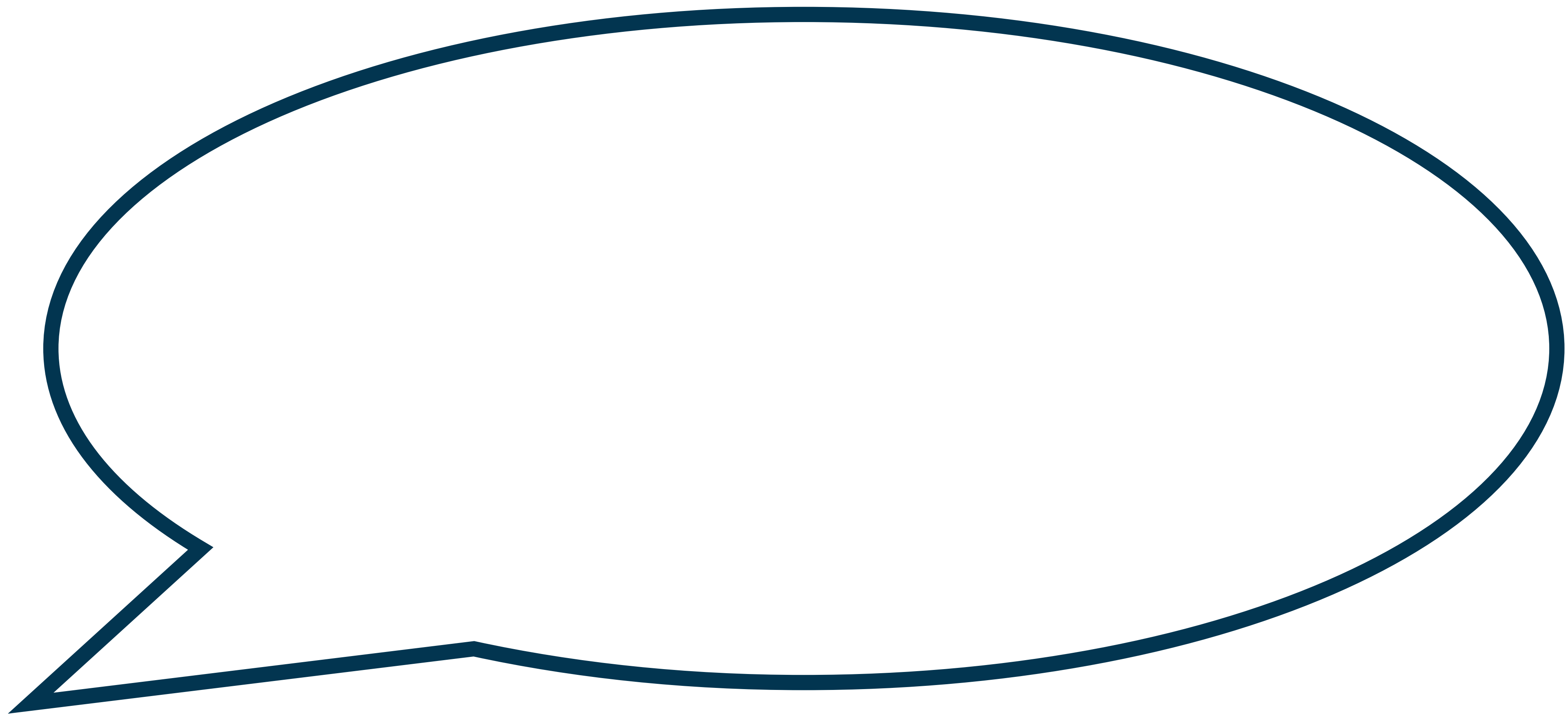




















RELEASE

RELEASE

RELEASE

RELEASE

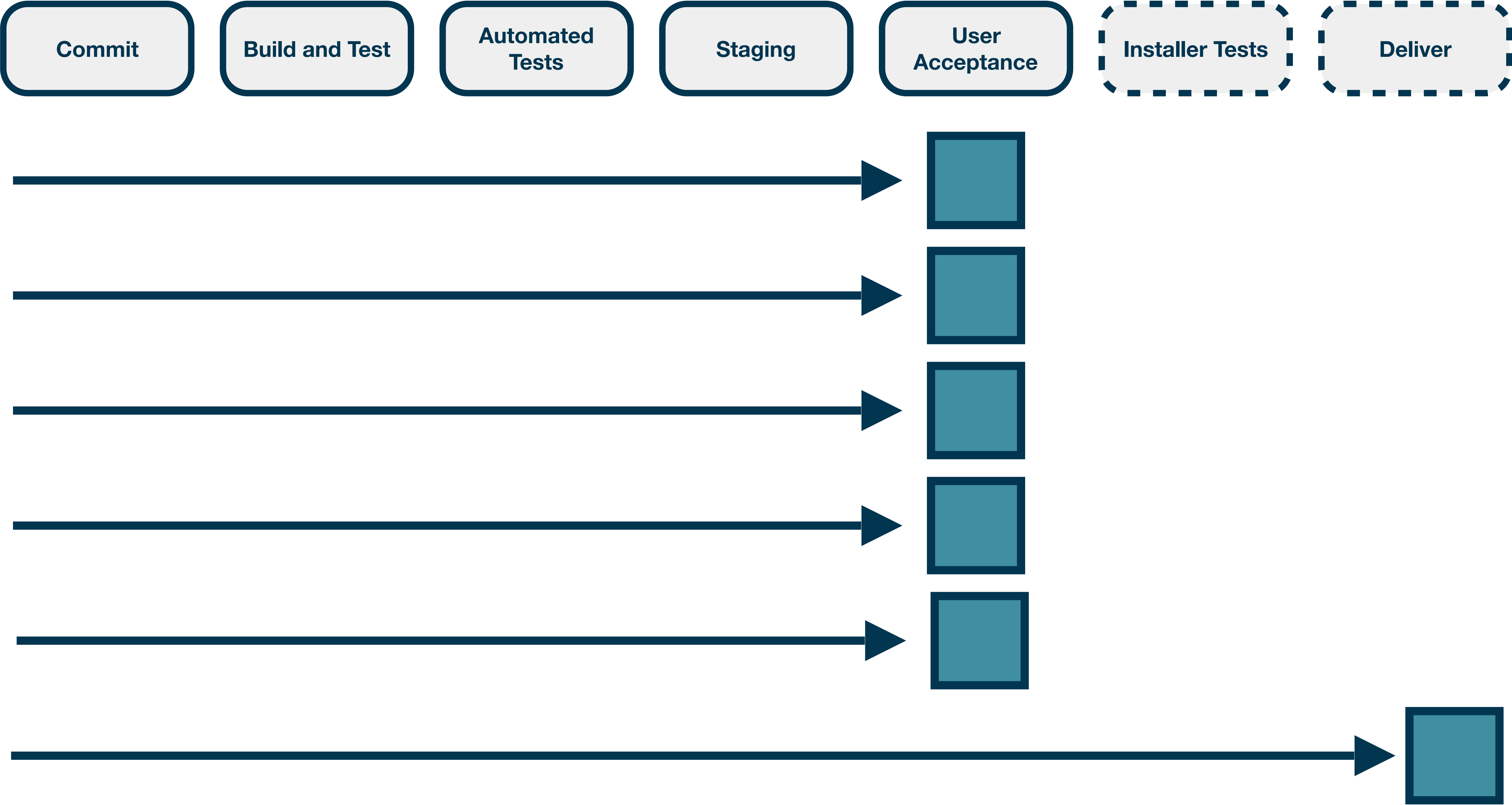
YEAR





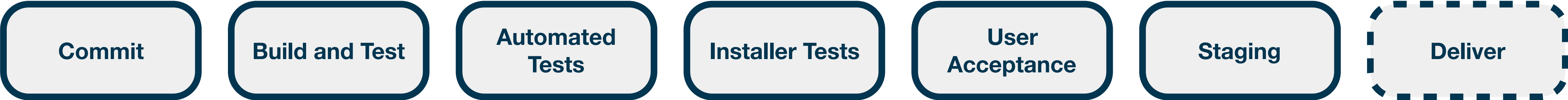
**25% RELEASE TIME WAS  
INSTALLER TESTING**

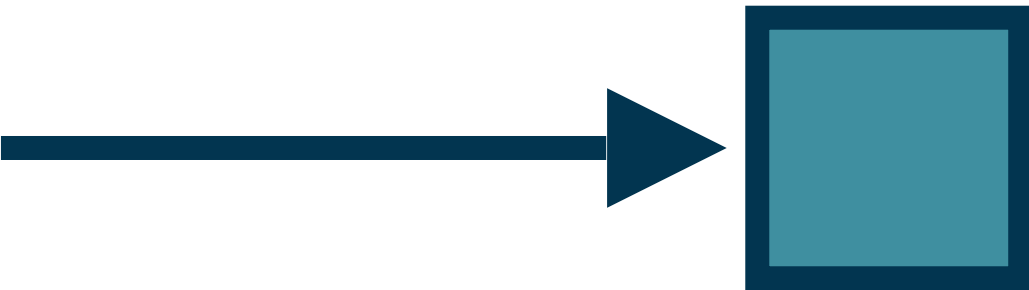
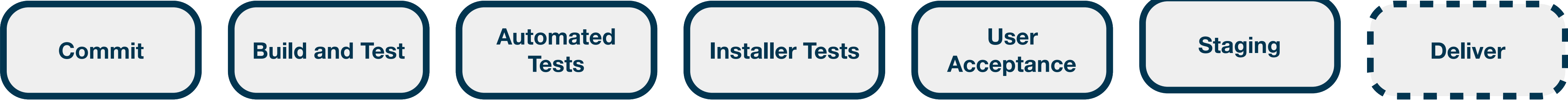
**YEAR**

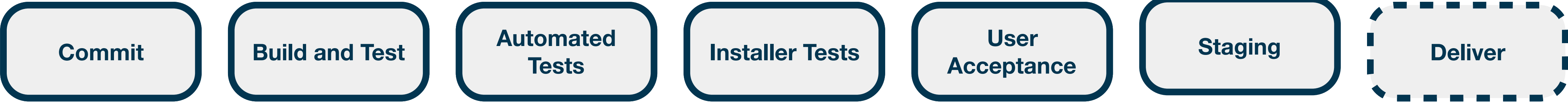


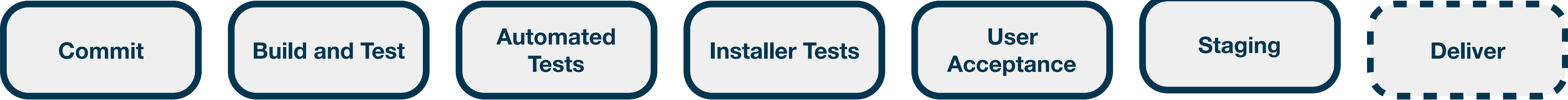




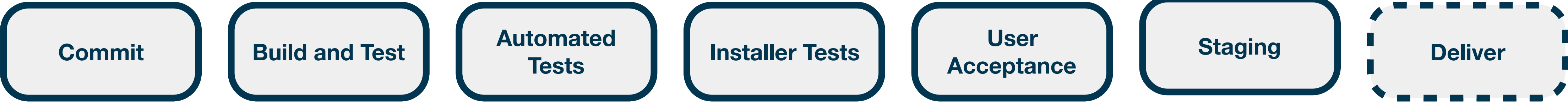


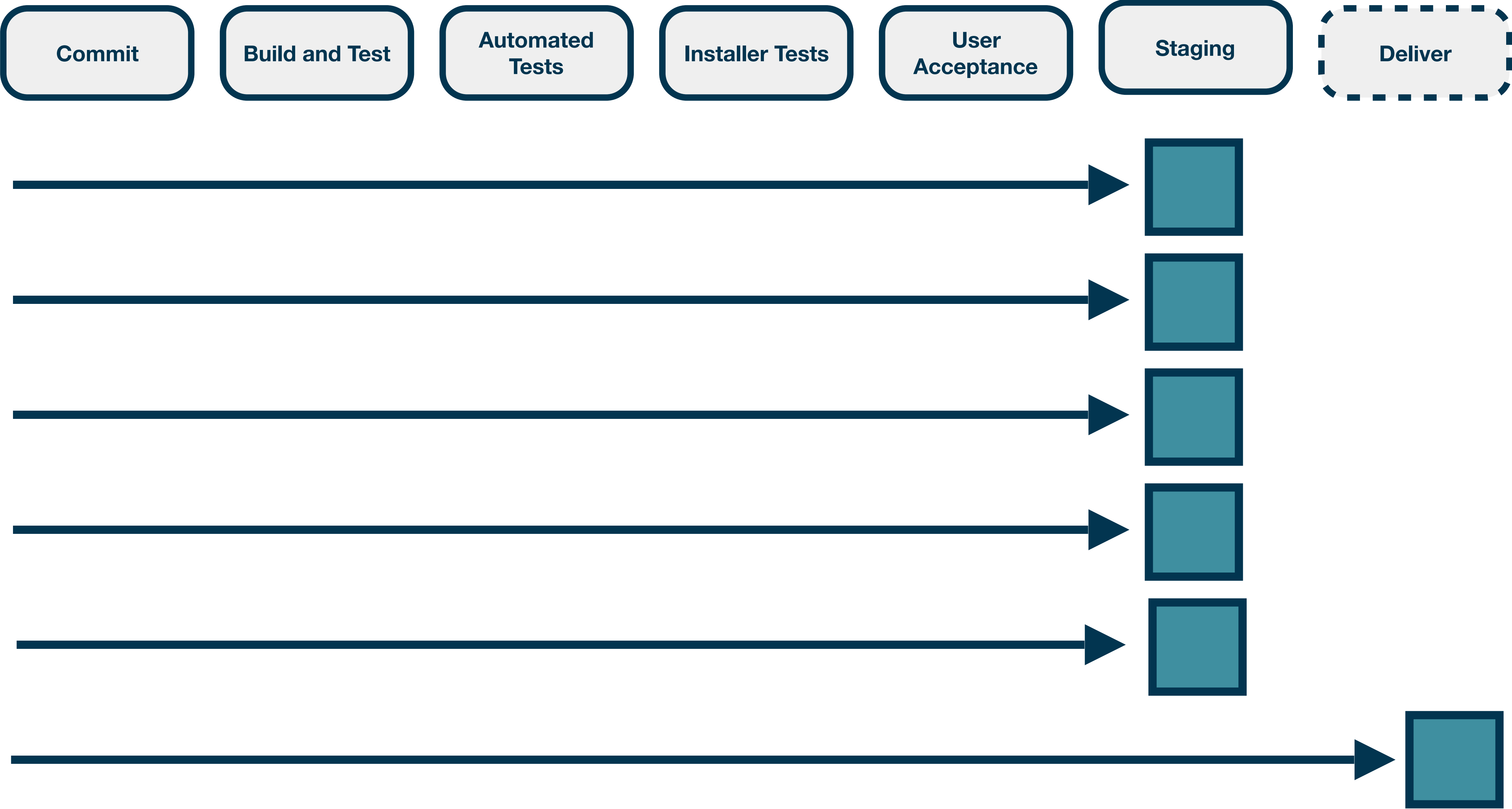






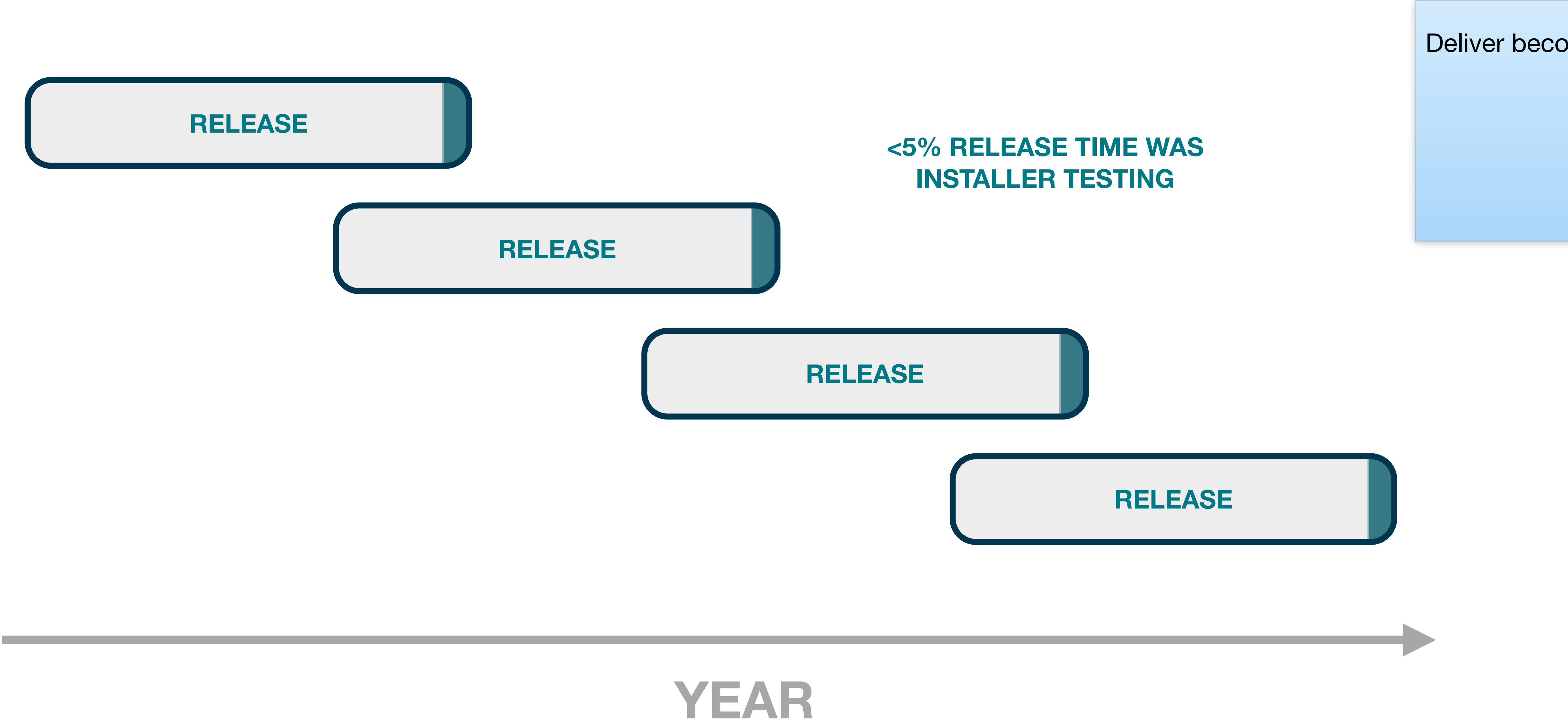




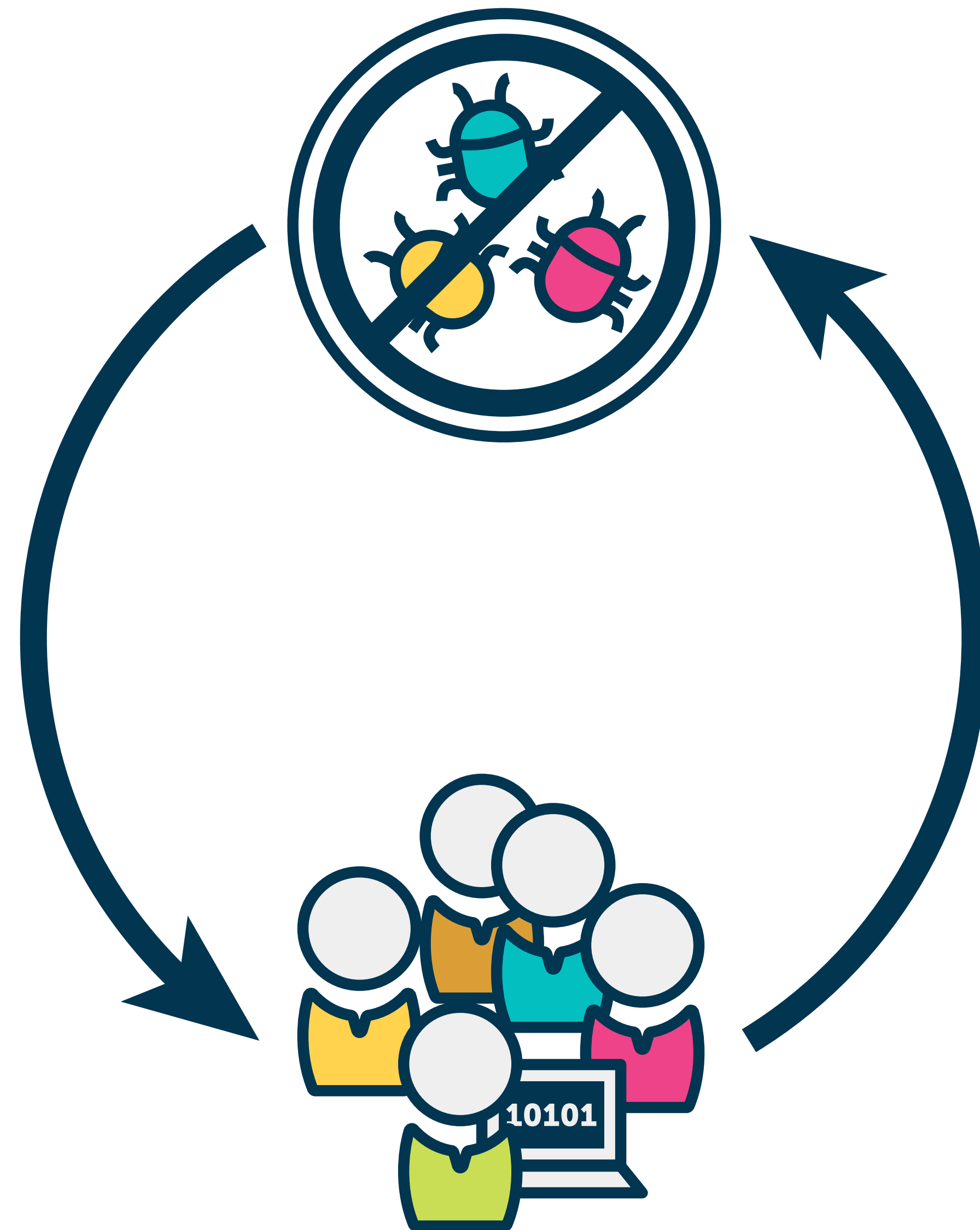




YEAR

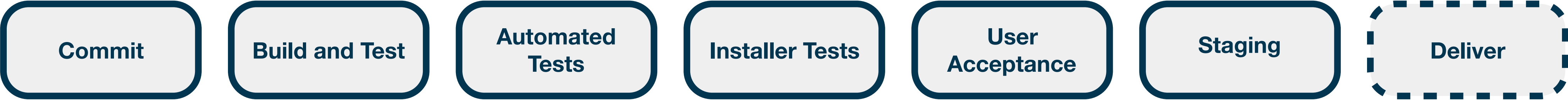






**HIDDEN SILOS**



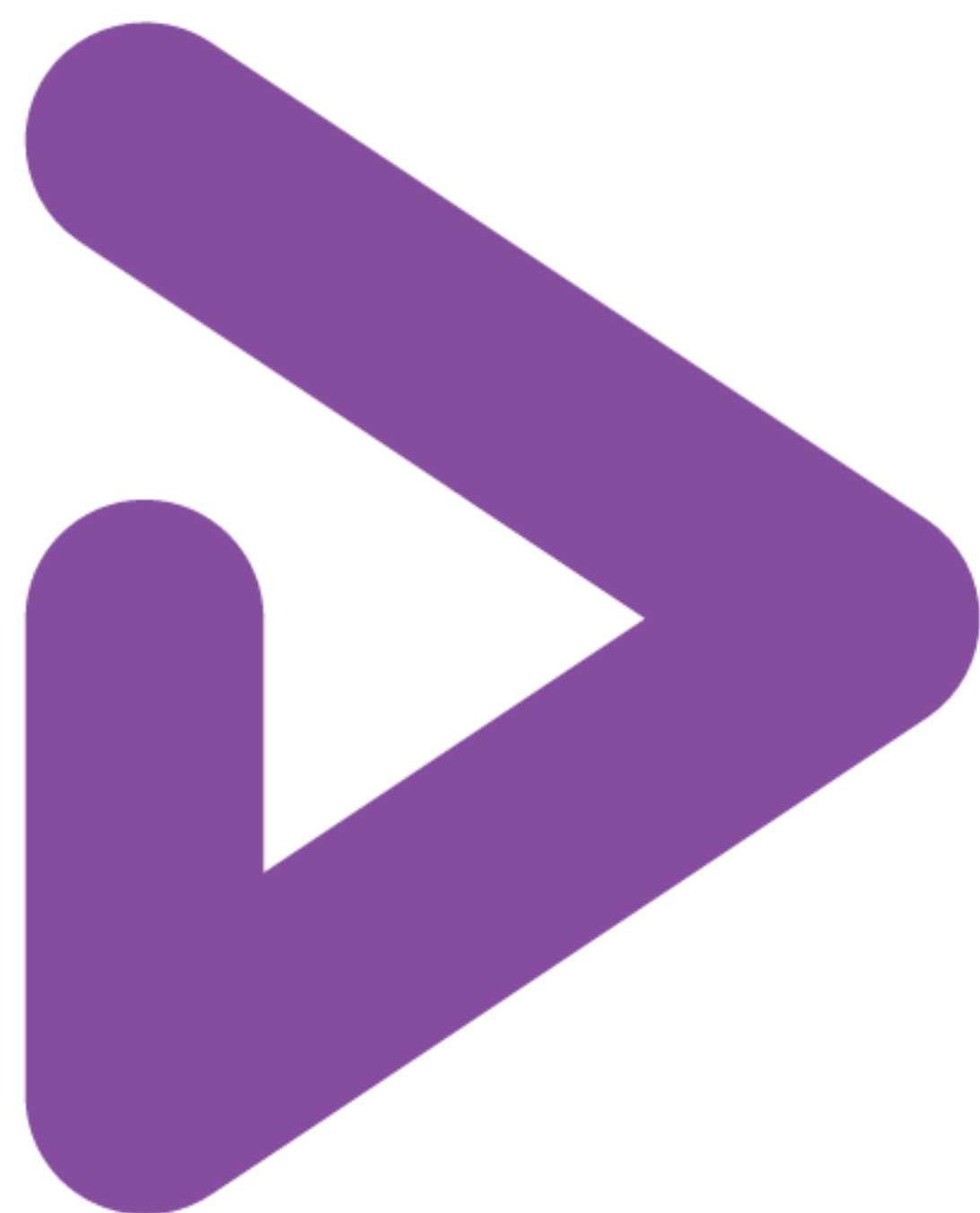


# LEARNINGS

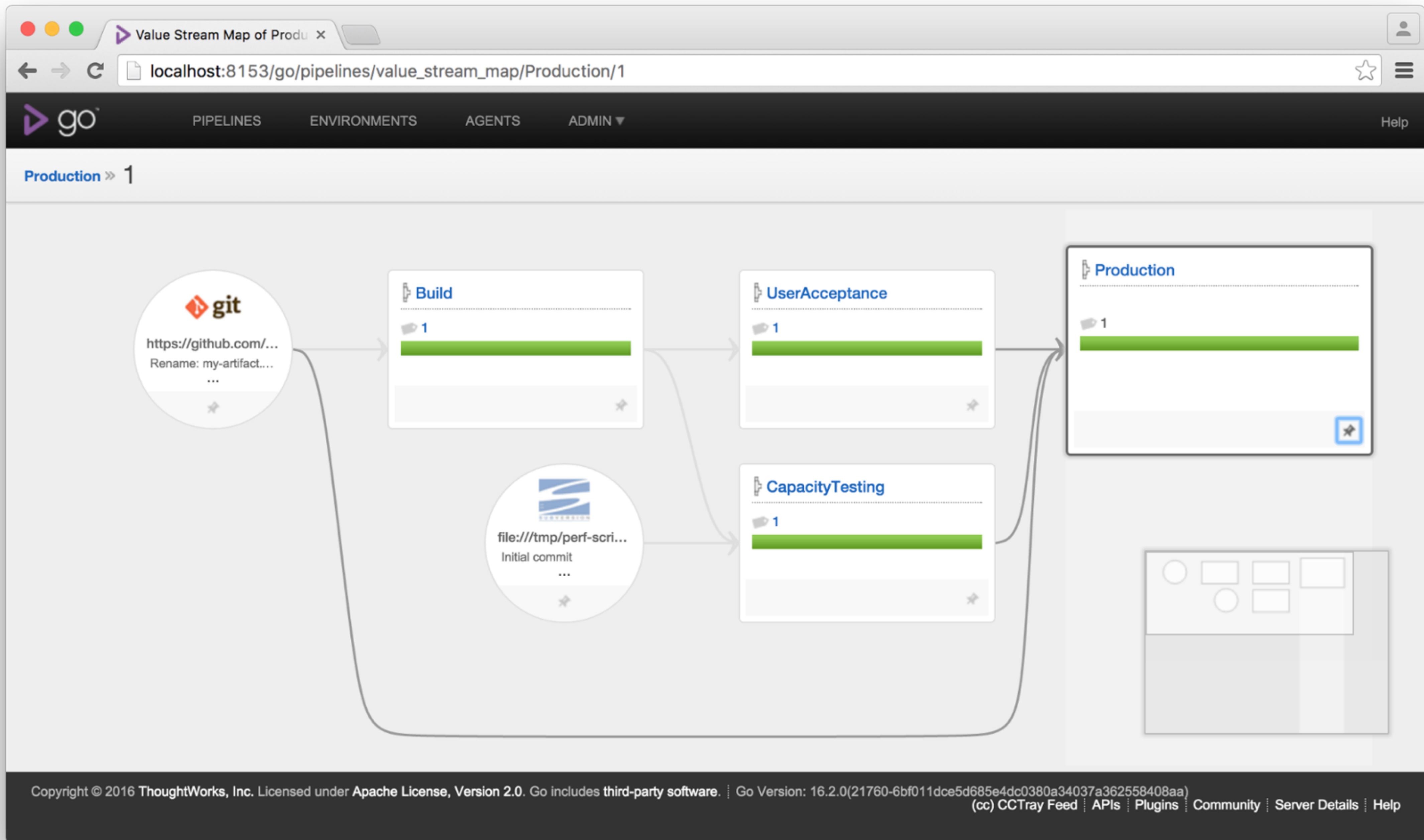
Automate, automate, automate

Look for hidden silos



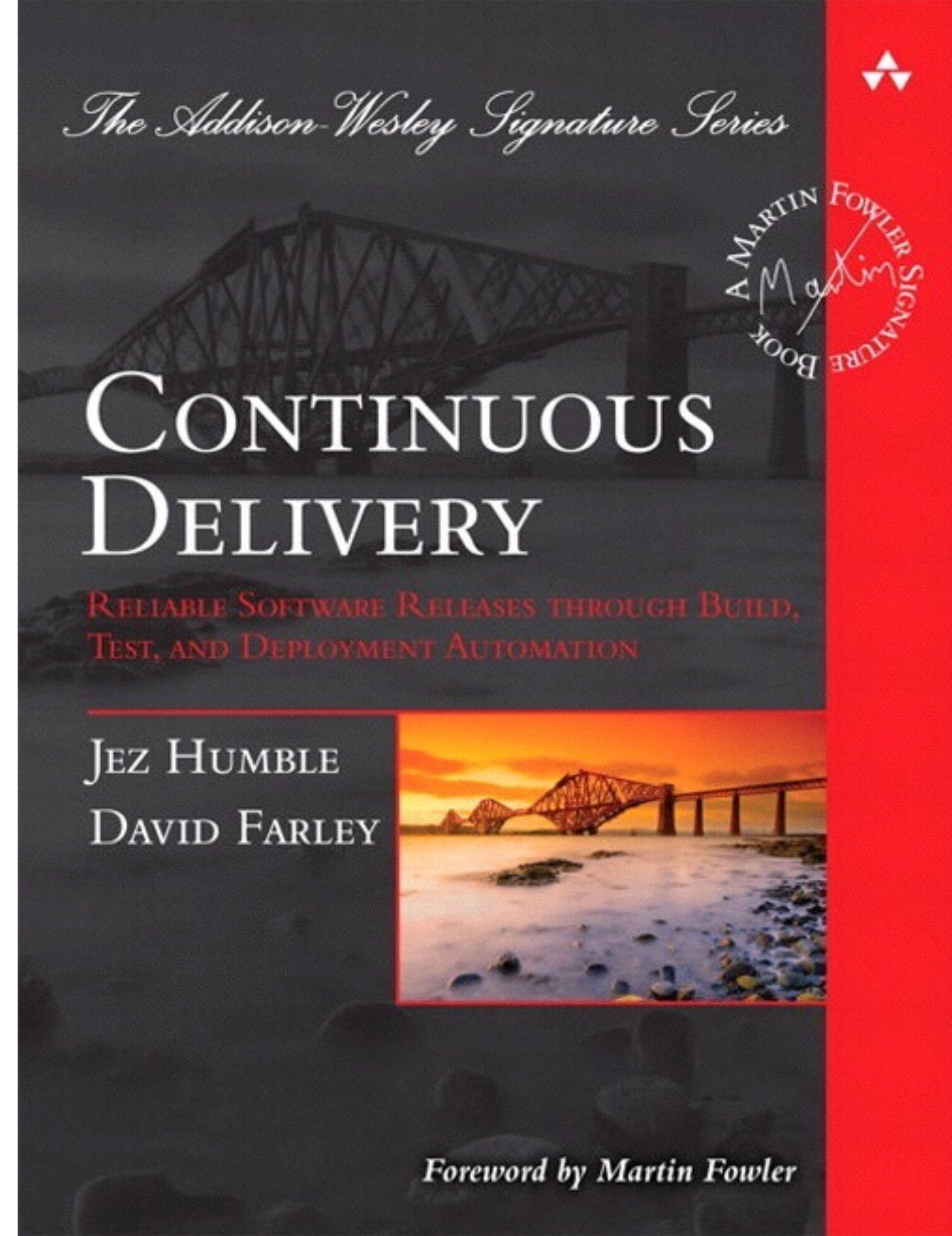


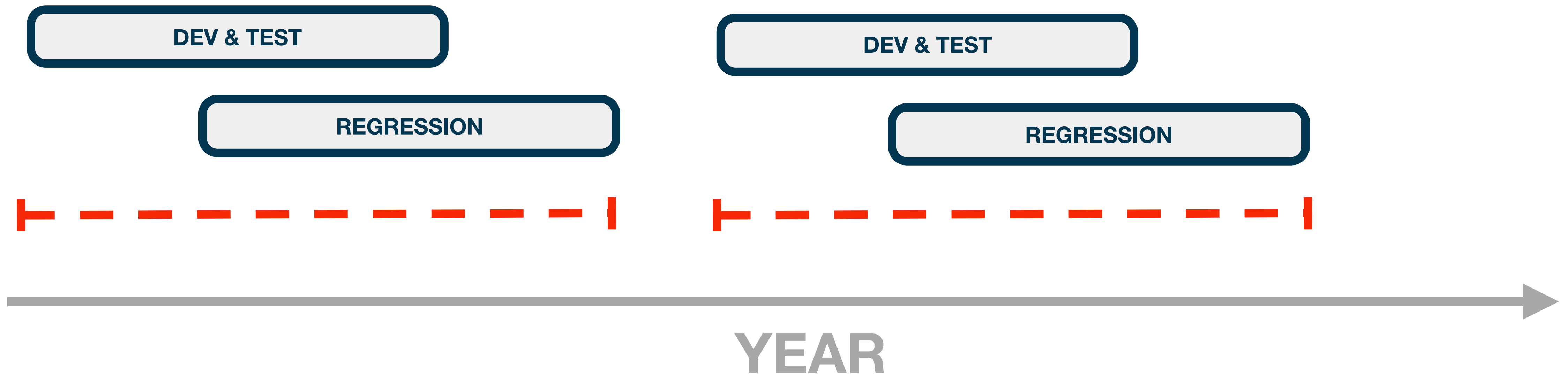
ggo





Before going open-source ...





3 to 4 month release cycle



GitHub - gocd/gocd: Main

GitHub, Inc. [US]

https://github.com/gocd/gocd

Star

Search

Sign in

Sign up

Personal

Open source

Business

Explore

Pricing

Blog

Support

This repository

Search

Sign in

Sign up

gocd / gocd

Watch 177

Star 2,407

Fork 428

Code

Issues 598

Pull requests 25

Wiki

Pulse

Graphs

Main repository for GoCD - Continuous Delivery server

https://go.cd

3,461 commits

3 branches

13 releases

71 contributors

Branch: master

New pull request

Find file

Clone or download

ketan

Merge pull request #2254 from zabil/xsltcompiledtemplatesclassloader

Latest commit bac6124 8 hours ago

.github

Update ISSUE\_TEMPLATE.md

3 months ago

addon-api/database

Bumping revision to 16.6.0

12 days ago



**DEV & TEST**

**REGRESSION**

**INSTALLER TESTS**

**PERFORMANCE TESTS**

**WRITE RELEASE NOTES**

**UPLOAD/PUBLISH INSTALLERS**



**1 to 1.5 months**

DEV & TEST

REGRESSION

INSTALLER TESTS

PERFORMANCE TESTS

WRITE RELEASE NOTES



Automated publishing of releases



1 to 1.5 months

DEV & TEST

REGRESSION



Automated installer tests

PERFORMANCE TESTS

WRITE RELEASE NOTES



Automated publishing of releases



1 to 1.5 months

DEV & TEST

REGRESSION



Automated installer tests

PERFORMANCE TESTS



Automated release note generation



Automated publishing of releases



1 to 1.5 months

DEV & TEST

REGRESSION



Automated installer tests



Automated performance tests (in progress)



Automated release note generation



Automated publishing of releases



1 to 1.5 months





Regression is just a small buffer now



Automated installer tests



Automated performance tests (in progress)



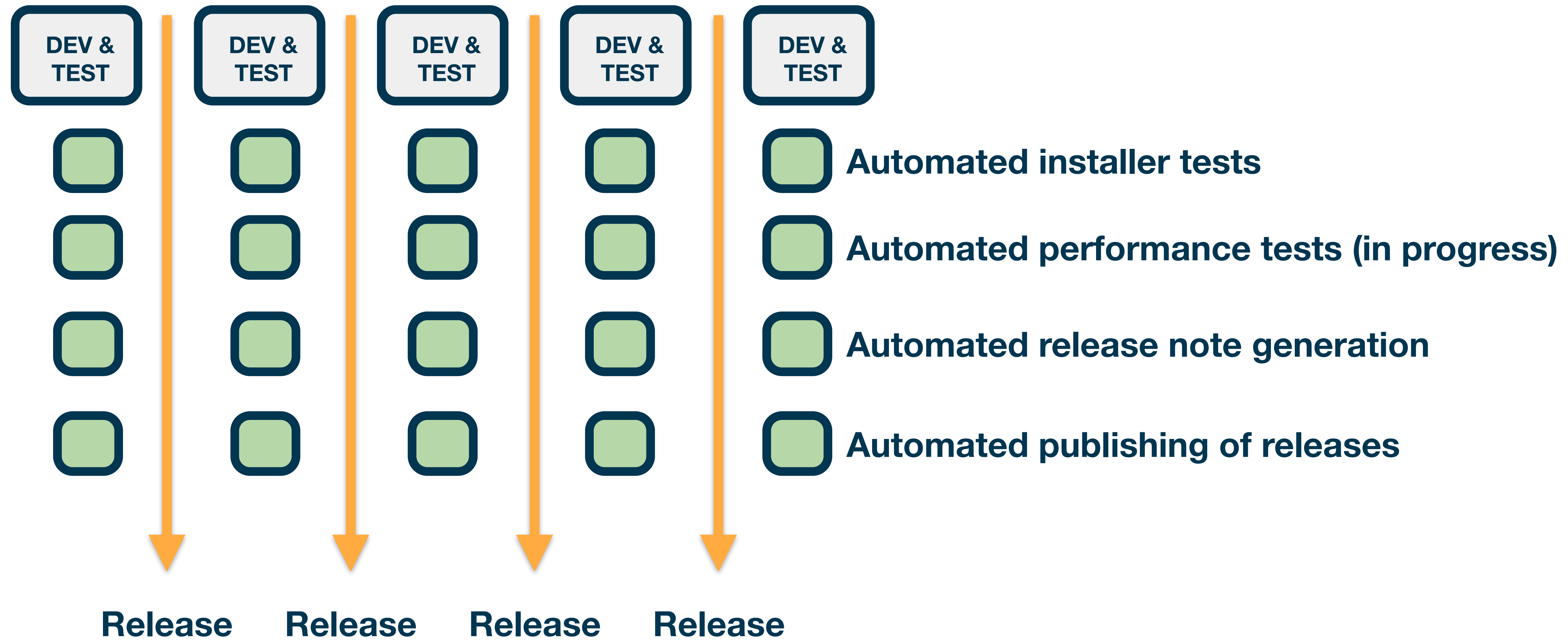
Automated release note generation



Automated publishing of releases



Regularly a month, not decided by regression cycle



# LEARNINGS

Frequency reduces difficulty

Automation costs pay for themselves



snap



snap-ci-examples/snapci-ruby-heroku (master) ▾



Talk to us



suzejprince ▾

[< Back](#) Pipelines

[Pull Requests](#)

▾ [Stage History](#)

[Notifications](#)

[Unwatch](#)

[Configuration](#)

[CCTray](#)

#461 ⌚ Jun 5th 2016 10:49

0a24d9b Update README.md

Was rerun by suzejprince from #459

a few seconds ago

**CLONING**

FastFeedbac



Integration



Deploy

#460 ⌚ Jun 5th 2016 10:49

0a24d9b Update README.md

Was rerun by suzejprince from #459

a few seconds ago

28s

**PASSED**

FastFeedbac logs



Integration  
00:17



Deploy

#459 ↺ ⌚ Jun 5th 2016 10:47

0a24d9b Update README.md

Has been rerun to #461

2 minutes ago

29s

**PASSED**

FastFeedbac logs



a minute ago

14s

**PASSED**

Integration logs



a minute ago

7s

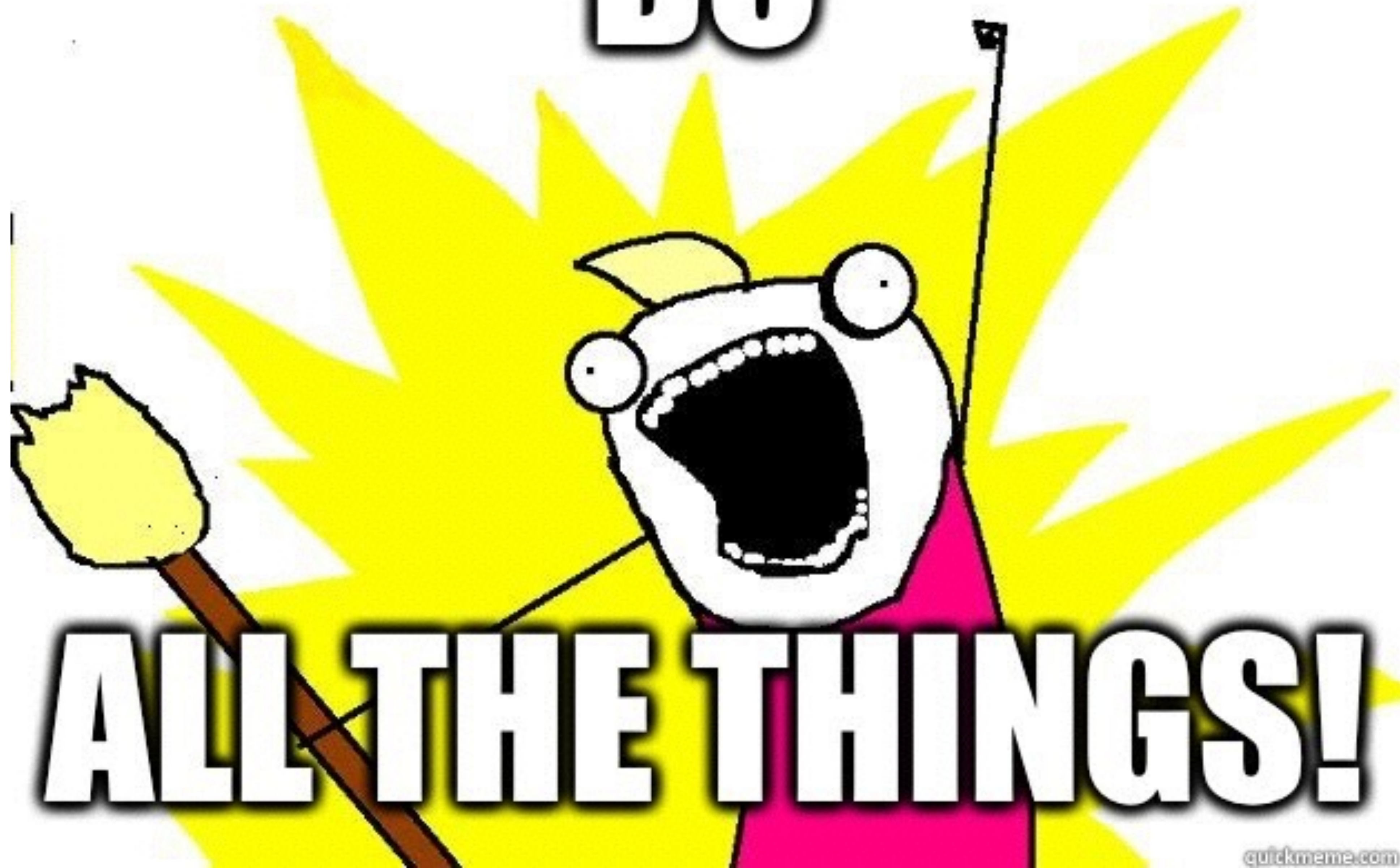
**PASSED**

Deploy logs





DO



ALL THE THINGS!



Microservices ✓

RabbitMQ ✓

Nagios ✓

Automated infrastructure ✓

Deployment pipelines ✓



**“Continuous Delivery is the ability to **get changes of all types**—including new features, configuration changes, bug fixes and experiments—into production, or **into the hands of users, safely and quickly in a sustainable way.**”**

Image from k  
-Suzanne Pr

**types** **get changes of all**

**into the hands of**  
**users, safely and quickly in a**  
**sustainable way**

Image from k  
-Suzanne Pr

**types** **get changes of all**

**into the hands of**  
**users, safely and ~~quickly~~ in a**  
**sustainable way**

Image from k  
-Suzanne Pr

**types** **get changes of all**

**into the hands of**  
**~~users~~, ~~safely~~ and ~~quickly~~ in a**  
**sustainable way**

Image from k  
-Suzanne Pr

**types** **get changes of all**

**into the hands of**  
**users, safely and quickly in a**  
**sustainable way**

Image from b  
-Suzanne Pr



Microservices ✓

RabbitMQ ✓

Nagios ✓

Automated infrastructure ✓

Deployment pipelines ✓

Microservices ✓



# Creating Microservice Deployment Pipelines with Netflix's Spinnaker: A Perspective from Google

by [Daniel Bryant](#) on Feb 28, 2016 | [Discuss](#)

Share [+](#) [f](#) [digg](#) [t](#) [r](#) [l](#) [e](#)

[My Reading List](#)

[Read later](#)

At the [microXchg](#) 2016 conference, held in Berlin, Germany, Rick Buskens presented “[Microservice Deployment Pipelines with Spinnaker](#)”, which discussed the collaboration between Netflix and Google on the Netflix-conceived [Spinnaker](#) continuous delivery platform. Spinnaker can be used to create build pipelines for safe and predictable deployment of microservice applications across multiple cloud providers.

[Buskens](#), an engineering manager of developer infrastructure at Google, began the talk by stating the motivations of Google’s interest in the Netflix-led development of the [Spinnaker](#) continuous delivery tool. Netflix is widely known for utilising a [microservice architecture](#) to power its streaming video platform, and the associated number and dynamism of components within this architecture means that Netflix is frequently deploying code.

Failure of any microservice can lead to disrupted user experience, and therefore the need for safe deployments is critical. Netflix has extensive experience of ensuring safe deployments at an ‘industrial-scale’. Accordingly, Google have been working alongside the Netflix team with the goal of creating effective and widely applicable tooling for supporting continuous delivery within microservice-based projects.

## RELATED CONTENT

[Netflix Keystone - How We Built a 700B/day Stream Processing Cloud Platform in a Year](#) May 19, 2016



[Monkeys in Lab Coats: Applying Failure Testing Research @Netflix](#) Mar 24, 2016



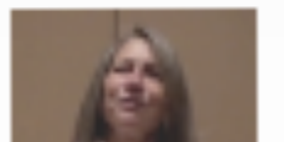
[#NetflixEverywhere Global Architecture](#) Mar 23, 2016



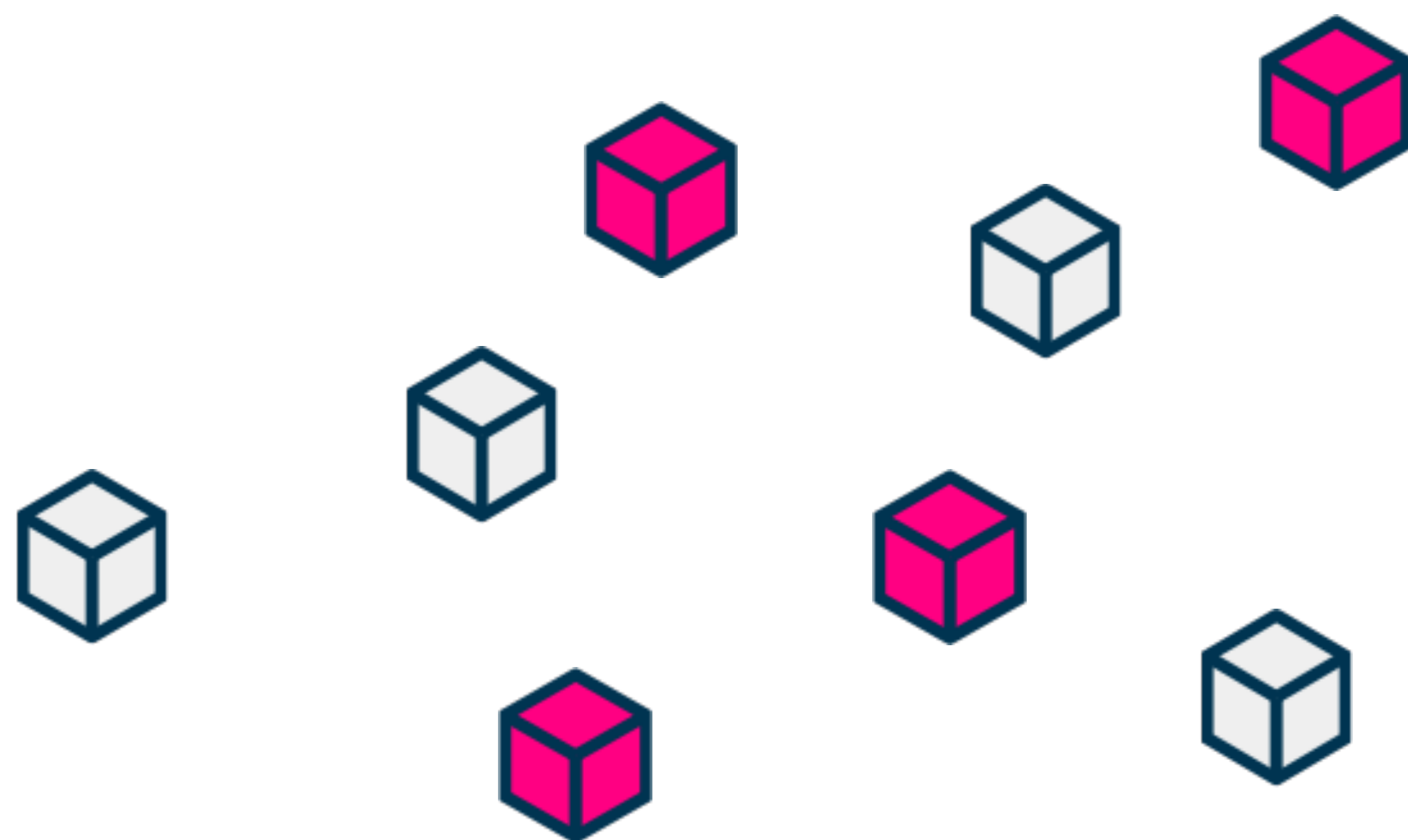
[Beyond DevOps: How Netflix Bridges the Gap](#) Jan 01, 2016



[Cornelia Davis Talks about Software Transformation in Enterprises](#)













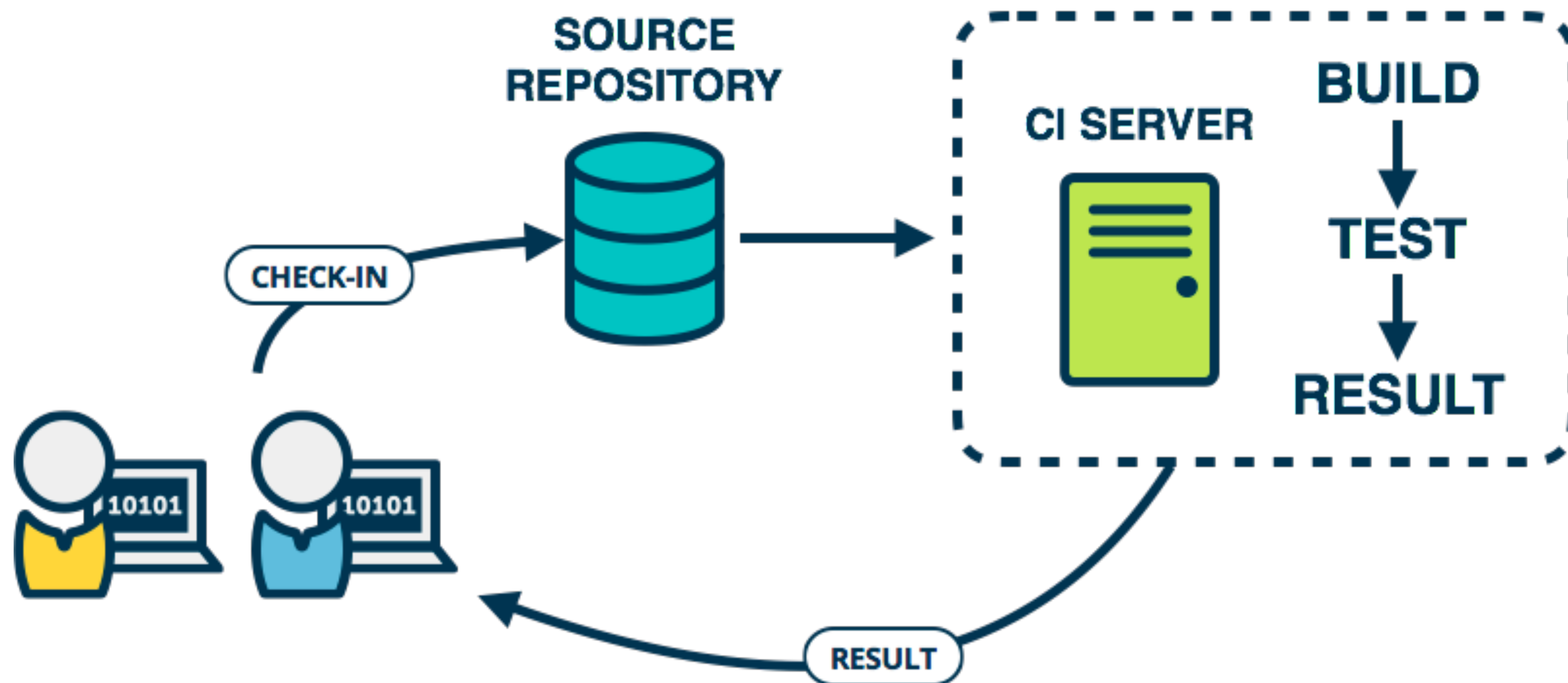


# LEARNINGS

Delivering value, not doing CD is your job

CD is a journey

**TAKE AWAYS**



**PRACTICE CONTINUOUS INTEGRATION**



**FREQUENCY REDUCES DIFFICULTY**

Microservices

Chef Server

RabbitMQ

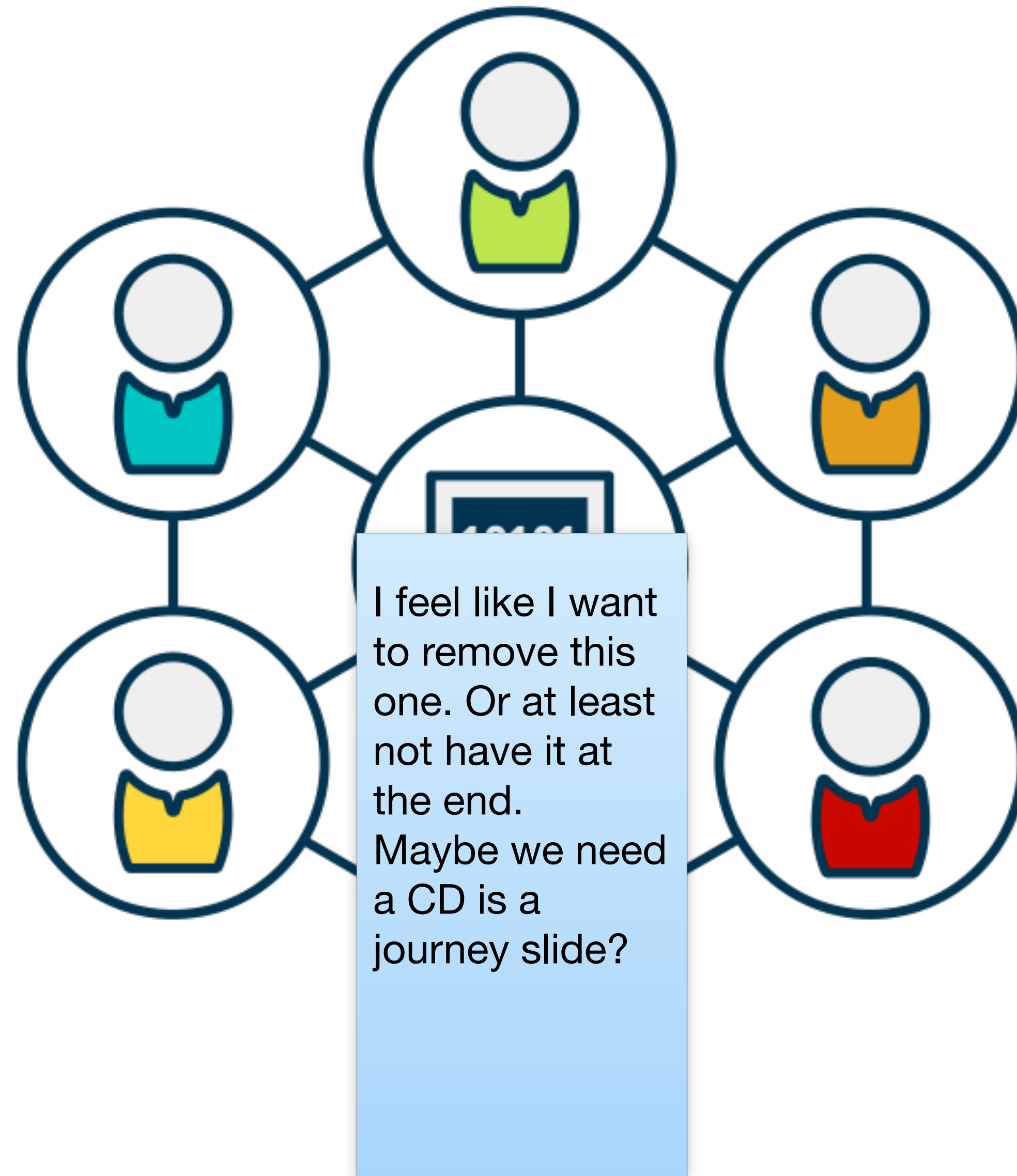
Nagios

Automated infrastructure

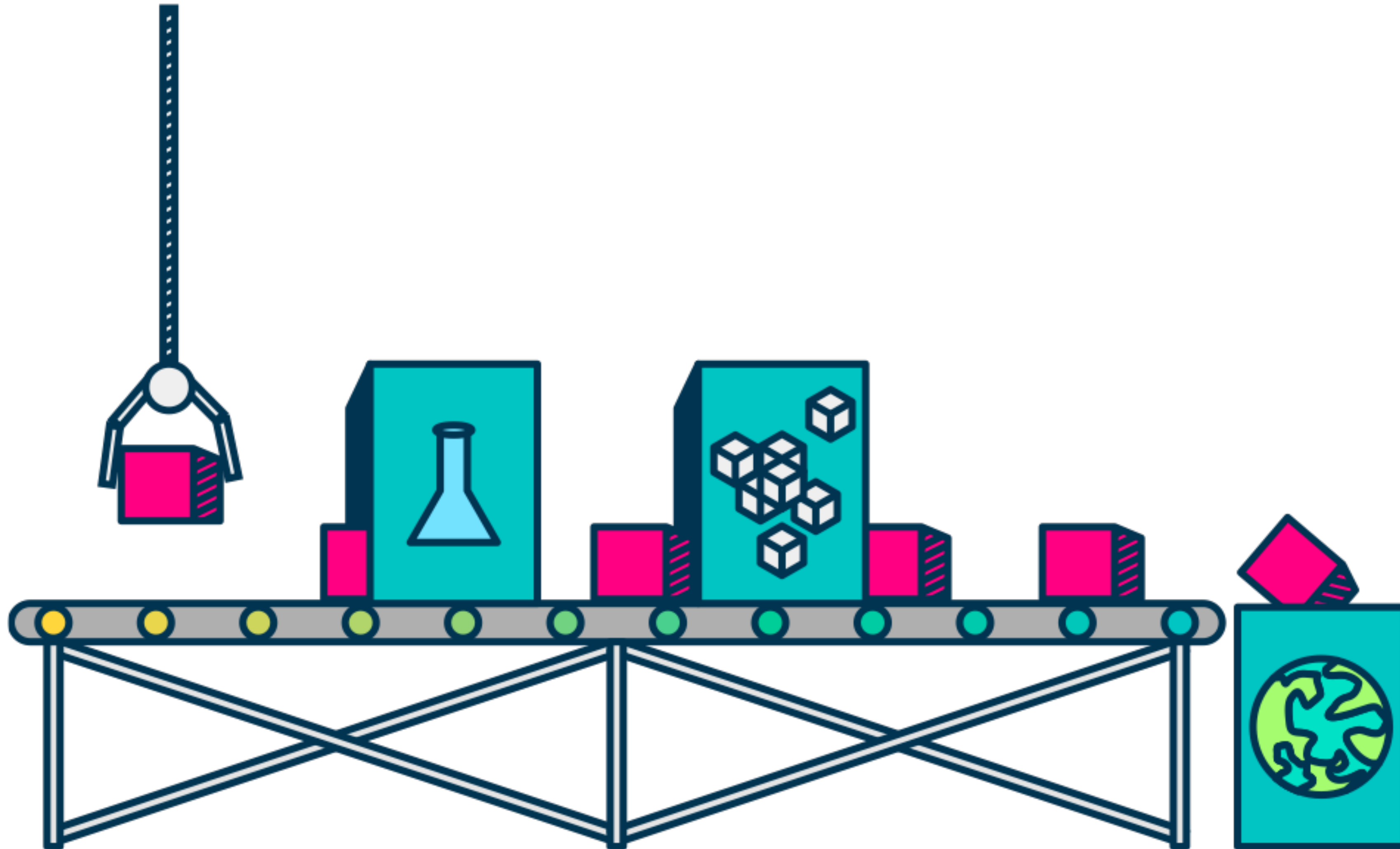
Deployment pipelines

**DOING CONTINUOUS DELIVERY IS NOT YOUR JOB**





**INVOLVE THE WHOLE TEAM**



**AUTOMATE EVERYTHING**

# PARTING THOUGHTS...

You will look back on what you did later and see  
how it could have been better

Focus on what is not good now and improve that

Don't be too critical but know that where you are  
right now is not the best place you could be

Don't fear redesign, don't fear rework, you'll end  
up doing it anyway