expoQA 24
MADRID
May 28th, 29th, 30th 2024
sogeti
expoQA
International Conference on Software Testing & Quality Engineering
expoqa.com

eficode

# How testing is evolving in DevOps...

## ...and how shall you evolve yourself

**Szilard Szell -** *DevOps Transformation Lead*
www.eficode.com

# Szilárd

## Széll

DevOps transformation lead
Test and Quality Coach
Agile coach and SAFe SPC, trainer
Volunteer in ISTQB
Public speaker

***“Testing is learning about your product and giving feedback. Continuous Testing is amplifying feedback”***

## Experience

- 22 years of experience in QA and DevOps in Telecommunications industry
- 12 years of experience as change agent
- SAFe SPC, Certified Scrum Master, DevOps DASA
- ISTQB CTEL-ITP-Full, CTAL-TM, CTFL-AT, CTFL, IREB CPRE
- ITIL4 Foundation
- Lean Six Sigma Green Belt
- Lean Service Creation - Facilitator

# Building the future of software development

**200M**
EUROS
REVENUE

**600**
PROFESSIONALS

**18**
YEARS OF
EXISTENCE

**50+**
TOOLS ON DEVOPS
PLATFORM

**1600+**
CUSTOMERS

**10**
COUNTRIES

- Eficode is the leading DevOps company in Europe.
- Experts in Cloud, DevOps, Agile, Service Management and Software Development
- We help customers transform into software-driven organizations
- Our expertise and passion is to make software development efficient, predictable, and profitable.

ATLASSIAN Platinum Solution Partner

Microsoft Partner

GitHub Verified Partner

PROFESSIONAL SERVICES GitLab CERTIFIED PARTNER

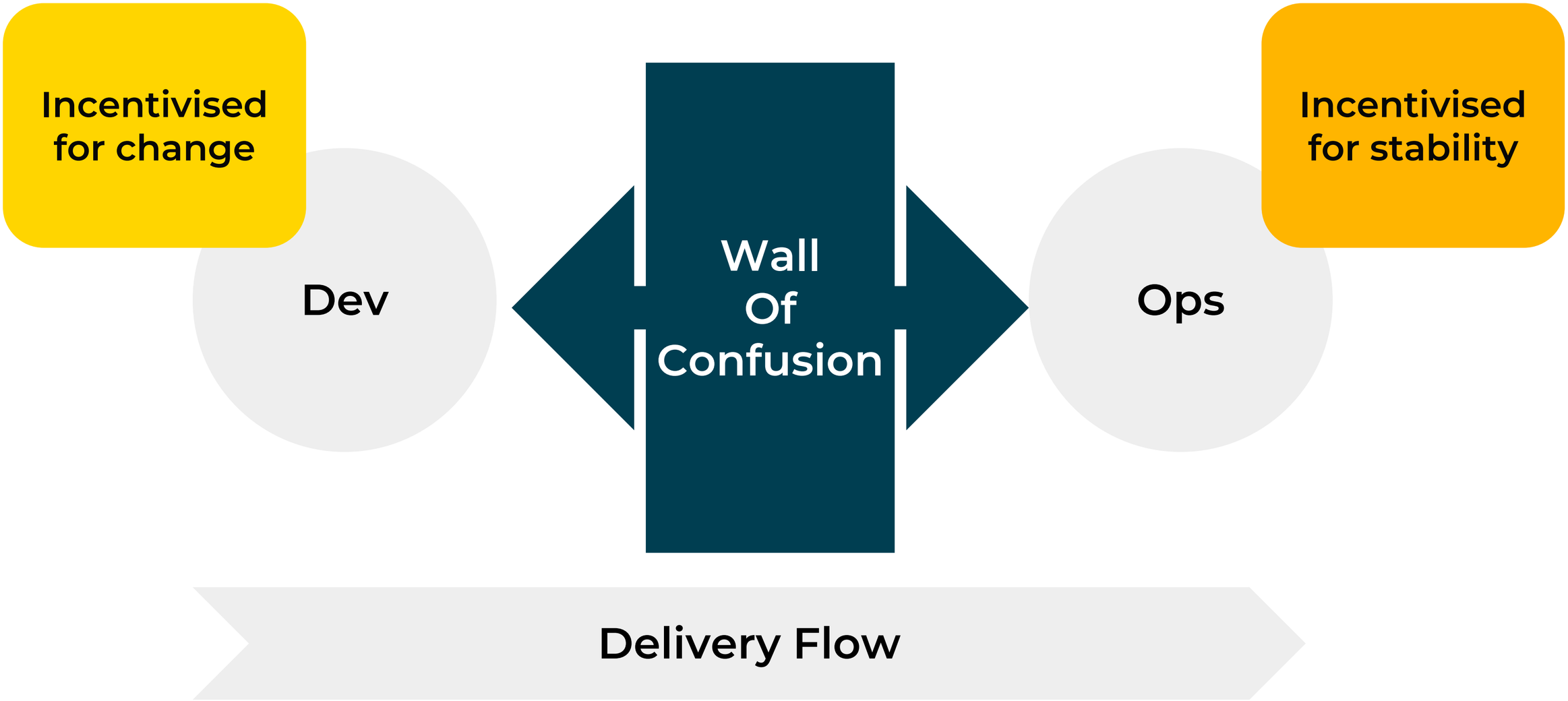
aws partner network Advanced Consulting Partner

Google Cloud Partner

# What is DevOps?

Quick refresh

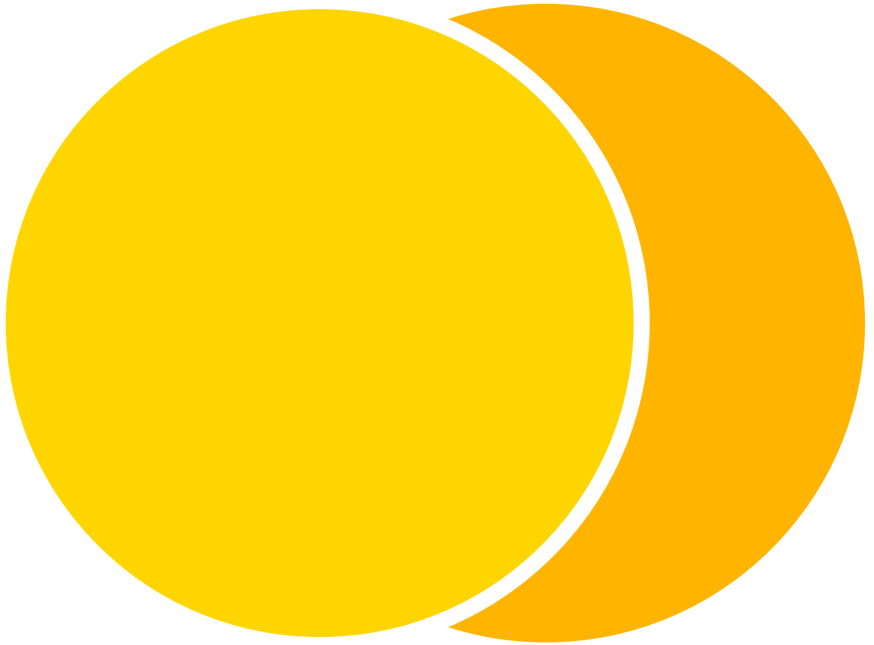
# The Chronic Conflict



# Dev*Ops as the solution?

QA?

Business?



InfoSec?

Management?

Delivery Flow

# 1. The First Way: The Principles of Flow

# 2. The Second Way: The Principles of Feedback

# 3. The Third Way: The Principles of Continual Learning and Experimentation

# One DevOps view

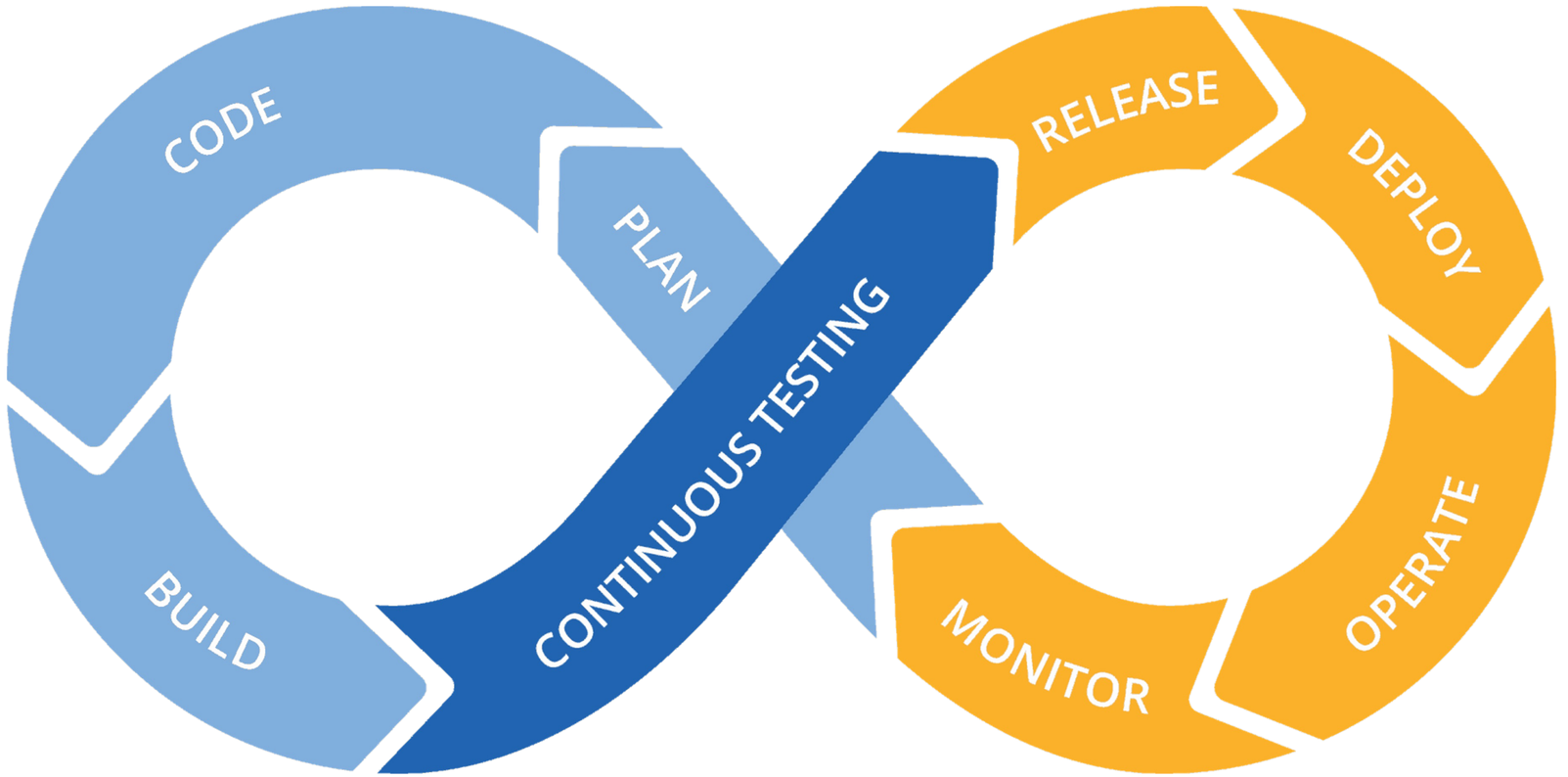



Image source: https://www.tricentis.com/products/what-is-continuous-testing/

# My favorite DevOps view from Dan Ashby

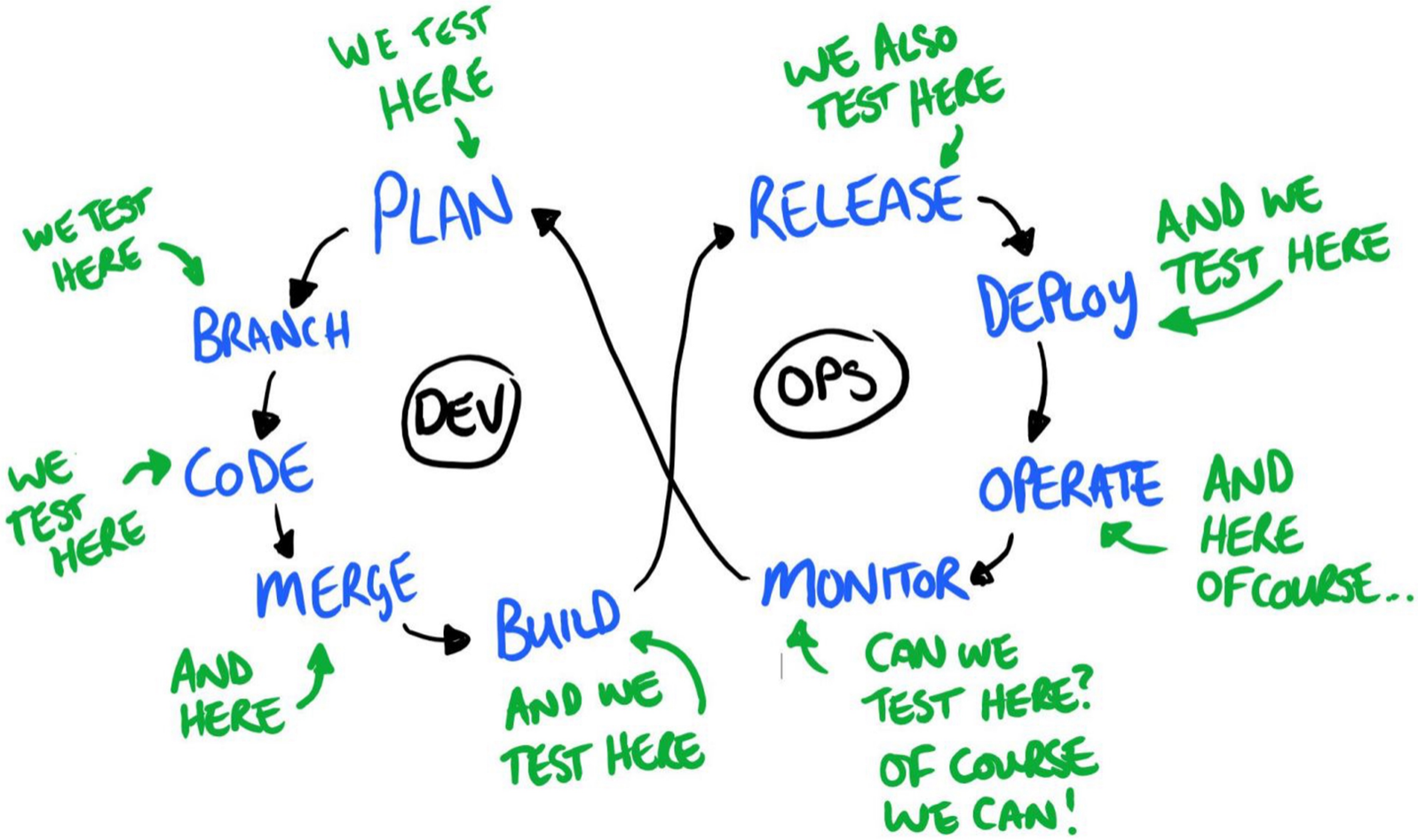
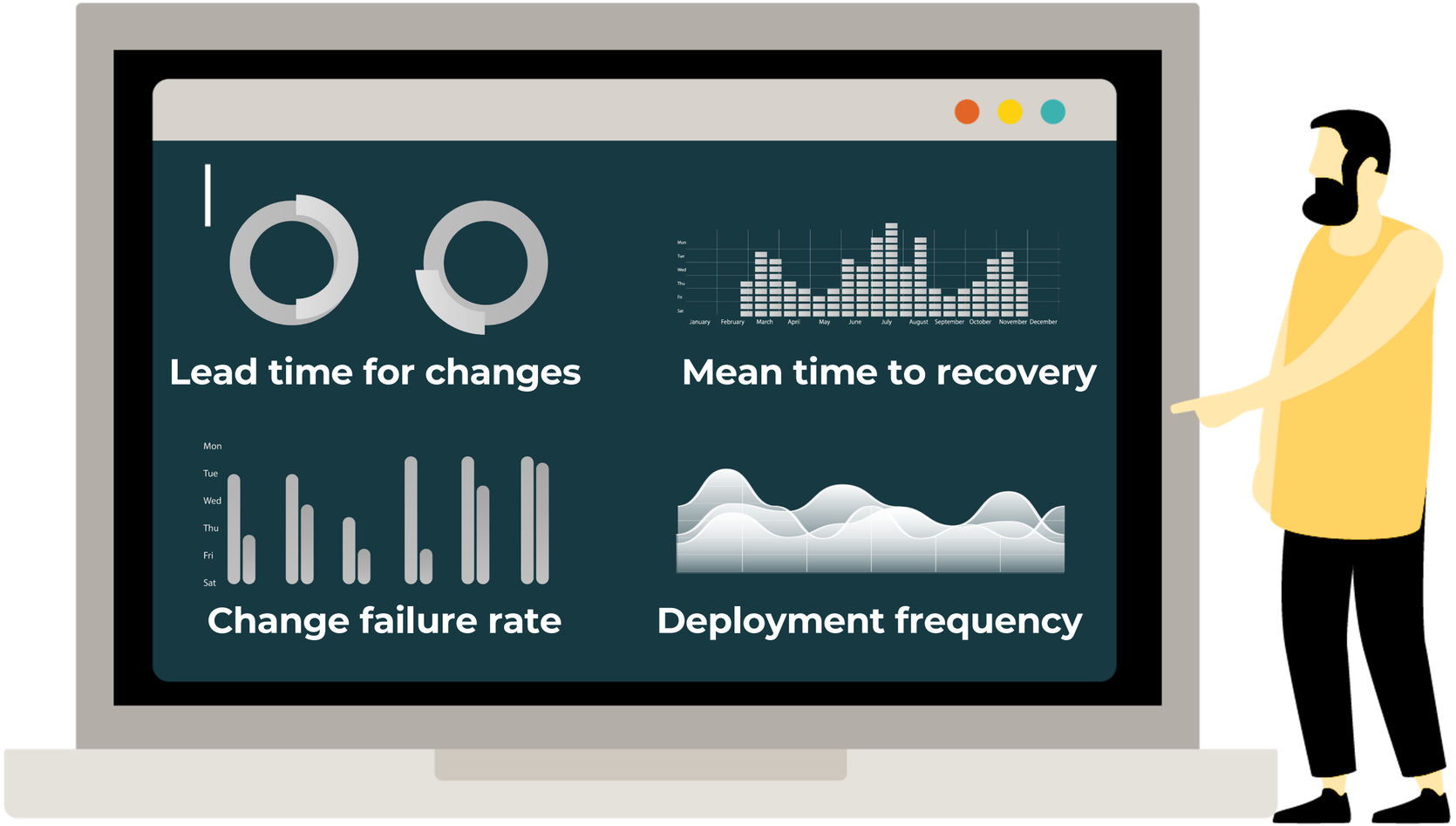



Image source: https://danashby.co.uk/2016/10/19/continuous-testing-in-devops/

# DORA DevOps metrics

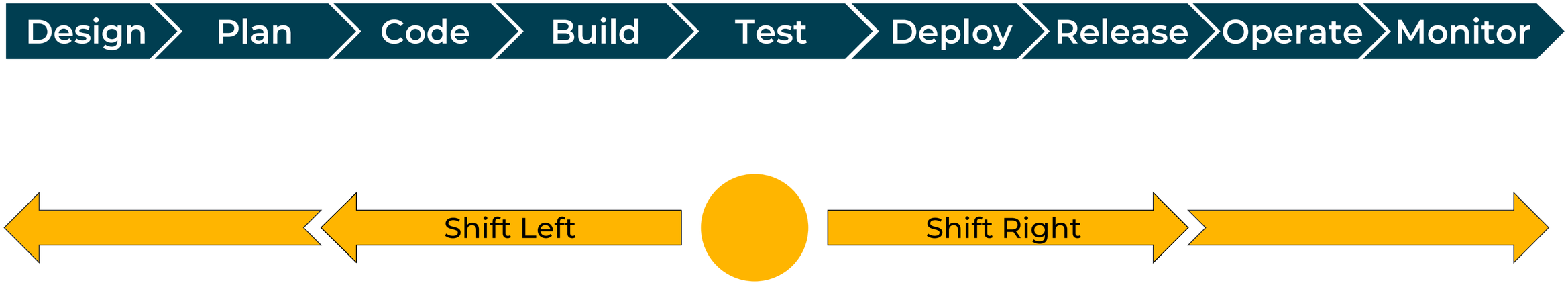


# Testing in DevOps

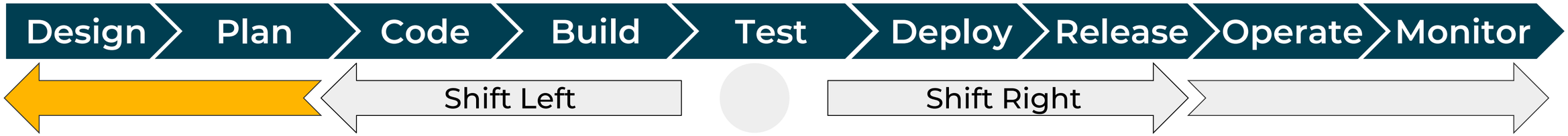
Or should we say Quality Assistance?

# The development value stream

# The development value stream



# Customer Centric QA



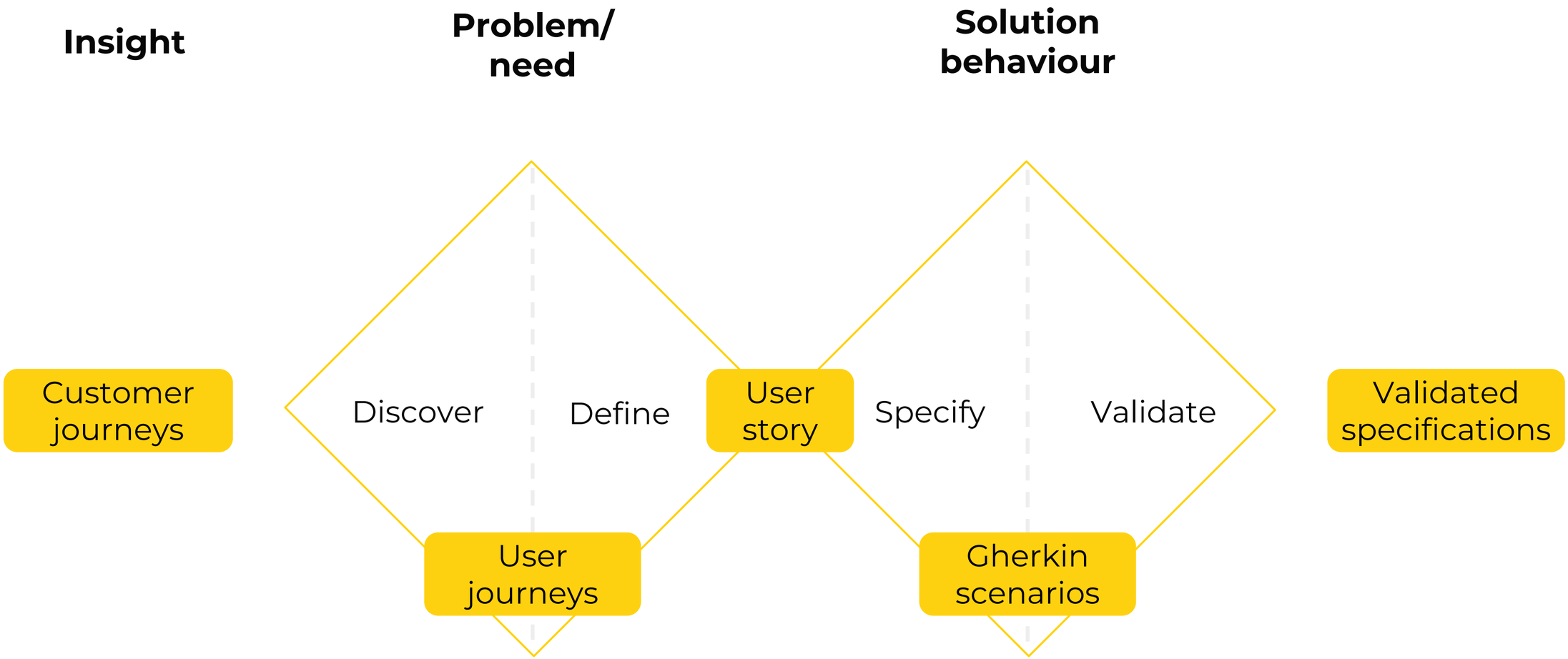

Design Thinking

Personas, Empathy Maps, Customer Journey Mapping

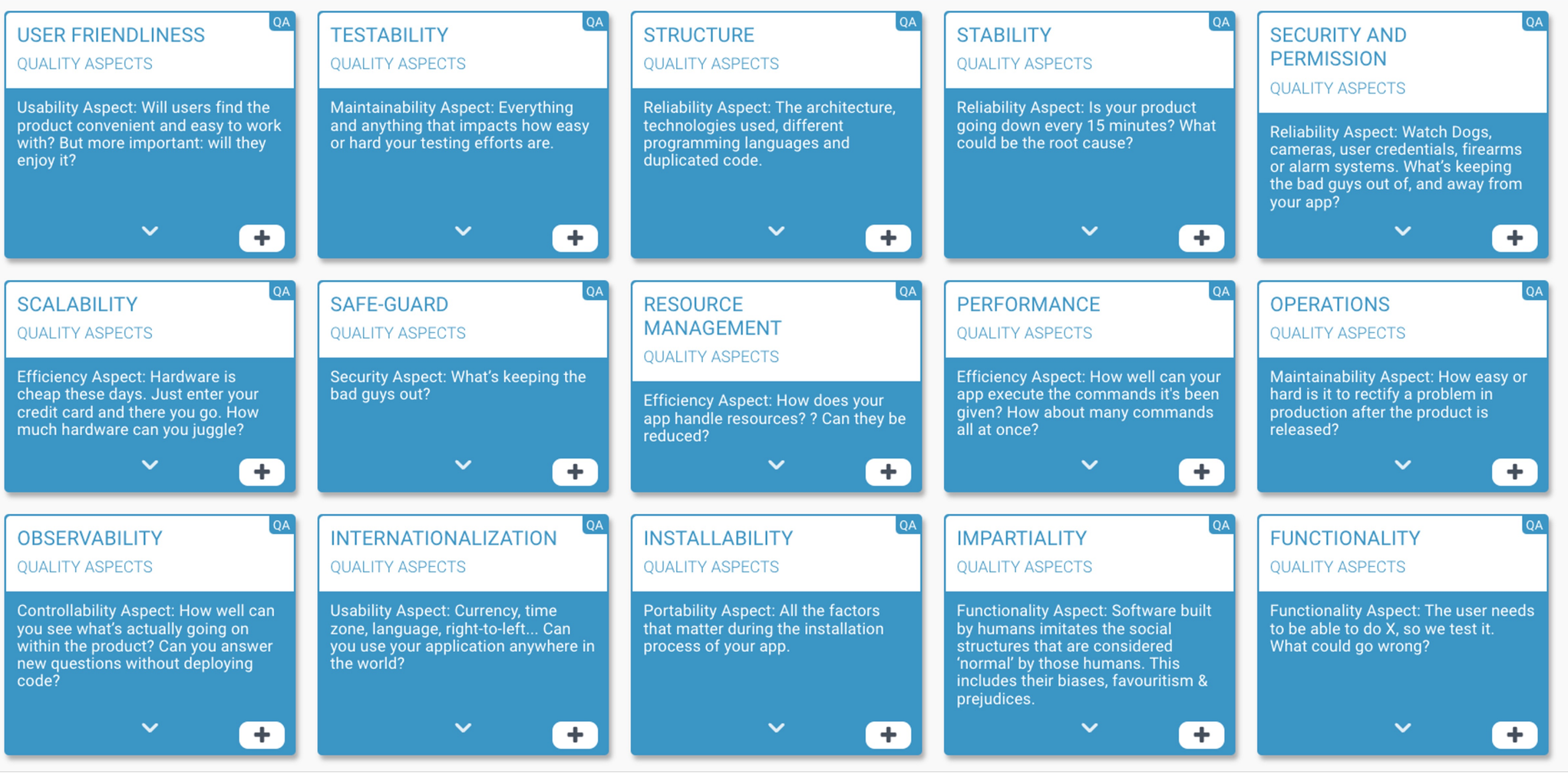
Story Mapping, BDD/ATDD

Design Feedback Through Prototypes

# From insight to specification

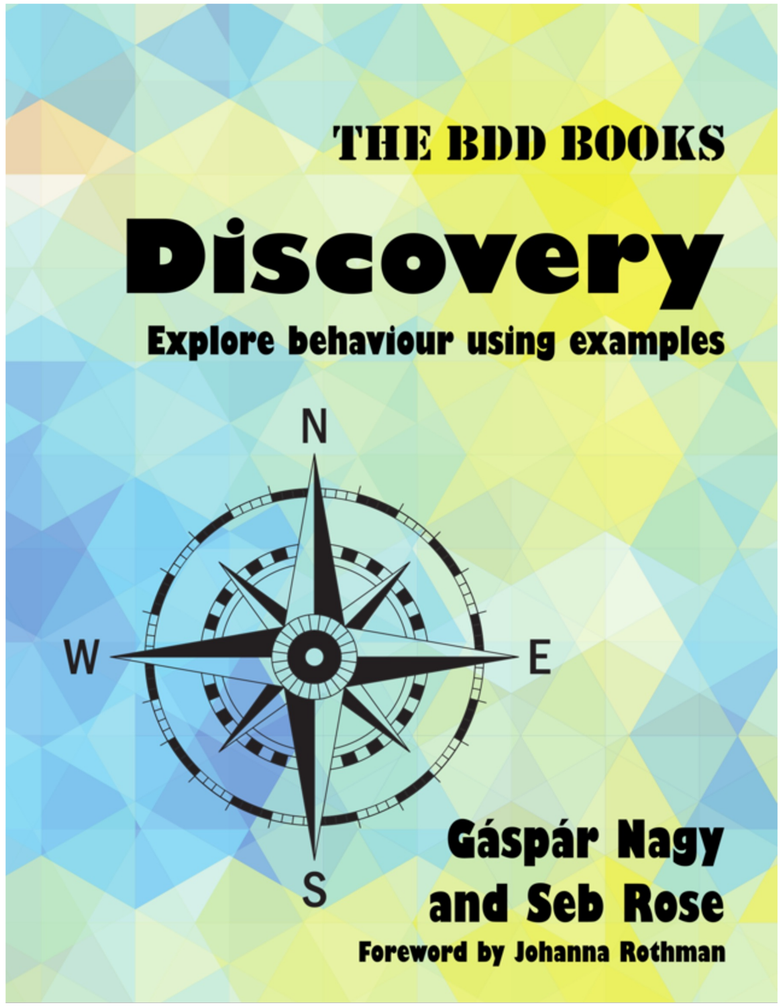


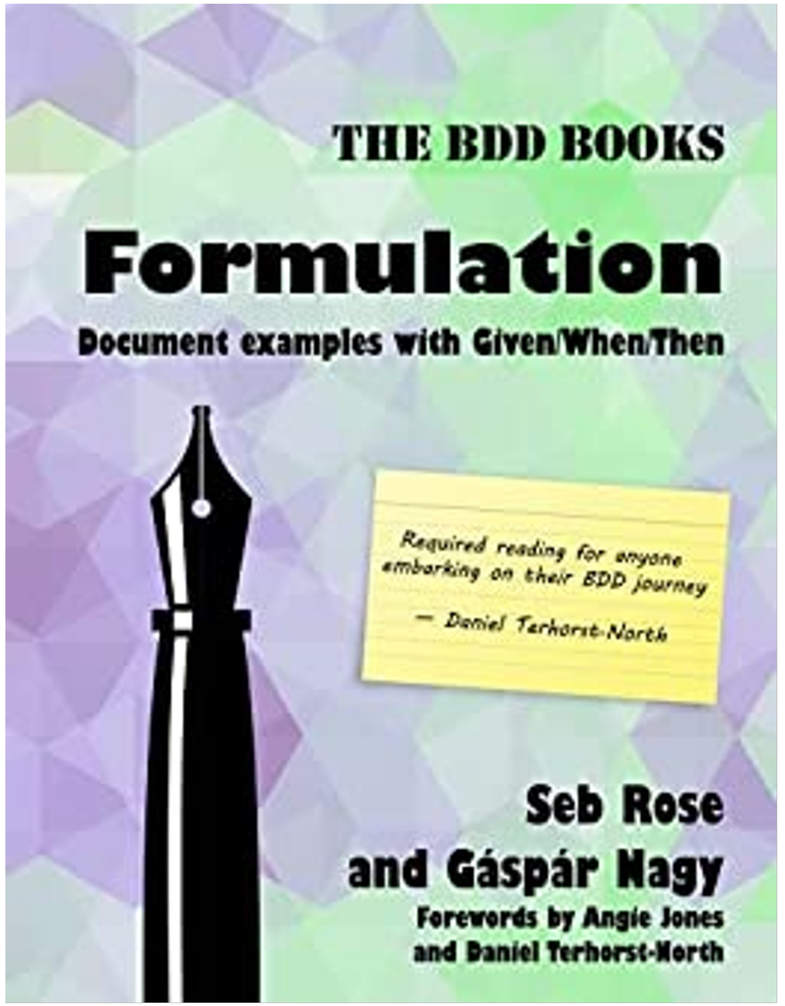
# Identify Customer Quality needs




https://app.riskstormingonline.com/

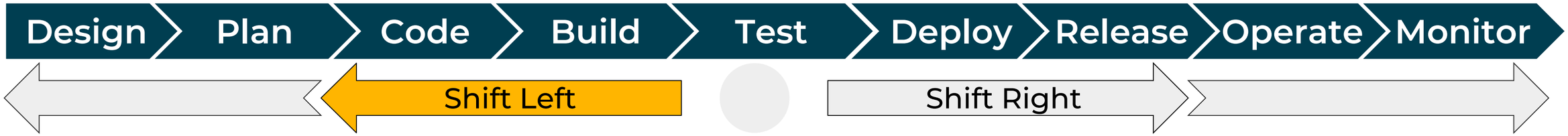
# BDD books from Gaspar and Seb




https://bddbooks.com/

# QA during coding




CI/CD pipeline design

TDD/Unit Testing

Code Analysis/Lint

Static Application Security Testing (SAST)

# Designing a CI/CD pipeline

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## PIPELINE - THE GAME THAT DELIVERS!

**pipelinegame.eficode.com**

A new card game to design Continuous Delivery pipelines

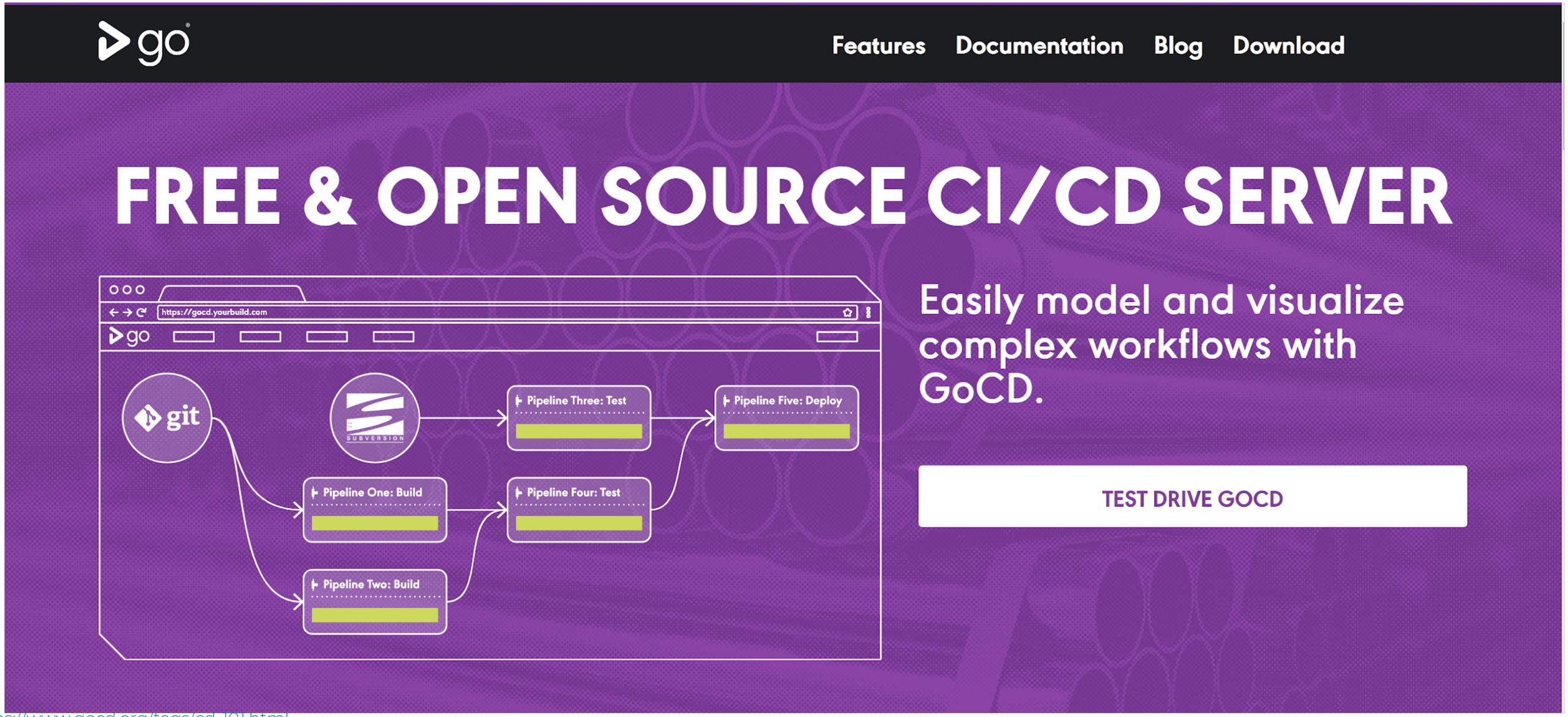
**What testing steps should you include in your Continuous Delivery pipeline? Don't just string together existing manual processes - use simple, collaborative tools to design something better!**

Emily Bache

SEE MORE FROM AUTHOR →

https://www.eficode.com/blog/pipeline-card-game

# Learn CI/CD through Blogs of GoCD




https://www.gocd.org/tags/cd-101.html

# Learn CI/CD through Blogs of GoCD

snyk

sonarqube

Snyk Code

Find and fix vulnerabilities in your application code in real time

Security

Hotspots > Code review

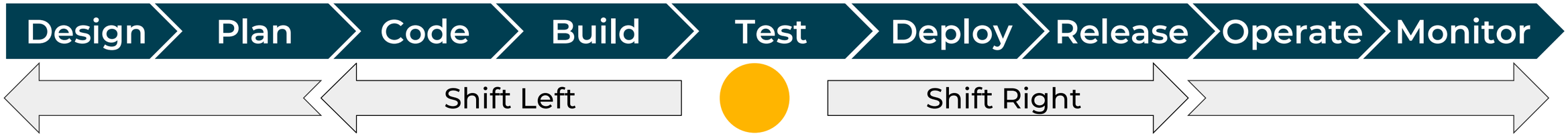
Security

Vulnerabilities > Code change/fix

https://snyk.io/

https://www.sonarsource.com/products/sonarqube/

# “Test”



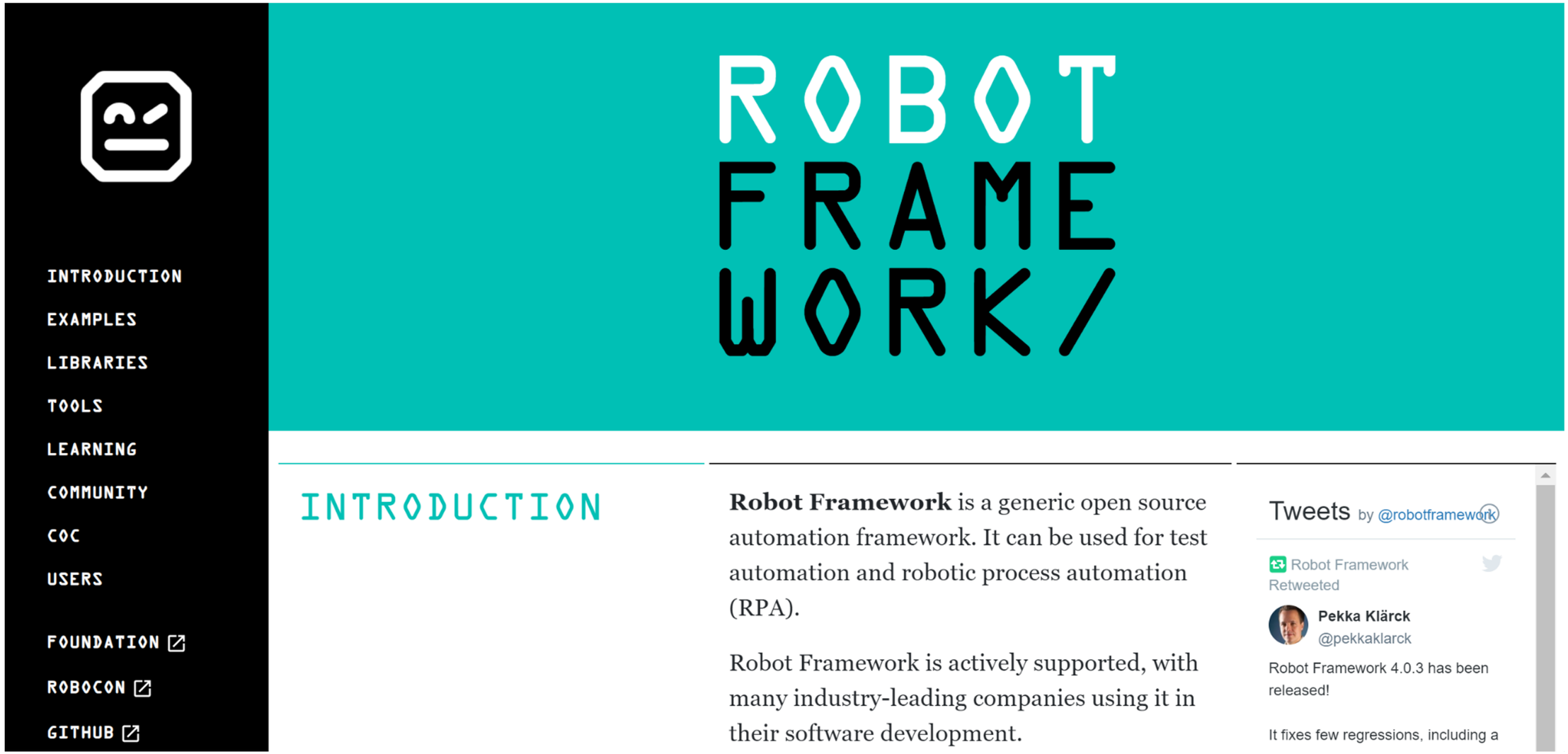

## Continuous Testing

## Keyword Driven Test Automation

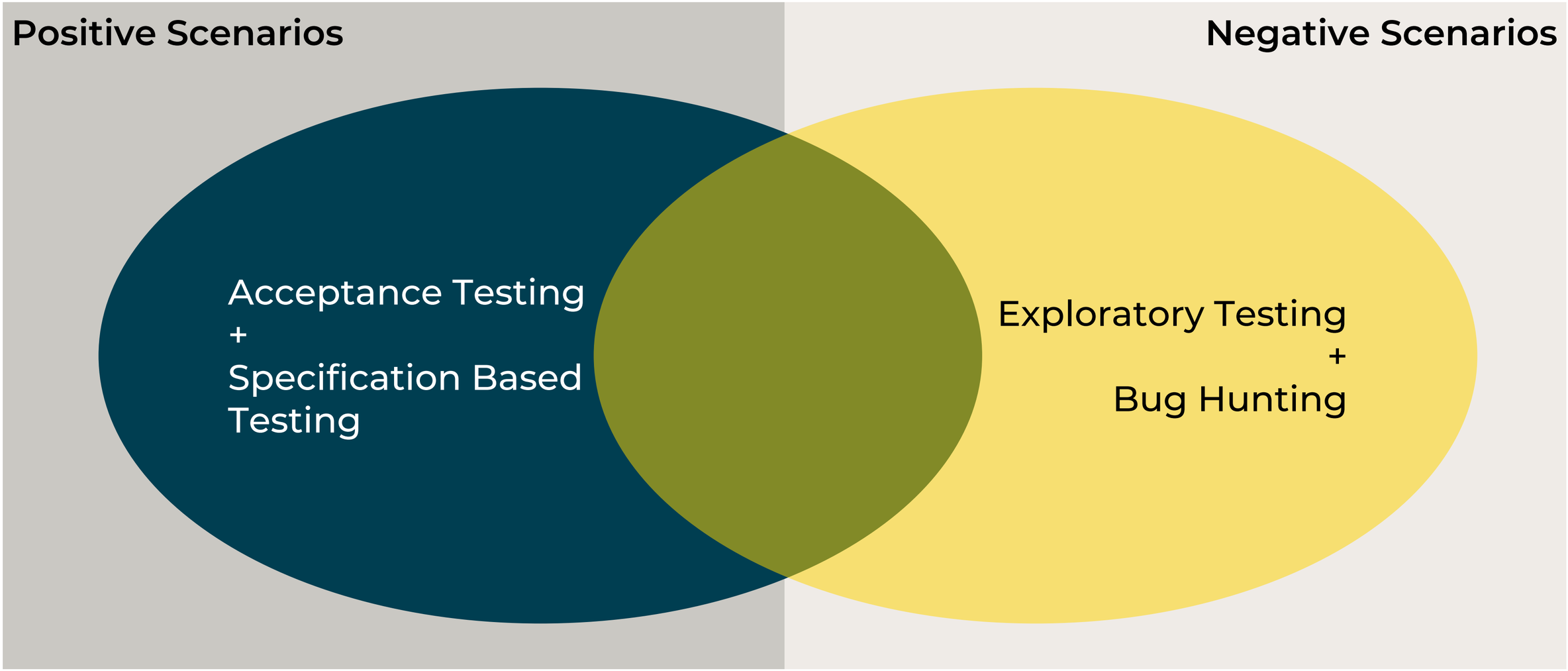
## Exploratory Testing and Bug hunting

## Continuous Non-functional testing

# Keyword Driven Test Automation



# Exploratory Testing and Bug hunting



# Continuous Non-functional testing

ility (English)

Origin & history

From the common suffix of various desirable qualities, e.g. *testability*, *reliability*.

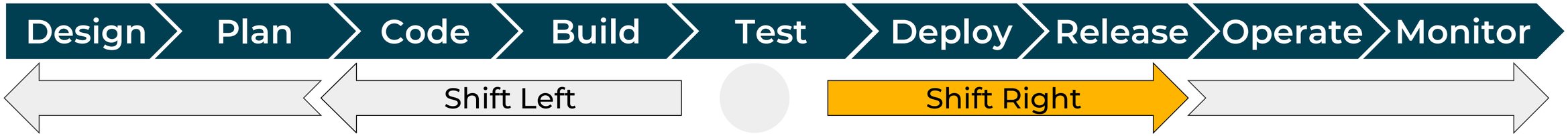
Noun

**ility** (*pl.* **ilities**)

1. (*computing*) An abstract quality that good software should exhibit.

**Observability**

# QA in deployment



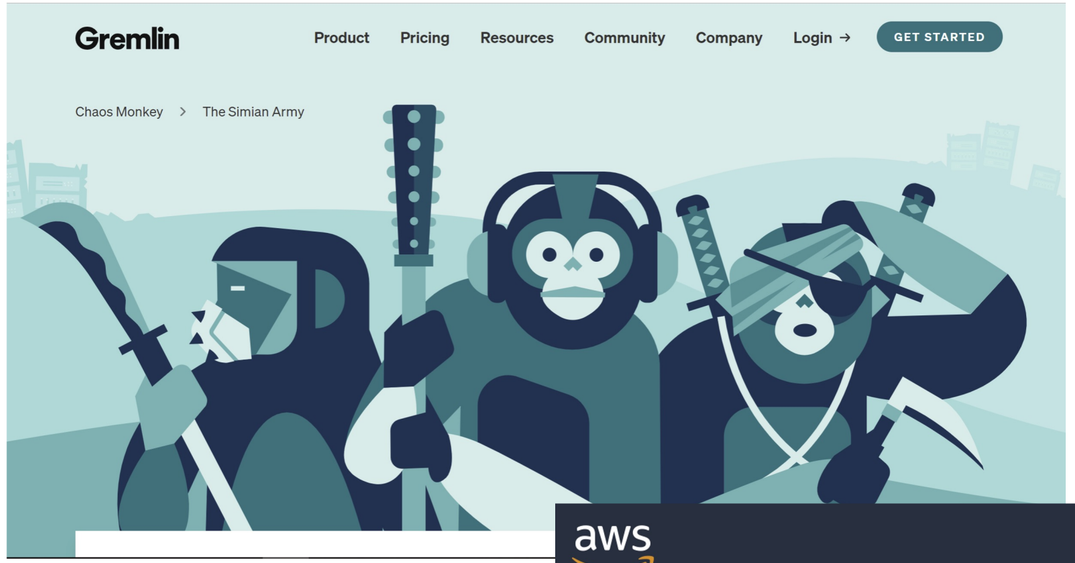

Acceptance Test on standardized Staging

Chaos Engineering

Deployment Strategies

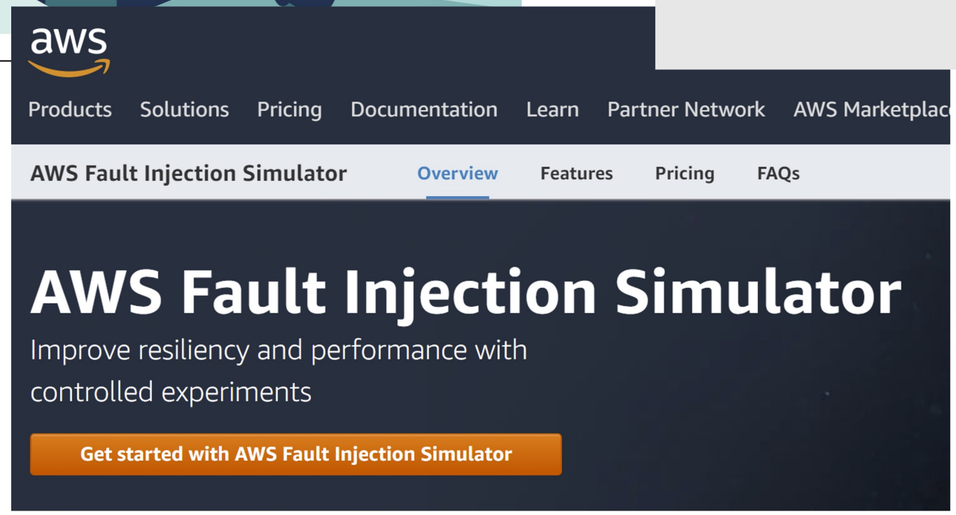
Canary Release and Dark Launch

# Chaos Engineering



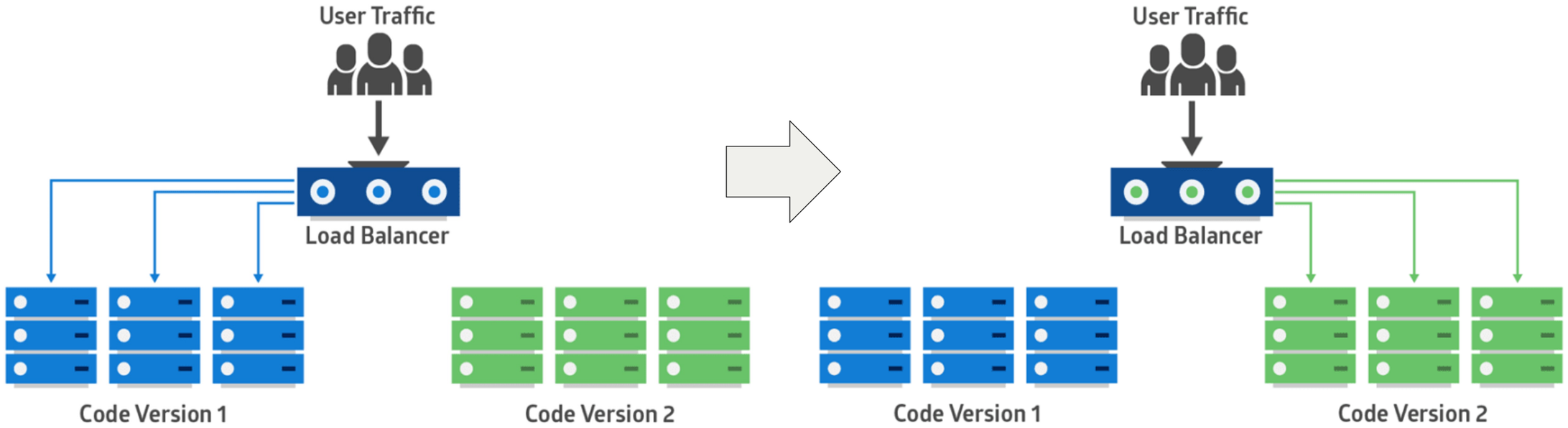

https://www.gremlin.com/chaos-monkey/the-simian-army/

https://vmware.github.io/mangle/



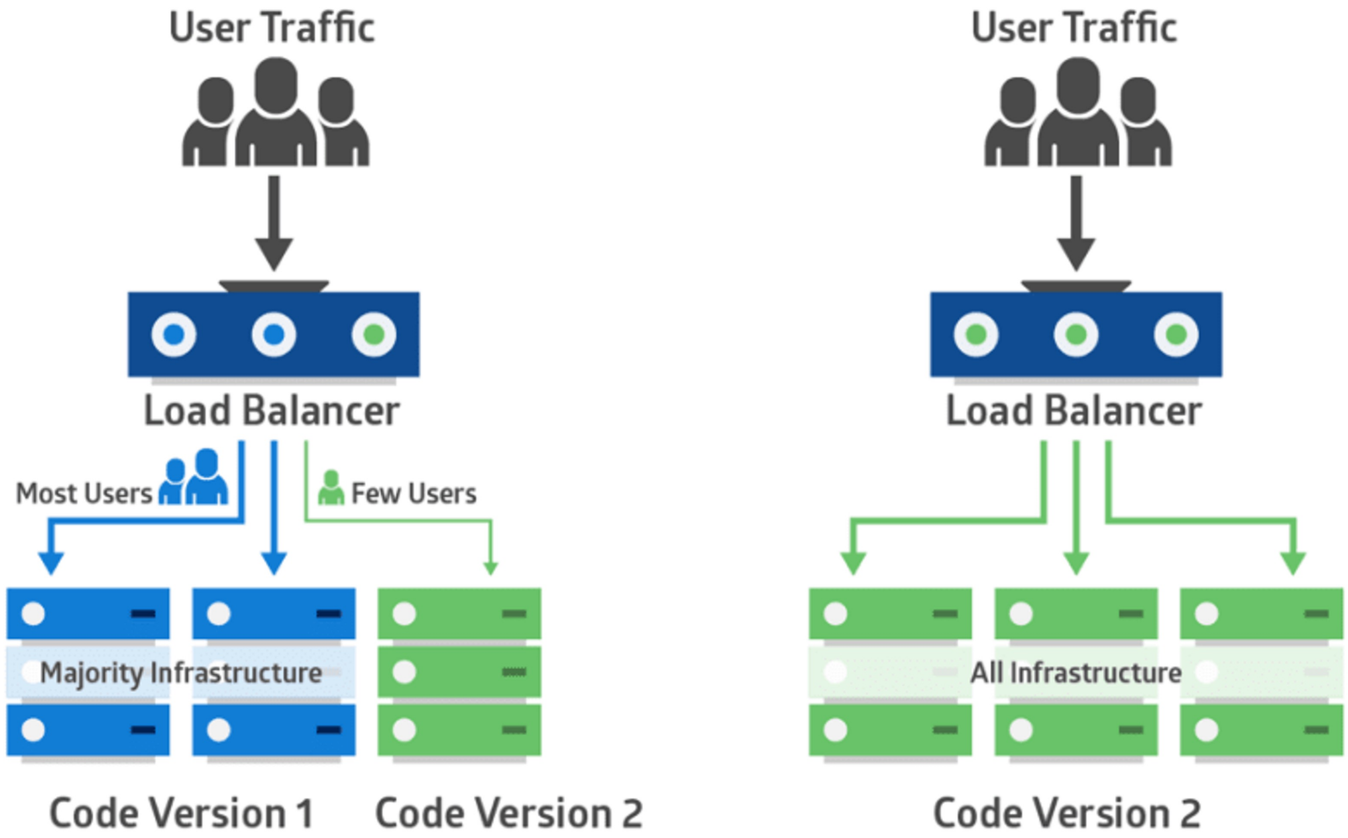

https://aws.amazon.com/fis/

# Blue-Green deployment strategy



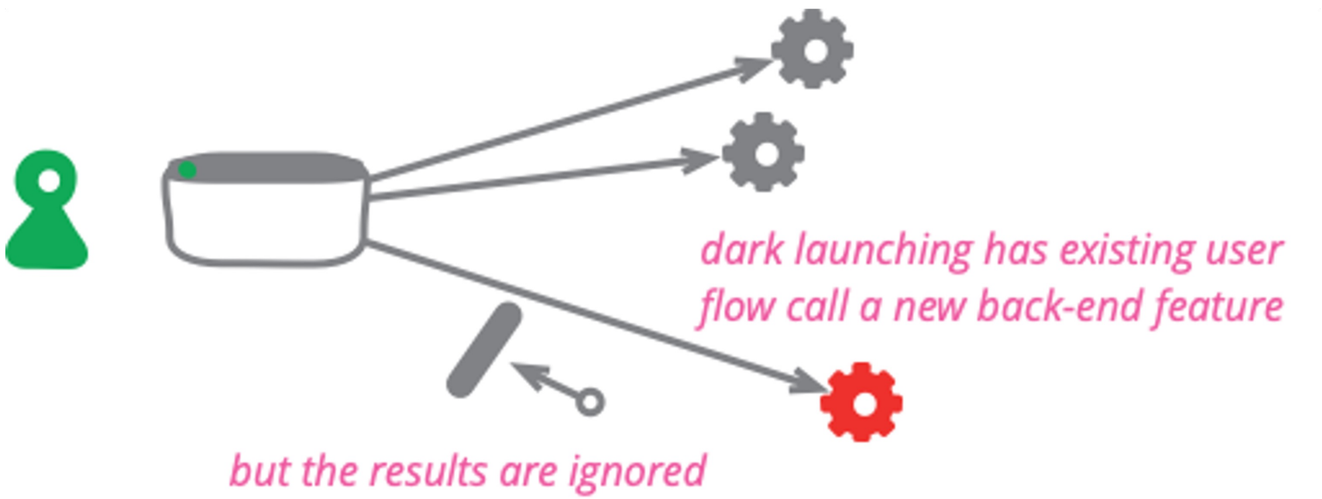

https://dev.to/mostlyjason/intro-to-deployment-strategies-blue-green-canary-and-more-3a3

# Canary deployment strategy




https://dev.to/mostlyjason/intro-to-deployment-strategies-blue-green-canary-and-more-3a3

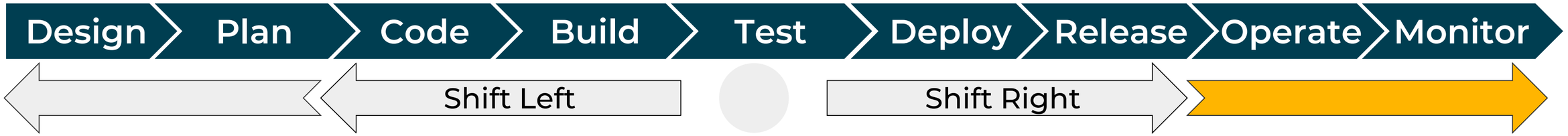
# Dark Launch




*this allows us to monitor the load on existing systems before the feature is officially released*

https://dev.to/mostlyjason/intro-to-deployment-strategies-blue-green-canary-and-more-3a3

# QA in live




**Telemetry and Automatic Roll-back**

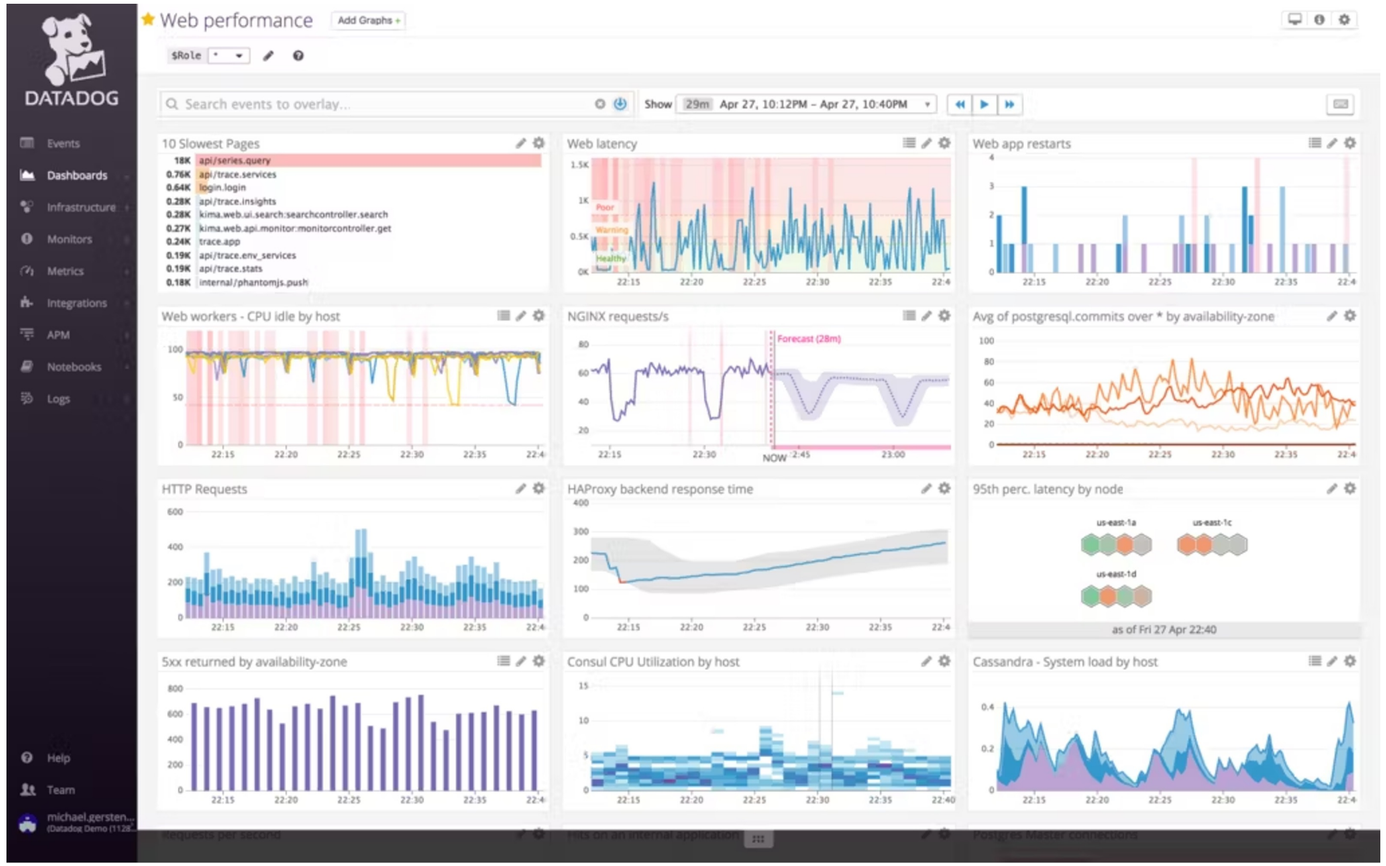
**Observability**

**A/B Testing**

**Social Media Monitoring**

**ITSM and Blameless Postmortem**

# Telemetry: Datadog / Grafana / Status page




Uptime over the past 90 days. View historical uptime.

**Intercom Messenger** — Operational
90 days ago — 99.73 % uptime — Today

**Intercom Web Application** — Operational
90 days ago — 99.7 % uptime — Today

**Intercom APIs** — Operational
90 days ago — 99.7 % uptime — Today

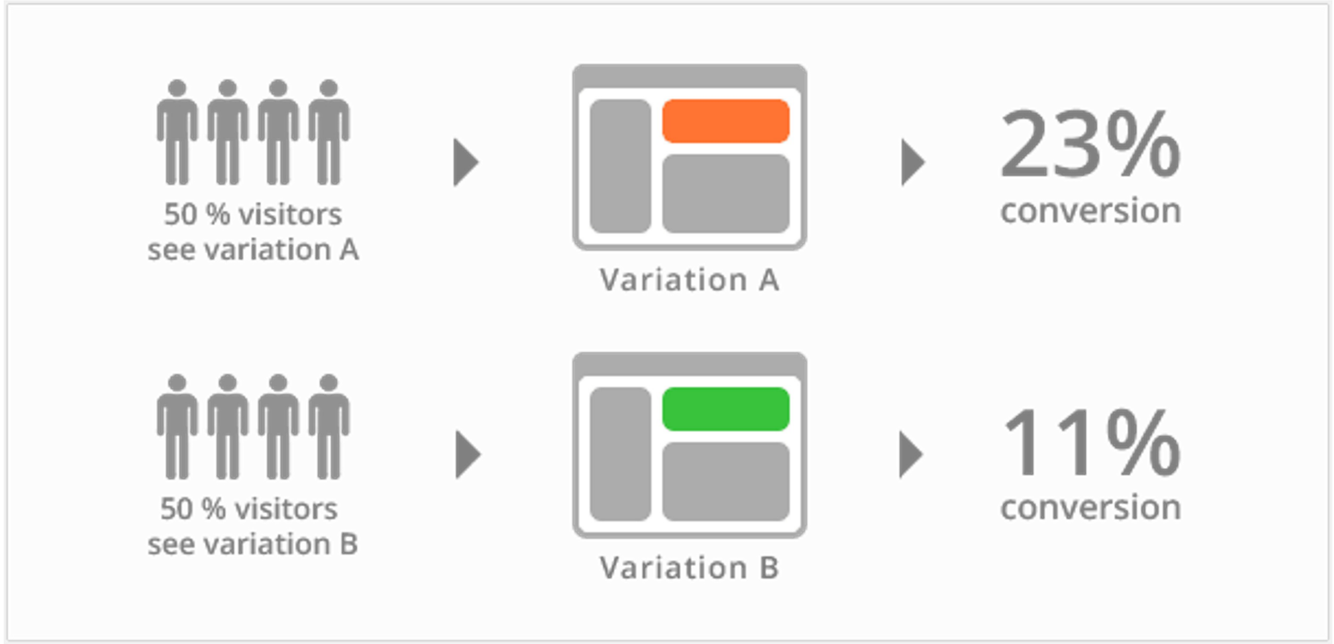
**Intercom Mobile APIs** — Operational
90 days ago — 99.99 % uptime — Today

**Intercom message delivery** — Operational
90 days ago — 99.99 % uptime — Today

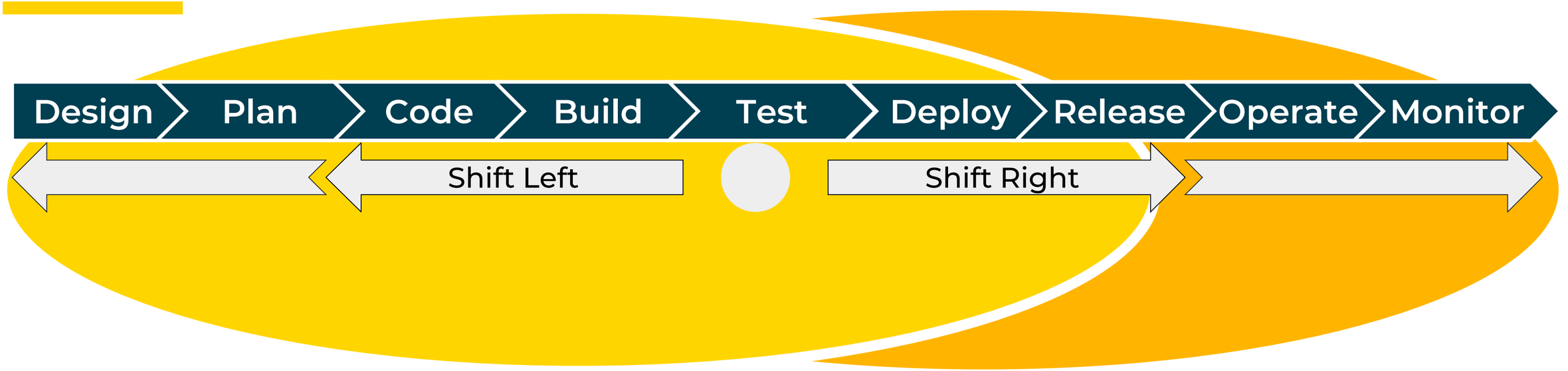
**Intercom Webhooks** — Operational
90 days ago — 99.99 % uptime — Today

https://www.datadoghq.com/ https://www.intercomstatus.com/ https://www.intercomstatus.com/

# A/B testing


50 % visitors
see variation A
Variation A
23%
conversion
50 % visitors
see variation B
Variation B
11%
conversion

# QA in the organization




Agile on scale (SAFe, LeSS, etc.)

Continuous Learning Culture

Test Process Improvement (TMMi, TPI-Next, QPAM, etc.)

# Take Away

menti.com
3375 2642

# Take away

1. QA still has a role in all the Three ways of DevOps
2. You need to learn a lot of technology and new methods
3. There is a lot more both on the left and on the right
4. Testing is never boring, especially in DevOps!

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