

expo IQA 24

MADRID
May 28th,
29th, 30th
2024



expoqqa.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.



Platinum
Solution Partner

Microsoft
Partner

GitHub Verified Partner



aws partner
network
Advanced
Consulting
Partner

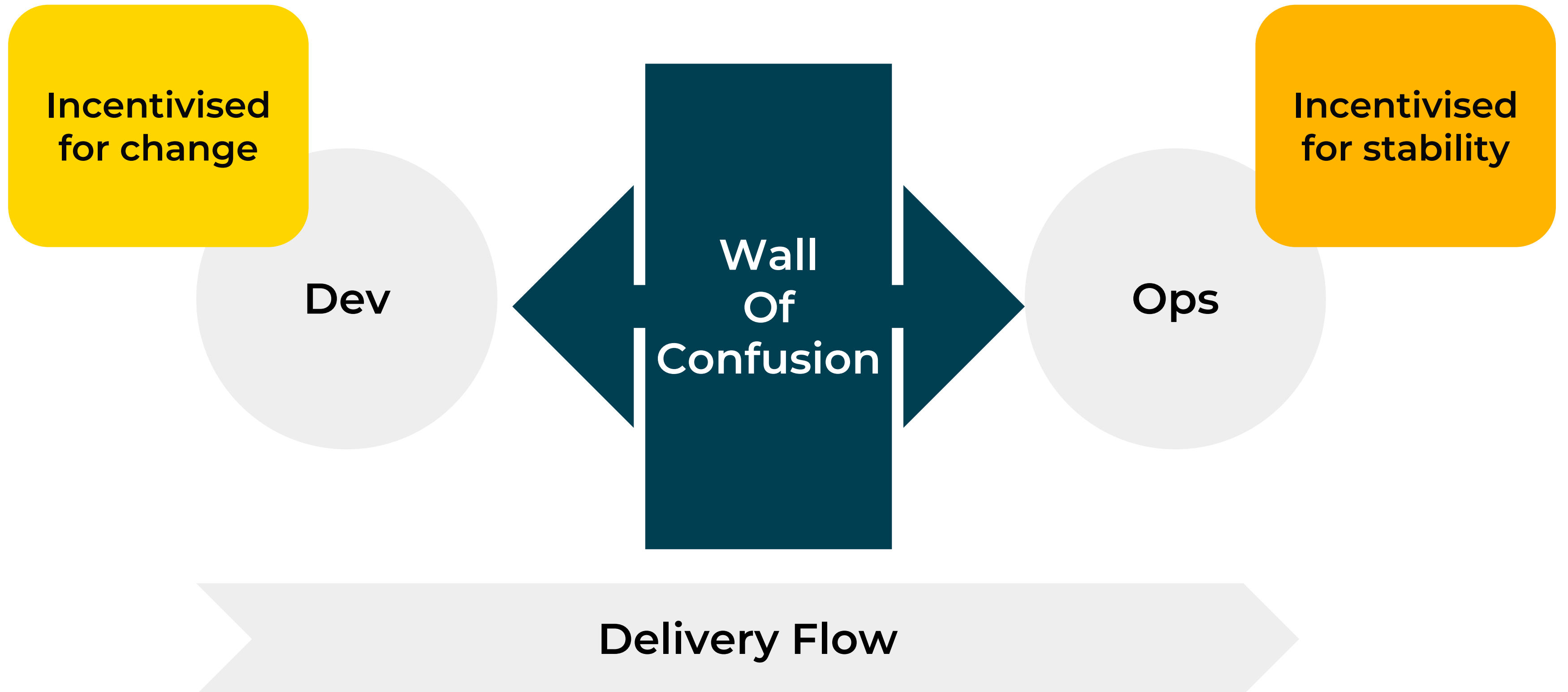
Google Cloud
Partner

What is DevOps?

Quick refresh



The Chronic Conflict



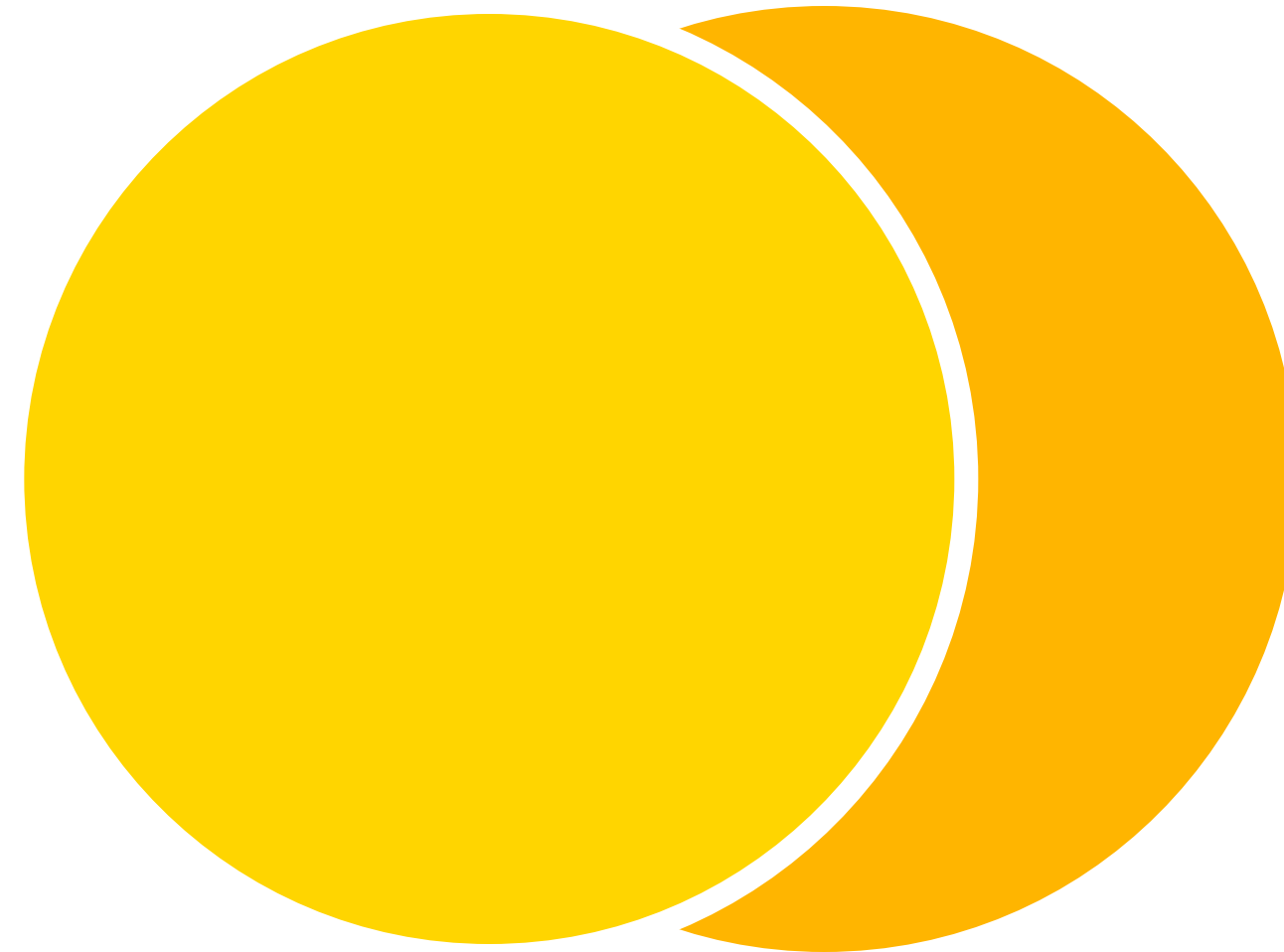
Dev*Ops as the solution?

QA?

Business?

InfoSec?

Management?



Delivery Flow

1. The First Way: The Principles of Flow



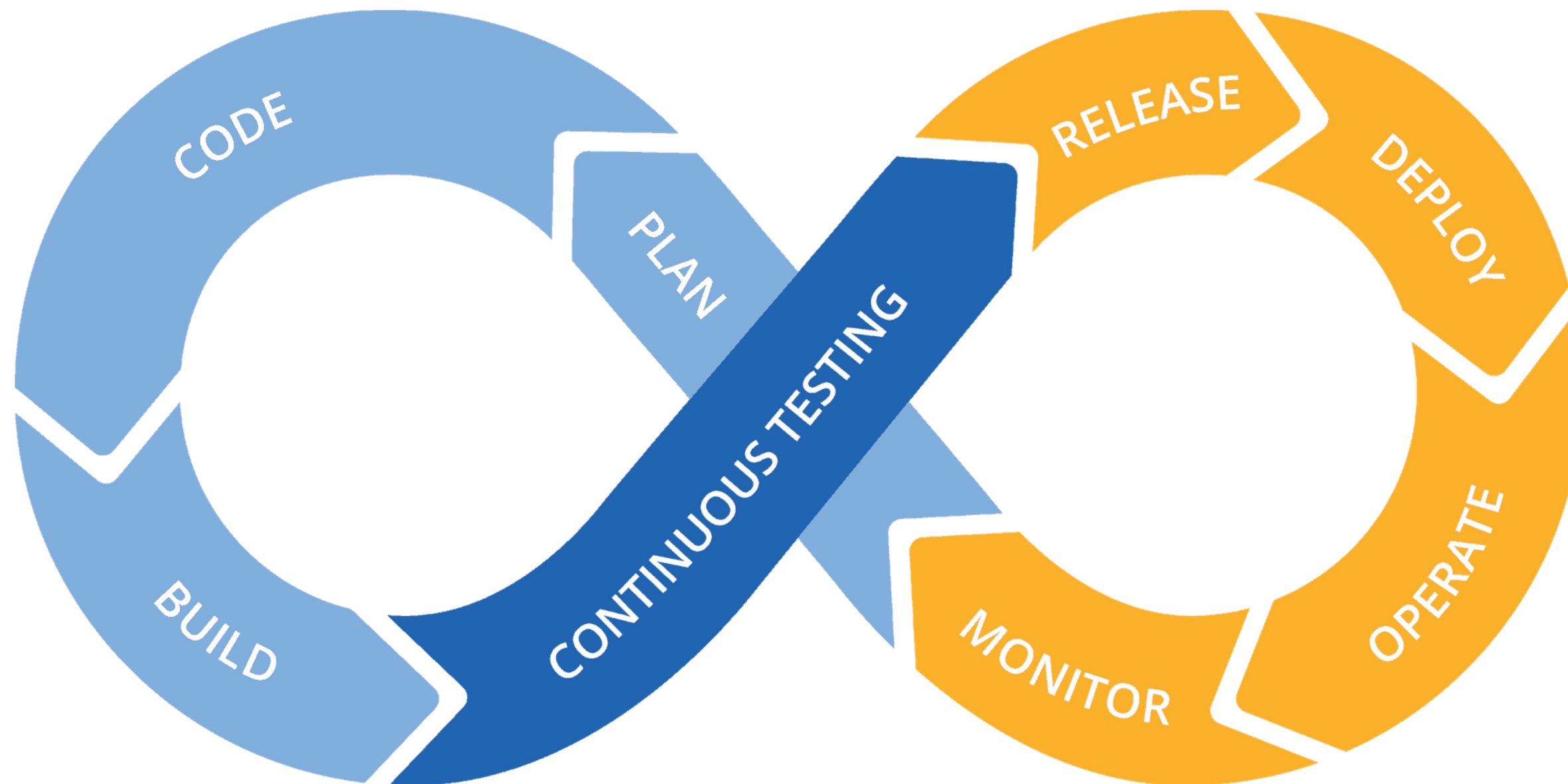
2. The Second Way: The Principles of Feedback



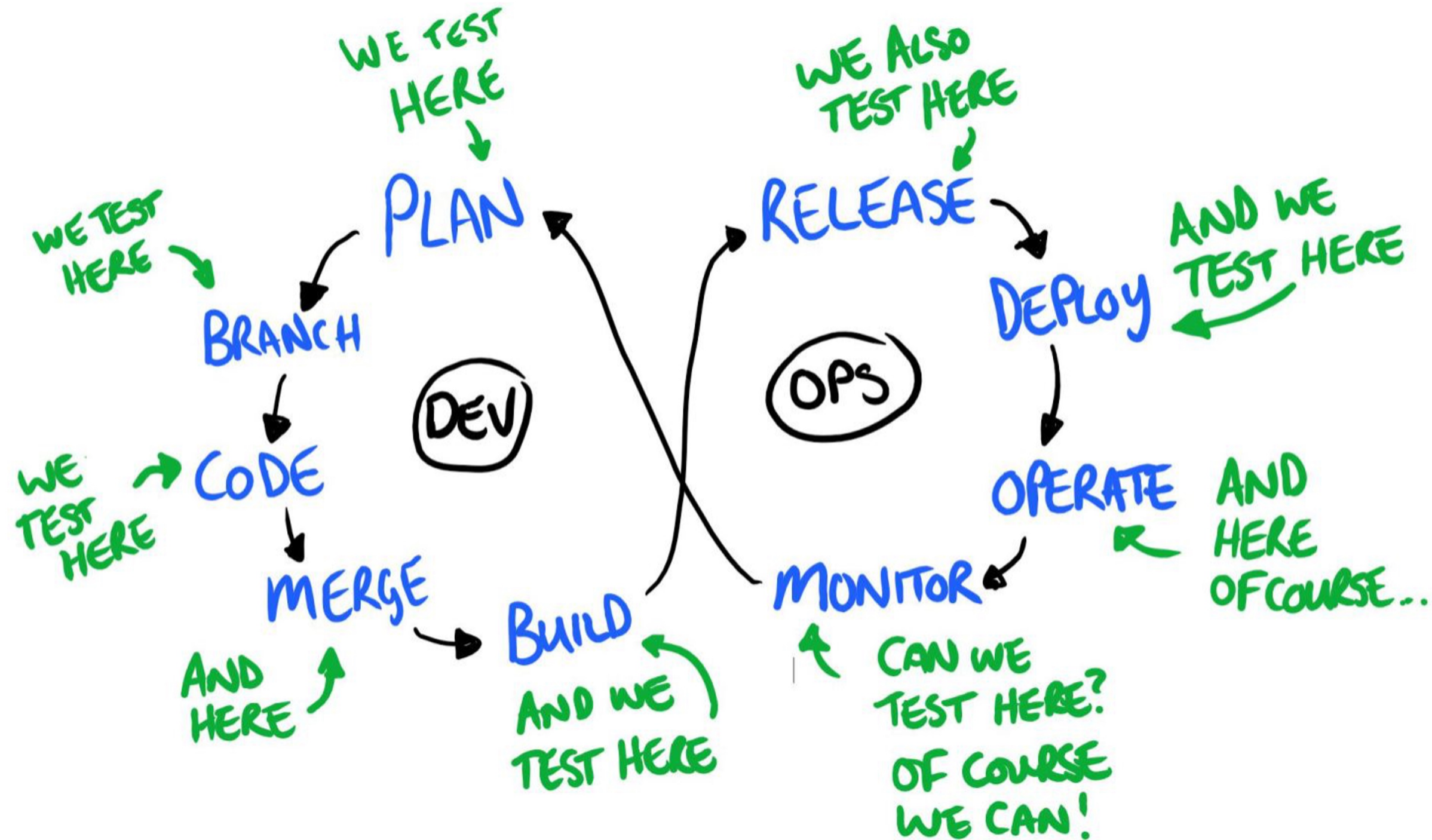
3. The Third Way: The Principles of Continual Learning and Experimentation



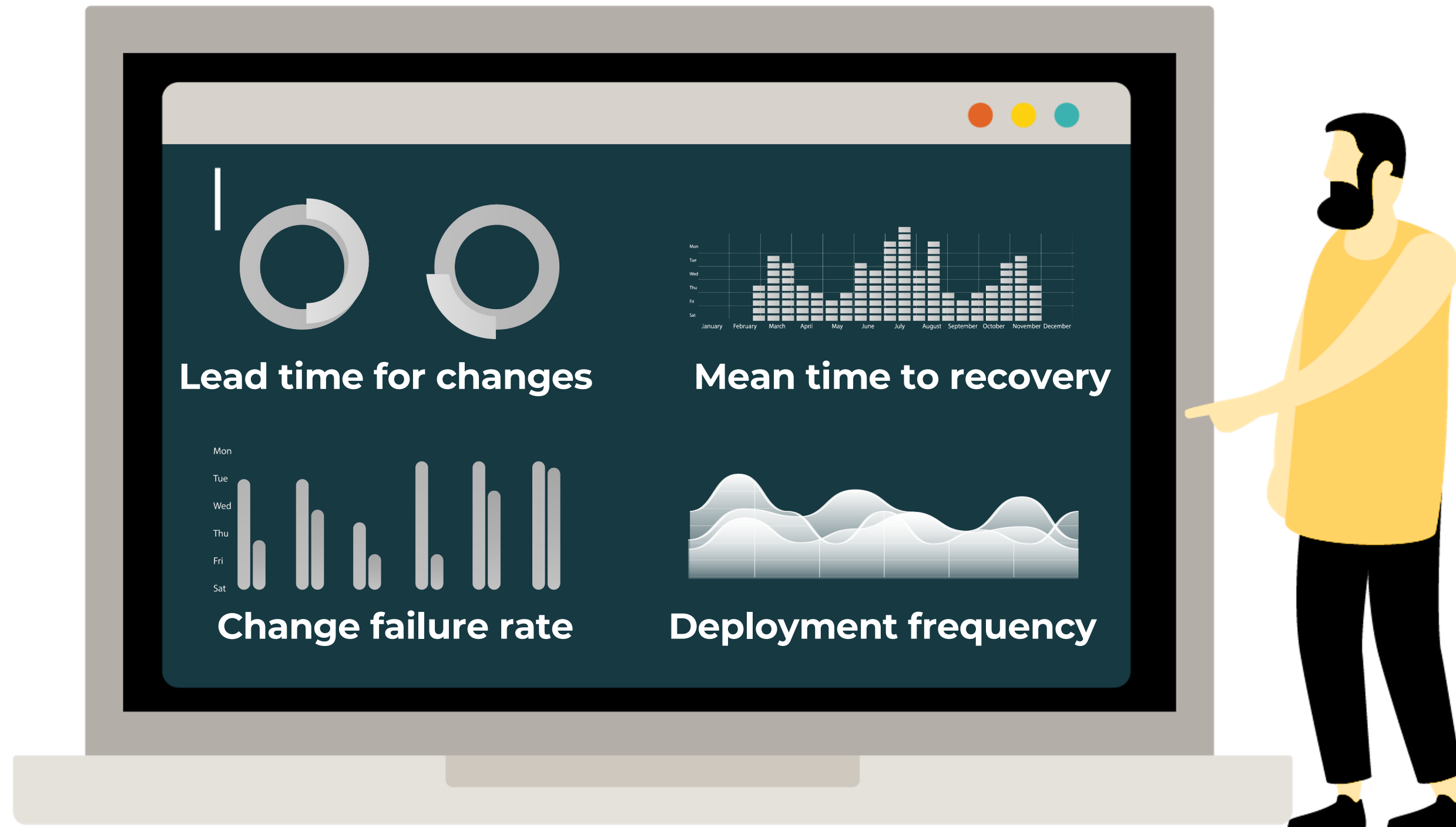
One DevOps view



My favorite DevOps view from Dan Ashby



DORA DevOps metrics



Testing in DevOps

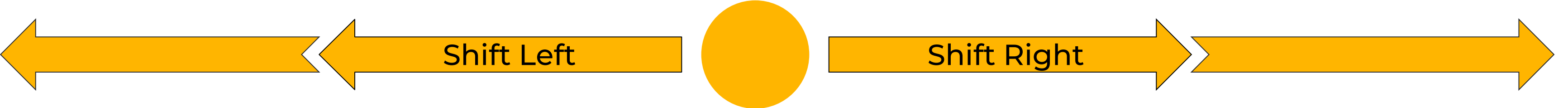
Or should we say Quality Assistance?



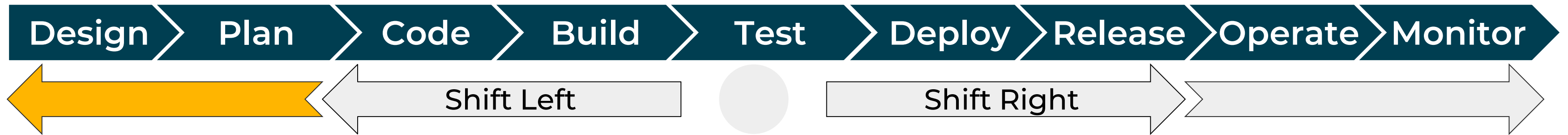
The development value stream



The development value stream



Customer Centric QA



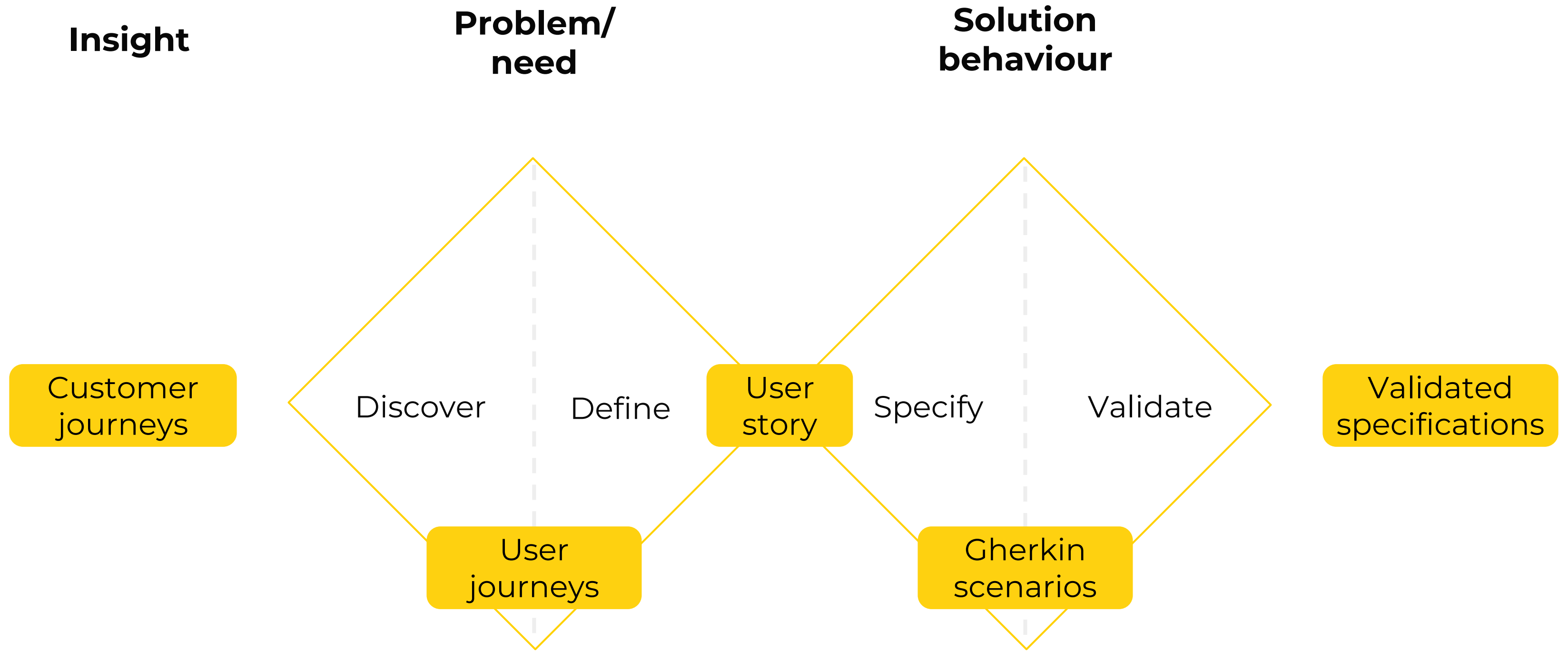
Design Thinking

Personas, Empathy Maps, Customer Journey Mapping

Story Mapping, BDD/ATDD

Design Feedback Through Prototypes

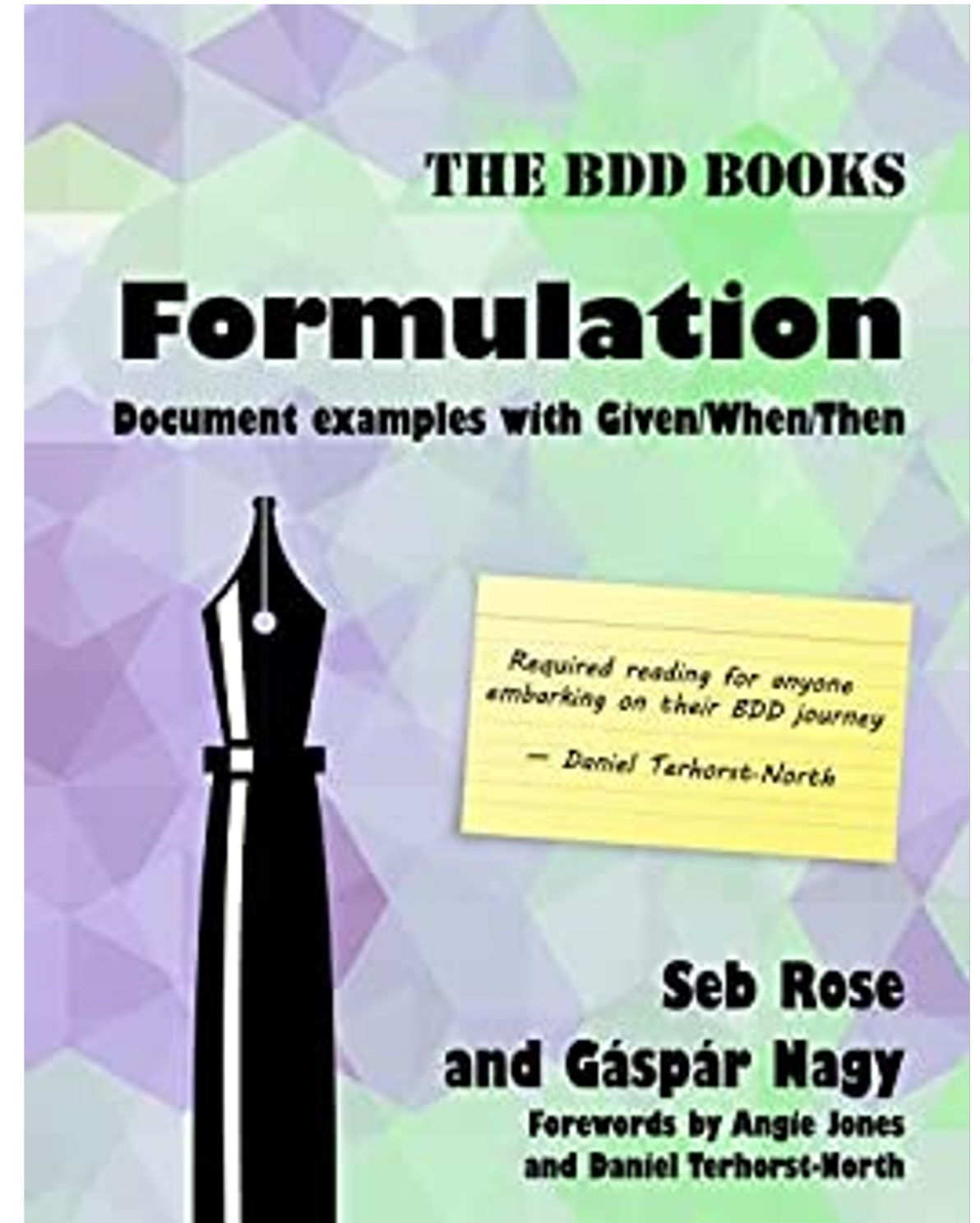
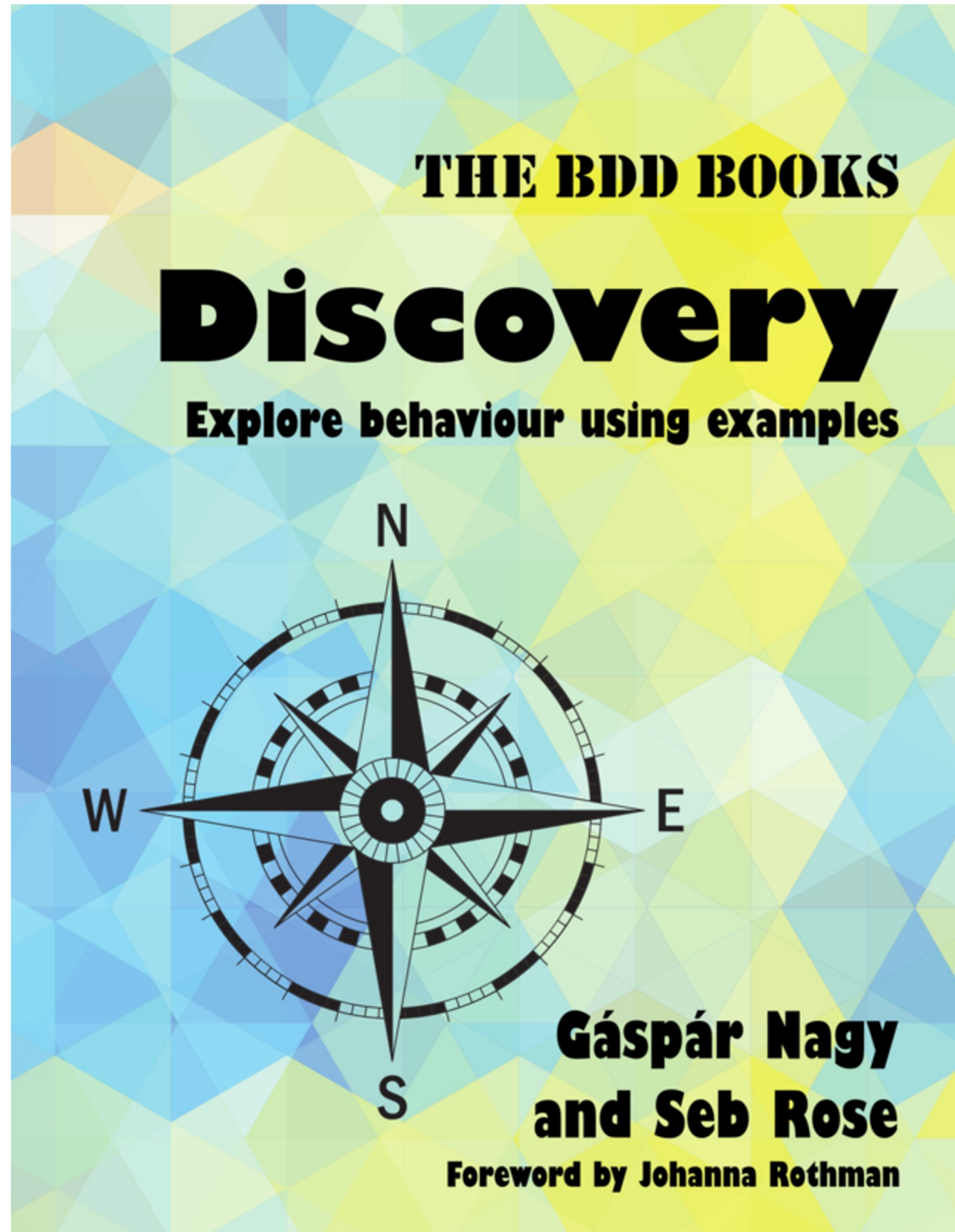
From insight to specification



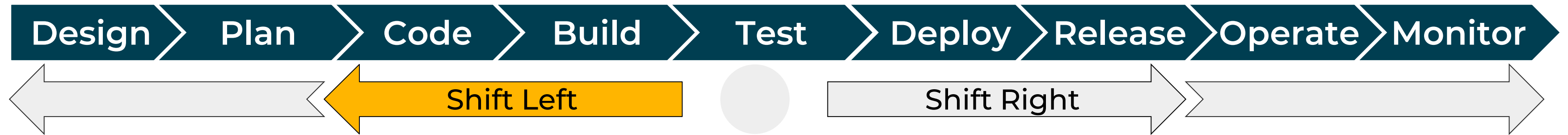
Identify Customer Quality needs

USER FRIENDLINESS QUALITY ASPECTS Usability Aspect: Will users find the product convenient and easy to work with? But more important: will they enjoy it?	TESTABILITY QUALITY ASPECTS Maintainability Aspect: Everything and anything that impacts how easy or hard your testing efforts are.	STRUCTURE QUALITY ASPECTS Reliability Aspect: The architecture, technologies used, different programming languages and duplicated code.	STABILITY QUALITY ASPECTS Reliability Aspect: Is your product going down every 15 minutes? What could be the root cause?	SECURITY AND PERMISSION QUALITY ASPECTS Reliability Aspect: Watch Dogs, cameras, user credentials, firearms or alarm systems. What's keeping the bad guys out of, and away from your app?
SCALABILITY QUALITY ASPECTS Efficiency Aspect: Hardware is cheap these days. Just enter your credit card and there you go. How much hardware can you juggle?	SAFE-GUARD QUALITY ASPECTS Security Aspect: What's keeping the bad guys out?	RESOURCE MANAGEMENT QUALITY ASPECTS Efficiency Aspect: How does your app handle resources? ? Can they be reduced?	PERFORMANCE QUALITY ASPECTS Efficiency Aspect: How well can your app execute the commands it's been given? How about many commands all at once?	OPERATIONS QUALITY ASPECTS Maintainability Aspect: How easy or hard is it to rectify a problem in production after the product is released?
OBSERVABILITY QUALITY ASPECTS Controllability Aspect: How well can you see what's actually going on within the product? Can you answer new questions without deploying code?	INTERNATIONALIZATION QUALITY ASPECTS Usability Aspect: Currency, time zone, language, right-to-left... Can you use your application anywhere in the world?	INSTALLABILITY QUALITY ASPECTS Portability Aspect: All the factors that matter during the installation process of your app.	IMPARTIALITY QUALITY ASPECTS Functionality Aspect: Software built by humans imitates the social structures that are considered 'normal' by those humans. This includes their biases, favouritism & prejudices.	FUNCTIONALITY QUALITY ASPECTS Functionality Aspect: The user needs to be able to do X, so we test it. What could go wrong?

BDD books from Gaspar and Seb



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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EN ▾

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](#) →

Learn CI/CD through Blogs of GoCD

The image shows a screenshot of the GoCD website. At the top left is the GoCD logo, and at the top right are navigation links for Features, Documentation, Blog, and Download. The main heading reads "FREE & OPEN SOURCE CI/CD SERVER". Below this is a diagram of a CI/CD pipeline within a browser window. The pipeline starts with Git and Subversion as triggers, leading to Pipeline One: Build and Pipeline Two: Build. These lead to Pipeline Three: Test and Pipeline Four: Test, which then lead to Pipeline Five: Deploy. A "TEST DRIVE GOCD" button is located at the bottom right of the page.

Features Documentation Blog Download

FREE & OPEN SOURCE CI/CD SERVER

Easily model and visualize complex workflows with GoCD.

[TEST DRIVE GOCD](#)

Learn CI/CD through Blogs of GoCD



Snyk Code

Find and fix vulnerabilities in your application code in real time



Security

Hotspots >

Code review

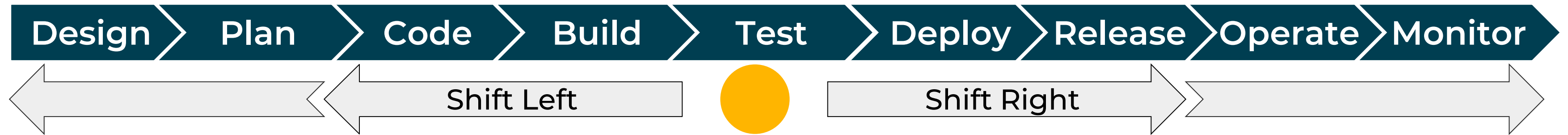


Security

Vulnerabilities >

Code change/fix

“Test”



Continuous Testing

Keyword Driven Test Automation

Exploratory Testing and Bug hunting

Continuous Non-functional testing

Keyword Driven Test Automation



INTRODUCTION

EXAMPLES

LIBRARIES

TOOLS

LEARNING

COMMUNITY

COC

USERS

FOUNDATION [↗](#)

ROBOCON [↗](#)

GITHUB [↗](#)

ROBOT FRAME WORK /

INTRODUCTION

Robot Framework is a generic open source automation framework. It can be used for test automation and robotic process automation (RPA).

Robot Framework is actively supported, with many industry-leading companies using it in their software development.

Tweets by [@robotframework](#)

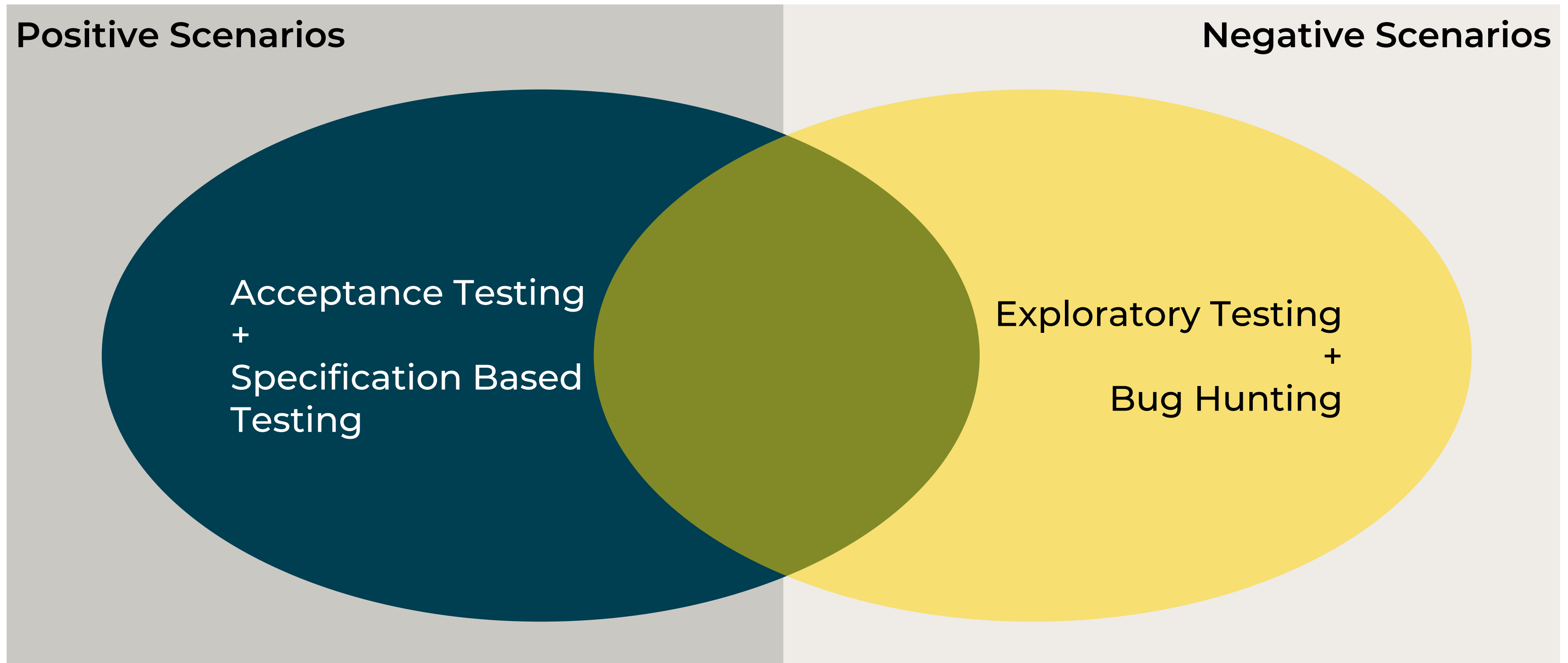
 Robot Framework Retweeted 

 **Pekka Klärck**
[@pekkaklarck](#)

Robot Framework 4.0.3 has been released!

It fixes few regressions, including a

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](#).

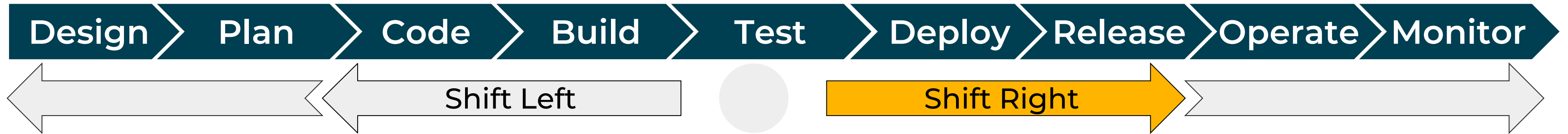
Noun

ility (*pl.* [ilities](#))

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

Observability

QA in deployment



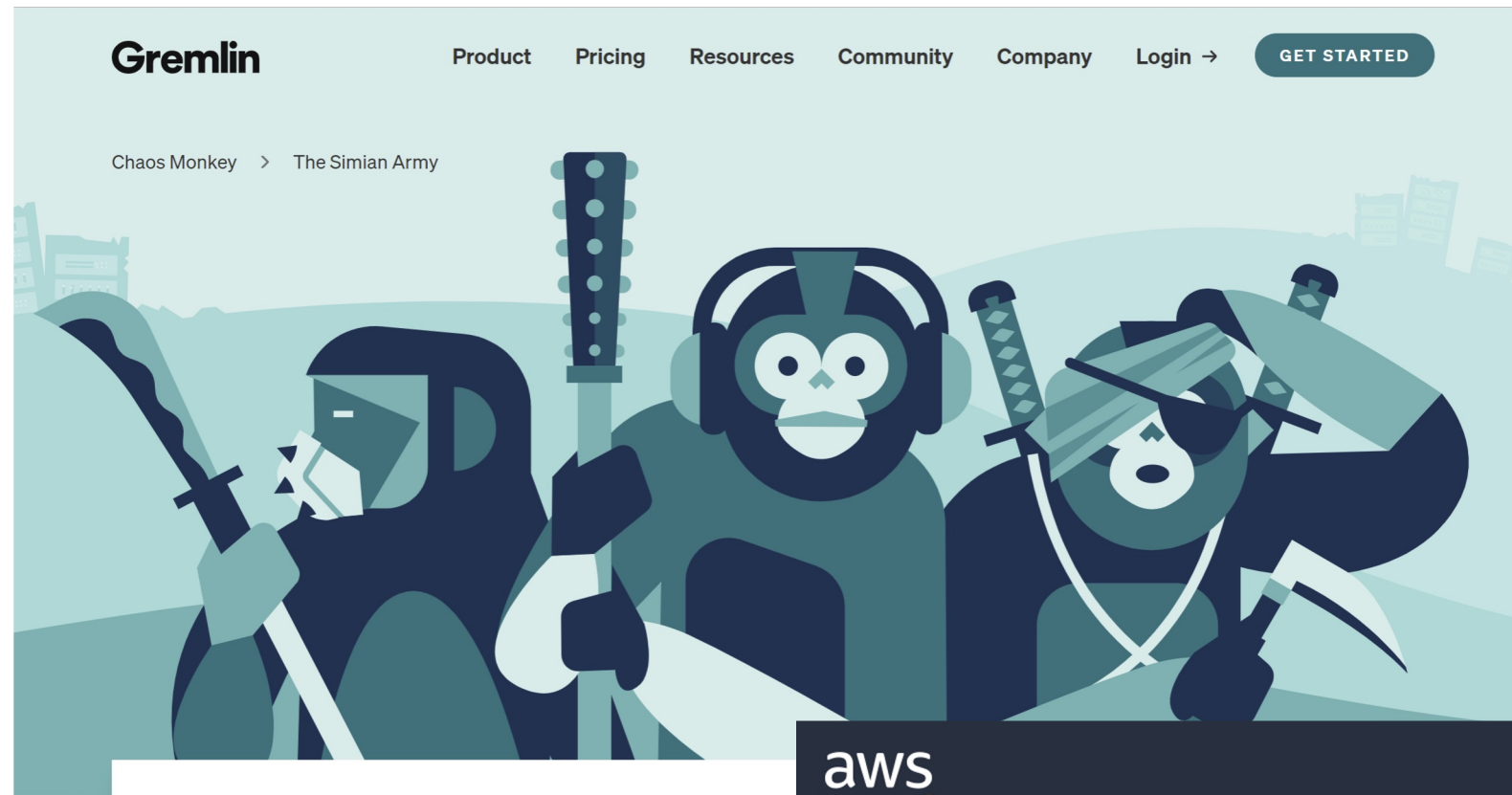
Acceptance Test on standardized Staging

Chaos Engineering

Deployment Strategies

Canary Release and Dark Launch

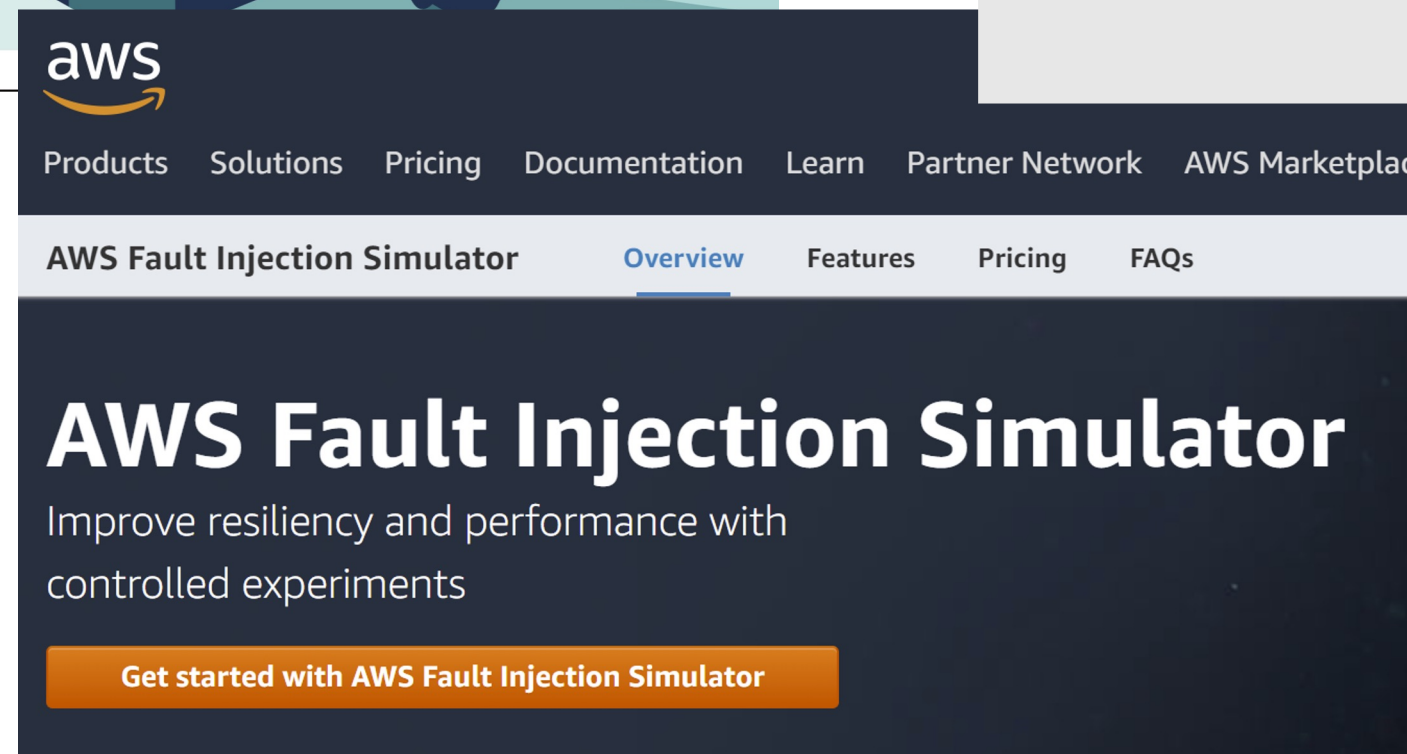
Chaos Engineering



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

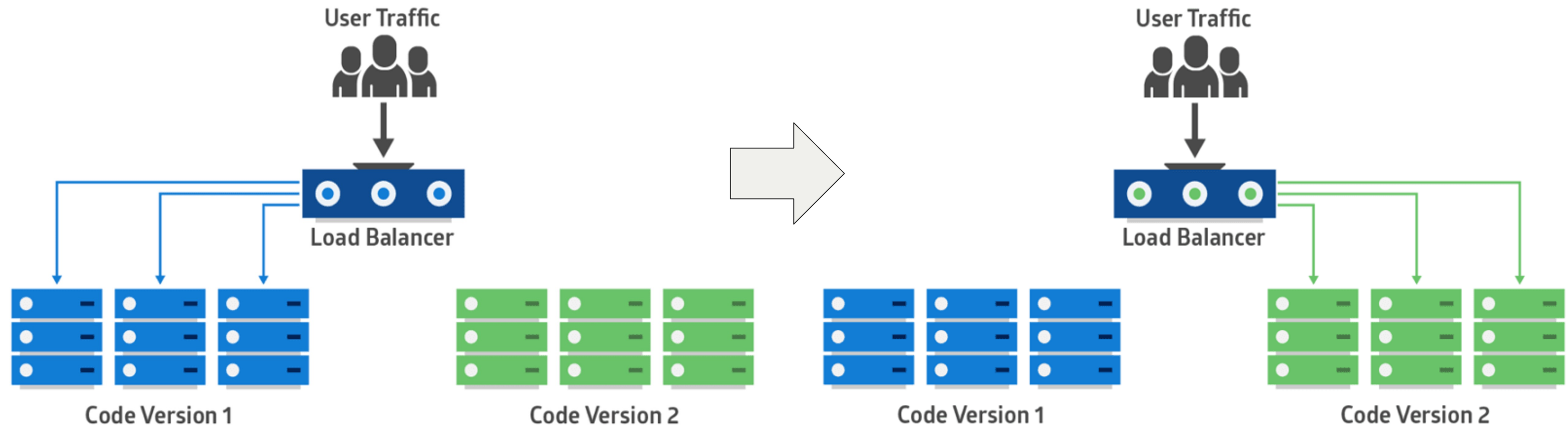


<https://vmware.github.io/mangle/>

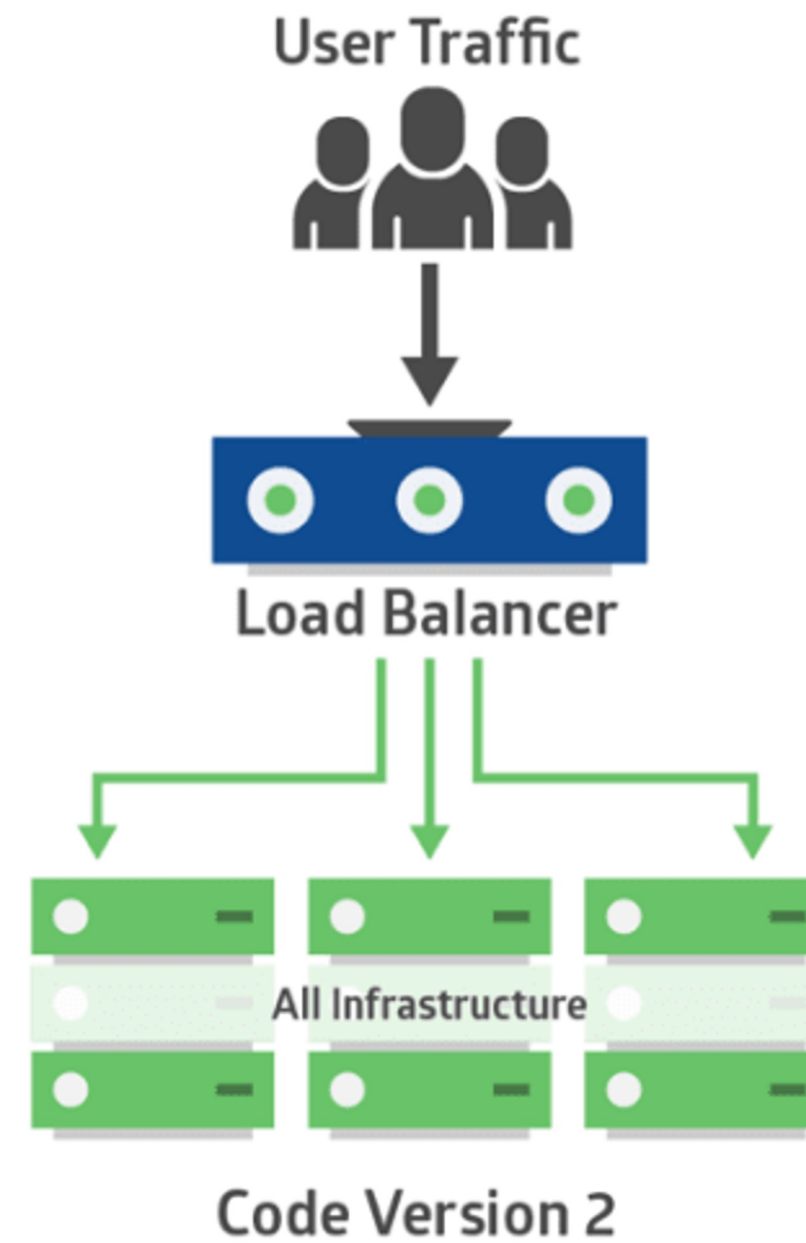
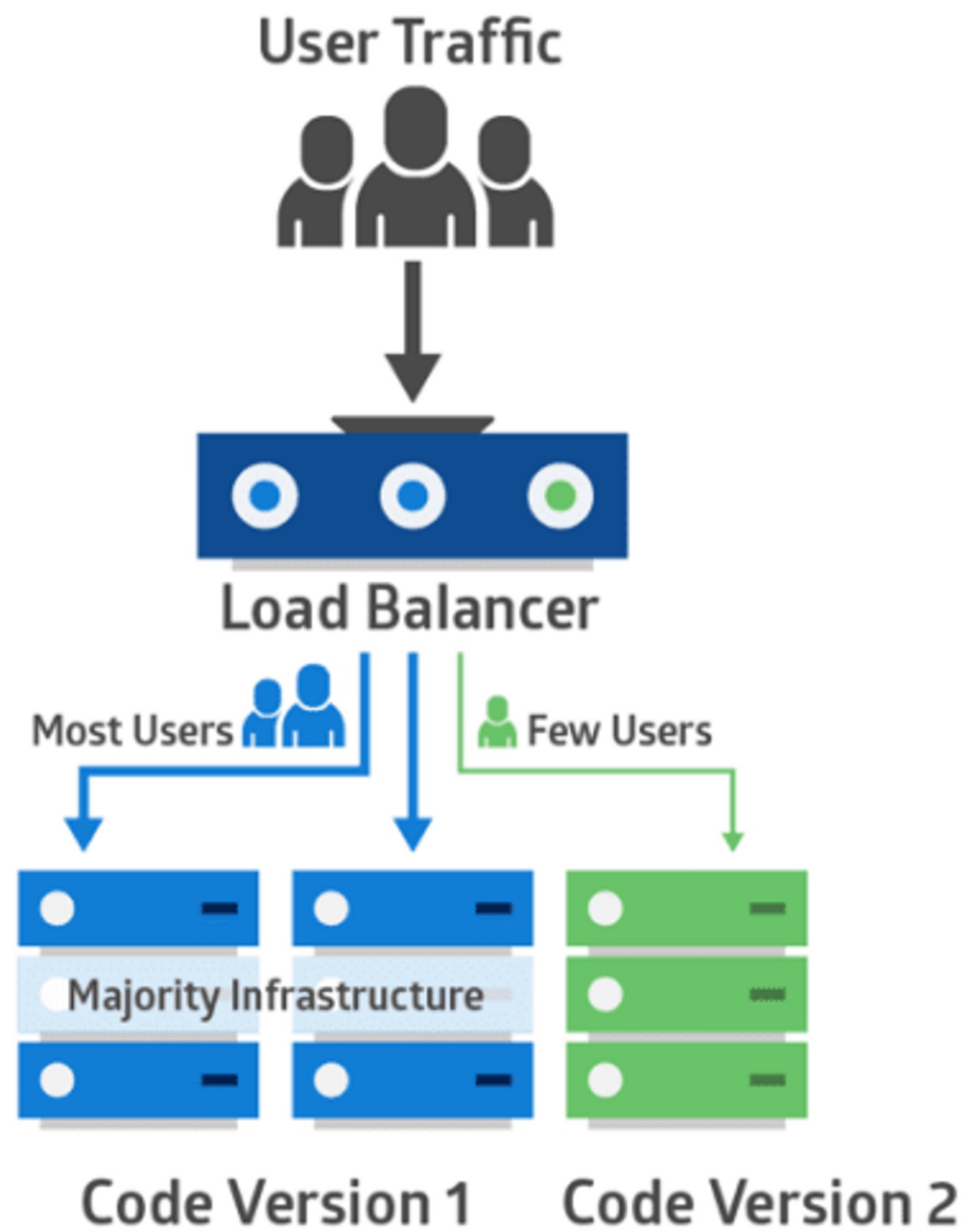


<https://aws.amazon.com/fis/>

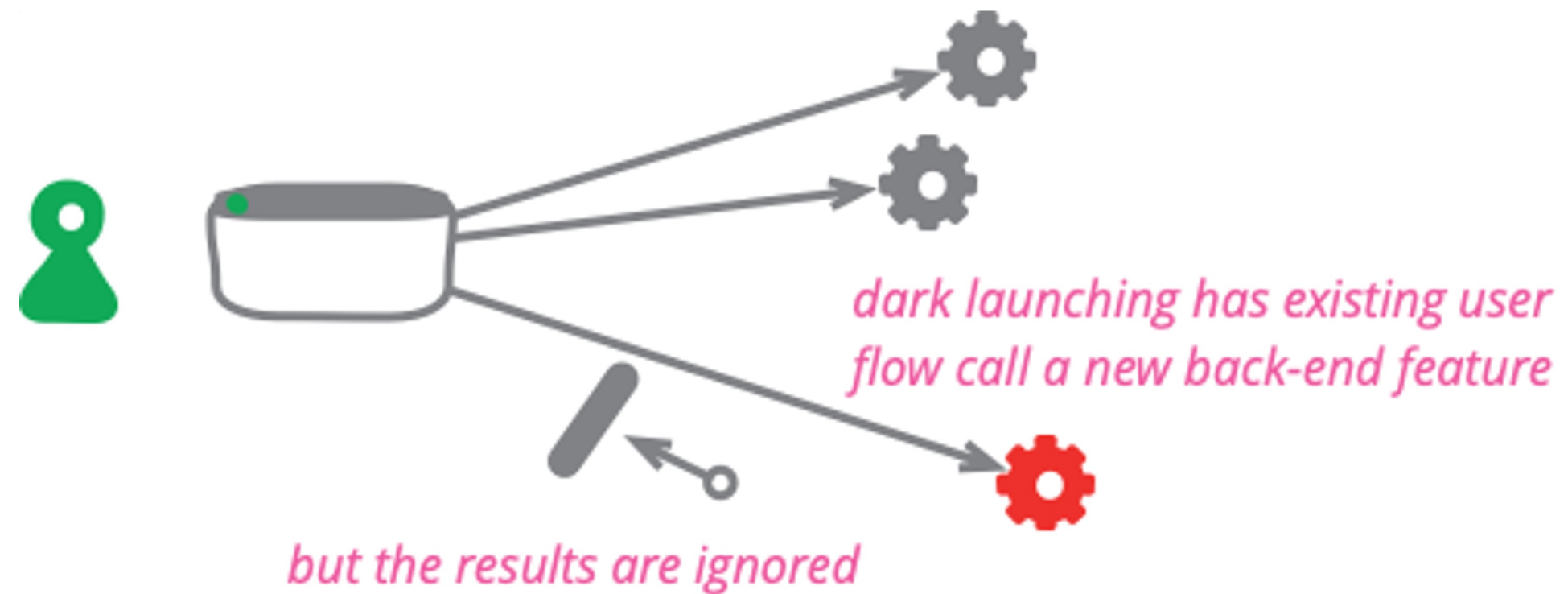
Blue-Green deployment strategy



Canary deployment strategy

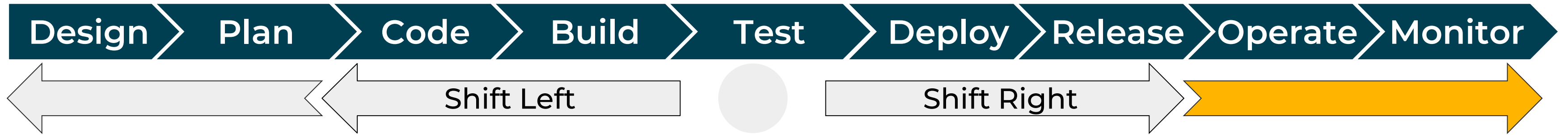


Dark Launch



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

QA in live



Telemetry and Automatic Roll-back

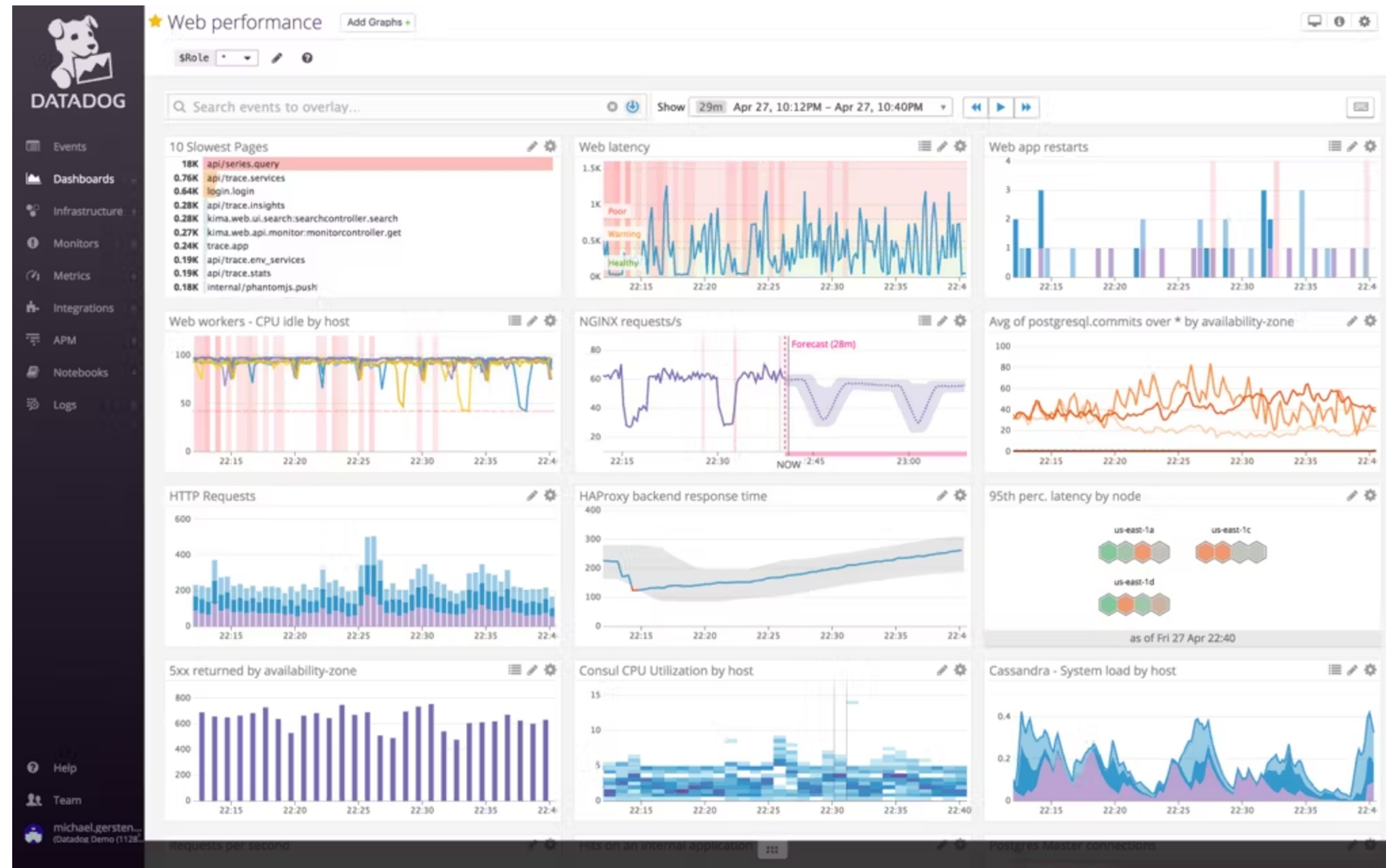
Observability

A/B Testing

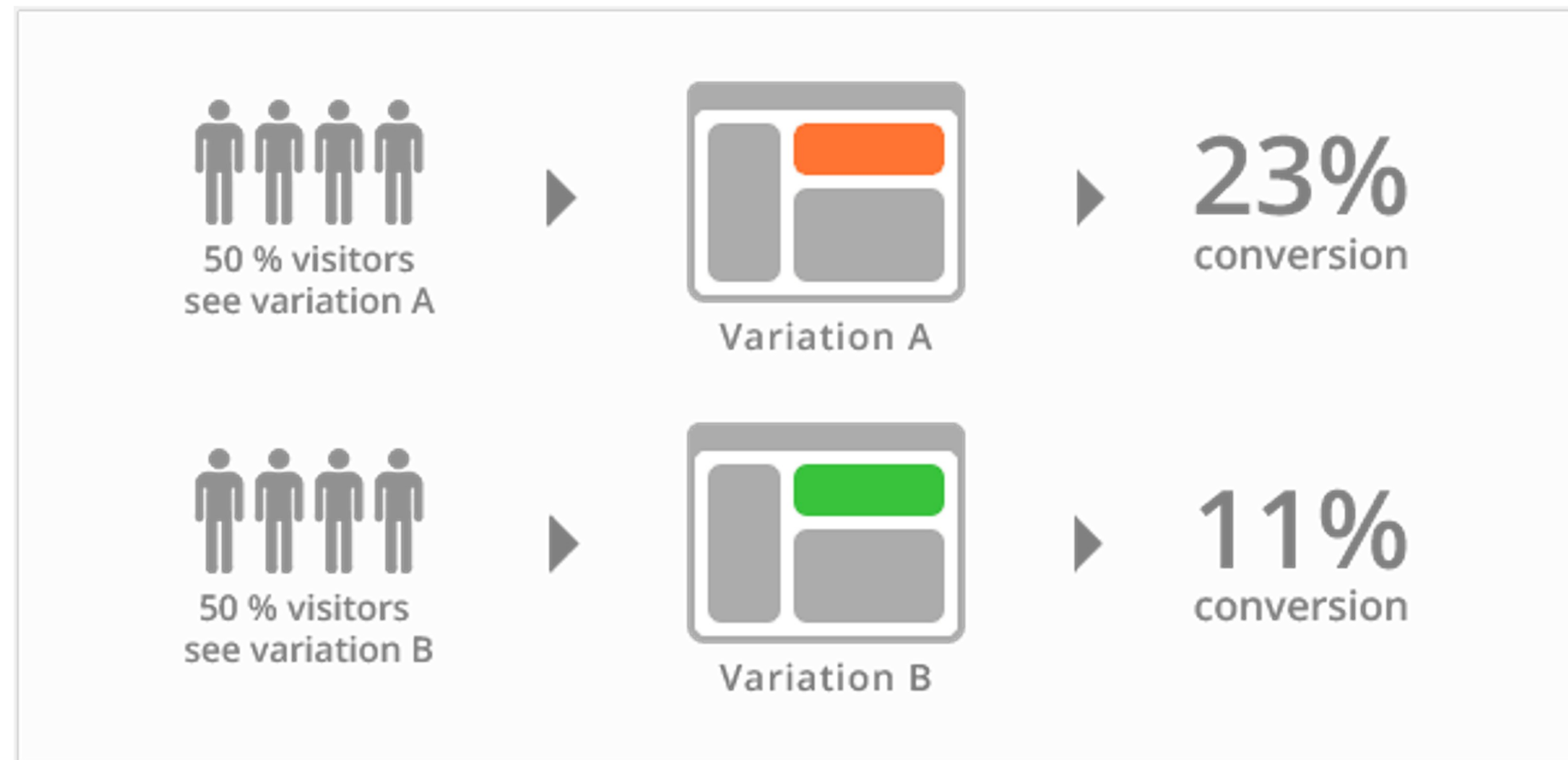
Social Media Monitoring

ITSM and Blameless Postmortem

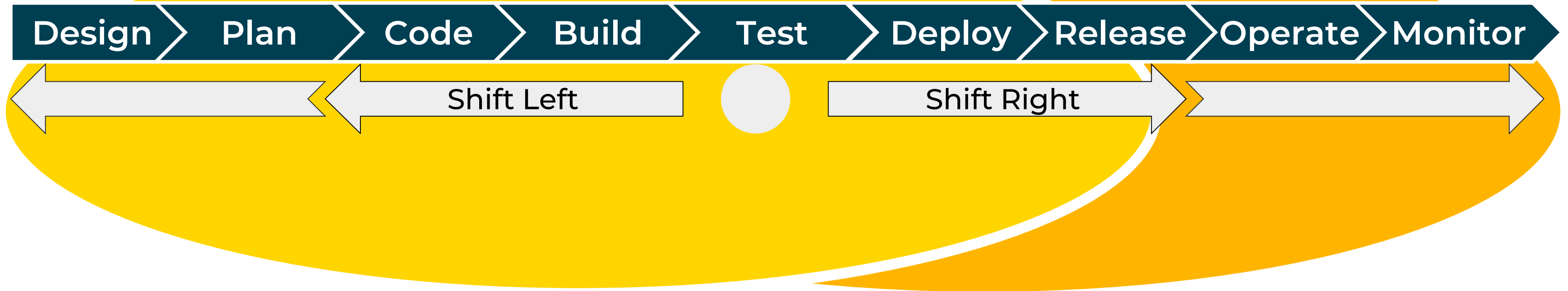
Telemetry: Datadog / Grafana / Status page



A/B testing



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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Thank you for attending



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