The DevOps Transformation Toolbox
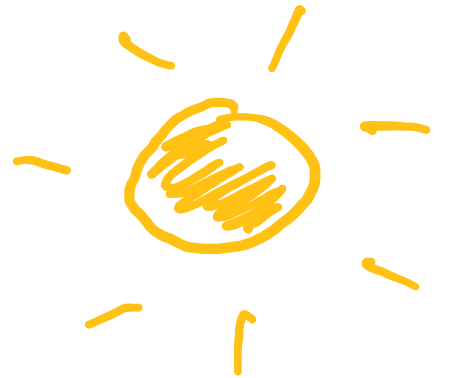
RBI's Journey to Modern SW Engineering

Robert Ruzitschka

Raiffeisen Bank International
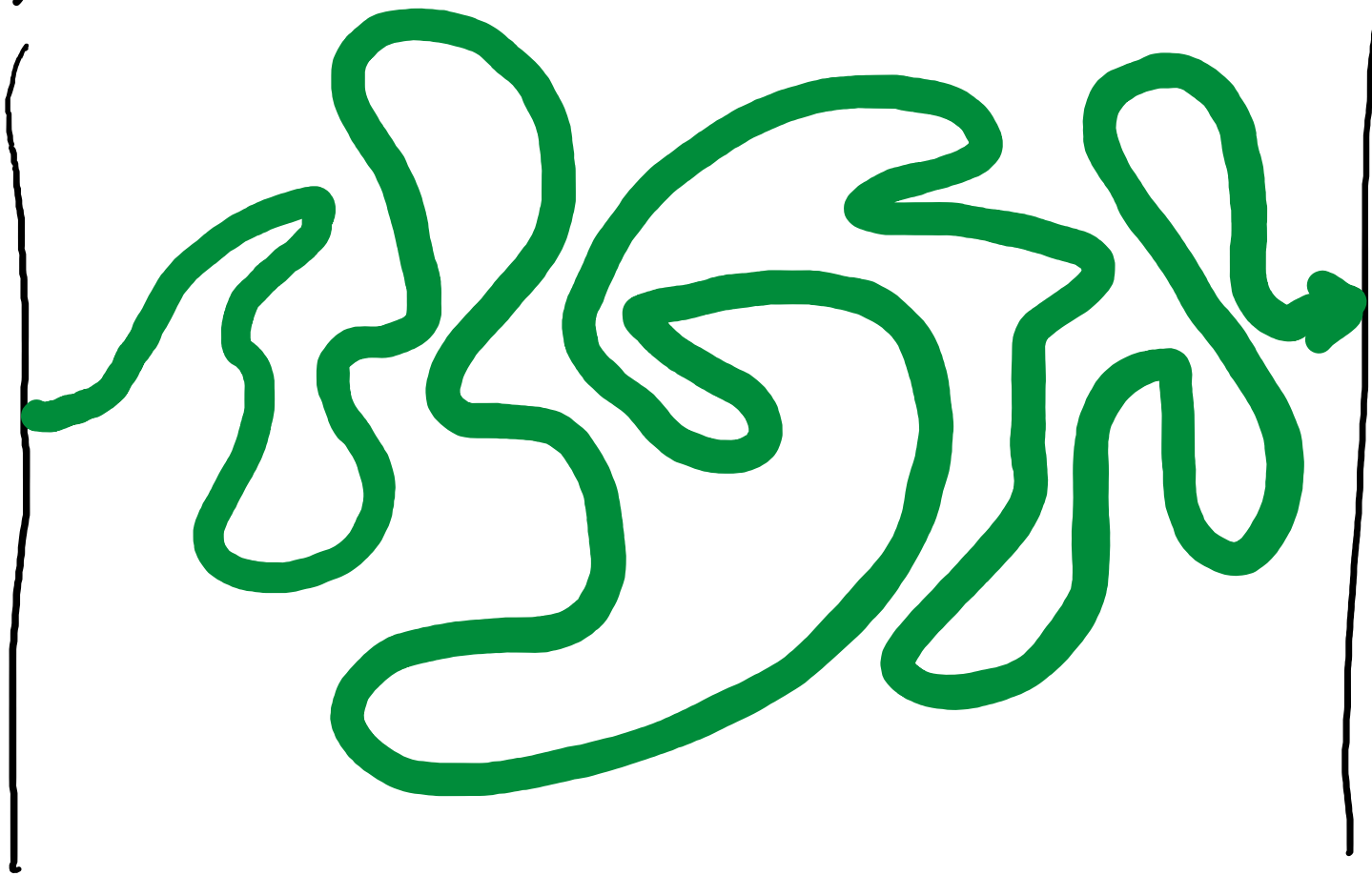Member of RBI Group

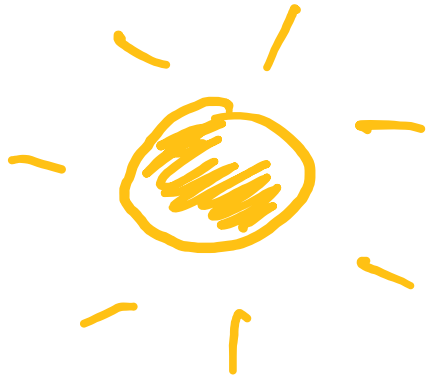START

GOAL

SPOILER

START

GOAL

START

GOAL

Who am I?

- Robert Ruzitschka

- DevOps Community Lead/Agile Engineering Coach

- I also like to write and talk about
  SW Engineering/Agility

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Who is RBI?

Well, this is what the web site says:

- Leading corporate and investment bank in Austria
- Acting as RBI Group in 13 CEE markets represented as universal banks
- Around 46.000 employees servicing 19mn customers

Raiffeisen Bank International
Member of RBI Group

Who is RBI?

What RBI was:

- A multitude of organizational setups, processes, technologies
- A similar variety in ways of working
- A very "traditional" way in approaching market challenges and doing business
- IT was seen as an auxiliary function – the cost center

Raiffeisen Bank International
Member of RBI Group

Why do we see the need for transformation?

Less but more customer focused

Happier Employees

VISION 2025

We are the most recommended financial services group

MISSION

We transform continuous innovation into superior customer experience

Faster Time To Market

Secure customer journeys

How do we get there?

1.

Have a clear picture of the target operating model

1. Clear Picture

1. Clear Picture

Key objectives	Key Results
Deliver software in an automated and managed way	• Software is delivered in an automated, secured and managed way to allow fast and flexible deployments without sacrificing quality. This includes a high level of automation and the use of a proper CI/CD pipeline • Reduce manual IT Operations and have applications run by end2end DevOps teams with high automation. Reduced manpower effort for running IT Products

2.

Objectives and Key Results (OKRs)

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3. Agile Engineering Maturity Model (AEMM)

https://github.com/raiffeisenbankinternational/AEMM

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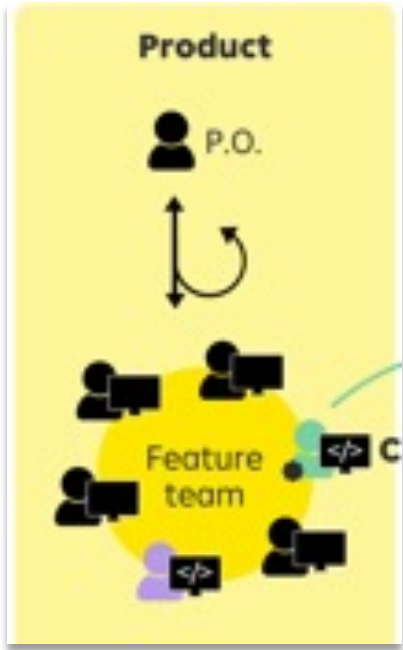
Detailed result		CRAWL	WALK	RUN
CI/CD Automation	Code	100%	100%	100%
CI/CD Automation	Code quality	100%	100%	100%
CI/CD Automation	Automation	100%	100%	0%
CI/CD Automation	Pipeline	100%	100%	100%
CI/CD Automation	Deployment	100%	100%	100%
CI/CD Automation	Environment ownership	100%	100%	100%
CI/CD Automation	Environment setup	100%	100%	100%
DevOps Approach	Operations	100%	100%	100%
DevOps Approach	Monitoring	100%	100%	0%
DevOps Approach	Incident management	100%	100%	100%
DevOps Approach	Release cycle	100%	100%	100%
DevOps Approach	Release impact	100%	100%	100%
DevOps Approach	Quality	100%	100%	50%
DevOps Approach	Development process	100%	100%	100%
DevOps Approach	Team	100%	100%	67%
DevOps Approach	Skills	100%	33%	0%
Test Approach	Test Planning & Control	80%	60%	40%
Test Approach	Test Analysis & Design	100%	100%	0%
Test Approach	Test Implementation & Execution	100%	100%	75%
Test Approach	Test Data	100%	100%	50%
Test Approach	Test Environment	100%	100%	100%
Test Approach	Test Doubles	100%	100%	0%
Test Approach	Test Documentation	100%	100%	0%
Test Approach	Test Skills	100%	100%	100%
Test Automation	Test Design	100%	50%	0%
Test Automation	Test Automation Development	100%	100%	50%
Test Automation	Test Execution	100%	100%	50%
Security	Security Design	0%	0%	0%

4. Agile Engineering Coaches

coach

- Enabling Teams in the area of CI/CD, Testing, Test Automation
- Time boxed assignments
- Pre-aligned scope and goals

4. Agile Engineering Coaches

" Engineering Coaches don't work FOR the team, the work WITH the team."
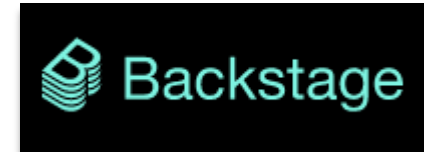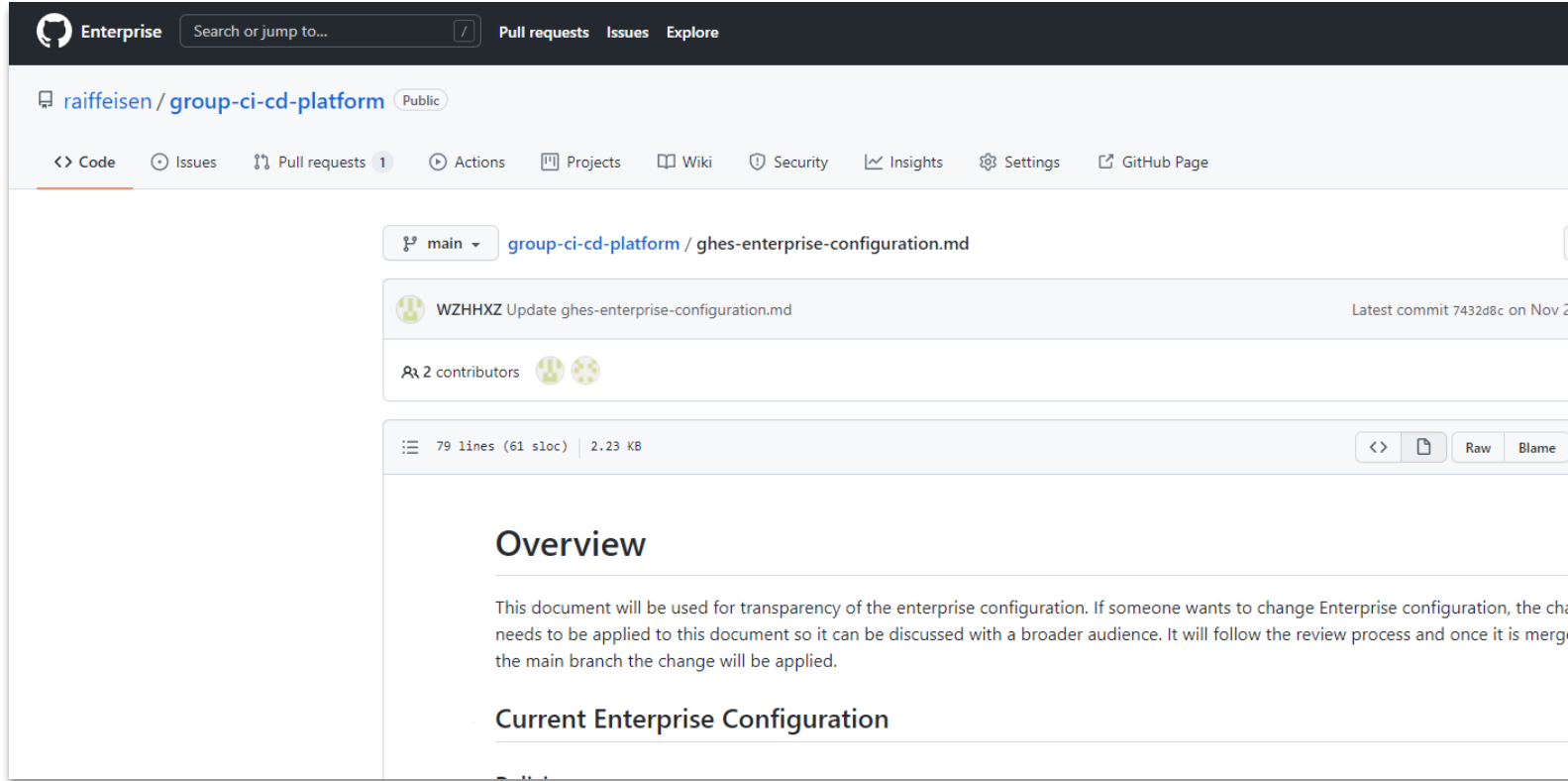
4.

Agile Engineering Coaches

5.

Central Developer Platform
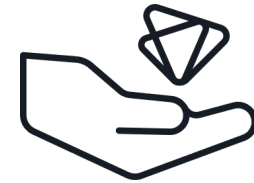
5.   Central Developer Platform
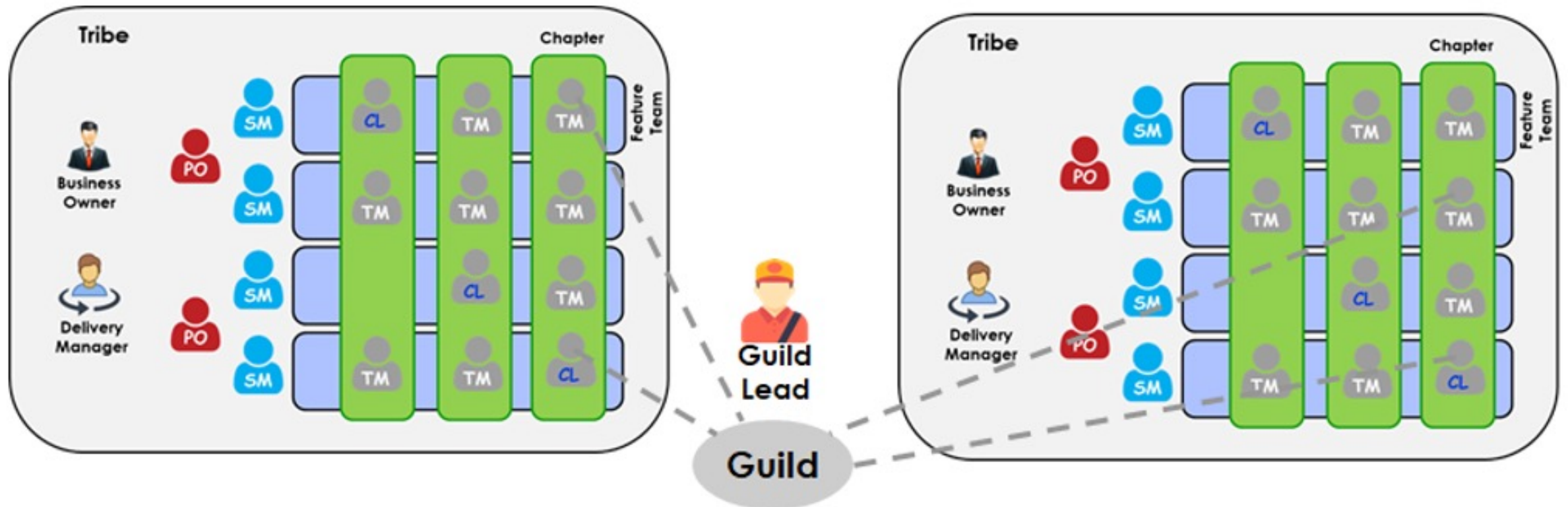
6. Inner Source Initiative

6. InnerSource Initiative

7.

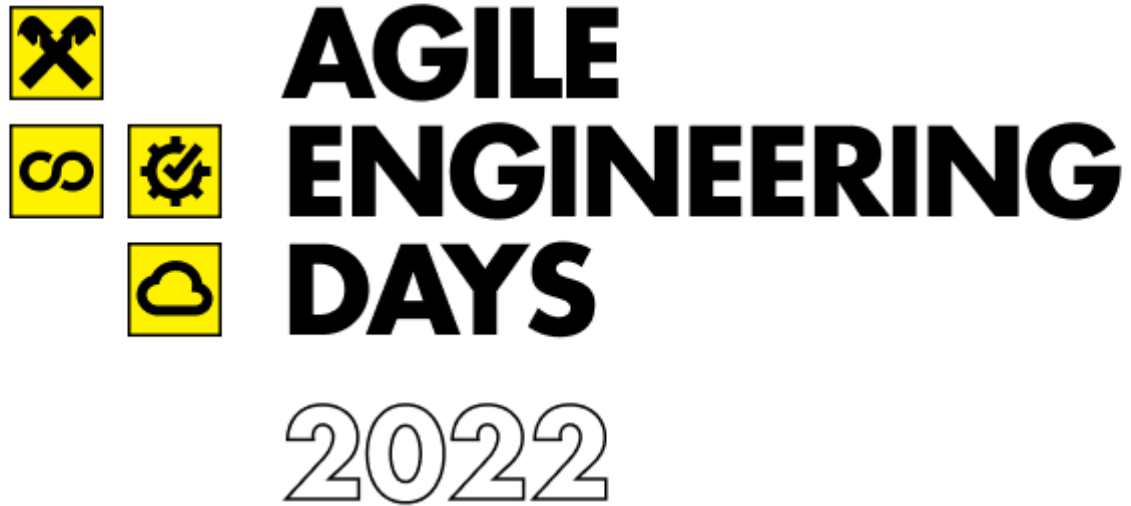Engineering Communities

7. Engineering Communities

8.

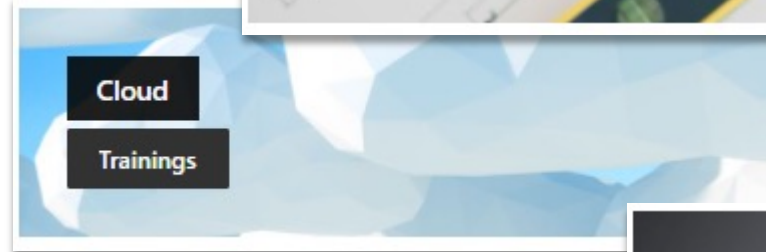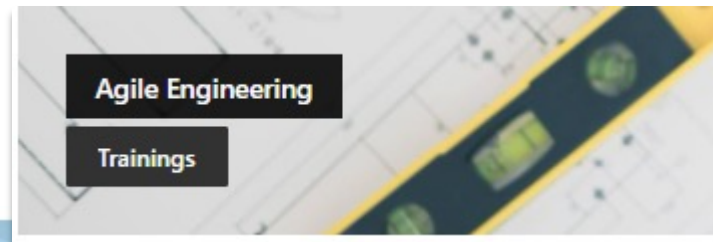Internal Engineering Conferences

8. Internal Engineering Conferences

9.

Individual Learning

9. Individual Learning

9. Individual Learning

Learning Journeys

2020

11 Baseline questions	min	average	max
12 Lead time to deliver a feature			
13 Monthly number of deployments			
14 Time to repair a production incident			
15 Amount of production incidents after go-live			
16			
17			

18 Overview result	CRAWL	WALK	RUN
19 CI/CD Automation	86%	71%	43%
20 DevOps Approach	100%	67%	37%
21 Test Automation	100%	83%	0%
22 Test Approach	75%	42%	16%
23 Security	0%	0%	0%

26 Detailed result		CRAWL	WALK	RUN
27 CI/CD Automation	Code	100%	100%	100%
28 CI/CD Automation	Code quality	0%	0%	0%
29 CI/CD Automation	Automation	100%	100%	0%
30 CI/CD Automation	Pipeline	100%	50%	0%
31 CI/CD Automation	Deployment	100%	50%	50%
32 CI/CD Automation	Environment ownership	100%	100%	50%
33 CI/CD Automation	Environment setup	100%	100%	100%
34 DevOps Approach	Operations	100%	100%	100%
35 DevOps Approach	Monitoring	100%	100%	0%
36 DevOps Approach	Incident management	100%	100%	100%
37 DevOps Approach	Release cycle	100%	100%	50%
38 DevOps Approach	Release impact	100%	100%	50%
39 DevOps Approach	Quality	100%	0%	0%
40 DevOps Approach	Development process	100%	0%	0%
41 DevOps Approach	Team	100%	67%	33%
42 DevOps Approach	Skills	100%	33%	0%
43 Test Approach	Test Planning & Control	0%	0%	0%
44 Test Approach	Test Analysis & Design	100%	33%	0%
45 Test Approach	Test Implementation & Execution	100%	50%	25%
46 Test Approach	Test Data	100%	50%	0%
47 Test Approach	Test Environment	100%	100%	0%
48 Test Approach	Test Doubles	100%	100%	100%
49 Test Approach	Test Documentation	0%	0%	0%
50 Test Approach	Test Skills	100%	0%	0%
51 Test Automation	Test Design	100%	100%	0%
52 Test Automation	Test Automation Development	100%	50%	0%
53 Test Automation	Test Execution	100%	100%	0%
54 Security	Security Design	0%	0%	0%

2021

Baseline questions	min	average	max

Overview result	CRAWL	WALK	RUN
CI/CD Automation	100%	93%	64%
DevOps Approach	100%	100%	56%
Test Automation	100%	83%	33%
Test Approach	94%	73%	38%
Security	0%	0%	0%

Detailed result	CRAWL	WALK	RUN
Code	100%	100%	100%
Code quality	100%	100%	0%
Automation	100%	100%	0%
Pipeline	100%	100%	100%
Deployment	100%	50%	50%
Environment ownership	100%	100%	100%
Environment setup	100%	100%	100%
Operations	100%	100%	100%
Monitoring	100%	100%	0%
Incident management	100%	100%	100%
Release cycle	100%	100%	0%
Release impact	100%	100%	50%
Quality	100%	100%	50%
Development process	100%	100%	0%
Team	100%	100%	100%
Skills	100%	100%	100%
Test Planning & Control	75%	75%	50%
Test Analysis & Design	100%	33%	0%
Test Implementation & Execution	75%	75%	50%
Test Data	100%	100%	100%
Test Environment	100%	100%	0%
Test Doubles	100%	100%	100%
Test Documentation	100%	0%	0%
Test Skills	100%	100%	0%
Test Design	100%	50%	0%
Test Automation Development	100%	100%	50%
Test Execution	100%	100%	50%
Security Design	0%	0%	0%

Comparison to AEMM 2020

We see progress on basically all dimensions!

Great job!

2

10.

Engineering KPIs

10. Engineering KPIs

Metric	Explanation
Deployment Frequency	Refers to the frequency of successful software releases to production.
Lead Time for Changes	Captures the time between a code change commit and its deployable state.
Mean Time to Recovery	Measures the time between an interruption due to deployment or system failure and full recovery.
Change Failure Rate	Indicates how often a team's changes or hotfixes lead to failures after the code has been deployed.

DORA
DEVOPS RESEARCH & ASSESSMENT

10.   Engineering KPIs

Wrap-up

Short wrap-up of our toolbox

1. Clear Target
2. OKRs
3. Agile Engineering Maturity Model
4. Agile Engineering Coaches
5. Central Developer Platform
6. InnerSource
7. Engineering Communities
8. Internal Engineering Conferences
9. Individual Learning
10. Engineering KPIs

Did it work?

Have you made progress?

Achievements

- Awareness about DevOps
- Knowledge about CI/CD and Testing
- Moved dozens of products to pipeline and automated build/test/deploy
- Improved Deployment Frequency and Lead Time considerable
- Big move to the public cloud
- Established lively communities
- Hundreds of people have improved knowledge and skills

The DevOps Toolbox

TIME

Thank You!

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