

QA/DEV Collaboration in the new world



QA

DEV

@RoyOsherove
5whys.com
EnterpriseDevops.org

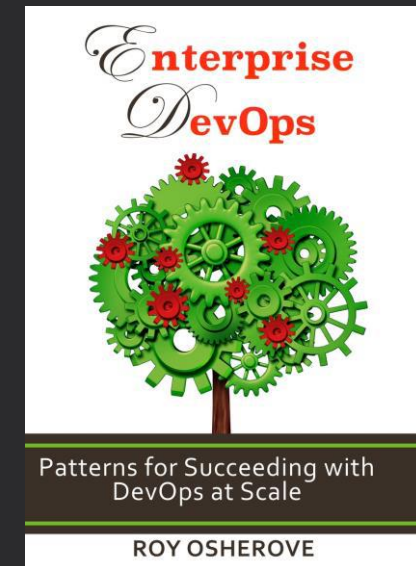
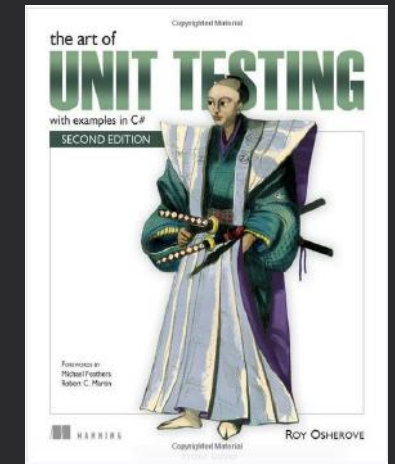
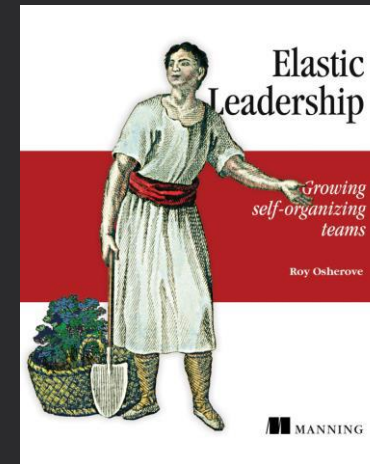
About Roy

- Author of “Art of Unit Testing”, “Elastic Leadership” and upcoming “Enterprise DevOps”
- 20+ years in the software industry
- Most kinds of technical roles
- DevOps Consulting & Training to some of the worlds biggest companies

Enterprisedevops.org

5whys.com

[@royosherove](https://twitter.com/royosherove)



Fears and Concerns

- “They don’t see what we see – and vice versa”
- “They don’t give me enough time to do a proper job”
- “I spend most of my time doing stuff that brings very little value”
- “There’s no way we can automate all this”
- “The tests are failing and they don’t care”
- “I can only do the bare minimum because everything is high priority”
- “Left hand , right hand, no connection”
- “Maintaining the documentation takes way too long”

Key Points

Pipelines

Pipeline Based Organization and how it affects all of us

Roles


Test Architects

Collaboration

Test Recipes & Layer Strategy

SDLC 2.0

software development lifecycle
the next generation

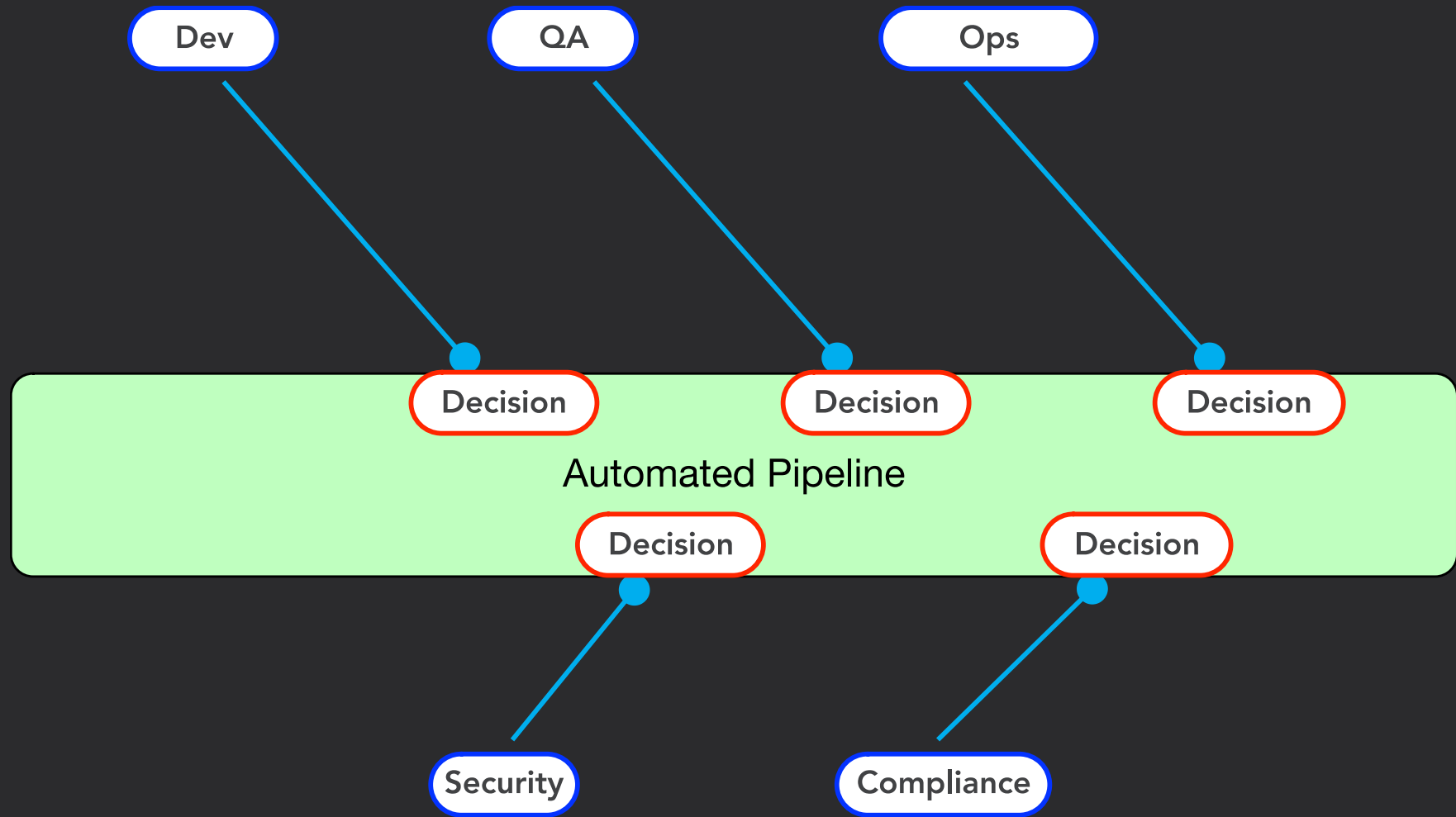


Lean, Agile, Automated & Pipeline Based Organizations

Pipeline Based?

NETFLIX, Google, Facebook, Wix etc..

Lean, Agile, Automated and Pipeline Based Organizations

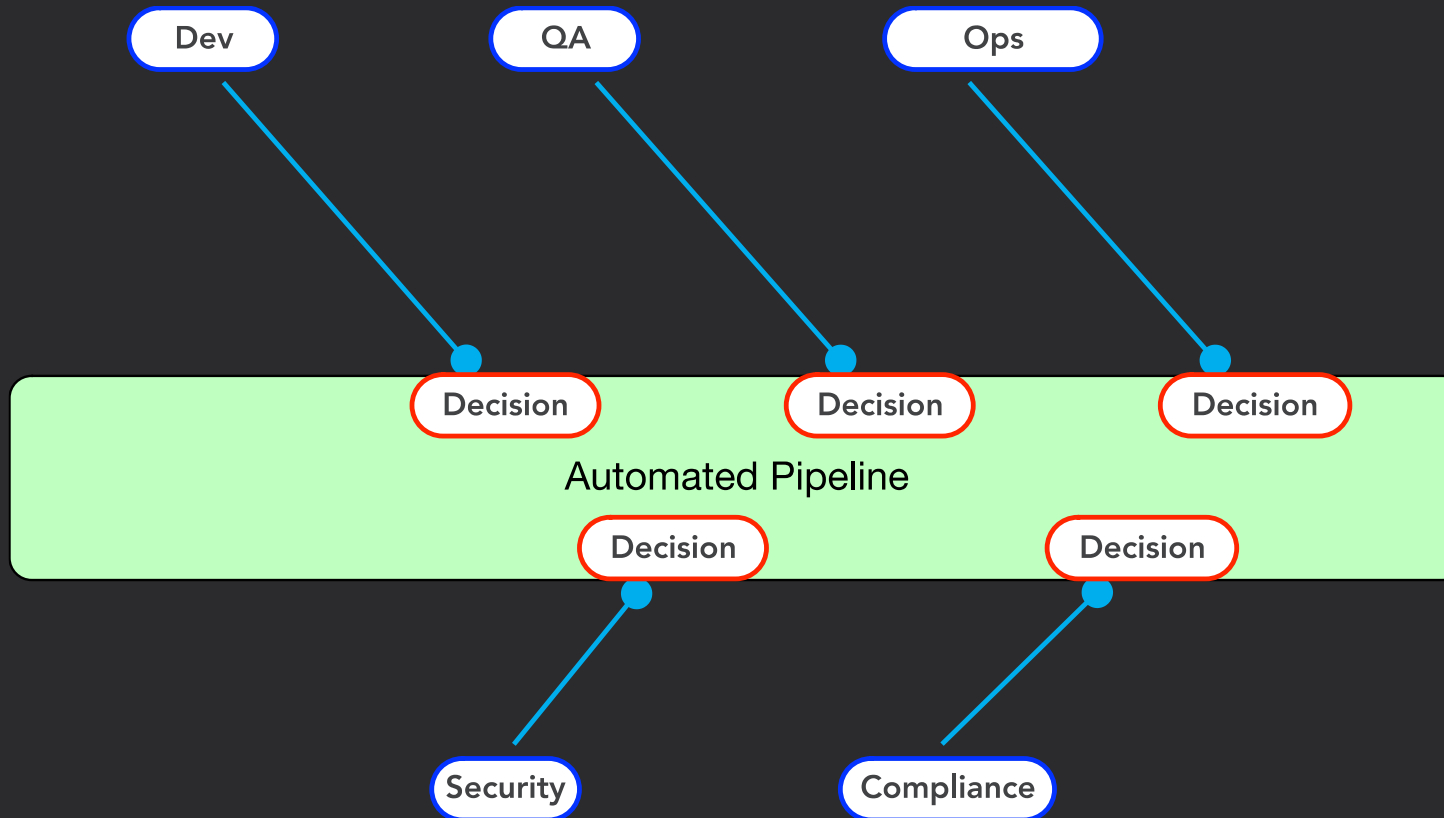


Before (examples)

- Dev approves merges to master/other branches

After

- Pipeline decides

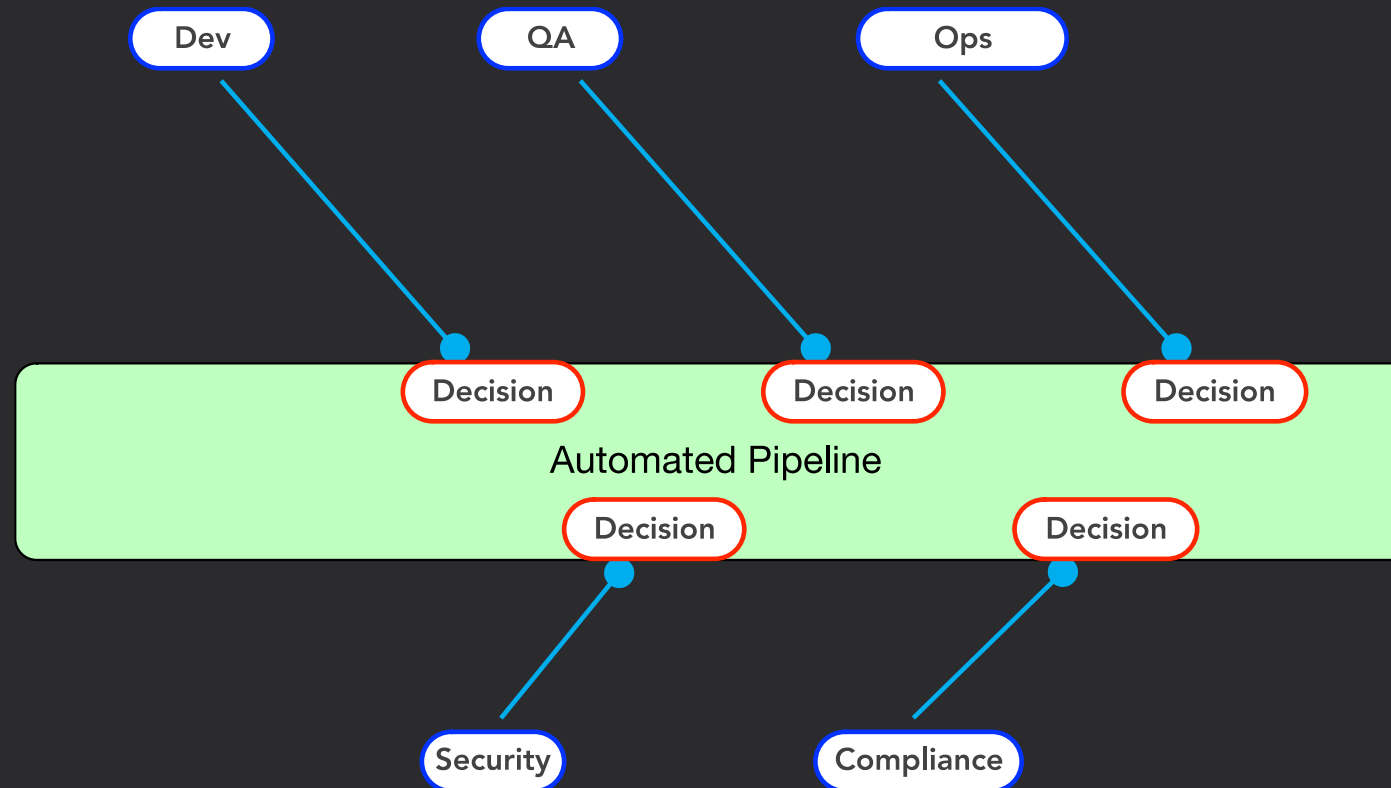


Before (examples)

- Dev approves merges to master/other branches
- QA approves a feature or a release is deploy-ready

After

- Pipeline decides
- Pipeline decides

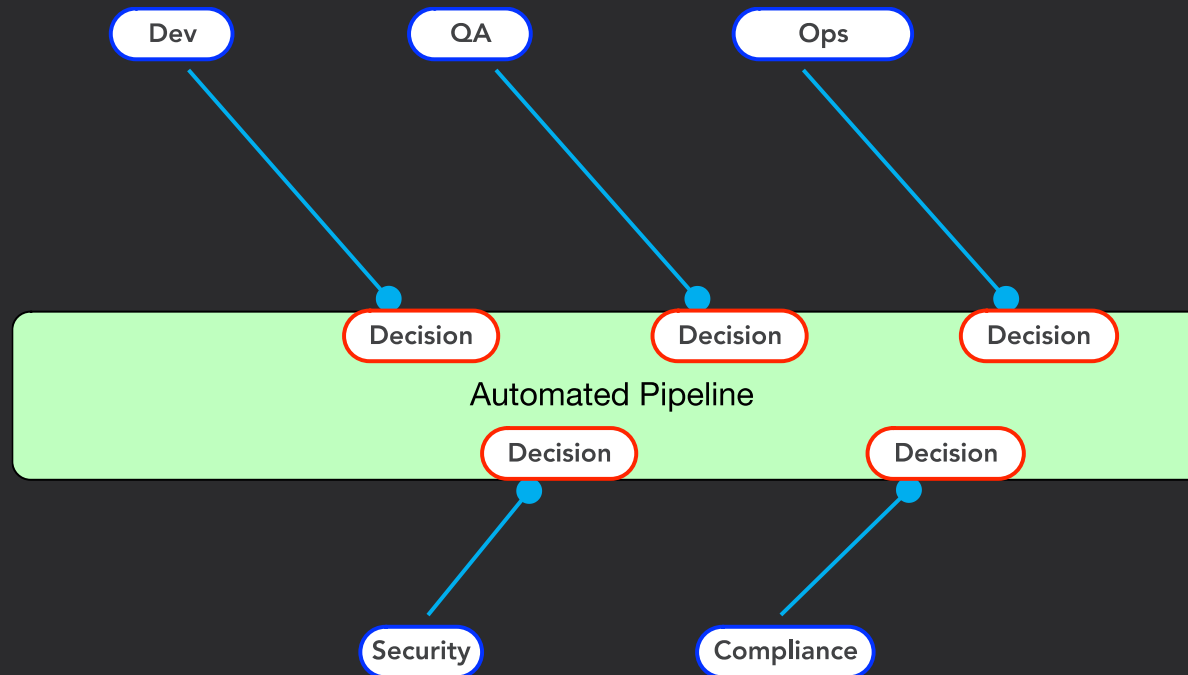


Before (examples)

- Dev approves merges to master/other branches
- QA approves a feature or a release is deploy-ready
- Security approves application

After

- Pipeline decides
- Pipeline decides
- Pipeline decides

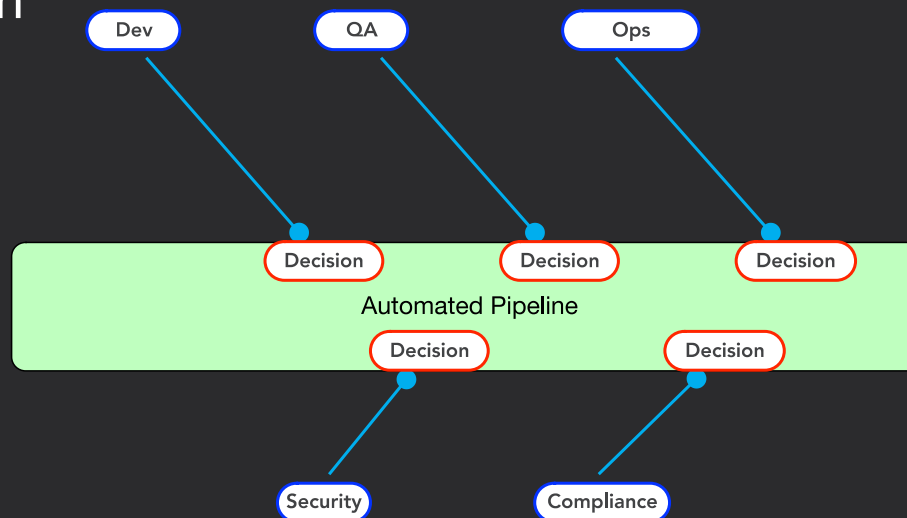


Before (examples)

- Dev approves merges to master/other branches
- QA approves a feature or a release is deploy-ready
- Security approves application
- Ops approves, configures, deploys environments
- Ops deploys & rolls back application

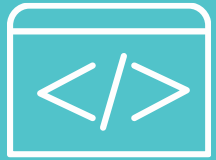
After

- Pipeline decides
- Pipeline decides
- Pipeline decides
- Pipeline decides
- Pipeline decides



SDLC 2.0

What does it mean for us?



DEV 2.0



QA 2.0



Security 2.0

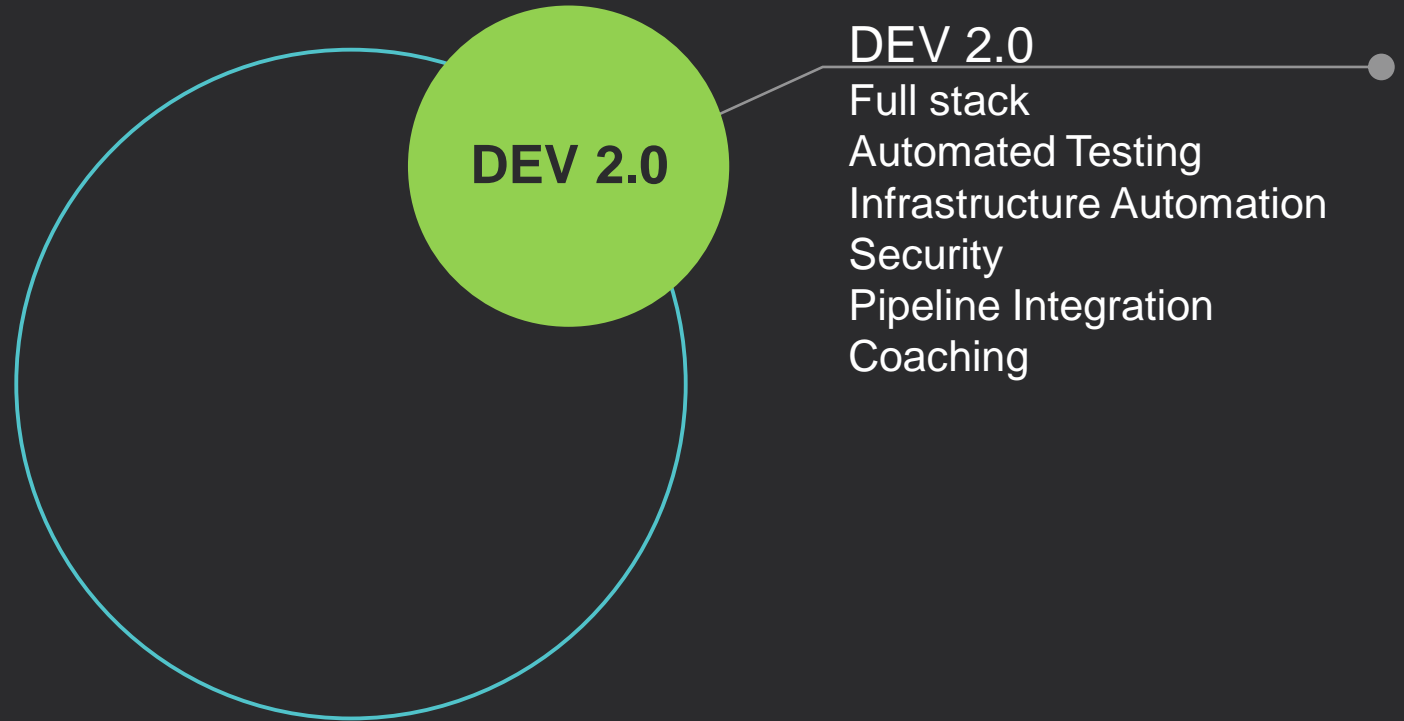


Compliance 2.0

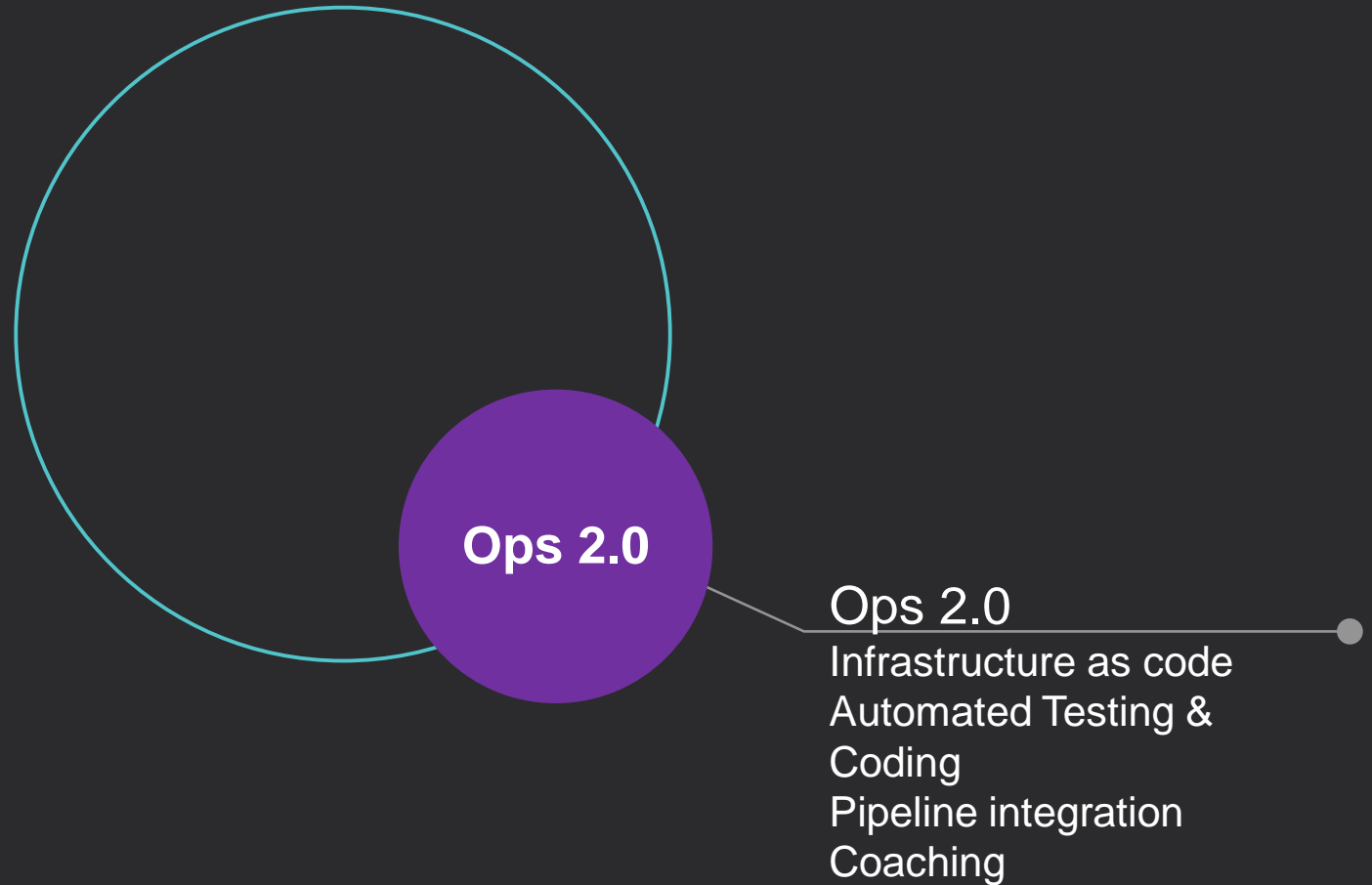


Ops 2.0

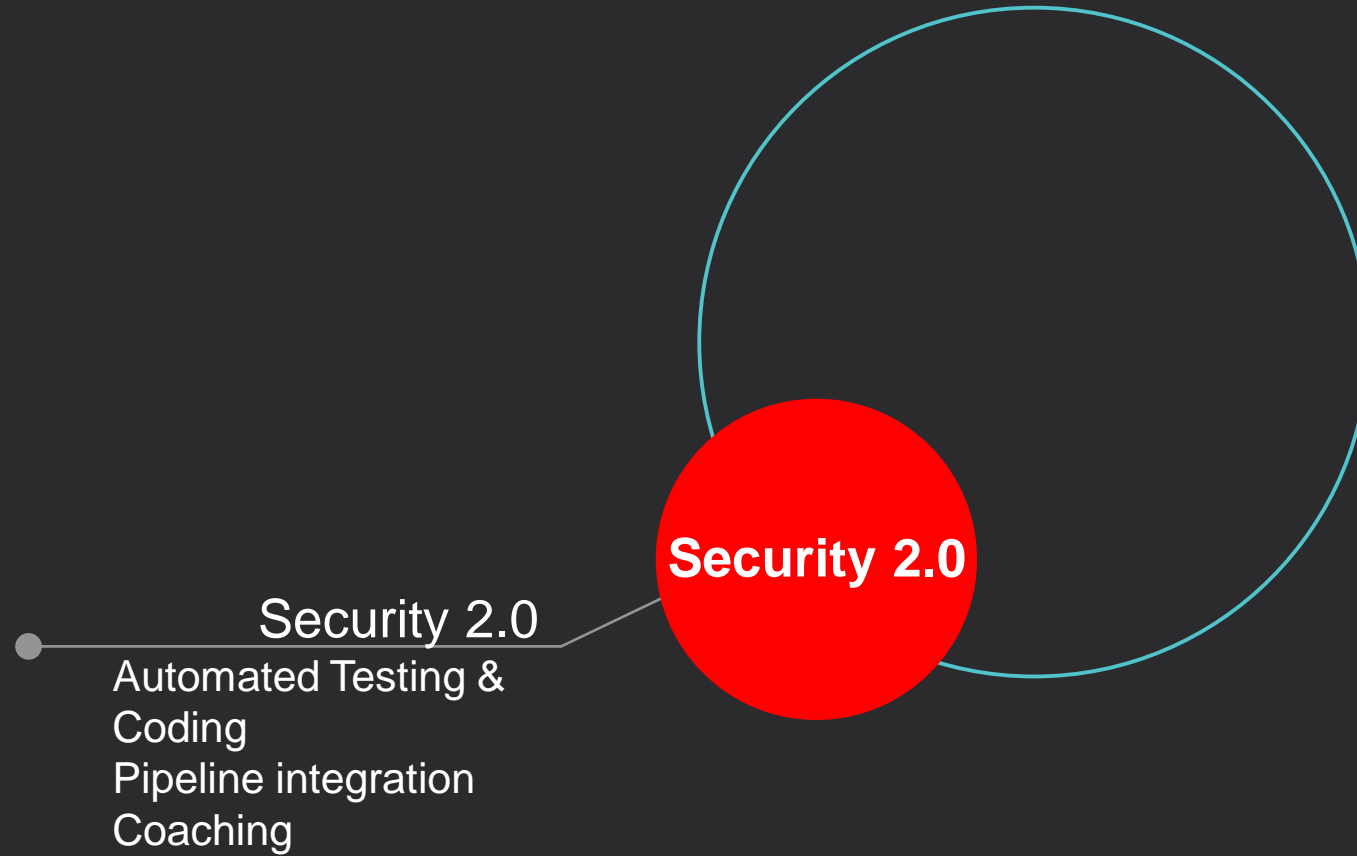
The Skill Challenge



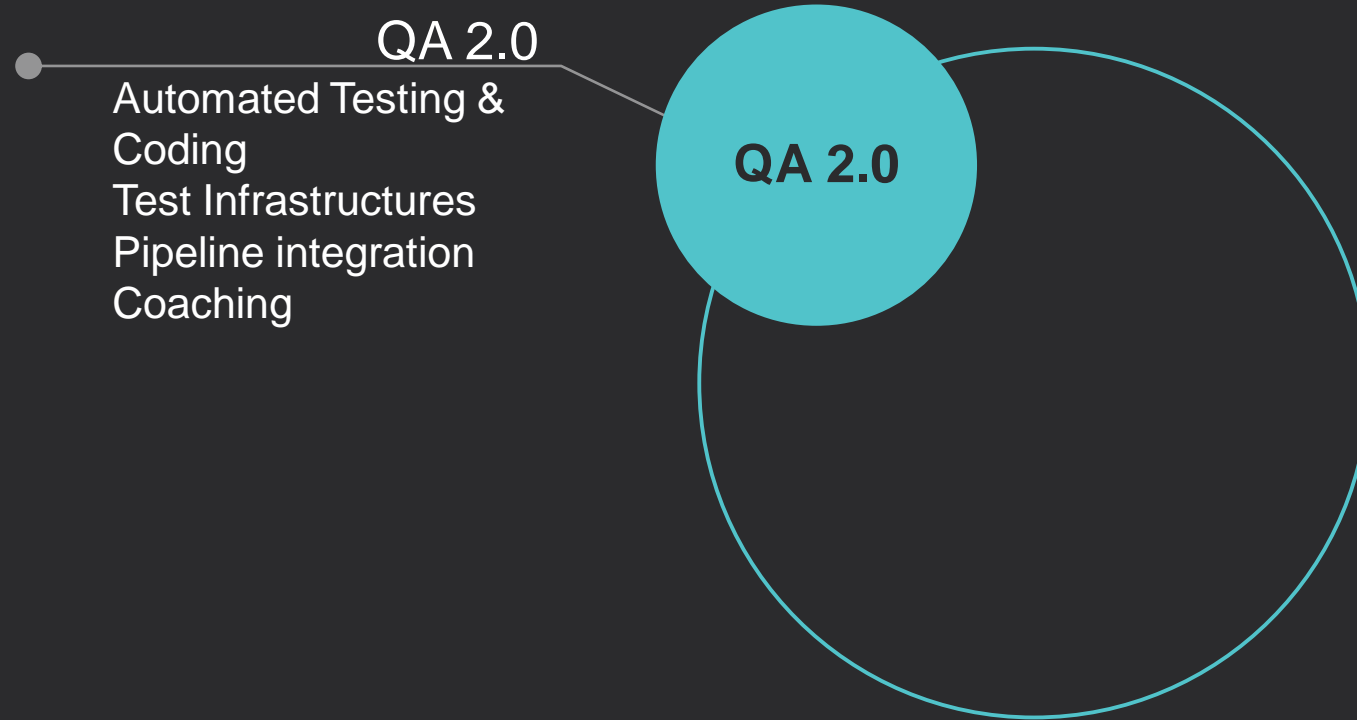
The Skill Challenge



The Skill Challenge



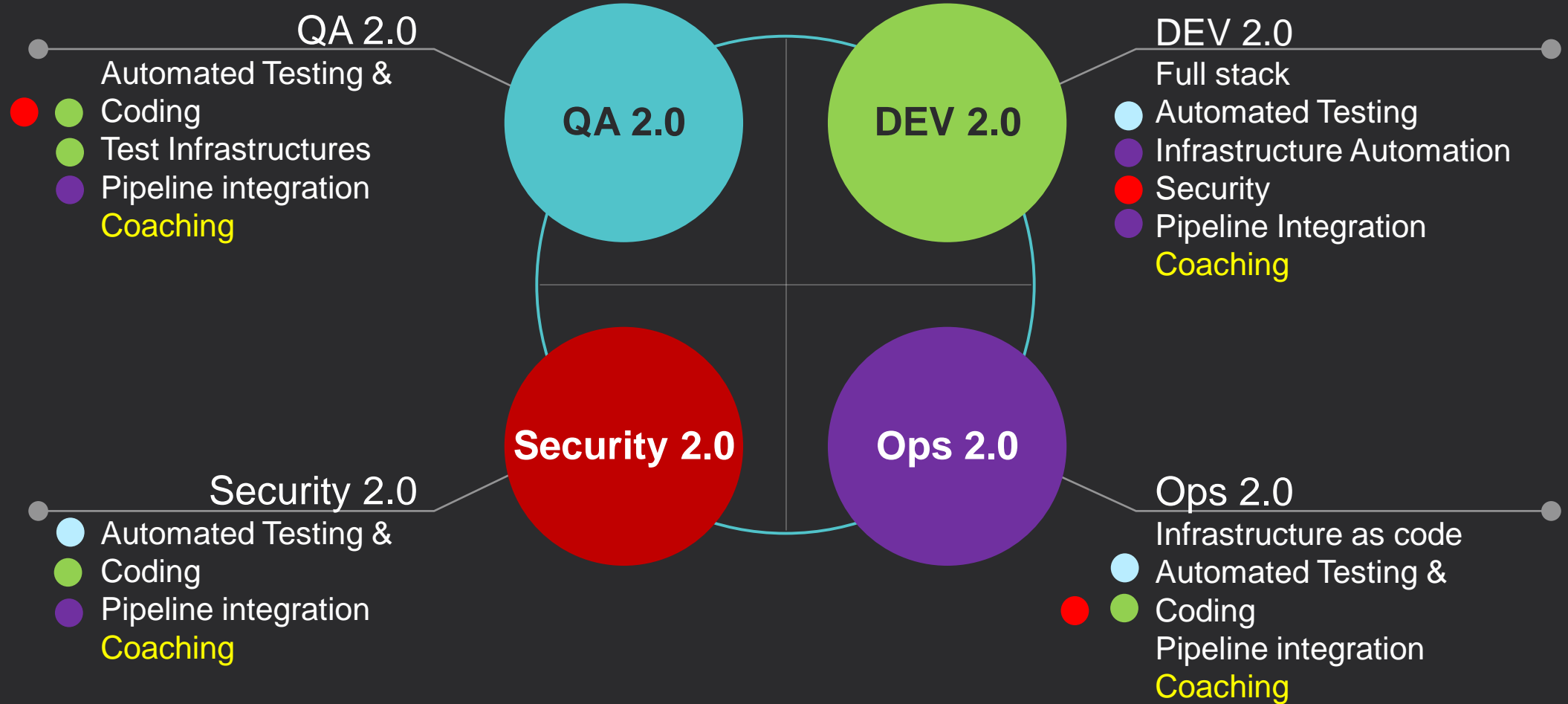
The Skill Challenge



SDLC 2.0



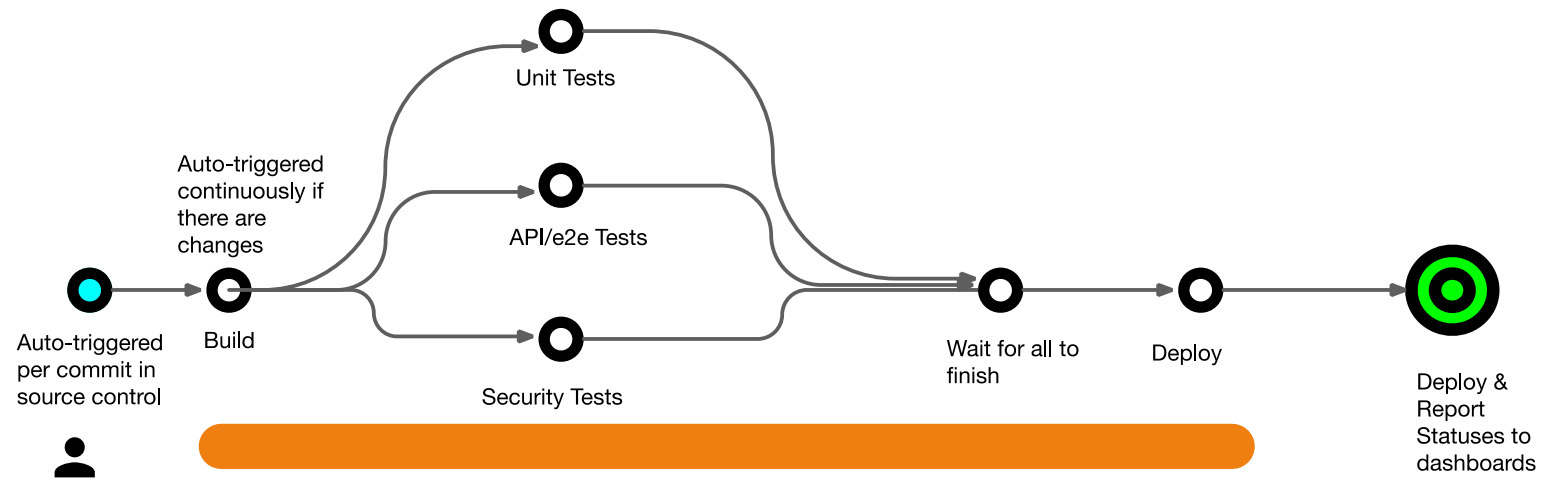
SDLC 2.0



What's in it for me?

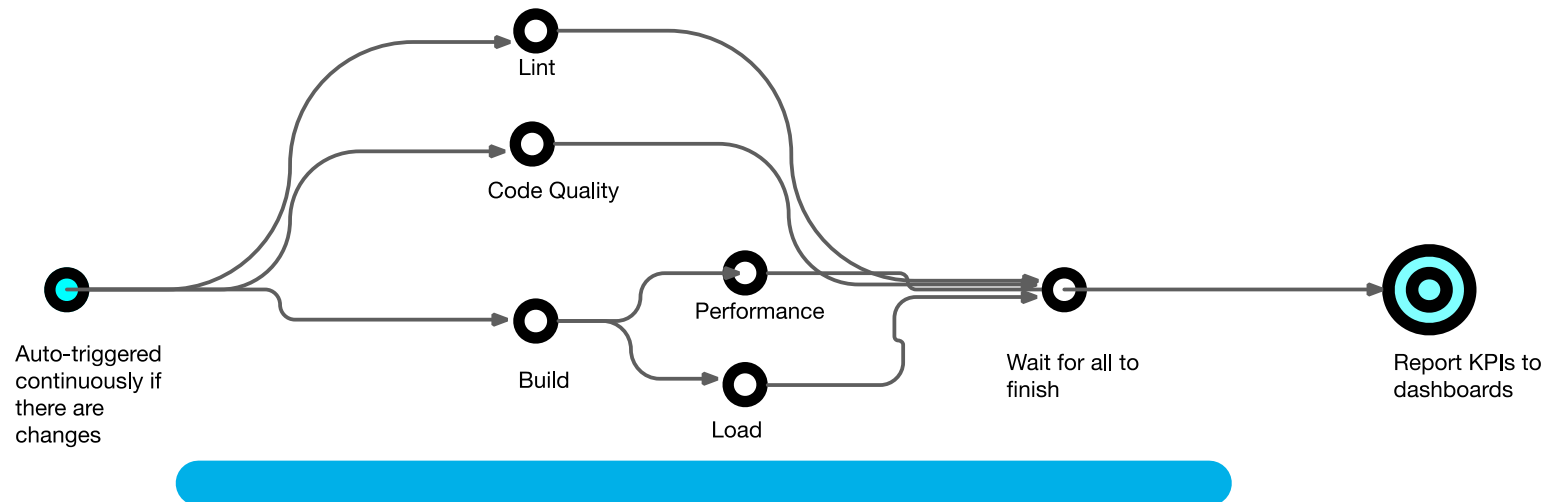
- In a **pipeline** based organization, everything becomes a test.
- Everyone is going to need your guidance, your value to the organization grows
- Grow new skills, for now and for the next job/project

Delivery Pipeline (Parallelized)

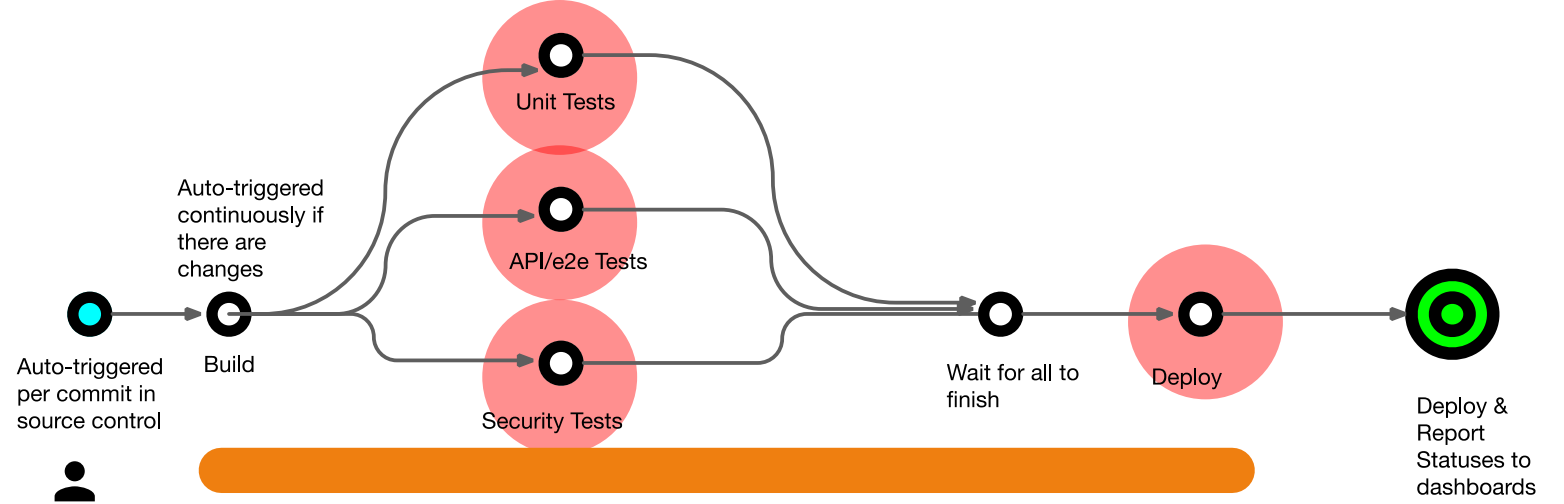


In a pipeline, almost everything is a test

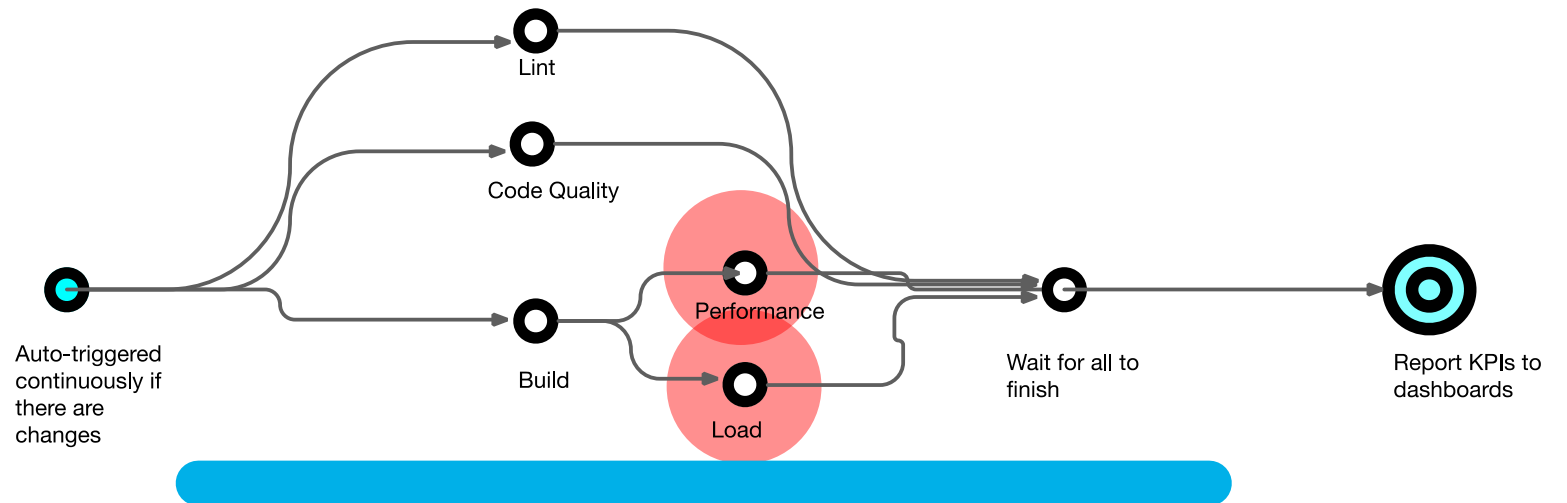
Discovery Pipeline (Parallelized)



Delivery Pipeline (Parallelized)



Discovery Pipeline (Parallelized)





Slowly Getting
There

Test Architects

Part of the **Planning** and discovery process, **test recipes**, and **development**

Coaching developers on test related techniques and ideas

Core automation and **coding** skills, often writing automated tests at some level

SDLC 2.0



SDLC 2.0

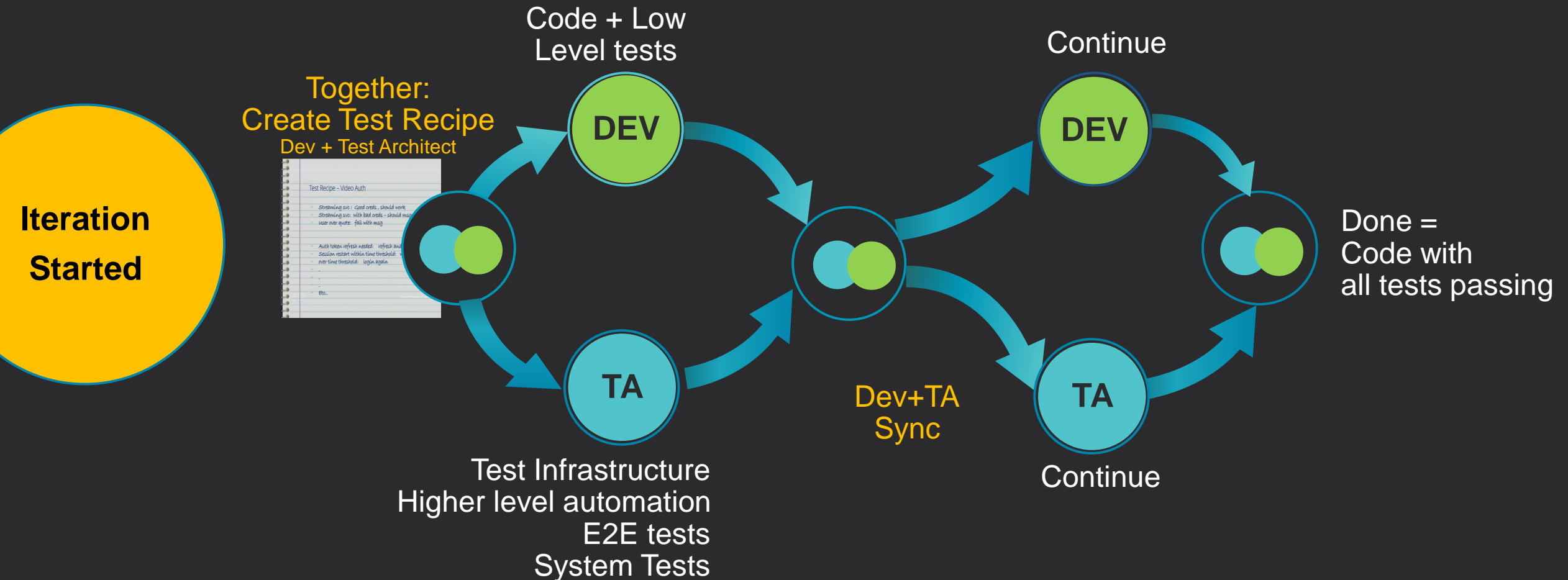


(Full) Test Recipe – Video Auth

- E2E - Streaming svc : Good creds , should work
- API - Streaming svc: with bad creds - should msg
- UT - User over quote: fail with msg

- UT - Auth token refresh needed: refresh and retry
- UT - Session restart within time threshold: will auth
- UT - over time threshold: login again
- .
- .
- .
- Etc..

Test Recipe (Per Feature or Story or Task)



WTF Roy?

“That’s a test plan!”

“We have those.”

“We write them during planning”

“We have tools for those.”

“We have processes for those.”



WTF Roy?

- That's a test plan!
 - We have those.
 - We write them during planning
 - We have tools for those.
 - We have processes for those.
- It is a development ad-hoc design session
 - It is documented right in the feature or task (not separate)
 - It is a JOINT brainstorming session (5-15 minutes) of two people, who will actually perform the work
 - It combines the knowledge of the TA and the DEV.

Test Recipe

Opportunities for

1
Shortening
The test
feedback loop
time

8
Working as a
single team,
not in silos

2
Thinking
Before Acting

3
Caring about
tests from the
"other side of
the fence"

4
Preventing
Test
Duplication,
Test are self
documenting

5
Finding
missing
testability
"shortcuts"
and enablers

6
Coaching from
either side
about their
strengths

7
Avoiding
unnecessary
side-
documents/wo
rk items

How does it shorten the feedback loop?

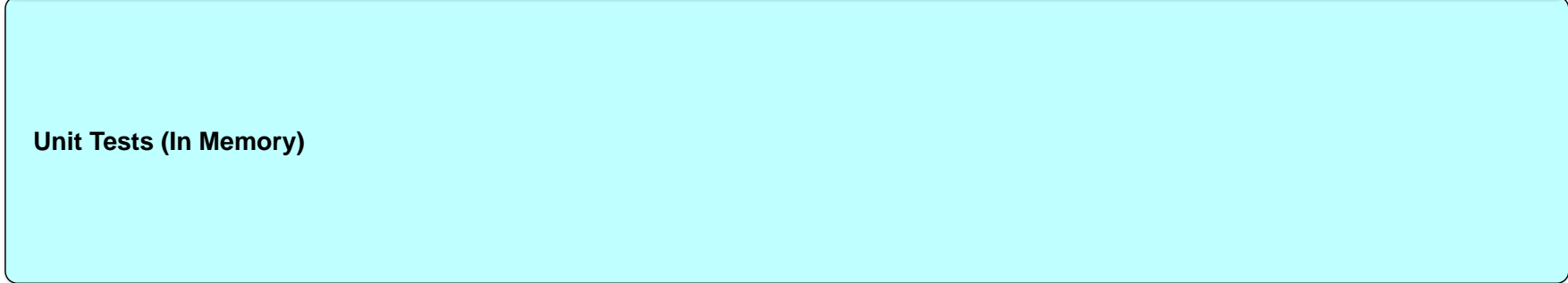
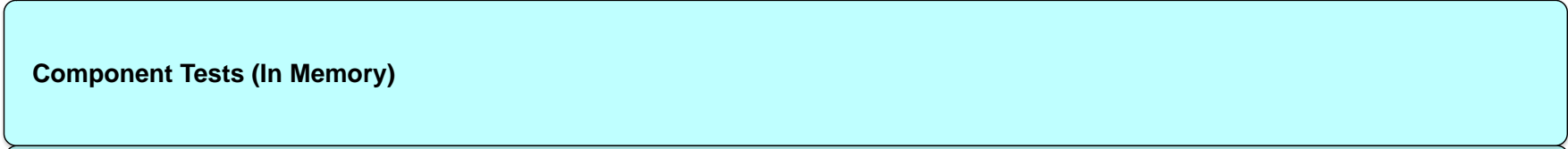
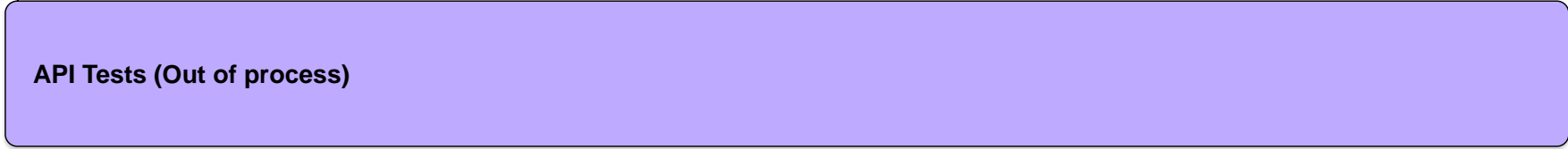
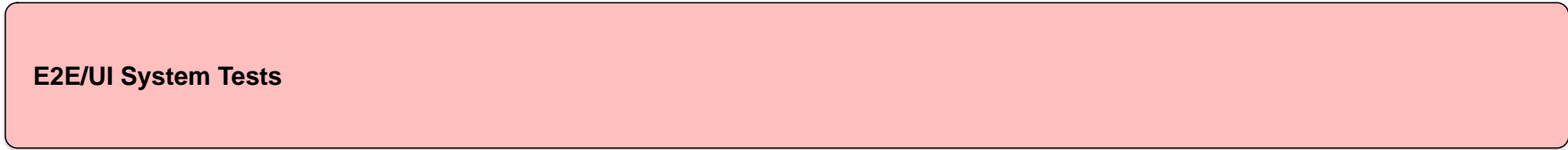
(Partial) Test Recipe – Video Auth

- Streaming svc : Good creds , should work
- Streaming svc: with bad creds – should msg
- User over quote: fail with msg

- Auth token refresh needed: refresh and retry
- Session restart within time threshold: will auth
- over time threshold: login again
- .
- .
- .
- Etc..

Most Confidence

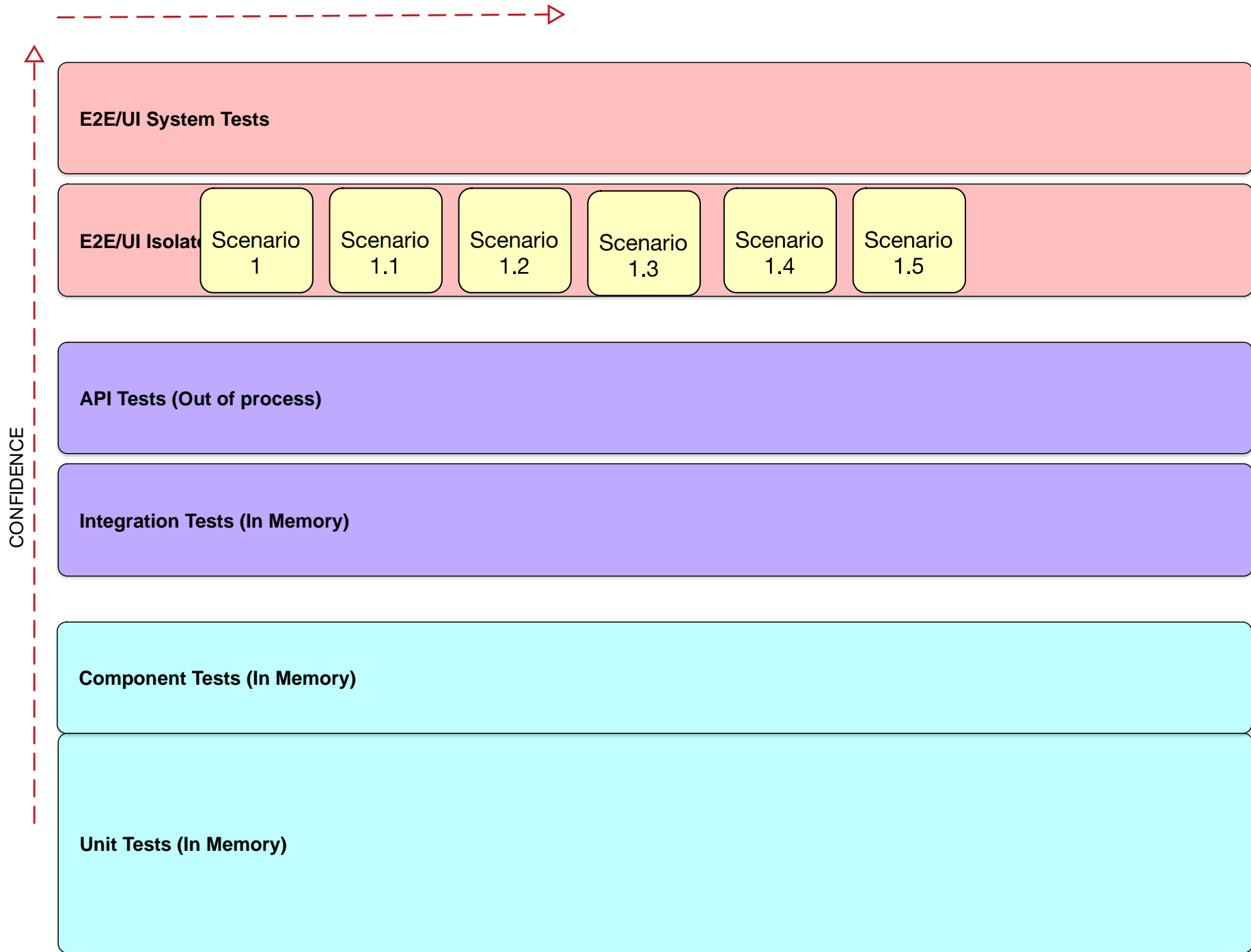
Harder to Maintain
Harder to Write
SLOWER Feedback Loop



CONFIDENCE

Most Speed

Easier to Maintain
Easier to Write
Faster Feedback Loop



CONFIDENCE

E2E/UI System Tests

E2E/UI Isolated Tests

API Tests (Out of process)

Integration Tests (In Memory)

Component Tests (In Memory)

Unit Tests (In Memory)

Scenario 1

Scenario 1.2

Scenario 1.4

Scenario 1.5

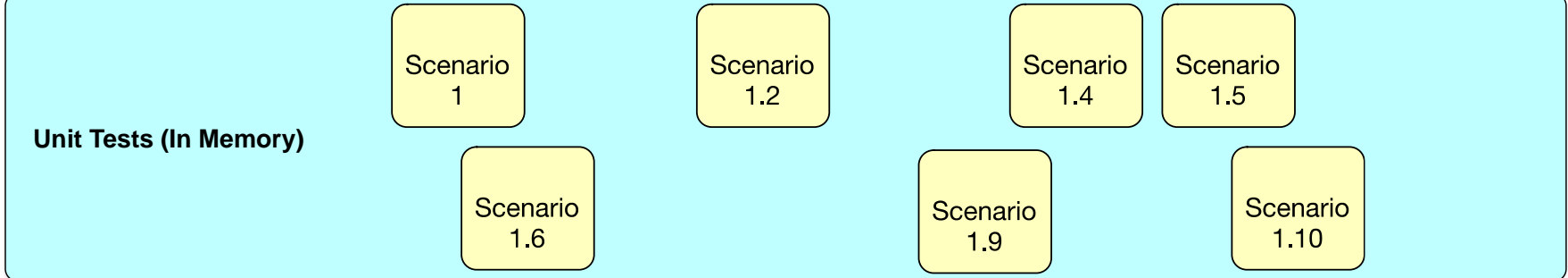
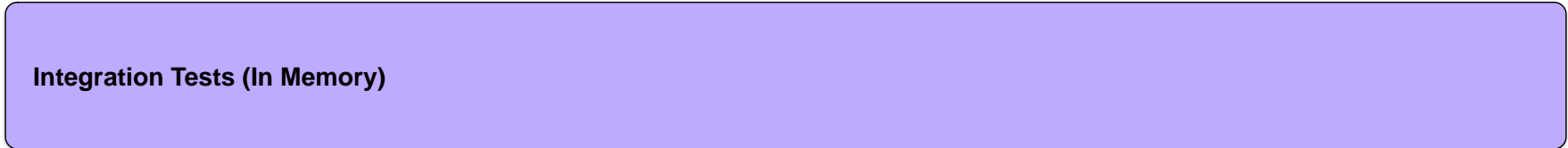
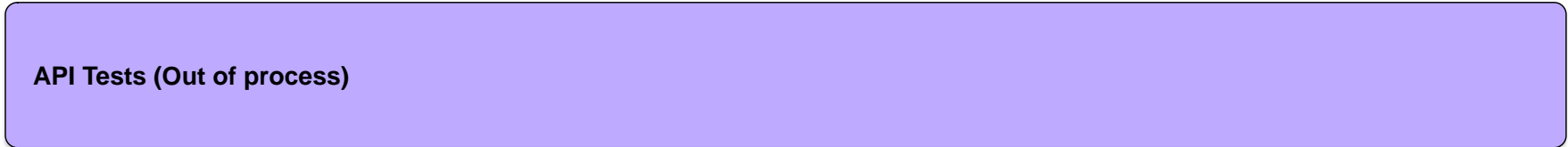
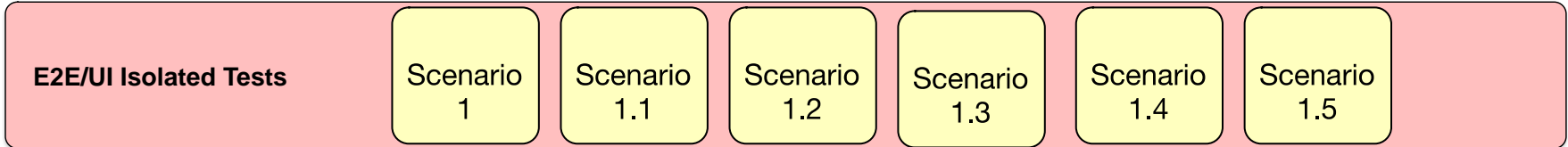
Scenario 1.6

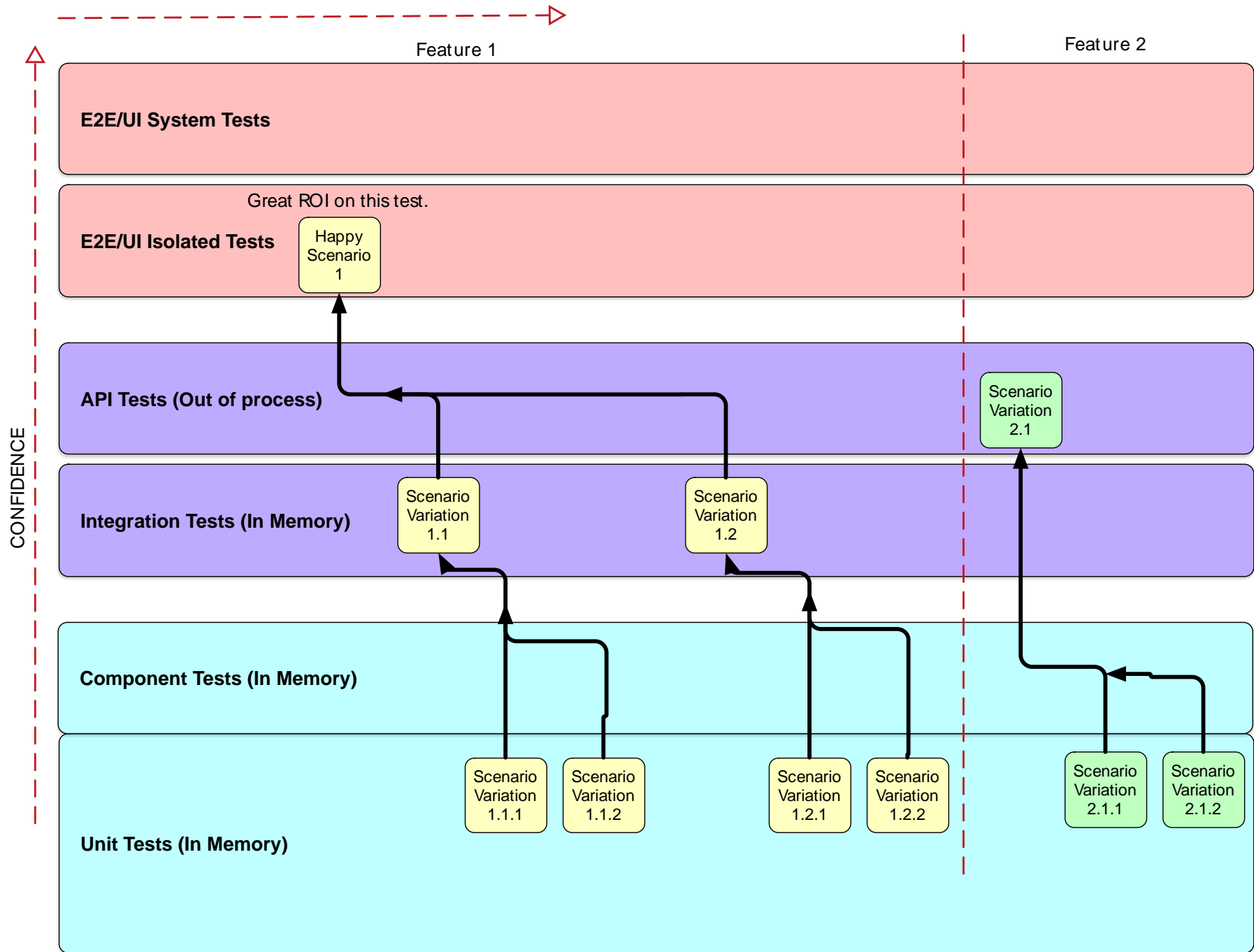
Scenario 1.9

Scenario 1.10



CONFIDENCE





Test Recipe – Video Auth

- E2E - Streaming svc : Good creds , should work
- API - Streaming svc: with bad creds – should msg
- UT - User over quote: fail with msg

- UT - Auth token refresh needed: refresh and retry
- UT - Session restart within time threshold: will auth
- UT - over time threshold: login again
- .
- .
- .
- Etc..

Test Recipe – Video Auth

- ● E2E - Streaming svc : Good creds , should work
- ● API - Streaming svc: with bad creds - should msg
- ● UT - User over quote: fail with msg

- ● UT - Auth token refresh needed: refresh and retry
- ● UT - Session restart within time threshold: will auth
- ● UT - over time threshold: login again
- .
- .
- .
- Etc..

FASTER FEEDBACK LOOP
with
HIGH ENOUGH CONFIDENCE
with less
WASTE

Summary

Pipelines

Pipeline Based Organizations will require us to learn new skills

Roles

Test Architects and coaches will be sorely needed (if we allow it to happen)

Collaboration

Test Recipes & Layer Strategy allow us to break down silos, reduce feedback loop time, gain confidence, remove waste

Resources

EnterpriseDevops.org

5whys.com

Book - Agile Testing (Crispin, Gregory)
(alternate points of view)

Book – Elastic Leadership (osherove)

roy@osherove.com

[@royOshero](https://twitter.com/royOshero)

Thank You!

roy@osherove.com
@royOshero