DevOps from the Ground Up

@patkua

ThoughtWorks®

DevOps from the Ground Up

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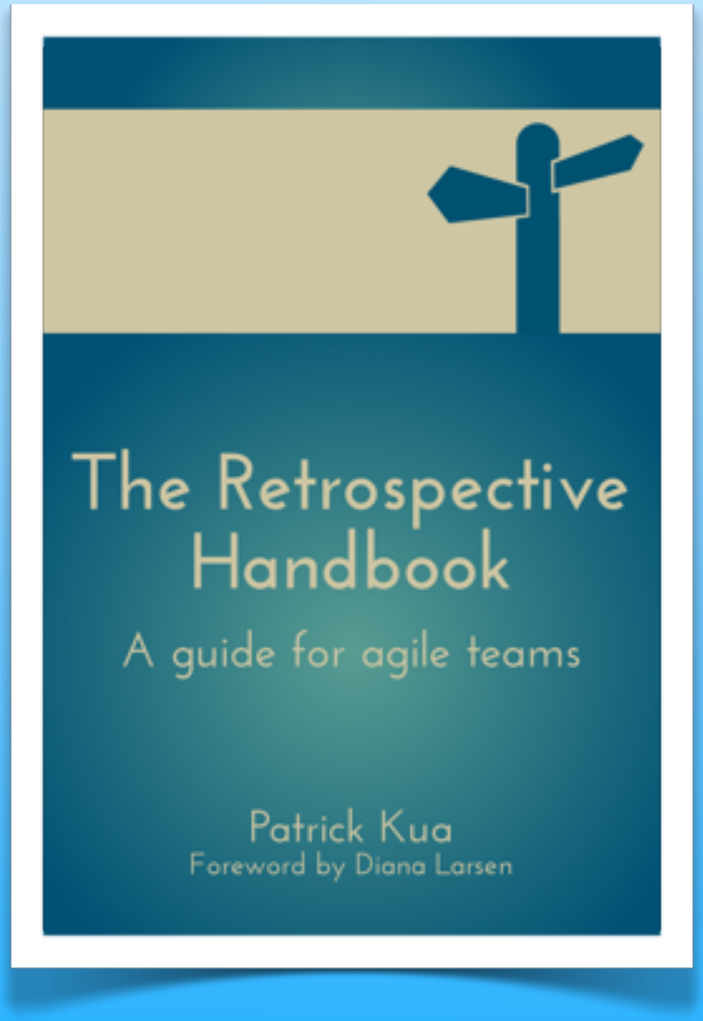
ThoughtWorks®

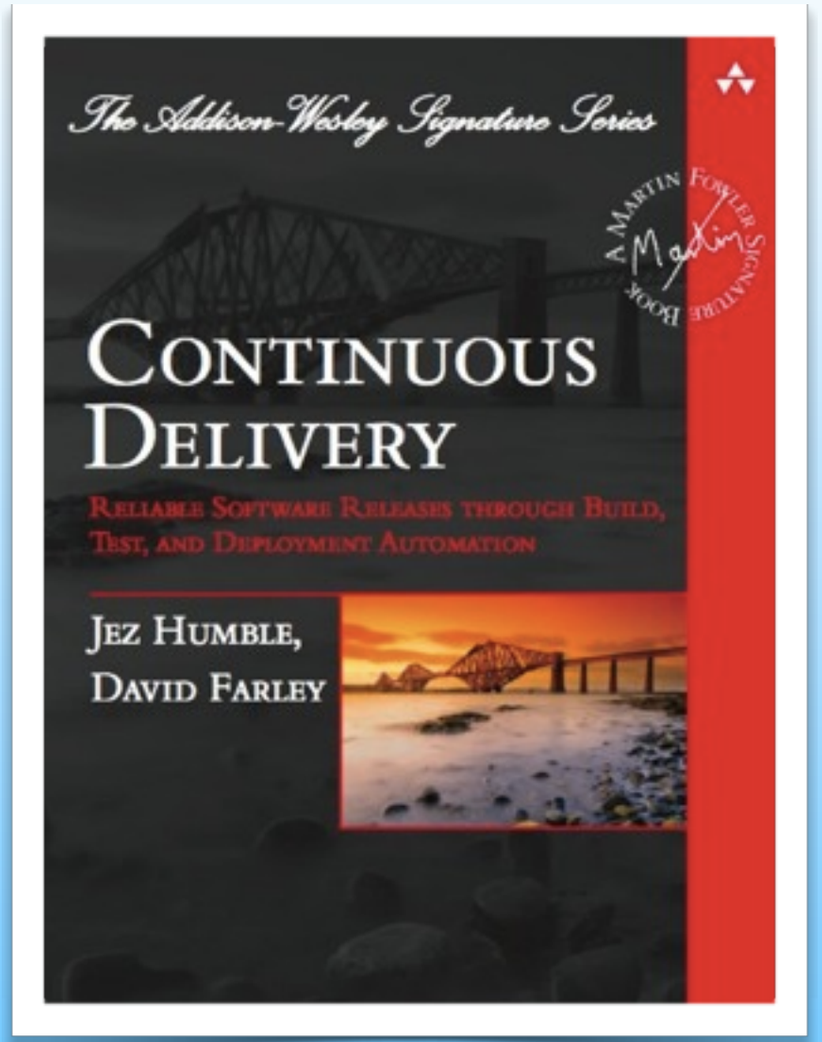
@patkua works for ThoughtWorks®

and is author of



ThoughtWorks®
develops
go™

go helps with



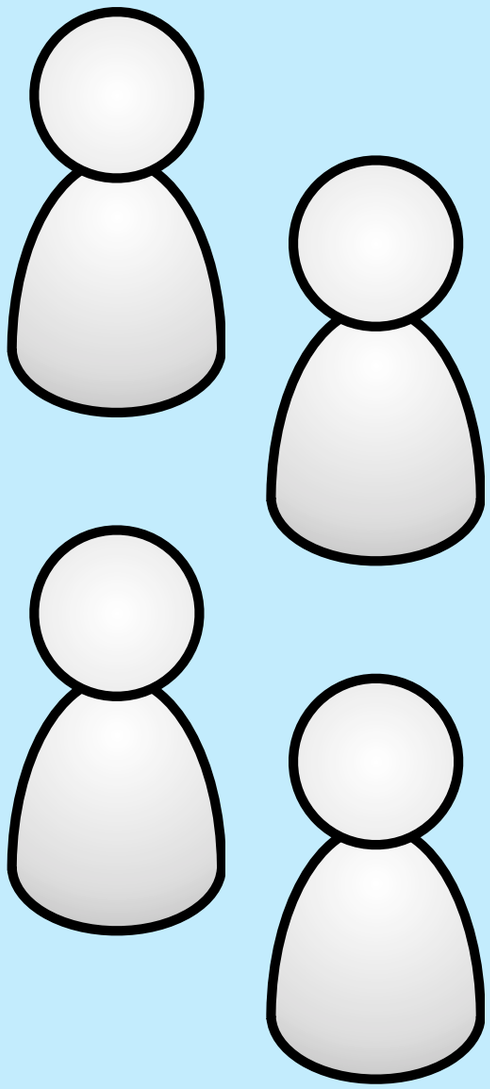
My story ...

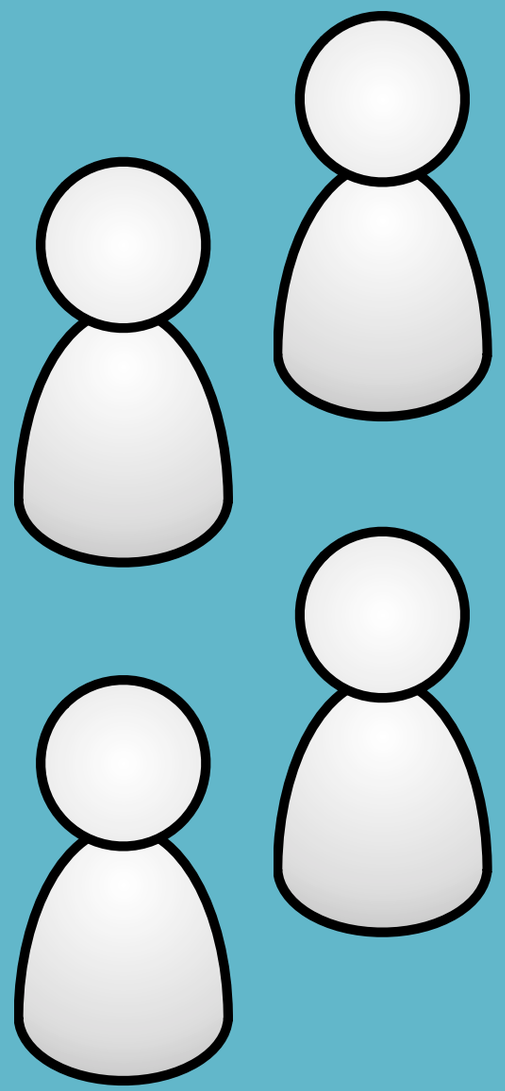
What is DevOps

DevOps
I do not think it means what you think it means

Dev

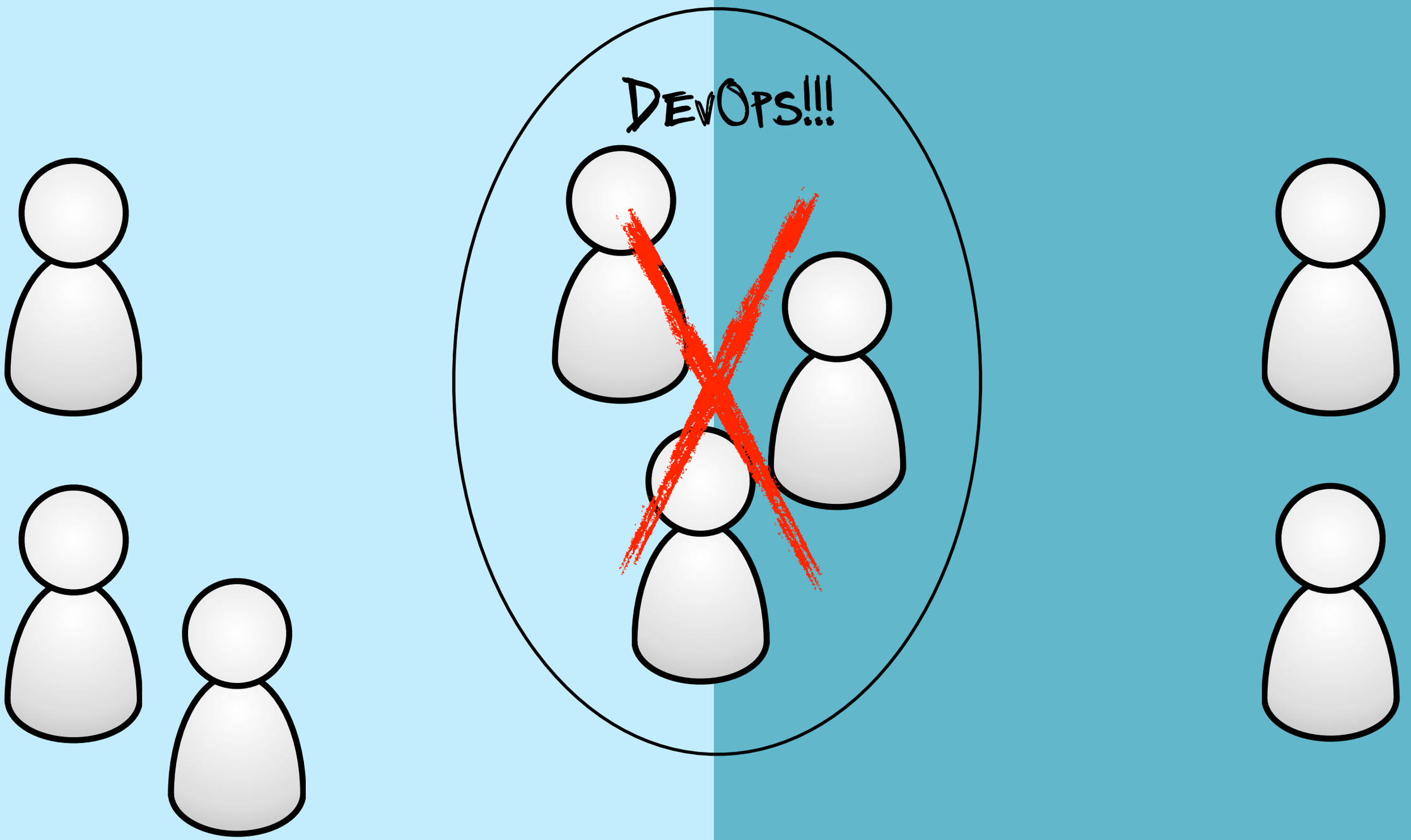
Ops





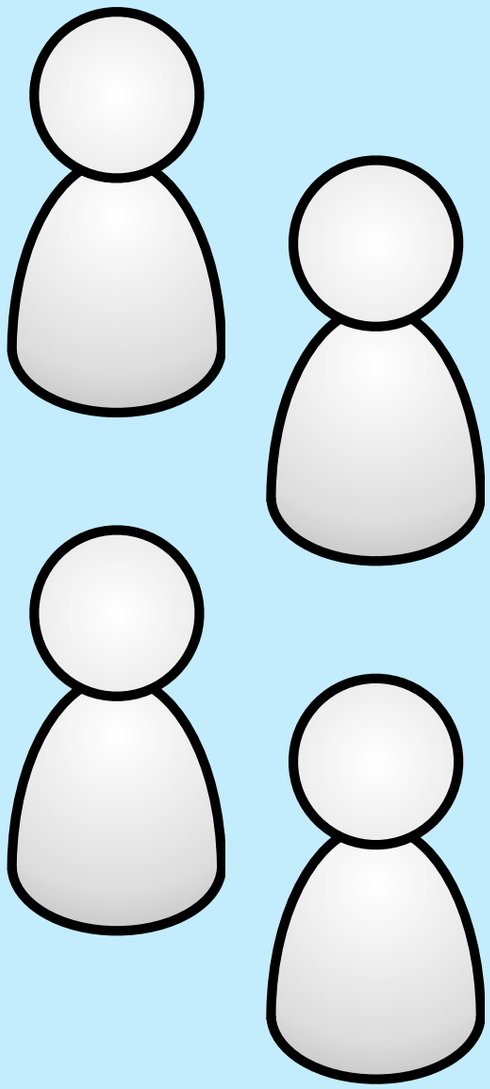
Dev

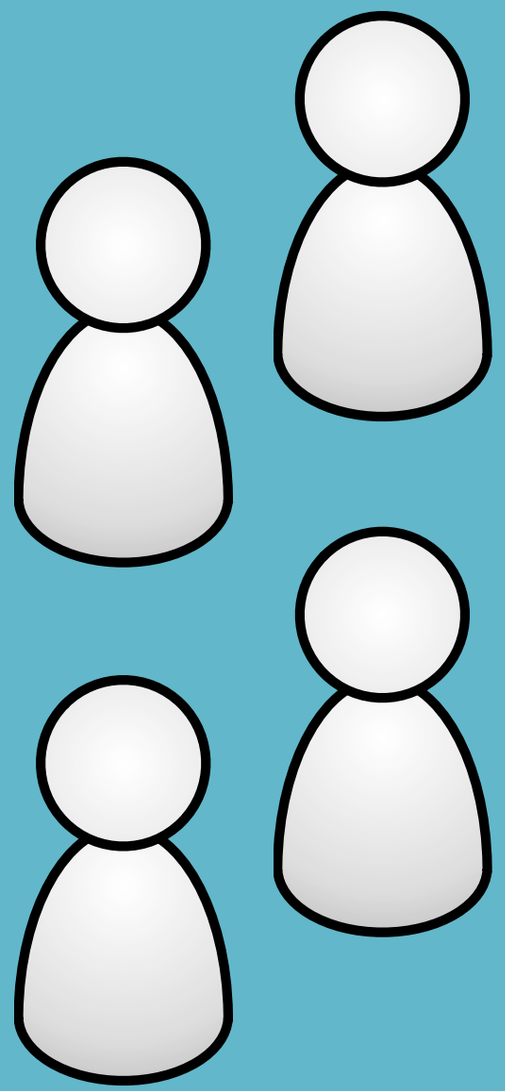
Ops



Dev

Ops

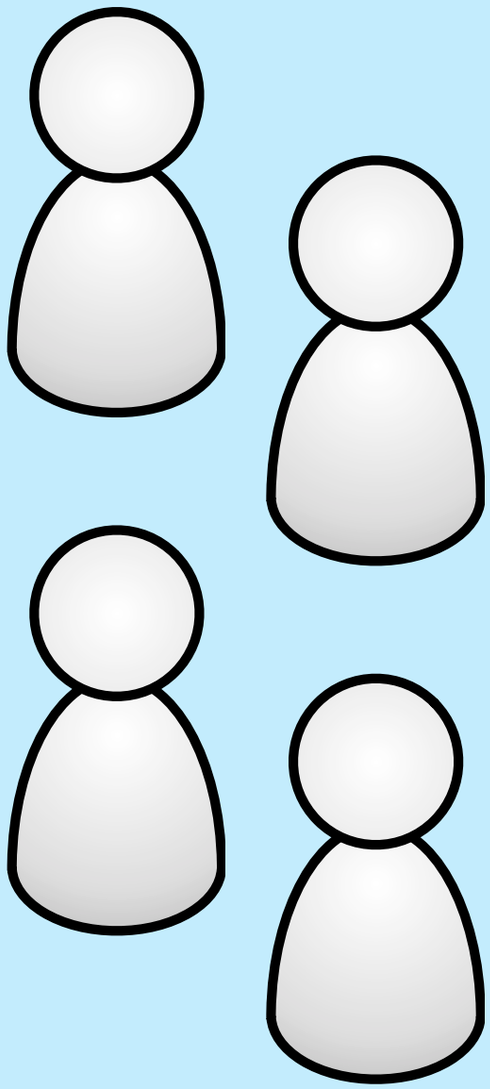


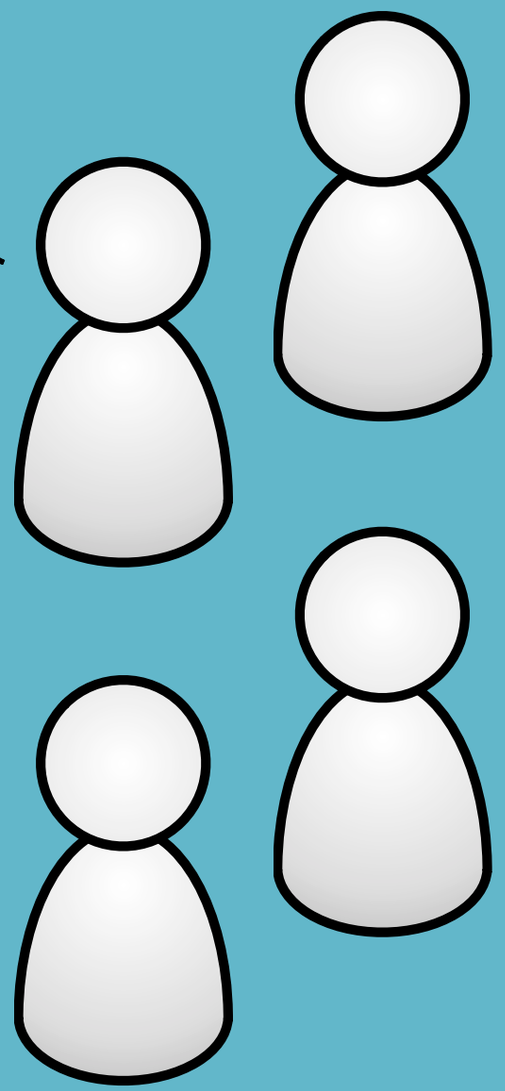


Dev

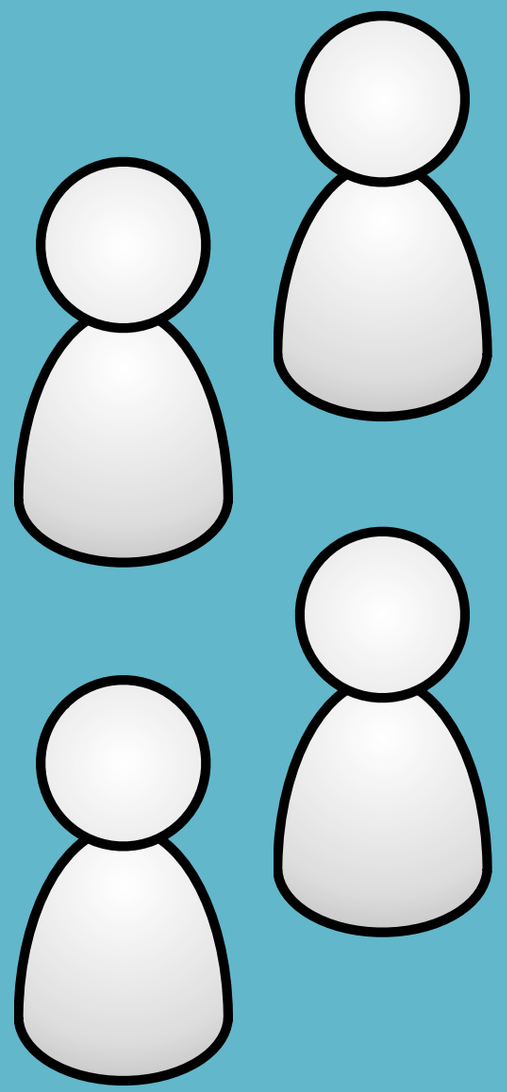
Ops

"We know what DevOps is"





Ops

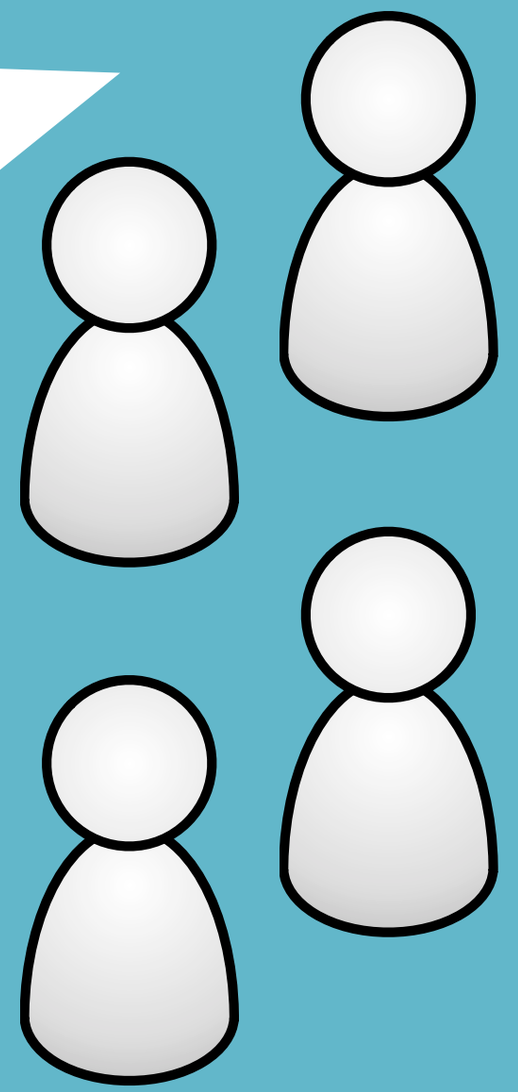


Ops

"A system to replace all systems"

"Push button environments"

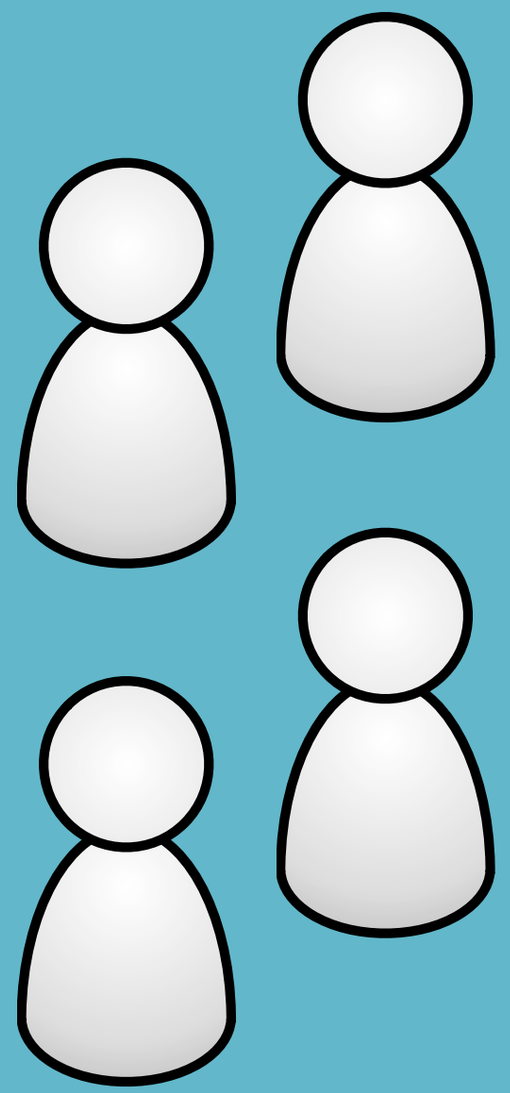
"We know what developers want"



Ops

9+ months

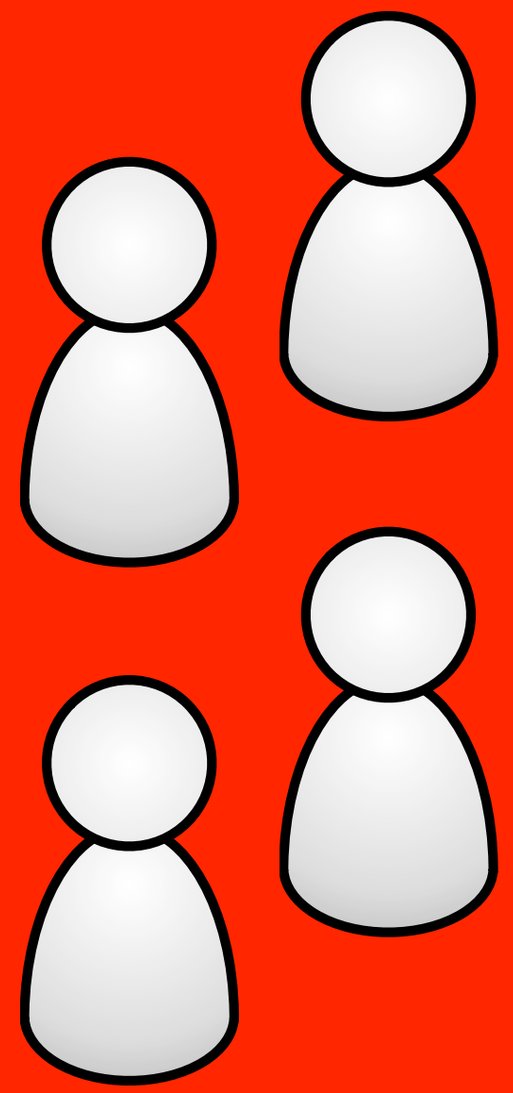
6+ person team



Ops

9+ months

6+ person team



Machines on demand

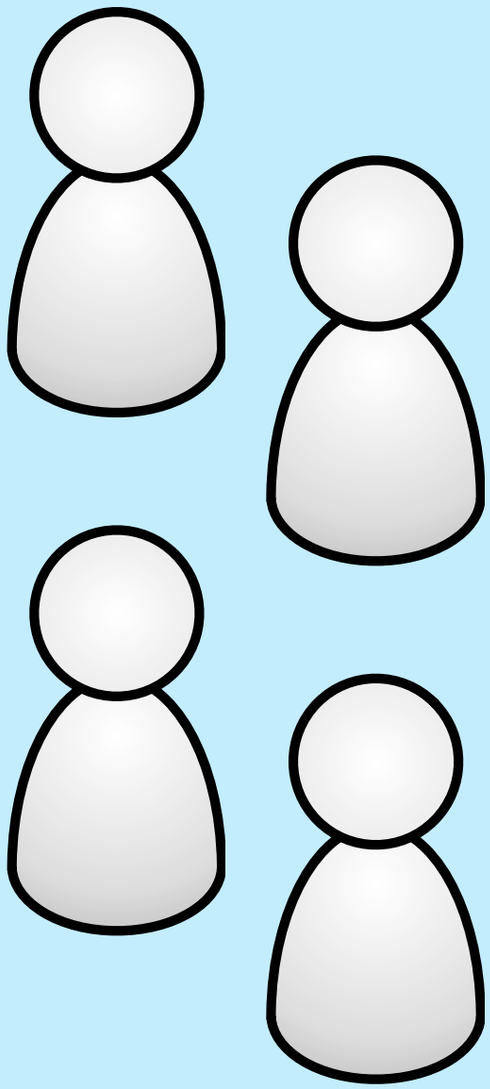
but not in a state for
development teams

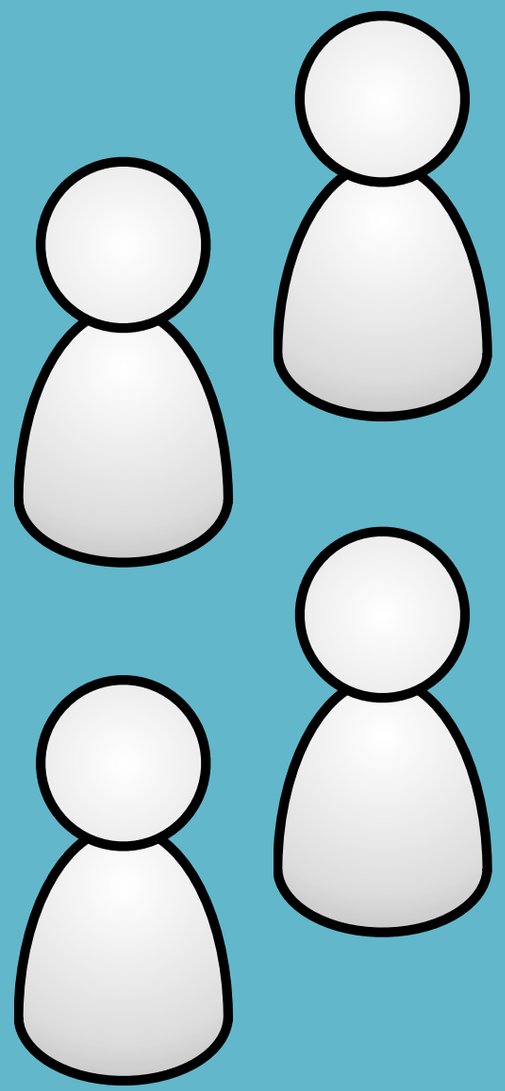
FAIL

Dev

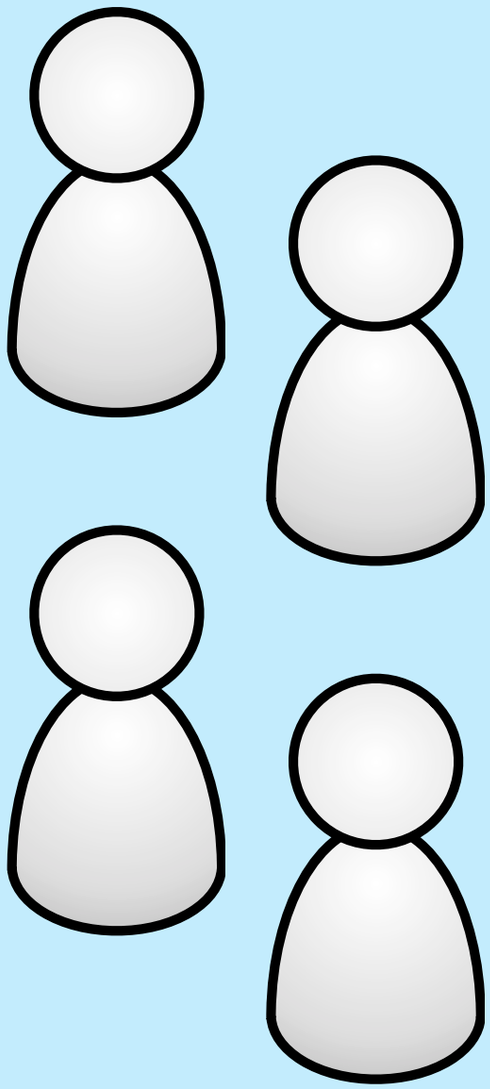
Ops

"We know what DevOps is"





Dev

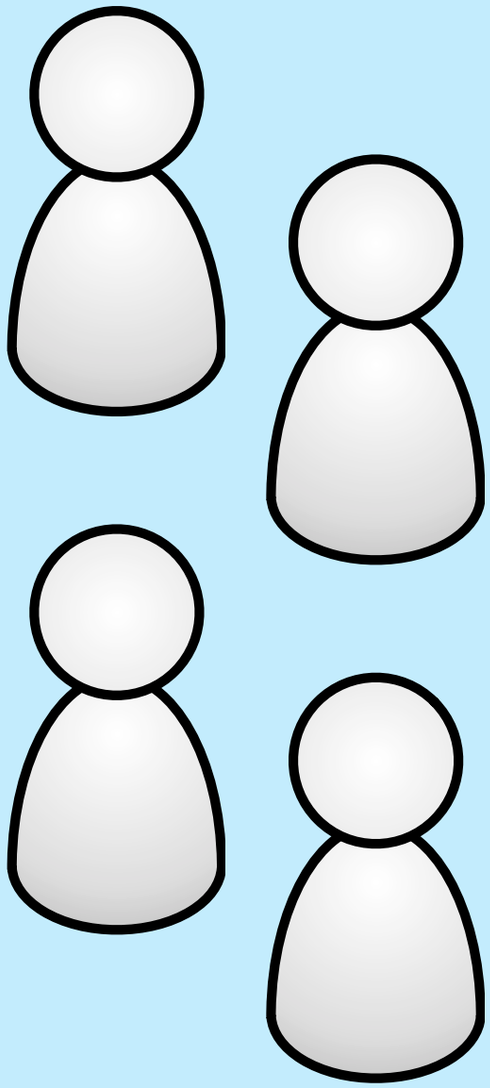


"We'll use puppet"

"Deployment scripts in ruby"

"We know what operations want"

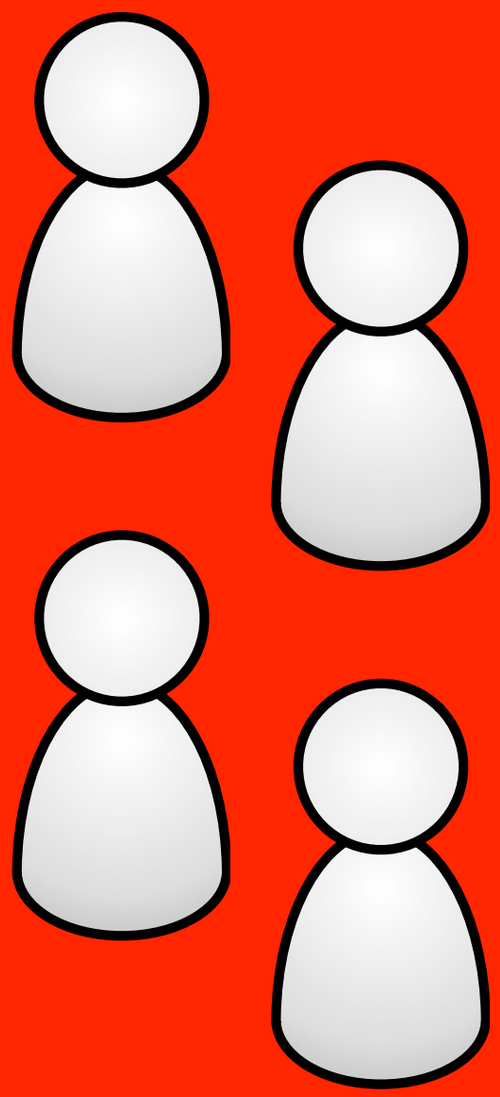
Dev



2+ months

automated deploy into test

Dev



2+ months

automated deploy into test

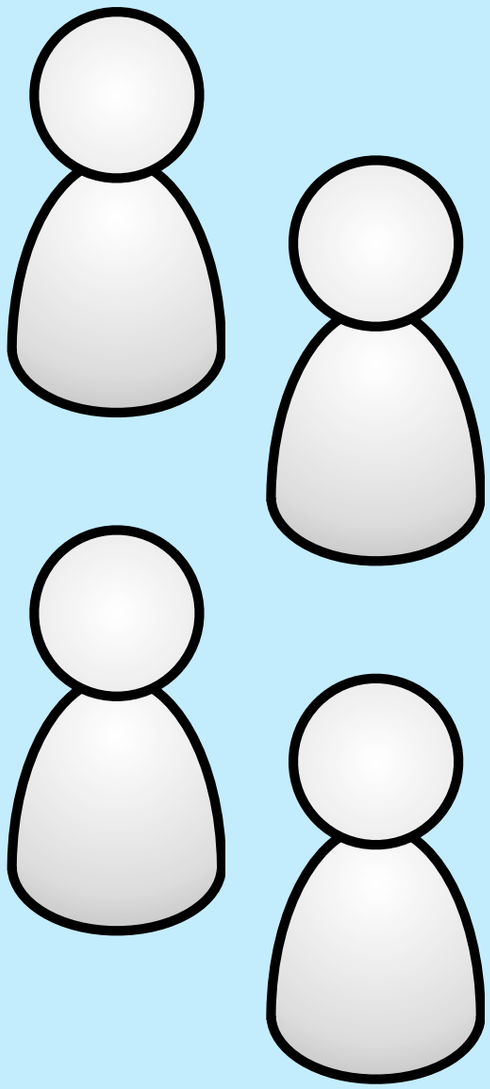
production on windows

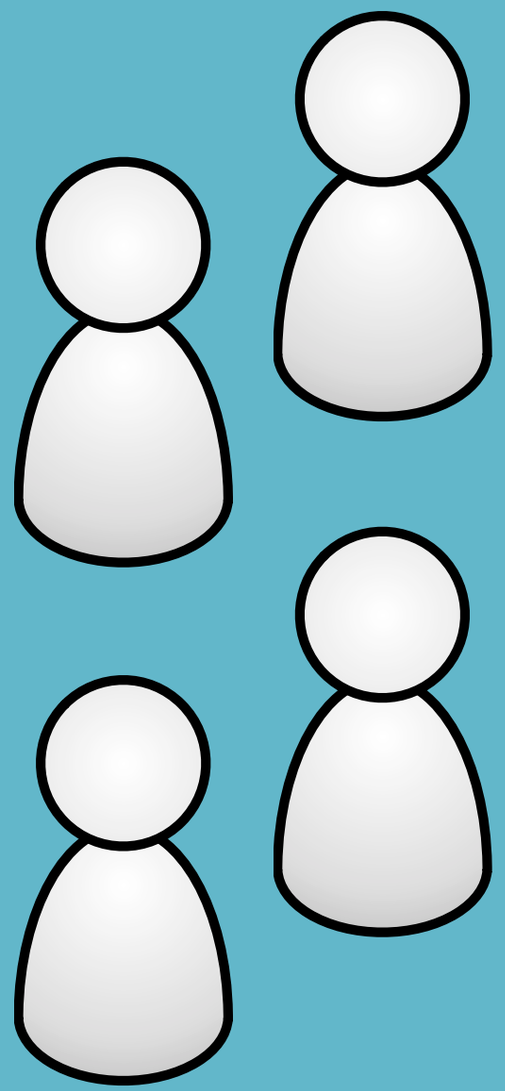
operations want a UI

FAIL

Dev

Ops





Dev Ops

A culture and mindset for collaborating between developers and operations

Dev Ops

- ✗ Tools
- ✗ Automation
- ✗ Access rights
- ✗ Teams

Dev Ops

- ✗ Tools
- ✗ Automation
- ✗ Access rights
- ✗ Teams

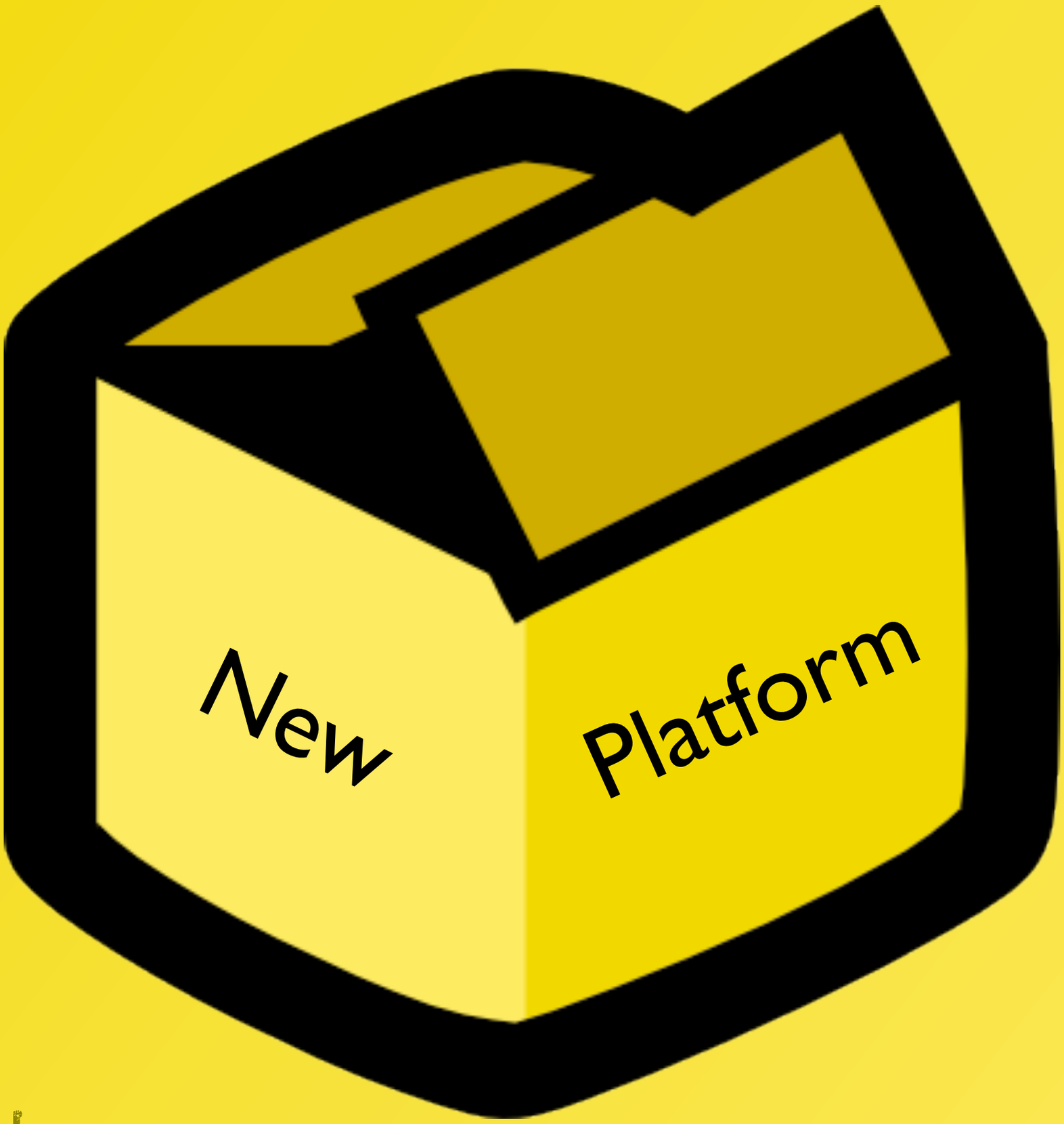
- ✓ Communication
- ✓ Understanding
- ✓ Integration
- ✓ Relationships

Background

14+ months

CMS

BI

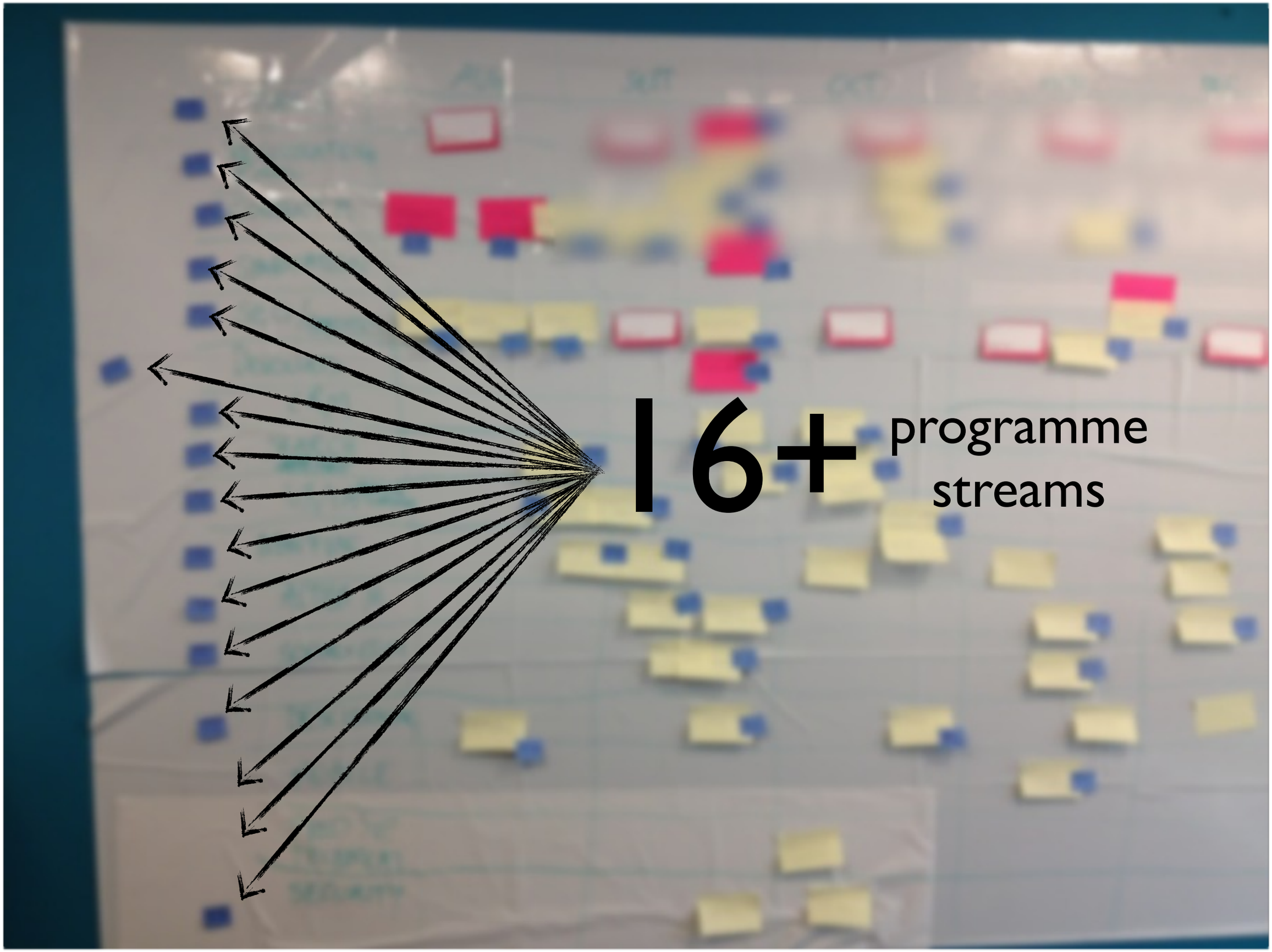


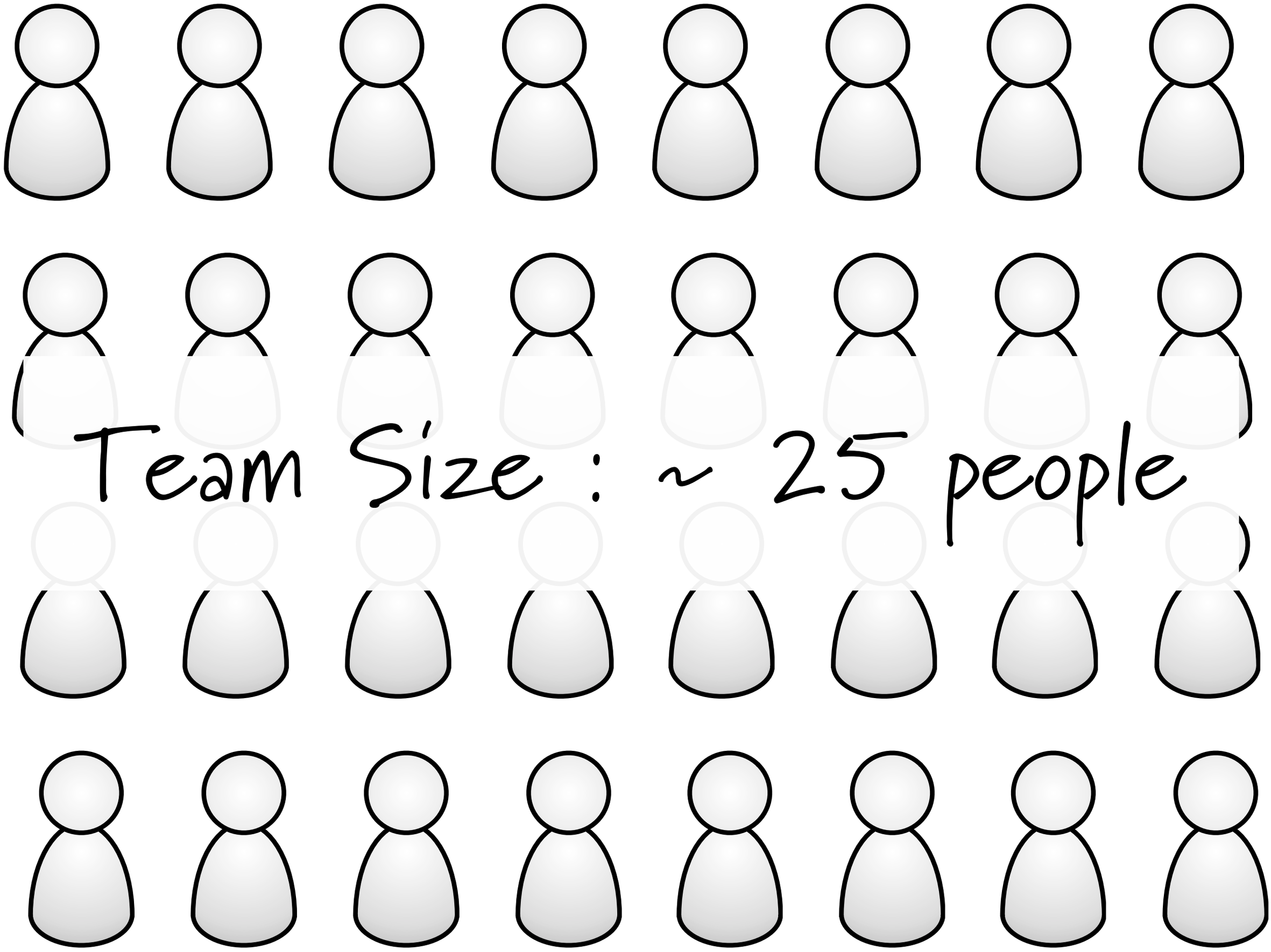
Website

CRM

Call centre

Recommendations

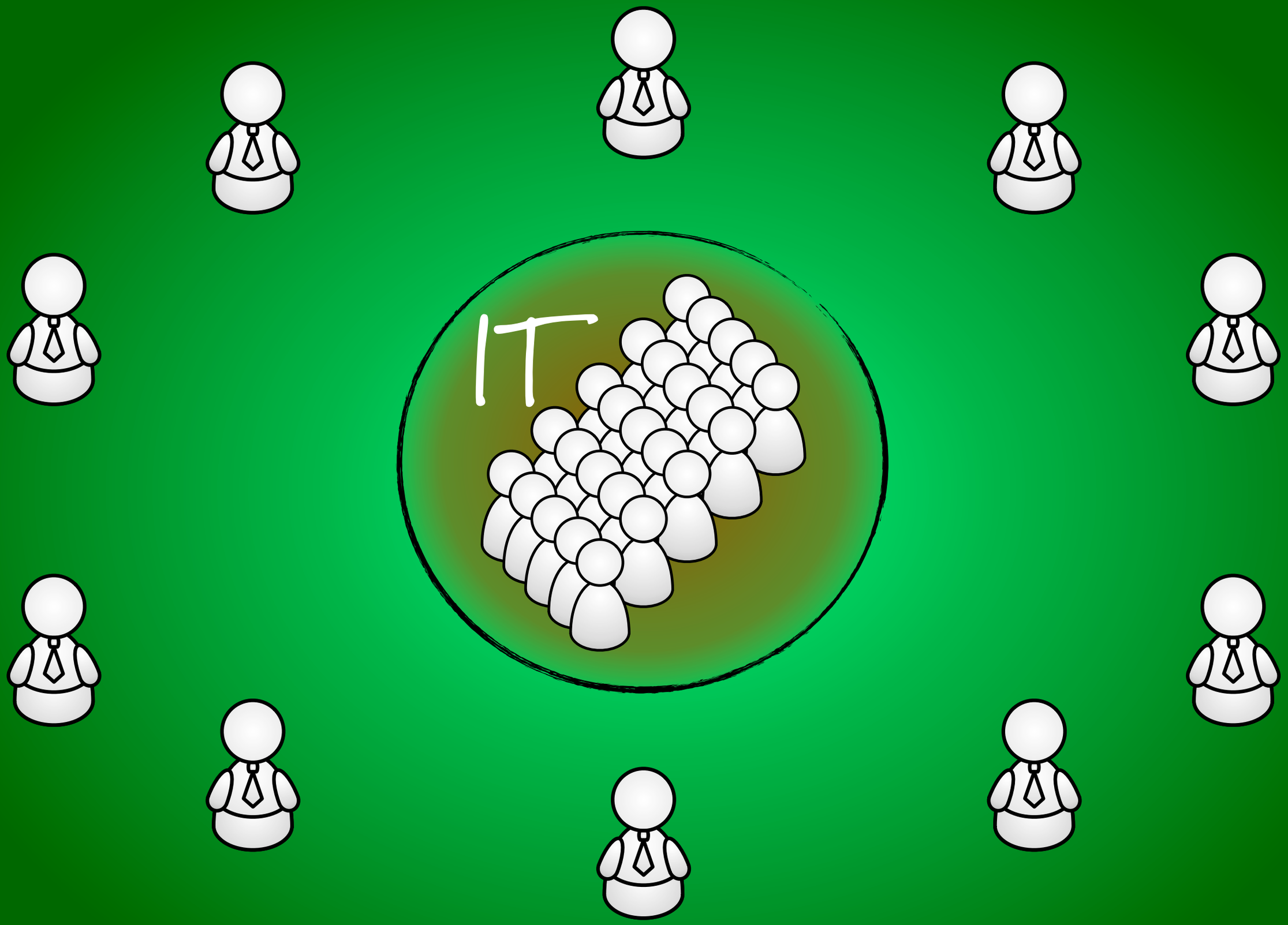

16+
programme
streams



Team Size : ~ 25 people

"Can we have 20 developers start on day one?"

4 Product Managers



Field of Project Managers

What we set out to do

Practices

Principles

"Develop systems,
not software"

Dogfooding

High Lottery Factor

Why

1st

What

2nd

Both sets of interests discussed

Continuous Improvement

Nailed it

What we set out to do

What we did

Prod

Team Planning

Dev Stream

Dev Stream

Our practice:

Sequential standups

WHY We DIET

"Operations"

Our practice:

Pairing

"Development"

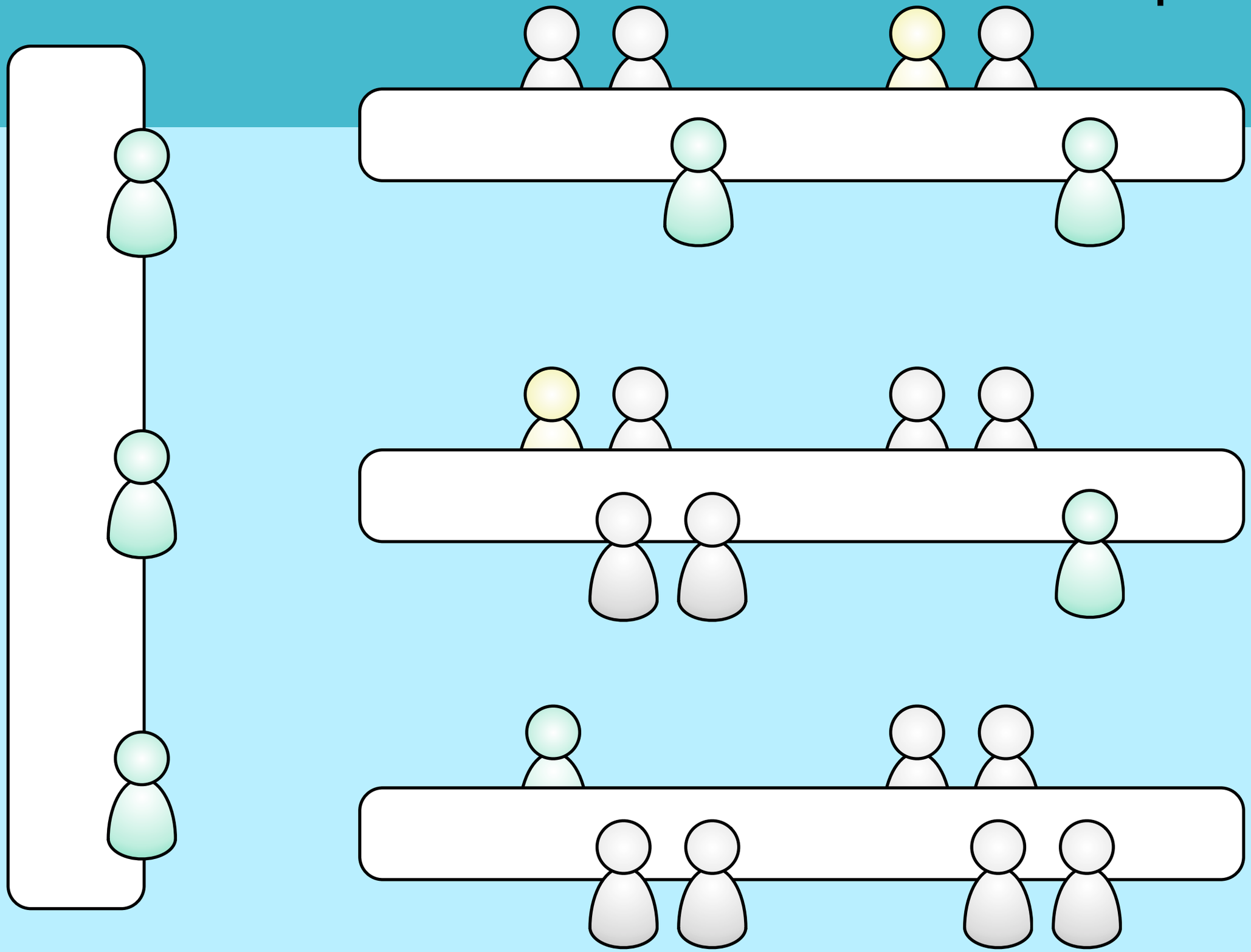
"Operations"

Our practice:

Weekly rotation

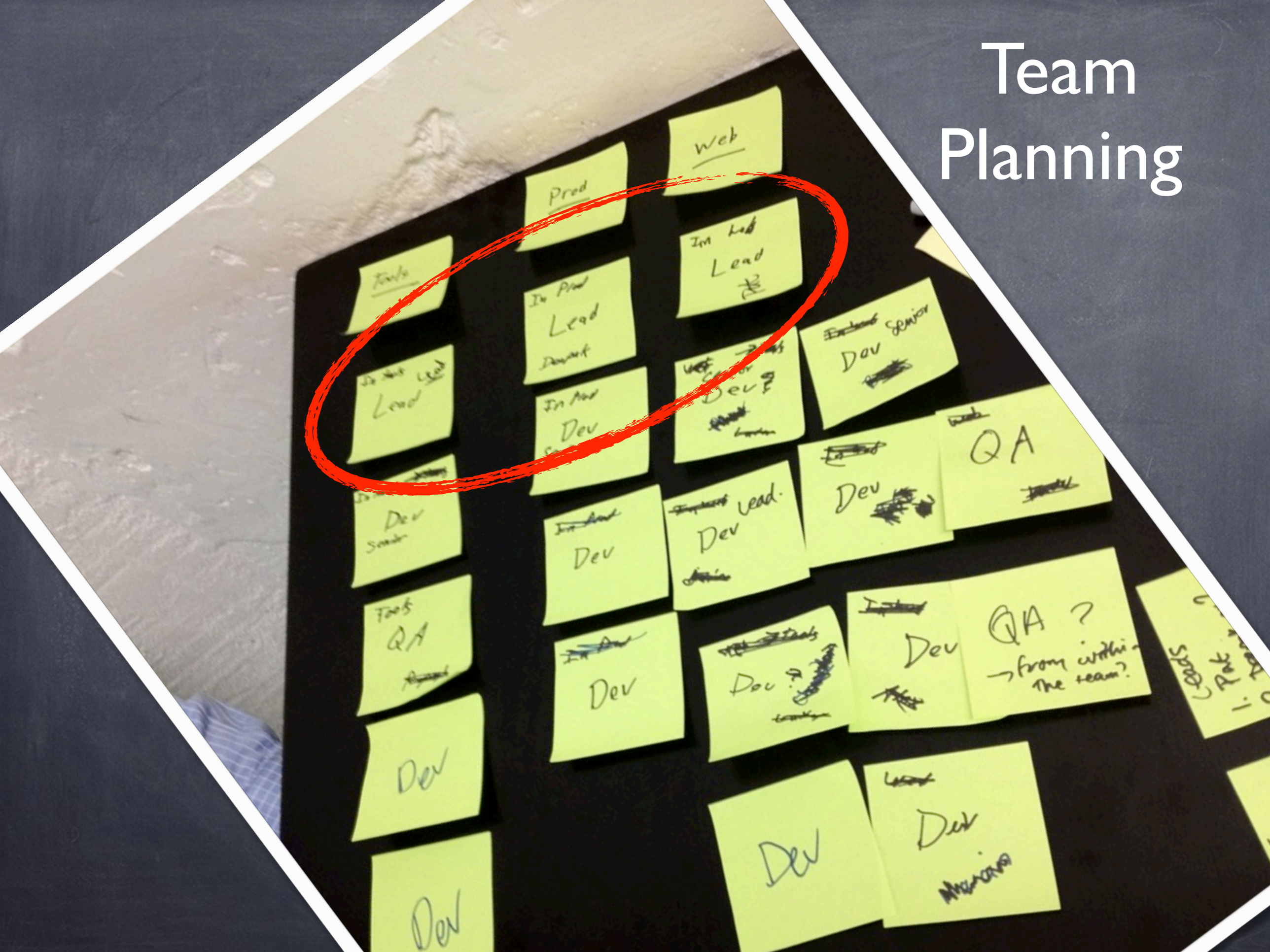
"Development"

“Operations”



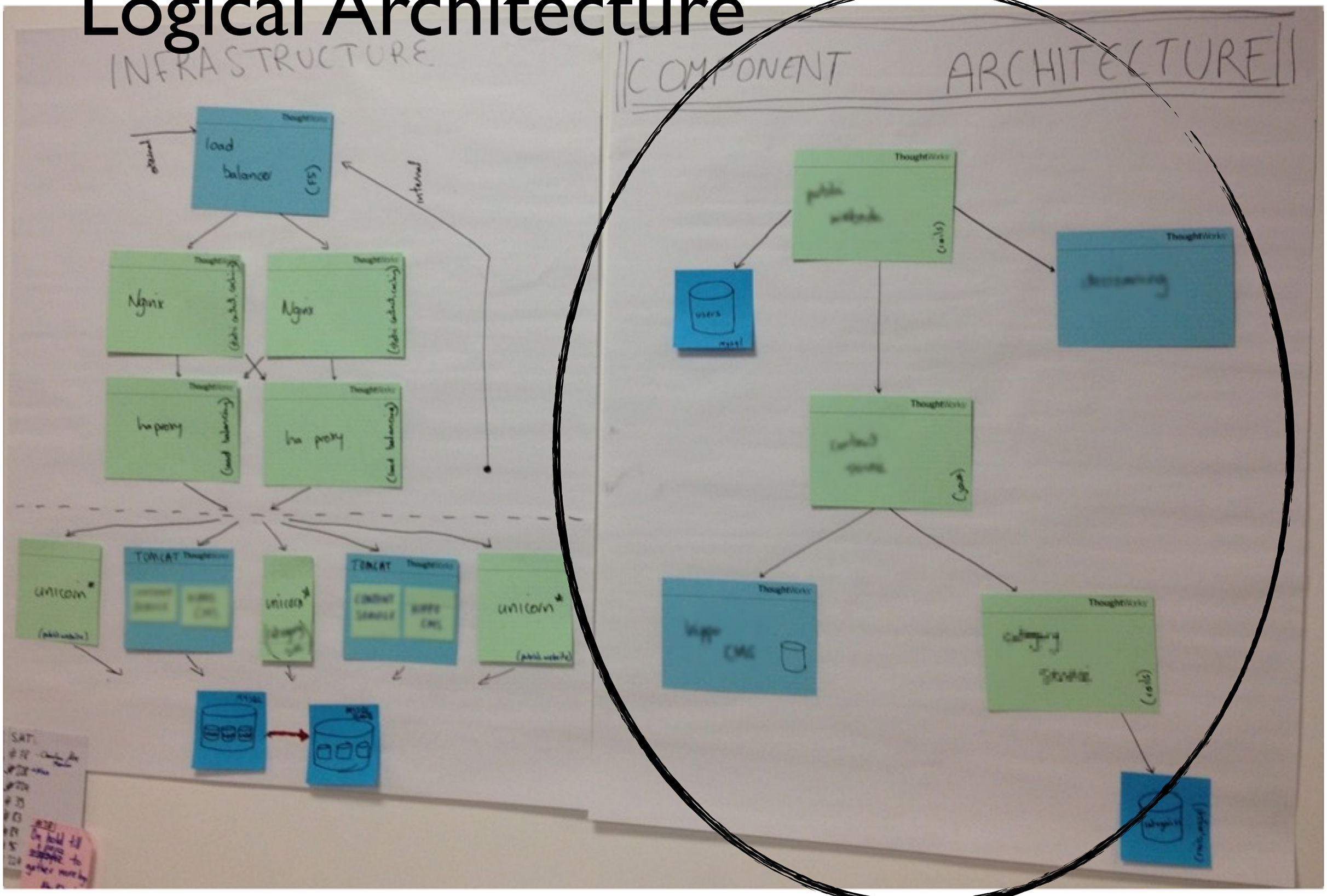
“Development”

Team Planning



"Operations"
Our practice:
One lead per team
"Development"

Logical Architecture



Physical Architecture

Our practice:

Everyone knows what production looks like

Developers working on these as well

Ready for analysis
In
Ready for Release
Released
Stories
Ops Tasks
Bugs
Our practice:
Visibility of *all*
activities

Pipelines to Production

go | PIPELINES | ENVIRONMENTS | AGENTS | PREFERENCES | ADMIN | mary-dev | Sign out | Help

Pipelines

PERSONALIZE

defaultGroup

PublicWebsite

Label: 453
Compare | Changes
(Triggered by clare-ops about 2 hours ago)
Passed: BuildArtifact

CMS

Label: 121
Compare | Changes
(Triggered by changes about 13 hours ago)
Passed: BuildArtifact

Integration

Label: 644
Compare | Changes
(Triggered by clare-ops about 2 hours ago)
Passed: IntegrationTes

Deployment

DeployToQA

Label: 341
Compare | Changes
(Triggered by mary-dev about 2 hours ago)
Passed: Deploy

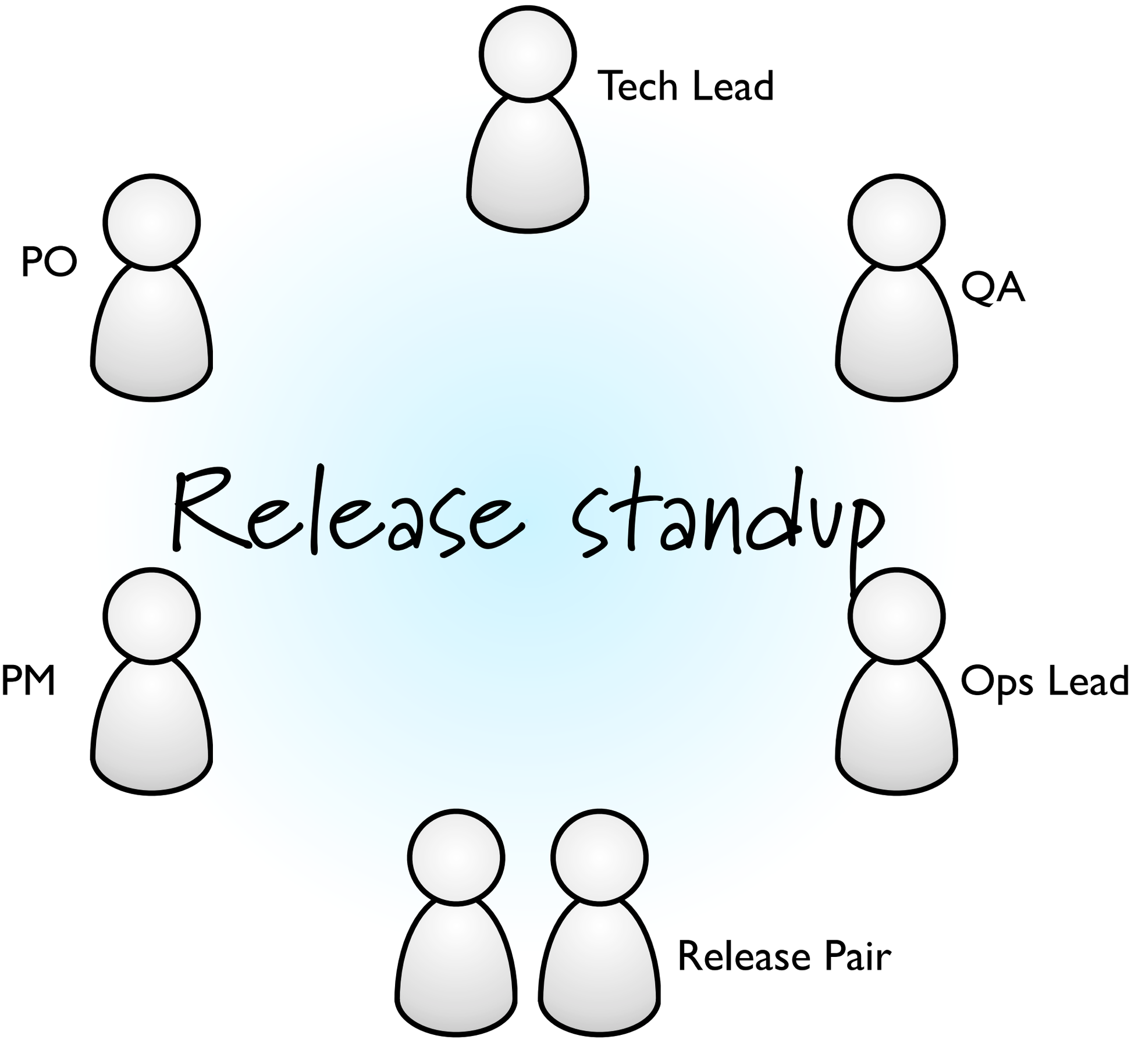
DeployToPreLive

Label: 104
Compare | Changes
(Triggered by changes about 13 hours ago)
Passed: Deploy

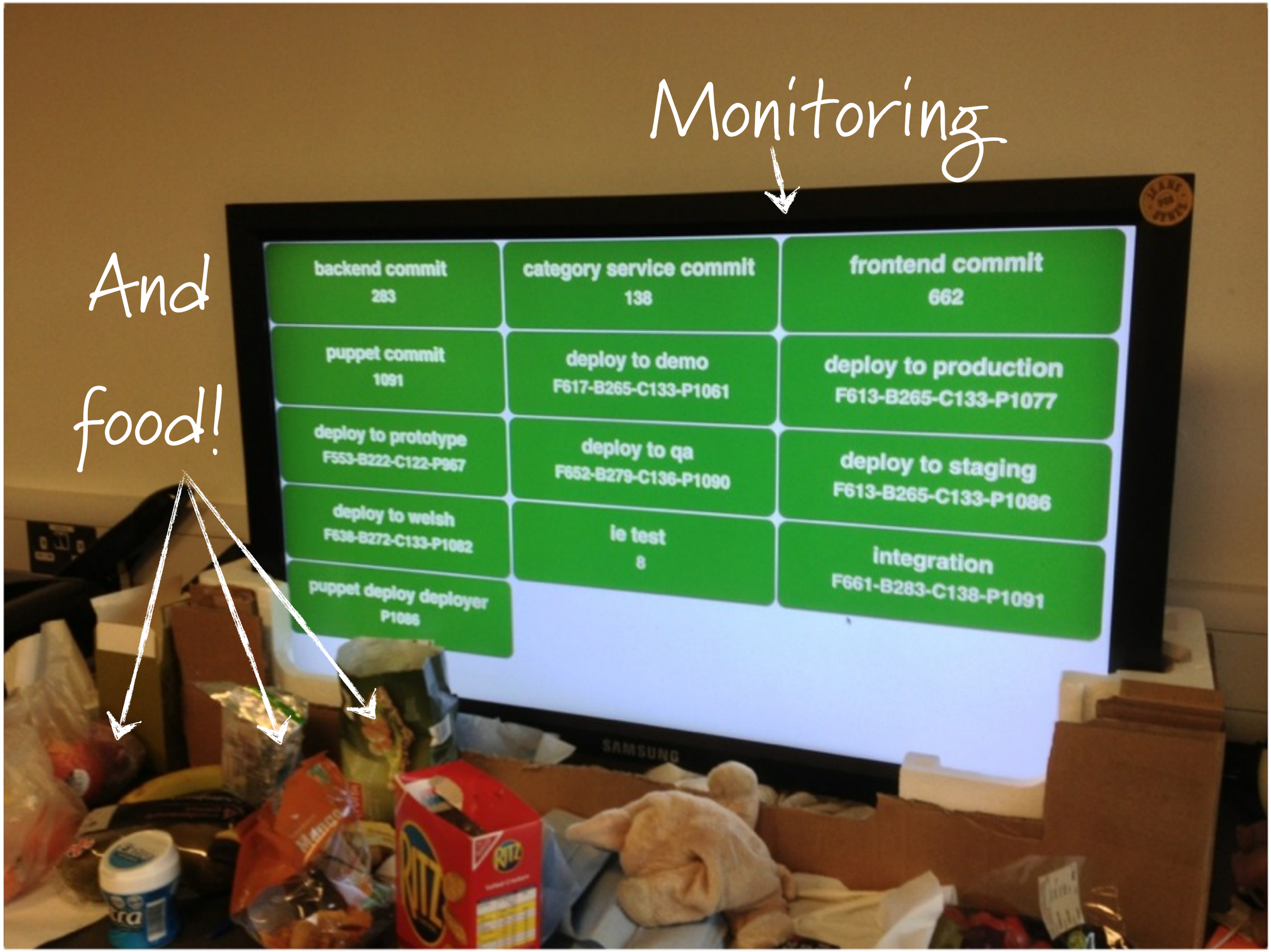
DeployToLive

Label: 86
Compare | Changes
(Triggered by clare-ops about 13 hours ago)
Passed: Deploy

Production-like environment with VAGRANT


Tech Lead
PO
QA
Release standup
PM
Ops Lead
Release Pair

tives

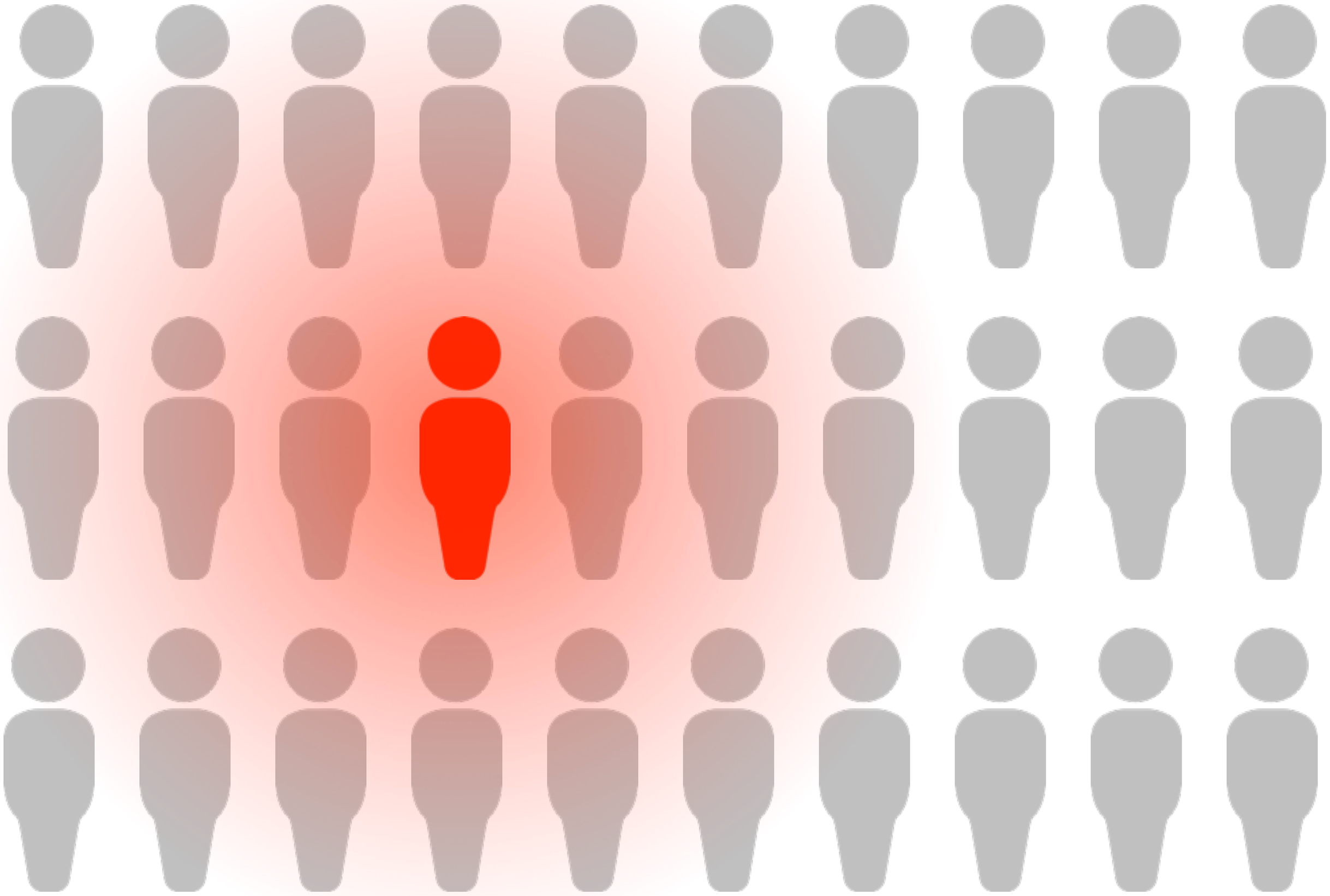

Monitoring
And
food!
backend commit
283
category service commit
138
frontend commit
662
puppet commit
1091
deploy to demo
F617-B265-C133-P1061
deploy to production
F613-B265-C133-P1077
deploy to prototype
F553-B222-C122-P967
deploy to qa
F652-B279-C136-P1090
deploy to staging
F613-B265-C133-P1086
deploy to welsh
F638-B272-C133-P1082
ie test
8
integration
F661-B283-C138-P1091
puppet deploy deployer
P1086
SAMSUNG

What we set out to do

What we did

What we learned

Specialism



Invest in Knowledge Sharing

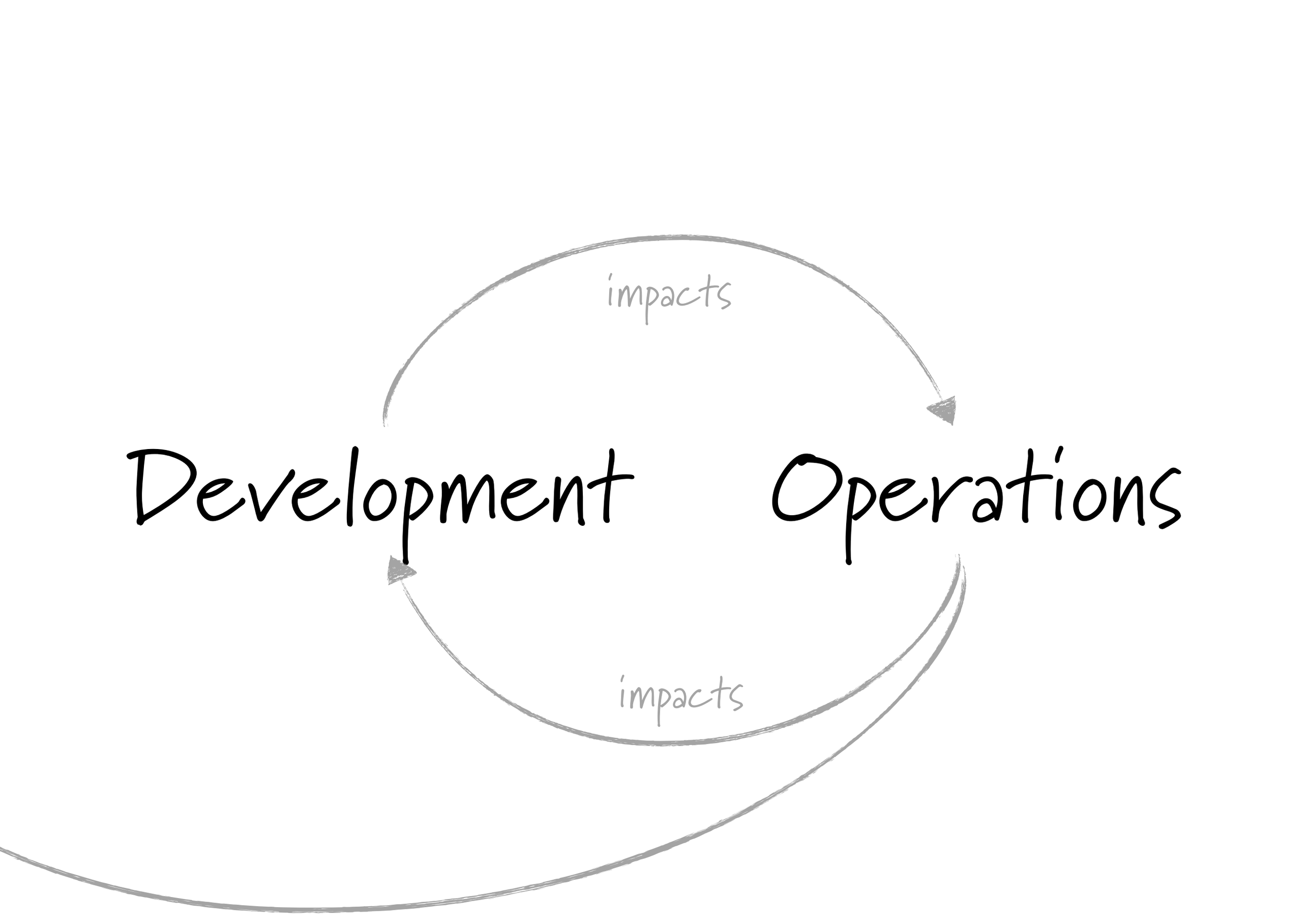
Pair programming

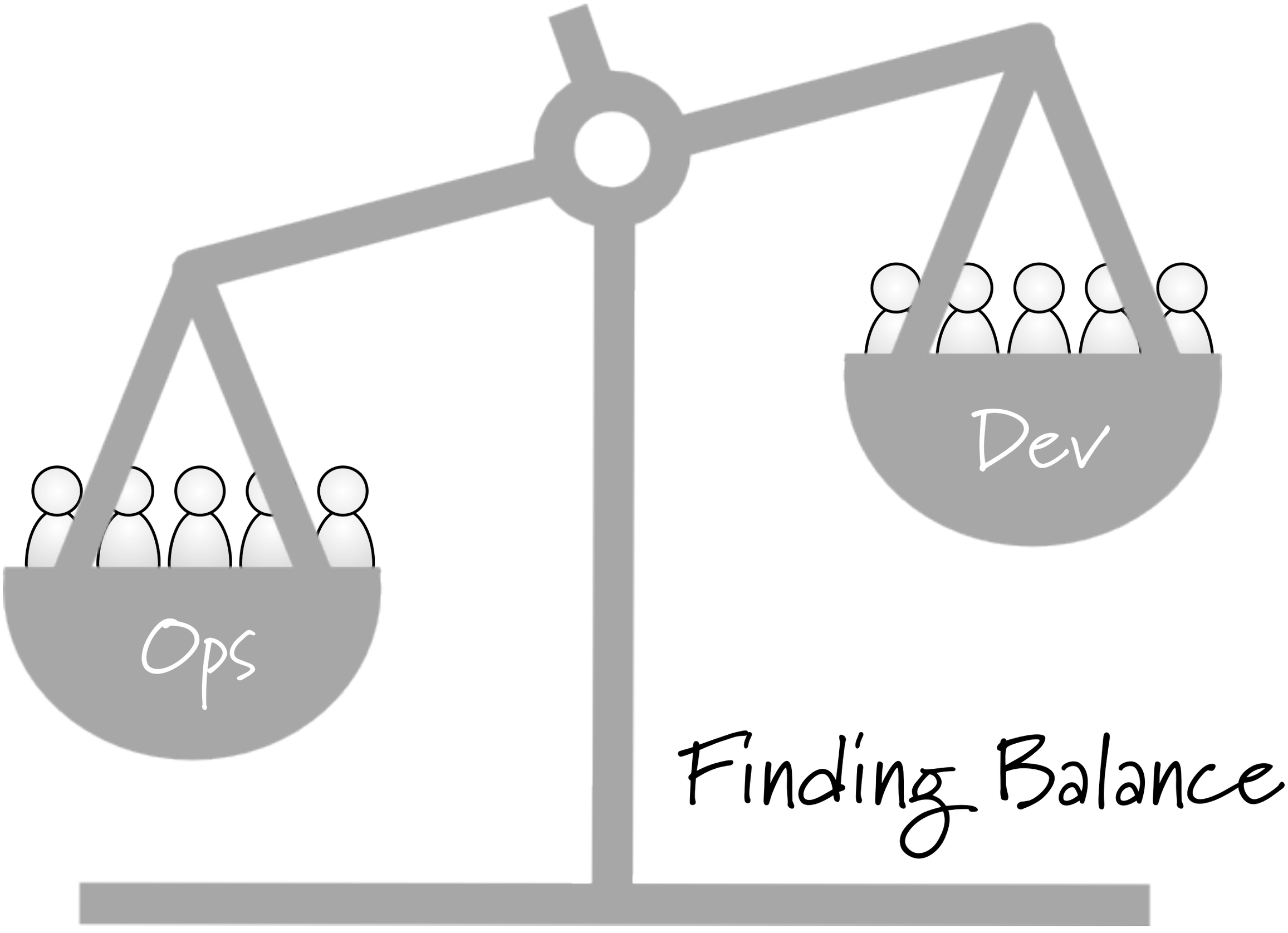
Design walkthroughs

Mob code reviews

Training each other

Tech Huddles


impacts
Development
Operations
impacts


Dev
Ops
Finding Balance

People grew

Not all happy

Yogurt

Australia

Dev Ops

culture

Dev Ops

A culture and mindset for collaborating between developers and operations

Questions?

@patkua

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- Conversation - http://www.flickr.com/photos/28481088@N00/2417169797/sizes/o/
- Happy lego person - http://www.flickr.com/photos/spielbrick/5360816224/sizes/o/
- Sad lego person - http://www.flickr.com/photos/kalexanderson/5421517469/sizes/o/
- Brain - http://www.flickr.com/photos/jepoirrier/954701212/sizes/o/
- Yogurt - http://www.flickr.com/photos/geishabot/45792505l6/sizes/o/
- Kookaburra - http://www.flickr.com/photos/lythari/4112022704/sizes/o/
- Echidna - http://www.flickr.com/photos/quollism/8470348736/sizes/o/
- Wombat - http://www.flickr.com/photos/83028655@N08/7695706186/sizes/o/
- Koala - http://www.flickr.com/photos/albertofarzas/7007546026/sizes/o/