

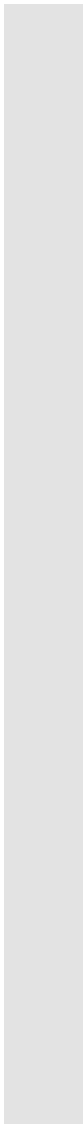
# Tearing down the walls

A transformation journey @ the  
Swedish Public Employment Service

Robert  
Börjesson



- Product Manager CI/CD DevOps
- 7 years



# Sweden is closing more than 100 job centres



A job centre in Stockholm. Photo: Lars Pehrson/SvD/TT

**Sweden's national employment agency Arbetsförmedlingen will close more than half of its local job centres across the country, after politicians agreed to slash its funding.**

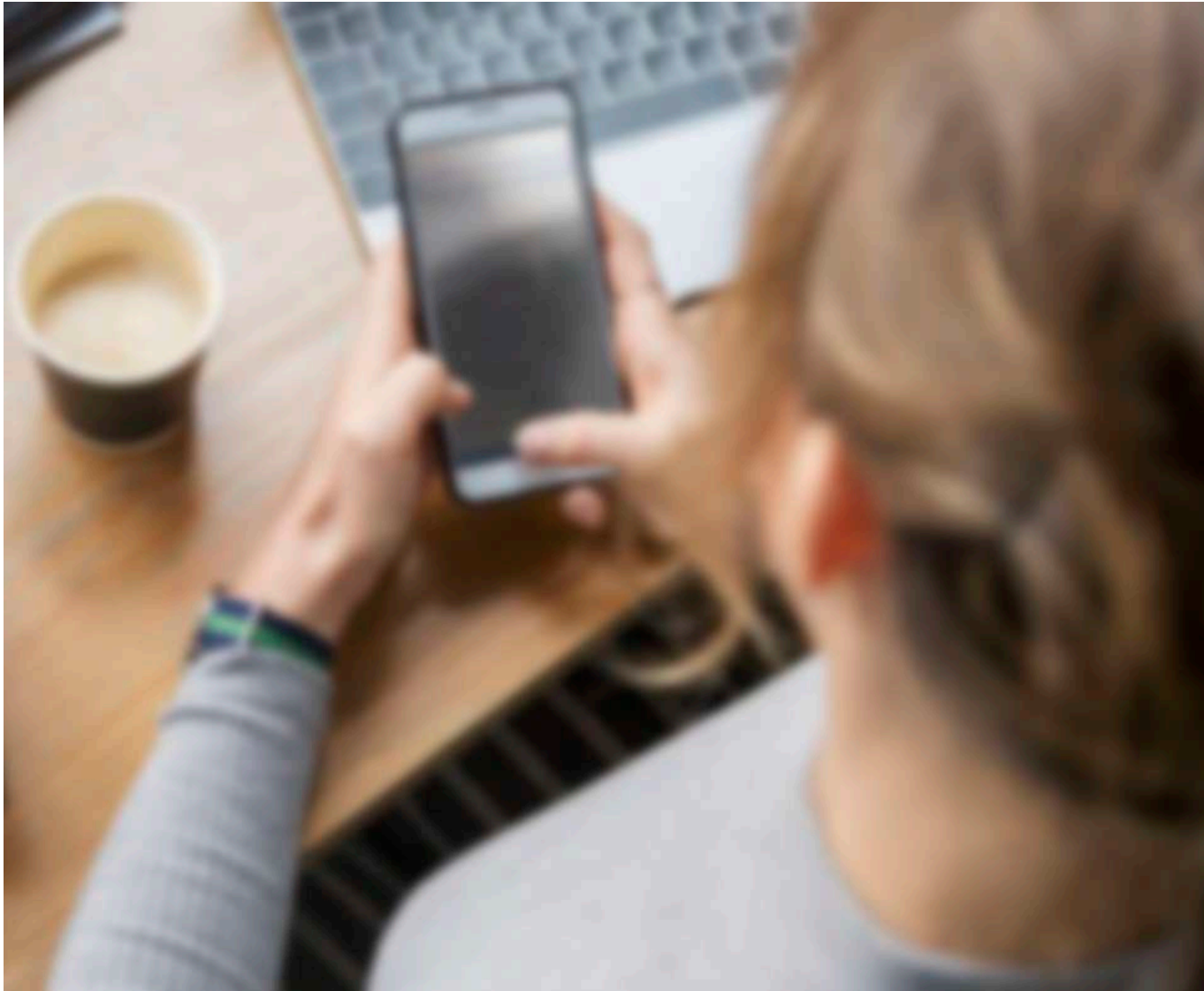
Arbetsförmedlingen, or the Swedish Public Employment Service, announced on Monday it would close around 130 of its 242 local job centres currently operating across Sweden.

The move affects mainly small offices in rural areas, but also some medium-sized centres.

The news comes a month after the agency said it would **lay off around 4,500 of its staff**, as a result of cash cuts included in both the right-wing opposition budget passed by parliament last year, but also in **the new government deal** between the left and centre-liberal parties.

[The news comes a month after the agency said it would **lay off around 4,500 of its staff**]





The Public Employment Service's customer and channel strategy [...] means in practice that many of the tasks and services that are conducted and offered at the local employment offices **must move to digital customer channels in the form of primarily digital self-service but also personal service via digital channel.**

[The] purpose of the renewal session is to develop the business to become a modern and efficient authority that creates clear customer and social benefits

# Swedish Public Employment Service 2019 and forward

- Politics: The mess after the election led to laying off  $\frac{1}{3}$  of the staff (4500 job brokers) but the IT budget increased to speed up the digital transformation
- Organisation: Digital first
- Technology choices: “New tech” vs “old tech” to best support Product teams to improve their applications
- Time: Deadline of most business critical apps entering new OnPrem data center by end of 2019



# DevOps

One size fits all?



### Agile

focuses on  
**processes**

highlighting  
**change**

while accelerating  
**delivery**



### CI/CD

focuses on  
**software-defined life cycles**

highlighting  
**tools**

that emphasize  
**automation**



### DevOps

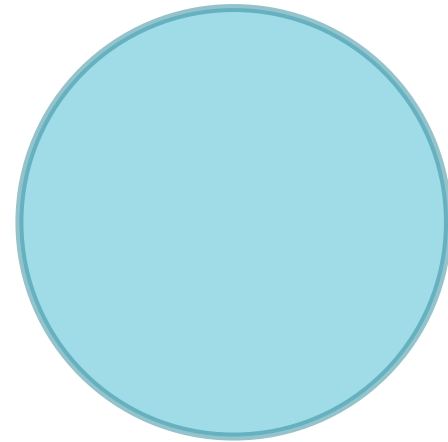
focuses on  
**culture**

highlighting  
**roles**

that emphasize  
**responsiveness**



# Dev and Ops Silos



● Dev

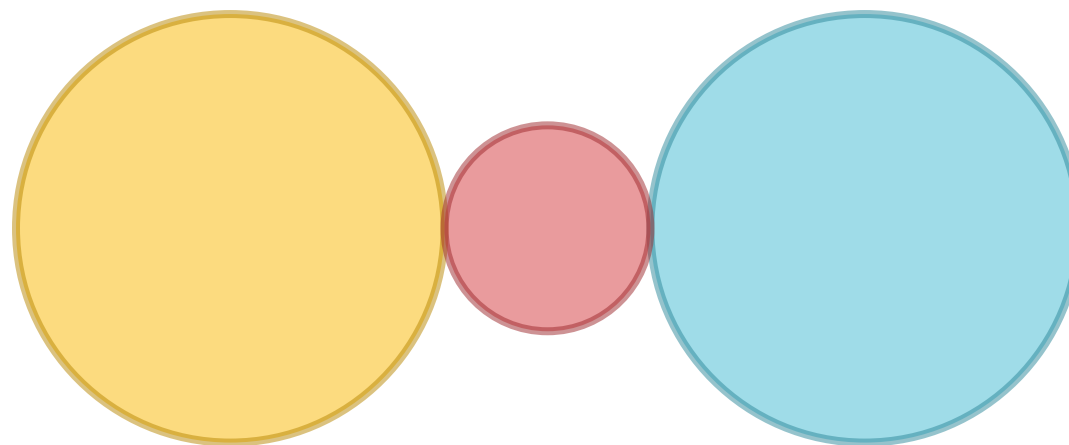
● Ops



# DevOps Team Silo



DevOps Topologies



● Dev

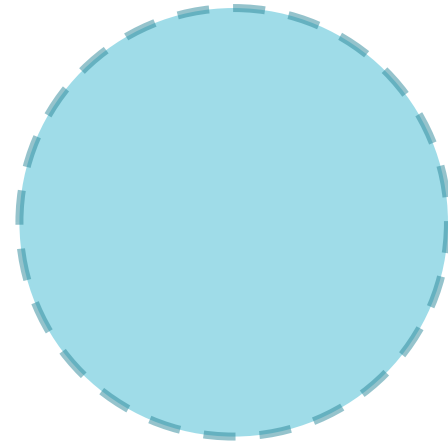
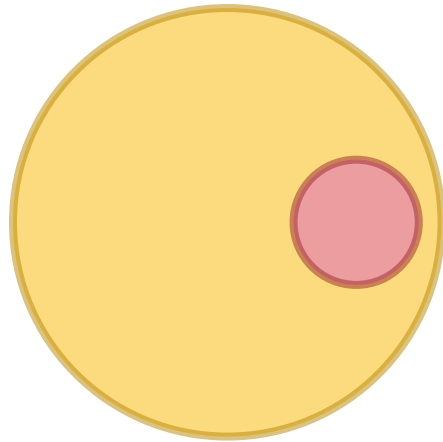
● DevOps

● Ops

# Dev Don't Need Ops



DevOps Topologies



● Dev

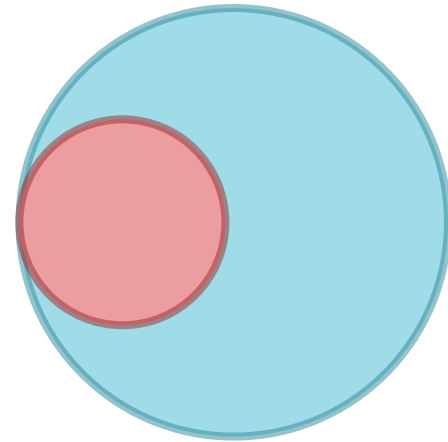
● DevOps

● Ops

# Rebranded SysAdmin



DevOps Topologies



● Dev

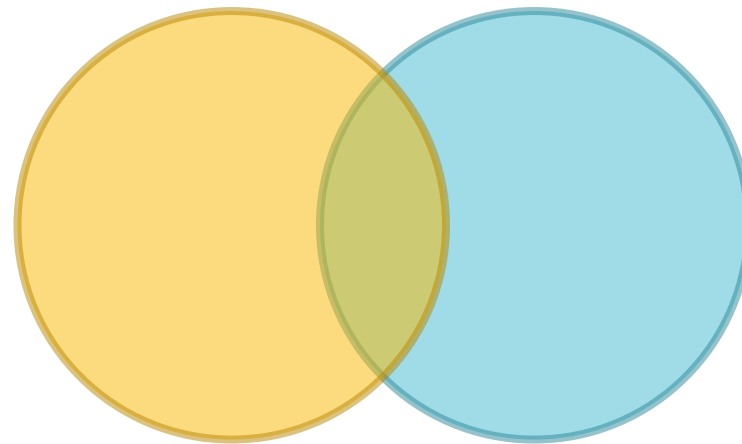
● DevOps

● Ops

# Dev and Ops Collaboration



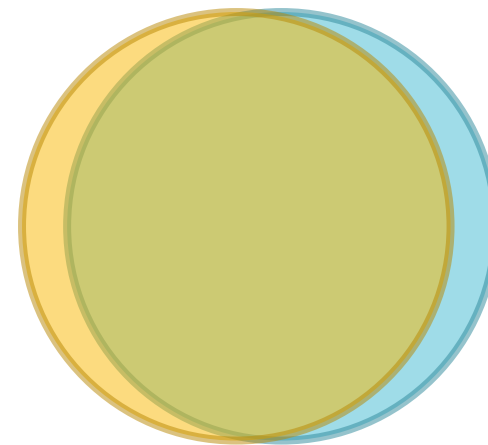
DevOps Topologies



● Dev

● Ops

# Fully Shared Ops Responsibilities



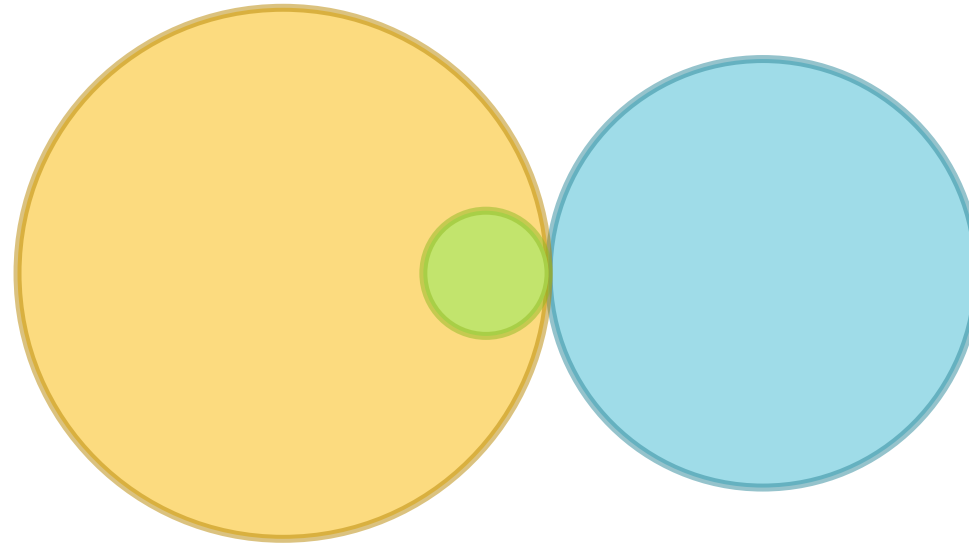
● Dev

● Ops

# Ops as Infrastructure- as-a-Service (Platform)



DevOps Topologies



● Dev

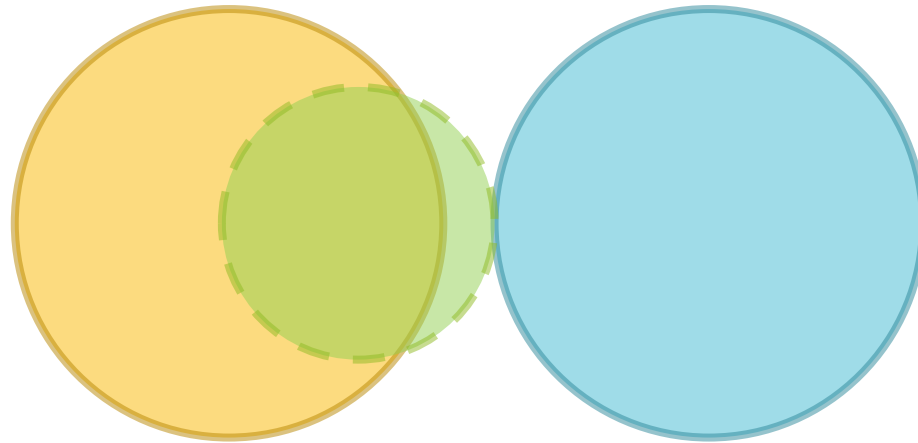
● DevOps

● Ops

# Container-Driven Collaboration



DevOps Topologies



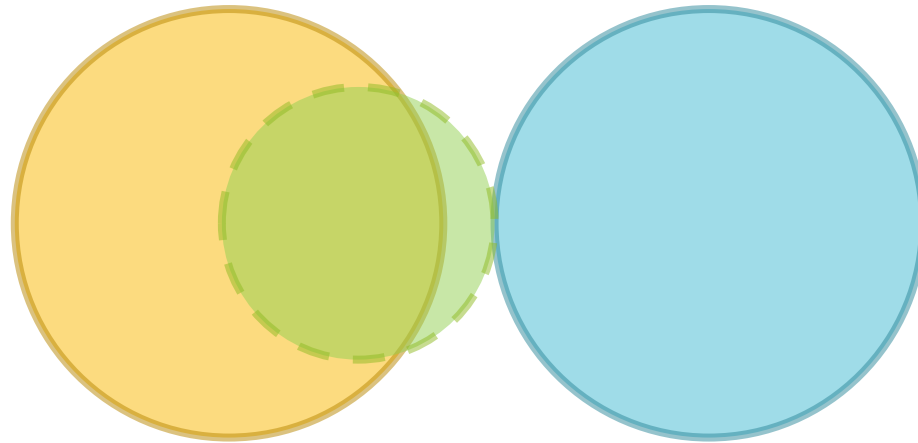
● Dev

● DevOps

● Ops



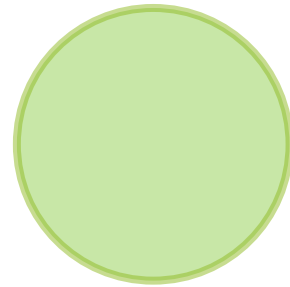
# Container-Driven Collaboration



Containers remove the need for some kinds of collaboration between Dev and Ops by encapsulating the deployment and runtime requirements of an app into a container.

In this way, the container acts as a boundary on the responsibilities of both Dev and Ops.

CI/CD DevOps





# The road to CI/CD DevOps

Or how to build a DevOps collaboration team

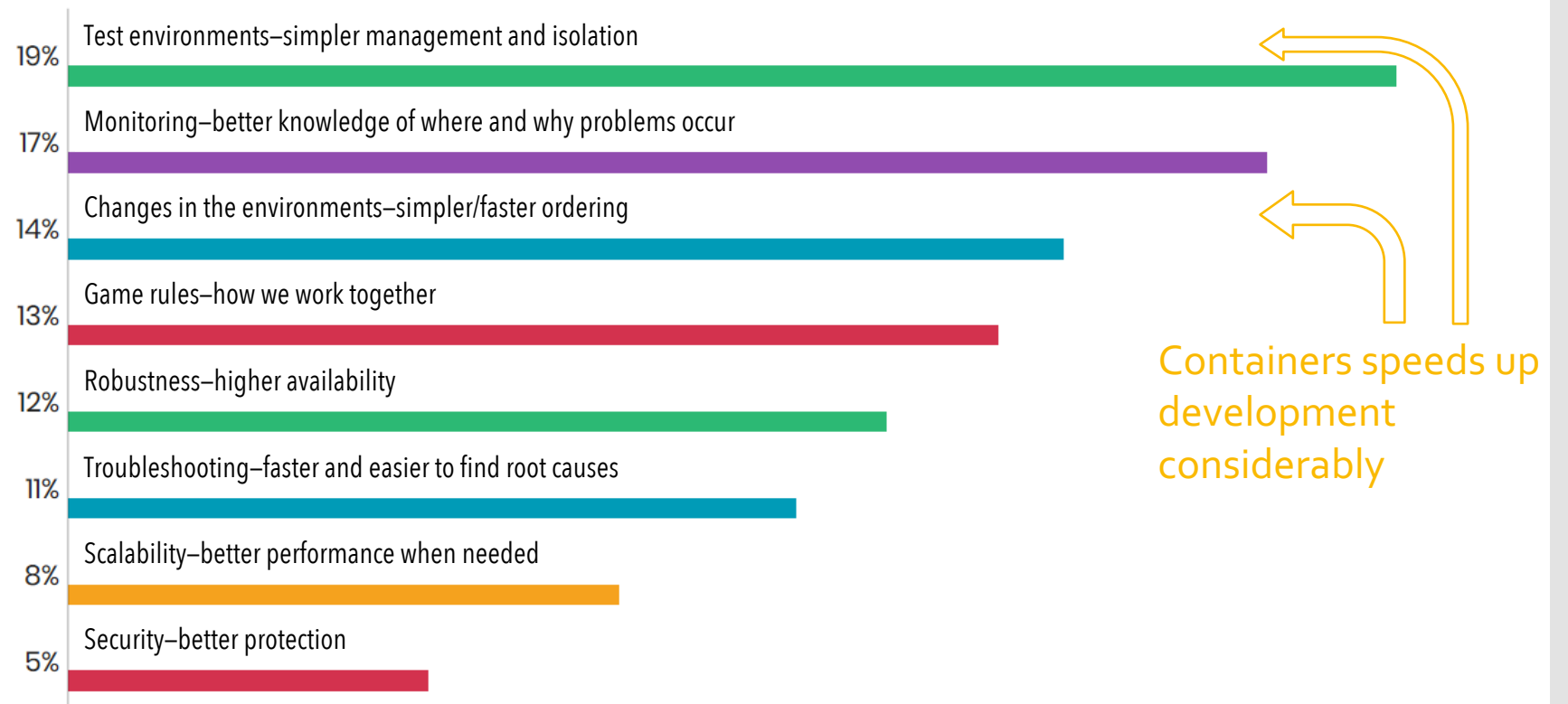
Do you  
recognize this?

- “they can come to us”
- “we need to get [all of this] done first”
- “you’ll need a server for that, have you ordered one?”
- “we need to understand each team’s system to decide for them”





“In which area do you have the greatest need for change?”

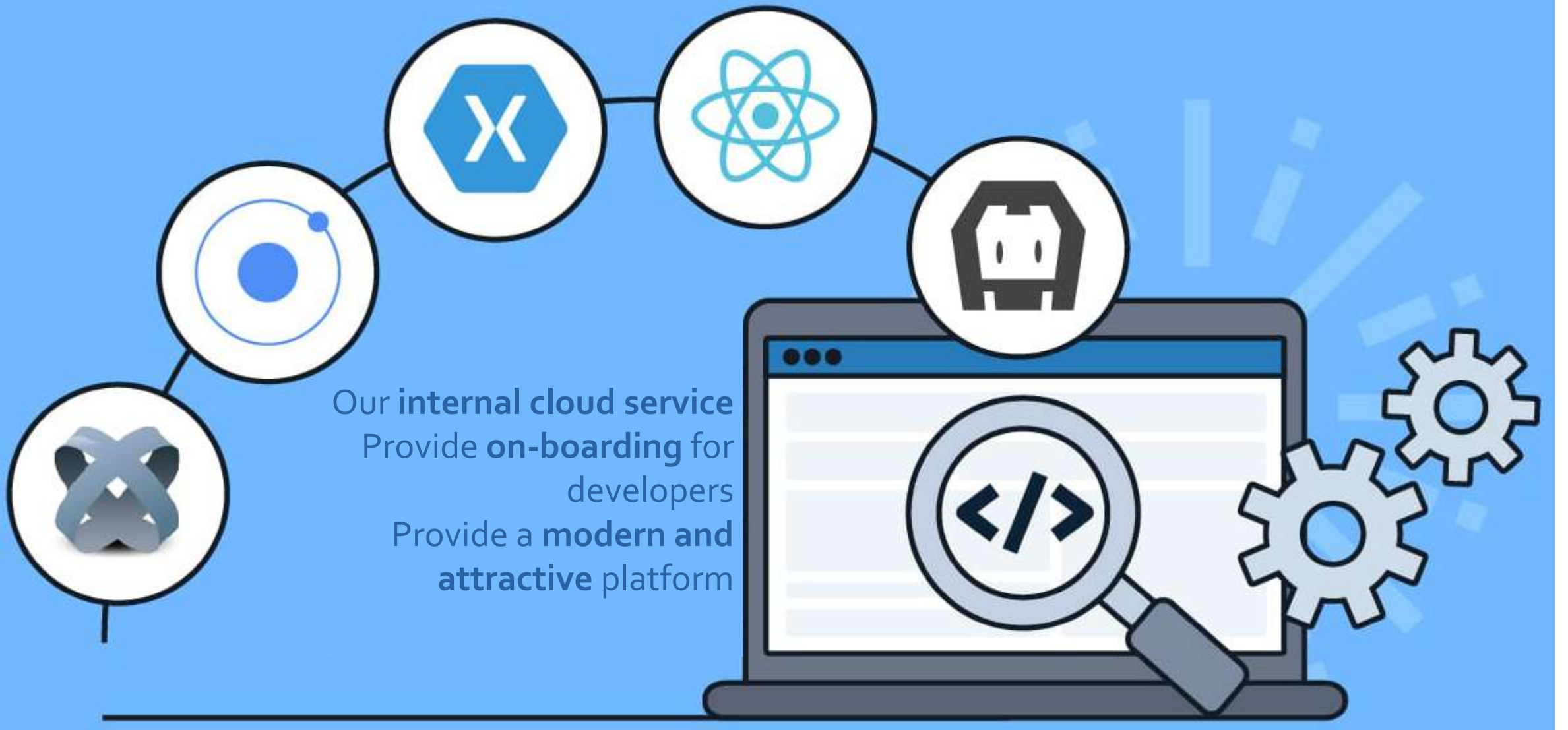


*Results from an internal questionnaire, Feb 2018*









# CI/CD DevOps

[We can't move forward  
because of legacy we need to  
maintain]

I can fix that

Existing applications

EOS  
Sept 2019

EOL  
Sept 2020

Existing pipeline

Platform

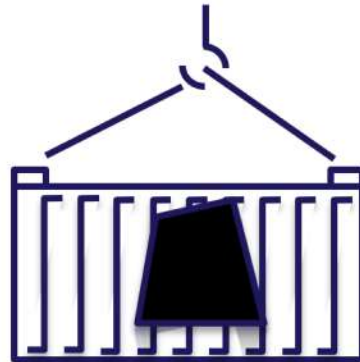


OCP pipeline

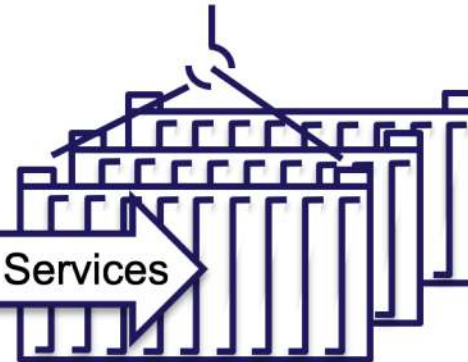
New OnPrem datacentre



Platform



Micro Services



NOV

MAR

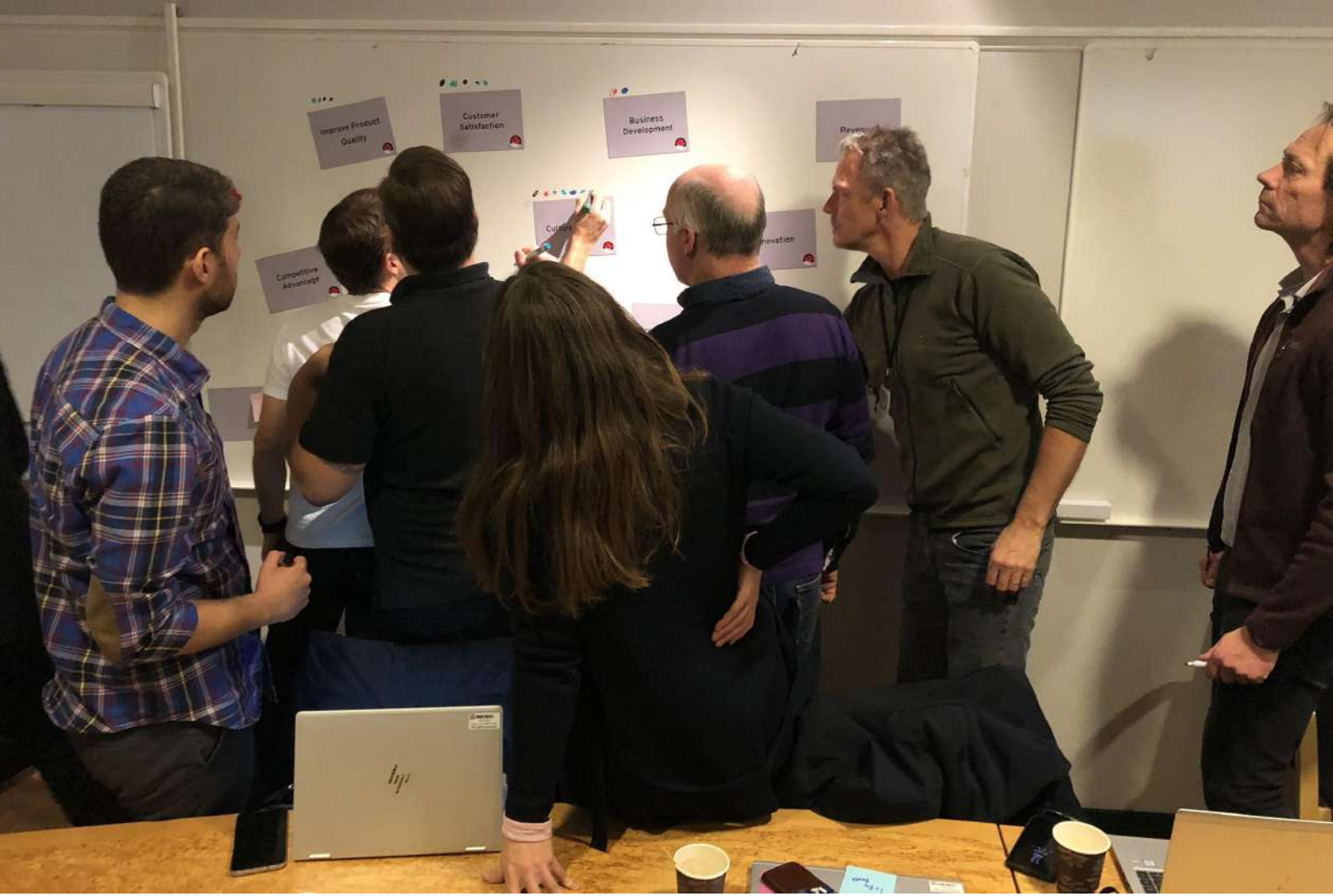
# CAP 1

Minimum Viable Product



BREAKING SILOS

# KNOWLEDGE SHARING



# INFORMATION RADIATORS

**IN PROGRESS**   **BLOCKED**   **REVIEW**   **DONE**

**IN PROGRESS:**

- Integrate Git Flow with Jira
- Use Jira to create branches to merge

**BLOCKED:**

- Integrate Git Flow with Jira
- Use Jira to create branches to merge

**REVIEW:**

- Configuration dependencies graph (T/E)
- Configuration dependencies graph (IS)
- Apply updates to dev, prod, and a graph dependency graph, see how parts are affected

**DONE:**

- JBoss EAP Deployment Configuration Build
- Configure Jenkins under to be shared in memory in dev and test, fast to build
- ADSDP BIT Flow
- Build JBoss EAP INST 2
- Configuration JBoss EAP INST 2
- Apply updates to dev, prod, and a graph dependency graph, see how parts are affected
- Dev Project Provision
- Prod project provision
- Test Project Provision
- Verify connectivity with JBoss EAP (Prod)
- Order Wildcard cert (Lab e)
- Order DNS records (Shared cluster)
- Order Wildcard certificate (Shared cluster)
- Check DNS server for all the hosts (Shared cluster)
- Check environment requirements (Prod)
- Check system requirements (Prod)

**Other notes:**

- JBoss EAP Deployment Configuration Build
- Configure Jenkins under to be shared in memory in dev and test, fast to build
- ADSDP BIT Flow
- Build JBoss EAP INST 2
- Configuration JBoss EAP INST 2
- Apply updates to dev, prod, and a graph dependency graph, see how parts are affected
- Dev Project Provision
- Prod project provision
- Test Project Provision
- Verify connectivity with JBoss EAP (Prod)
- Order Wildcard cert (Lab e)
- Order DNS records (Shared cluster)
- Order Wildcard certificate (Shared cluster)
- Check DNS server for all the hosts (Shared cluster)
- Check environment requirements (Prod)
- Check system requirements (Prod)

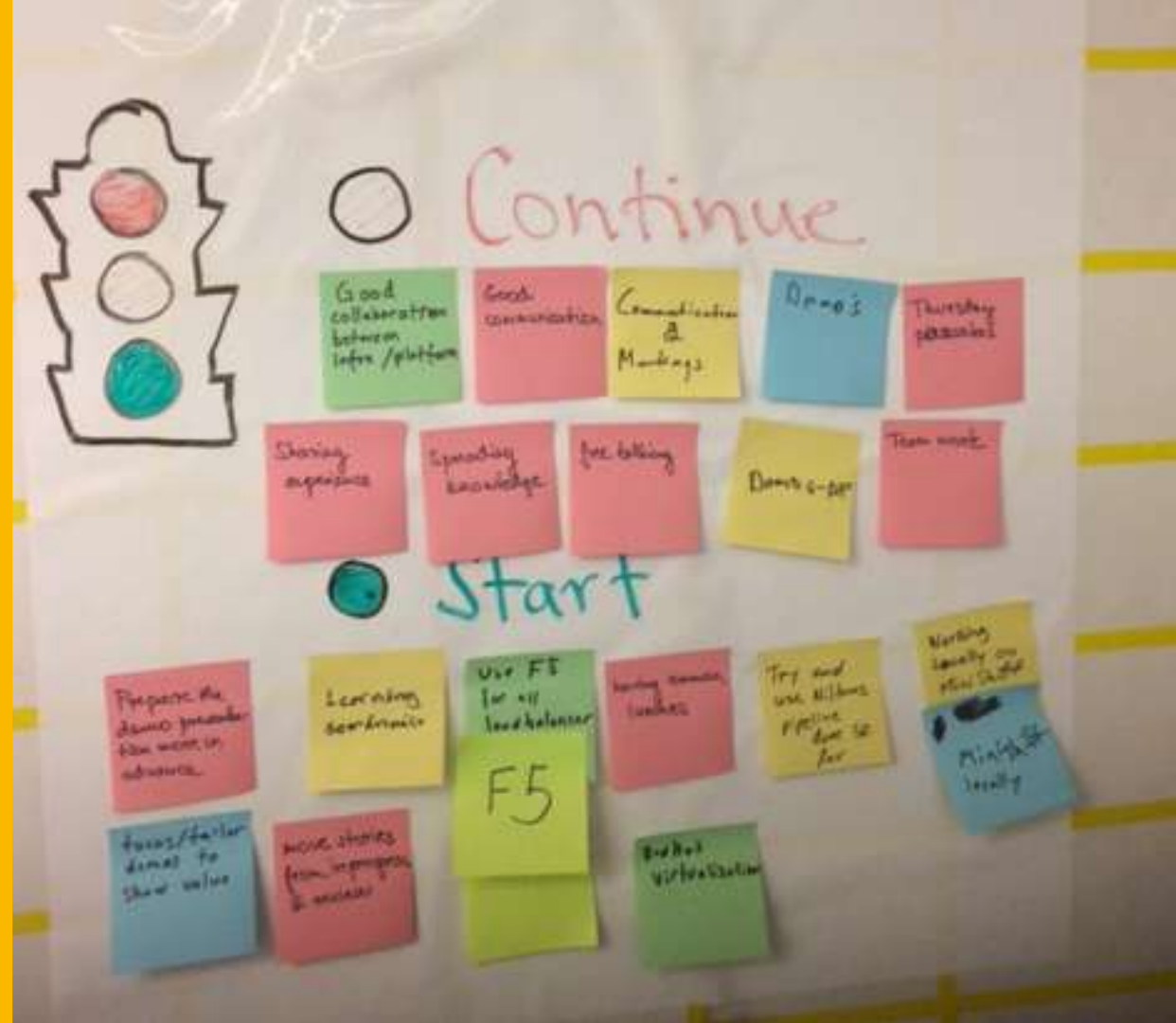
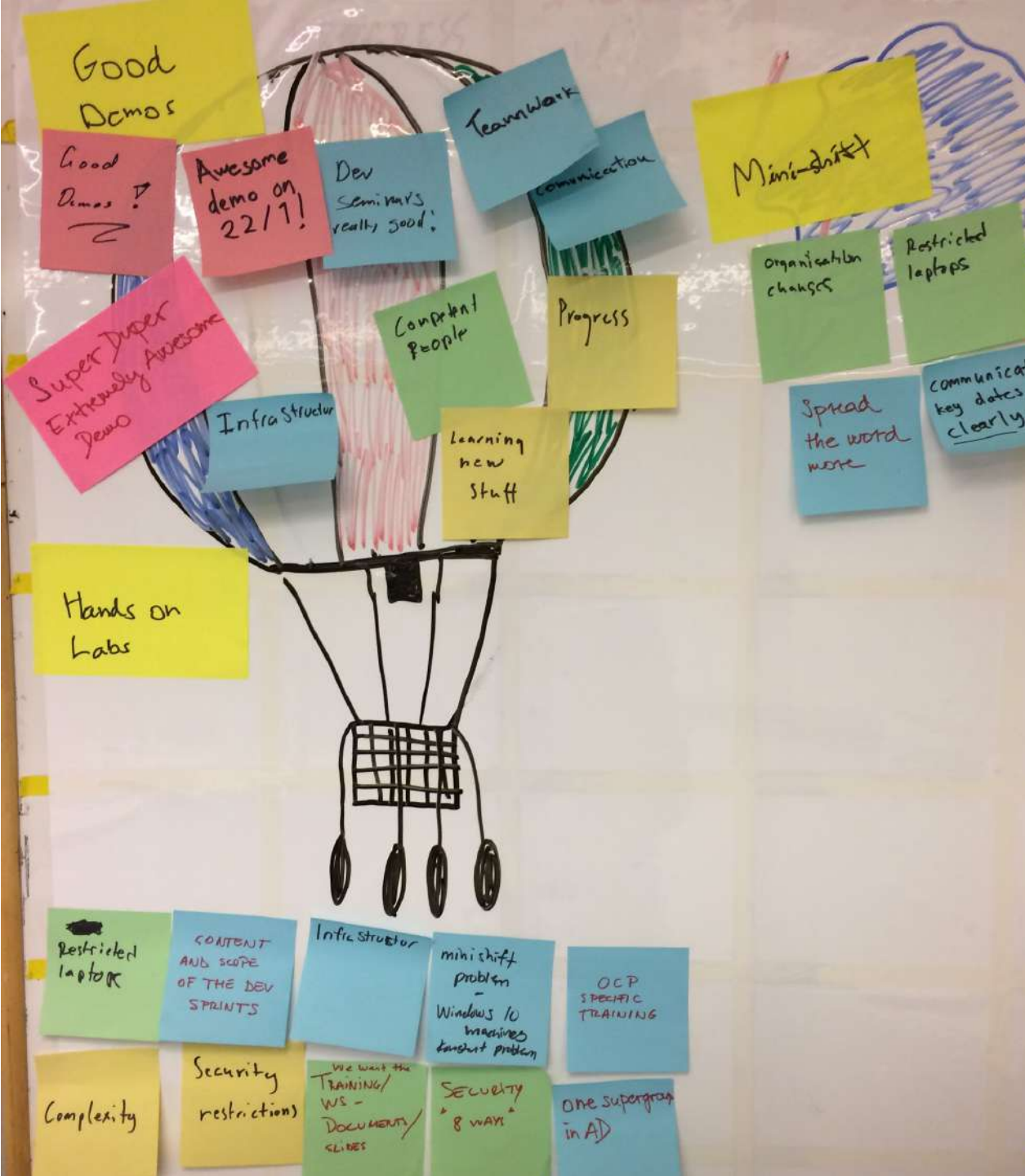
## INFRA UTMANINGAR

- DNS wildcard in prod
- manuellt peka på det vi behöver nå
- tappra self service biten (ServiceNow)
- Sätt U1 nominerat på Oct server
- U1 mindre känslig än PROD
- otestad, lösning
- använda krootlin
- NO redundancy, bad practice, antipattern
- mer arbete för Milton
- Gluster undersökning
- Access till Windows server
- PROBLEM
- LÖSNING
- +
-

# ONE TEAM





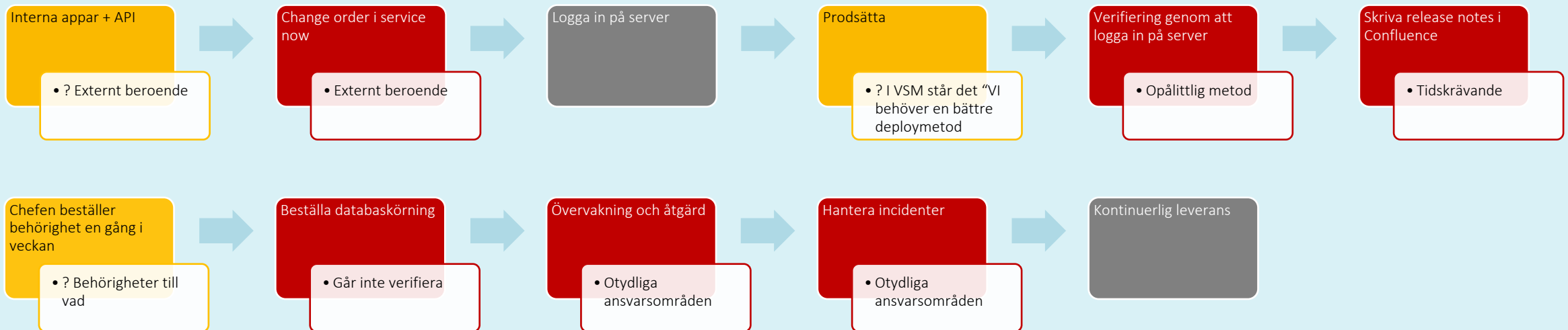


RETROSPECTIVES -  
A CONTINUOUS IMPROVEMENT  
CULTURE

# Dev



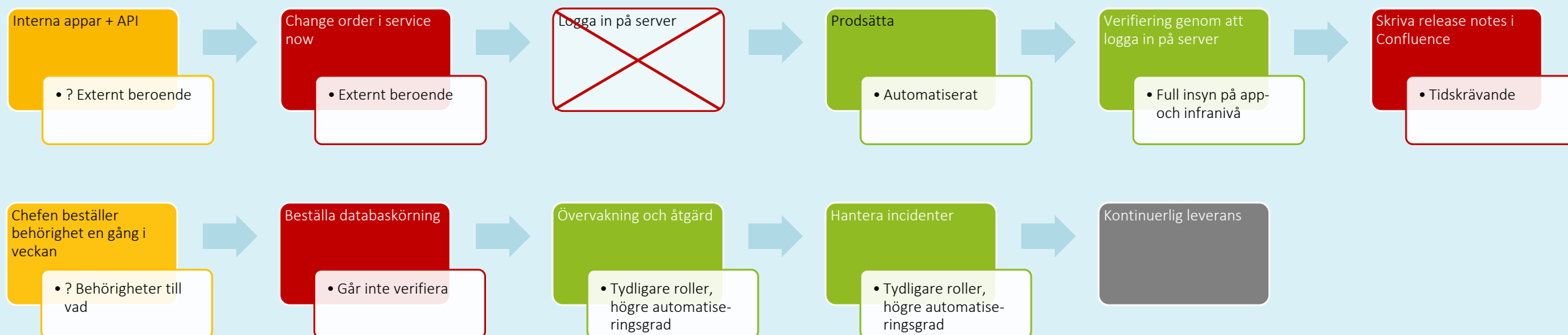
# Ops



# Dev



# Ops





CAP 1



MAY

OCT

CAP 2

Going Full Scale





- Setting up the clusters needed for our teams and customers
- Preparing the team for more agile workflows
  - Building the common pipelines
  - Developing our DevOps skills
- Training the team on the platform
  - Developing common containers
  - Spreading the word
- Helping teams define how ready they are and building a queue
  - Verifying security





@anderslundsgard

# Success factors







Fundamentally changes the way people work

You will find out you don't really understand the way your pipeline works

Understanding DevOps is really harder than doing DevOps

It's the right thing to do because it hurts

# The new container platform—1: 1

- Container is the new standard for modern application development.
- The Public Employment Service's own application platform based on container technology in Red Hat's OpenShift Container Platform (OCP), is the offered path for proprietary products into the agency's new OnPrem data center.

# The new container platform— advantages

- The container platform means that ownership and responsibility of infrastructure becomes a non-issue for the application owner, as the container absorbs the infrastructure as a service, which is distributed by the CI/CD & DevOps team.
- The container platform offers a higher level of reliability than other unsupported container technologies (either in the audience cloud or Do It Yourself technologies without support).
- Service window for the entire application is a mere memory: the simplicity of replacing a container with another means a high degree of self-healing.
- The container platform is based on the open source technology "OpenShift Container Platform (OCP)", and the provider Red Hat provides technical support, patches and upgrades of all components herein (including "application runtimes" used within the organization), regardless of whether the application is in the new OnPrem datacentre or in a future public cloud.

# USING OPEN TO BECOME A BETTER BUSINESS PARTNER

## CHALLENGE YOUR CUSTOMER BY ASKING:

- WHAT ARE THE DRIVERS BEHIND YOUR KEY OBJECTIVES?
- ARE YOUR IT INITIATIVES HELPING YOU MEET YOUR KEY OBJECTIVES?
- WOULD YOU SAY YOU HAVE AN  
- INNOVATIVE, CREATIVE IT ORGANISATION?  
- INNOVATIVE, CREATIVE IT PLATFORM?

## THE PLAN STARTS WITH YOU REALISING THE FOLLOWING:

- THE PRODUCT OWNERS "CALL THE SHOTS"
- THE CHOICE OF TECHNOLOGIES:
  - LANGUAGES
  - FRAMEWORKS
  - ETCIS NOT YOURS!
- SERVICE WINDOWS TO:
  - REPAIR
  - UPDATECAN NO LONGER INTERFERE WITH A PRODUCT TEAM'S ABILITY TO DELIVER

Get involved with your customer!  
& JOINTLY CREATE:

## STRATEGY MAPPING

- STRATEGIC OBJECTIVES
  - DRIVERS
  - KEY OBJECTIVES
  - IT INITIATIVES
- ROOM FOR IMPROVEMENT!

ASK YOUR CUSTOMER  
ABOUT THEIR

## DREAM SCENARIO

- ORGANISATION
- TECHNOLOGY
- PROCESSES

## IF THE PRODUCT TEAMS CAN'T DELIVER....

THERE IS SOMETHING WRONG  
WITH: YOUR WAY OF SUPPORTING THEM  
: YOUR EXISTING TECH PLATFORMS

DISSECT  
THE REDLINE  
↓

## COMMON KEY OBJECTIVES:

- HIGH PERFORMING OPERATIONS
- EMPOWERED & ENGAGED PEOPLE
- DIGITAL FIRST
- BE THE OBVIOUS CHOICE
- SERVICES & SUPPORT ARE CONNECTED

## THE "DELTA" TODAY VS DREAM SCENARIO

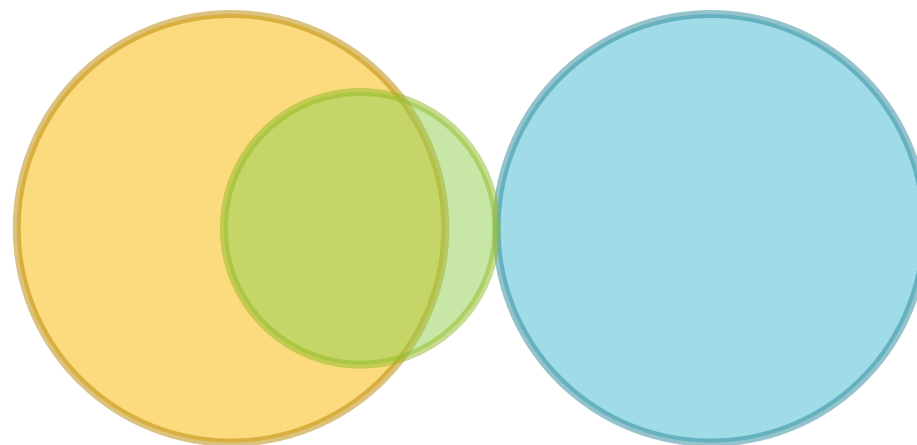
- WHAT YOU HAVE → TECH PLATFORMS
- HOW YOU WORK → PROCESSES
- HOW YOU'RE ORGANISED → PEOPLE

- IS THE ROOM FOR IMPROVEMENT
- AND YOU NEED A PLAN TO IMPROVE

## THE PLAN

- CONSTANTLY EVALUATE THE DREAM SCENARIO VS TODAY = ROOM FOR IMPROVEMENT
- 100% DEDICATION TO YOUR PRODUCT TEAMS → THEY SERVE YOUR CUSTOMERS
- IF YOUR SUPPLIERS/PARTNERS CAN'T EXPLAIN OR HAVE NO PLACE TO MAKE YOU IMPROVE, STOP WORKING WITH THEM
- IF YOUR TECH PLATFORMS ARE "CLOSED" TODAY THERE IS LITTLE CHANGE THEY CAN HELP YOU IMPROVE TOMORROW

CI/CD DevOps



# CI/CD DevOps

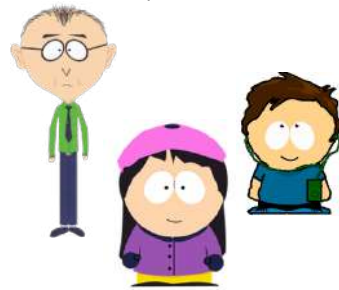
Hi! We're the product managers



Hi! We're the on-boarding team



Hi! We're the tools support team



Hi! We're the platform specialists

