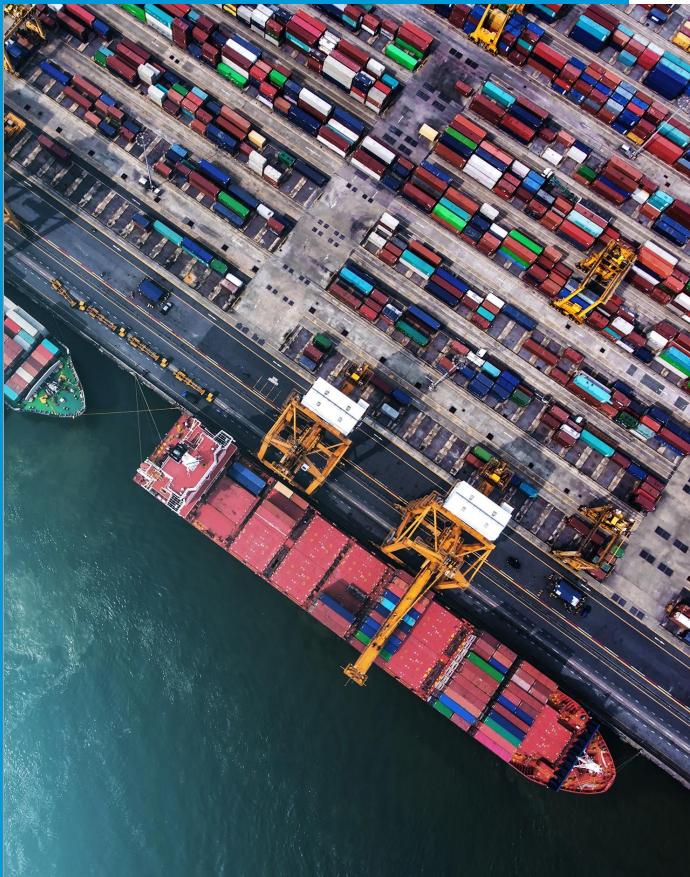




# The Role of GitOps in IT Strategy v2

Schlomo Schapiro, 20.07.2022, StackConf 2022

Building the backbone of global trade,  
to make shipping products as easy as sending emails.



# About Forto

- Freight Forwarder
- “Unicorn” startup in Berlin
- Team of ~800 around the world
- Own transportation management system to run our business
- Everything in the cloud
- **We are hiring!**

# GitOps

- 1. The principle of declarative desired state** A system managed by GitOps must have its Desired State expressed declaratively as data in a format writable and readable by both humans and machines.
- 2. The principle of immutable desired state versions** Desired State is stored in a way that supports versioning, immutability of versions, and retains a complete version history.
- 3. The principle of continuous state reconciliation** Software agents continuously, and automatically, compare a system's Actual State to its Desired State. If the actual and desired states differ for any reason, automated actions to reconcile them are initiated.
- 4. The principle of operations through declaration** The only mechanism through which the system is intentionally operated on is through these principles.

Source: [OpenGitOps.dev](https://OpenGitOps.dev)

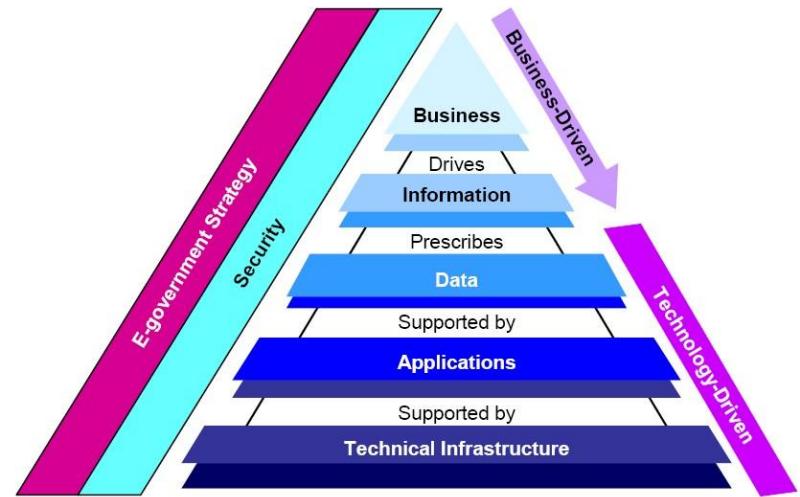
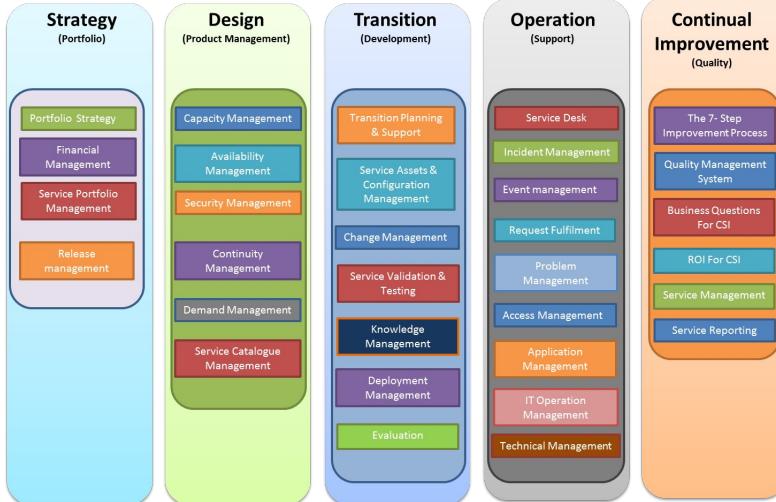


# IT strategy

is the discipline that defines how IT will be used to help businesses win in their chosen business context.

*Gartner*

# Buzzwords have some truth in them:



Business Goals



IT Strategy



Deployment Tools



IT Infrastructure

How is this  
related?



# DevOps

# Happy DevOps Campers



# DevOps is

**... if every person uses the same tool for the same job**

**... codified knowledge - everybody contributes his part to common automation**

**... if all people have the same privileges in their tooling**

**... if human error is equally possible for Dev and Ops**

**... replacing people interfaces by automated decisions and processes**

[bit.ly/5devops](https://bit.ly/5devops)

**... a result**

# The Problem

# We want digitalisation, our IT Strategy calls for ...

- IT quota grows exponentially,  
no problem can be solved without IT
- All IT processes are much more integrated and  
networked, API first ...
- Growth factor of IT much bigger than increase in IT  
staff → IT “production efficiency” must increase
- More IT in business units → decentralisation of IT  
skills (BizDevOps)
- Increasing IT compliance requirements
- Utilise public cloud offerings to drive innovation –  
have viable cloud exit strategy

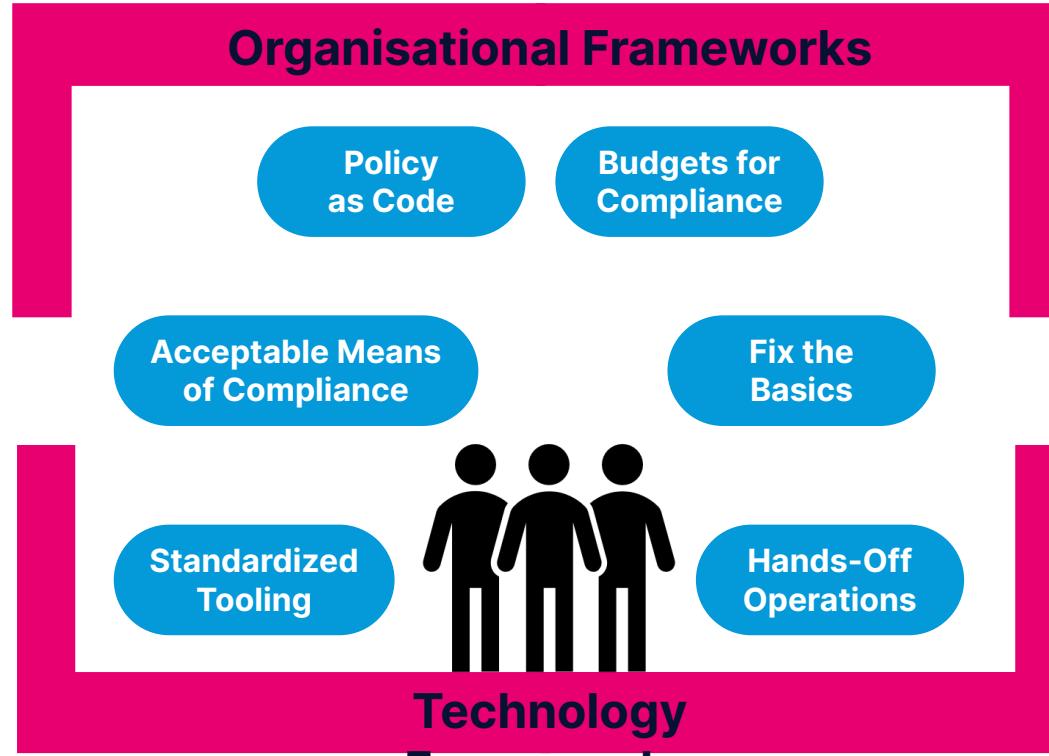


# As an IT team we want ...



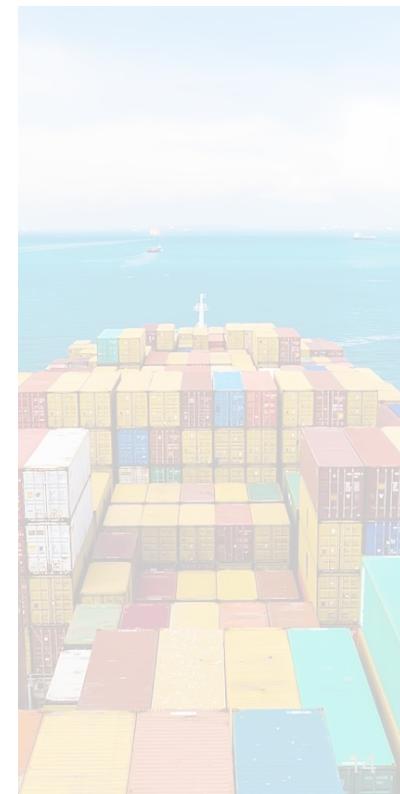
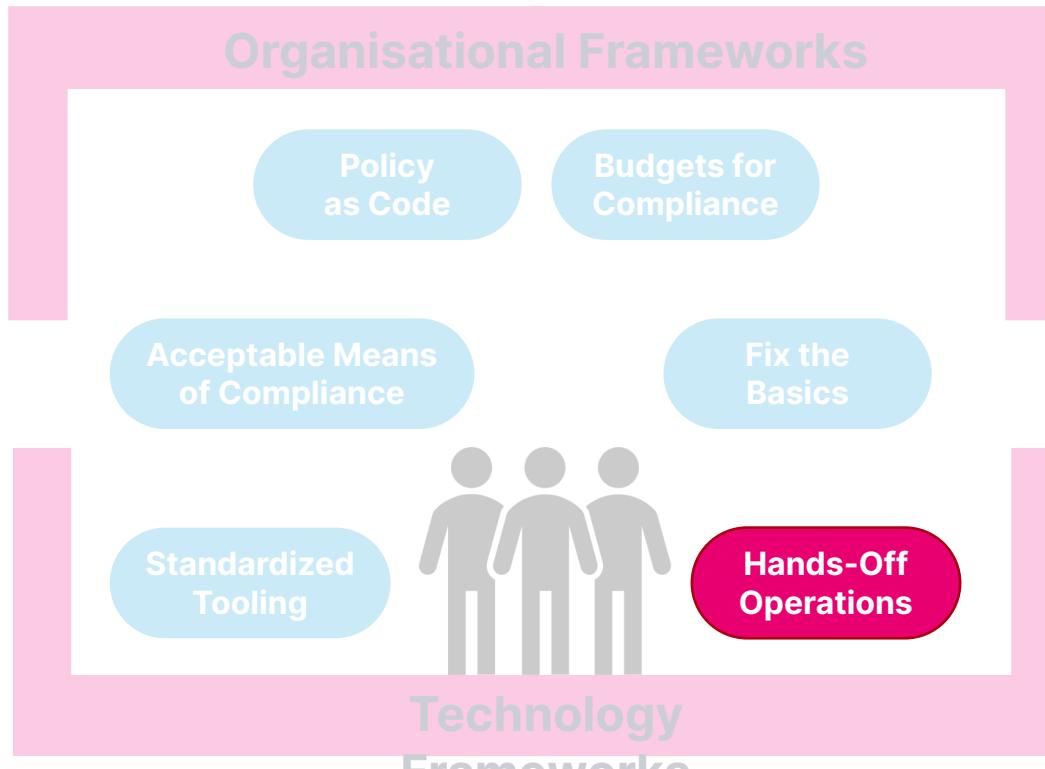
- Deliver great product/service
- Focus on our product/service
- Use good tools & platforms
- Know which internal processes to deal with
- Reduce overhead with internal processes
- Comply with company policies without pains
- Know about relevant company policies
- Use standard solutions for common problems
- No dependencies to other teams

# Solution Approach



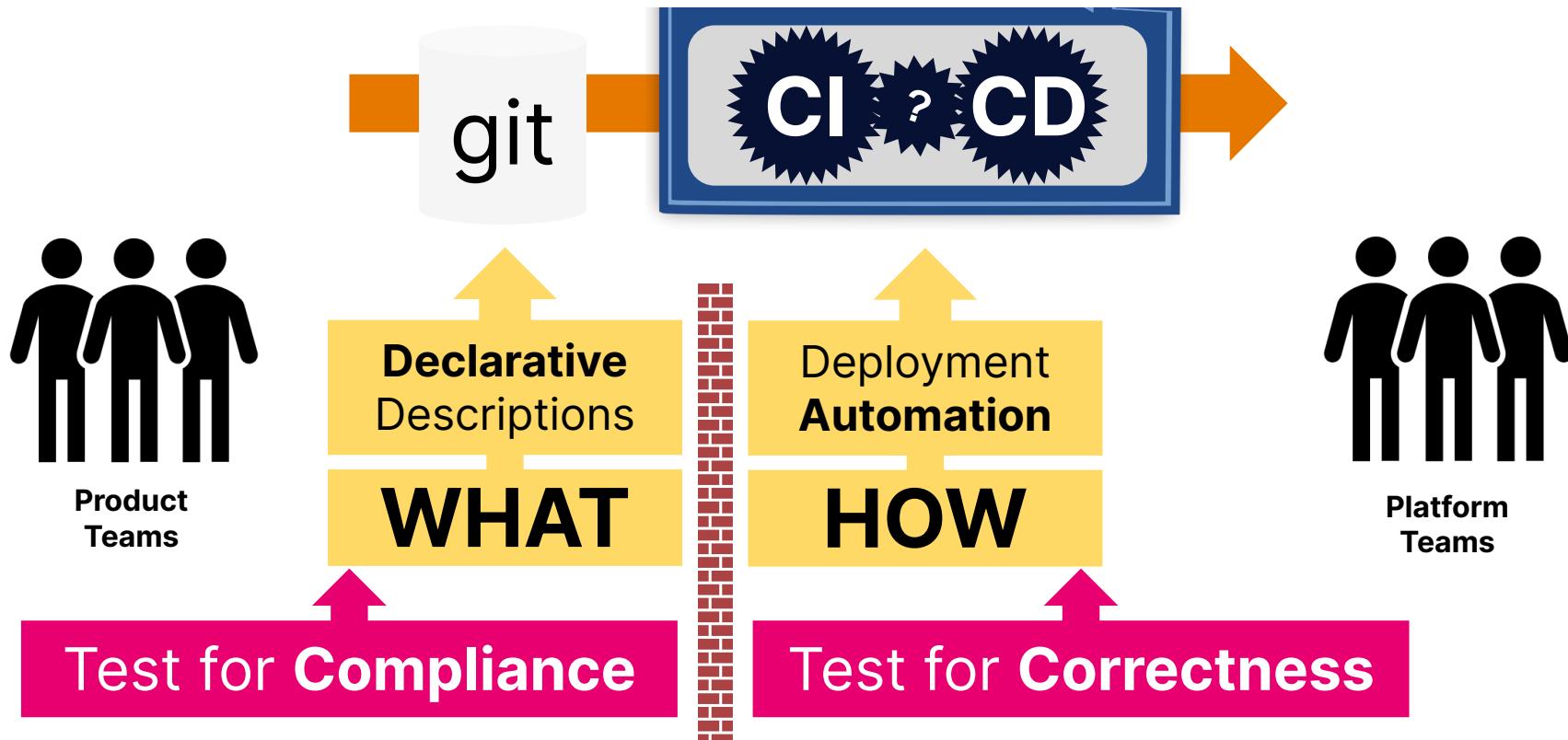
# Solution Approach

## Goal: Hands-Off Operations



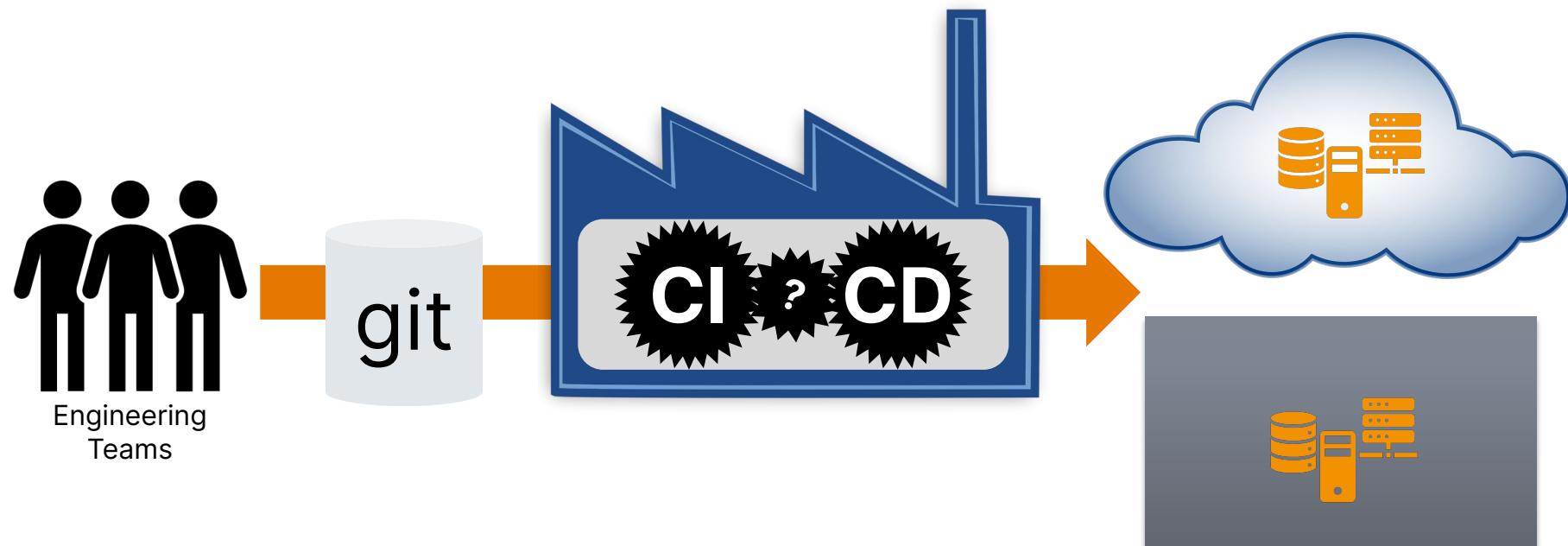
# Declarative Descriptions

# GitOps to the Rescue

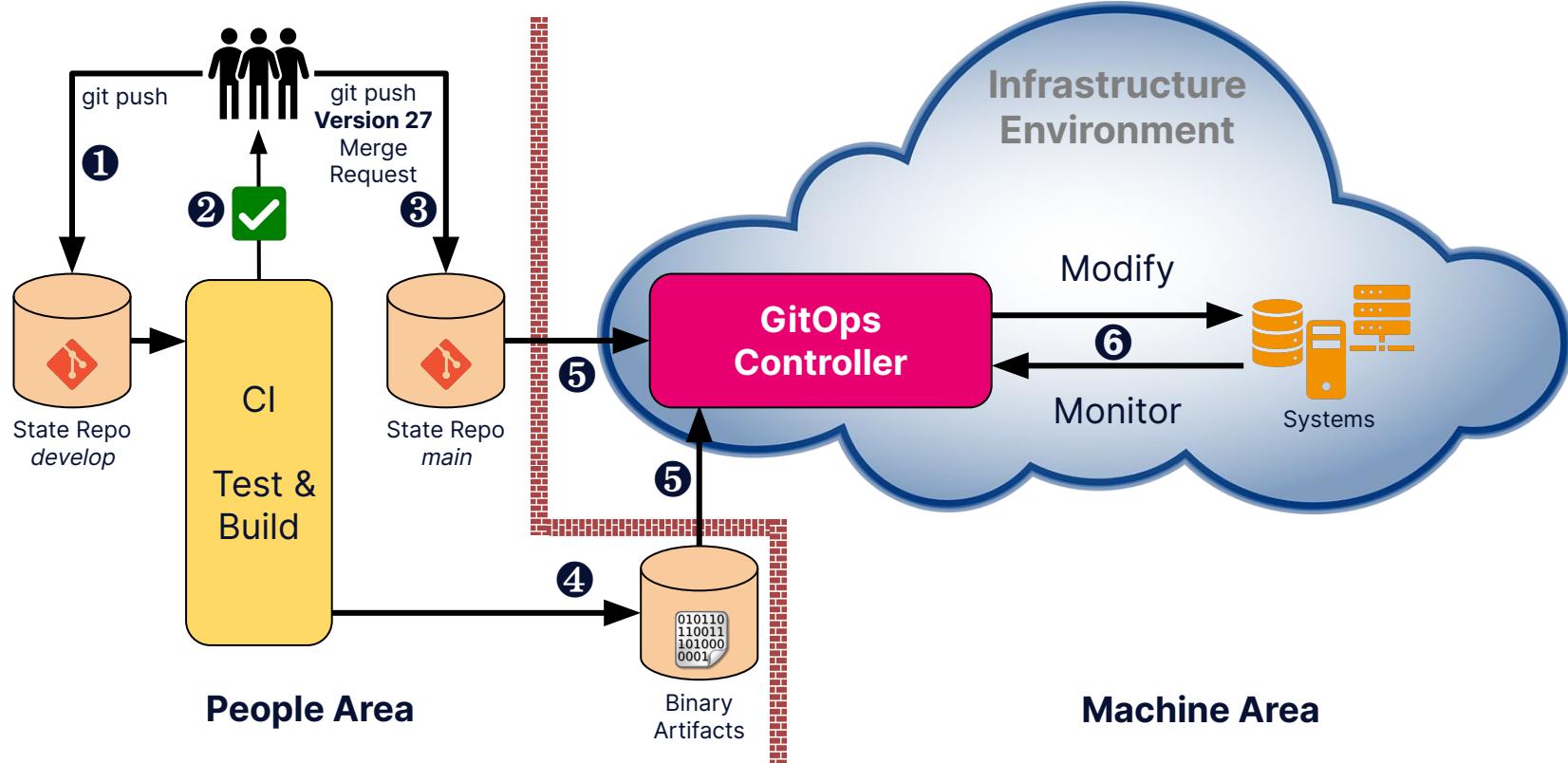


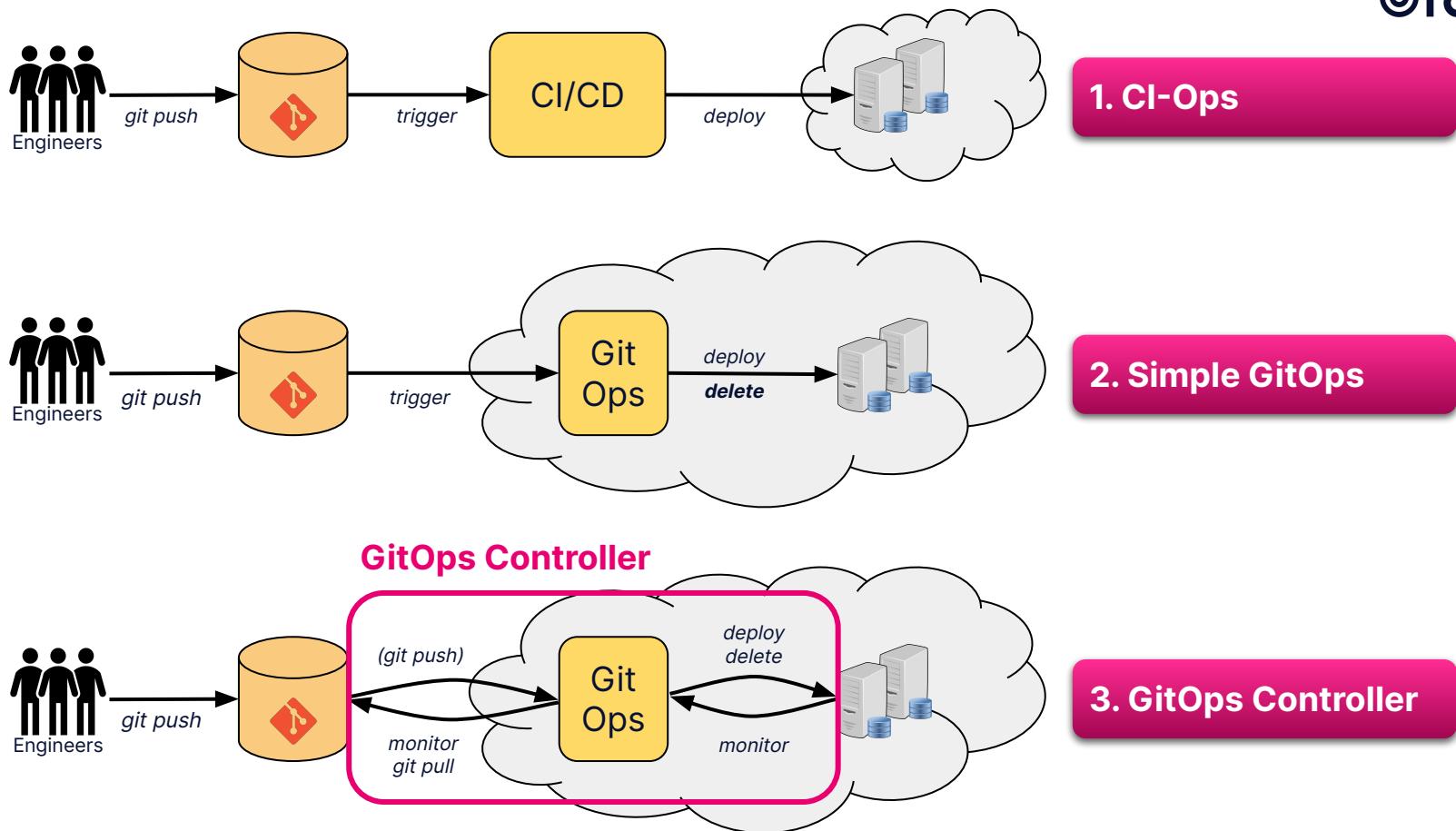
# GitOps

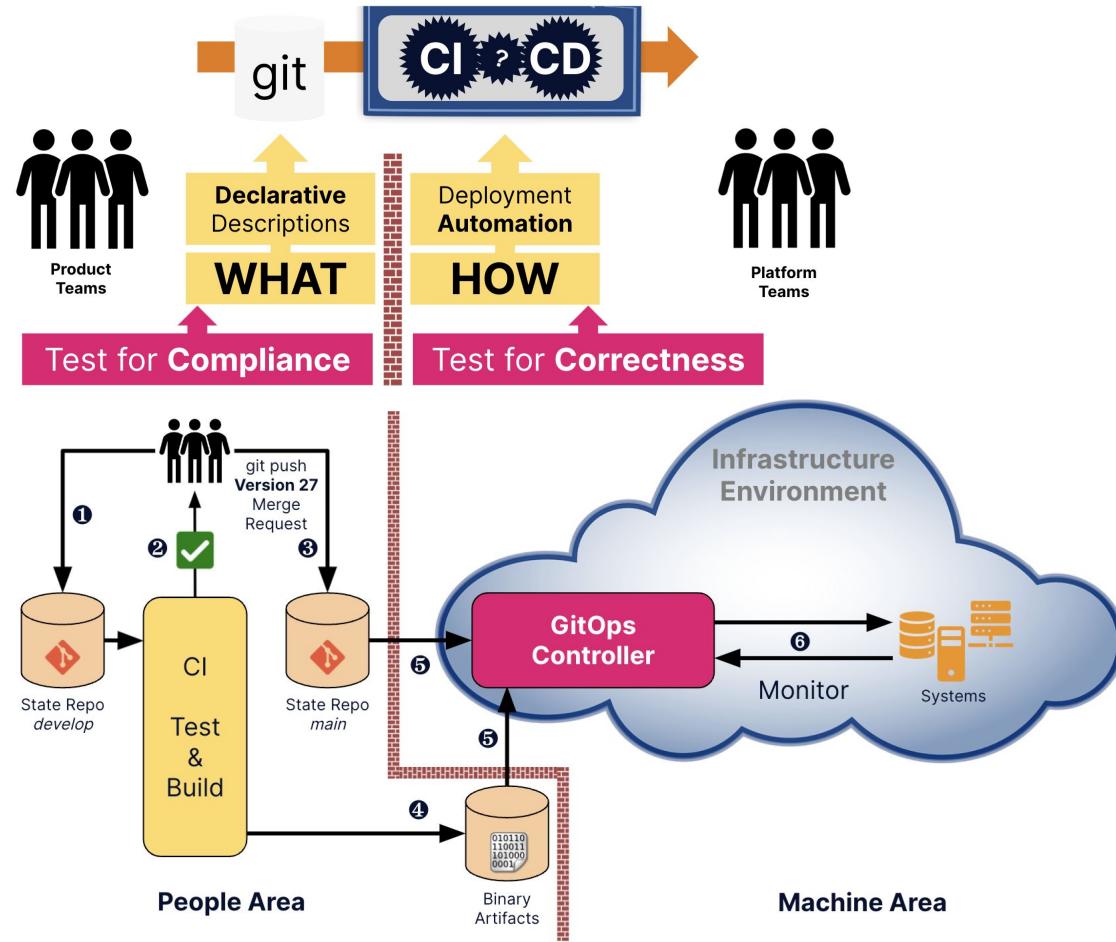
# GitOps Tech



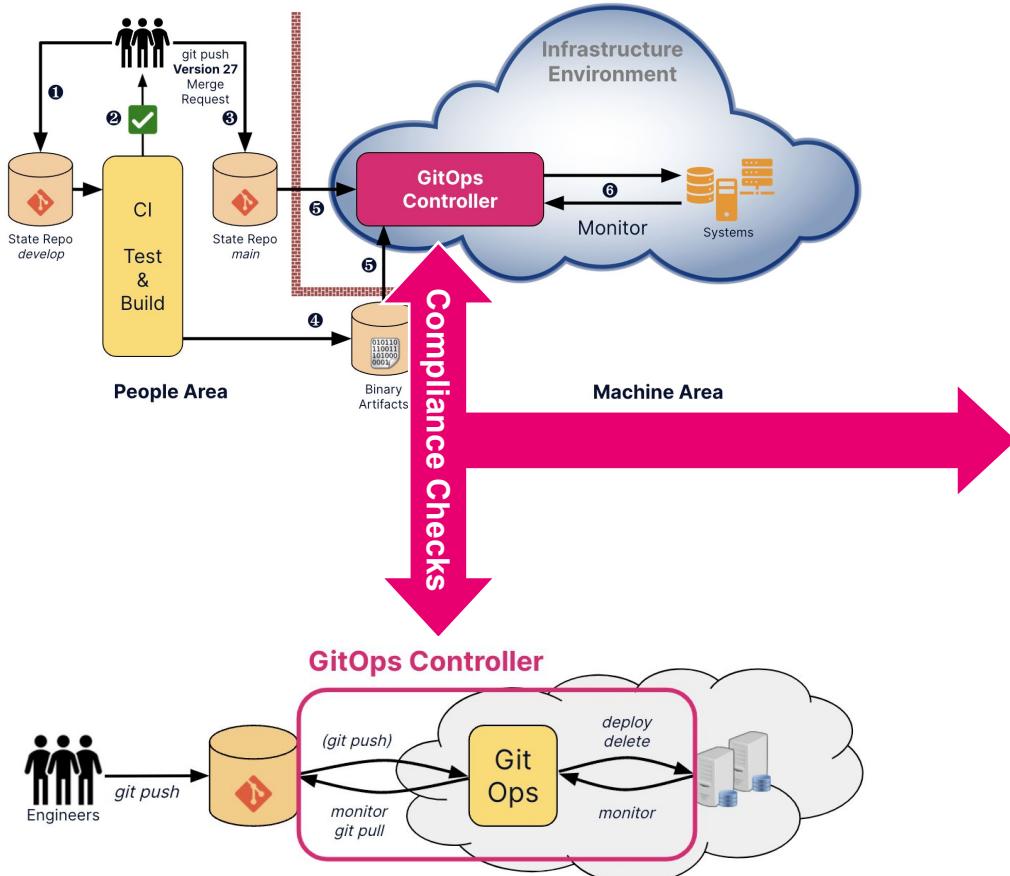
# GitOps Tech







# GitOps & Compliance Automation



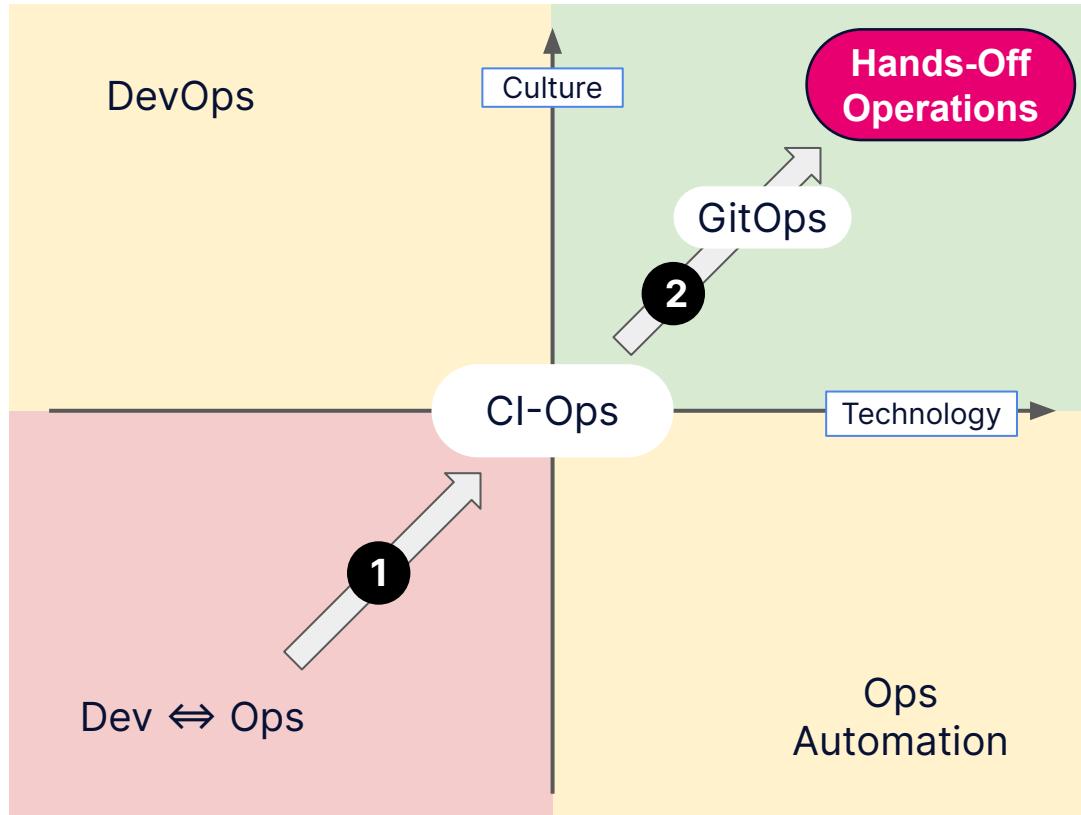
- GitOps Operations Model provides ideal interface for compliance automation:

**A central place where every change passes by in a machine-readable format.**

- GitOps enables true hands-off operations, reducing IT costs & efforts.
- Motivation to “Fix the Basics”.

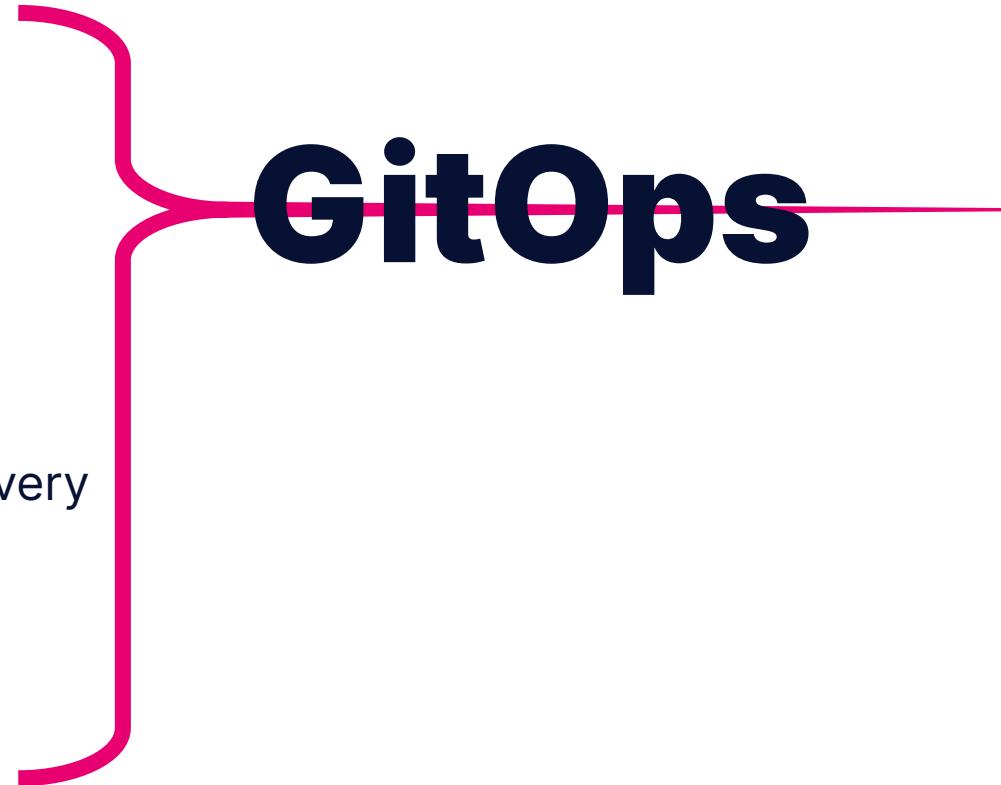
# IT Strategy

# IT Evolution Big Picture

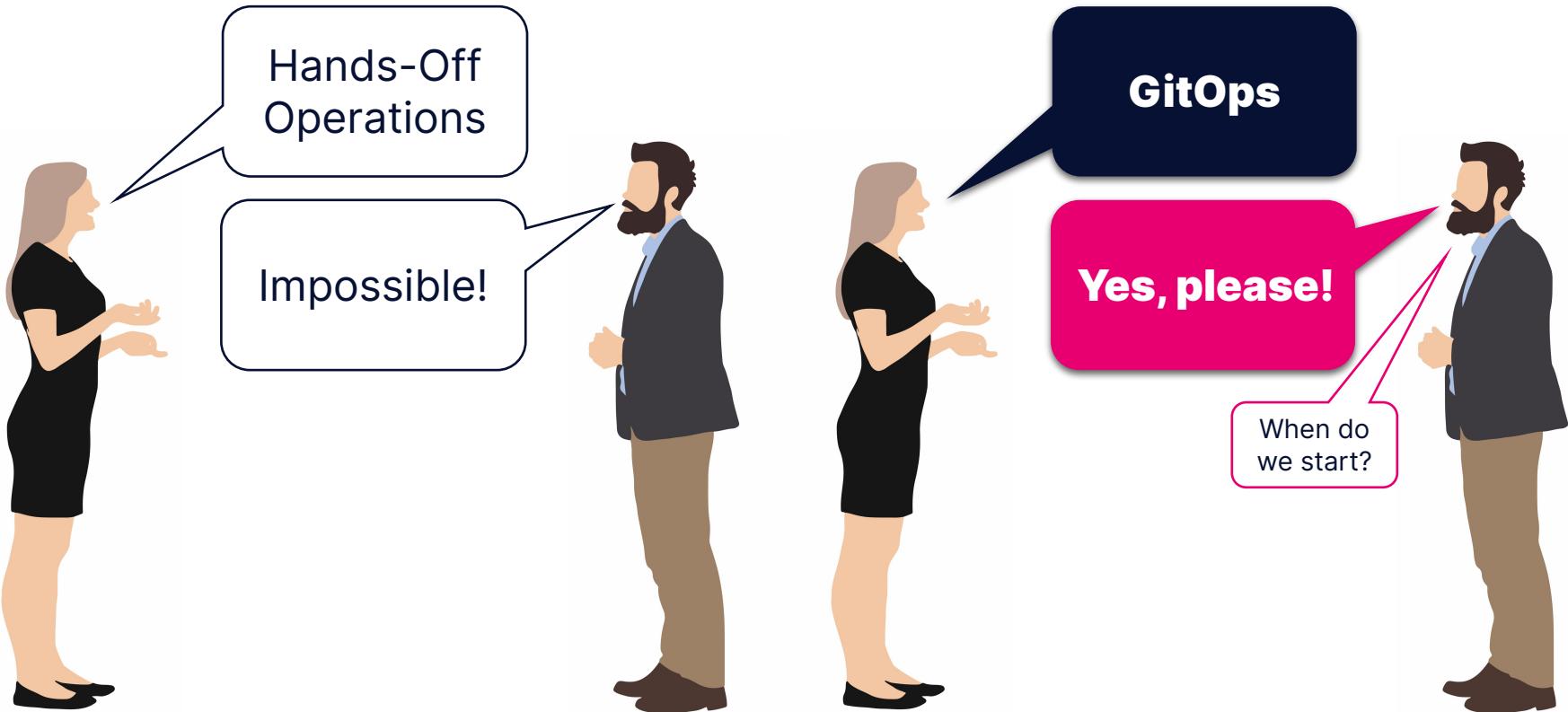


# Hands-Off Operations

- No manual changes in production
- Dev & Ops have same permissions in production: None by Default
- Automate the **hard** stuff:
  - Compliance & governance
  - Distributed rolling upgrades
  - Consistent Backup & Disaster Recovery
  - Everything in your stack
- Test Driven Everything
- Standardized Tooling
- **Fix the Basics!**



# Why GitOps?



# The Role of GitOps in IT Strategy

***Adopting GitOps practices drives automation as the solution for many IT strategy requirements.***

- [schlomo.schapiro.org/2021/04/the-gitops-journey.html](http://schlomo.schapiro.org/2021/04/the-gitops-journey.html) read & watch more about this
- [schlomo.schapiro.org/p/5-devops-principles.html](http://schlomo.schapiro.org/p/5-devops-principles.html) my DevOps definition
- [forto.com/career](http://forto.com/career) join our vision:  
"We are building the backbone of global trade, to make shipping goods as easy as sending emails."



@schlomoschapiro



schlomo.schapiro.org

