



# Infrastruktur auf Knopfdruck\_

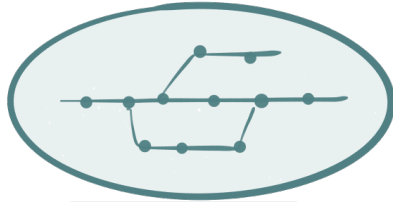
Infrastructure as Code (IAC)

Agnes Köhler

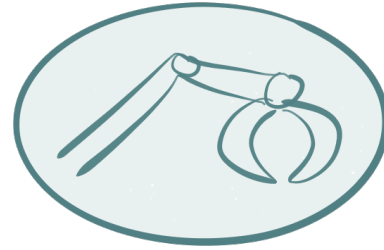
22.09.2017

# Infrastructure as Code

## Eigenschaften

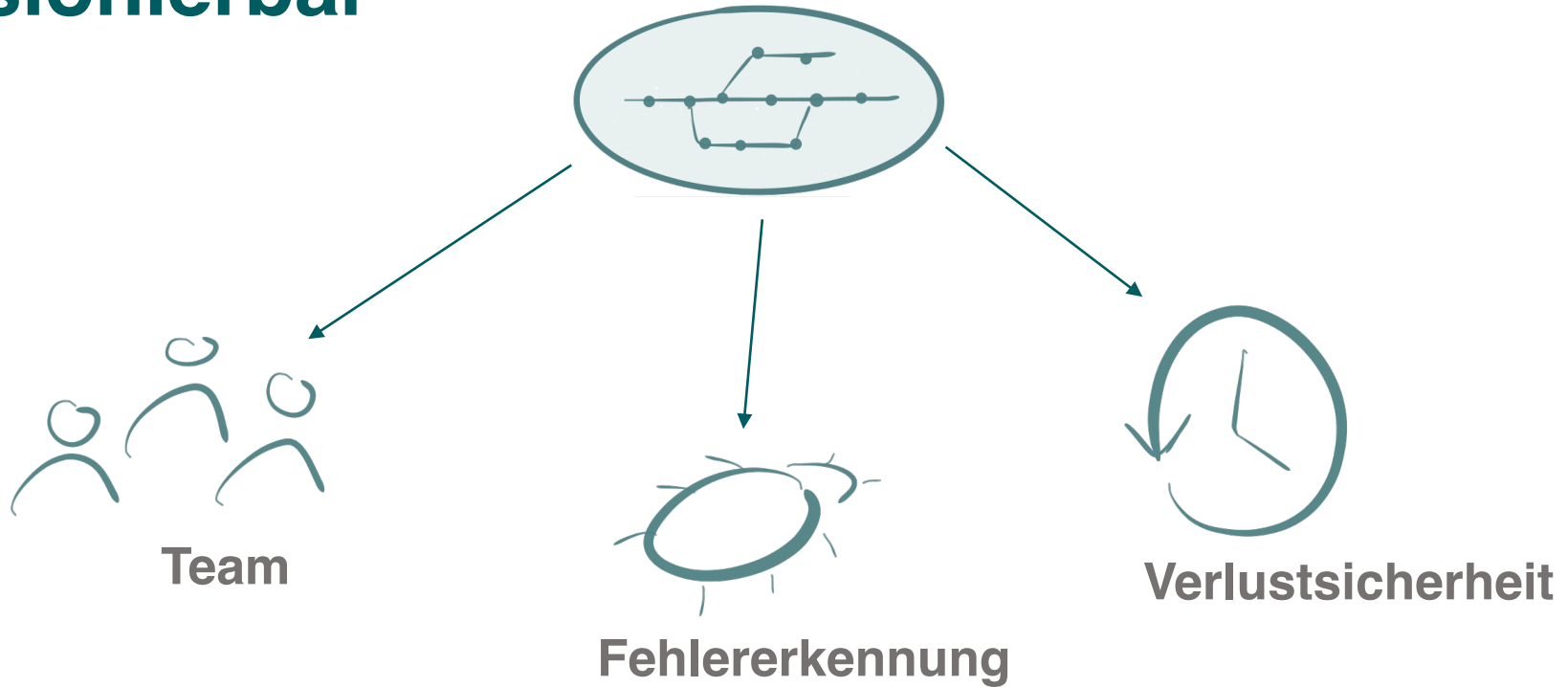


**Versionierbar**

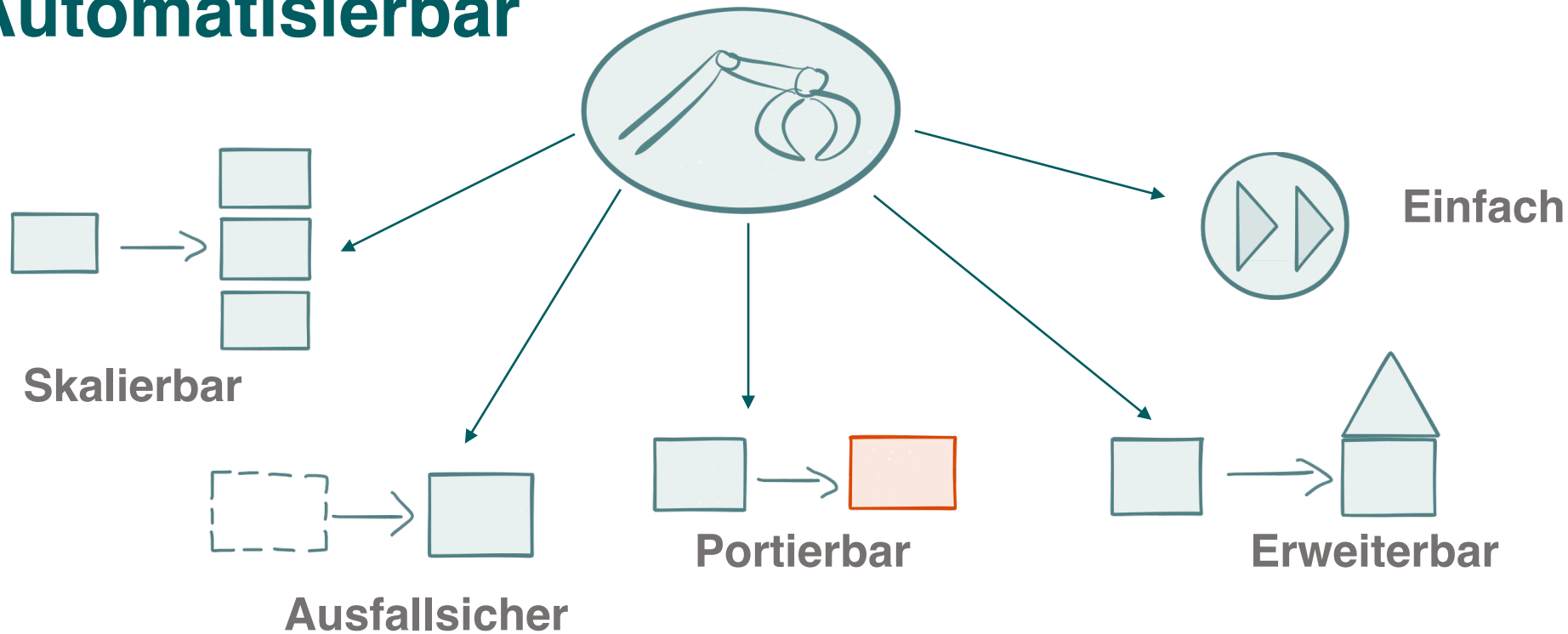


**Automatisierbar**

## Versionierbar



## Automatisierbar



# Tools



**Server Provisioning Tool**  
Open Source

Provider: AWS, GCP, Docker, ...

Terraform State  
Resources

## Beispielcode

```
resource "aws_instance" "example_instance" {  
  ami = "ami-dbbd9dbe"  
  instance_type = "t2.medium"  
  vpc_security_group_ids = ["${aws_security_group.example_allow_ssh.id}"]
```

```
  key_name = "aws_example"  
  connection {  
    user = "ubuntu"  
    private_key = "${file("${var.privateKey}")}"  
  }  
}
```

```
  provisioner "remote-exec" {  
    inline = [  
      "sudo apt -qq update",  
      "sudo apt install -qq python-minimal"  
    ]  
  }  
}
```

```
  provisioner "local-exec" {  
    command = "ANSIBLE_HOST_KEY_CHECKING=False ansible-playbook -i ../Provision/ec2.py -u ubuntu  
              --private-key ${var.privateKey} ../Provision/playbook.yml"  
  }  
}
```



HashiCorp

# Terraform



## Configuration Management Tool

Open Source

Playbook  
Modules



ANSIBLE

## Beispielcode

```
---
- hosts: all
  gather_facts: False
  tasks:
    - name: Test if ansible is ready on host
      ping:

    - name: Installs nginx web server
      apt: pkg=nginx state=installed update_cache=true
      become: true
      notify:
        - start nginx

    - name: Upload default index.html for host
      copy: src=index.html dest=/var/www/html/ mode=0644
      become: true

  handlers:
    - name: start nginx
      service: name=nginx state=started
      become: true
```



ANSIBLE

# Demo

# Pitfalls

## Pitfalls

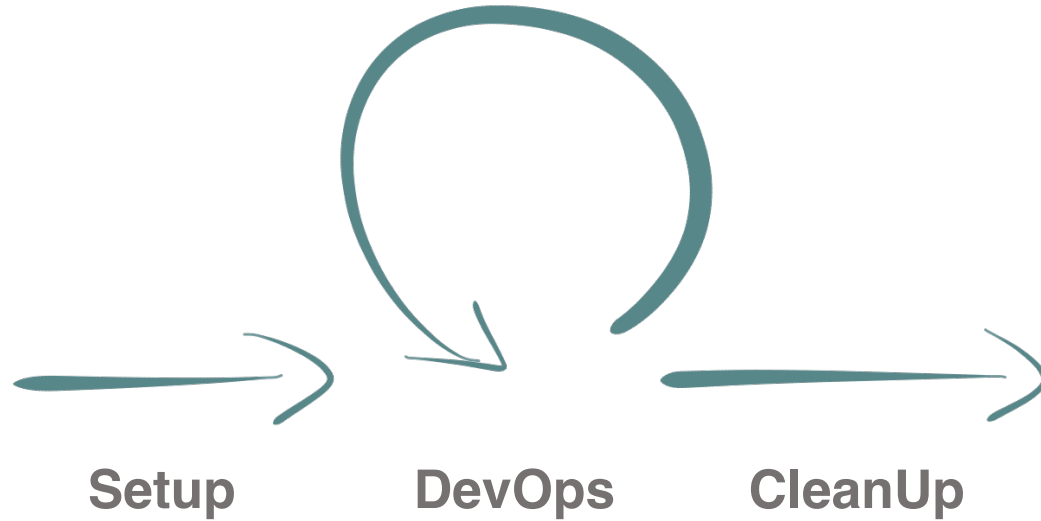
Terraform State

konsequente Automatisierung

Terraform vs CloudFormation

# Lifecycle

## Lifecycle



# Fragen?

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 spielplatzmnstr

