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EUROPE'S LEADING AEM DEVELOPER CONFERENCE  
21<sup>st</sup> – 23<sup>rd</sup> OCTOBER 2024

Scaling up - Implement large-scale projects on  
AEM Edge Delivery Services

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Sr. Software Engineer  
Adobe AEM Sites

 /markushaack



# Agenda

- Large projects on Edge Delivery Services
- Project Types:
  - one for all
  - customizations and overrides



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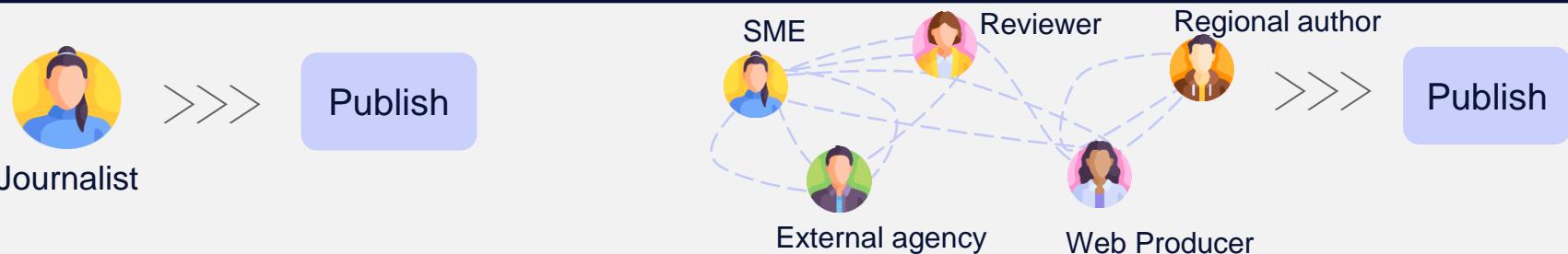
# Overview



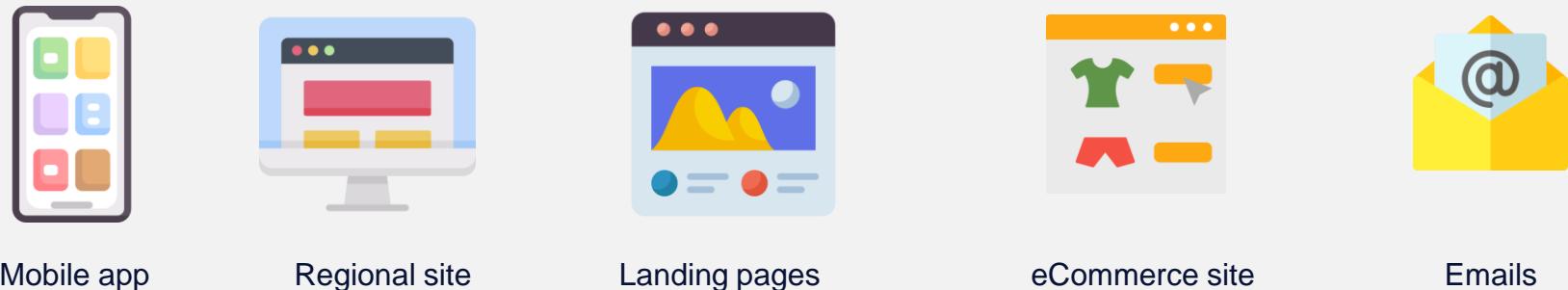
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# One size doesn't fit all

Different customers have different workflows & goals



Different customers have different use cases



Mobile app

Regional site

Landing pages

eCommerce site

Emails



# What are “large scale” projects?

- Global multi brand companies
- Multi region & multi language sites
- Many domains connected
- Different content sources
- Complex sites due to laws and regulations

# Challenges



## Developer

- Code reuse and sharing across multiple sites with flexibility and control
- Maintain different site themes, branding
- Maintain different localizations
- Avoid CDN stitching mess



## Business

- Content reuse across regions and brands
- Automated translation workflows
- Integration of corporate DAM
- Content migration



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# Project Type: one for all



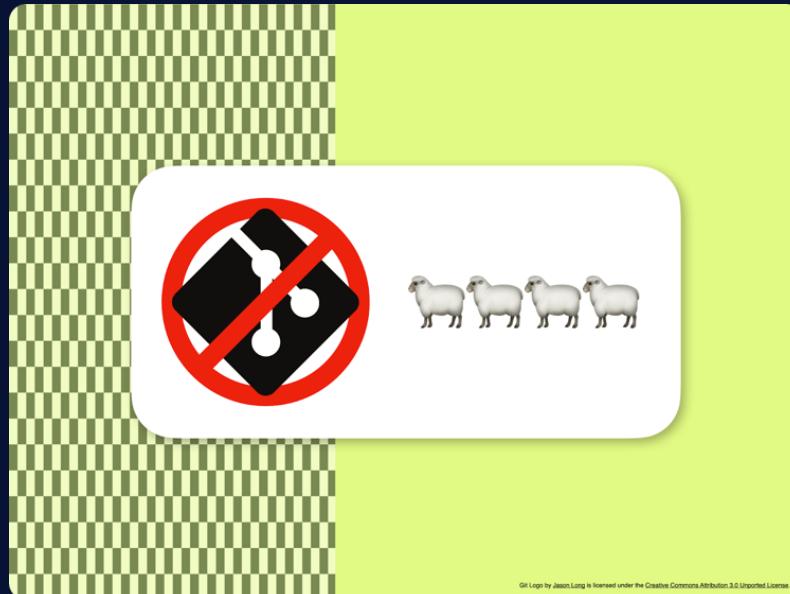
# One codebase, many sites

- Traditionally 1:1 mapping
  - GitHub org and repo map to site URL
- aem.live
  - Org & Site are independent from GitHub
  - Share and re-use code (GitHub repo) for multiple sites
  - Set up via the Config Service

Docs: <https://www.aem.live/docs/repoless>

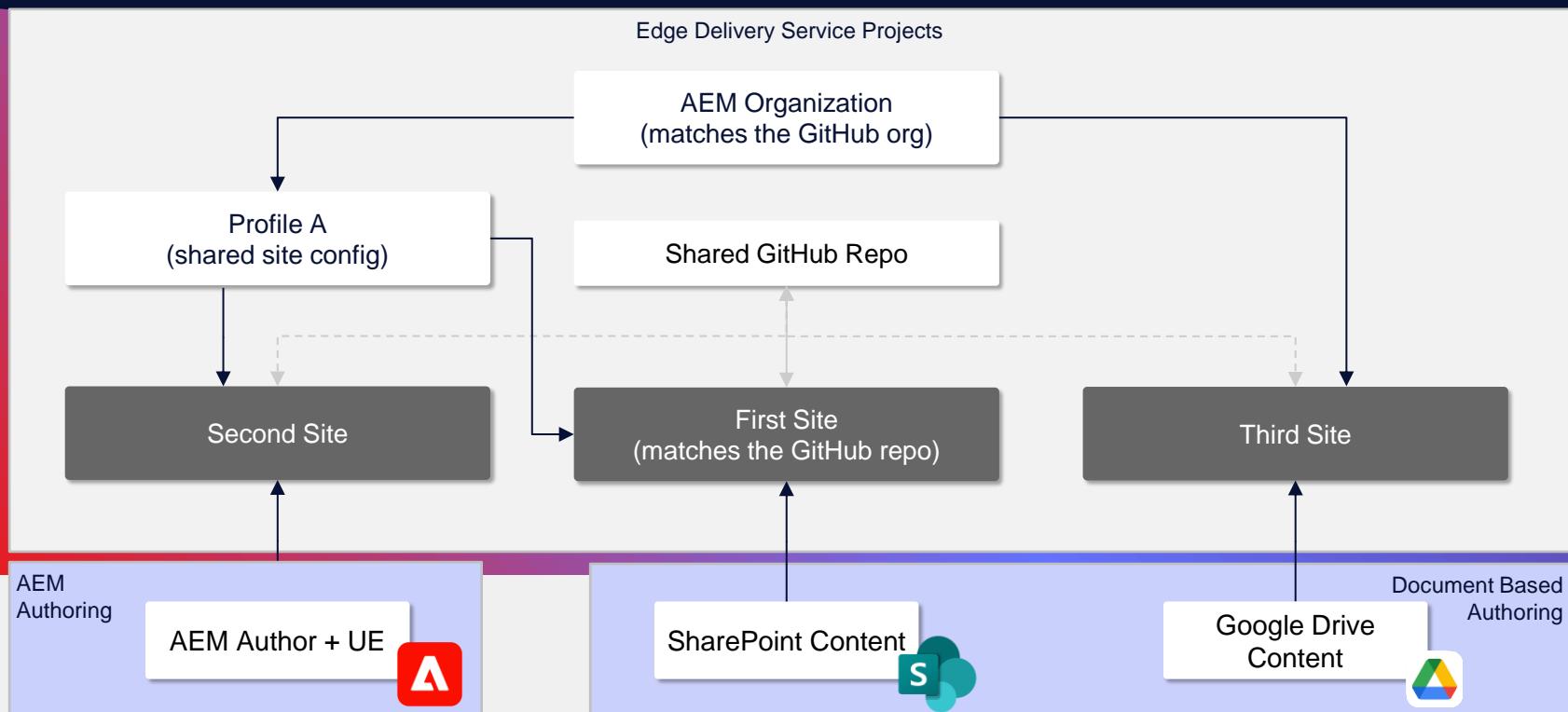


# One codebase, many sites



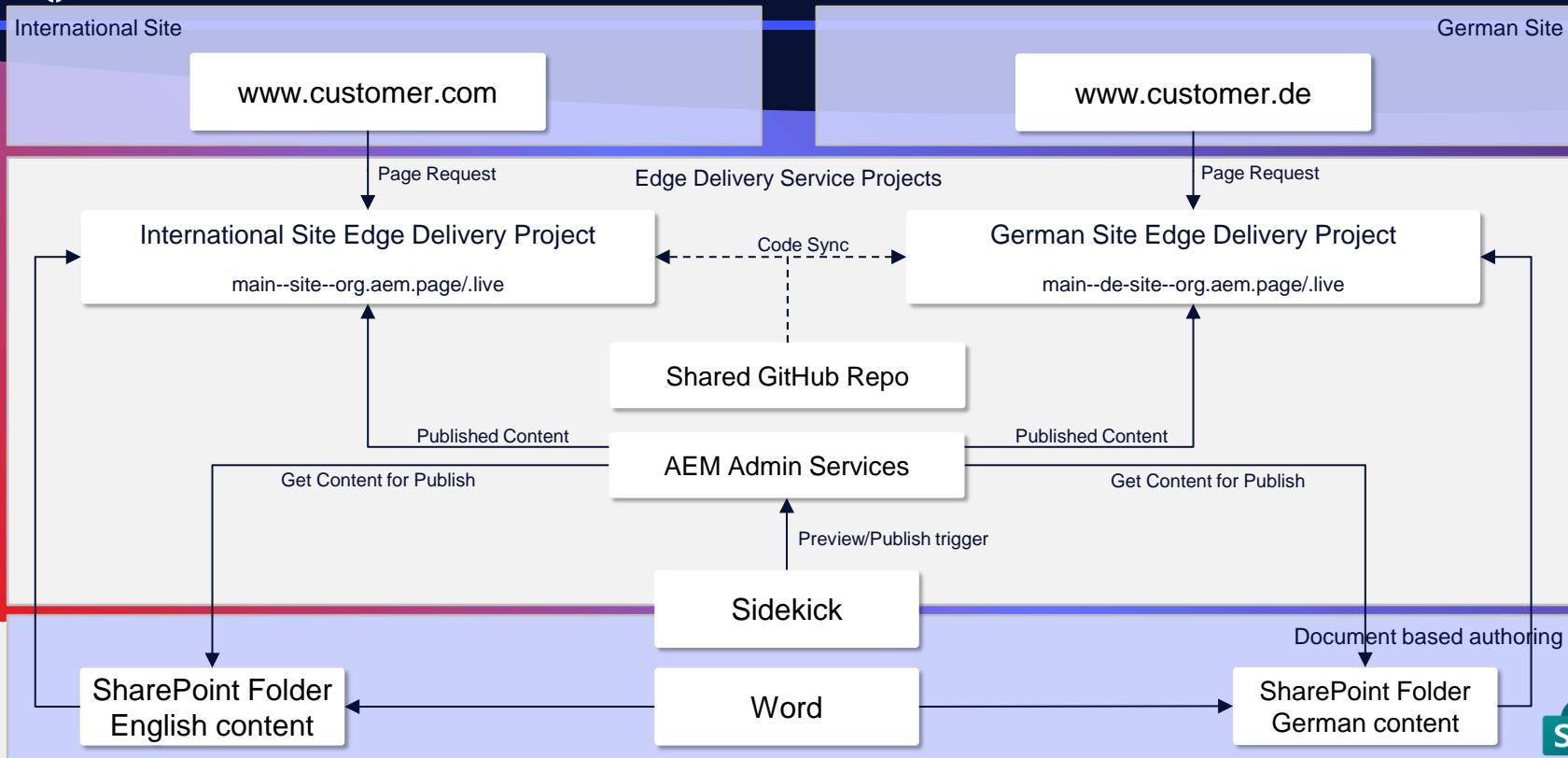
We call it “repoless”

# How does it work?





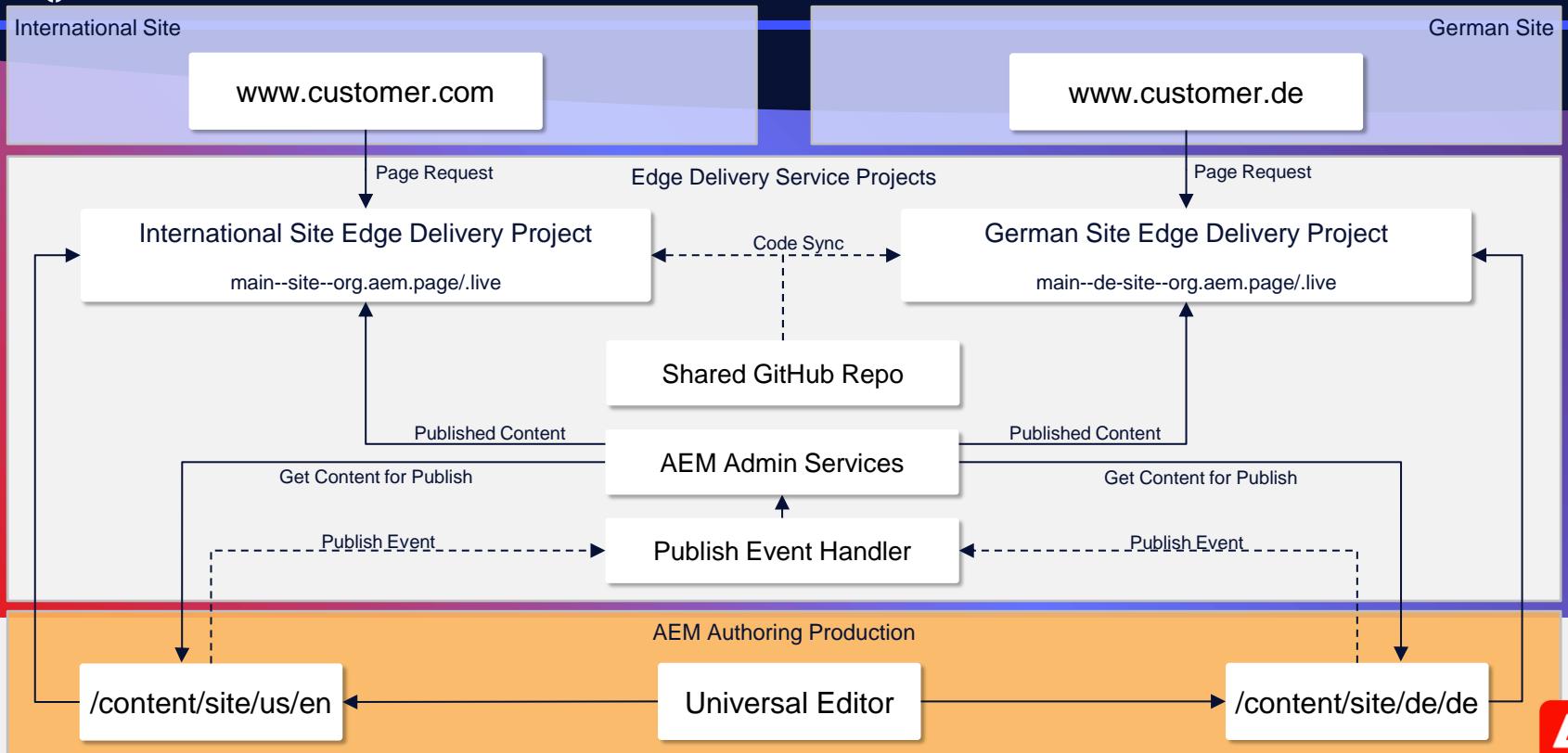
# A typical document-based project with aem.live





# A typical Crosswalk project with aem.live

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# How to set up? (1/2)

- Pre-requisites
  - Github Repository
  - Content Repository
- Create your first base site
  - Create organization
  - Create site within organization
- URL: [main--site--org.aem.live](#)

```
curl -X PUT https://admin.hlx.page/config/{org}.json
```

```
curl -X POST  
https://admin.hlx.page/config/{org}/sites/{site}.json  
\  
-H 'content-type: application/json' \  
--data '{

  "code": {  
    "owner": "{org}",  
    "repo": "{site}"  
  },  
  "content": {  
    "source": { "url":  
      "https://{org}.sharepoint.com/sites/aem/Shared%20Documents/{site}" }  
  }  
'
```

Docs: <https://www.aem.live/docs/admin.html>



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# How to set up? (2/2)

- Create your second “repoless” site
  - With same Git Repository
  - With different Content Source
- URL: [main--site2--org.aem.live](#)

```
curl -X POST
https://admin.hlx.page/config/{org}/sites/{site2}.json
\
-H 'content-type: application/json' \
--data `{
  "code": {
    "owner": "{org}",
    "repo": "{site}"
  },
  "content": {
    "source": { "url":
      "https://{org}.sharepoint.com/sites/aem/Shared%20Documents/{site2}" }
  }
}`
```



# Advantages of a repoless setup

- Sharing project code base on multiple sites
- Use different content sources
- For Crosswalk
  - align with the AEM CS deployment patterns (DEV, STAGE, PROD)
  - MSM site setup



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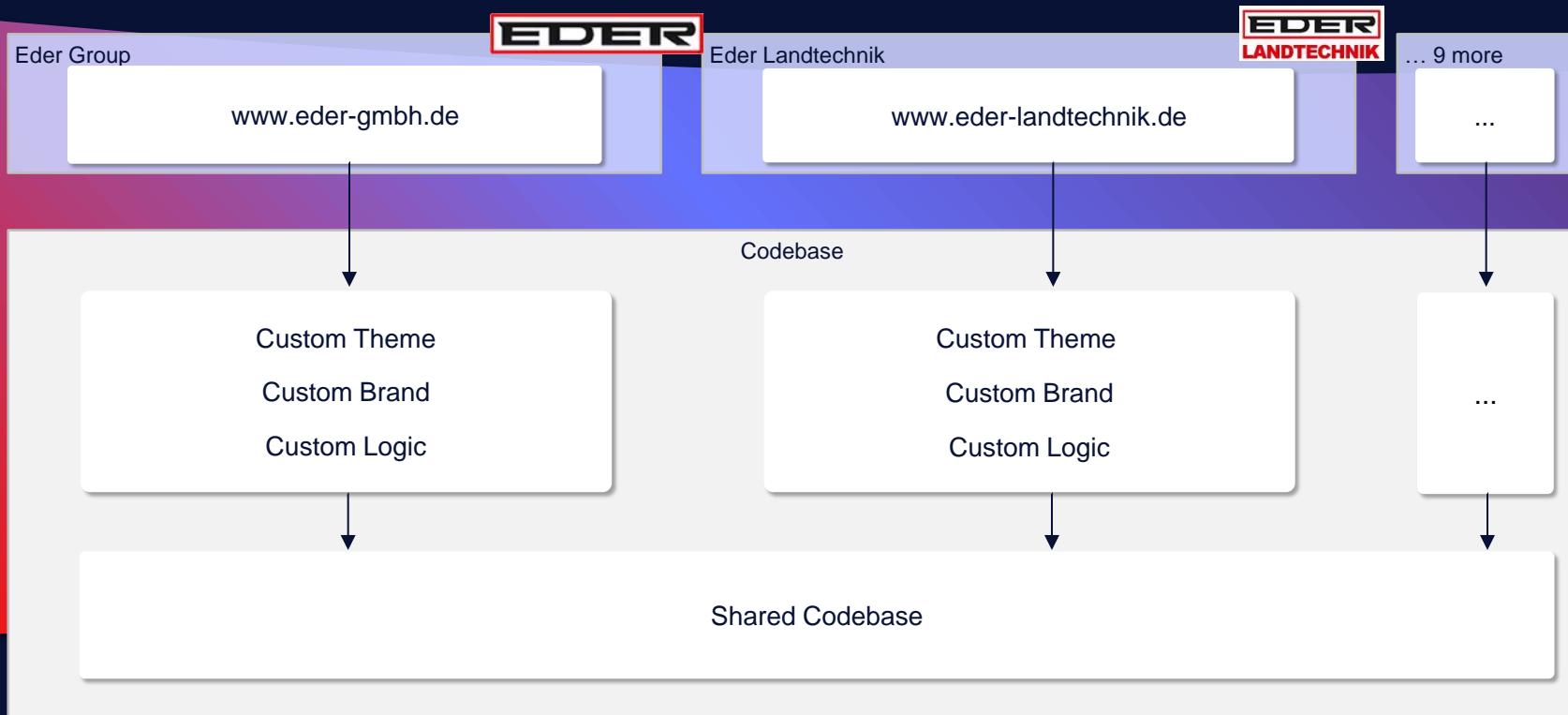
# Project Type: customizations and overrides



# One codebase, many sites

- Traditionally 1:1 mapping
  - 1 GitHub Repo maps to 1 URL
  - This approach is still valid!

# Project Type: customizations and overrides





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# How?

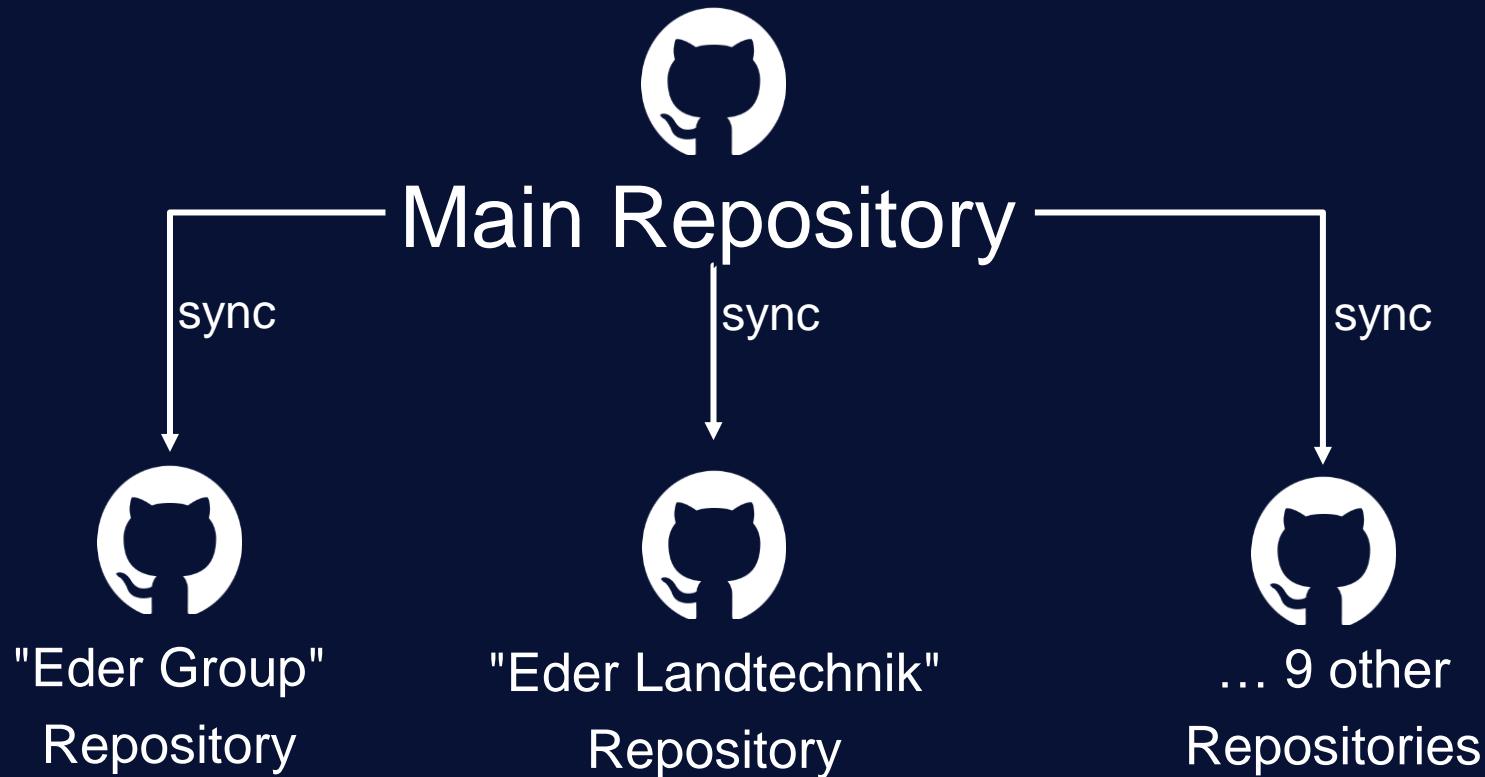
## How to?

- Share code
- Be flexible
- Easy and developer friendly setup



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# How?





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# How?

Main Repo

styles/theme.css

blocks/teaser/teaser.js

blocks/teaser/teaser.css

fstab.yaml

Normal Edge Delivery Services project (simplified)



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# How?

## Main Repo

```
.multisite  
  eder-group  
    styles/theme.css  
    blocks/teaser/teaser.css  
    fstab.yaml  
  eder-landtechnik  
    styles/theme.css  
    fstab.yaml  
  styles/theme.css  
  blocks/teaser/teaser.js  
  blocks/teaser/teaser.css  
  fstab.yaml
```

For each commit



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# How?

## Temporary Copy

```
.multisite
  - eder-group
    | styles/theme.css
    | blocks/teaser/teaser.css
    | fstab.yaml
  - eder-landtechnik
    | styles/theme.css
    | fstab.yaml
  styles/theme.css
  blocks/teaser/teaser.js
  blocks/teaser/teaser.css
  fstab.yaml
```

Make temporary copy



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# How?

## Temporary Copy

```
.multisite
  eder-group
    styles/theme.css
    blocks/teaser/teaser.css
    fstab.yaml
  eder-landtechnik
    styles/theme.css
    fstab.yaml
  styles/theme.css
  blocks/teaser/teaser.js
  blocks/teaser/teaser.css
  fstab.yaml
```



```
> cp .multisite/eder-group/. ./
```



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# How?

## Temporary Copy

```
.multisite
|   eder-group
|   |   styles/theme.css
|   |   blocks/teaser/teaser.css
|   |   fstab.yaml
|   eder-landtechnik
|   |   styles/theme.css
|   |   fstab.yaml
styles/theme.css
blocks/teaser/teaser.js
blocks/teaser/teaser.css
fstab.yaml
```

```
> git commit -am "apply overrides"
```



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# How?

## Temporary Copy

```
.multisite
|   eder-group
|     styles/theme.css
|     blocks/teaser/teaser.css
|     fstab.yaml
|   eder-landtechnik
|     styles/theme.css
|     fstab.yaml
styles/theme.css
blocks/teaser/teaser.js
blocks/teaser/teaser.css
fstab.yaml
```

## eder-group Repo

```
styles/theme.css
blocks/teaser/teaser.js
blocks/teaser/teaser.css
fstab.yaml
```

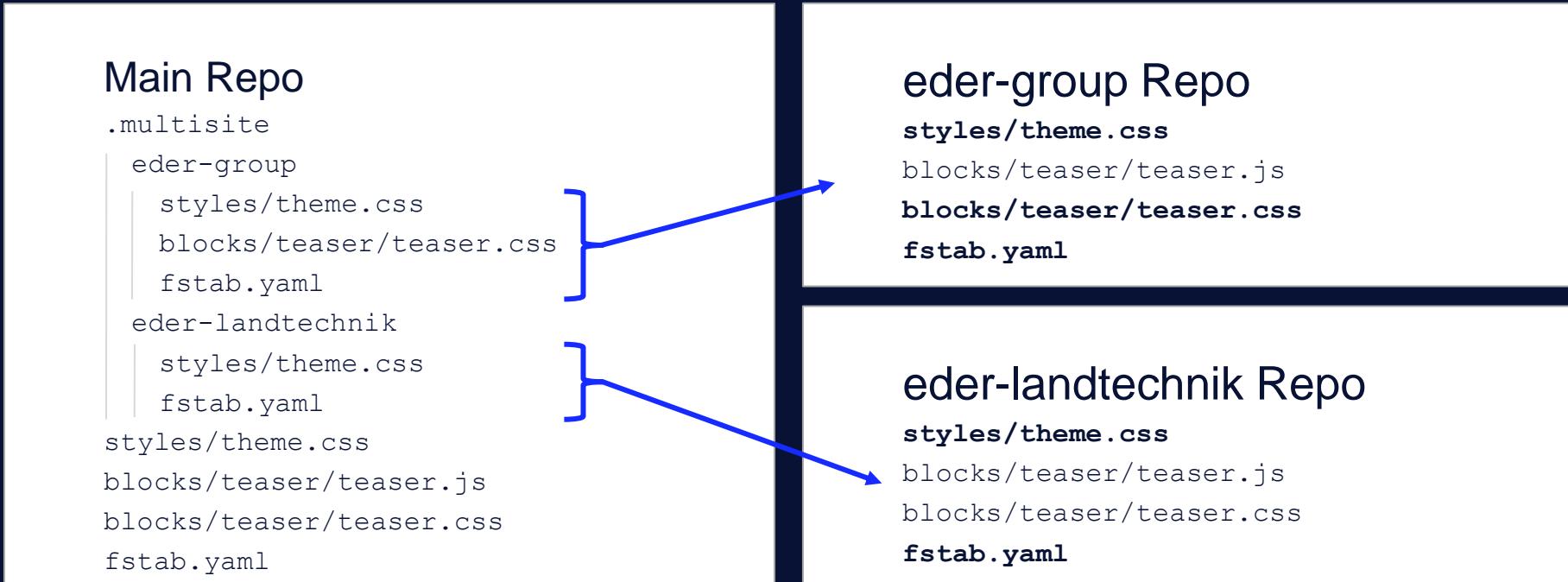


```
> git push eder-group-repo --force
```



# How?

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Repeat for all repositories



# Challenges in this process

- Authentication within GitHub
  - Solved by a private App
- Local development



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# Local development

aem up --site=eder-group



The screenshot shows the homepage of the EDER Profitechnik Group website. At the top, there's a navigation bar with links for 'Unternehmen', 'Karriere', 'News/Termine', 'Standorte & Kontakt', and 'Anfrage'. The main header features the 'EDER' logo and the text 'IHR PROFITECHNIKSPEZIALIST IN SÜDDEUTSCHLAND'. Below this is a large image of agricultural machinery in a field. Three circular icons represent 'Große Produktvielfalt', 'Gelebte Kundennähe', and 'Umfassendes Serviceangebot'. A detailed description follows, mentioning various EDER brands like Eder Landtechnik, Agratec, and others. At the bottom, there's a section for 'EDER PROFITECHNIK GESCHÄFTSBEREICHE' with two images showing agricultural scenes.

aem up --site=eder-landtechnik



The screenshot shows the homepage of the EDER Landtechnik website. The top navigation bar includes 'Produkte', 'Neumaschinen', 'Gebrauchtmaschinen', 'Ersatzteile', 'Werkstätten', 'Aktuelles', and 'Über uns'. The main header has the 'EDER LANDTECHNIK' logo and the text 'Professioneller Service in Ihrer Nähe'. It features a slider with partners like Argecon, M-Hale, Amazon, and B.I. Below this is a section for 'AKTUELLE TOP-AKTIONEN' with two prominent offers: 'CASE IH Puma 260 AFS Connect' and 'PRÄZISE SPURFÜHRUNG DAS NEUE PREMO® RTK LENKSYSTEM AT2'. Each offer includes a small image of a tractor and a call-to-action button.



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# Key Takeaways



# Key Takeaways

1. Many Edge Delivery Project come with individual requirements
2. Same key topics – sharing code, localizations, ...
3. Different approaches to address these
  - Repoless with one shared code base
  - Multiple repositories synchronized – with overwrite logic
  - Full controlled releases with dedicated repositories



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AEM Edge Delivery Services has proven to  
be suitable for large scale projects!



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# Thank You