



Micro Frontends with Luigi UI Development at Scale

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PUBLIC



Micro Frontends - Definition



Micro Frontends

Micro-Front-Ends

Micro Front-Ends

Microfrontends

Micro-Frontends

Microfront Ends

“An architectural style where independently deliverable frontend applications are composed into a greater whole”

Cam Jackson, Thoughtworks

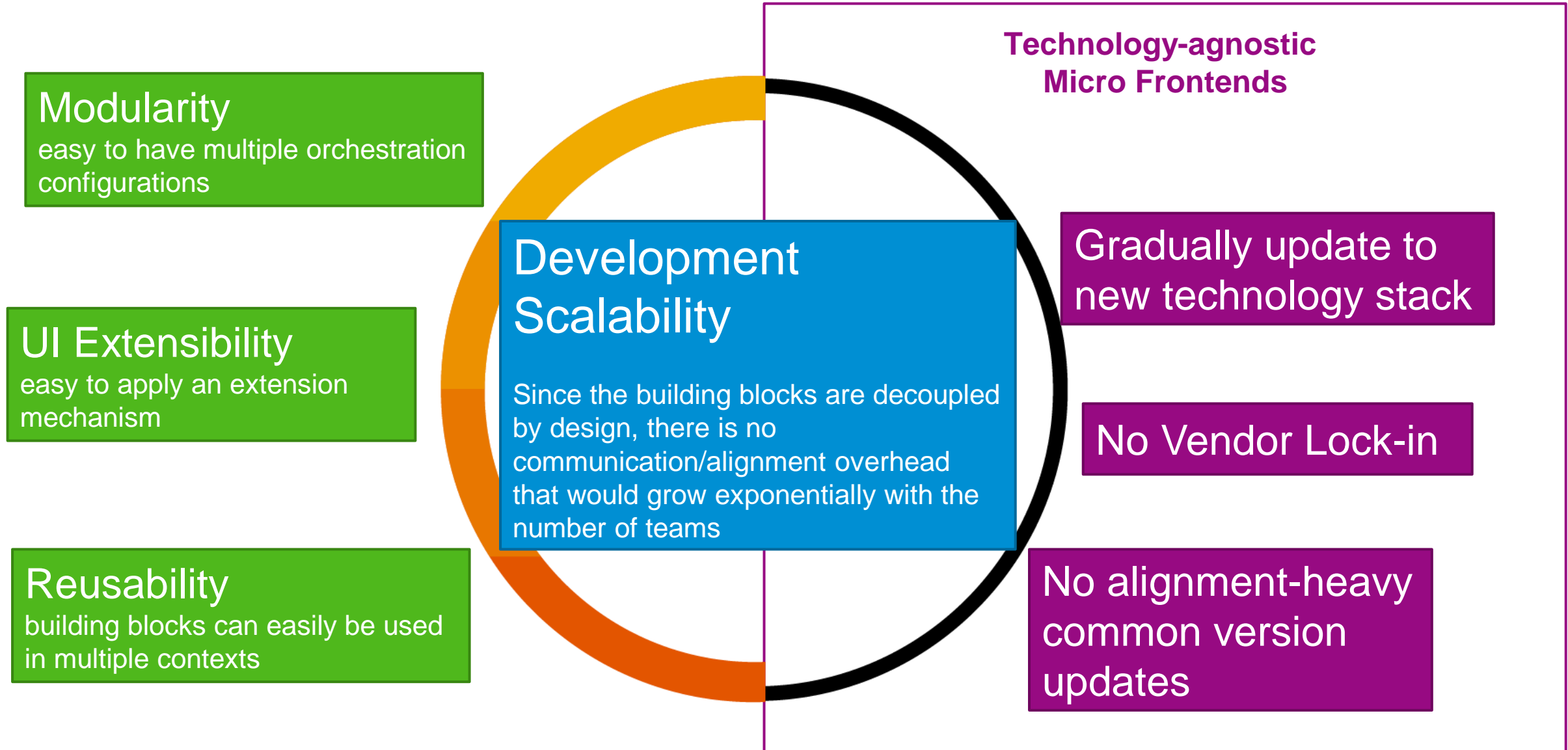
Micro Frontends – What is it?

- It is about composing a frontend application out of smaller pieces
- It is not about conventional components but applications
- It is not about solving technical but organizational problems
- It is not about visual size but what is deliverable independently
- It is not about reuse for multiple purposes but about reuse with the same purpose in multiple contexts
- Ultimately it is about a team owning the lifecycle of a feature end-to-end

Why Micro Frontends?

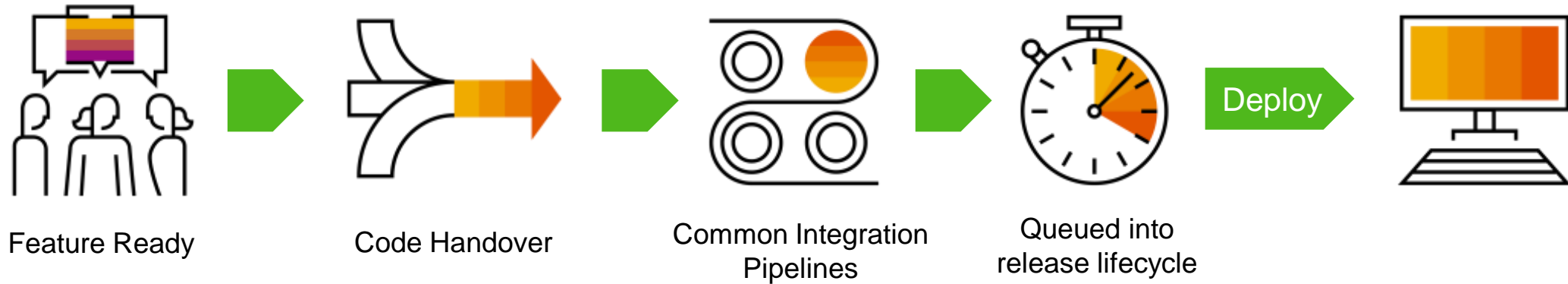


Micro Frontends – Why?

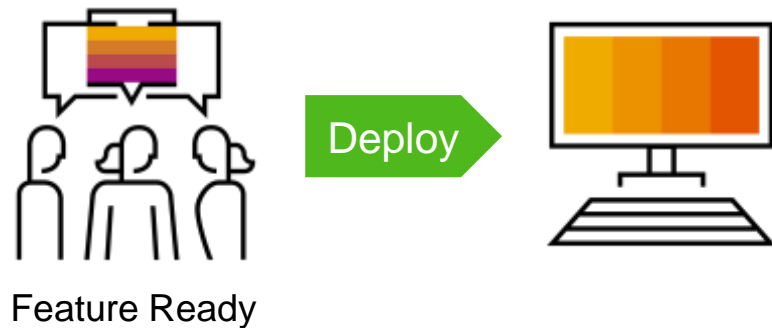


Typical Shipment Processes

Conventional



Micro Frontends



Project “Luigi”



Project “Luigi”

(started in 2018)

What is it about

enterprise-ready micro frontend framework to build modularizable, extensible, scalable and consistent administration and business user interfaces and web applications

Value proposition

- Used to build distributed web applications based on SAP standards
- Technology-agnostic approach prevents UI framework lock-in
- Essential shell features shipped with the framework out-of-the-box

Good to know

- Perfect solution for gradually moving to a modern UI stack
- Follows SAP’s Technical Guidelines and Product Standards
- Used by various SAP products and external projects



Luigi

For more information



Luigi – Technical Classification *

- **Definition**

- Vertical Split
- Horizontal Split
- Hybrid

- **Composition**

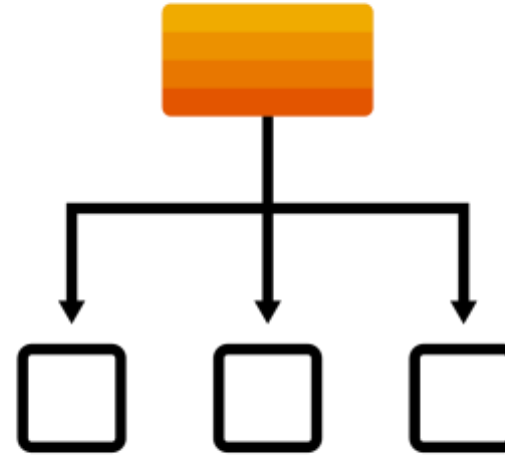
- Client-side Composition

- **Route**

- Client-side

- **Communication**

- Events (via postmessage for iframe-based micro frontends, event bus for horizontal split)
- URL parameters
- Client API



* according to the [Micro-frontends decisions framework](#) by Luca Mezzalana

Luigi Out-Of-The-Box Features (Selection)



Responsive Design



**Optional UI
for shell & navigation**



**Role-based visibility
restrictions**



**Notification
Management**



**Security/ID provider
abstraction**

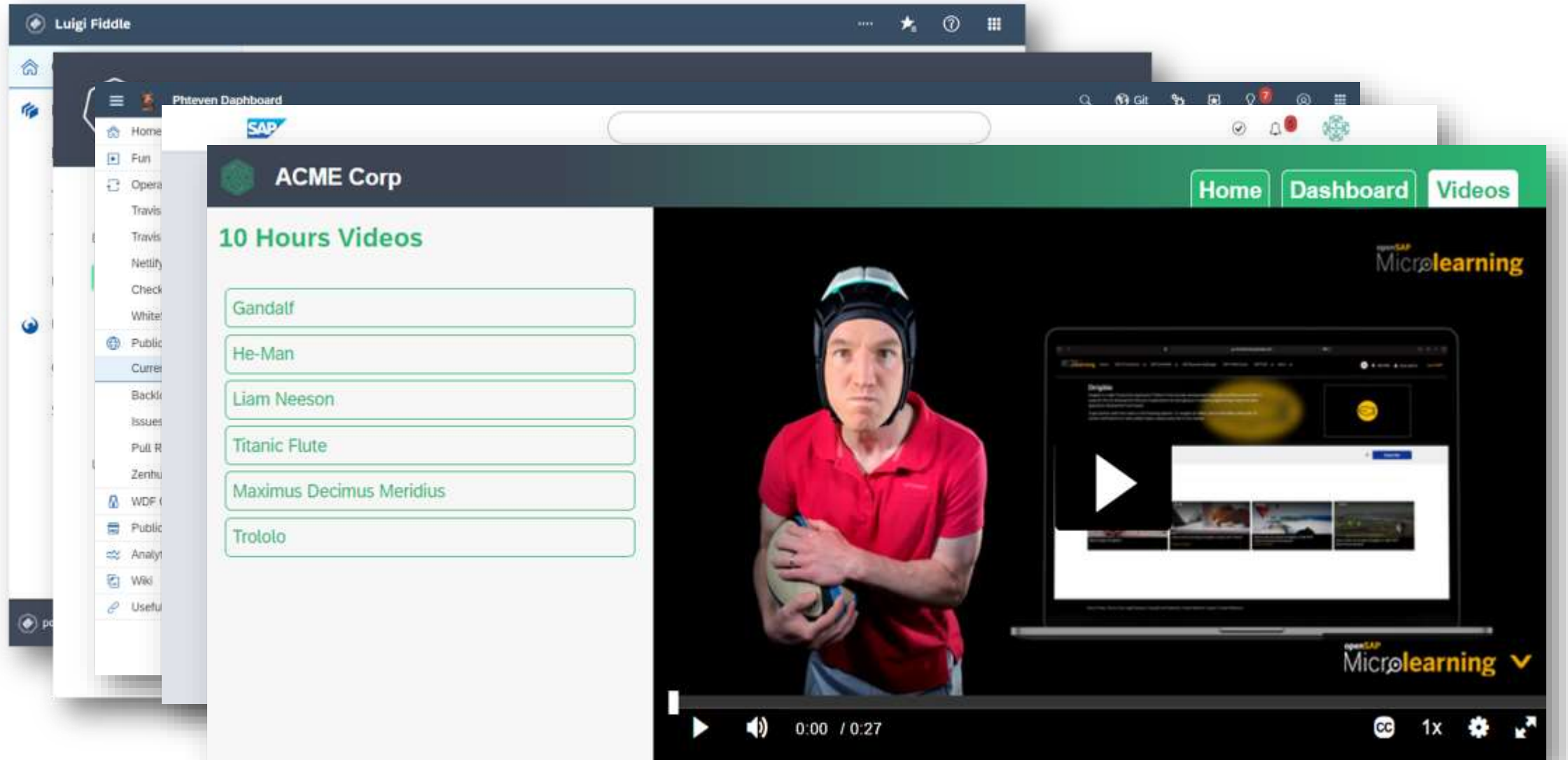


**Form- and Modal
Management**

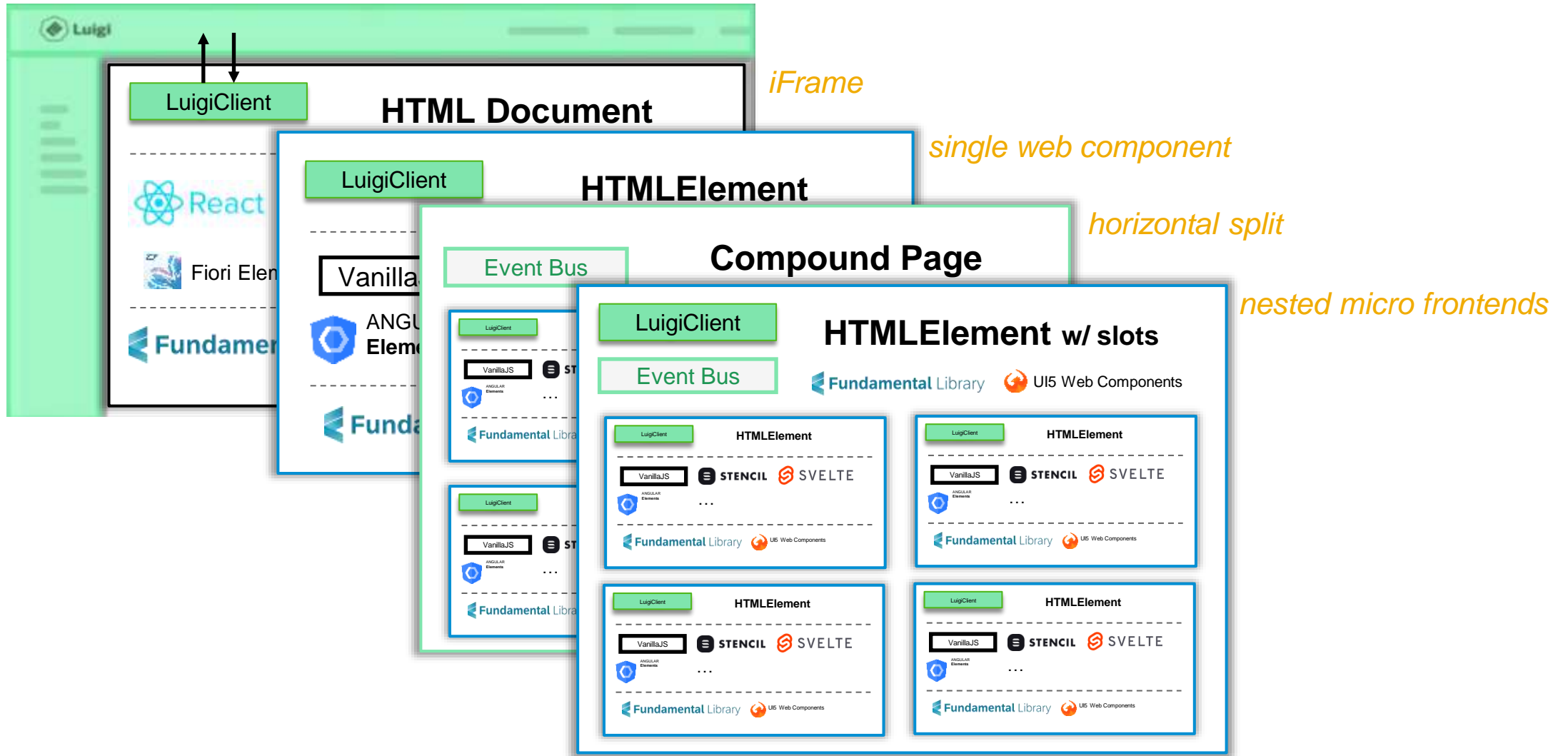


**Multi language
support**

Examples

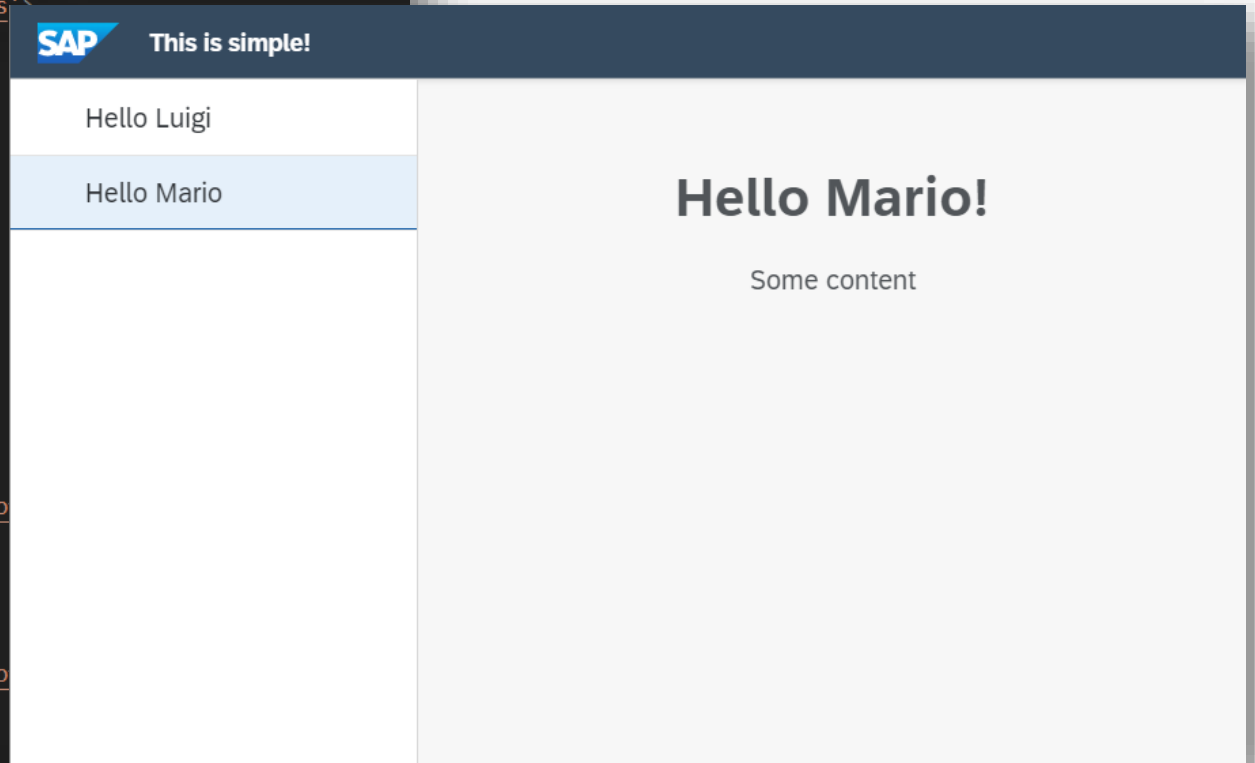


Types of Luigi Micro Frontends



Minimalistic Code Example

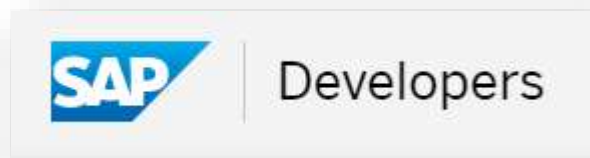
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <link rel="stylesheet" href="https://unpkg.com/@luigi-project/core/luigi.css">
  <script src="https://unpkg.com/@luigi-project/core/luigi.js"></script>
</head>
<body>
  <script>
    Luigi.setConfig({
      settings: { header: { title: 'This is simple!' }},
      routing: { useHashRouting: true },
      navigation: {
        nodes: [{
          pathSegment: 'home',
          hideFromNav: true,
          children: [{
            pathSegment: 'luigi',
            label: 'Hello Luigi',
            viewUrl: 'https://fiddle.luigi-project.io/examples/micro',
            context: { title: 'Hello Luigi!' }
          }, {
            pathSegment: 'mario',
            label: 'Hello Mario',
            viewUrl: 'https://fiddle.luigi-project.io/examples/micro',
            context: { title: 'Hello Mario!' }
          }
        ]
      }
    });
  </script>
</body>
</html>
```



Further Information



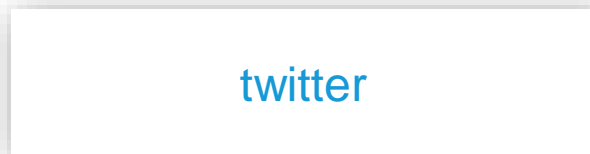
<https://luigi-project.io/>



<https://developers.sap.com/group.luigi-app.html>



<https://www.youtube.com/channel/UC5WsYsHapDIg2K3iXS4n4AQ>



<https://twitter.com/luigiprojectio>



Thank you.

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