KoliBri - Public UI

The accessible web components

Informationstechnikzentrum Bund (ITZBund)

- *"Federal Information Technology Center"*
- Central IT service provider of the federal government
- Head: Dr. Alfred Kranstedt
- 4,200 employees
- 12 locations in Germany

Requirements analysis and management and SW design

- Unit with over 50 employees
- Head: Christine Heinrich

USEABLE WITHOUT COLORS

Click the red button to cancel the operation.

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Click the red button to cancel the operation.

The Mother of All Demos
Link kopier...
Ansehen auf YouTube

Component-Library for the Accessiblity

Komponenten-Bib**li**othek für die **B**ar**ri**erefreiheit

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KoliBri

Facts

- **start 2021** as internal project
  - **cross-functional team:** software architecture, accessibility coordinator, accessibility testing, and architecture management
- **First release** December 2021
- **2022** characterized by **maturity phase**
- **2023 Open Source** Standard

From **Egg** to **Open Source** Standard

What are the following questions we want to get to the bottom of?

- What is the **motivation** for KoliBri?
- What is the **problem**?
- What is a **Web Component**?
- Why is KoliBri so **flexible**?
- Where is something **saved** here?
- What actually makes the **difference**?
- Where does KoliBri stand and where does it **go**?
- What is behind the **license EUPL**?

Motivation

// What goals can be pursued with this?

- Legal requirement to create accessible user interfaces.
- majority of component libraries have focus on design
- requirements are implemented again and again in projects
- Reduction of vendor dependency (digital sovereignty)

Objective: To create an accessible and reusable standard library without losing the necessary flexibility and design freedom.

Many roads lead to Rome

// What is the problem?

Accessible user interfaces are realized by semantically correct composition of HTML elements.

However, the HTML web standard leaves the **how** open. Thus, the task of solving the "problem" lies with the developers. Furthermore, the guidelines of the WCAG have to be combined with the design aspects from the versatile style guides.

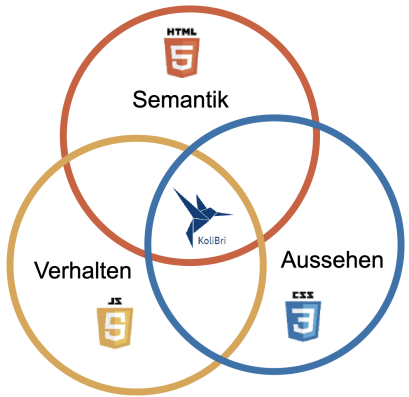
The **great advantage for the federal administration** is that we can **implement**, **reuse** (share), **improve** and **enhance** a solution **ideal** for us together by means of the Web Component standard.

Web Components

// What is a Web Component?

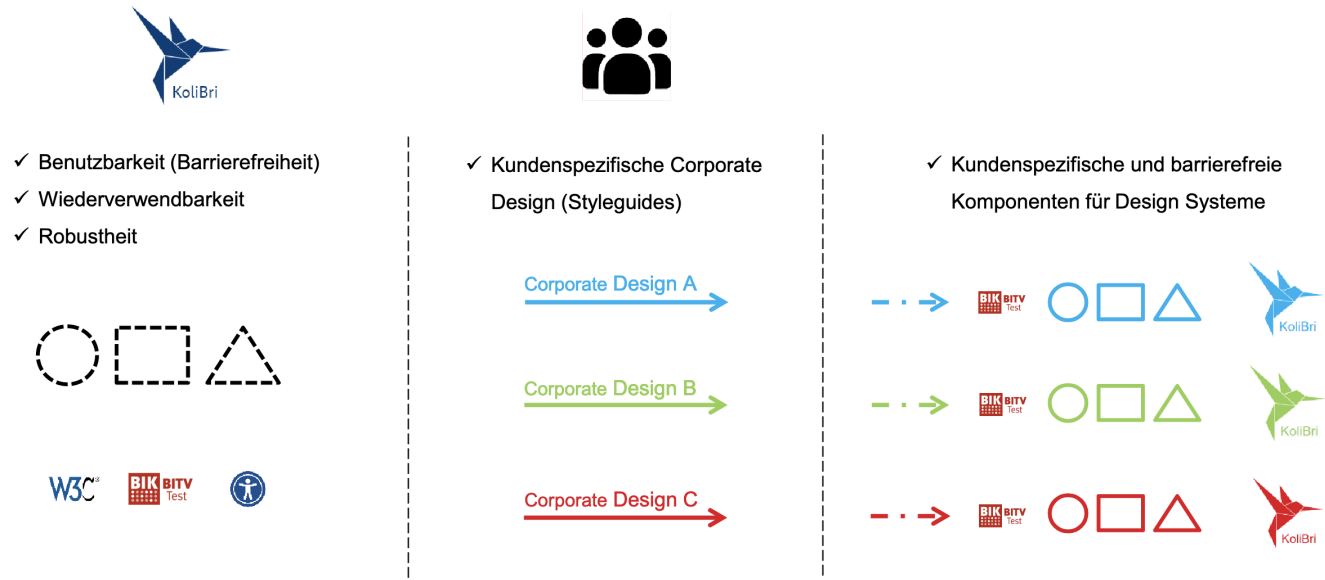
Web pages are implemented with HTML elements.

- **Web Components** standard allows to define **own** HTMl element.
- This is **fixed**
  - Semantics (HTML) → Assistive Systems / Accessibility.
  - Verhalten (JavaScript) → Usability & Barrierefreiheit
- Das ist **flexibel**
  - Aussehen (CSS) → Corporate Design
- this creates barrier-free, robust and reusable "building blocks



Theming

// How is KoliBri positioned?



Live-Demo

// Where is anything saved here?

The code example shows how the accessibility requirements are "encapsulated away" in the button.

```
<kol-button _icons="ui-home" _icon-only _label="Primary">
 <button aria-labelledby="574540" class="primary" type="button">
    <span>
      <kol-icon>
        <i aria-hidden="true" class="icofont-ui-home"></i>
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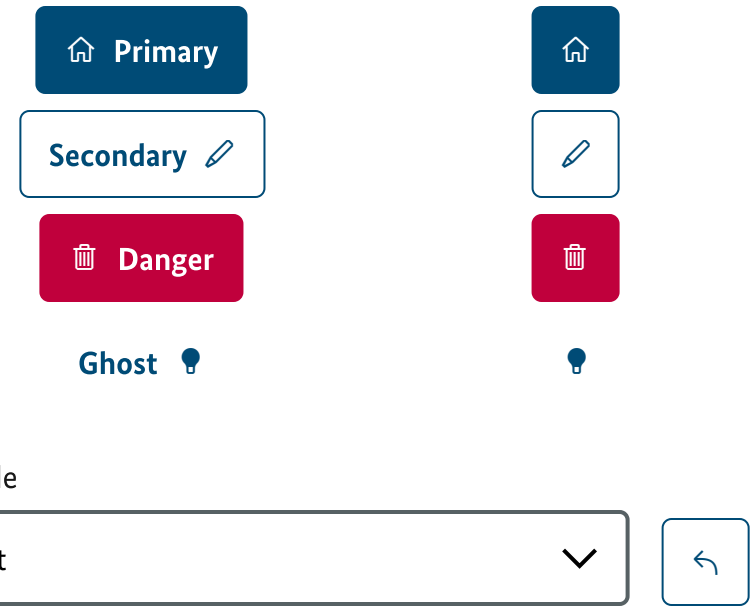

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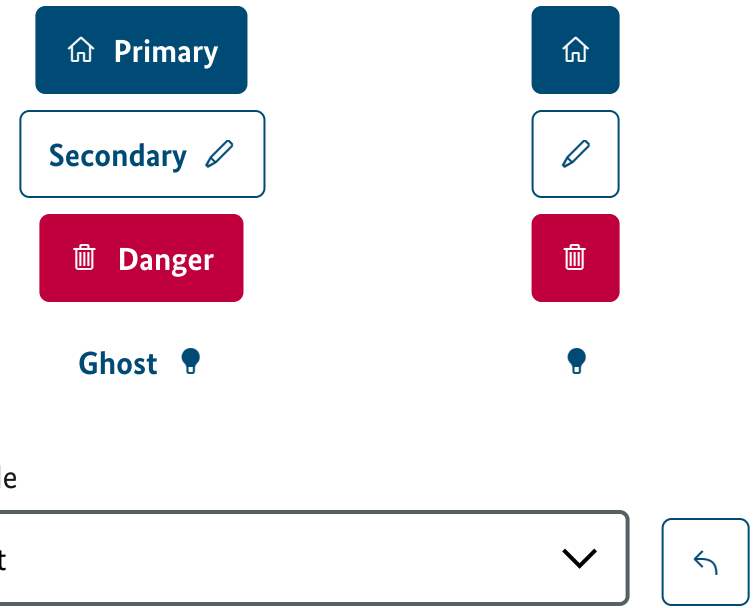

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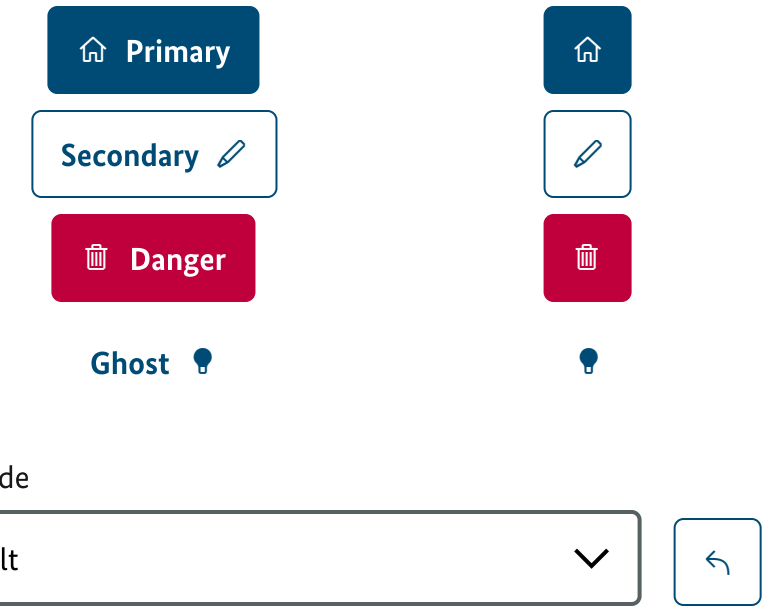

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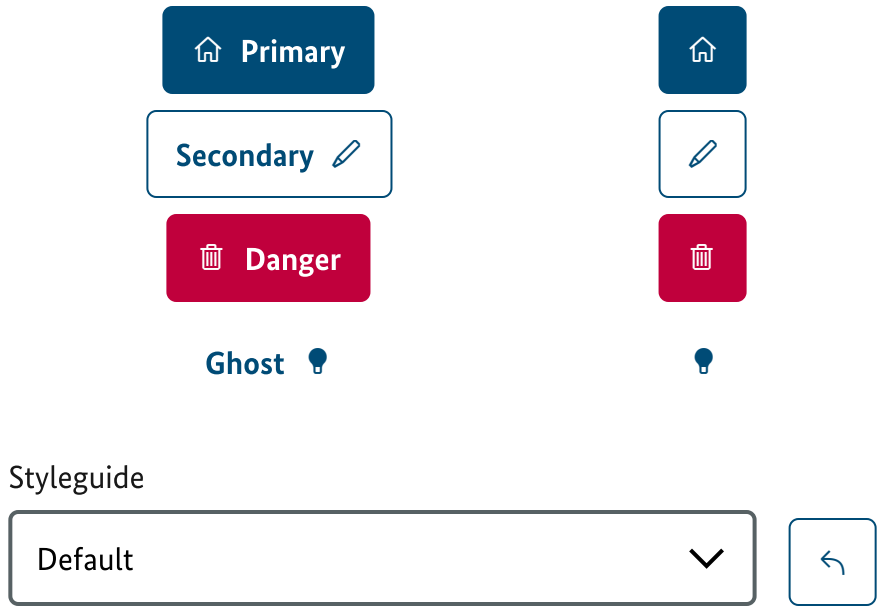

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Unique selling proposition

// What actually makes the difference?

From a public administration perspective, KoliBri has a number of unique selling points:

- **Accessibility** - comes first and before design.
- **Architecture** - universally applicable on the web.
- **Reusability** - small-scale and designable
- **Digital sovereignty** - code sovereignty lies with us
- **Robust** - protected from manipulation

Outlook

// Where to go with KoliBri?

Several design systems (e.g. **DeSyBri** and **KERN**) are already implemented on the basis of **KoliBri**. All existing components can be used and extended by own larger components.

The graphical design is done with the help of theming. For this the designer or also pure CSS, SCSS etc. can be used.

KoliBri is continuously developed further. Likewise innovations in the regulations (e.g. WCAG, EN and BITV) are constantly incorporated and checked by our experts for accessibility. The requirements of the federal administration and the open source community are taken into account.

License

// What is behind the EUPL license?

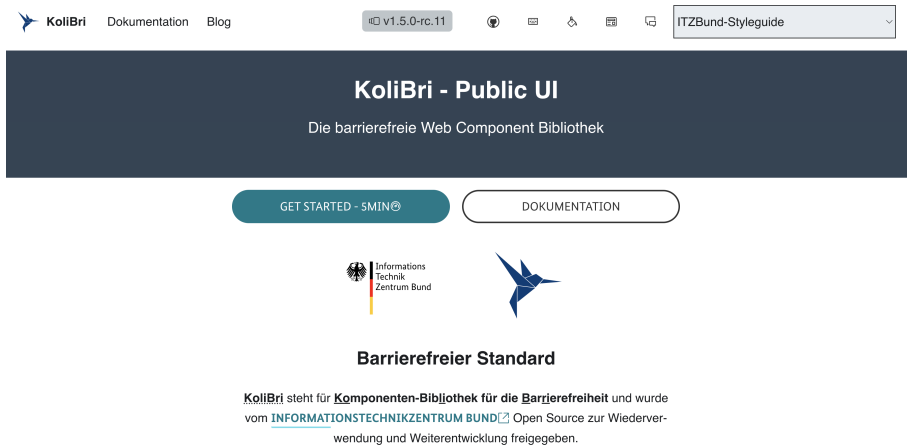
The "European Union Open Source License" (EUPL) is a copyleft license issued by the European Union for licensing free software.

- The pure use of artifacts is completely **unproblematic**.
- Copying code is protected by the license (**copyleft**)!

EUPL ensures free use and copyright protection.

Next steps

Here’s what you can do to get to know **KoliBri** ...



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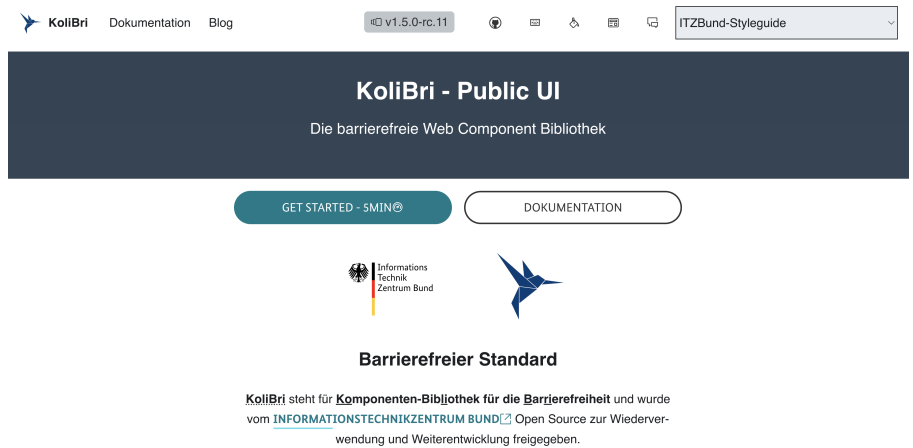

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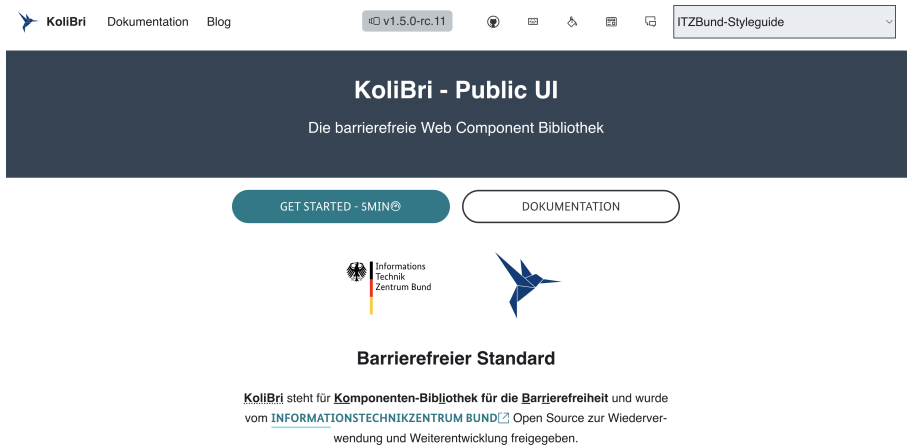

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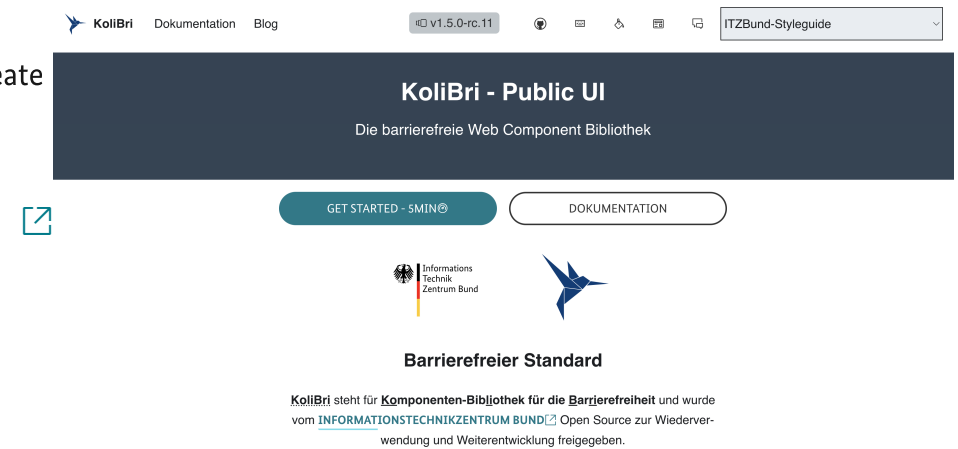

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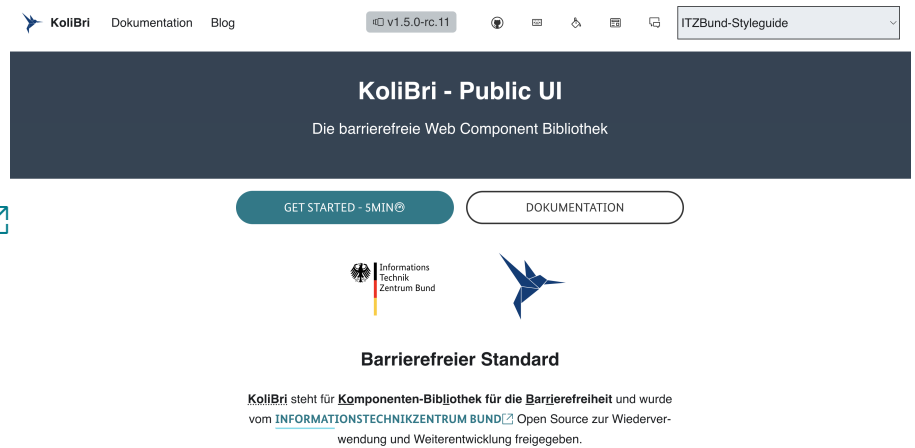

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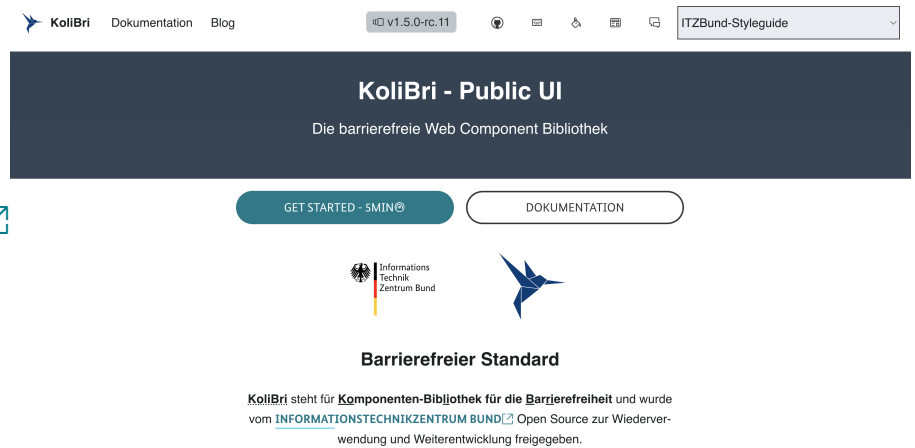
- https://public-ui.github.io/sample-react/#/button/basic (Samples)



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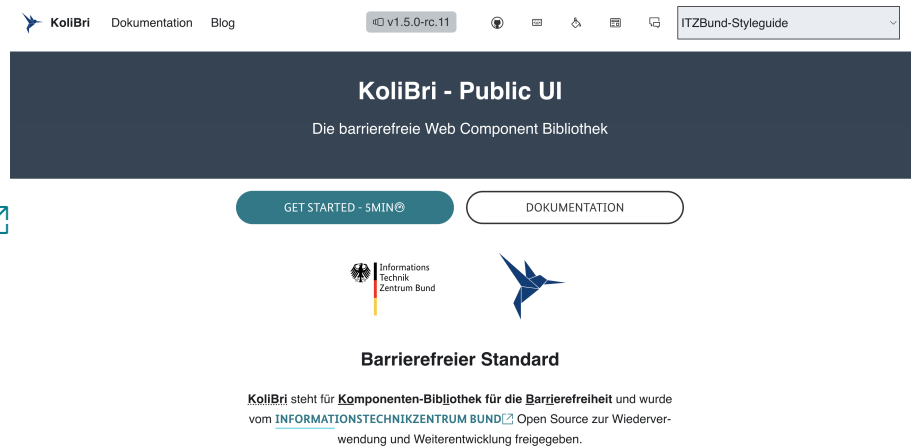
- https://github.com/public-ui/kolibri (Follow button)



Thank you for your attention

// Let's make KoliBri more colorful and better together!

https://public-ui.github.io | mailto:kolibri@itzbund.de | https://github.com/public-ui/kolibri

Informations
Technik
Zentrum Bund