„We currently invest heavily into optical fibre (FTTH/B) and from 2021 onwards will connect up to 2 millions households per annum...“

Dirk Wössner

Our levers to achieve the goal
- Minimize portion of manual tasks
- Integrate Geo & Business Data
- Standardize & automate workflows
- Enable processes for up-scaling
CENTRAL SERVICES OF THE SDI

Maps services
Basemaps
Thematic maps

Locations services
Where am I?

Search services
Geodata
Addresses
Business data

Dataservices
Service based access to attributes

Processingservices
Big data volumes
Complex calculations

Applications
WebGIS-Framework
Catalogue
Workflow-UIs
COMPONENTS OF THE SDI

FibreManager  OSM Importer  FME  Shogun
Surface Extractor & Classifier  Actinia  Mapfish  Geoserver
Geocoder  GRASS  Geonetwork  PostgreSQL PostGIS
MOTIVATION & REQUIREMENTS FOR USABILITY AND ACCESSIBILITY ASSESSMENT

Legal requirements

• The Web Accessibility Directive (Directive (EU) 2016/2102)

• German Disability Equality Act, 2018 (Behindertengleichstellungsgesetz - BGG)

Own motivation

• At Deutsche Telekom we believe that inclusion is a source of diversity, ingenuity, creativeness, and innovation

Deutsche Telekom and Daimler share 2019 the Inclusion Award in the "Corporate group" category.
ASSESSMENT OF USABILITY AND ACCESSIBILITY

Usability assessment goal and setup:
The goal of this assessment is the identification of potential usability problems which don’t meet the standards stated by

- DIN EN ISO 9241-14:2000 – Menu dialogs & navigation
- DIN EN ISO 9241-112:2017 – Principles for the presentation of information
- DIN EN ISO 9241-143:2012 – Forms

Accessibility assessment goal and setup:
The goal of this assessment is the identification of potential accessibility problems which don’t meet the standards stated by

- Barierrefreie-Informationstechnik-Verordnung (BITV 2.0)
- Web Content Accessibility Guidelines (WCAG 2.0)

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FINDINGS OF USABILITY ASSESSMENT

Overall aspects
• Some entries don’t have translations

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>excellent utilisable</td>
</tr>
<tr>
<td>2</td>
<td>good utilisable</td>
</tr>
<tr>
<td>3</td>
<td>utilisable with minor limitations</td>
</tr>
<tr>
<td>4</td>
<td>utilisable with considerable limitations</td>
</tr>
<tr>
<td>5</td>
<td>deficient utilisable</td>
</tr>
</tbody>
</table>

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FINDINGS OF USABILITY ASSESSMENT

Search
• Functions are not meaningful named
• Settings for filter, sorting and search can’t be re-set independently
FINDINGS OF ACCESSIBILITY ASSESSMENT

Weighting table

<table>
<thead>
<tr>
<th>Weighting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🍀 🍀 🍀</td>
<td>Severe accessibility blockade</td>
</tr>
<tr>
<td>🍀 🍀</td>
<td>Accessibility blockade</td>
</tr>
<tr>
<td>🍀</td>
<td>Minor accessibility blockade</td>
</tr>
<tr>
<td>👍</td>
<td>Correct implementation</td>
</tr>
</tbody>
</table>

Some important functions are not accessible via keyboard

User group

<table>
<thead>
<tr>
<th>Visually impaired users (Vi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blind users (B)</td>
</tr>
<tr>
<td>Users with motor disabilities (M)</td>
</tr>
<tr>
<td>Deaf users (D)</td>
</tr>
</tbody>
</table>

Weighting table

<table>
<thead>
<tr>
<th>Vi</th>
<th>B</th>
<th>M</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>🍀</td>
<td>🍀</td>
<td>🍀</td>
<td>🍀</td>
</tr>
</tbody>
</table>

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FINDINGS OF ACCESSIBILITY ASSESSMENT

Contrasts are partially to low and cannot be adapted/customised

Contents only partially accessible & tables not recognisable in structured manner with screenreader
DIALOG & OFFER TO THE OS-COMMUNITY

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Q & A