Überwachungsstelle des Bundes für Barrierefreiheit von Informationstechnik

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Accessible Digital Documents

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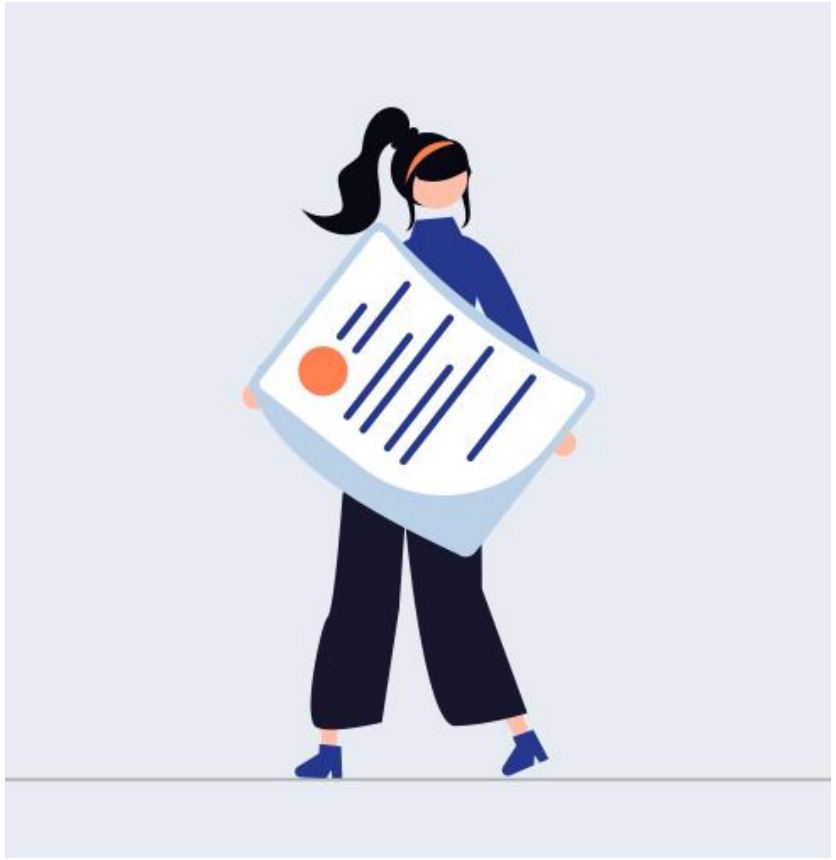
1. Are PDFs inherently inaccessible?

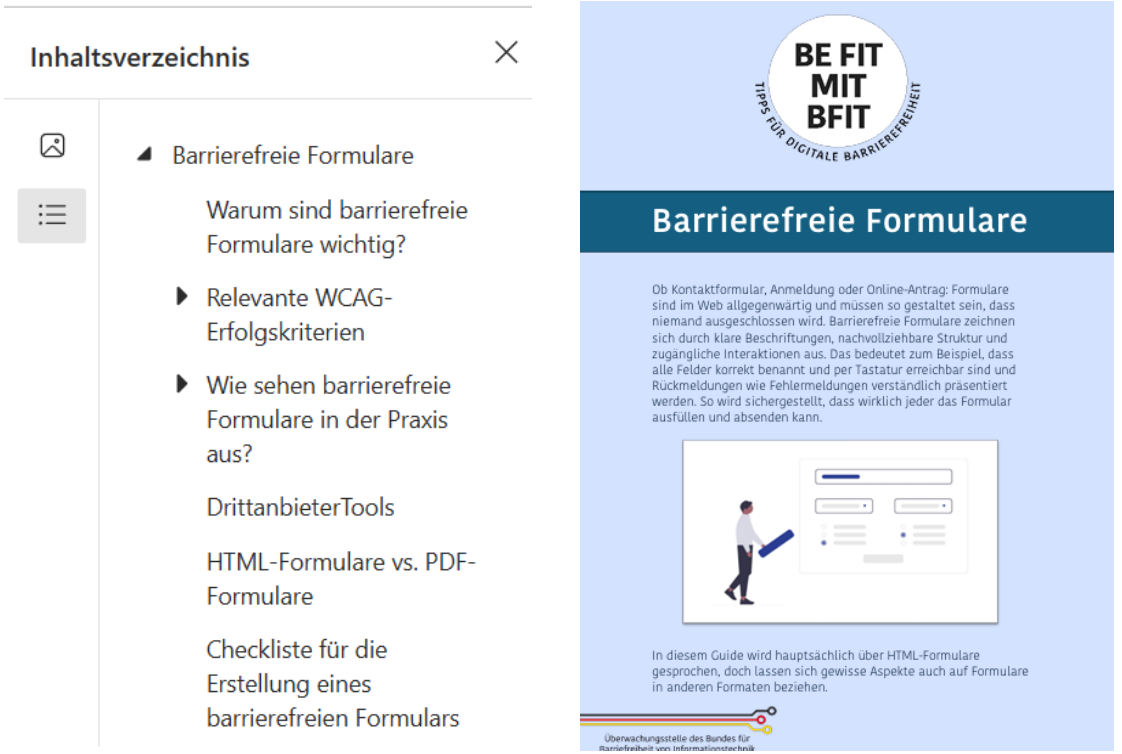
Inaccessibility of PDFs: A Common Concern

- "PDF: Why are Accessible PDFs so much trouble?" *(IT Accessibility, University of Illinois)*
- "Why GOV.UK content should be published in HTML and not PDF" *(Neil Williams, GOV.UK, Government Digital Service)*
- "Why we hate PDFs" *(Lucy Collins, Web Usability)*



Assistive technolgy and PDFs

- Assistive technology cannot directly **access** the content of a PDF, **only the tag structure**. Tags define both the type of content and the reading order.
- **Most PDFs** are **inaccessible**: Only 4.35 % of PDFs passed the PAC test in 2024 (BFIT EU report)



Tag structure (left) for the PDF document (right).

The problem: Untagged PDFs

- **Untagged PDFs** are sometimes **auto-tagged** by PDF viewers but **results** are often **incomplete or wrong**.
- Many **users prefer Word** documents, as its structure is directly accessible to assistive technology.

PDF/UA makes the difference

- **PDFs** can **outperform** their visual counterparts in accessibility, when they are properly created according to the **PDF/UA standard**.
- Assistive technologies can present information differently from the on-screen layout and **optimize for clarity**, e. g. a visually appealing table can be reformatted into linear, easy-to-read lists for screen reader users.

The root of PDF accessibility issues

- Image-only PDFs or missing semantic styles are **authoring problems**.
- **Accessibility** should be **built in from the start**, before exporting documents to PDF.
- Standard software often needs **plug-ins** or **add-ins for accessible PDF export** (even widely used tools like Microsoft Word).

2. How does the law ensure PDFs are accessible to everyone?

Legal Framework

	Public Sector	Private Sector
EU	Web Accessibility Directive (**WAD**): Public sector websites, software & documents must be accessible.	European Accessibility Act (**EAA**): Accessibility rules for many products & services, incl. private sector.
Germany	Barrierefreie-Informationstechnik-Verordnung (**BITV 2.0**): Implements WAD	Barrierefreiheitsstärkungsgesetz (**BFSG**): Implements EAA

BITV 2.0

- In force since **2019**
- Applies to **public sector** bodies (federal, state, municipal)
- Covers **websites, mobile applications** and **documents**

  → PDFs must be accessible according to PDF/UA and EN 301 549, clause 10.

BFSG

- In force since June 28, **2025**
- Consumer-facing **products** and **services** have to be accessible.
- Applies to **private businesses** (≥ 10 employees or > €2 M annual turnover)
- PDFs like contracts and onboarding material have to be **PDF/UA** compliant (see EN 301 549, clause 10)
- Legal grey zone: Invoices, newspapers,…

3. How does BFIT-Bund ensure PDF accessibility?

Our role as BFIT-Bund

- We **monitor** accessibility of federal websites, apps and documents.
- We **advise** public bodies on digital accessibility.
- We **report** to the EU and the BMAS on the state of digital accessibility in Germany.
- We **recommend** standards and best practices through expert committees.

How do we test PDF accessibility?

- **Simplified Monitoring:**

  One PDF is checked via an automatic PAC test.

  If the PDF passes: Manual spot-check.

- **In-Depth Monitoring:**

  First PDF: Automatic PAC test.

  Second PDF: Full audit, including manual checks.

Automatic tests vs. manual checks

- **Automatic testing tool** cannot reliably detect **semantic issues**. E. g. quality of alt text for images, correct reading order, meaningful labeling of form fields, …
- Therefore, **manual testing** remains **essential** to catch these accessibility issues.

Most common PDF accessibility issues identified by us:

1. Identify Input Purpose (EN 10.1.3.5)
2. Error Identification (EN 10.3.3.1)
3. Info and Relationships (EN 10.1.3.1)
4. Non-text Content (EN 10.1.1.1)
5. Page Titled (EN 10.2.4.2)

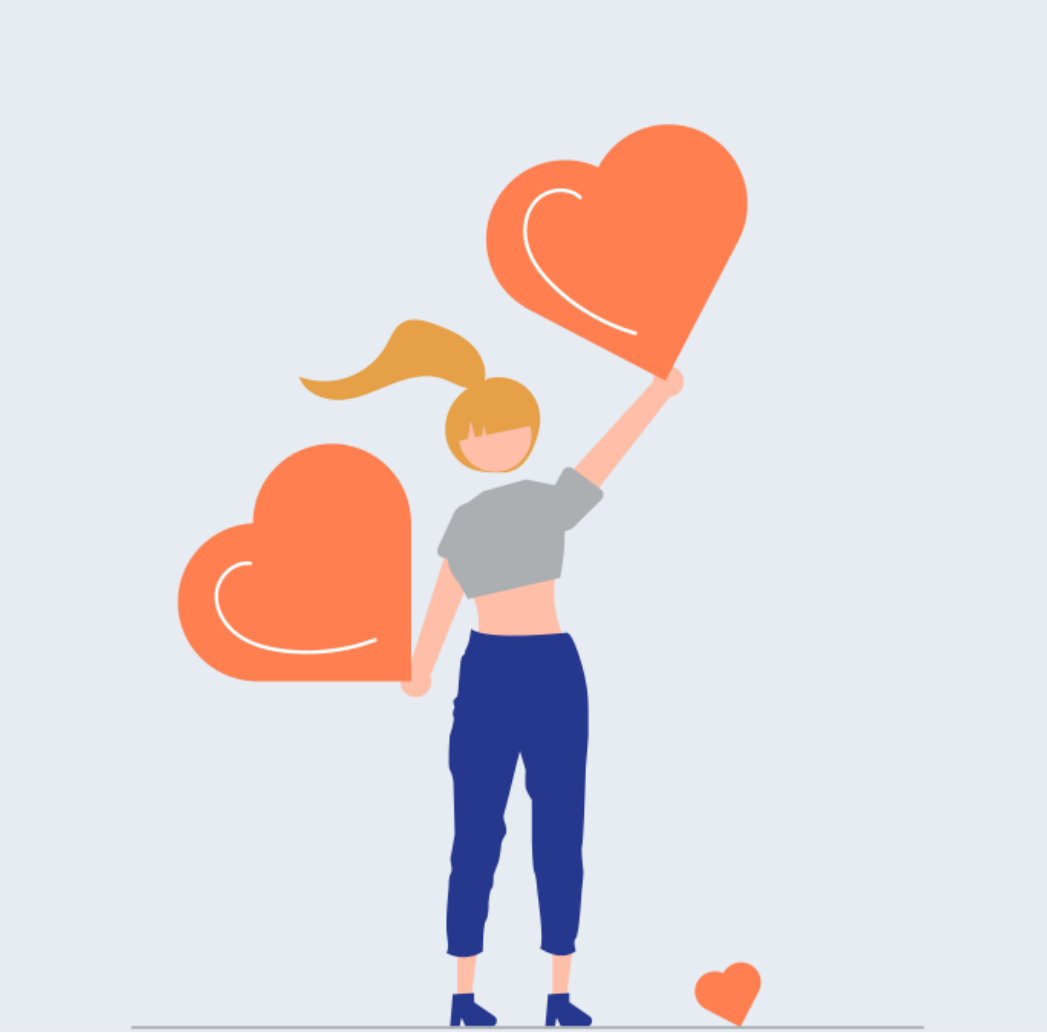
4. Key takeaways and open questions

Key takeaways

- Creating accessible PDFs is achievable by adhering to the **PDF/UA standard**.
- Many PDFs are inaccessible due to common **authoring mistakes**.
- Accessible PDFs are **legally mandated** in Germany (BITV 2.0, BFSG) and across the EU (WAD, EAA).

How can we create more accessible PDFs?

- **Train authors:** Invest in authoring training for accessible document creation.
- **Improve export feedback:** Advocate for enhanced export validation and real-time warnings in authoring software.
- **Use comprehensive testing:** Combine automated tools with manual checks.



Thank you!

www.bfit-bund.de

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Further tips on digital accessibility can be found on LinkedIn under @BFIT-Bund.