ACCESSIBILITY
1 2 3 4 5 6 7 8 9 10 11

A11Y

—

Digital accessibility
in a nutshell

WHAT IS ...

… Digital accessibility?

Digital accessibility or A11Y ensures that **every person has the same experience** and can use digital products. Regardless of the digital format.

MOBILE APPS

DIGITAL DOCUMENTS

WEBSITE PAGES

FACTS AND FIGURES

In Europe,
digital accessibility is for:

7% ESSENTIAL
31.2 million people with
a severe disability.

27% NECESSARY
About 101 million people
with other disabilities,
such as impaired vision,
poor concentration, ...

21% SUPPORTIVE
As people age, there is
often an increased need
for support.

100% HELPFUL
High user-friendliness
and intuitive usage is
helpful for all of us.

WHY ACT NOW?

4 REASONS TO ACT

1. Implementation is mandatory due to regulation

2. Penalties for non-compliance

3. Increasing amount of online users with disabilities and impairments due to demographic change

4. Starting accessibility early reduces implementation scope

5 GAINS FOR FREE

1. Improved usability leads to increased user satisfaction

2. Improved SEO

3. Increase of potential customer groups

4. Overcomes technical limitations such as small displays or situational constraints

5. Lower customer support efforts

FOR WHOM?

Accessibility helps people with all kinds of disabilities. Every person can also be temporarily or situationally limited at some point.

MOBILITY

Permanent	Amputation
Temporary	Injuries
Situational	Holding a baby

VISION

Permanent	Blindness, impairment
Temporary	Eye injury
Situational	Reflecting sunlight

HEARING

Permanent	Deafness, hardness of hearing
Temporary	Infection, acute hearing loss
Situational	Background noises

COGNITIVE

Permanent	Dementia, brain fog
Temporary	Migraine, fatigue
Situational	Multitasking

LEARN MORE:

OLDER PEOPLE

✗ **PAIN POINTS …**

- _ Small navigation and interaction elements
- _ Overlapping elements when zooming
- _ Low contrasts
- _ Complex texts

✔ **… AND HOW TO RELIEVE THEM**

- _ Large navigation and interaction elements
- _ Resizing of content and responsive design
- _ High contrasts
- _ Use of easy language

MOTOR DISABILITIES

✗ PAIN POINTS …

- _ Dynamic components that require quick mouse movements
- _ Short time outs for interactions
- _ Bunched interactions together
- _ Forced precise interactions

✔ … AND HOW TO RELIEVE THEM

- _ Design for keyboard and/or speech input
- _ Visible focus
- _ Provide shortcuts
- _ Give form fields space

BLIND-NESS

✗ PAIN POINTS …

- _ Forced to use click or touch input
- _ Unstructured content
- _ Uninformative or meaningless headings and labels
- _ Important information only in image or video content

✔ … AND HOW TO RELIEVE THEM

- _ Provide screen reader functionality
- _ Semantic content using HTML5
- _ Use descriptive labels, headings and links
- _ Describe images and for videos subtitles or audio description

DEAF-NESS

✗ PAIN POINTS …

- Content in audio or video only
- Phone as the only way of contact
- Use of complicated words

✔ … AND HOW TO RELIEVE THEM

- Subtitles or transcripts for videos
- Provide multi-channel support
- Use linear logical layout
- Two way voice-communication

READING DISABILITIES

✗ PAIN POINTS …

- _ Large blocks of complex text
- _ Forced to remember things
- _ Capital letters, underlined text or italic
- _ Too much textual information

✔ … AND HOW TO RELIEVE THEM

- _ Keep content short, clear and simple
- _ Consistent navigation and identification
- _ Linear and logical structure
- _ Combination of shape, colors and text
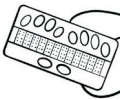
HOW CAN ...

… assistive technologies help?

Navigating digital content with disabilities can be challenging. But there are technologies to help with that.

SCREEN READER
Helps people to perceive content of a web page through conversion to other formats such as speech or braille.

BRAILLE DISPLAY
Computer output device for blind people that displays characters in braille.

VOICE CONTROL
Input and output is done via spoken language.

SIP-&-PUFF-SWITCHES
This switch translates sips and puffs into independent switch closures.

SCREEN MAGNIFIER
Helps people to see content of a web page.

HOW CAN ...

... adaptive strategies help?

Adaptive strategies can help
coping with hard to access content
and digital services.

TEXT ZOOM

Makes text easier
to read and increases
understanding.

CAPTIONS

Displays speech and
auditory information of
a video.

HIGH CONTRAST MODE

Helps people to better
distinguish content.

PERSONAL
CONFIGURATIONS

Helps people to fit the
interaction to their needs.

WHAT IS WCAG?

The Web Content Accessibility Guidelines are categorized as follows:

Perceivable
information and user interface

| 1.1 Text alternatives | 1.2 Time-based media |

| 1.3 Adaptable | 1.4 Distinguishable |

A 9x · **AA** 11x · **AAA** 9x

Operable
user interface and navigation

| 2.1 Keyboard accessible | 2.2 Enough time |

| 2.3 Seizures and physical reactions |

| 2.4 Navigable | 2.5 Input modalities |

A 14x · **AA** 6x · **AAA** 14x

Understandable
information and user interface

| 3.1 Readable | 3.2 Predictable |

| 3.3 Input assistance |

A 8x · **AA** 6x · **AAA** 7x

Robust
content and reliable interpretation

| 4.1 Compatible |

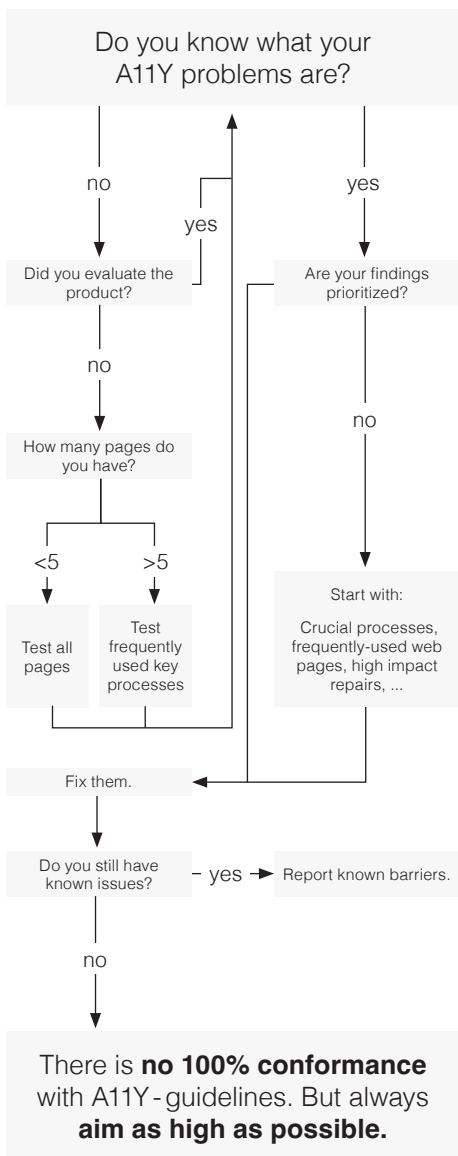**A** 1x · **AA** 1x · **AAA** 0x

LEARN MORE:

HOW TO GET STARTED?

1. Raise awareness with stakeholders

2. Evaluate the product

3. Stop the bleeding by implementing A11Y-guidelines for every new development

4. Start fixing the issues with the most impact

5. Fix your key processes which are frequently used

6. Report content, that has known barriers

7. Make a plan for long term management of A11Y

WHERE TO START?

Do you know what your A11Y problems are?

no → Did you evaluate the product?

yes → Are your findings prioritized?

Did you evaluate the product?

no → How many pages do you have?

yes (back to: Do you know what your A11Y problems are?)

How many pages do you have?

<5 → Test all pages

>5 → Test frequently used key processes

Are your findings prioritized?

no → Start with:

Crucial processes, frequently-used web pages, high impact repairs, ...

Fix them.

Do you still have known issues?

– yes → Report known barriers.

no ↓

There is **no 100% conformance** with A11Y - guidelines. But always **aim as high as possible.**

WHY IS ...

... A11Y a team effort? – Part 1

Management & Product

✔ Build awareness and knowledge about A11Y in the team

✔ Set A11Y goals

✔ Define clear A11Y requirements

Design

✔ Create accessible text and multimedia content.

✔ Consider all different types of user interaction, e.g. like keyboard users.

✔ Design easy visual layouts and choose clear colors.

WHY IS ...

… A11Y a team effort? – Part 2

Development

- ✔ Implement correct structure and semantics
- ✔ Use native HTML elements
- ✔ Understand ARIA
- ✔ Do unit testing

Test

- ✔ Building specialization and qualification in the team for A11Y testing
- ✔ Do automatic and manual testing

LEARN MORE:

HOW CAN ...

… web technologies support A11Y?

HTML, CSS and **JavaScript** are already a good foundation for A11Y, if **used correctly.** That means:

Use semantic HTML
Example: Button

```
<button>Click here!</button>
```

✔ **DO**

```
<div>Click here!</div>
```

✗ **DON'T**

If HTML is not sufficient, use ARIA
Example: Alert

```
<div id="alert-message" role="alert" aria-label="alert message">
  <p>Insert dynamic content here</p>
</div>
```

✔ **DO**

```
<div id="alert-message">
  <p>Insert dynamic content here</p>
</div>
```

✗ **DON'T**

PLEASE NOTE:

Always try to sustain A11Y through considerations such as:

_ align semantic and visual meaning

_ unobstrusive use

_ keep keyboard interaction in mind

_ and more!

LEARN MORE:

WHAT IS ...

… the European Accessibility Act?

The European Accessibility Act is intended to ensure that everyday digital services are accessible without any constraints throughout Europe.

For the requirements the EAA refers to the EU Norm, which is largely based on the international standard WCAG.

**EAA
European Accessibility Act**

refers to

EN 301 549

European **N**orm for Digital Accessibility

refers to

WCAG 2.1

Web **C**ontent **A**ccessibility **G**uidelines

GLOSSARY

W3C
World Wide Web Consortium
Develops standards for the World Wide Web.
https://www.w3.org/

WAI
Web Accessibility Initiative
Develops the WCAG. Working group of the W3C.
https://www.w3.org/WAI/

ARIA
Accessible Rich Internet Application
ARIA extends an HTML element with semantic properties.
https://www.w3.org/TR/wai-aria/

GLOSSARY

ATAG

Authoring Tool Accessibility Guidelines

They explain how to make author tools or content creation systems accessible.

https://www.w3.org/WAI/standards-guidelines/atag/

UAAG

User Agent Accessibility Guidelines

They explain how to make user agents (e.g. browser) accessible.

https://www.w3.org/WAI/standards-guidelines/uaag/

IMAGE DIRECTORY

Page 2, 3, 11, 12, 14, 22:
designed by freepik.com

Page 2, 6, 7, 8, 9, 10:
designed with hotpot.ai/art-generator

Page 11:
Braille display: https://makeitfable.com/glossary-term/braille-display/

SPRINTEINS

GREAT PEOPLE MAKE GREAT SOFTWARE

28.06.2025

Are you ready?

yes

no

Thank you for making the world more accessible!

CONTACT US!