

DIGITAL INCLUSION



INTRODUCTION

INCLUSION WHAT?

Communication

Partnerships

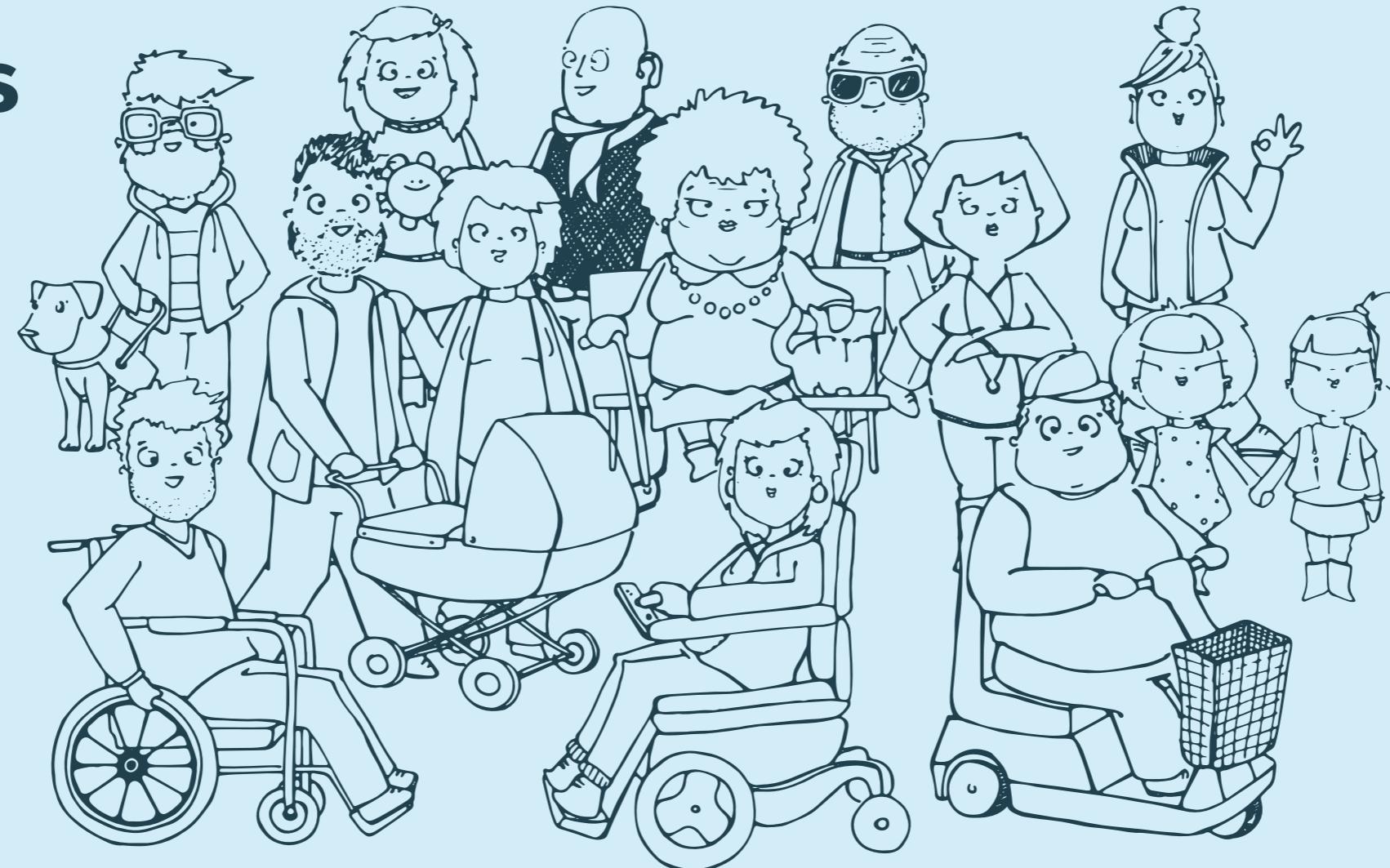
Choice

Opportunities

Activities

Access

Policies



Creating an inclusive digital world, including and integrating all people and groups, each with their own digital skills, (dis)abilities and challenges.
To ensure everyone can have access and enjoy all parts of society.

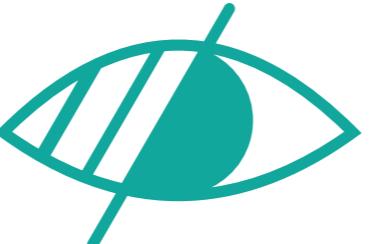
Cognitive



Difficulties with understanding texts and complex user interfaces.

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Visual



Difficulties with visual information, small texts and low contrast.

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Motory



Difficulties with physical/touch interfaces and far to reach info.

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Hearing

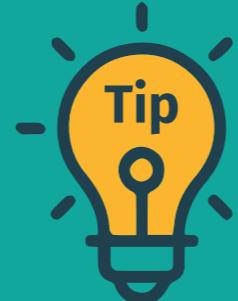


Difficulties with audio information, language and texts.

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A lot of people have a cognitive, visual, motory or hearing challenge, which makes it harder to use and understand digital tools and functions.



Do a persona brainstorm for people different digital skills, backgrounds, dreams, goals, frustrations, challenges/ (dis)abilities and motivations.

COGNITIVE CHALLENGES

Use short and easy to understand texts and titles. Avoid complex words and language.

Use clear layouts, navigation, images icons and other media.

Put your info in a logical order, from most important to less important.

Avoid flashing video or animations that disappear quickly.

Avoid complex interactions and functions like carousels and tables with tabs.

Help users avoid mistakes and know how to correct them.



[https://uxdesign.cc/
b208dc132a8c](https://uxdesign.cc/b208dc132a8c)

[https://www.inclusion-europe.eu/
easy-to-read/](https://www.inclusion-europe.eu/easy-to-read/)



Show your design at someone without a lot of technical skills.

VISUAL CHALLENGES

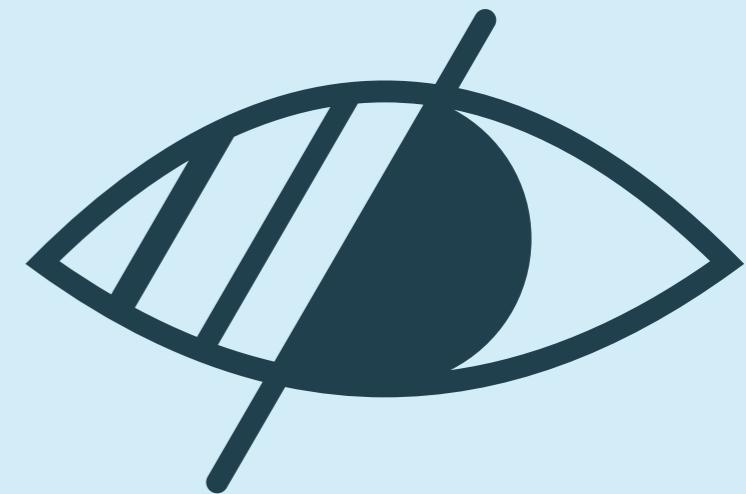
Use high contrast and clear colours.

Use a clear and big enough font (sans serif).

Use tab navigation that is compatible with third party screen-readers.

Any image that contains a link or has critical information in the image itself needs alternative text.

Avoid text on images.



[https://uxdesign.cc/
a8ee4bb3aef8](https://uxdesign.cc/a8ee4bb3aef8)

<https://contrastchecker.com>

[https://davidmathlogic.com/
colorblind](https://davidmathlogic.com/colorblind)



Screenreaders
Braille keyboard
Braille display
Screen magnifier



Test your design with
an online color and
contrast checker.

MOTORY CHALLENGES

Use big buttons/Clickable areas for touch user interfaces. Use enough spacing between text and buttons.

Avoid the need to click too much to find information. Put your info in a logical order, from most important to less important.

Use alternative interactions with voice commands, eye tracking and hand gestures.

Avoid time dependent or dragging functions.



Use your less dominate hand to test out your touch interface.



**Keyboard with bigger keys
On screen keyboard
Joystick/ergonomic mouse
Other alternative input device**

HEARING CHALLENGES



When using media like videos with audio, use subtitles, transcriptions and sign language interpreters.

Use different colour subtitles if more than 1 person is talking. Use a neutral background.

Avoid background music and sounds.

Use clear images and icons, avoid too much text.



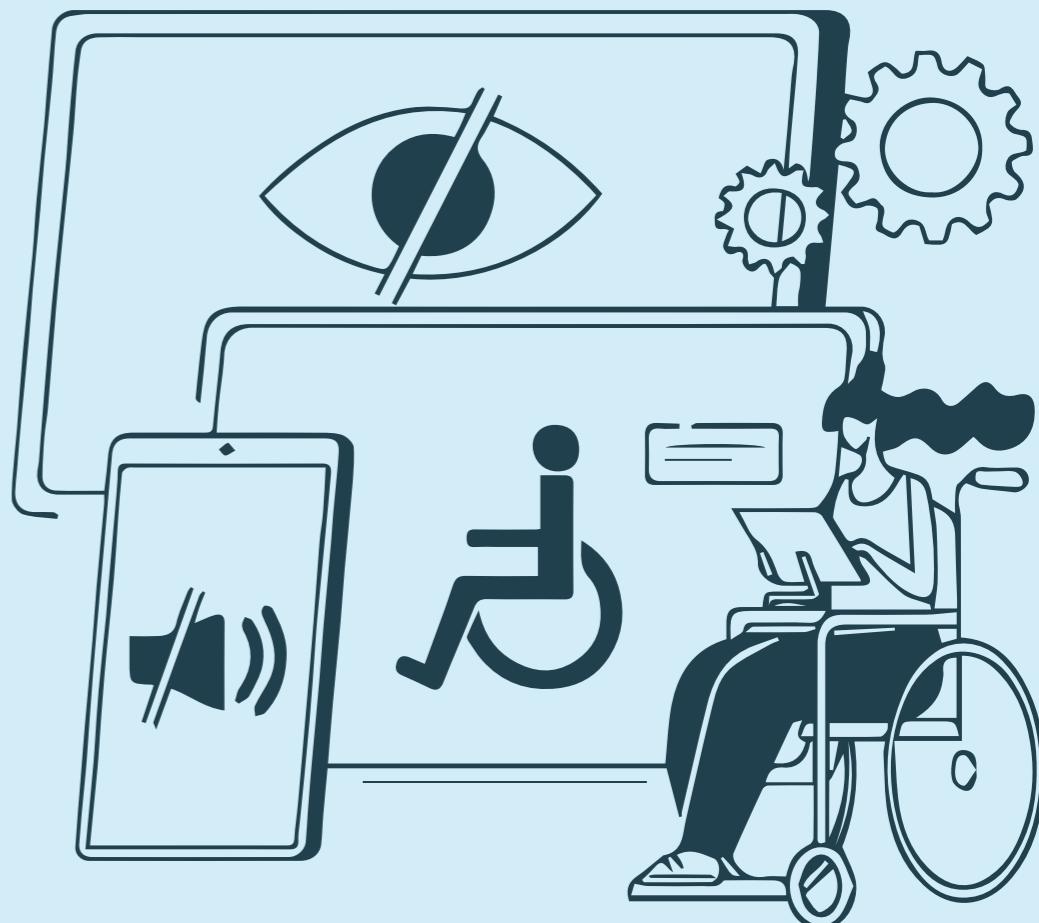
Watch your video or animation without sound.



**Hearing/induction loops
Infrared (IR) systems
FM/radio frequency systems
Bluetooth technology**

WCAG REGULATIONS

The Web Content Accessibility Guidelines (WCAG) are technical standards designed to make online content more accessible to people with a wide range of disabilities, including blindness, deafness, limited movement, and many others.



Perceivable



The users should be able to perceive it using different senses

Operable



User interface and navigation must be usable for all (dis)abilities.

Understandable



Information and the operation of user interface must be understandable.

Robust



Maximal compatibility with current and future other technologies.

Since 2021 all European members states must ensure that websites and mobile applications of public sector bodies are ‘more accessible’.

We use the WCAG A, AA and AAA levels system to check how accessible the application is:

Principles	Guidelines	Level A	Level AA	Level AAA
1. Perceivable	1.1 Text alternatives 1.2 Time-based media 1.3 Adaptable 1.4 Distinguishable	1.1.1 1.2.1 - 1.2.3 1.3.1 - 1.3.3 1.4.1 - 1.4.2	1.2.4 - 1.2.5 1.4.3 - 1.4.5	1.2.6 - 1.2.9 1.4.6 - 1.4.9
2. Operable	2.1 Keyboard accessible 2.2 Enough time 2.3 Seizures 2.4 Navigable	2.1.1 - 2.1.2 2.2.1 - 1.2.2 2.3.1 2.4.1 - 1.4.4		2.1.3 2.2.3 - 2.2.5 2.3.2 2.4.8 - 2.4.10
3. Understandable	3.1 Readable 3.2 Predictable 3.3 Input assistance	3.1.1 3.2.1 - 3.2.2 3.3.1 - 3.3.2	3.1.2 3.2.3 - 3.2.4 3.3.3 - 3.3.4	3.1.3 - 3.1.6 3.2.5 3.3.5 - 3.3.6
4. Robust	4.1 Compatible	4.1.1 - 4.1.2		



<https://www.w3.org/TR/WCAG21>

<https://fae.disability.illinois.edu>

<https://www.w3.org/WAI/ER/tools/>

<https://github.com/appt-org/accessibility-code-examples>

https://www.pcc.edu/instructional-support/wp-content/uploads/sites/17/2017/11/WebA11Y-HB2_Print-HiRes.pdf



Test your website with online accessibility testers.

INCLUSIVE DESIGN/CONTENT

When designing communications and digital content keep the principles of inclusive design in mind:

- 1. Think about context**
- 2. Be consistent**
- 3. Give control to the user**
- 4. Add value**
- 5. Give choices to the user**
- 6. Prioritise content**
- 7. Offer the same experience for all users**



INCLUSIVE EXPERIENCES

Don't be afraid to think out of the box and create inclusive experiences that are multisensorial:



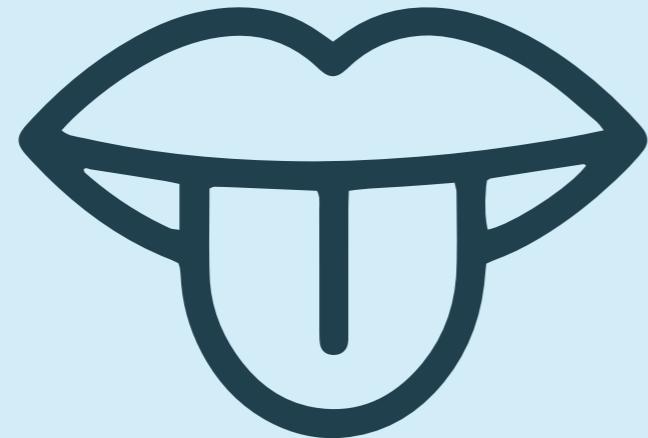
Sight



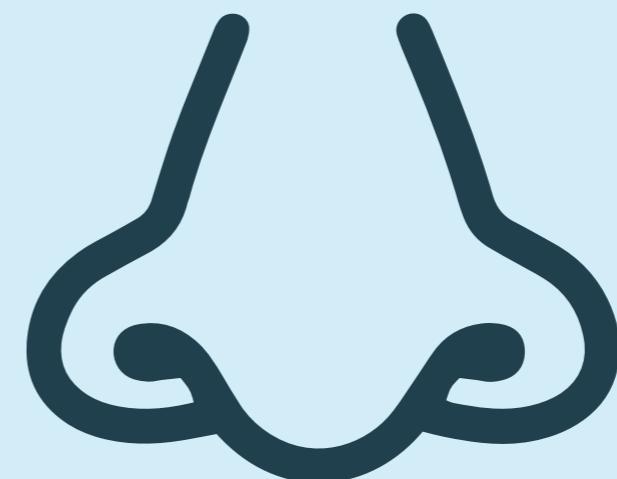
Hear



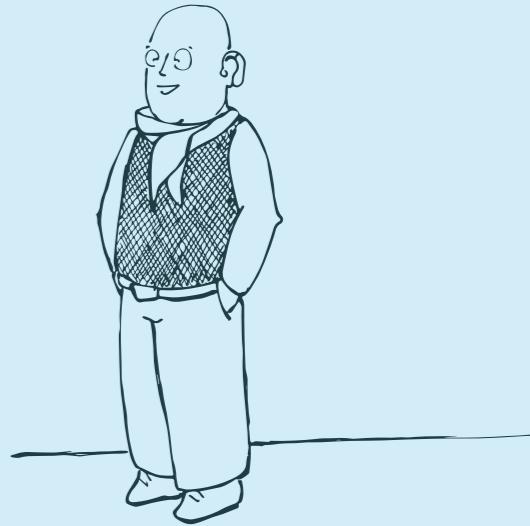
Touch



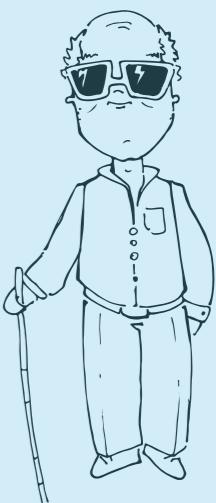
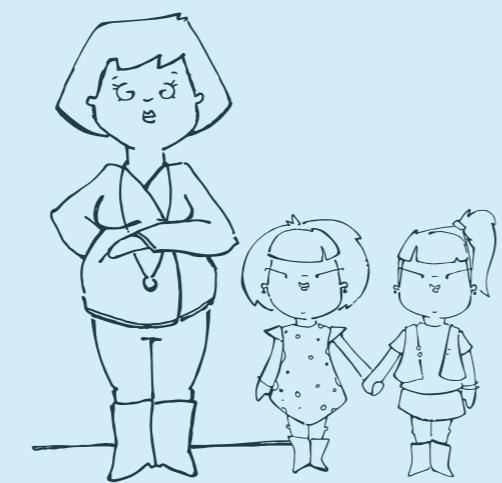
Taste



Smell



Work together with user experts with cognitive, visual, motory and hearing challenges.



osoc 2022



QUESTIONS?

accessibility in Discord

CT STEWARD
Smart, sustainable and inclusive cities