net zero. international

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Greening your charity

Community Action Dacorum

David Hawes: Net Zero International

- Co-Founder at Net Zero International (NZI)
- NZI is a Net Zero solutions business partnering companies with carbon accounting, reporting, training, strategy, policy and advice
- Partner with businesses large (25,000 staff) and small (6 staff) across all industries in all aspects of Net Zero
- Founding member of #hertsgogreenandgrow
- Founding member of the Carbon Accounting Alliance
- https://netzero.international/

Louise Towler

MD of **Indigo Tree**, a UK based WordPress agency, with expertise in accessibility, technical SEO and commercial performance.

Founder of **Kanoppi**, a WordPress extension to measure the carbon footprint of your website.

- Royal College of Art: Service Innovation Practitioner
- The Linux Foundation: Green Software for Practitioners
- CMI Level 4 Award: Carbon Reporting
- University Hertfordshire: Entrepreneur in Residence + Business School Board
- Studying for Level 6 Apprenticeship: Service Design

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Climate Change and Net Zero

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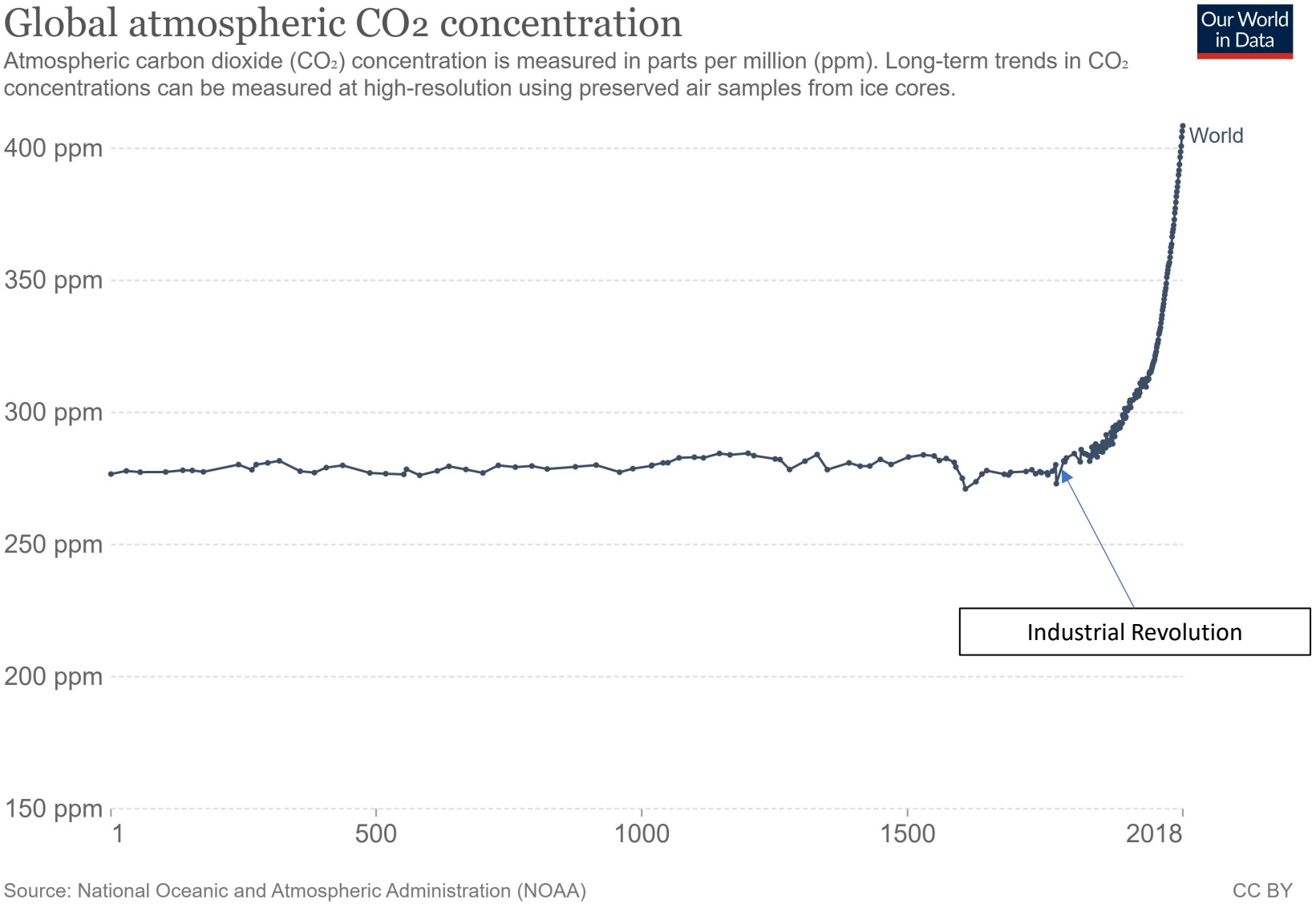
Climate Change – Our Biggest Challenge



- The planet is warming as a direct result of the amount of Greenhouse Gases in the atmosphere
- Estimates are that every 1°C rise in global temperatures displaces c. 1 billion people

Source: https://www.theguardian.com/environment/2020/may/05/one-billion-people-will-live-in-insufferable-heat-within-50-years-study

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Climate Change Impact

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Net Zero is the World's solution to tackling Climate Change

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The World is Committed to Net Zero

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- In 2015 COP21 (Paris) committed the world to limit global warming to no more than 2.0°c, ideally 1.5°c, from pre-industrial levels, by 2100.
- Science Based Targets, which support this, require reductions in greenhouse gas emissions (GHGs), from 1990 levels, of 50% by 2030 and Net Zero no later than 2050.
- In 2019 the UK Government enshrined Net Zero into law, meaning all businesses must be Net Zero by 2050 or cannot trade.

- Under the Paris Agreement countries must submit Nationally Defined Contributions (NDCs) every five years to detail how and when they will achieve Net Zero.
- NDCs must be supported by legislation that get progressively stricter.
  - e.g. ban on petrol and diesel car sales and then HGV's.
- In 2021 COP26 (Glasgow) agreed that NDCs would be updated annually and the basis for a global carbon tax will be introduced.
- All businesses will face increasing legislation and cost, which will force them to act faster and harder to reach Net Zero.

What is Net Zero?

To be Net Zero a business will need to mitigate a minimum of 90% of it's baseline emissions. With the residual being offset via recognised offsetting schemes

Being Net Zero will increasingly become a requirement to do business

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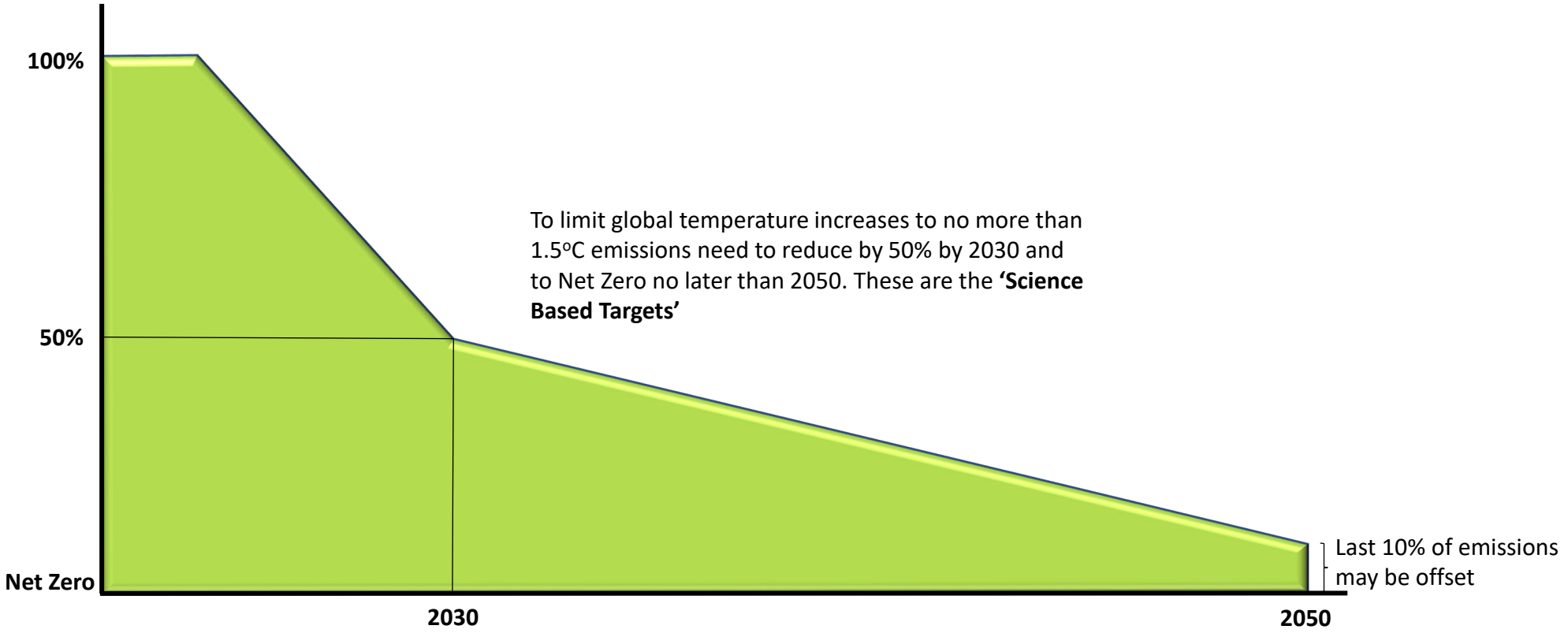
What Is Net Zero?

To achieve Net Zero we need to reduce Greenhouse Gas emissions by a minimum of 90%. The remaining 10% can then be offset to achieve Net Zero emissions.



Offsetting emissions when they can be mitigated will have an increasing cost

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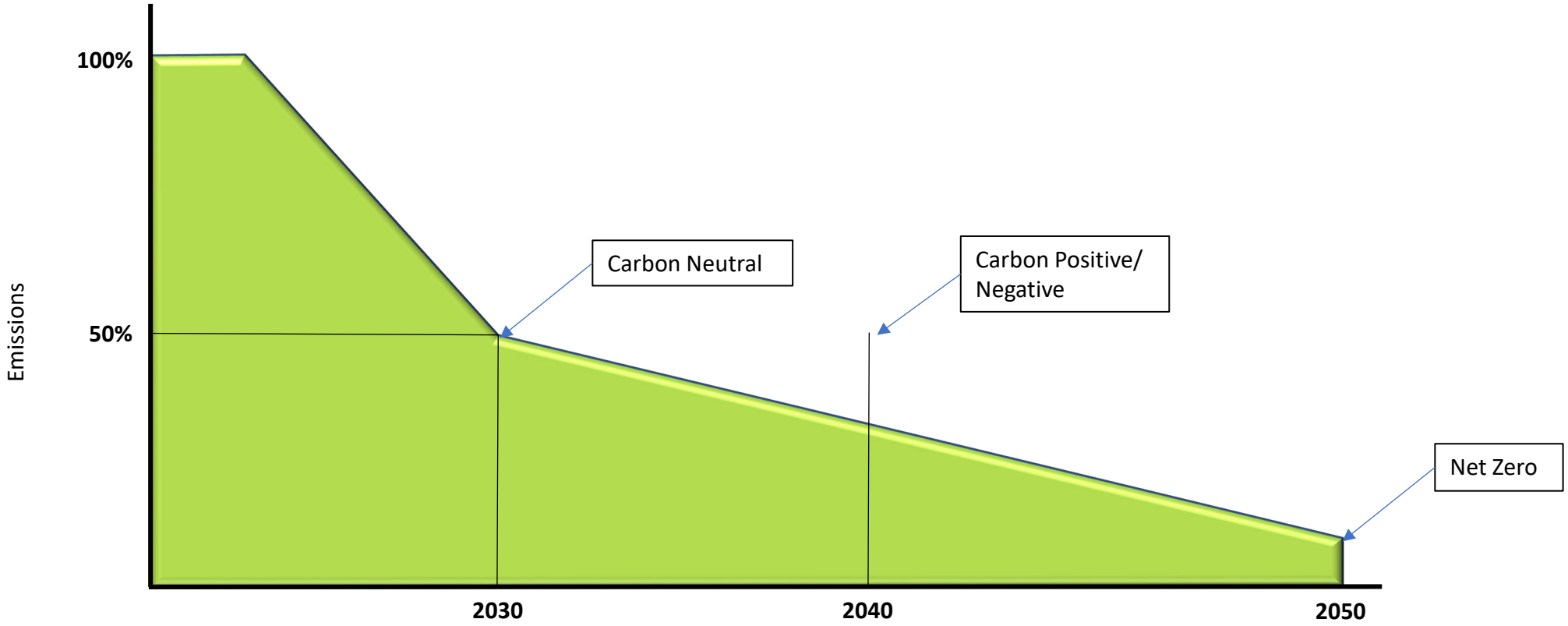
Net Zero v Carbon Neutral v Carbon Positive/Negative



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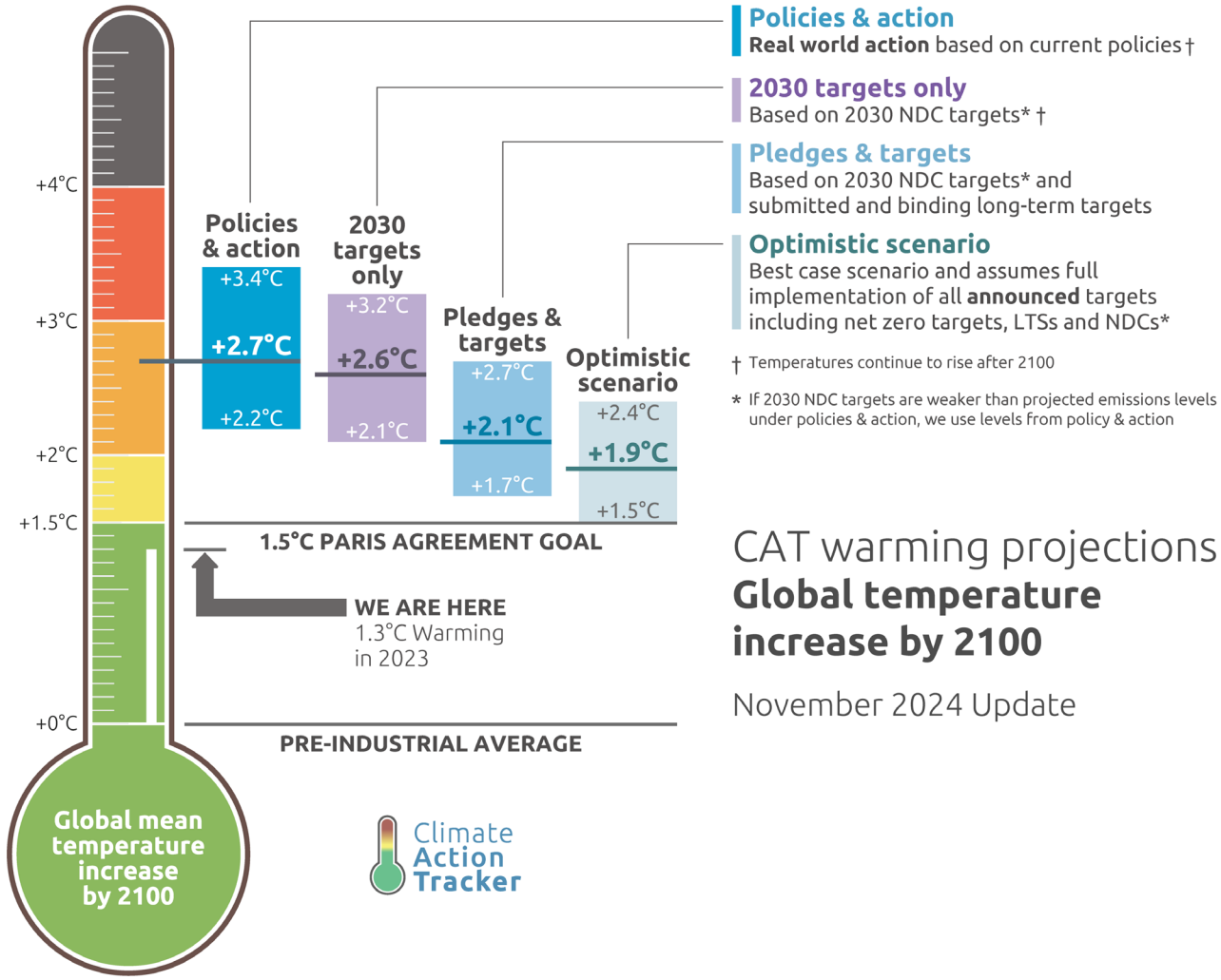
Net Zero Pledges and Targets – A Long Way to Go



CAT warming projections
Global temperature increase by 2100

November 2024 Update

"There remains a substantial gap between what governments have promised to do and the total level of actions they have undertaken to date."

Source: https://climateactiontracker.org/

https://climateactiontracker.org/publications/the-climate-crisis-worsens-the-warming-outlook-stagnates/

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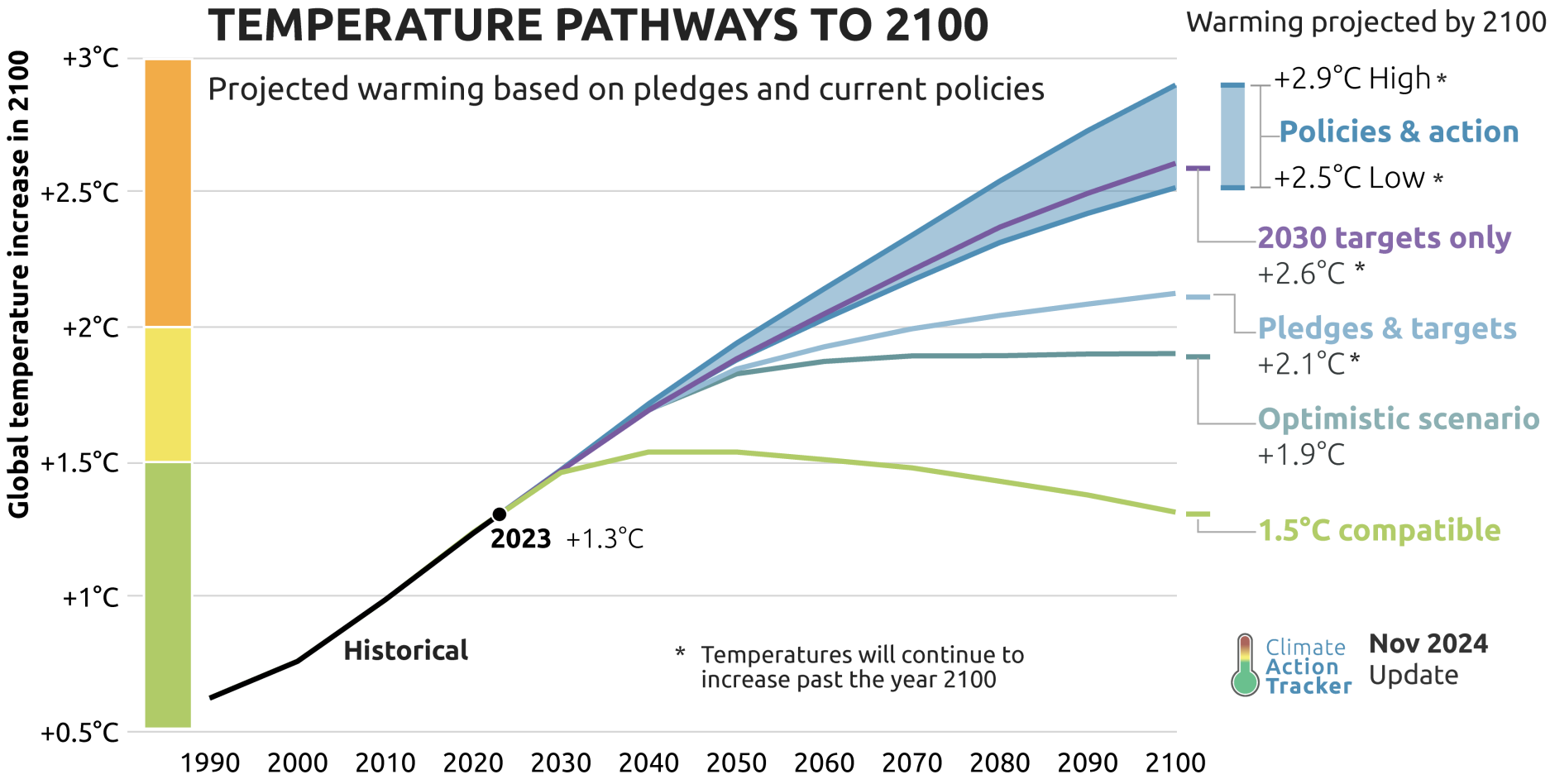
Net Zero Pledges and Targets – A Long Way to Go



https://climateactiontracker.org/publications/the-climate-crisis-worsens-the-warming-outlook-stagnates/

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Net Zero Policy

International

- UNFCCC
- Annual COP Summits
- IPCC
- NDCs
- SDGs
- CSRD – Europe Only

UK

- Net Zero by 2050 (legally binding)
- Net Zero Strategy Published
- Climate Change Committee
- SECR Reporting
- PPN 06/21
- ISSB
- UK SDS (in Q1 2025)

UK

- **81%** Net Zero by 2035
- Net Zero by 2050

- Scotland Net Zero by 2045

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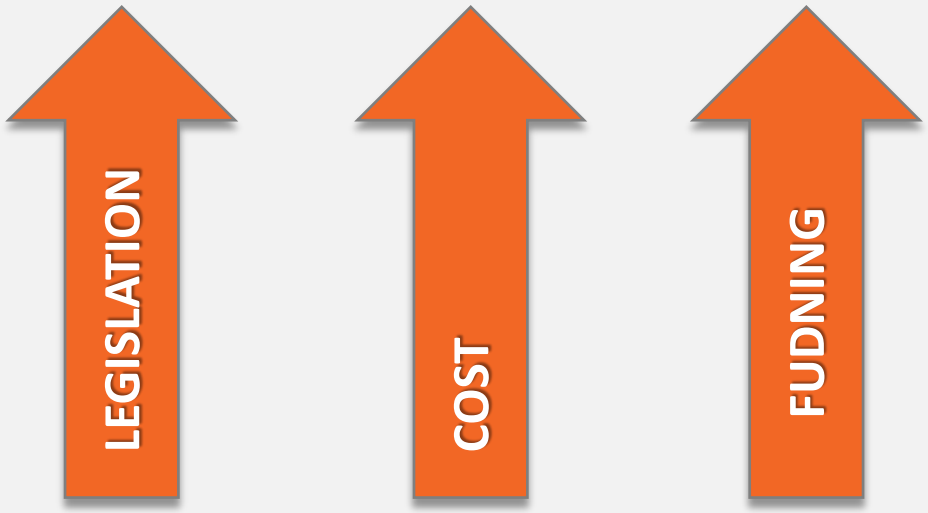
What Does Net Zero Really Mean For Charities?

Being committed to and ultimately achieving Net Zero will be a requirement to do business

EXTERNAL FACTORS

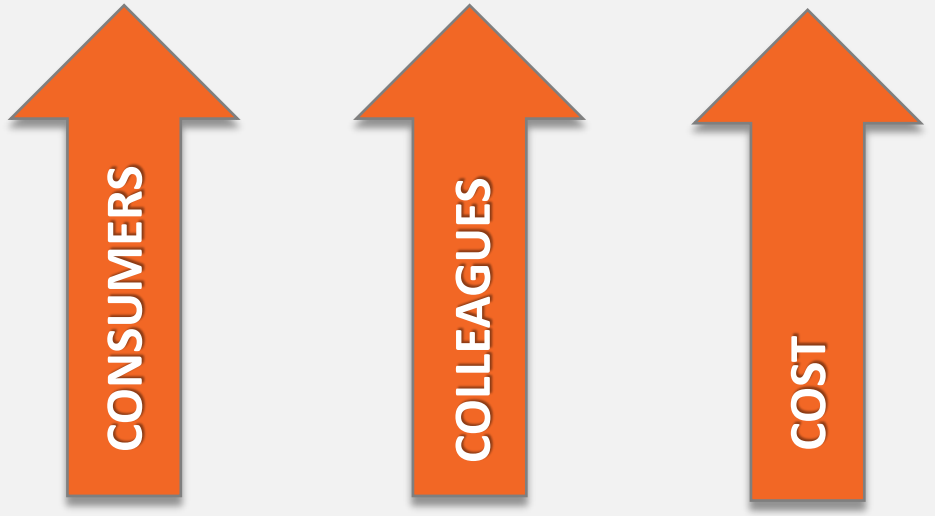


Increasing legislation forcing companies to commit to Net Zero

Additional carbon related costs imposed on businesses

Investment prioritising low carbon companies

INTERNAL FACTORS



Increasing requirement for low carbon goods & services

Wanting action from companies (especially younger colleagues)

Higher carbon companies will be higher cost

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Small action – big difference

- Community Action Dacorum has repurposed:

Items	CO_2e	Total tCO_2e
178 laptops and 41 charger leads	331 kg	59
33 iPADs and 16 chargers	80 kg	2.6
27 Desktop PCs and 4 monitors	446 kg	12
28 Phones	65 kg	1.8
		75.4

- The equivalent of 43 economy flights to Hong Kong

*It is estimated there is 57 million tonnes of ewaste per year worldwide and 7% of all the worlds gold is in ewaste (UN Figures)

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Digital & carbon?

How do digital services cause emissions?

End user device usage

Powering end user devices - laptops, workstations, smartphones and tablets

Network transfer

Powering core networks, mobile networks, on-premise wifi and fixed routers

Datacentre usage

Powering and cooling servers

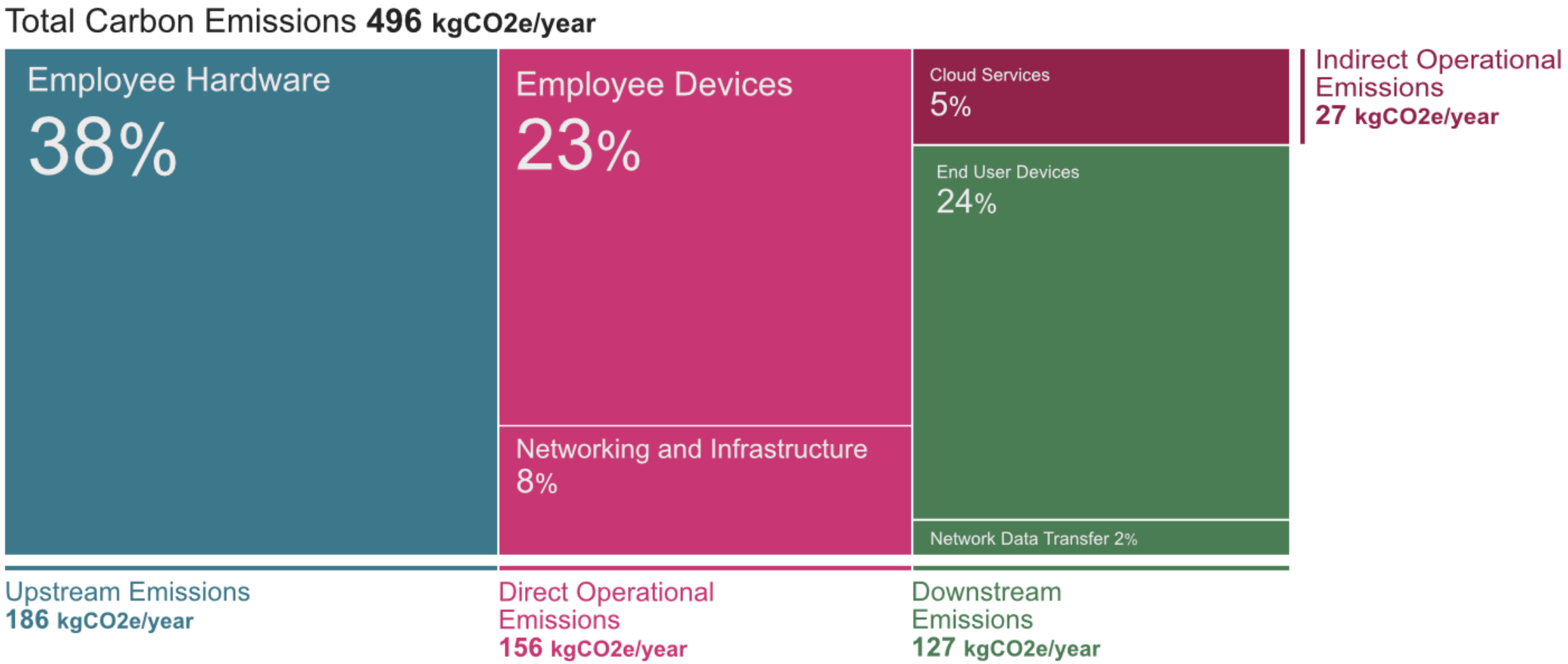
Production and disposal

Energy usage from making all of the above - processing raw silicon and other raw materials into integrated circuits, batteries, metal casings, etc

Source: Green Web Foundation

Estimates vary, but between 2% and 4% of global carbon emissions is from digital.

An example for a small organisation



Source: Green Web Foundation

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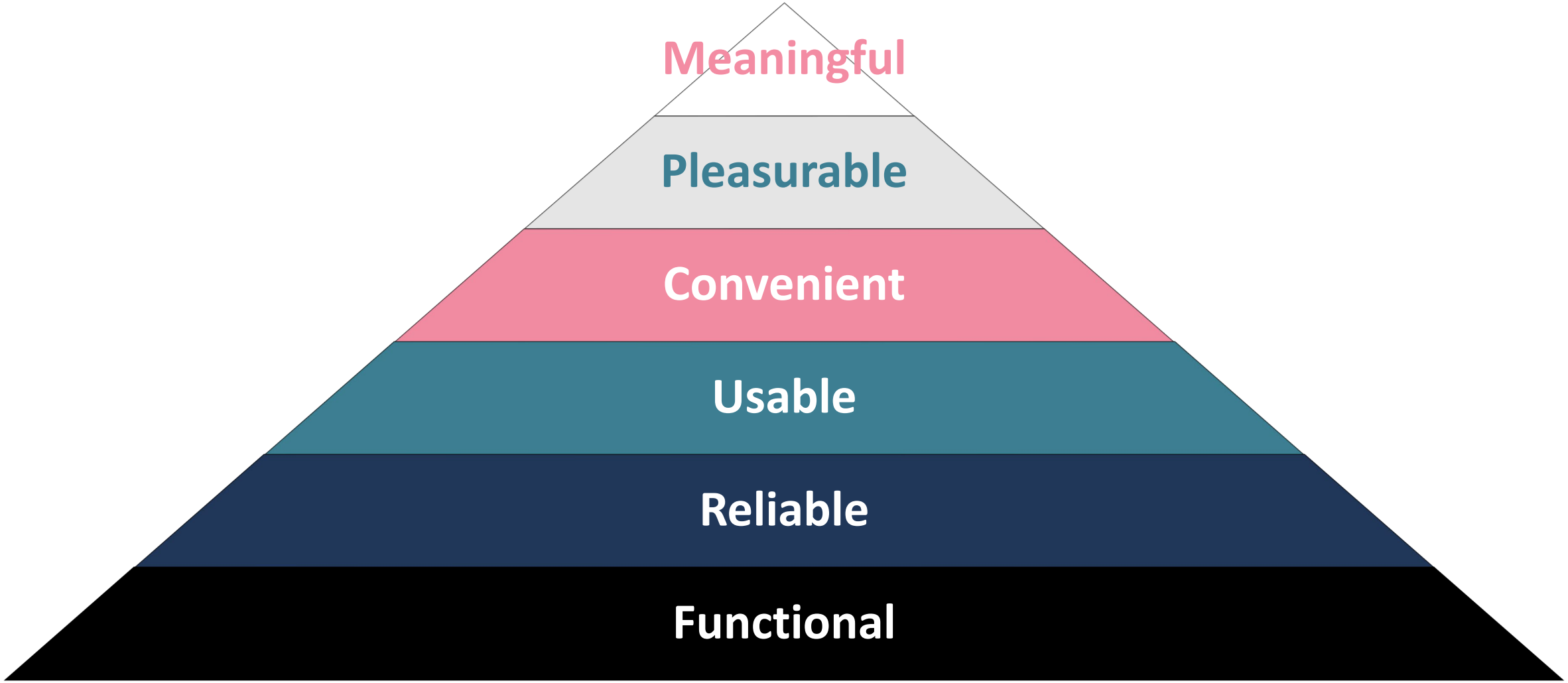
How does improving the design of my website help?

What great website design delivers



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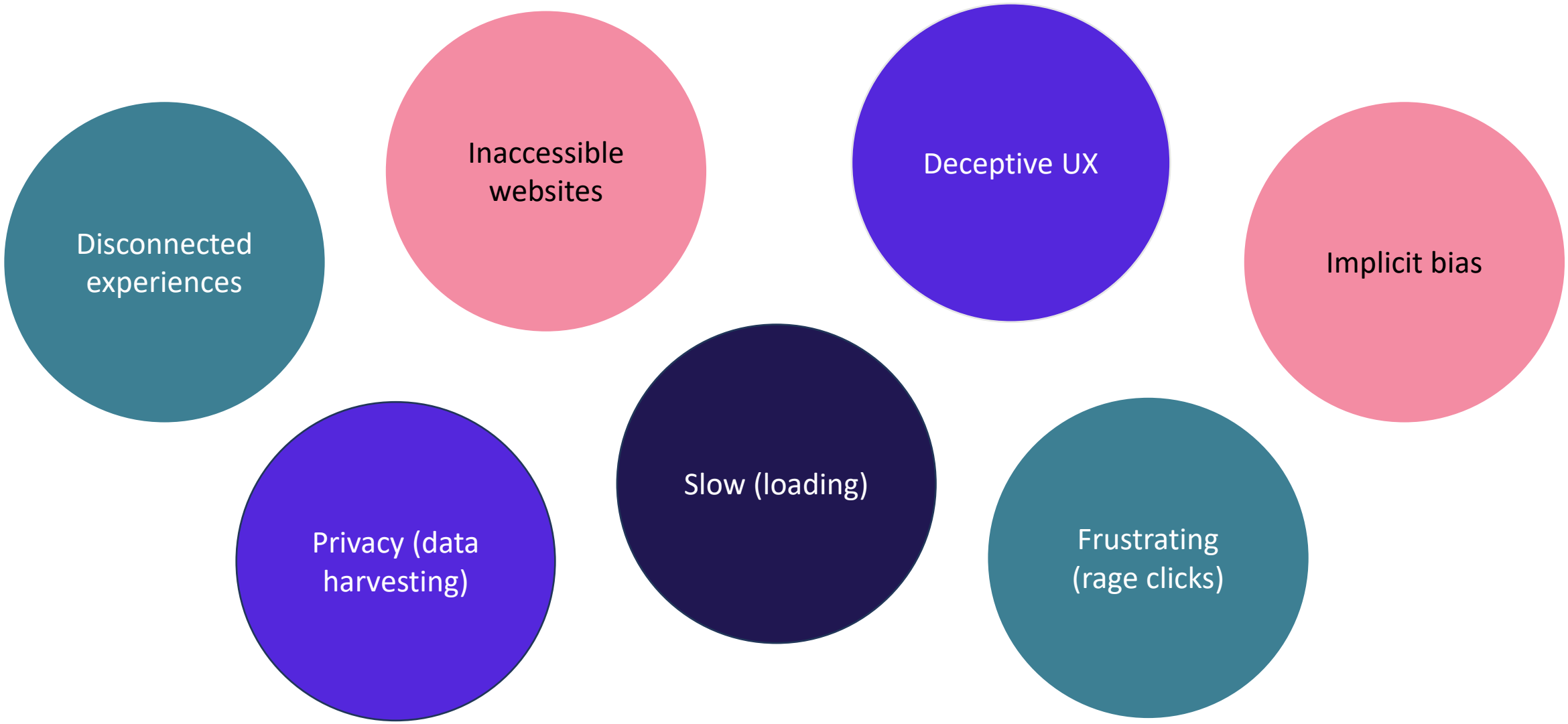
The impact of poor design



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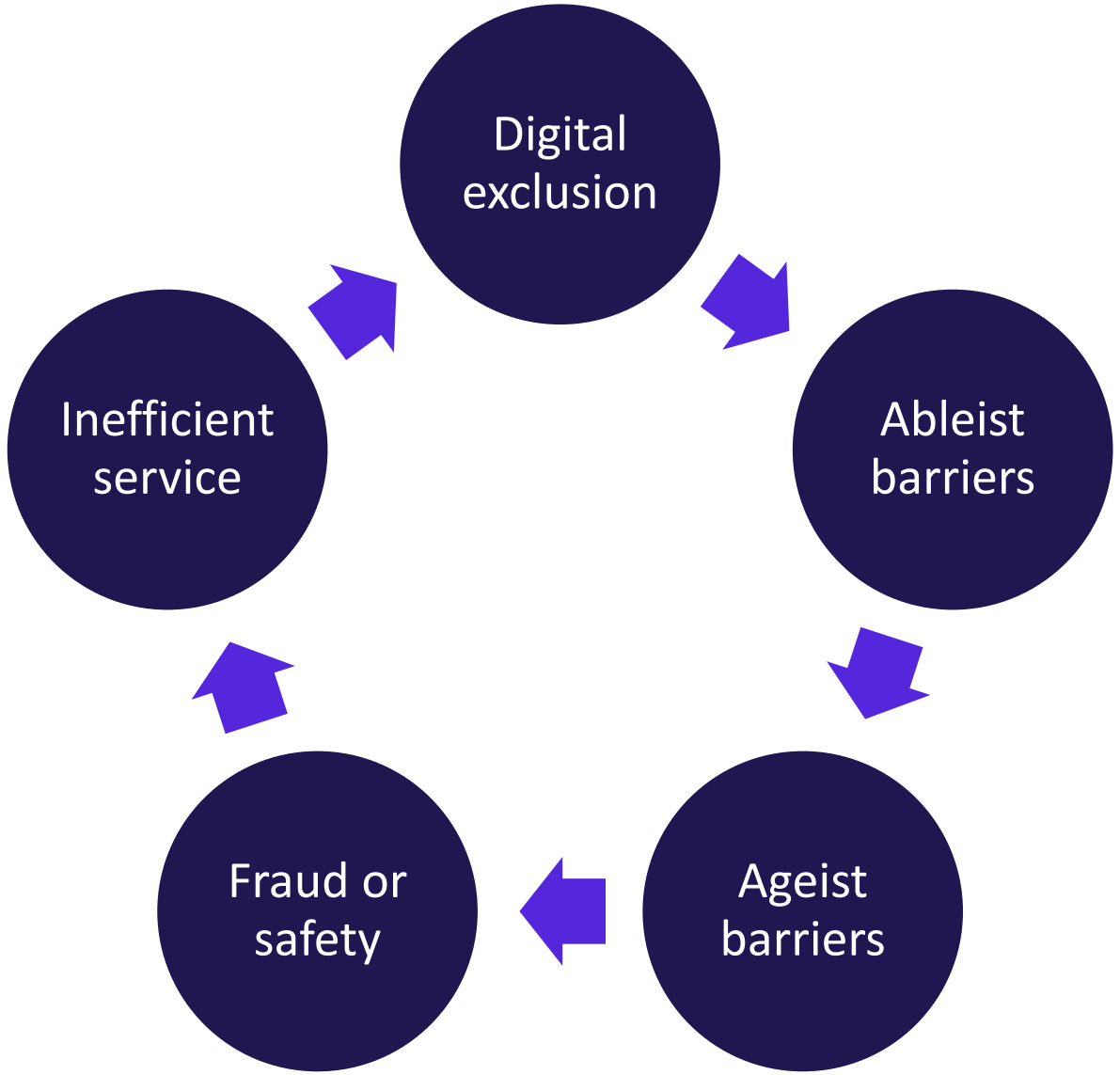
Wider impact of poor design



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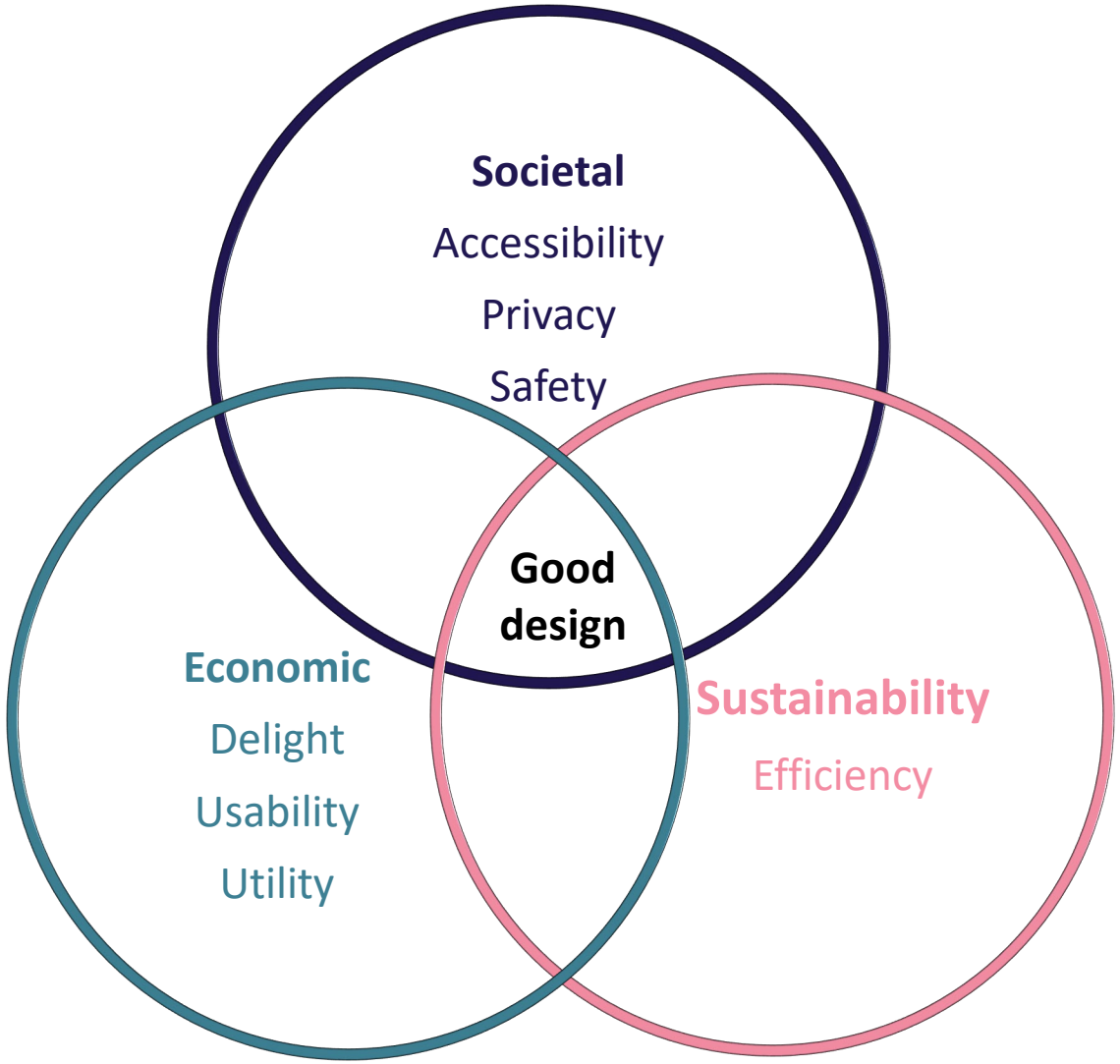
Benefits of good design



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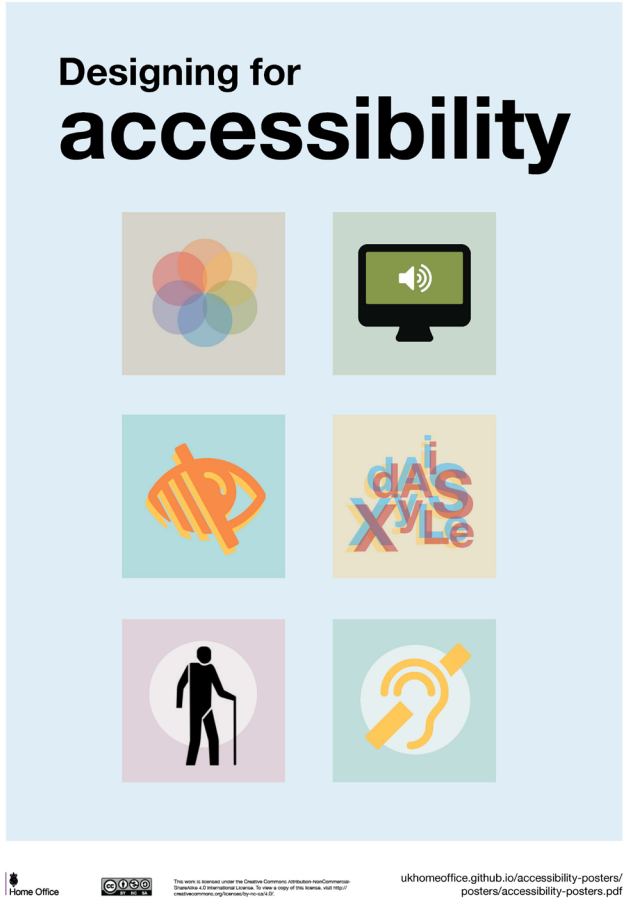
Your website’s accessibility and sustainability

The accessibility standard: WCAG 2.2 AA

Disability Discrimination Act and the newer **Equality Act**.

Service providers must take reasonable steps to ensure that their services are available to those with disabilities.

- **Vision** - including reduced contrast sensitivity, colour perception, and near-focus, making it difficult to read web pages
- **Physical ability** - including reduced dexterity and fine motor control, making it difficult to use a mouse and click small targets
- **Hearing** - including difficulty hearing higher-pitched sounds and separating sounds, making it difficult to hear podcasts and other audio, especially when there is background music
- **Cognitive ability** - including reduced short-term memory, difficulty concentrating, and being easily distracted, making it difficult to follow navigation and complete online tasks



Find out more: Accessibility posters

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Designing for users of
screen readers
Do...
Don't...
describe images and provide transcripts for video
<alt>
only show information in an image or video
follow a linear logical layout
spread content all over a page
structure content using HTML5
<h1>
<nav>
<label>
rely on text size and placement for structure
36pt, bold
Header
build for keyboard use only
force mouse or screen use
write descriptive links and headings
Contact us
write uninformative links and headings
Click here
ukhomeoffice.github.io/accessibility-posters/posters/accessibility-posters.pdf

Designing for users with
low vision
Do...
Don't...
use good colour contrasts and a readable font size
Aa
use low colour contrasts and small font size
publish all information on web pages
HTML
bury information in downloads
use a combination of colour, shapes and text
Start
only use colour to convey meaning
200% magnification
follow a linear, logical layout
200% magnification
spread content all over a page
put buttons and notifications in context
Submit
separate actions from their context
Submit
ukhomeoffice.github.io/accessibility-posters/posters/accessibility-posters.pdf

Designing for users with
physical or motor disabilities
Do...
Don't...
make large clickable actions
Yes
demand precision
No
give clickable elements space
bunch interactions together
design for keyboard or speech only use
Tab
make dynamic content that requires a lot of mouse movement
1
2
3
2a
2b
2c
design with mobile and touchscreen in mind
have short time out windows
Your session has timed out
provide shortcuts
Postcode
Find address
tire users with lots of typing and scrolling
Address
ukhomeoffice.github.io/accessibility-posters/posters/accessibility-posters.pdf

Designing for users who are
deaf or
hard of hearing
Do...
Don't...
write in plain language
Do this
use complicated words or figures of speech
use subtitles or provide transcripts for videos
CC
put content in audio or video only
use a linear, logical layout
make complex layouts and menus
break up content with sub-headings, images and videos
make users read long blocks of content
let users ask for their preferred communication support when booking appointments
make telephone the only means of contact for users
ukhomeoffice.github.io/accessibility-posters/posters/accessibility-posters.pdf

Designing for users with
dyslexia
Do...
Don't...
use images and diagrams to support text
use large blocks of heavy text
align text to the left and keep a consistent layout
underline words, use italics or write in capitals
DON'T DO THIS
consider producing materials in other formats (for example audio or video)
force users to remember things from previous pages - give reminders and prompts
keep content short, clear and simple
rely on accurate spelling - use autocorrect or provide suggestions
dyslexia
dsyle
let users change the contrast between background and text
put too much information in one place
ukhomeoffice.github.io/accessibility-posters/posters/accessibility-posters.pdf

Designing for users on the
autistic spectrum
Do...
Don't...
use simple colours
use bright contrasting colours
write in plain language
Do this
use figures of speech and idioms
use simple sentences and bullets
create a wall of text
make buttons descriptive
Attach files
make buttons vague and unpredictable
Click here!
build simple and consistent layouts
build complex and cluttered layouts
ukhomeoffice.github.io/accessibility-posters/posters/accessibility-posters.pdf

Designing for users with
anxiety
Do...
Don't...
give users enough time to complete an action
rush users or set impractical time limits
explain what will happen after completing a service
We have sent you an email
leave users confused about next steps or timeframes
make important information clear
leave users uncertain about the consequences of their actions
1
2
3
give users the support they need to complete a service
make support or help hard to access
let users check their answers before they submit them
leave users questioning what answers they gave
Home Office
ukhomeoffice.github.io/accessibility-posters/posters/accessibility-posters.pdf

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Perceivable

Multiple ways to access the same content, with different senses.

Example:

Working with multiple kinds of devices from text-only browsers to rich desktop browsers.

Low-end devices can still access content

- Fewer induced upgrades.
- Uses less data = save money

Operable

Normally, covers users with physical accessibility needs, but also broken / damaged devices.

Example:

You have a broken home button on your phone.

Good accessibility support still allows you to switch apps, and access features via alternative inputs (iPhones do this)

Understandable

Even if a digital channel for meeting a need is more efficient than the physical alternative, it still needs to be intelligible to the users.

Example:

Less confident digital users give up on a difficult-to-use online service.

Low take-up increases demand on in-person, or paper-based channels (i.e. increased failure demand)

Robust

Designs and markup work with older hardware and software. Websites still work in constrained bandwidth environments, etc.

Examples:

A learning management system still works with older browsers to provide a degraded but usable experience.

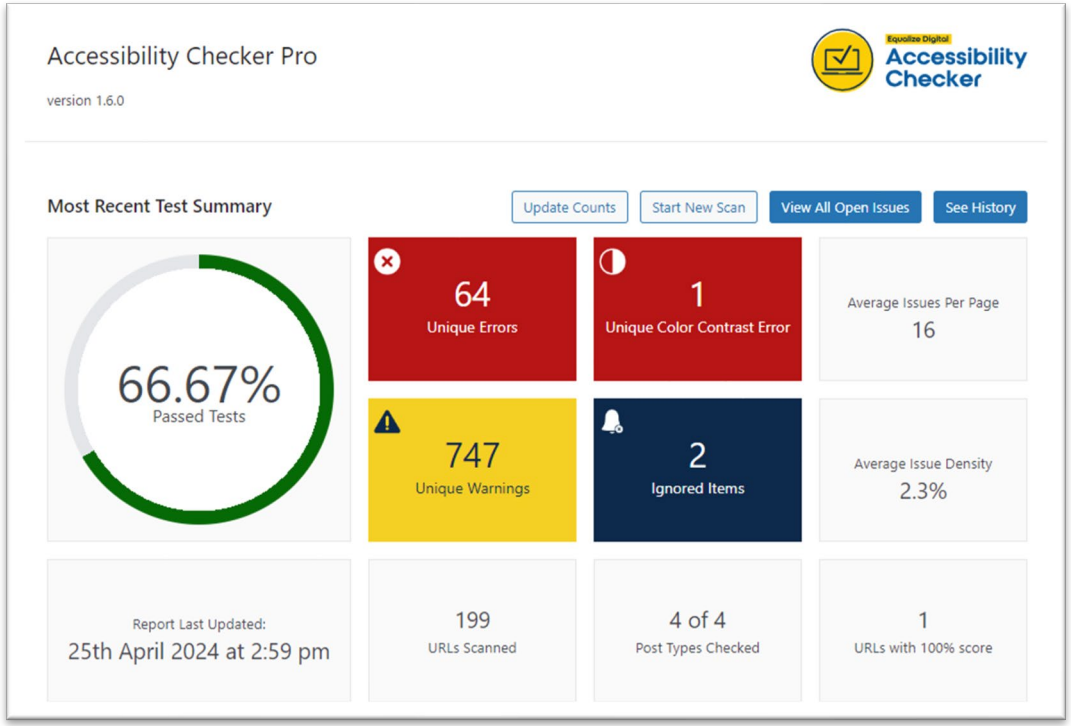
People can access from home with slow connections.

Most common issues

- Issues with **colour contrast** between text and background (particularly noting that contrast issues are often overlooked where text is placed over images or pale placeholder text is used in form inputs).
- Lack of **visible keyboard focus indication** and common issues with colour contrast on keyboard focus or pointer hover.
- Problems using websites with a **keyboard** - with menus, carousels and sliders being particularly called out for commonly causing keyboard accessibility issues.
- Sites that don't correctly **reflow** to adjust to different screen magnifications.
- Issues with **form elements** that do not have accessible names or are not programmatically associated with the visible label – particularly where one label is incorrectly used to cover multiple inputs.

Automated checks

- For WordPress websites use **Accessibility Checker** wordpress.org/plugins/accessibility-checker/
- **Axe Accessibility** browser extension
- **WAVE** wave.webaim.org



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Manual checks

- **Navigating through the website with only a keyboard** to ensure that all content can be accessed, used, and engaged with by a user who cannot use a mouse.
- **Listen to the website with a screen reader** to ensure that text content and controls can be accessed by a screen reader and are understandable when read aloud.
- **Watching embedded media** to check for the presence and accuracy of closed captions and that no rapid flashing is present
- **Using the website on multiple device sizes** and at multiple resolutions to ensure that it is just as easy to use on a phone as on a desktop computer and can be used if significantly zoomed in.
- **Checking that the website respects motion sensitivities** by looking for buttons to pause or stop auto-playing videos or carousels and other animations, and that any CSS animations don't play animations if the users has turned on prefers reduced motion in their operating system.

Accessibility and sustainability are two sides of the same coin – both focus on making technology work better for everyone while reducing waste.

Choose green hosting

Are you using a green hosting supplier?

✓ Green Web Foundation tool

https://www.thegreenwebfoundation.org/green-web-check/

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The benefits of an accessible website

- **Reduces carbon footprint:** Accessible sites often load faster and use less bandwidth and data
- **Reaches wider audience**: Serves all potential donors, beneficiaries, and stakeholders regardless of ability
- **Demonstrates inclusive values**: Shows organisational commitment to equity and accessibility
- **Improves grant eligibility**: Many funders now require accessibility compliance
- **Enhances user experience**: Clear navigation and content benefits everyone
- **Legal compliance**: Reduces risk of WCAG violations
- **Cost-effective investment**: Prevention costs less than remediation
- **Boosts SEO performance**: Accessible sites typically rank higher in Google

How we can help you

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- Free consultation
- Access to education
- Herts Go Green & Grow

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- Free website review
- Accessibility audit
- Website sustainability

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