



WCAG 2.2 AA study nwo-i.nl

WCAG 2.2 AA assessment

Client: NWO-I

Website: nwo-i.nl

Report version:

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Summary

The audit was carried out between 12 June 2026 and 25 June 2026. **35 out of 55 success criteria** (70 per cent) were met. Our auditor identified **41 issues** where users with disabilities may encounter difficulties. The auditor also provided **7 further recommendations** to improve accessibility.

The research into the nwo-i.nl website shows that the website is already accessible in several respects. For example, the website can be operated entirely using the keyboard, which is important for users who cannot use a mouse. Error messages on forms are also clearly displayed and easy to understand, providing users with good support when entering data.

However, some accessibility issues were identified. For instance, several images lack adequate text alternatives, meaning that screen reader users may miss out on information. Furthermore, problems were found in the structure of the content; for example, headings are not always organised in a logical manner. This makes it more difficult for users of assistive technology to quickly scan pages and understand the content. Furthermore, in several places, the `strong` element is used for visual styling rather than to emphasise text. This can cause assistive technology to present information differently than intended.

Furthermore, issues have been identified with link targets and language switches. These issues may result in parts of the website being less usable for people with visual impairments or for users of assistive technology.

In summary, the research shows that the website has a good foundation in terms of accessibility, but that several improvements are still needed to ensure that all visitors can make the best possible use of the website.

Feedback from the researcher

It is encouraging to see that the website is already accessible in key areas. In particular, the keyboard navigation and the way in which forms support users are positive aspects. There are still good opportunities to further improve accessibility, for example by paying more attention to text alternatives for images, the content when zooming in on the page, and more.

About this assessment

We have carried out an assessment to determine how well this website complies with the WCAG 2.2 accessibility guidelines, levels A and AA. This assessment is based on the European standard EN 301 549.

This assessment report is valid for a maximum of three years. In the event of major changes, we recommend a supplementary or new assessment.

WCAG stands for Web Content Accessibility Guidelines. These are international guidelines designed to make digital content, such as websites and apps, accessible to everyone. The WCAG is organised into four principles: Perceivable, Operable, Understandable and Robust. Each principle has success criteria (guidelines) that can be measured to determine whether a website is accessible.

Assessment details

What was investigated?

During the research, we took a sample. Within this sample, the researcher describes as many issues as possible. We describe as clearly as possible exactly where the issues lie. Where possible, the researcher also provides advice on how to resolve the issue. This is not a comprehensive overview. The researcher provides examples. It is a snapshot: it shows which issues the researcher has identified at that particular moment.

Check the entire website

As this is a sample-based study, we may not have identified all the issues. We try to make the sample as representative as possible, but despite this, the researcher may still overlook an issue. These issues may still come to light during a subsequent study.

You should therefore check the entire website for similar issues. The issues mentioned may also occur elsewhere within the sample or outside it.

When making changes to the website, new issues can sometimes arise. It is therefore important to continue testing on a regular basis.

What is the difference between WCAG 2.1 and WCAG 2.2?

Since 5 October 2023, WCAG 2.2 has been the latest accessibility standard. It has not yet been incorporated into European regulations. At present, WCAG 2.1 is the legal standard. This means that the six new rules in WCAG 2.2 are not yet mandatory.

We recommend complying with WCAG 2.2 now. This will make the website more accessible and ready for future legislation. Six success criteria have been added to WCAG 2.2. Success criterion 4.1.1 has been removed.

Scope of the assessment

The reason why a section has or has not been included is stated next to the URL. This is in accordance with the rules for determining the scope in the WCAG-EM evaluation method.

- All pages on <https://www.nwo-i.nl> (URI-based)

Not within scope

- Excludes pages at <https://intern.nwo-i.nl> (Excludes pages behind a login (different URI basis))

Research method and standard applied

This assessment was carried out in accordance with the [WCAG-EM evaluation method](#). This method is recommended by [DigiToegankelijk \(Logius\)](#).

The standard applied is WCAG 2.2, Levels A and AA (<https://www.w3.org/TR/WCAG22/>)

Basic level of accessibility support

Common web browsers and assistive technologies.

Questions?

If you have any questions regarding the content of this report, please contact us at contact@cardan.com .

Overview of results

This report shows how accessible the tested website or application is. The results are presented in two overviews: one per principle and one per success criterion. This gives you both a general overview and details of what is going well and what could be improved.

Perceptible

Criterion	Description	Level	Result
1.1.1	Non-textual content	A	Does not comply
1.2.1	Audio-only and video-only (pre-recorded)	A	Not available
1.2.2	Subtitles for the deaf and hard of hearing (pre-recorded)	A	Not available
1.2.3	Audio description or alternative media (pre-recorded)	A	Not available
1.2.4	Subtitles for the deaf and hard of hearing (live)	AA	Not available
1.2.5	Audio description (pre-recorded)	AA	Not available
1.3.1	Information and contacts	A	Does not meet requirements
1.3.2	Meaningful sequence	A	Does not meet the criteria
1.3.3	Sensory properties	A	Does not comply
1.3.4	Display mode	AA	Complies
1.3.5	Identify the purpose of the input	AA	Does not meet the requirements
1.4.1	Use of colour	A	Complies
1.4.2	Volume control	A	Satisfactory
1.4.3	Contrast (minimum)	AA	Does not meet requirements
1.4.4	Text resizing	AA	Complies
1.4.5	Images of text	AA	Complies
1.4.10	Reflow	AA	Does not meet requirements
1.4.11	Contrast of non-textual content	AA	Does not comply
1.4.12	Text spacing	AA	Complies
1.4.13	Content on hover or focus	AA	Complies

Operable

Criterion	Description	Level	Result
2.1.1	Keyboard	A	Satisfactory
2.1.2	No keyboard drop	A	Complies
2.1.4	Single-character keyboard shortcuts	A	Complies
2.2.1	Adjustable timing	A	Satisfactory
2.2.2	Pause, stop or hide	A	Complies
2.3.1	Three flashes or below threshold	A	Complies
2.4.1	Bypassing blocks	A	Satisfactory
2.4.2	Page title	A	Does not meet requirements
2.4.3	Focus order	A	Does not meet requirements
2.4.4	Link target (in context)	A	Does not comply
2.4.5	Multiple ways	AA	Complies
2.4.6	Headings and labels	AA	Complies
2.4.7	Focus visible	AA	Does not meet requirements
2.4.11	Focus not obscured (minimum)	AA	Fails
2.5.1	Pointing gestures	A	Satisfactory
2.5.2	Cancel gesture	A	Complies
2.5.3	Label in name	A	Does not comply
2.5.4	Promoting physical activity	A	Complies
2.5.7	Dragging movements	AA	Satisfactory
2.5.8	Size of the pointing area (minimum)	AA	Complies

Comprehensible

Criterion	Description	Level	Result
3.1.1	Language of the page	A	Complies
3.1.2	Language of sections	AA	Does not meet requirements
3.2.1	When in focus	A	Satisfactory
3.2.2	For input	A	Complies

Criterion	Description	Level	Result
3.2.3	Consistent navigation	AA	Complies
3.2.4	Consistent identification	AA	Complies
3.2.6	Consistent support	A	Satisfactory
3.3.1	Error identification	A	Complies
3.3.2	Labels or instructions	A	Complies
3.3.3	Suggested correction	AA	Complies
3.3.4	Error prevention (legal, financial, data)	AA	Complies
3.3.7	Unnecessary data entry	A	Complies
3.3.8	Accessible authentication (minimum)	AA	Complies

Robust

Criterion	Description	Level	Result
4.1.2	Name, role and value	A	Does not meet requirements
4.1.3	Status messages	AA	Complies

Assessment scores

The table below shows, for each WCAG principle and each WCAG level, how many success criteria have been assessed and how many of these have been approved.

	Level A	Level AA	Level AAA	Total
Perceivable	5 / 9	7 / 11	0 / 0	12 / 20
Operable	10 / 14	4 / 6	0 / 0	14 / 20
Understandable	7 / 7	5 / 6	0 / 0	12 / 13
Robust	0 / 1	1 / 1	0 / 0	1 / 2
Total	22 / 31	17 / 24	0 / 0	35 / 55

Principle 1: Perceptible

Information and user interface components must be presented to users in a way that is perceivable to them.

Guideline 1.1: Text alternatives

Provide text alternatives for all non-text content so that it can be transformed into other formats required by users, such as large print, Braille, speech, symbols or simpler language.

A

Success Criterion 1.1.1: Non-textual Content

Provide meaningful text alternatives for informative images and other non-text content.

Result

 Does not comply: The set of pages examined does not comply with this success criterion.

Findings

Non-textual content, such as images, must be accessible via a text alternative. This enables assistive technology to present the information audibly (screen readers) or tangibly (Braille). This is important for people who are blind, visually impaired or deafblind, or who have other limitations in perceiving visual content.

Important information in non-textual content must always be perceivable by everyone. Without text alternatives, some visitors will miss this information. If the content is purely decorative, it must be possible for assistive technology to ignore it. This prevents users from being distracted by unnecessary details.

If an image is functional (for example, clickable), the text alternative must clearly state the purpose of the image. This also ensures compliance with other success criteria, such as success criterion 2.4.4 (link target), 2.4.6 (headings and labels) and 4.1.2 (name, role and value).

Finding NWO-3.F1



On the page <https://www.nwo-i.nl>, under the heading 'Ten national research institutes', there are eleven buttons for research institutes. When the 'CWI' button is clicked, information about the CWI research institute appears, including the CWI logo. This image has no text alternative. As a result, the information conveyed by the logo is not available to users of assistive technology. They are unable to tell that the logo of the selected research institute is displayed in this location.

This issue also occurs on the page <https://www.nwo-i.nl/en>. Please

provide the logo with an appropriate text alternative, such as 'CWI logo'.

Images



Empty text alternative

Finding NWO-3.F3



On the page <https://www.nwo-i.nl>, under the heading ‘Ten national research institutes’, there are eleven buttons for research institutes. When the ‘Differ’ button is clicked, information about the Differ research institute appears, including the Differ logo. In addition to the institute’s name, this logo also features the visible text ‘Science for future energy’. This text is missing from the text alternative for the logo.

As a result, not all the information available to sighted users is also available to users of assistive technology.

This problem also occurs with the ‘NSCR’ and ‘SRON’ logos. This

problem also occurs on the page <https://www.nwo-i.nl/en>.

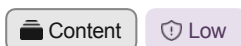
Ensure that all text visible in the logo is also included in the text alternative, such as “Logo Differ, Science for future energy”. This ensures that users of assistive technology receive the same information as sighted users.

Images



Text alternative without all visible text

Finding NWO-3.F5



On the page <https://www.nwo-i.nl>, next to the heading “Ten national research institutes”, there is an image of a map showing the locations of the NWO institutes. The text alternative for the image is “Map of the Netherlands showing the locations of the NWO institutes: Texel, Yerseke, Groningen, Dwingeloo, Nijmegen, Eindhoven, Leiden and Amsterdam”. The map also shows a location in Utrecht. This location is missing from the text alternative. As a result, not all the information available to sighted users is also available to users of assistive technology.

This issue also occurs on the page <https://www.nwo-i.nl/en>. The text alternative is also in Dutch on

an English page.

Please also include the location ‘Utrecht’ in the text alternative, so that users of assistive technology receive the same information as sighted users. For example: “Map of the Netherlands showing the locations of the NWO institutes: Texel, Yerseke, Groningen, Dwingeloo, Utrecht, Nijmegen, Eindhoven, Leiden and Amsterdam.”

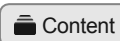
In addition, use an English text alternative on the English page.

Images



Text alternative without Utrecht

Finding NWO-3.F41



On page 1 of the PDF document “Annual Report 2024”, the NWO-I logo appears. This logo is not tagged as an image and is therefore ignored.

This issue also occurs in the PDF document “General Terms and Conditions of Sale, Delivery and Payment”.

On page 1, this logo must be converted to an image and given an appropriate text alternative. On the following pages, this is neither necessary nor desirable, as it may disrupt the reading flow there.

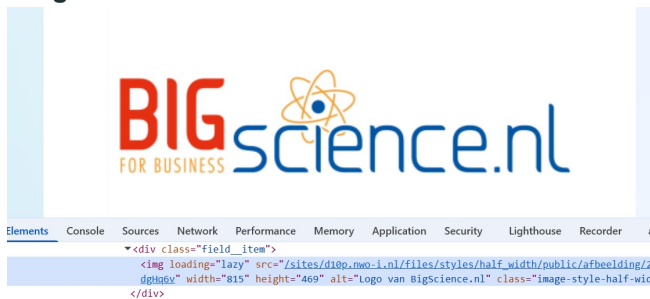
Finding NWO-3.F13



On the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren>, under the heading “BigScience.NL connects science and business”, there is a BigScience.nl logo. The text “for business” is visible within this logo. This text is missing from the text alternative for the logo. As a result, not all the information available to sighted users is also available to users of assistive technology.

Ensure that all meaningful text visible in the logo is also included in the text alternative. For example: “BigScience.nl logo, for business”.

Images



Text alternative missing all visible text

Finding NWO-3.F15



On the page <https://www.nwo-i.nl/over-nwo-i/de-nationale-onderzoeksinstituten-van-de-knaw-en-nwo> there is a complex image showing a map of the Netherlands on which the locations of twenty institutes are marked. Complex images of this kind must be provided with both a short and a long text alternative. The image has the text alternative “Map of the Netherlands showing the 20 institutes of the KNAW and NWO-I”.

This text alternative only describes, in general terms, what is shown in the image. The information conveyed by the image – such as which institutes are located where and the relationship between the institutes and their locations – is not available to users of assistive technology. Nor is this information provided elsewhere on the page. Consequently, not all the information available to sighted users is also available to users of assistive technology.

You should also provide a long text alternative. This gives a detailed description of the same information conveyed by the image. This can be done, for example, by means of a table or a written-out text. This text could, for instance, appear below the image or in a collapsible section next to the image. The description could also be on a separate page, to which a link is provided.

Images



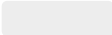
Complex image

Finding NWO-3.F21



The news article “LNVH presents annual Monitor of Female Professors” can be found on the page <https://www.nwo-i.nl/nieuws>. The image accompanying this news item has the text alternative “LNVH logo – Credits: LNVH”. This text alternative does not accurately describe what is shown in the image. The image does not show an LNVH logo, but rather an illustration or logo. As a result, users of assistive technology do not receive an accurate description of the image.

Please ensure that the text alternative describes the image that is actually displayed. If the image is an illustration or a graphic symbol, please describe the content of the image.

If the image is purely decorative and does not add any information to the news article, you may also consider using an empty text alternative (**alt=""**). 

Images



Incorrect text alternative

Other advice and comments

The comments below do not result in a rejection, but may improve accessibility or user-friendliness.

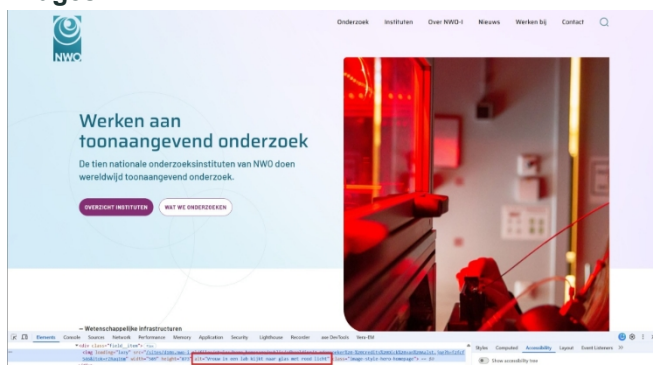
Comment NWO-3.F24

 Content

 Low

Several pages contain decorative images with descriptive text alternatives. For example, on the homepage under the heading ‘Working on leading-edge research’, where the image has been given the text alternative ‘Two people in a workshop’. This is a common occurrence with decorative images on the website. It is better to hide decorative images from assistive technology by using an empty alt attribute (**alt=""**). As the descriptions are factually correct, this is merely a comment.

Images



Decorative image

Comment NWO-3.F2

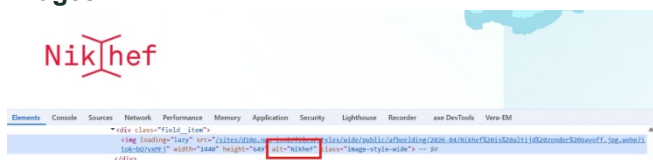


On the page <https://www.nwo-i.nl>, under the heading “Ten national research institutes”, there are eleven buttons representing research institutes. When the “Nikhef” button is clicked, information about the Nikhef research institute appears, including the Nikhef logo. The logo has the text alternative “Nikhef”. This text alternative does not specify that it is a logo. As a result, users of assistive technology do not receive the same information as sighted users, namely that the research institute’s logo is displayed here.

This issue also occurs on the page <https://www.nwo-i.nl/en>.

Ensure that the text alternative makes it clear that it is a logo, for example: ‘Nikhef logo’.

Images



Text alternative without “logo”

Guideline 1.2: Time-based media

Provide alternatives for time-based media.

A

Success Criterion 1.2.1: Audio-only and video-only (pre-recorded)

Provide an alternative for video without sound (e.g. an animation) or sound without video (e.g. a podcast).

Result

✓ Not present: none of the techniques for this success criterion apply.

A

Success Criterion 1.2.2: Captions for the deaf and hard of hearing (pre-recorded)

Ensure that videos have subtitles for all important sounds.

Result

✓ Not present: none of the techniques for this success criterion apply.

A

Success Criterion 1.2.3: Audio description or media alternative (pre-recorded)

Ensure that all important visual information in videos is also audible, or provide a text alternative (e.g. a transcript).

Result

✓ Not present: none of the techniques for this success criterion apply.

AA

Success Criterion 1.2.4: Captions for the deaf and hard of hearing (live)

Live videos are provided with subtitles for deaf and hard-of-hearing people. Please note: There is a legal exemption for live videos.

Result

✓ Not present: none of the techniques for this success criterion apply.

AA**Success Criterion 1.2.5: Audio description (pre-recorded)**

Ensure that all important visual information in videos is also audible.

Result

- ✓ Not present: none of the techniques for this success criterion apply.

Guideline 1.3: Adaptable

Create content that can be presented in different ways (for example, a simpler layout) without losing any information or structure.

A

Success Criterion 1.3.1: Information and Relationships

Information, structure and relationships within the content that you can see must also be available in the code for assistive technology.

Result



Does not comply: The set of pages examined does not comply with this success criterion.

Findings

The information and relationships between different parts of a web page must be clear to everyone. This means that visual information derived from the structure or layout must also be reflected in the code. This enables assistive technology, such as screen readers, to convey this information accurately to people who are blind, partially sighted or deafblind.

If the structure or relationships are conveyed solely through design, users of assistive technology may not understand the information, or may misunderstand it. This can result in them missing important context or meaning. Without clear code, the content becomes less accessible and these visitors are unable to use the website effectively.

Finding NWO-3.F10

Content

Medium

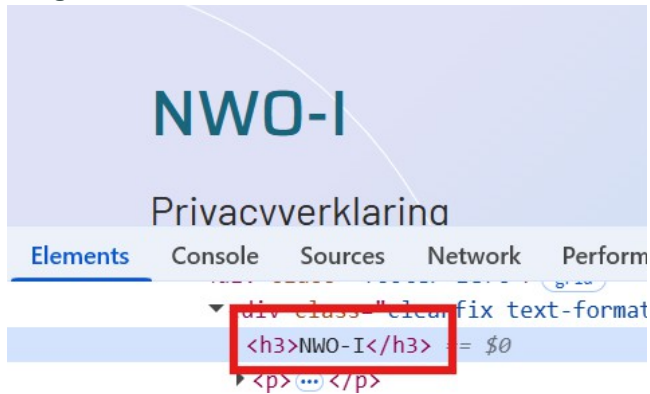
The website's footer contains the heading "NWO-I". This is formatted with heading level **h3**, which means

it appears as though the heading is part of the preceding heading "Ten national research institutes". This is incorrect. The heading in the footer actually introduces a new section. As a result, the heading structure does not correspond to the content structure of the page.

This problem also occurs with the headings "Contact", "Visiting address" and "Postal address" in the footer. These headings are formatted as h4 elements. As a result, they appear to belong to the "NWO-I" heading, whilst they actually introduce separate sections within the footer.

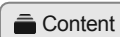
Use the correct heading level for the headings in the footer. Change the **h3** and **h4** headings to **h2**, so that they correctly introduce new sections. Or add a (visually hidden) **h2** heading that introduces the footer. This ensures that the information and relationships are clear to assistive technologies.

Images



h3 element for footer heading

Finding NWO-3.F11

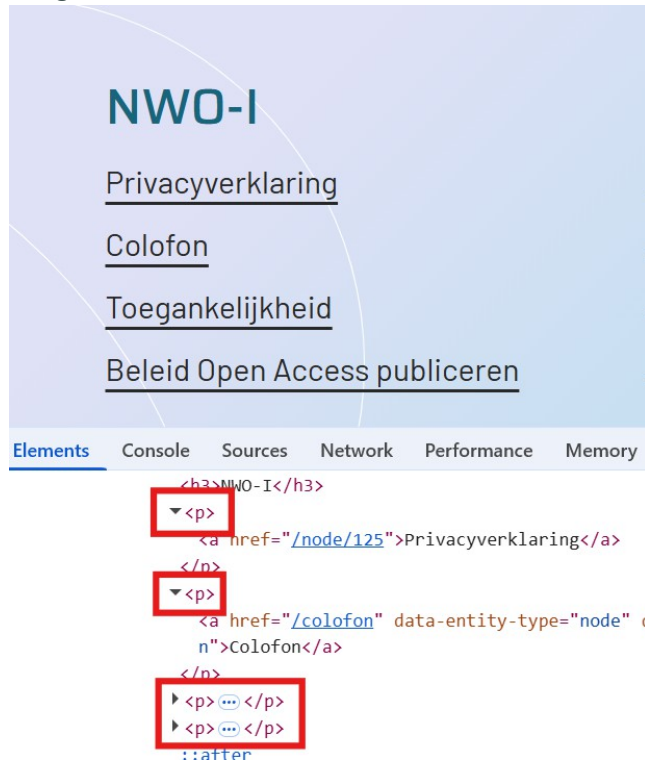


The website's footer contains the heading "NWO-I". Below this heading are several links, such as "Privacy Statement" and "Terms and Conditions of Purchase". These links are not presented as a list. As a result, assistive software cannot, for example, indicate that this is a list or how many items it contains. This aids in understanding the text.

Use the `ul` element to create unordered lists. The list items must be contained within a `li` element.

```
<ul>
  <li><a href="/node/125">Privacy Policy</a></li>
  <li><a href="/colofon">Imprint</a></li>
  <li><a href="/toegankelijkheidsverklaring">Accessibility</a></li>
  <li><a href="/over-nwo-i/waar-nwo-i-voor-staat/beleidskader-implementatie-plan-
s-volgens-de-groene-route-bij-de">Open Access Publishing Policy</a></li>
  <li><a href="/klachtenreglement-nwonwo-i">Complaints Procedure</a></li>
  <li><a href="/inkoop-en-leveringsvoorwaarden">Terms and Conditions of
Purchase</a></li>
  <li><a href="/over-nwo-i/anbi-status">NWO-I's ANBI status</a></li>
  <li><a href="/disclaimer-en-cookies">Disclaimer and cookies</a></li>
</ul>
```

Images



Links in footer not as a list

Finding NWO-3.F5

Content

Medium

On the page <https://www.nwo-i.nl>, under the heading 'Ten national research institutes', there are eleven buttons representing research institutes. These buttons are not arranged in a list. As a result, assistive software cannot, for example, indicate that this is a list or how many items it contains. This aids in understanding the text.

This issue also occurs on other pages, namely:

- On the page <https://www.nwo-i.nl/werken-bij> under the heading 'Vacancies at the ten institutes'. Under this heading are ten links to research institutes. These are not listed;
- On the page <https://www.nwo-i.nl/en>, under the heading "Ten national research institutes", the same eleven buttons for research institutes also appear.

Use the `ul` element to format unordered lists. The list items must be contained within a `li` element.

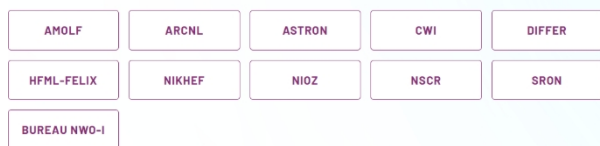
```
<ul>
  <li>
    <button type="button" aria-expanded="true">AMOLF</button>
  </li>
  <li>
    <button type="button" aria-expanded="false">ARCNL</button>
  </li>
  <li>
```

```

<button type="button" aria-expanded="false">ASTRON</button>
</li>
</ul>

```

Images



Buttons not in a list

Finding NWO-3.F33

Content

Medium

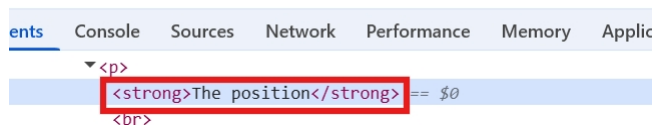
On the page <https://www.nwo-i.nl/vacatures/research-infrastructure-support-officer-fmx-hfml-felix>, there is a visual heading labelled 'The position'. This heading is formatted in bold using a `**` element. The `**` element is intended to emphasise sections of text; it is not intended for creating headings.****

Headings must be formatted as proper headings (from `<h1>` to `<h6>`). This helps visitors who rely on of the code, for example because they use a screen reader, so that they can easily recognise the structure of the page. Using software or a browser extension, for example, an overview of all the headings on the page can be retrieved.

Enclose the heading in a heading element (`<h1>` to `<h6>`) and remove the `**` element. In this case, a h2 element is required to format the heading. This ensures the heading hierarchy on the page is correct.**

Images

The position



`<strong>` element for heading

Finding NWO-3.F25

Technical

Medium

There is a form on the page <https://www.nwo-i.nl/contact>. When the form is submitted empty or with incorrect details, error messages appear next to the input fields. The error messages are not linked to the input fields. As a result, it is not always clear to users of assistive technology which error message corresponds to which input field.

The error messages can be linked to the input fields by

`aria-describedby` using

Images



Error message not linked to an input field

Finding NWO-3.F26



There is a form on the page <https://www.nwo-i.nl/contact>. When the form is submitted empty or with incorrect details, error messages appear next to the input fields. The error messages are contained within a `strong` element. The `strong` element is not appropriate here. This element is intended to emphasise one or a few words or phrases, for example 'Please note!'. The element is not intended for formatting entire error messages. As a result, assistive software may incorrectly place extra emphasis on the entire error message.

Ensure that the `strong` element is only used when emphasis on specific words or phrases is necessary. Remove the `strong` elements.

Images



`strong` element for text

Finding NWO-3.F42

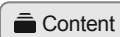


The PDF document “Annual Report 2024” is tagged, which means that assistive software can interpret the document, and that is good. However, problems have been found with these tags:

- Page 1 features the heading “NWO-I Annual Report 2024”. This text **H** and therefore has no has been assigned heading status.
- Page 3 contains two lists. These lists have not been tagged as lists;
- On page 12, there is an image. This image has not been tagged;
- And more.

Ensure that all content in the PDF document is correctly tagged, so that assistive software can interpret the structure and

content of the document. Use the correct tags for headings (**H1** to **H6**), images (**Figure**), lists (**L** with **Li**) and other structural elements.

Finding NWO-3.F43

Medium

On page 41 of the PDF document 'Annual Report 2024' there is a table. Information in tables must be presented in such a way that the relationships between the various cells are clear, even when users cannot see the table. This table lacks these relationships between the various cells. The table lacks heading tags (TH tags) for the table headings "2024", "Budget 2024" and "2023", meaning that assistive technology cannot recognise these relationships.

This also applies to the headings 'Income' and 'Expenses' in the table.

This problem also occurs in the other tables in the PDF document, such as on pages 43, 44, 45 and others.

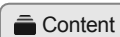
A table must be correctly marked up as a table with table headers where these exist. It is also possible to use colspan or rowspan in a PDF. See also <https://www.w3.org/WAI/WCAG21/Techniques/pdf/PDF6>

Finding NWO-3.F44

Low

The audit opinion appears on page 145 of the PDF document 'Annual Report 2024'. The headings, text and bullet points have not been tagged.

Ensure that the audit opinion is also fully incorporated into the tag structure of the PDF document. Use the correct tags for headings (**H1** to and **H6**), paragraphs (**P**), lists (**L** with **LI**) other structural elements.

Finding NWO-3.F48

Medium

In the PDF document "General Terms and Conditions of Sale, Delivery and Payment", virtually all text on pages 1 to 6 is tagged as a heading. It is correct that headings such as "1. Definitions" and "2. Applicability of the Terms and Conditions" are tagged as headings. However, the underlying text, such as "1.1. Customer: purchaser of products and/or services from NWO-I.", "1.2. NWO-I: Foundation for Dutch Scientific Research Institutes." and similar content, have also been tagged as headings, even though they are not headings.

Please ensure that only text that actually introduces a section or subsection is tagged as a heading. Ordinary body text and definitions must be tagged as a paragraph (**P**).

Finding NWO-3.F45

Medium

In the PDF document 'General Terms and Conditions of Sale, Delivery and Payment', page 1 contains the heading 'General Terms and Conditions of Sale, Delivery and Payment of the Foundation for Dutch Scientific Research Institutes (NWO-I)'. This heading has not been tagged as a heading.

Tag the heading as **H1**.

Other recommendations and comments

The comments below do not result in a rejection, but may improve accessibility or user-friendliness.

Comment NWO-3.F12

Low

On the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren>, the heading “National facilities and partnerships” appears. This heading is formatted as an h2 element. The headings for the individual facilities, such as “HFML-FELIX facilities”, “Magnum-PSI, Ion Beam & PLD4Energy” and “SolarLab”, are also formatted as h2 elements.

This results in an incorrect heading structure. The heading “National facilities and partnerships” introduces a section. The headings for the individual facilities fall under this section and should therefore be at a lower heading level.

This problem also occurs with the heading “International facilities and partnerships”. This heading is likewise formatted as an h2 element. The headings for the facilities and partnerships within this section, such as “CERN particle accelerator” and “SKAO”, are also formatted as h2 elements, whilst they fall under the section heading.

This also occurs on the pages <https://www.nwo-i.nl/instituut> and <https://www.nwo-i.nl/nieuws>.

Ensure that the heading levels correspond to the structure of the page. Use a lower heading level for the headings of the individual facilities than for the heading introducing the section.

For example:

```
<h2>National facilities and partnerships</h2>

<h3>HFML-FELIX facilities</h3>
<h3>Magnum-PSI, Ion Beam & PLD4Energy</h3>
<h3>NanoLab</h3>
```

Other solutions are also possible.

Images



Illogical heading structure

Comment NWO-3.F45

Content

Low

In the PDF document “Annual Report 2024”, the heading “NWO-I Management Report 2024” is tagged as **h1**. The

subsequent heading “1 Introduction” is also tagged as **H1**. This results in an incorrect heading structure.

Ensure that the heading levels used correspond to the structure of the document. Use a lower heading level for sub-sections than for the main heading of the document. So, for the heading “NWO-I Annual Report 2024”, use a **H2** tag and for the heading “1 Introduction” a **H3** tag.

A

Success Criterion 1.3.2: Meaningful Order

Ensure that all content is in a ‘logical’ order and that assistive software can also determine this order.

Result

 Does not comply: The set of pages examined does not comply with this success criterion.

Findings

This success criterion ensures that everyone can use the information in a logical order, without losing the meaning.

For people who rely on assistive technology, such as screen readers, it is important that the logical visual order on a web page is also reflected in the code. This enables assistive technology to convey the order and meaning of the information accurately.

Visitors may miss important information that is visually very clear and self-evident to other people. As a result, reading the text takes more time and energy.

Finding NWO-3.F8

 Content

 Medium

The page <https://www.nwo-i.nl> lists four research facilities, including ‘HFML-FELIX facilities’. However, the image associated with the heading ‘HFML-FELIX facilities’ appears in the code above the heading rather than below it. This could cause problems, as users might think that this image belongs to a different, higher-level heading.

This problem also occurs in other places on the page, namely:

- In the news items on the same page. The image and publication date appear in the code above the headline of the news item, whilst this content belongs to the news item;
- Under the heading ‘Research facilities and partnerships’. The text ‘Scientific infrastructures’ appears in the code above this heading, whilst this text belongs to the heading;
- Under the heading ‘People make science’. The text ‘Working at NWO-I’ appears in the code above this heading, whilst this text belongs to the heading.

This also occurs on other pages, namely:

- On the page <https://www.nwo-i.nl/onderzoek>, for example, the text ‘Research’ appears in the code above the heading ‘Research with impact’. And under other headings;
- On the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren>, the image appears above the heading in the code;

- And more.

Everything that visually belongs to a particular heading must also appear in the code beneath that heading. Using CSS, it can then be styled so that nothing needs to change visually. This can be done, for example, using the 'order' property. In this case, it is best to mark the images as decorative (with an empty alt attribute `alt=""`) and to always place the dates in the code directly beneath the corresponding heading. If the images do retain the (superfluous) text alternatives, these images must also be placed beneath the heading in the code.

Images

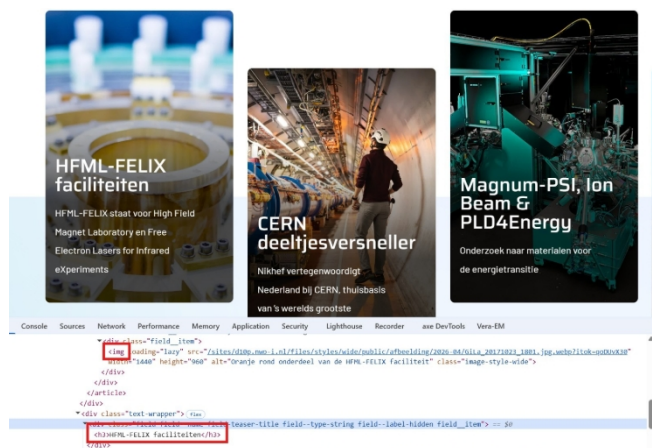


Image above heading in the code

A

Success Criterion 1.3.3: Sensory Characteristics

Do not refer to shape, location, colour, size, orientation or sound.

Result

Fails: The set of pages examined does not meet this success criterion.

Findings

Instructions on a website must be understandable to everyone, regardless of how the page is perceived. For example, use labels to describe buttons or fields, rather than simply referring to what they look like or where they are located. This helps people who are blind or visually impaired, as they cannot rely on visual cues. Without clear descriptions, they may struggle to use the website.

Finding NWO-3.F20

Content

Low

On the page <https://www.nwo-i.nl/over-nwo-i/de-nationale-onderzoeksinstituten-van-de-knaw-en-nwo>, under the heading 'The unique role of our 22 national research institutes', there is a reference stating 'see the image at the bottom of this page, which provides an overview of all the institutes and their locations'.

This instruction relies on the visual location of the image on the page. Furthermore, the image is not at the bottom of the page, but at the top. Users who do not perceive the page visually or who use a different presentation of the content may therefore find it difficult to determine which image is being referred to.

Ensure that references do not depend on the visual location of content on a page. Instead, refer to recognisable text or a heading associated with the relevant content. For example, use a reference such as: “See the image ‘Map of the Netherlands showing the locations of the institutes’.”

Images

De unieke rol van onze 22 nationale onderzoeksinstituten

De tweeëntwintig nationale onderzoeksinstituten van de  KNAW en NWO richten zich op fundamenteel wetenschappelijk onderzoek en zijn samen met universiteiten en andere kennisinstellingen belangrijke partners in het brede Nederlandse onderzoekslandschap.  zie afbeelding onderaan deze pagina met daarin een overzicht van alle instituten en hun locaties. Samen hebben ze meer dan 3000 professionals in dienst die ten behoeve van de samenleving de grenzen van onze kennis verleggen.

Reference to location

AA

Success Criterion 1.3.4: Viewport Orientation

The page must adapt when you switch between portrait and landscape mode.

Result



Complies: the sample tested complies with this success criterion.

AA

Success Criterion 1.3.5: Identify the purpose of the input

The purpose of form fields for personal details (e.g. your name) must be recognised by assistive technology.

Result



Does not comply: The set of pages examined does not comply with this success criterion.

Findings

Filling in forms should be straightforward for everyone, particularly for people with cognitive or physical disabilities. By specifying the function of common input fields, such as name or address, in the code, information can be filled in automatically. This saves time and prevents errors. Without this feature, some visitors may struggle to understand what should be entered in a field.

An overview of the correct values for the autocomplete attribute can be found under '[Input targets for user interface components](https://www.w3.org/Translations/WCAG22-nl/#input-purposes)' on W3.org.

Finding NWO-3.F23

Technical

Leve

There is a form on the page <https://www.nwo-i.nl/contact>. Personal details must be entered into this form. These input fields require an autocomplete attribute for the input elements. This ensures that browsers, as well as assistive technology, can provide support when filling in these input fields. This can be done, for example, by automatically pre-filling the input fields or displaying an icon. The autocomplete attribute is currently missing from these input fields.

Use the following values:

- Name `autocomplete="name"`
- Email address `autocomplete="email"`

Further information on the use of this attribute and which values are mandatory can be found on the following page. See: <https://www.w3.org/Translations/WCAG22-nl/#input-purposes>.

Images

* Aanduiding van verplicht veld

Naam *

E-mail *

Onderwerp *

Bericht *

VERZEND

Input fields are missing the autocomplete attribute

Guideline 1.4: Distinguishable

Make it easier for users to hear and see content, including distinguishing between foreground and background.

A

Success Criterion 1.4.1: Use of colour

Do not rely solely on colour to convey information, for example in graphs, diagrams and tables.

Result

 Complies: the sample examined complies with this success criterion.

A

Success Criterion 1.4.2: Sound Control

If audio starts automatically and lasts longer than 3 seconds, there must be a way to pause it. Recommendation: do not start audio automatically.

Result

 Complies: the sample examined complies with this success criterion.

AA

Success Criterion 1.4.3: Contrast (minimum)

All text must have sufficient colour contrast. Tip: use the Colour Contrast Analyzer to determine the colour contrast.

Result

 Fails: The set of pages examined does not meet this success criterion.

Findings

Low contrast between the text and the background makes the text harder to read. Sufficient colour contrast makes reading the text more comfortable for all visitors, but particularly for those who are visually impaired or colour-blind. For them, sufficient colour contrast is even more important. Insufficient colour contrast makes it difficult for them to understand the website's content.

Standard text must have a minimum contrast ratio of 4.5:1 with the background. For text larger than 24px/18pt (or 19px/14pt for bold text), the contrast ratio must be at least 3.0:1. You can easily measure the colour contrast yourself using [TPGi's Colour Contrast Analyser \(CCA\)](https://www.tpgi.com/colour-contrast-analyser/).

A number of text elements have insufficient colour contrast. In these cases, greater contrast must be created between the text and the background, so that the text is more legible for visitors who are visually impaired or colour-blind.

Finding NWO-3.F27



Low

There is a form on the page <https://www.nwo-i.nl/contact>. When a user attempts to submit the form with errors, an error message containing additional information appears above the form. The text in this message is light pink (rgb(255, 230, 230)). Against the red background (rgb(255, 0, 0)), this results in a contrast ratio of 3.4:1, which is insufficient.

Increase the colour contrast of this text to at least 4.5:1 by adjusting the text or background colour.

Finding NWO-3.F31



Medium

The page https://www.nwo-i.nl/zoeken?search_api_fulltext=Onderzoek displays search results, with links below them to navigate to other pages. The page that is currently active has a purple background. The white page number (rgb(255, 255, 255)) lacks sufficient contrast against the purple background (rgb(196, 96, 176)). This results in a contrast ratio of 3.7:1 instead of the minimum required 4.5:1.

Ensure a contrast ratio of at least 4.5:1 by adjusting the text or background colour.

AA

Success Criterion 1.4.4: Text Resizing

It must be possible to enlarge all text to 200 per cent.

Result



Complies: the sample examined meets this success criterion.

AA

Success criterion 1.4.5: Images of text

Do not use images of text; instead, format your text using CSS.

Result



Complies: the sample examined complies with this success criterion.

AA**Success Criterion 1.4.10: Reflow**

Your website must be responsive and no content should be missing. Avoid two-way scrolling.

Result

 Does not comply: The set of pages examined does not meet this success criterion.

Findings

For people with low vision, it is important that a website continues to function properly when zoomed in significantly. Content must not be lost in the process, and it must be possible to read everything without having to scroll in two directions. Horizontal scrolling requires a great deal of extra effort from users with low vision, particularly if they have to move back and forth with every line.

This success criterion also makes it easier for visitors with physical disabilities and for those who prefer a mobile screen. By designing a website so that it can be displayed without any loss of content or functionality, navigating and understanding the website becomes simpler and more accessible for everyone.

This success criterion is tested at a resolution of 320 by 256 pixels (100% zoom) or at 400% zoom on a screen measuring 1280 by 1024 pixels.

Finding NWO-3.F40
 Technical

 Medium

On the page <https://www.nwo-i.nl>, the heading 'Research facilities and partnerships' is partially off-screen at a resolution of 1280 by 1024 pixels with a 400% zoom, meaning this heading is not fully legible for users with customised screen resolutions.

This problem also occurs on other pages, namely:

- On the page <https://www.nwo-i.nl/onderzoek> under the heading 'Major scientific research infrastructures';
- On the page <https://www.nwo-i.nl/onderzoek>, in the quote next to the word "Knowledge security";
- On the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren> under the heading 'National facilities and partnerships';
- On the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren/hfml-felix-faciliteiten> under the heading 'Partnerships';
- And more.

When the website is viewed at a resolution of 1280 by 1024 pixels and 400% zoom, no content should be lost and users should not have to scroll horizontally to read the content. This is important for visually impaired users who view the page zoomed in, as it requires extra effort for them to scroll back and forth for every line. Ensure that all content remains fully legible when zoomed in.

Ensure that text and headings adapt to the viewport without falling off the screen at a 400% zoom level. Use flexible layout techniques such as percentage-based widths and allow sufficient space. Consider using `overflow: auto;` on containers where necessary. Test the page at different screen resolutions and zoom levels to ensure readability.

Images

Grote wetenschappelijke onderzoeksinfrastructuur

Veel van onze NWO-instituten

beschikken over

Header partially off-screen

AA

Success Criterion 1.4.11: Contrast of non-text content

Non-textual content on your website has sufficient colour contrast (3.0:1). Examples include important images and form fields.

Result



Does not comply: The set of pages examined does not meet this success criterion.

Findings

Non-textual elements, such as icons and input fields, must have a colour contrast ratio of at least 3.0:1. This is important for people with visual impairments. It enables them to distinguish and use these elements more effectively. This also applies, for example, to lines in a graph.

If there is insufficient contrast, they cannot properly carry out important tasks, such as filling in forms or operating buttons. The focus indicator during keyboard navigation must also always be visible. Without adequate contrast, visitors who rely on the keyboard cannot see where the focus is. This makes navigating the website much more difficult.

Finding NWO-3.F34

Design

Low

When the page <https://www.nwo-i.nl> is viewed at a resolution of 1280 by 1024 pixels with a zoom level of 200% or 400%, the user can navigate through the four research facilities using arrow icons (under the heading 'Research facilities and partnerships'). As soon as the button with an arrow icon receives keyboard focus, a light blue focus circle appears around the arrow icon. The light blue focus circle (rgb(76, 207, 255)) lacks sufficient contrast against the white background (rgb(255, 255, 255)). This represents a contrast ratio of 1.8:1 rather than the minimum requirement of 3.0:1.

This problem also occurs on other pages, namely:

- On the page <https://www.nwo-i.nl/werken-bij> under the heading 'People make science';
- On the page <https://www.nwo-i.nl/en> under the heading "Research facilities and collaborations".

Increase the contrast of the focus border to at least 3.0:1.

Images



Focus indicator on button with arrow

Finding NWO-3.F35



When the page <https://www.nwo-i.nl> is viewed at a resolution of 1280 by 1024 pixels with a zoom level of 200% or 400%, the user can navigate through the four research facilities using arrow icons (under the heading 'Research facilities and collaborations'). As soon as the mouse pointer is moved over the arrow icon (hover), the arrow icon turns purple. The purple colour (`rgb(201, 120, 188)`) against the light blue background (`rgb(235, 241, 254)`) lacks sufficient contrast. This is a contrast ratio of 2.7:1 instead of the minimum required 3.0:1.

This problem also occurs on other pages, namely:

- On the page <https://www.nwo-i.nl/werken-bij> under the heading 'People make science';
- On the page <https://www.nwo-i.nl/en> under the heading "Research facilities and collaborations".

The contrast requirements must also be met when hovering or focusing on the text. Change the purple shade to a darker colour with a contrast of at least 3.0:1 against the background.

Images



Button with left-pointing arrow on hover

Finding NWO-3.F28



On the page <https://www.nwo-i.nl/contact> there is a form. When a user attempts to submit the form with errors, an error message with additional information appears above the form. In this

error message, these are also on the left and can be recognised by the dark green underlining (`rgb(24, 101, 124)`). Against the red background (`rgb(255, 0, 0)`), this results in a contrast ratio of just 1.6:1, which is insufficient. Users who have difficulty perceiving content with low contrast will therefore miss the information that there are links in this text.

Increase the colour contrast of this underline to at least 3.0:1 so that it is clear to everyone that these are links.

AA

Success Criterion 1.4.12: Text Spacing

You can adjust line height, character spacing, spacing between paragraphs and spacing between words to make everything more readable.

Result

 Complies: the sample examined complies with this success criterion.

AA

Success Criterion 1.4.13: Content on Hover or Focus

If content is displayed on hover or focus, it must also be clearly visible to everyone.

Result

 Complies: the sample examined complies with this success criterion.

Principle 2: Operable

User interface components and navigation must be operable.

Guideline 2.1: Keyboard Accessibility

Make all functionality available via a keyboard.

A

Success Criterion 2.1.1: Keyboard

Everything must be operable using a keyboard or similar assistive technology.

Result

 Complies: the sample examined complies with this success criterion.

A

Success Criterion 2.1.2: No keyboard traps

Ensure that keyboard users do not get stuck.

Result

 Complies: the sample examined complies with this success criterion.

A

Success Criterion 2.1.4: Single-character keyboard shortcuts

Avoid the use of single-character keyboard shortcuts, such as uppercase letters, lowercase letters, punctuation marks, numbers or symbols.

Result

 Complies: the sample examined complies with this success criterion.

Guideline 2.2: Sufficient time

Give users sufficient time to read and use the content.

A

Success Criterion 2.2.1: Adjustable timing

If there is a time limit on the website, it must be possible to disable or adjust it.

Result

✓ Complies: the sample examined complies with this success criterion.

A

Success Criterion 2.2.2: Pause, stop or hide

For all moving or scrolling content, there must be an option to pause, stop or hide it.

Result

✓ Complies: the sample examined meets this success criterion.

Guideline 2.3: Seizures and physical reactions

Do not design content in a way that is known to cause seizures or physical reactions.

A

Success Criterion 2.3.1: Three flashes or below the threshold

Rapid flashing at a rate of three times or more per second can trigger photoepileptic seizures and is not permitted.

Result

 Complies: the sample examined complies with this success criterion.

Guideline 2.4: Navigable

Provide ways to help users navigate, find content and determine where they are.

A

Success Criterion 2.4.1: Skipping blocks

It must be possible to skip repetitive blocks.

Result



Complies: the sample examined complies with this success criterion.

A

Success Criterion 2.4.2: Page Title

All pages have an appropriate title that describes the subject.

Result



Fails: The set of pages examined does not meet this success criterion.

Findings

A clear page title makes it easier for everyone to navigate. The page title is displayed in the browser address bar and can be accessed by assistive technology, such as a screen reader. Give each page a title that describes its purpose or content. Without clear titles, visitors may struggle to recognise the page and distinguish it from other pages.

Finding NWO-3.F47

Content

Low

In the PDF document 'General Terms and Conditions of Sale, Delivery and Payment', no document title has been set in the document properties. Furthermore, the document is configured so that the file name is displayed in the title bar. As a result, users do not see a descriptive title for the document, but only the file name. For users of assistive technology, this can make it more difficult to identify the document.

Ensure that a descriptive document title is set in the document properties. Also, configure the settings so that the document title is displayed instead of the file name.

For example: "NWO-I General Terms and Conditions of Sale, Delivery and Payment".

Other recommendations and comments

The comments below do not result in a rejection, but may improve accessibility or user-friendliness.

Comment NWO-3.F46

Low

The PDF document “Annual Report 2024” has the document title “NWO-I_Annual Report_2024”. Although this title is sufficiently descriptive, readability can be improved by replacing underscores (“_”) with spaces, for example “NWO-I Annual Report 2024”.

A**Success Criterion 2.4.3: Focus Order**

If the order in which elements receive keyboard focus is important, then that order must be preserved.

Result

Fails: The set of pages examined does not meet this success criterion.

Findings

It is important that everyone can navigate the page or screen logically and easily using the keyboard. The order in which interactive elements receive focus must support the meaning of the content. This helps users to get a clear picture of the page. Without a logical order, keyboard users may lose their way and struggle to find the right information or functions. This is important for anyone who relies on a keyboard, for example due to a visual impairment or physical disability.

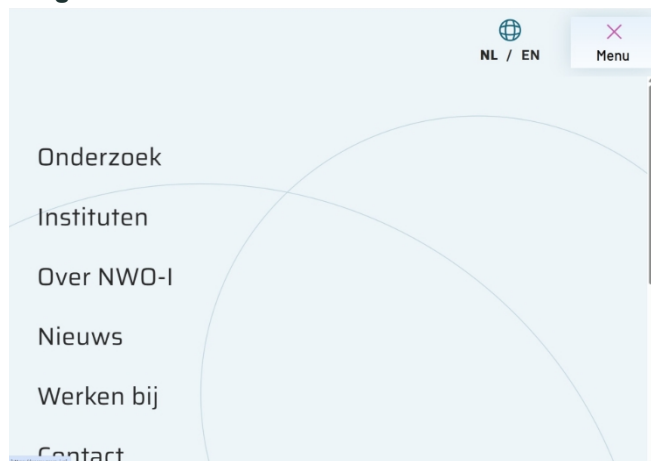
Finding NWO-3.F35

Medium

When the website is viewed at a resolution of 1280 by 1024 pixels with a 200% zoom, a hamburger menu appears (recognisable by the three horizontal lines and the label ‘Menu’). As soon as the user navigates through the menu using keyboard focus and has gone through the entire menu, the keyboard focus disappears behind the menu, which covers the entire screen. The focus is then no longer visible. This is not a logical focus order.

Ensure that focus remains within the menu for as long as it is open. It is also logical for focus to move to a button at the end of the menu to close it.

Images



Focus behind expanded menu

Finding NWO-3.F38

Technical

Medium

The page <https://www.nwo-i.nl/over-nwo-i/de-nationale-onderzoeksinstituten-van-de-knaw-en-nwo> features a table of contents labelled 'On this page'. When a link from the table of contents is activated, the focus moves to the corresponding section heading. This is correct.

However, when the page is viewed at a resolution of 1280 by 1024 pixels with 200% and 400% zoom, and navigation continues using the Tab key, the focus does not move to the next interactive component within the selected section. Instead, the focus returns to the next link in the table of contents.

As a result, the focus order does not meet users' expectations. Users who navigate to a section via the table of contents expect to be able to continue navigating through the content of that section from that point onwards.

This issue also occurs on the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren/magnum-psi-ion-beam-pld4energy>.

Ensure that the focus order remains logical after a link in the table of contents has been activated. When focus moves to a section heading, it is logical for the user to then be able to navigate further using the Tab key to the interactive elements within that same section.

Images

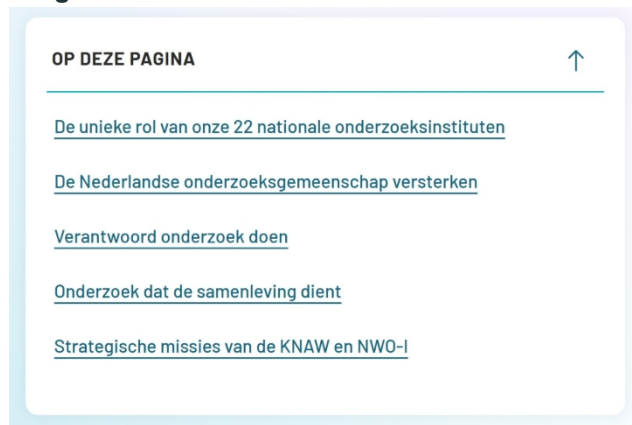


Table of contents page

A

Success Criterion 2.4.4: Link Target (in context)

Provide links with clear text so that you know what will happen when you click on them.

Result

— Does not comply: The set of pages examined does not comply with this success criterion.

Findings

For users with disabilities, it is essential that the purpose of every link is clear. For example, they may navigate through a web page by following links or use assistive technology to retrieve a list of all links on a page.

It is important that users of assistive technology who tab from link to link are given a clear description of a link's purpose. Users with a visual or physical disability can ask their assistive technology to provide an overview of the links available on a page. However, the links displayed must be understandable. An additional benefit is that this prevents links from causing confusion about the content for users with a cognitive disability.

Finding NWO-3.F7

Technical

Low

On all pages, the navigation bar includes a language switcher with the links 'NL' and 'EN'. The globe icon preceding the links does make the context of the link targets visually clear. However, for people who rely on assistive technology, this context is missing. These link targets are therefore insufficiently descriptive.

Make the link targets "EN" and "NL" more descriptive by, for example, adding hidden text. For example:

```
<a href="/nl">
```

```
<span>NL</span>
<span class="visually-hidden">(Dutch)</span>
</a>
```

or:

```
<a href="/nl">
  <span>NL</span>
  <span class="visually-hidden">This page in Dutch</span>
</a>
```

And:

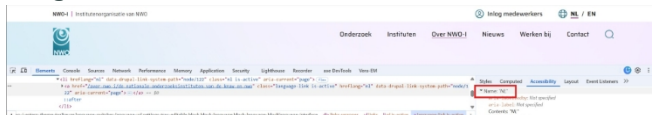
```
<a href="/en">
  <span>EN</span>
  <span class="visually-hidden" lang="en">(English)</span>
</a>
```

or:

```
<a href="/en">
  <span>EN</span>
  <span class="visually-hidden" lang="en">This page in English</span>
</a>
```

Don't forget to add a language switch to the English-language link to avoid issues under success criterion 3.1.2.

Images



Link target language switch

Finding NWO-3.F51

Technical

Medium

On the page <https://www.nwo-i.nl/>, there are various links under the heading ‘Research facilities and partnerships’. All links have “Read more” as their link text and, consequently, as their accessibility name. This is not sufficiently descriptive of the link target. As these links do not automatically relate to the content above, the link target for all of them is the same, which is not sufficient to meet this success criterion.

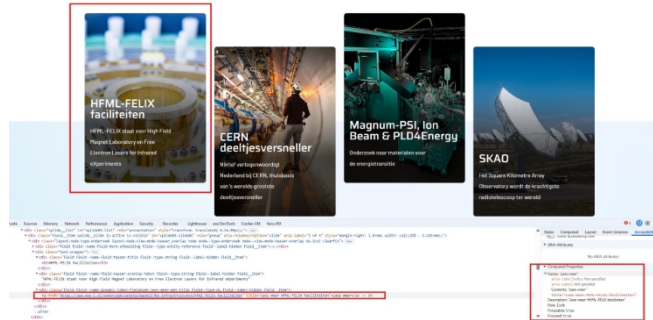
This issue occurs more frequently, for example:

- On the same page, under the ‘News’ heading
- On the page <https://www.nwo-i.nl/en> (here, too, there is now a Dutch link on an English page)

- On the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren>
- And more.

One possible solution is to place the link in the article heading, for example under “HFML-FELIX facilities”. This text should then be included in the link’s accessibility name. The block can then be made clickable in its entirety using CSS pseudo-elements.

Images



Link to article with accompanying code

Other recommendations and comments

The comments below do not result in a rejection, but may improve accessibility or user-friendliness.

AA

Success Criterion 2.4.5: Multiple ways

Pages can be found in several ways, for example via a search function.

Result



Complies: the sample examined complies with this success criterion.

AA

Success Criterion 2.4.6: Headings and Labels

Use clear headings and text labels that describe the subject or purpose.

Result



Complies: the sample examined complies with this success criterion.

AA**Success Criterion 2.4.7: Focus Visibility**

Ensure that it is clear which element has keyboard focus; this makes navigating with the keyboard easier.

Result

– Fails: The set of pages examined does not meet this success criterion.

Findings

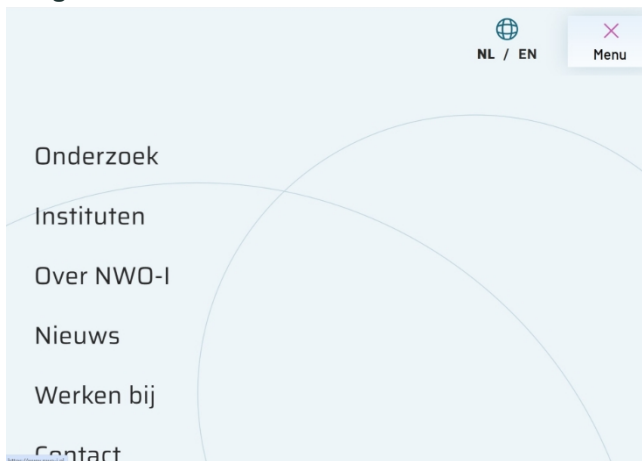
A visible focus indicator helps people who navigate using a keyboard to understand which element is active, such as a button or link. This is particularly important for people with a physical disability who are able to see. Ensure that all interactive elements have a clearly visible focus indicator. Without this visual cue, keyboard users may find it difficult to navigate the page.

Finding NWO-3.F36
 Technical

 Medium

When the website is viewed at a resolution of 1280 by 1024 pixels with a 200% zoom, a hamburger menu appears (recognisable by the three horizontal lines and the label 'Menu'). As soon as the user navigates through the menu using keyboard focus and has gone through the entire menu, the keyboard focus disappears behind the menu, which covers the entire screen. The focus is then no longer visible.

Ensure that the focus remains within the menu for as long as it is open.

Images

Focus behind an expanded menu

AA**Success Criterion 2.4.11: Focus Not Hidden (Minimum)**

When focus moves to an interactive component, it must not be obscured by other content.

Result

 Fails: The set of pages examined does not meet this success criterion.

Findings

When an interactive component receives keyboard focus, the component itself must also be visible. This is particularly helpful for people who are visually impaired or have a motor disability and rely on the keyboard rather than a mouse. Ensure that the focused element is not completely obscured by other content or interface elements. If the focused component is not visible, this makes it difficult for visitors who have difficulty navigating or operating the site.

Finding NWO-3.F37

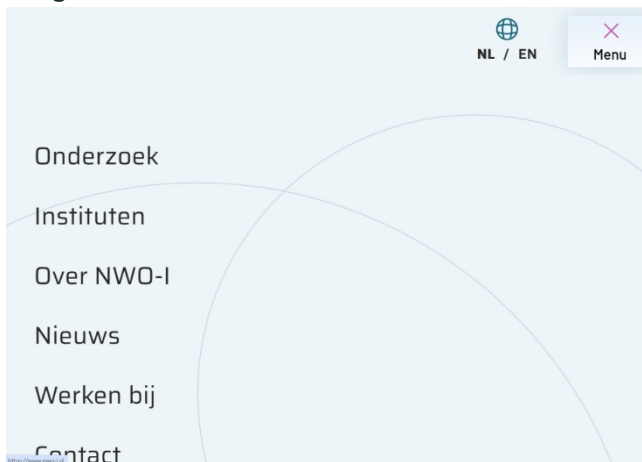
 Technical

 Medium

When the website is viewed at a resolution of 1280 by 1024 pixels with a 200% zoom, a hamburger menu appears (recognisable by the three horizontal lines and the label 'Menu'). As soon as the user navigates through the menu using keyboard focus and has gone through the entire menu, the keyboard focus disappears behind the menu, which covers the entire screen. The focus is therefore obscured by the menu.

Ensure that the focus remains within the menu for as long as it is open.

Images



Focus behind an expanded menu

Guideline 2.5: Input Modalities

Make it easier for users to operate the functionality using forms of input other than just the keyboard.

A

Success Criterion 2.5.1: Pointing Gestures

Users can operate touch functions using a mouse, assistive technology or a single finger.

Result

 Complies: the sample examined complies with this success criterion.

A

Success Criterion 2.5.2: Cursor Cancellation

If you click on something, you must be able to cancel this by moving the mouse pointer.

Result

 Complies: the sample examined complies with this success criterion.

A

Success Criterion 2.5.3: Label in Name

For all interactive elements with visible text, this text is also available in the accessibility name.

Result

 Does not comply: The set of pages examined does not comply with this success criterion.

Findings

It is important that the visually displayed text of an interactive element, such as a button, link or input field, matches the accessibility name in the code. This enables voice control for people who rely on screen-reading software. They use the visible labels to issue commands. If the visual text does not match the accessibility name, the page may not respond to their voice input, making navigation more difficult.

Finding NWO-3.F50

 Technical

 Medium

On the page <https://www.nwo-i.nl/>, under the heading 'Research facilities and partnerships', there are various links. The links have 'Read more' as their link text and therefore as their accessibility name, but this

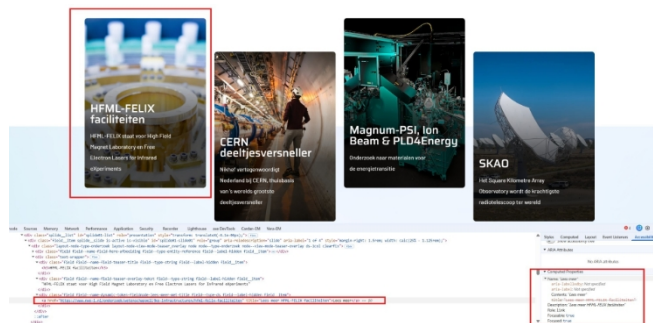
is not the text visible on the links. The text “Read more” is not visible. Instead, the text visible on the link consists of the heading and the text below it. This causes problems for screen readers.

This problem occurs more frequently, for example:

- On the same page, under the heading “News”
- On the page <https://www.nwo-i.nl/en> (here, too, it is a Dutch link on an English page)
- On the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren>
- And more.

One possible solution is to place the link in the article heading, for example under “HFML-FELIX facilities”. This text should then be included in the link’s accessibility name. The block can then be made clickable in its entirety using CSS pseudo-elements.

Images



Link to article with accompanying code

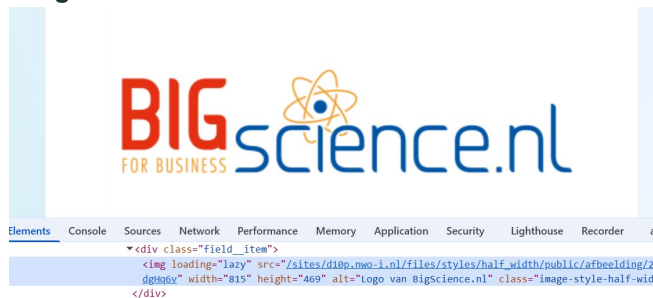
Finding NWO-3.F14



On the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren>, there is a BigScience.nl logo next to the header text “BigScience.NL connects science and business”. The text “for business” is visible within this logo. This text is missing from the text alternative for the logo. As a result, not all the information available to sighted users is also available to users of assistive technology.

Ensure that all meaningful text visible in the logo is also included in the text alternative. For example: “BigScience.nl logo, for business”.

Images



Text alternative without all visible text

A**Success criterion 2.5.4: Motion activation**

Functionality that is activated by moving the device (e.g. shaking) can be disabled and operated in another way.

Result

 Complies: the sample examined complies with this success criterion.

AA**Success Criterion 2.5.7: Drag Operations**

If an item can be dragged, it must also be possible to perform the same action using a mouse or finger without dragging.

Result

 Complies: the sample examined complies with this success criterion.

AA**Success Criterion 2.5.8: Size of the clickable area (minimum)**

Prevent problems by making clickable areas, such as links and buttons, large enough.

Result

 Complies: the sample examined complies with this success criterion.

Principle 3: Understandable

Information and the operation of the user interface must be understandable.

Guideline 3.1: Readable

Ensure that text content is legible and understandable.

A

Success Criterion 3.1.1: Language of the page

Assistive software must be able to determine the language of the page so that, for example, the correct voice and intonation can be used.

Result



Complies: the sample examined complies with this success criterion.

AA

Success Criterion 3.1.2: Language of components

If the language of the content changes, assistive technology must be able to determine it.

Result



Does not comply: The set of pages examined does not comply with this success criterion.

Findings

Where parts of a text or components are in a different language, this must be indicated using the lang attribute in the HTML, for example `lang="en"` for English. This helps visitors who rely on assistive technology, such as screen readers or Braille displays, to understand the content properly. Without a language switch, the software may read the text in the wrong voice or intonation. This makes it more difficult to understand the website.

Finding NWO-3.F22

 Content

 Low

On the page <https://www.nwo-i.nl/werken-bij>, under the heading 'People make science', there are four colleagues. The first image of [name], a strategic adviser, has the text alternative "[name] working on her laptop". This is an English text alternative on a Dutch page. As a result, screen readers may read out the text alternative according to Dutch pronunciation rules. This can lead to the text being pronounced incorrectly or less clearly for users of assistive technology.

Ensure that text alternatives match the language of the page. Preferably translate the text alternative into Dutch, for example: "[name] is sitting at her laptop".

If the image is purely decorative and does not provide any information, you may also consider using an

NWO-3.F32 finding



For example:

Research Infrastructure Support Officer (f/m/x) HFML-FELIX

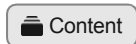
or:

```
<div lang="en">
  Are you an experimental scientist...
</div>
```


This problem also occurs with the globe icon in the navigation bar. The accessibility name of the button is “Switch language”.

Use `lang="en"` in an HTML element that contains content in English. Even better is to ensure that the accessibility name of the link matches the language of the page. For example, translate the accessibility name to “Search”.

Note NWO-3.F18



Content



Low

On the page <https://www.nwo-i.nl/over-nwo-i/de-nationale-onderzoeksinstututen-van-de-kaw-en-nwo>, there is a table of contents within an aside element. This table of contents contains the hidden text “On this page”. This text is not visible on the page, but is used by assistive technology. It is English text on a Dutch website. As a result, screen readers may read the text out loud according to Dutch pronunciation rules. This may lead to the text being pronounced incorrectly or less clearly for users of assistive technology.

This problem also occurs on the page <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren/magnum-psi-ion-beam-pld4energy> in the table of contents.

Translate the text into Dutch, for example: “On this page”.

Guideline 3.2: Predictable

Make the appearance and behaviour of web pages predictable.

A

Success Criterion 3.2.1: On Focus

When an element receives focus, there must be no change in context.

Result

- ✓ Complies: the sample examined complies with this success criterion.

A

Success criterion 3.2.2: On input

When input is entered into an element, there must be no context change.

Result

- ✓ Complies: the sample examined complies with this success criterion.

AA

Success Criterion 3.2.3: Consistent navigation

Make navigating the website easy and use menus consistently.

Result

- ✓ Complies: the sample examined meets this success criterion.

AA

Success criterion 3.2.4: Consistent identification

All elements with the same function are identifiable in the same way.

Result

- ✓ Complies: the sample examined complies with this success criterion.

A**Success criterion 3.2.6: Consistent help**

If help is available on the website, it can always be found in the same place.

Result

Complies: the sample examined complies with this success criterion.

Guideline 3.3: Input Assistance

Help users to avoid and correct errors.

A

Success Criterion 3.3.1: Error Identification

If errors are made, the error must be clearly identifiable in the text.

Result

- ✓ Complies: the sample examined complies with this success criterion.

A

Success criterion 3.3.2: Labels or instructions

Input fields have clear text labels or instructions.

Result

- ✓ Complies: the sample examined complies with this success criterion.

AA

Success criterion 3.3.3: Error suggestions

Provide solutions when users make mistakes.

Result

- ✓ Complies: the sample examined complies with this success criterion.

AA

Success Criterion 3.3.4: Error Prevention (legal, financial, data)

Prevent risks when sending sensitive data.

Result

- ✓ Complies: the sample examined complies with this success criterion.

A**Success criterion 3.3.7: Redundant data entry**

Ensure that information does not have to be entered multiple times within the same process.

Result

 Complies: the sample examined meets this success criterion.

AA**Success criterion 3.3.8: Accessible authentication (minimum)**

Do not use a cognitive function test to log in to a web page.

Result

 Complies: the sample examined complies with this success criterion.

Principle 4: Robust

Content must be sufficiently robust to be reliably interpreted by a wide range of user agents, including assistive technologies.

Guideline 4.1: Compatible

Maximise compatibility with current and future user agents, including assistive technologies.

A

Success Criterion 4.1.2: Name, Role and Value

Software understands the name and role of elements. It can also determine the value, status or properties of elements.

Result

 Does not meet the requirement: The set of pages examined does not meet this success criterion.

Findings

Interactive components, such as form fields, buttons and links, must be coded in such a way that assistive technology can correctly recognise their accessibility name, role, status and/or value. This ensures that users who rely on assistive technology or hardware know how to use the components and understand which functions are available. If the code is incorrect, the assistive software will not work as expected, which may cause confusion. This is particularly important for users with a visual or physical disability.

Finding NWO-3.F52

 Technical

 High

When the website is viewed at a resolution of 1280 by 1024 pixels with a 200% zoom, a hamburger menu appears (recognisable by the three horizontal dashes and the label 'Menu'). The 'Menu' button is hidden from assistive technology because the button element `aria-hidden="true"` has been applied to the button element.

Removing `aria-hidden="true"` seems to resolve the issue.

Finding NWO-3.F53

 Technical

 Low

The website header contains an option to change the website language. Programmatically, this consists of a button and a list with two links. The currently selected language is not defined programmatically. As a result, it is not clear to assistive technology which language is active within this option.

Use the `aria-current` attribute for this, for example; see: <https://developer.mozilla.org/en-US/docs/Web/Accessibility/ARIA/Reference/Attributes/aria-current>.

AA

Success Criterion 4.1.3: Status Messages

Notifications and warnings that appear to indicate the status of an action can be detected by assistive technology.

Result

 Complies: the sample examined complies with this success criterion.

Sample

This assessment was carried out on the basis of a sample. The method used to determine the sample is set out in the [WCAG-EM](#) evaluation document.

- <https://www.nwo-i.nl>
- <https://www.nwo-i.nl/onderzoek>
- <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren>
- <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren/hfml-felix-faciliteiten>
- <https://www.nwo-i.nl/instituut>
- <https://www.nwo-i.nl/instituut/sron>
- <https://www.nwo-i.nl/over-nwo-i>
- <https://www.nwo-i.nl/over-nwo-i/de-nationale-onderzoeksinstituten-van-de-knaw-en-nwo>
- <https://www.nwo-i.nl/nieuws>
- <https://www.nwo-i.nl/nieuws/kabinet-ondersteunt-uitbreiding-etpathfinder-faciliteit-maastricht>
- <https://www.nwo-i.nl/werken-bij>
- <https://www.nwo-i.nl/vacatures/research-infrastructure-support-officer-fmx-hfml-felix>
- <https://www.nwo-i.nl/contact>
- <https://www.nwo-i.nl/contactgegevens-en-routebeschrijving>
- https://www.nwo-i.nl/zoeken?search_api_fulltext=Onderzoek
- <https://www.nwo-i.nl/toegankelijkheidsverklaring>
- <https://www.nwo-i.nl/onderzoek/wetenschappelijke-infrastructuren/magnum-psi-ion-beam-pld4energy>
- <https://www.nwo-i.nl/werken-bij/sollicitatiecode>
- <https://www.nwo-i.nl/sites/d10p.nwo-i.nl/files/bestand/2026-04/NWO-I-20Bestuursverslag-en-Jaarrekening-2024.pdf>
- <https://www.nwo-i.nl/en>
- Found on the page <https://www.nwo-i.nl/inkoop-en-leveringsvoorwaarden>
<https://www.nwo-i.nl/sites/d10p.nwo-i.nl/files/bestand/2026-04/NWO-I-Algemene-verkoopvoorwaarden-01-12-2019.pdf>

Further research details

Techniques used

This research was conducted on the assumption that all W3C techniques are supported and may therefore be used. See: www.w3.org/WAI/WCAG22/Techniques

User agents and other software

The following user agents were used in this study:

- Google Chrome, version 148 (primary)
- Mozilla Firefox, version 151
- PDF Accessibility Checker (PAC)
- NVDA in combination with Mozilla Firefox

Assistive technology

- HTML
- CSS
- WAI-ARIA
- JavaScript
- DOM
- SVG
- PDF

About Cardan

This research was carried out by Cardan.

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Website: <https://cardan.com>

This study was carried out by Cardan. As experts in the field of digital accessibility, we help you make websites, apps and other online services accessible.



This digital accessibility audit was carried out by Cardan using [Cardan Auditor](#) – the smart solution for auditing and improving websites, apps and other digital channels.