

# CARDAN Technobility

## WCAG 2.1 inspection level AA

Trends4fi 3.0.0 (Android)

**Client:** Belastindienst

**Application:** Trends4fi 3.0.0 (Android)

**Report version:** 1.0

Tilburg, september 24, 2021

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## INTRODUCTION

On behalf of Belastindienst the extent to which the application Trends4fi 3.0.0 (Android) conforms to the Web Content Accessibility Guidelines (WCAG) 2.1 has been evaluated. This evaluation was performed according to the guidelines of the Quality Mark drempelvrij.nl, the Dutch quality mark for accessible websites, which includes WCAG 2.1 completely.

Web Content Accessibility Guidelines (WCAG) 2.1 defines how to make web content more accessible to people with disabilities. Accessibility involves a wide range of disabilities, including visual, auditory, physical, speech, cognitive, language, learning, and neurological disabilities. The guidelines aim to make web content more usable by older individuals with changing abilities due to aging and to improve usability for users in general.

At the top of the WCAG 2.1 are four principles that provide the foundation for web accessibility: Perceivable, Operable, Understandable and Robust. The accompanying guidelines provide the basic goals that authors should work toward in order to make content more accessible to users with different disabilities. For each guideline, testable success criteria are provided to allow WCAG 2.1 to be used where requirements and conformance testing are necessary. In order to meet the needs of different groups and different situations, three levels of conformance are defined for the success criteria: A (lowest), AA, and AAA (highest). For each of the guidelines and success criteria in the WCAG 2.1 document itself, the working group has also documented a wide variety of techniques. The techniques are informative and fall into two categories: those that are sufficient for meeting the success criteria and those that are advisory.

Evaluating the extent to which a website conforms to the Web Content Accessibility Guidelines (WCAG) 2.1 is a process involving several steps. The activities carried out within these steps are influenced by many aspects such as: the type of website (e.g. static, dynamic, responsive, mobile, etc.); its size, complexity, and the technologies used to create the website (e.g. HTML, WAI-ARIA, PDF, etc.); how much knowledge the evaluators have about the process used to design and develop the application; and the main purpose for the evaluation (e.g. to issue an accessibility statement, to plan a redesign process, to perform research, etc.).

This report presents all the evaluation findings of the audit of the selected sample. If you have any questions about the report or the findings, please contact us by e-mail: [technobility@cardan.com](mailto:technobility@cardan.com). Please mention the name of your organization (Belastindienst) and the date of this report (september 24, 2021).

## EVALUATION

### Evaluation data

Client	: Belastindienst
Evaluated application	: Trends4fi 3.0.0 (Android) (210816145)
Application build date	: 2021-08-16 11:55:42
Evaluation type	: WCAG 2.1 inspection level AA
Report version	: 1.0
Report date	: september 24, 2021
Inspection organization	: Cardan Technobility
Evaluator	: Teun Gielen
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### Evaluation scope

- All app windows on Trends4fi 3.0.0 (Android)

### Evaluation sample

See appendix 1 for the complete sample

### Evaluation methodology

The WCAG Evaluation Methodology has been used as a guide during the evaluation of the application. See: <https://www.w3.org/WAI/test-evaluate/conformance/wcag-em/>.

### Applied norm

WCAG 2.1 ([www.w3.org/TR/WCAG21](http://www.w3.org/TR/WCAG21)).

WCAG2ICT ([www.w3.org/TR/wcag2ict](http://www.w3.org/TR/wcag2ict)).

### Used techniques

During the evaluation it is assumed that all W3C techniques are supported and can be used. See: [www.w3.org/TR/WCAG20-TECHS](http://www.w3.org/TR/WCAG20-TECHS) and [www.w3.org/WAI/WCAG21/Techniques](http://www.w3.org/WAI/WCAG21/Techniques)

## Accessibility support baseline

In this evaluation the following hardware and software have been used:

- Phone type : Samsung Galaxy A50
- OS type : Android
- OS version : 11
- Android Voice Assistant screenreader
- Google Accessibility scanner
- USB-C dongle with full size keyboard

## Inspection body

This inspection was carried out by Cardan Technobility.

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## SUMMARY

The evaluation of the extent to which the application Trends4fi 3.0.0 (Android) conforms to the Web Content Accessibility Guidelines (WCAG) 2.1 was finished on september 24, 2021. This evaluation was performed according to the guidelines of the Quality Mark drempelvrij.nl. Only the WCAG 2.1 level A and AA success criteria of these guidelines were used in this evaluation. As this is an application WCAG2ICT has also been used to evaluate this application.

The outcome of the evaluation is that the application currently does not conform to all 50 success criteria. The application conforms to 38 out of 50.

The inspection has shown that the app is already partially accessible. This is apparent, for example, from the fact that both screen orientations are supported (portrait and landscape). This is important for users who have their device mounted in a fixed orientation, such as on the arm of a wheelchair. Another example is that the default language of the app can be determined. This is important for users of screen reading software. Another example is that there are no context changes when an element is given focus or after a change in an element's setting. In this regard, accessibility is already well taken care of.

However, accessibility issues have also been found. For example, a number of input fields do not have a visible label. These input fields have a placeholder text, but this does not count as a label. When the user starts typing, this text disappears. In addition, a placeholder is not officially part of the accessibility name. Another example is that status messages cannot be recognized as such by screen reading software, making this information unavailable to visually impaired users using TalkBack. These are just a few examples of problems. See the report for a complete overview of the problems found. For a number of these problems it is indicated how this can be solved. Multiple solutions are possible for most problems. The solution in the report is therefore only a suggestion. If another solution is more appropriate, it may also be used.

The examples used in this report are taken solely from the problems that were found in the sample. Consequently, this is not a complete overview of all of the problems present. It is therefore possible that an accessibility issue may still exist outside the sample, and will be found in a future evaluation, when another sample is used.

**Note:** When adjustments are being made to the application to solve an accessibility issue, it is possible that the solution can create a new accessibility issue.

## EVALUATION RESULTS

An overview of all WCAG 2.1 success criteria of level A and AA, divided over the 4 principles Perceivable, Operable, Understandable and Robust, can be found below. A short description, the level and the result is given for each success criterion. An overview of all the evaluation findings for each success criterion that fails can be found in the next chapter.

### Perceivable

Criterion	Criterion description	Level	Result
1.1.1	Non-text Content	A	Fail
1.2.1	Audio-only and Video-only (Prerecorded)	A	Pass
1.2.2	Captions (Prerecorded)	A	Pass
1.2.3	Audio Description or Media Alternative (Prerecorded)	A	Pass
1.2.4	Captions (Live)	AA	Pass
1.2.5	Audio Description (Prerecorded)	AA	Pass
1.3.1	Info and Relationships	A	Fail
1.3.2	Meaningful Sequence	A	Pass
1.3.3	Sensory Characteristics	A	Pass
1.3.4	Orientation	AA	Pass
1.3.5	Identify Input Purpose	AA	Pass
1.4.1	Use of Color	A	Pass
1.4.2	Audio Control	A	Pass
1.4.3	Contrast (Minimum)	AA	Fail
1.4.4	Resize Text	AA	Fail
1.4.5	Images of Text	AA	Pass
1.4.10	Reflow	AA	Fail
1.4.11	Non-text Contrast	AA	Fail
1.4.12	Text Spacing	AA	Pass
1.4.13	Content on Hover or Focus	AA	Pass

**Operable**

Criterion	Criterion description	Level	Result
2.1.1	Keyboard	A	Fail
2.1.2	No Keyboard Trap	A	Pass
2.1.4	Character key shortcuts	A	Pass
2.2.1	Timing Adjustable	A	Pass
2.2.2	Pause, Stop, Hide	A	Pass
2.3.1	Three Flashes or Below Threshold	A	Pass
2.4.1	Bypass Blocks	A	Pass
2.4.2	Page Titled	A	Pass
2.4.3	Focus Order	A	Pass
2.4.4	Link Purpose (In Context)	A	Pass
2.4.5	Multiple Ways	AA	Pass
2.4.6	Headings and Labels	AA	Pass
2.4.7	Focus Visible	AA	Fail
2.5.1	Pointer Gestures	A	Fail
2.5.2	Pointer Cancellation	A	Pass
2.5.3	Label in Name	A	Pass
2.5.4	Motion Actuation	A	Pass

## Understandable

Criterion	Criterion description	Level	Result
3.1.1	Language of Page	A	Pass
3.1.2	Language of Parts	AA	Pass
3.2.1	On Focus	A	Pass
3.2.2	On Input	A	Pass
3.2.3	Consistent Navigation	AA	Pass
3.2.4	Consistent Identification	AA	Pass
3.3.1	Error Identification	A	Pass
3.3.2	Labels or Instructions	A	Fail
3.3.3	Error Suggestion	AA	Pass
3.3.4	Error Prevention (Legal, Financial, Data)	AA	Pass

## Robust

Criterion	Criterion description	Level	Result
4.1.1	Parsing	A	Pass
4.1.2	Name, Role, Value	A	Fail
4.1.3	Status Messages	AA	Fail

## Evaluation scores

Principle	Level A		Level AA		Total	
	Current score	Max score	Current score	Max score	Current score	Max score
Perceivable	7	9	7	11	14	20
Operable	12	14	2	3	14	17
Understandable	4	5	5	5	9	10
Robust	1	2	0	1	1	3
<b>Total</b>	<b>24</b>	<b>30</b>	<b>14</b>	<b>20</b>	<b>38</b>	<b>50</b>

## EVALUATION RESULTS

### Principle 1: Perceivable

Information and user interface components must be presentable to users in ways they can perceive.

#### Guideline 1.1: Text Alternatives

Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

#### Success criterion 1.1.1: Non-text Content (Level A)

All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, except for the situations listed below.

### Result



Fail: the evaluated sample of web pages fails this success criterion.

### Evaluation Findings

On the “Inloggen” screen, there is an image of the logo at the top left. This image has the text alternative “logo”. This text alternative is not a good description of the image. The text alternative does not clarify which organization the logo belongs to, making this information unavailable to visually impaired users using screen reading software. All logos should get a text alternative is a general rule, for which there few exceptions.

On the “Homepage” screen, there is an image of the logo at the top left. This image does not have a text alternative.

At the top right is a menu. The buttons in this menu do not have a text alternative.

On the screen “Homepage” there are 100 articles. At the top left of each article is a button with an image of “redactie Trends4fi” without an alternative. The same goes for the other buttons related to each article. These images and icons do not have a text alternative. This problem occurs more often. At the bottom right is a button that allows the user to open a screen for adding a new article without an alternative. These kinds of problems also occur on other windows with similar content like the screen “Thema’s” (the tree lines for the menu) and on the screen “Worden kappers zelf wel geknipt en geschoren?” (The bookmark button at the top right and at the bottom the image “author-imgM” does not have a correct alternative). These are a few examples of problems with text alternatives, decorative images could be ignored by assistive software, however all icons and buttons should have an alternative that conveys meaning. Further examples are not provided.

## Guideline 1.2: Time-based Media

Provide alternatives for time-based media.

### Success criterion 1.2.1: Audio-only and Video-only (Prerecorded) (Level A)

For prerecorded audio-only and prerecorded video-only media, the following are true, except when the audio or video is a media alternative for text and is clearly labeled as such:

- **Prerecorded Audio-only:** An alternative for time-based media is provided that presents equivalent information for prerecorded audio-only content.
- **Prerecorded Video-only:** Either an alternative for time-based media or an audio track is provided that presents equivalent information for prerecorded video-only content.

### Result

 Pass: none of the techniques of this success criterion are applicable.

### Success criterion 1.2.2: Captions (Prerecorded) (Level A)

Captions are provided for all prerecorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labeled as such.

### Result

 Pass: none of the techniques of this success criterion are applicable.

### Success criterion 1.2.3: Audio Description or Media Alternative (Prerecorded) (Level A)

An alternative for time-based media or audio description of the prerecorded video content is provided for synchronized media, except when the media is a media alternative for text and is clearly labeled as such.

### Result

 Pass: none of the techniques of this success criterion are applicable.

### Success criterion 1.2.4: Captions (Live) (Level AA)

Captions are provided for all live audio content in synchronized media.

### Result

 Pass: none of the techniques of this success criterion are applicable.

**Success criterion 1.2.5: Audio Description (Prerecorded) (Level AA)**

Audio description is provided for all prerecorded video content in synchronized media.

**Result**



Pass: none of the techniques of this success criterion are applicable.

**Guideline 1.3: Adaptable**

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

**Success criterion 1.3.1: Info and Relationships (Level A)**

Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

**Result**

Fail: the evaluated sample of web pages fails this success criterion.

**Evaluation Findings**

At the top of the “Login” screen is the text “Login”. This text resembles a header, but is formatted in the code as normal text. The relationship between this text and the content below is therefore not available for accessibility software.

This type of problem occurs more often, for example also the text “Contact” in the screen “Homepage” at the top of the screen, this text has a relation with the button “Survey weergeven”. Another example is the text “Groepen” at the top of the “Groepen” screen. These are just a few examples of texts where this problem occurs, the problem occurs more often in the application. If by visual styling a heading is implied a heading should be used. Using a heading is not the only way to present these relations to assistive software, its probably the easiest way to solve this problem.

**Success criterion 1.3.2: Meaningful Sequence (Level A)**

When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.

**Result**

Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 1.3.3: Sensory Characteristics (Level A)**

Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound.

**Result**

Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 1.3.4: Orientation (Level AA)**

Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 1.3.5: Identify input purpose (Level AA)**

The purpose of each input field collecting information about the user can be programmatically determined when:

- The input field serves a purpose identified in the Input Purposes for User Interface Components section; and
- The content is implemented using technologies with support for identifying the expected meaning for form input data.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

### **Guideline 1.4: Distinguishable**

Make it easier for users to see and hear content including separating foreground from background.

#### **Success criterion 1.4.1: Use of Color (Level A)**

Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

#### **Result**



Pass: The evaluated sample of web pages passes this success criterion.

#### **Success criterion 1.4.2: Audio Control (Level A)**

If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level.

#### **Result**



Pass: none of the techniques of this success criterion are applicable.

#### **Success criterion 1.4.3: Contrast (minimum) (Level AA)**

The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following:

- **Large Text:** Large-scale text and images of large-scale text have a contrast ratio of at least 3:1;
- **Incidental:** Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement.
- **Logotypes:** Text that is part of a logo or brand name has no minimum contrast requirement.

#### **Result**



Fail: the evaluated sample of web pages fails this success criterion.

## Evaluation Findings

The “Login” screen contains the input fields “Gebruikersnaam” and “Wachtwoord”. The placeholder texts have a measured contrast of around 3.0:1 to the white background, this is too low and must be at least 4.5:1. Visually impaired users may experience difficulty reading text when the contrast is too low.

Below the form are the links? “Registreren” and “Wachtwoord vergeten?” with a measured contrast of around 2.1:1.

On the “Thema’s” screen, there are four themes with white text on the images. The contrast ratio differs per pixel, but is too low for the texts “Cursus fraudesignalen”, “Wildlife” and “Drugs”. For example, the text “Cursus fraudesignalen” has a measured contrast of approximately 2.6:1. All text on images should have sufficient contrast a general solution

On the screen “Worden kappers zelf wel geknipt en geschoren?” are several links with a measured contrast of 2.3:1. This color combination also appears with the author's name below the links.

This color combination occurs more often, for example in the “Contact” screen at the “Indienen” button.

Another example is in the “Reacties” screen with the names of the authors.

A general remark, this application does have a dark-mode witch has not been included in this evaluation. A dark-mode is not a valid alternative for having sufficient contrast. If there would have been a high contrast mode this would have been different. For example, the different pink texts on “Homepage” do not have sufficient contrast with the background (2.9:1) in dark-mode.

### Success criterion 1.4.4: Resize text (Level AA)

Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality.

## Result

 Fail: the evaluated sample of web pages fails this success criterion.

## Evaluation Findings

At multiple screens, there is a menu at the bottom with the menu items “Homepage” to “Reacties”. When viewing the Android application at maximum text size, the menu item “Homepage” is not fully visible. For example, see the “Homepage”, “Groups” and “Themes” screens.

At the "Login" screen it is not possible to enlarge the text, but this is necessary to meet this success criterion. When the Android application is viewed at a maximum text size, the text size on this screen remains unchanged.

#### **Success criterion 1.4.5: Images of Text (Level AA)**

If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following:

- **Customizable:** The image of text can be visually customized to the user's requirements;
- **Essential:** A particular presentation of text is essential to the information being conveyed.

#### **Result**



Pass: The evaluated sample of web pages passes this success criterion.

#### **Success criterion 1.4.10: Reflow (Level AA)**

Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:

- Vertical scrolling content at a width equivalent to 320 CSS pixels;
- Horizontal scrolling content at a height equivalent to 256 CSS pixels;

Except for parts of the content which require two-dimensional layout for usage or meaning.

#### **Result**



Fail: the evaluated sample of web pages fails this success criterion.

#### **Evaluation Findings**

Problems were encountered with success criterion 1.4.4: Resize text. This second success criterion is based on the fact that scrolling in two dimensions is not always a valid solution for text that does not fit. The problems described by 1.4.4 also occur when the viewport is limited to 320 CSS-pixels. These problems are essentially the same.

**Success criterion 1.4.11: Non-text contrast (Level AA)**

The visual presentation of the following have a contrast ratio of at least 3:1 against adjacent color(s):

- **User Interface Components:** Visual information required to identify user interface components and states, except for inactive components or where the appearance of the component is determined by the user agent and not modified by the author;
- **Graphical Objects:** Parts of graphics required to understand the content, except when a particular presentation of graphics is essential to the information being conveyed.

**Result**

 Fail: the evaluated sample of web pages fails this success criterion.

**Evaluation Findings**

The “Inloggen” screen contains the input fields “Gebruikersnaam” and “Wachtwoord”. These input fields have a gray border at the bottom. This gray border has a measured contrast of 2.0:1 to the white background, which is too low and must be at least 3.0:1. This is important because the position of the input field may not be determinable for visually impaired users if the contrast is too low.

**Success criterion 1.4.12: Text spacing (Level AA)**

In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all of the following and by changing no other style property:

- Line height (line spacing) to at least 1.5 times the font size;
- Spacing following paragraphs to at least 2 times the font size;
- Letter spacing (tracking) to at least 0.12 times the font size;
- Word spacing to at least 0.16 times the font size.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

**Success criterion 1.4.13: Content on hover or focus (Level AA)**

Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:

- **Dismissable:** A mechanism is available to dismiss the additional content without moving pointer hover or keyboard focus, unless the additional content communicates an input error or does not obscure or replace other content;
- **Hoverable:** If pointer hover can trigger the additional content, then the pointer can be moved over the additional content without the additional content disappearing;
- **Persistent:** The additional content remains visible until the hover or focus trigger is removed, the user dismisses it, or its information is no longer valid.

**Result**

Pass: none of the techniques of this success criterion are applicable.

## Principle 2: Operable

User interface components and navigation must be operable.

### Guideline 2.1: Keyboard Accessible

Make all functionality available from a keyboard.

#### Success criterion 2.1.1: Keyboard (Level A)

All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints.

**Note 1:** This exception relates to the underlying function, not the input technique. For example, if using handwriting to enter text, the input technique (handwriting) requires path-dependent input but the underlying function (text input) does not.

**Note 2:** This does not forbid and should not discourage providing mouse input or other input methods in addition to keyboard operation.

## Result

 Fail: the evaluated sample of web pages fails this success criterion.

## Evaluation Findings

This criterion is tested by connecting a full size keyboard to the phone. This criterion also includes users with impaired motor skills. The possible use and misuse of Talkback gestures to control the app is not part of this success criterion.

There is a menu in the top right corner of the “Homepage” screen. The buttons in this menu are not operable with a keyboard interface.

To meet this success criterion, it is necessary that all interactive parts are operable with a keyboard interface, so that the functionality is also accessible to people with, for example, visual or motor disabilities who use a keyboard interface instead of requiring touch control.

These kinds of problems also occur on other screens. For example on the screen “Groepen” the button at the top right is not usable by a keyboard interface. At the bottom of the screen is a menu with the buttons “Homepage” to “Reacties”. These buttons are also not operable with a keyboard interface.

Another example is in the “Change Profile” screen. At the top left is a button with an arrow icon, which cannot be operated with the keyboard. This also applies to the button with the check icon at the top right. These are just a few examples of the total number of problems for users depending on a keyboard interface to control an app. Further examples are not provided in this evaluation.

**Success criterion 2.1.2: No Keyboard Trap (Level A)**

If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 2.1.4: Character key shortcuts (Level A)**

If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true:

- **Turn off:** A mechanism is available to turn the shortcut off;
- **Remap:** A mechanism is available to remap the shortcut to use one or more non-printable keyboard characters (e.g. Ctrl, Alt, etc);
- **Active only on focus:** The keyboard shortcut for a user interface component is only active when that component has focus.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

**Guideline 2.2: Enough Time**

Provide users enough time to read and use content.

**Success criterion 2.2.1: Timing Adjustable (Level A)**

For each time limit that is set by the content, at least one of the following is true: turn off, adjust, extend, real-time exception, essential exception, or 20 hour exception.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

**Success criterion 2.2.2: Pause, Stop, Hide (Level A)**

For moving, blinking, scrolling, or auto-updating information, all of the following are true:

- **Moving, blinking, scrolling:** For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and
- **Auto-updating:** For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

**Guideline 2.3: Seizures**

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

**Success criterion 2.3.1: Three Flashes or Below Threshold (Level A)**

Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds.

**Result**

Pass: The evaluated sample of web pages passes this success criterion.

**Guideline 2.4: Navigable**

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

**Success criterion 2.4.1: Bypass Blocks (Level A)**

A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

**Success criterion 2.4.2: Page Titled (Level A)**

Web pages have titles that describe topic or purpose.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

**Success criterion 2.4.3: Focus Order (Level A)**

If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 2.4.4: Link Purpose (In Context) (Level A)**

The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 2.4.5: Multiple Ways (Level AA)**

More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

**Success criterion 2.4.6: Headings and Labels (Level AA)**

Headings and labels describe topic or purpose.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 2.4.7: Focus Visible (Level AA)**

Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible.

**Result**

 Fail: the evaluated sample of web pages fails this success criterion.

**Evaluation Findings**

In the “Inloggen” screen you will find the “Login” button. The focus indicator is not visible when this button has keyboard focus. It is important that the focus indicator is always visible on all interactive components, such as links and buttons. This is necessary for people who use the keyboard and who can see, for example people with a motor disability. Those users need to be able to be sure which component is activated. The Talkback focus indicator is not part of the requirement for this success criterion.

## Guideline 2.5: Input modalities

Make it easier for users to operate functionality through various inputs beyond keyboard.

### Success criterion 2.5.1: Pointer gestures (Level A)

All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential.

## Result

 Fail: the evaluated sample of web pages fails this success criterion.

## Evaluation Findings

On the screens “Worden kappers zelf wel geknipt en geschoren?” and “Veel meer superrijken! Maar hoe verantwoord is het nog?” it is possible to navigate to the previous or next article by swiping left or right. This operation is path-based because the direction of the first part of the movement determines if the app will look for a scroll or a swipe. This operation may be difficult or impossible for users with, for example, limited motor skills or users of a modified input device, such as a pointing stick, eye-tracking system, or voice-activated mouse emulator. It is therefore important that an alternative is available for this operation that can be performed without a path-based gesture, such as by activating a button.

### Success criterion 2.5.2: Pointer cancellation (Level A)

For functionality that can be operated using a single pointer, at least one of the following is true:

- **No Down-Event:** The down-event of the pointer is not used to execute any part of the function;
- **Abort or Undo:** Completion of the function is on the up-event, and a mechanism is available to abort the function before completion or to undo the function after completion;
- **Up Reversal:** The up-event reverses any outcome of the preceding down-event;
- **Essential:** Completing the function on the down-event is essential.

## Result

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 2.5.3: Label in name (Level A)**

For user interface components with labels that include text or images of text, the name contains the text that is presented visually.

**Result**

- ✓ Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 2.5.4: Motion actuation (Level A)**

Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:

- **Supported Interface:** The motion is used to operate functionality through an accessibility supported interface;
- **Essential:** The motion is essential for the function and doing so would invalidate the activity.

**Result**

- ✓ Pass: none of the techniques of this success criterion are applicable.

**Principle 3: Understandable**

Information and the operation of user interface must be understandable.

**Guideline 3.1: Readable**

Make text content readable and understandable.

**Success criterion 3.1.1: Language of Page (Level A)**

The default human language of each Web page can be programmatically determined.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 3.1.2: Language of Parts (Level AA)**

The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text.

**Result**

 Pass: none of the techniques of this success criterion are applicable.

**Guideline 3.2: Predictable**

Make Web pages appear and operate in predictable ways.

**Success criterion 3.2.1: On Focus (Level A)**

When any component receives focus, it does not initiate a change of context.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 3.2.2: On Input (Level A)**

Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 3.2.3: Consistent Navigation (Level AA)**

Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 3.2.4: Consistent Identification (Level AA)**

Components that have the same functionality within a set of Web pages are identified consistently.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Guideline 3.3: Input Assistance**

Help users avoid and correct mistakes.

**Success criterion 3.3.1: Error Identification (Level A)**

If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 3.3.2: Labels or Instructions (Level A)**

Labels or instructions are provided when content requires user input.

**Result**

 Fail: the evaluated sample of web pages fails this success criterion.

**Evaluation Findings**

The “Inloggen” screen contains the input fields “Gebruikersnaam” and “Wachtwoord”. These input fields do not have a visible label, but this is necessary to meet this success criterion. The placeholder texts do not count as a label, because these texts are no longer visible as soon as the user has entered something in these input fields.

**Success criterion 3.3.3: Error Suggestion (Level AA)**

If an input error is automatically detected and suggestions for correction are known, then the suggestions are provided to the user, unless it would jeopardize the security or purpose of the content.

**Result**

 Pass: The evaluated sample of web pages passes this success criterion.

**Success criterion 3.3.4: Error Prevention (Legal, Financial, Data) (Level AA)**

For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true:

1. **Reversible:** Submissions are reversible.
2. **Checked:** Data entered by the user is checked for input errors and the user is provided an opportunity to correct them.
3. **Confirmed:** A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.

**Result**

Pass: The evaluated sample of web pages passes this success criterion.

## Principle 4: Robust

Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

### Guideline 4.1: Compatible

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

#### Success criterion 4.1.1: Parsing (Level A)

In content implemented using markup languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features.

### Result



Pass: none of the techniques of this success criterion are applicable.

#### Success criterion 4.1.2: Name, role, value (Level A)

For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.

### Result



Fail: the evaluated sample of web pages fails this success criterion.

## Evaluation Findings

There is a menu in the top right corner of the “Homepage” screen. The buttons in this menu do not have an accessibility name. Also, the role cannot be determined. Using the correct roles in the code also improves the information given by assistive software such as Talkback. The screenreader will tell users what operations are possible.

In the screen “Homepage” there are several articles. At the top left of each article is a button with an image. These buttons do not have an accessibility name.

This problem occurs more often. At the bottom right is a button that allows the user to open a screen for adding a new article. This button does not have an accessibility name.

Another example of this problem can be seen in the “Comments” screen. At the top left is a button with an arrow icon. This button does not have an accessibility name. Using switches for operations such as adding and removing articles from bookmarks is a good way to convey the difference in function of buttons to users of assistive software. Giving elements like these a name makes it clear what the function of each interactive element is. The name mentioned in this success criterion can be a text alternative for icons like that. So solving this problem will also solve problems indicated at success criterion 1.1.1: Non-text Content.

### **Success criterion 4.1.3: Status messages (Level AA)**

In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus.

### **Result**



Fail: the evaluated sample of web pages fails this success criterion.

### **Evaluation Findings**

Any errors that are displayed on screen need to be presented to users using assistive software. In the “Inloggen” screen there is a login form. If this form is submitted with errors a notification will appear at the bottom of the form. That notification is a status message and some information about the presence of errors needs to be conveyed to assistive software to trigger users to correct any errors.

## APPENDIX 1: SAMPLE

- The screen “Inloggen” (home screen > the button “inloggen”)
- The screen “Homepage” (menu > the button “Homepage”)
- The screen “Groepen” (menu > the button “Groepen”)
- The screen “IFFC Trendproject” (menu > the button “Homepage” > “IFFC Trendproject”)
- The screen “Thema’s” (menu > the button “Thema’s”)
- The screen “Worden kappers zelf wel geknipt en geschoren” (menu > the button “Thema’s” > “Cursus fraudesignalen” > the article “Worden kappers zelf wel geknipt en geschoren?”)
- The screen “Reacties” (menu > the button “Reacties”)
- The screen “Notificaties” (homepage > the button with the notification icon at the top right corner)
- The screen “Over Trends4fi” (homepage > the button with the settings icon at the top right corner > the button “Over Trends4fi”)
- The screen “Contact” (homepage > the button “Survey indienen”)
- The screen “Veel meer superrijken! Maar hoe verantwoord is het nog?” (homepage > the article “Veel meer superrijken! Maar hoe verantwoord is het nog?”)
- The screen “Mijn profiel wijzigen” (homepage > the button with the settings icon > select the user profile > the edit profile button at the top right corner)