



# Accessibility research 'Ximmio' app for Android

**Client**

DigiToegankelijk TOP (in connection with the implementation of the Ceder motion on behalf of the Ministry BZK)

























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















29 June 2023

**Report version**














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# Table of Contents

<b>Executive summary</b>	<b>5</b>
<b>1. Introduction</b>	<b>7</b>
<b>2. Research</b>	<b>8</b>
2.1. Scope	9
2.2. Devices	9
2.3. Techniques	9
<b>3. Results</b>	<b>10</b>
 Succes Criterion 1.1.1 - Non-text Content	13
 Succes Criterion 1.2.1 - Audio-only and Video-only (Prerecorded)	13
 Succes Criterion 1.2.2 - Captions (Prerecorded)	13
 Succes Criterion 1.2.3 - Audio Description or Media Alternative (Prerecorded)	14
 Succes Criterion 1.2.4 - Captions (Live)	14
 Succes Criterion 1.2.5 - Audio Description (Prerecorded)	14
 Succes Criterion 1.3.1 - Info and Relationships	15
 Succes Criterion 1.3.2 - Meaningful Sequence	18
 Succes Criterion 1.3.3 - Sensory Characteristics	19
 Succes Criterion 1.3.4 - Orientation	20
 Succes Criterion 1.3.5 - Identify Input Purpose	20
 Succes Criterion 1.4.1 - Use of Color	21
 Succes Criterion 1.4.2 - Audio Control	22
 Succes Criterion 1.4.3 - Contrast (Minimum)	23
 Succes Criterion 1.4.4 - Resize text	25
 Succes Criterion 1.4.5 - Images of Text	26
 Succes Criterion 1.4.10 - Reflow	26
 Succes Criterion 1.4.11 - Non-text Contrast	27
 Succes Criterion 1.4.12 - Text Spacing	28
 Succes Criterion 1.4.13 - Content on Hover or Focus	28
 Succes Criterion 2.1.1 - Keyboard	29
 Succes Criterion 2.1.2 - No Keyboard Trap	31
 Succes Criterion 2.1.4 - Character Key Shortcuts	31
 Succes Criterion 2.2.1 - Timing Adjustable	31

 Succes Criterion 2.2.2 - Pause, Stop, Hide	32
 Succes Criterion 2.3.1 - Three Flashes or Below Threshold	32
 Succes Criterion 2.4.3 - Focus Order	33
 Succes Criterion 2.4.4 - Link Purpose (In Context)	37
 Succes Criterion 2.4.6 - Headings and Labels	38
 Succes Criterion 2.4.7 - Focus Visible	39
 Succes Criterion 2.5.1 - Pointer Gestures	40
 Succes Criterion 2.5.2 - Pointer Cancellation	40
 Succes Criterion 2.5.3 - Label in Name	40
 Succes Criterion 2.5.4 - Motion Actuation	41
 Succes Criterion 3.1.1 - Language of Page	41
 Succes Criterion 3.2.1 - On Focus	41
 Succes Criterion 3.2.2 - On Input	42
 Succes Criterion 3.3.1 - Error Identification	44
 Succes Criterion 3.3.2 - Labels or Instructions	45
 Succes Criterion 3.3.3 - Error Suggestion	46
 Succes Criterion 3.3.4 - Error Prevention (Legal, Financial, Data)	47
 Succes Criterion 4.1.1 - Parsing	48
 Succes Criterion 4.1.2 - Name, Role, Value	49
 Succes Criterion 4.1.3 - Status Messages	53

## **4. Recommendations 54**

 Succes Criterion 1.3.1 - Info and Relationships	54
 Succes Criterion 1.3.3 - Sensory Characteristics	54
 Succes Criterion 1.4.1 - Use of Color	55
 Succes Criterion 1.4.3 - Contrast (Minimum)	55
 Succes Criterion 1.4.4 - Resize text	55
 Succes Criterion 1.4.11 - Non-text Contrast	56
 Succes Criterion 2.1.1 - Keyboard	56
 Succes Criterion 2.4.3 - Focus Order	56
 Succes Criterion 2.4.6 - Headings and Labels	57
 Succes Criterion 3.2.2 - On Input	57
 Succes Criterion 3.3.1 - Error Identification	57
 Succes Criterion 3.3.2 - Labels or Instructions	58
 Succes Criterion 3.3.3 - Error Suggestion	58
















 Succes Criterion 4.1.2 - Name, Role, Value	59
 Succes Criterion 4.1.3 - Status Messages	59

## **Appendix A: Findings per screen** **60**

1. Beginscherm	61
2. Onboarding: Postcode	62
3. Afvalkalender	65
4. Containerlocaties	69
5. Afvalwijzer	78
6. Informatie	80
7. Instellingen	81
8. Berichten	86

# Executive summary

Abra has carried out accessibility research on behalf of DigiToegankelijk TOP (in connection with the implementation of the Ceder motion on behalf of the Ministry BZK). Through a sample, we have selected 8 screens. We have checked whether these screens comply with the EN 301 549 standard. This standard references 44 success criteria from the WCAG 2.1.

- We found 41 problems on 8 screens.
- The app passes 29 of the 44 succes criteria.
- The app does not pass the following success criteria:
  1.  Succes Criterion 1.3.1 - Info and Relationships
  2.  Succes Criterion 1.3.3 - Sensory Characteristics
  3.  Succes Criterion 1.4.1 - Use of Color
  4.  Succes Criterion 1.4.3 - Contrast (Minimum)
  5.  Succes Criterion 1.4.4 - Resize text
  6.  Succes Criterion 1.4.11 - Non-text Contrast
  7.  Succes Criterion 2.1.1 - Keyboard
  8.  Succes Criterion 2.4.3 - Focus Order
  9.  Succes Criterion 2.4.6 - Headings and Labels
  10.  Succes Criterion 3.2.2 - On Input
  11.  Succes Criterion 3.3.1 - Error Identification
  12.  Succes Criterion 3.3.2 - Labels or Instructions
  13.  Succes Criterion 3.3.3 - Error Suggestion
  14.  Succes Criterion 4.1.2 - Name, Role, Value
  15.  Succes Criterion 4.1.3 - Status Messages

The Ximmio team has fixed several issues. The Android app from 54 issues to 41 issues. At least 13 issues have been resolved. The app is not 100% the same so probably more errors have been fixed.

The positives: There are no moving or flashing parts to disturb users. The navigation is consistent and the language is well indicated.

The negative points: the app still contains quite a few issues. Not all content is read aloud.

Some input fields lack accessible names.

Questions about this report can be asked via [info@abra.nl](mailto:info@abra.nl). On our website [abra.nl](http://abra.nl) you can read more about our services.

# 1. Introduction

Abra has carried out accessibility research on behalf of DigiToegankelijk TOP (in connection with the implementation of the Ceder motion on behalf of the Ministry BZK). The evaluation method Appt-EM was used for researching. This method has been developed specifically for apps and is based on WCAG-EM. We investigated whether the app complies with the EN 301 549 standard. This standard contains 44 success criteria from the WCAG 2.1 guidelines.

## WCAG

WCAG stands for Web Content Accessibility Guidelines. The guideline was originally created for websites, but can also partly be applied to apps. Version 2.1 of the WCAG consists of 4 principles, 13 guidelines and 78 success criteria. The success criteria are divided into three levels: A, AA and AAA. Level A consists of 30 success criteria, level AA of 20 success criteria and level AAA of 28 success criteria. To meet level AA you must also meet level A.

## EN 301 549

EN 301 549 is the European standard for digital accessibility. We applied version 3.2.1 of this standard for this research. Apps fall under the 'Software' chapter. For apps, 44 of the 50 success criteria from level A and AA of the WCAG 2.1 apply. Minor adjustments have been made to the notes or definitions for 13 success criteria, often keeping the context the same. The following success criteria are not mandatory for apps: 2.4.1, 2.4.2, 2.4.5, 3.1.2, 3.2.3 and 3.2.4.

## Accessibility statement

Government agencies are required by law to optimize the accessibility of their apps. They are held accountable for how far they have progressed. For that accountability, government agencies must make and upload an [accessibility statement](#). This report gives a good overview of the level of accessibility.

## Support

Abra supports organizations that want to improve the accessibility of their apps. We provide services and software to improve the accessibility of apps. Our reports always contain solutions specifically for apps.

Questions about this report can be asked via [info@abra.nl](mailto:info@abra.nl). On our website [abra.nl](http://abra.nl) you can read more about our services.

## 2. Research

Abra has carried out accessibility research on behalf of DigiToegankelijk TOP (in connection with the implementation of the Ceder motion on behalf of the Ministry BZK). This are the details:

### App name

Ximmio

### Operating system

Android

### Tested version

2.0.0 (9)

### Installation method

Via appcenter FlutterWestland Ximmio app

### Research type

WCAG 2.1 level AA

### Applied standard

EN 301 549 [↗](#) with WCAG 2.1 [↗](#)

### Research method

Appt-EM [↗](#), based on WCAG-EM [↗](#)

### Client

DigiToegankelijk TOP (in connection with the implementation of the Ceder motion on behalf of the Ministry BZK)

### Researcher

Paul van Workum

### Reviewer

Jan Jaap de Groot

### Date

29 June 2023



## 2.1. Scope

The research is based on a sample. Part of the app has been selected to draw conclusions about the entire app. Problems that occur several times on a screen might only be described once.

### *Overview of the selected screens*

Nr	Screen	Path
1	Beginscherm	... > Welkom > Home
2	Onboarding: Postcode	Beginscherm > Welkom > Home
3	Afvalkalender	Home > Afvalkalender
4	Containerlocaties	Home > Containerlocaties
5	Afvalwijzer	Home > Afvalwijzer
6	Informatie	Home > Informatie
7	Instellingen	Home > Instellingen
8	Berichten	Home > Berichten

## 2.2. Devices

The following devices were used during the research:

- Samsung Galaxy S21, Android 13

## 2.3. Techniques

































The app has been developed with the following techniques:









































- Flutter
















### 3. Results

The research shows that the 'Ximmio' app meets 29 of the 44 success criteria from the guideline.

#### Results per success criterion

Success criterion	Level	Title	Result
 1.1.1	A	Non-text Content	 Passes
 1.2.1	A	Audio-only and Video-only (Prerecorded)	 Passes
 1.2.2	A	Captions (Prerecorded)	 Passes
 1.2.3	A	Audio Description or Media Alternative (Prerecorded)	 Passes
 1.2.4	AA	Captions (Live)	 Passes
 1.2.5	AA	Audio Description (Prerecorded)	 Passes
 1.3.1	A	Info and Relationships	 Does not pass
 1.3.2	A	Meaningful Sequence	 Passes
 1.3.3	A	Sensory Characteristics	 Does not pass
 1.3.4	AA	Orientation	 Passes
 1.3.5	AA	Identify Input Purpose	 Passes
 1.4.1	A	Use of Color	 Does not pass
 1.4.2	A	Audio Control	 Passes
 1.4.3	AA	Contrast (Minimum)	 Does not pass
 1.4.4	AA	Resize text	 Does not pass
 1.4.5	AA	Images of Text	 Passes

Success criterion	Level	Title	Result
 1.4.10	AA	Reflow	 Passes
 1.4.11	AA	Non-text Contrast	 Does not pass
 1.4.12	AA	Text Spacing	 Passes
 1.4.13	AA	Content on Hover or Focus	 Passes
 2.1.1	A	Keyboard	 Does not pass
 2.1.2	A	No Keyboard Trap	 Passes
 2.1.4	A	Character Key Shortcuts	 Passes
 2.2.1	A	Timing Adjustable	 Passes
 2.2.2	A	Pause, Stop, Hide	 Passes
 2.3.1	A	Three Flashes or Below Threshold	 Passes
 2.4.3	A	Focus Order	 Does not pass
 2.4.4	A	Link Purpose (In Context)	 Passes
 2.4.6	AA	Headings and Labels	 Does not pass
 2.4.7	AA	Focus Visible	 Passes
 2.5.1	A	Pointer Gestures	 Passes
 2.5.2	A	Pointer Cancellation	 Passes
 2.5.3	A	Label in Name	 Passes
 2.5.4	A	Motion Actuation	 Passes
 3.1.1	AA	Language of Page	 Passes
 3.2.1	A	On Focus	 Passes


Success criterion	Level	Title	Result
 3.2.2	A	On Input	 Does not pass
 3.3.1	A	Error Identification	 Does not pass
 3.3.2	A	Labels or Instructions	 Does not pass
 3.3.3	AA	Error Suggestion	 Does not pass
 3.3.4	AA	Error Prevention (Legal, Financial, Data)	 Passes
</> 4.1.1	A	Parsing	 Passes
 4.1.2	A	Name, Role, Value	 Does not pass
 4.1.3	AA	Status Messages	 Does not pass

The following pages contain an explanation of each success criterion and an overview of the findings.



## Succes Criterion 1.1.1 - Non-text Content

Ensure that alternative text is available for all content without text. These include images, icons and graphs. Describe what there is to see. People who are blind have this description read aloud through their screen reader. Alternative text can also be useful for anyone who is unsure about the meaning of the content.


 Passes

[Additional information about success criterion 1.1.1](#)



## Succes Criterion 1.2.1 - Audio-only and Video-only (Prerecorded)

Ensure a transcript is provided when information is only conveyed by audio or images. With podcasts, the information is conveyed only through audio. People who are deaf cannot hear what is being said. In animation films, the information is often only conveyed through images. People who are blind cannot see the images. By making a transcript available, the information can be read instead.


 Passes

[Additional information about success criterion 1.2.1](#)



## Succes Criterion 1.2.2 - Captions (Prerecorded)


Ensure captions are provided for all videos with sound. People who are hard of hearing, deaf or deafblind depend on captions to understand what is being said. Captions are also useful for anyone who is temporarily unable to perceive sound, for example inside a quiet zone.

 Passes

[Additional information about success criterion 1.2.2](#)

## **Success Criterion 1.2.3 - Audio Description or Media Alternative (Prerecorded)**

Ensure a transcript or audio description is provided for videos where you can't hear what is displayed. The content can then be read in case of a transcript, or heard in case of audio description. If you choose to add a audio description, you also meet success criterion 1.2.5.

 Passes

[Additional information about success criterion 1.2.3](#)

## **Success Criterion 1.2.4 - Captions (Live)**


Ensure real-time captions are available for all live videos with audio. This allows people who need subtitles to directly access the spoken information.

 Passes

[Additional information about success criterion 1.2.4](#)

## **AD))) Success Criterion 1.2.5 - Audio Description (Prerecorded)**

Ensure audio description is available when important information is shown which you cannot hear. An extra sound track must be provided where where the visual information is described. This allows people who are blind or have difficulty processing visual information to also understand the content.

 Passes

[Additional information about success criterion 1.2.5](#)

## ☰ Succes Criterion 1.3.1 - Info and Relationships

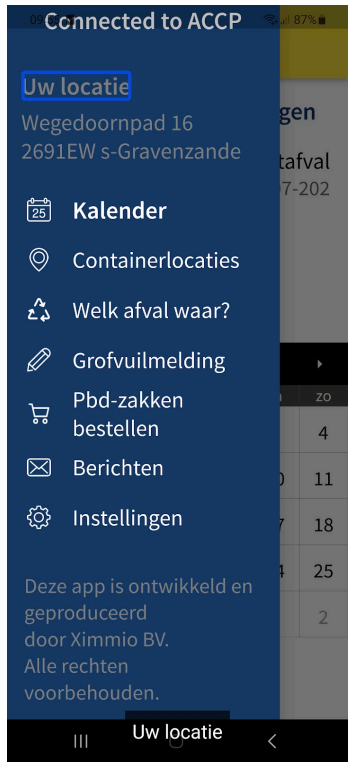
Ensure that the information and relationships on the screen are not only conveyed visually.

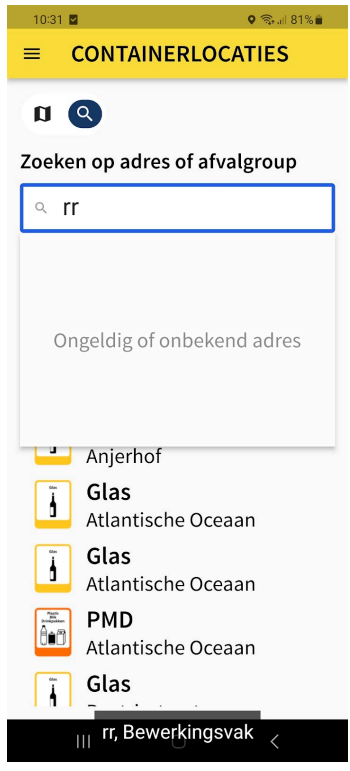
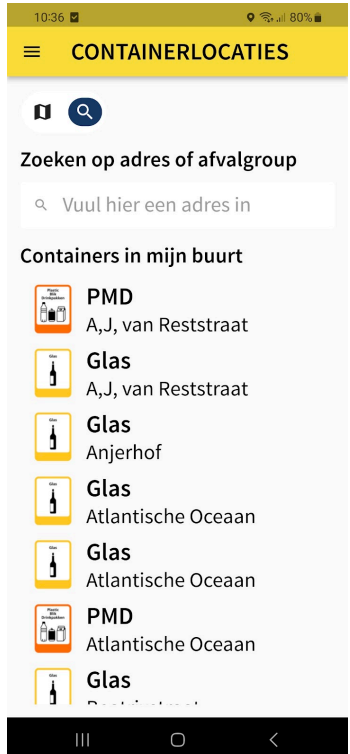
Information on the screen must be conveyed to assistive technologies. For example, make sure that headings are not only bold, but also marked as headings in the code.

Relationships on the screen must be usable with assistive technologies. Elements in a list must be navigable one by one. Elements in a table must be navigable by rows and columns.

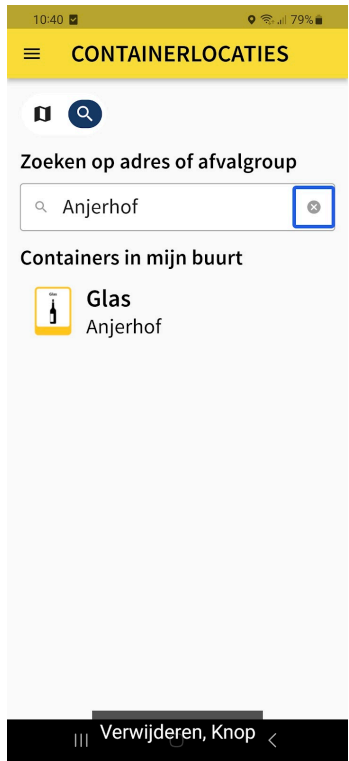
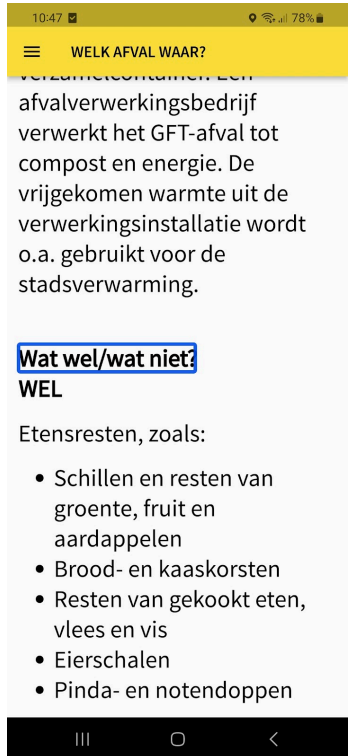
✘ Does not pass

[Solution for success criterion 1.3.1 ↗](#)

Nr	Screen	Problem	Screenshot
1	Afvalkalender	<p>On this screen, there are headings that are not marked-up as headings. Make sure that assistive technology recognizes headings as headings.</p> <p>Either mark the heading "Uw locatie" as heading or group "Uw location" with the adres below.</p> <p>This issue occurs on all screens with the menu present.</p>	 A screenshot of a mobile application's menu. The menu is displayed over a dark blue background. At the top, it says "Uw locatie" in white text, which is highlighted with a blue selection box. Below this, there is a list of menu items: "Wegedoornpad 16", "2691EW s-Gravenzande", "Kalender", "Containerlocaties", "Welk afval waar?", "Grofvuilmelding", "Pbd-zakken bestellen", "Berichten", and "Instellingen". At the bottom of the menu, there is a footer that reads "Deze app is ontwikkeld en geproduceerd door Ximmio BV. Alle rechten voorbehouden." The bottom of the screen shows a navigation bar with the text "Uw locatie" and a back arrow.

Nr	Screen	Problem	Screenshot
2	Containerlocaties	<p>The label is not programmatically associated with the related input field. Make sure that by selecting an input field, the screen reader reads the label.</p> <p>The label "Zoeken op adres of afvalgroep" does not get focus and is not connected to the input field.</p>	
3	Containerlocaties	<p>On this screen, there are headings that are not marked-up as headings. Make sure that assistive technology recognizes headings as headings.</p> <p>It is about the headings: "Zoeken op adres of afvalgroep" and "Containers in mijn buurt".</p>	




Nr	Screen	Problem	Screenshot
4	Containerlocaties	<p>The label is not connected to its element. This ensures that the element cannot be activated with voice control. Make sure the label is connected to the element.</p> <p>"verwijderen, knop" is not associated to the searchfield. The label should indicate what information will be deleted. "Zoekveld leegmaken, knop" would be a better label.</p>	
5	Afvalwijzer	<p>On this screen, there are headings that are not marked-up as headings. Make sure that assistive technology recognizes headings as headings.</p> <p>It is about the bold headings: "Wat wel/wat niet?" and "Wel" and "Niet" etc.</p>	

Nr	Screen	Problem	Screenshot
6	Instellingen	<p>On this screen, there are headings that are not marked-up as headings. Make sure that assistive technology recognizes headings as headings.</p> <p>It is about the headings "Uw adresgegevens", "Berichten" and other similar headings.</p>	

## Succes Criterion 1.3.2 - Meaningful Sequence

Ensure that the order which assistive technologies follow reflect the meaning of the content. Otherwise, users of assistive technology may misunderstand the content. Most content is presented from left to right, from top to bottom. The information should also be presented to users of assistive technologies in this way.


 Passes

[Additional information about success criterion 1.3.2](#)

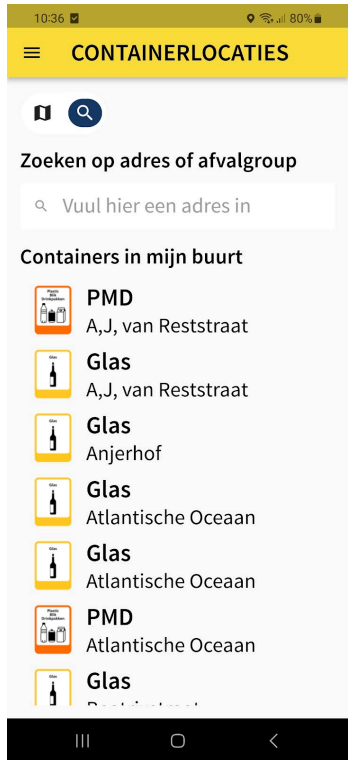


## Succes Criterion 1.3.3 - Sensory Characteristics

Ensure instructions can be understood by everyone. Instructions that only use shape, size, location, orientation or sound are not understandable for everyone. For example, people who are blind cannot see shape. Combine multiple properties to allow everyone to understand the instructions.


 Does not pass


[Solution for success criterion 1.3.3](#)

Nr	Screen	Problem	Screenshot
7	Containerlocaties	<p>The legend of the map has reference to symbol/shape. This information is inaccessible to the assistive technology. Make sure that information is not dependent on the visual representation.</p> <p>The list is an alternative for the map. It is not possible to filter on a garbage type or to search for a nearby garbage point. The list is for that reason not an equal alternative. Make sure the functionality of the map are also available in the list. People with a keyboard interface are dependent on this.</p>	

## **Success Criterion 1.3.4 - Orientation**


Ensure that the screen content rotates with the device display. All screens of an app must be usable in all orientations. Users in wheelchairs sometimes have their device mounted horizontally. People who use an enlarged font also often rotate their device so that more words fit on the screen.


 Passes

[Additional information about success criterion 1.3.4](#) 

## **Success Criterion 1.3.5 - Identify Input Purpose**


Ensure it is clear what information is expected from users inside input fields. Set the correct input type to allow auto-completion, e.g. for e-mail addresses. This is faster for everyone and prevents errors for users of assistive technology.


 Passes

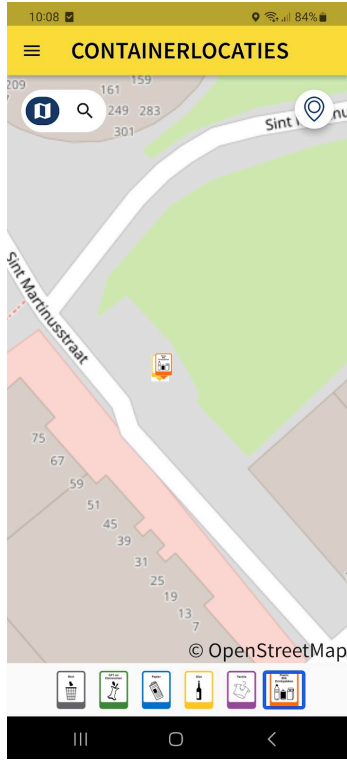
[Additional information about success criterion 1.3.5](#) 

## Succes Criterion 1.4.1 - Use of Color

Ensure colour isn't the only way information is conveyed. Information which is conveyed only by colour cannot be perceived by everyone. For example, also use shape to give instructions, e.g. reference a green checkmark or red cross. Inside a legend, use numbers in addition to colour, to allow people who are colour blind to find what they are looking for.


 Does not pass


[Solution for success criterion 1.4.1](#) 

Nr	Screen	Problem	Screenshot
8	Containerlocaties	<p>Color is used to convey information. Make sure that another visual cue is used, for example, the shape of the lines.</p> <p>It is about the indicators where garbage containers are on the map.</p> <p>An exception applies to online maps and mapping services. Maps themselves do not have to be accessible. You can try to make it as accessible as possible.</p>	

## **Success Criterion 1.4.2 - Audio Control**


Ensure that audio which lasts longer than three seconds can be paused or stopped. It is disturbing if audio cannot be paused, especially for people who use a screen reader. As a result, they can no longer hear the screen reader's voice properly. For people who have difficulty concentrating, it is also nice if audio can be paused. This allows them to focus better on the other information.

 Passes

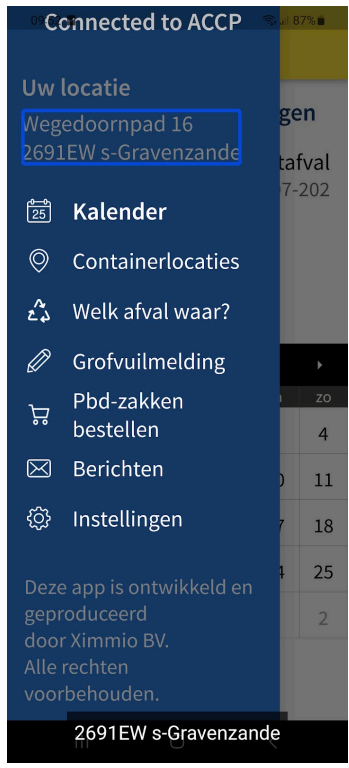
[Additional information about success criterion 1.4.2](#) 

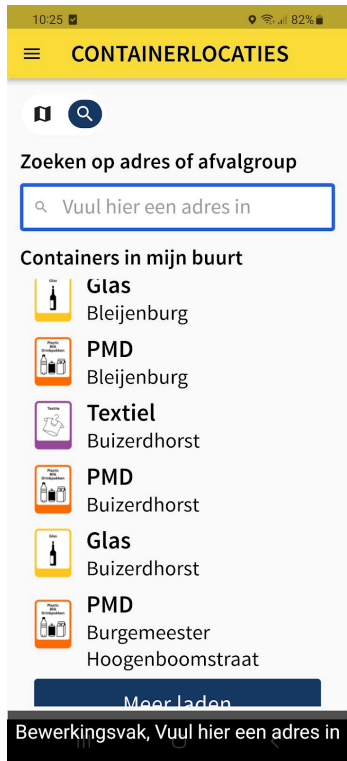
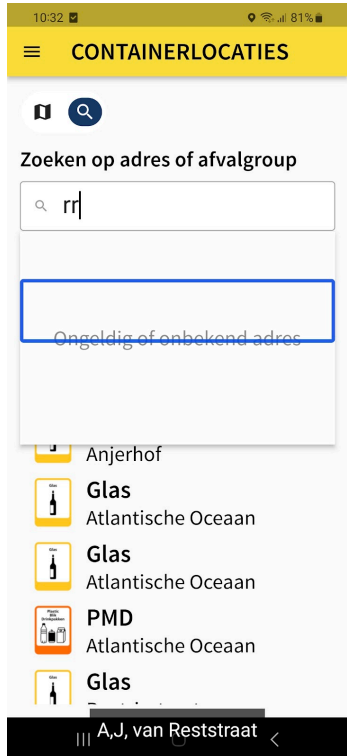
## **Succes Criterion 1.4.3 - Contrast (Minimum)**

Ensure that the contrast ratio between the text colour and background colour is at least 4.5:1. For bold and large text, a ratio of 3:1 is sufficient. By maintaining these ratios, visually impaired and colour blind users can usually read the text well. In addition, this makes an app easier for everyone to use, for example outside in the sun.

 Does not pass

[Solution for success criterion 1.4.3](#)


Nr	Screen	Problem	Screenshot
9	Afvalkalender	<p>The text contrast ratio is too low. Provide a minimum contrast of 4.5:1.</p> <p>It is about the text "Uw location", the adres and the text "Deze app ...".</p> <p>The contrast is 3:1.</p> <p>This issue occurs on all screens with the menu present.</p>	 <p>The screenshot shows a mobile application menu with a dark blue background and white text. The text is difficult to read due to low contrast. A red box highlights the text "Wegedoornpad 16" and "2691EW s-Gravenzande". The menu items include "Kalender", "Containerlocaties", "Welk afval waar?", "Grofvuilmelding", "Pbd-zakken bestellen", "Berichten", and "Instellingen". The bottom of the screen shows the address "2691EW s-Gravenzande".</p>

Nr	Screen	Problem	Screenshot
10	Containerlocaties	<p>The text contrast ratio is too low. Provide a minimum contrast of 4.5:1.</p> <p>It is about the placeholder text "Vuul hier ...". The contrast is 2,6:1.</p> <p>Suggestion: The label of the input field and the search field both have a spelling mistake - "VuUI" (extra U) and "AfvalgroUp" (U instead of E)</p>	 <p>The screenshot shows the 'CONTAINERLOCATIES' app interface. At the top, there is a yellow header with the title 'CONTAINERLOCATIES'. Below the header, there is a search bar with the placeholder text 'Vuul hier een adres in'. Below the search bar, there is a section titled 'Containers in mijn buurt' with a list of container locations. The list includes items like 'Glas Bleijenburg', 'PMD Bleijenburg', 'Textiel Buizerdhorst', 'PMD Buizerdhorst', 'Glas Buizerdhorst', and 'PMD Burgemeester Hoogenboomstraat'. At the bottom, there is a 'Meer laden' button and a black bar with the text 'Bewerkingsvak, Vuul hier een adres in'.</p>
11	Containerlocaties	<p>The text contrast ratio is too low. Provide a minimum contrast of 4.5:1.</p> <p>The contrast of the error message: "Ongeldig of onbekend adres" is 3.3:1.</p>	 <p>The screenshot shows the 'CONTAINERLOCATIES' app interface. At the top, there is a yellow header with the title 'CONTAINERLOCATIES'. Below the header, there is a search bar with the placeholder text 'Zoeken op adres of afvalgroup'. The search bar contains the text 'rr'. Below the search bar, there is a red error message that says 'Ongeldig of onbekend adres'. Below the error message, there is a list of container locations. The list includes items like 'Anjerhof', 'Glas Atlantische Oceaan', 'Glas Atlantische Oceaan', 'PMD Atlantische Oceaan', and 'Glas'. At the bottom, there is a black bar with the text 'A,J, van Reststraat'.</p>

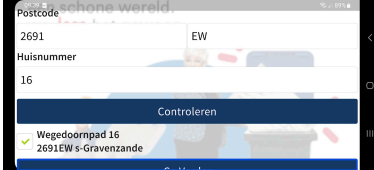
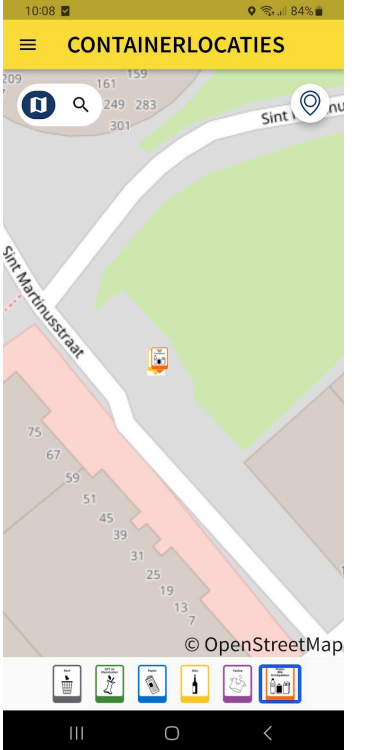


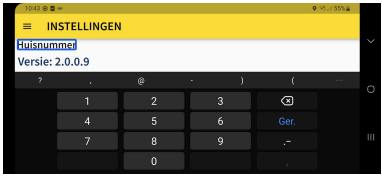
## AA Succes Criterion 1.4.4 - Resize text

Ensure that the text in your app supports resizing. Users specify their preferred font size in the system settings. Text in your app should resize according to the preferred font size. This is especially important for visually impaired users because otherwise they might not be able to read the text. Text should not be abbreviated with dots.

 Does not pass

[Solution for success criterion 1.4.4](#)


Nr	Screen	Problem	Screenshot
12	Onboarding: Postcode	<p>(Parts of) text on this screen are no longer visible when the text is magnified to 200%. Make sure that all text remains available to users who use the app with an enlarged text.</p> <p>The button "Ga Verder" is not fully visible. Implement a scroll function to make all elements reachable.</p>	
13	Containerlocaties	<p>(Parts of) text on this screen does not scale when the text is scaled to 200%. Make sure all text remains readable when magnified.</p> <p>It is about the indicators where garbage containers are on the map/below the map.</p>	

Nr	Screen	Problem	Screenshot
14	Instellingen	<p>(Parts of) text on this screen are no longer visible when the text is magnified to 200%. Make sure that all text remains available to users who use the app with an enlarged text.</p> <p>Suggestion: In landscape modus there is very limited space for the content. We suggest to place the version number inside the scroll view, instead of making it overlay other content.</p>	

## **Succes Criterion 1.4.5 - Images of Text**

Ensure images are not used to display text. Always use plain text to allow the text to be adapted to the user's preferences. The font size inside an image often scales to a limited extent or not at all. As a result, the text cannot be read by everyone.


Exception: If an image of text does scale or if text as image is specifically needed to convey information.

 Passes

[Additional information about success criterion 1.4.5](#)

## **Succes Criterion 1.4.10 - Reflow**


Ensure that all content on the screen remains readable even with the largest font. Content should be readable without having to scroll in two directions. Because the text is displayed larger, it can push other elements off the screen. Ensure content can still be reached, for example, by scrolling vertically.

 Passes

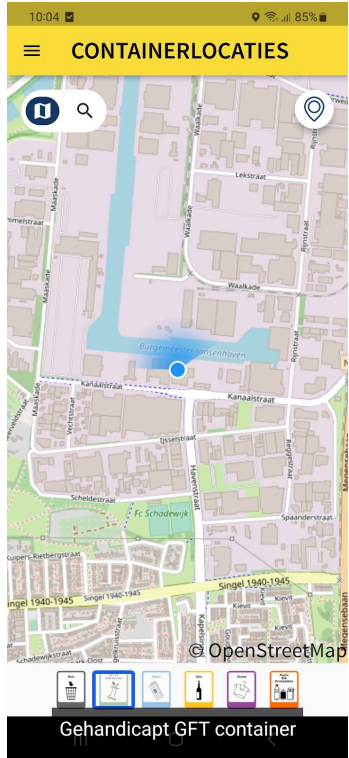
[Additional information about success criterion 1.4.10](#)

## Succes Criterion 1.4.11 - Non-text Contrast

Ensure that the content on the screen has a contrast of at least 3:1 with the surrounding colour. Think of graphic elements such as icons, buttons and input fields. By keeping this ratio, visually impaired and colour blind users can distinguish the content well. In addition, this makes an app easier for everyone to use, for example outside in the sun.


 Does not pass


[Solution for success criterion 1.4.11](#)

Nr	Screen	Problem	Screenshot
15	Containerlocaties	<p>The contrast of interface elements on this screen is less than 3.0:1. Provide a minimum contrast of 3.0:1.</p> <p>The contrast of the "Glas container" yellow is 1,5:1. Also the elements for the other garbage types do not have sufficient contrast.</p>	

## **Success Criterion 1.4.12 - Text Spacing**


Ensure there is enough space between paragraphs, letters and words. People with dyslexia can read faster as a result. People who are visually impaired can also read the text more easily. White space can also help people with a cognitive impairment to distinguish parts from each other.


 Passes

[Additional information about success criterion 1.4.12](#) 

## **Success Criterion 1.4.13 - Content on Hover or Focus**


Ensure it possible to hide content which appears automatically when touching an element. It often happens that an element is touched accidentally. If new content appears, it may affect the completion of a task. Automatic content mainly causes problems for users of assistive technologies.


 Passes

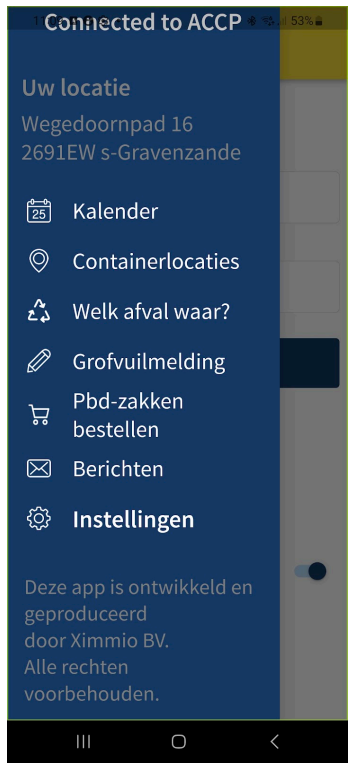
[Additional information about success criterion 1.4.13](#) 

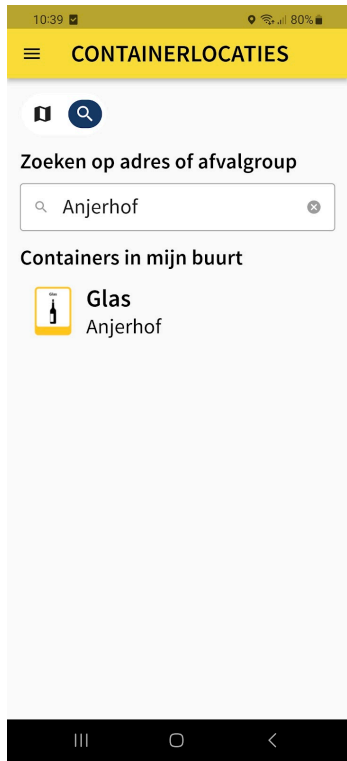

## Succes Criterion 2.1.1 - Keyboard

Ensure that all functionality in the app can be used with assistive technologies. People who are blind use the screen reader. People with a motor disability use switch control, voice control and/or the keyboard. These assistive technologies are built into the operating system.

 Does not pass

[Solution for success criterion 2.1.1](#) 


Nr	Screen	Problem	Screenshot
16	Afvalkalender	<p>The screen/parts of the screen cannot be operated with an external keyboard. Make sure that all functionality is available using an external keyboard.</p> <p>With an external keyboard the menu cannot be reached with the screen reader.</p> <p>This issue occurs on all screens with the menu present.</p> <p>Other screens we did not test as we cannot reach them with the Keyboard.</p>	

Nr	Screen	Problem	Screenshot
17	Containerlocaties	<p>The screen/parts of the screen cannot be operated with an external keyboard. Make sure that all functionality is available using an external keyboard.</p> <p>The list is an alternative for the map. It is not possible to filter on a garbage type or to search for a nearby garbage point. The list is for that reason not an equal alternative. Make sure the functionality of the map are also available in the list. People with a keyboard interface are dependent on this.</p>	
18	Afvalwijzer	<p>The screen/parts of the screen cannot be operated with an external keyboard. Make sure that all functionality is available using an external keyboard.</p> <p>This map does not have a function. By making it an image the map becomes decorative.</p> <p>An exception applies to online maps and mapping services. Maps themselves do not have to be accessible. You can try to make it as accessible as possible.</p>	



## Succes Criterion 2.1.2 - No Keyboard Trap

Ensure users of assistive technologies can't get stuck anywhere in the app. It is especially common that overlays cannot be closed. Many assistive technologies do not support clicking next to an overlay. As a result, the user gets stuck. You must include a close button which assistive technologies can activate.

 Passes

[Additional information about success criterion 2.1.2](#)



## Succes Criterion 2.1.4 - Character Key Shortcuts

Ensure that shortcuts cannot be accidentally activated when using assistive technologies. Many assistive technologies mimic keystrokes to perform actions. This can result in unwanted shortcuts being activated. Make it possible to change or disable shortcuts.

 Passes

[Additional information about success criterion 2.1.4](#)



## Succes Criterion 2.2.1 - Timing Adjustable

Ensure everyone has enough time to complete tasks. People with disabilities sometimes need more time to navigate through a screen. Operating an app with assistive technologies is often slower compared to touch. People with learning disabilities, dyslexia and cognitive impairments may also need more time. If there are time limits, then the time limit should be adjustable. It's best to make sure there are no time limits.


 Passes


[Additional information about success criterion 2.2.1](#)



## **Success Criterion 2.2.2 - Pause, Stop, Hide**

Ensure it is possible to pause, stop or hide moving parts on the screen. Users of assistive technologies may find it difficult to use animated elements. After pausing or stopping animations, interaction is often possible. Flashing content makes it more difficult for people with attention disorders to stay focused. Hiding the distracting content makes it easier for them to use an app.

 Passes


[Additional information about success criterion 2.2.2](#) 




## **Success Criterion 2.3.1 - Three Flashes or Below**

### **Threshold**

Ensure no more than three flashes per second are shown anywhere in the app. This can cause an epileptic seizure. Warnings do not work well, because they are often overlooked. This is especially the case with children who cannot read yet.

 Passes

[Additional information about success criterion 2.3.1](#) 

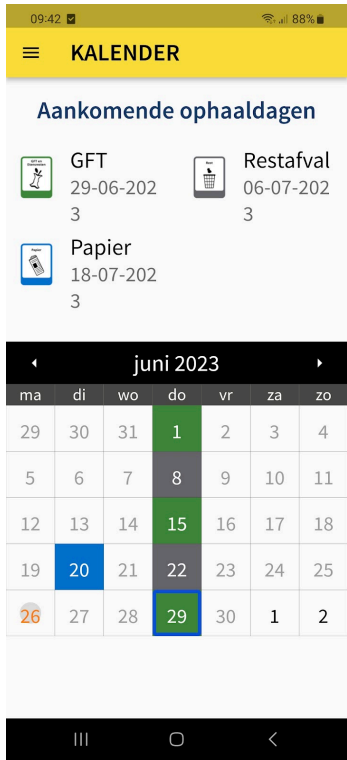


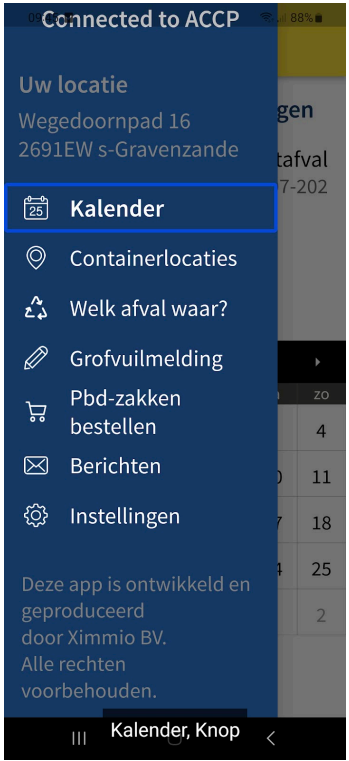

## 🔗 Succes Criterion 2.4.3 - Focus Order

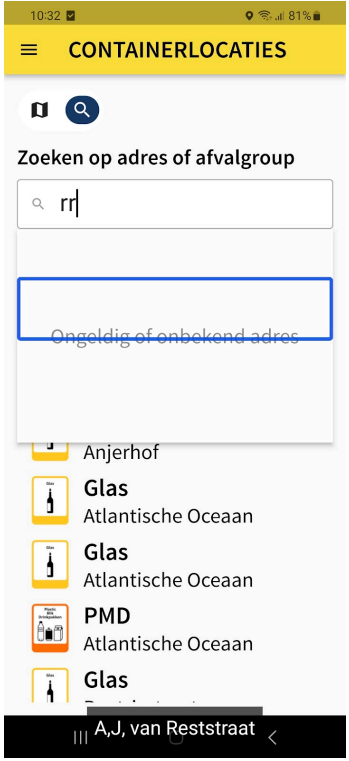

Ensure assistive technologies use a logical focus order when navigating. The order of navigating a screen is usually from left to right, from top to bottom. Make sure assistive technologies use an equivalent focus order. The difference with success criterion 1.3.2 is that this only concerns the focus order.

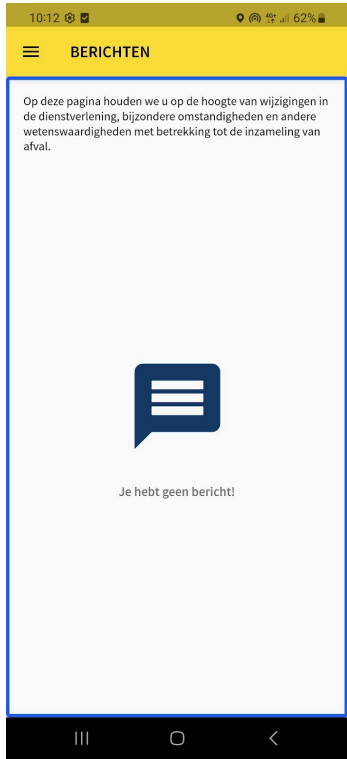

✗ Does not pass

[Solution for success criterion 2.4.3](#)

Nr	Screen	Problem	Screenshot
19	Afvalkalender	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>The issue is about the "26"-button as this is the current day. The screen reader does not go to the element, but this element gives users insight in what the current day is. Make this element focusable to make it read by screen readers.</p>	 <p>The screenshot shows a mobile application interface for a calendar. At the top, there is a yellow header with the title 'KALENDER'. Below the header, there is a section titled 'Aankomende ophaaldagen' (Upcoming collection days). This section contains three items: 'GFT' (29-06-2023), 'Restafval' (06-07-2023), and 'Papier' (18-07-2023). Below this list is a calendar grid for 'juni 2023'. The grid shows days of the week (ma, di, wo, do, vr, za, zo) and dates. The date 26 is highlighted in orange, indicating it is the current day. The date 29 is highlighted in blue, indicating it is the current focus. The date 15 is highlighted in green, indicating it is the current selection.</p>


Nr	Screen	Problem	Screenshot
20	Afvalkalender	<p>After landing on the screen, the focus of the screen reader does not go to the first element of the screen. Make sure that no elements are skipped. People with visual impairments then miss part of the screen.</p> <p>After opening the menu the focus of the screen reader should be placed at "uw location".</p> <p>This issue occurs on all screens with the menu present.</p>	
21	Containerlocaties	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>The focus order when using the screen reader in landscape mode is not correct. See the screenrecording:  <a href="https://storage.ontogankelijk.nl/attachments/1364/Ximmio_2023-06-26-08-23-31.3gp">https://storage.ontogankelijk.nl/attachments/1364/Ximmio_2023-06-26-08-23-31.3gp</a></p>	


Nr	Screen	Problem	Screenshot
22	Containerlocaties	<p>The screen reader's focus should be on the error message. The focus remains on the underlying screen.</p> <p>It is about the error message: "Ongeldig of onbekend adres".</p>	 <p>The screenshot shows the 'CONTAINERLOCATIES' app interface. At the top, there is a yellow header with the title 'CONTAINERLOCATIES'. Below the header is a search bar with the text 'rr' entered. A blue box highlights the error message 'Ongeldig of onbekend adres' displayed below the search bar. Below the error message, there is a list of search results including 'Anjerhof', 'Glas Atlantische Oceaan', 'PMD Atlantische Oceaan', and another 'Glas' entry. At the bottom, there is a navigation bar with the text 'A,J, van Reststraat'.</p>
23	Afvalwijzer	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>The text "Veel huisvuil ..." is not in the accessibility tree and does not get focus when using the screen reader.</p>	 <p>The screenshot shows the 'WELK AFVAL WAAR?' app interface. At the top, there is a yellow header with the title 'WELK AFVAL WAAR?'. Below the header is a map showing a location. Below the map, there is a text block: 'Veel huisvuil wordt in onze gemeente aan huis opgehaald. Dit gebeurt op vaste dagen of op afspraak. Huisvuil kunt u ook zelf wegbrengen naar een milieustraat of naar een milieueiland.' Below this text is a search bar with the text 'Zoek in scheidingswijzer'. Below the search bar, there is a list of icons representing different waste categories. Below the icons, there is a section titled 'GFT+e' with a detailed description: 'GFT+e (Groente-, Fruit- En Tuinafval + Etensoverblijfselen) gooit u in de groene kliko met bruine deksel, of (in geval van hoogbouw) in de ondergrondse verzamelcontainer. Een afvalverwerkingsbedrijf verwerkt het GFT-afval tot compost en energie. De vrijgekomen warmte uit de verwerkingsinstallatie wordt'.</p>

Nr	Screen	Problem	Screenshot
24	Berichten	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>The focus goes directly to "Je hebt geen bericht" after navigating from the header "Berichten". Only after the focus of the screen reader goes to the paragraph.</p>	
25	Instellingen	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>After the heading the focus goes tot the version number. Visually this element is at the bottom of the screen. The focus should first go to earlier elements.</p>	

## **Success Criterion 2.4.4 - Link Purpose (In Context)**

Ensure links are clear without the surrounding content. Users of assistive technologies can request an overview of all links on the screen. It is important that the purpose of each link is clear. A common mistake is to name a link 'here'. Without the surrounding text it is not clear what you will read more about.

 Passes


[Additional information about success criterion 2.4.4](#) 

## **Success Criterion 2.4.6 - Headings and Labels**

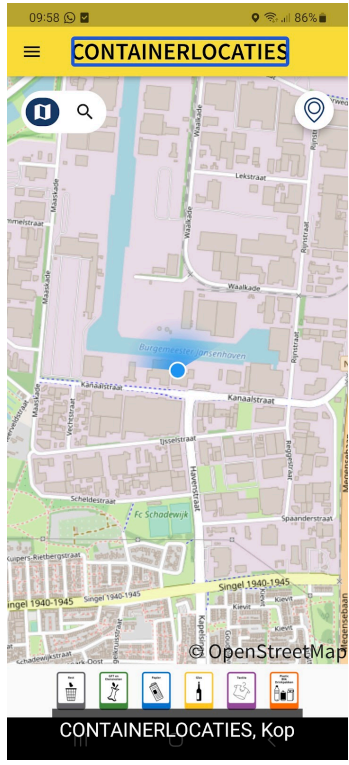
Ensure to use descriptive headings and labels.

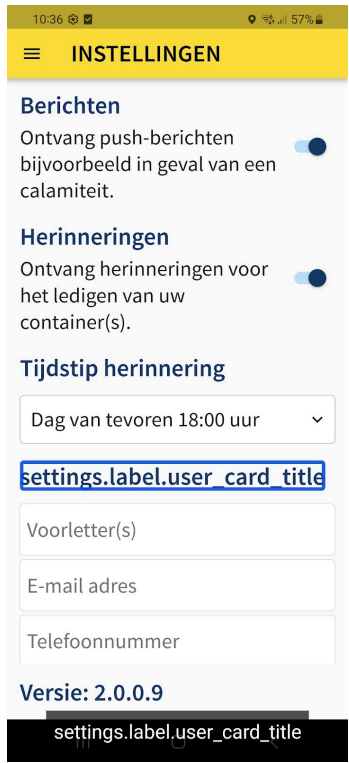
Descriptive headings are important to understand how the content is constructed. Blind users can navigate through headings using a screen reader.

Descriptive labels help users identify content. Voice control users speak the labels to perform actions.

 Does not pass


[Solution for success criterion 2.4.6](#)

Nr	Screen	Problem	Screenshot
26	Containerlocaties	<p>A heading/label is present, but this heading/label is too cryptic/unclear. Provide clear headings/labels.</p> <p>The screen reader spells the complete heading "CONTAINERLOCATIONS". On the screen "Kalender" this is not the case.</p> <p>This is a suggestion not an error.</p>	 <p>The screenshot shows a mobile application interface. At the top, there is a yellow header bar with the text "CONTAINERLOCATIES" in white, which is highlighted with a yellow box. Below the header is a map of a city area with various streets and buildings. A blue location pin is placed on the map. At the bottom of the screen, there is a black footer bar with the text "CONTAINERLOCATIES, Kop" in white. The status bar at the very top shows the time as 09:58 and the battery level as 86%.</p>

Nr	Screen	Problem	Screenshot
27	Instellingen	<p>A heading/label is present, but this heading/label is too cryptic/unclear. Provide clear headings/labels.</p> <p>It is about the heading "setting.label.user_card_title".</p>	

## Succes Criterion 2.4.7 - Focus Visible

Ensure that elements focused by assistive technologies are clearly indicated. Focus is often shown by placing a box around the element. Make sure that the placement is correct and that the colour is clearly visible. For apps it is not possible to adjust the colour of the frame. However, it is possible to give elements a different background colour when they have focus.


 Passes

[Additional information about success criterion 2.4.7](#)



## Success Criterion 2.5.1 - Pointer Gestures

Ensure an alternative is provided for all gesture-triggered actions. People with a motor disability cannot perform all gestures. For example, not everyone is able to move two fingers apart to zoom. Add an alternative, such as a button, to allow users to zoom in without gestures.


 Passes

[Additional information about success criterion 2.5.1](#)



## Success Criterion 2.5.2 - Pointer Cancellation

Ensure it is possible to cancel touches. Buttons may only be activated with a click and not with a touch. This gives the user the option to cancel the touch.


 Passes

[Additional information about success criterion 2.5.2](#)



## Success Criterion 2.5.3 - Label in Name

Ensure the technical name of elements contain the visual name. A button with the text 'Log in' must be able to be activated by voice control via this name. This is not possible if the technical name is different. For visually impaired people using a screen reader, it is also confusing when they hear a different name compared to what they see on the screen.

 Passes


[Additional information about success criterion 2.5.3](#)





## Succes Criterion 2.5.4 - Motion Actuation

Ensure an alternative is provided for motion-triggered actions and make it possible to disable them. For users with limited hand function, shaking is often not possible. Provide an alternative, such as a button. For users with spasms, the actions can be triggered inadvertently. Make it possible to disable motion-triggered actions.


 Passes

[Additional information about success criterion 2.5.4](#)



## Succes Criterion 3.1.1 - Language of Page

Ensure the language is set for all content. A screen reader reads all text that appears on the screen. The pronunciation of the words depends on the language that has been set. When the language is not set, or a wrong language is set, the pronunciation is unclear. A correctly set language also helps to display letters and to display subtitles.


 Passes

[Additional information about success criterion 3.1.1](#)



## Succes Criterion 3.2.1 - On Focus


Ensure it is predictable what happens when you move the focus. When users move their finger over a button, it should not be activated unexpectedly. If the last field of a form is filled in, it should not be sent unexpectedly. These types of actions should only be performed automatically if users are notified in advance. By making focus behavior predictable, you help people with a visual, cognitive or motor impairment.


 Passes

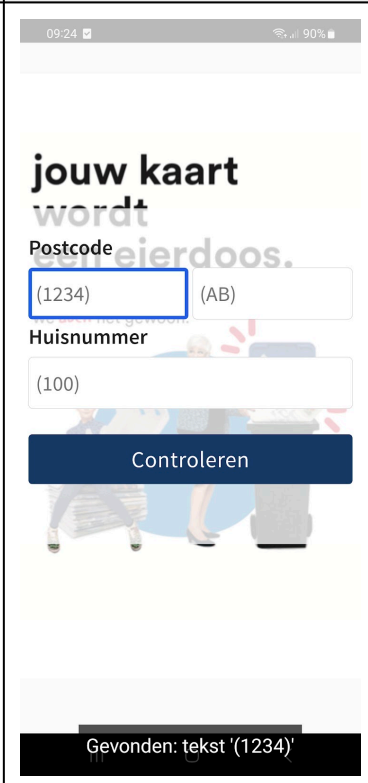
[Additional information about success criterion 3.2.1](#)

## Succes Criterion 3.2.2 - On Input

Ensure it is predictable what will happen when entering data. In case the focus moves automatically on correct input, this should be indicated in advance. Indicate if a new screen will be opened when submitting a form. Unexpected actions can confuse users with visual or cognitive impairments.

 Does not pass

[Solution for success criterion 3.2.2](#) 


Nr	Screen	Problem	Screenshot
28	Onboarding: Postcode	<p>When the user enters data in the input field, the data is sent automatically. Make sure the user is informed about this behavior in advance.</p> <p>After filling in the "Postcode number" or "Postcode letter" the focus automatically changes to the next input field. Do not change the focus to the next element automatically.</p> <p>This issue is also solved when the fields are combined.</p>	


Nr	Screen	Problem	Screenshot
29	Instellingen	<p>When the user enters data in the input field, the data is sent automatically. Make sure the user is informed about this behavior in advance.</p> <p>After filling in the "Postcode number" or "Postcode letter" the focus automatically changes to the next input field. Do not change the focus to the next element automatically.</p>	

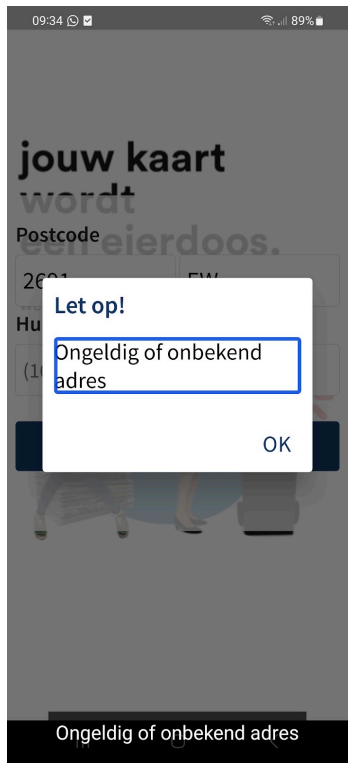


## Succes Criterion 3.3.1 - Error Identification

Ensure a clear error message is shown when data has been entered incorrectly. It often happens that data is entered incorrectly. Clearly indicate which input is incorrect and explain why. It is important that error messages are also clear for user of assistive technologies. Ensure errors are also indicated in text to allow everyone to perceive them.

 Does not pass

[Solution for success criterion 3.3.1](#) 

Nr	Screen	Problem	Screenshot
30	Onboarding: Postcode	<p>The error message does not describe what went wrong with the input. Provide error messages that indicate exactly which error has been made so that the user knows what to improve.</p> <p>After submitting invalid postal code, you receive an error message "Ongeldig of onbekend adres".</p> <p>This error message refers to 'adres' instead of 'postcode'</p>	



## Succes Criterion 3.3.2 - Labels or Instructions

Ensure clear instructions are provided in places users have to input data. Add a label to the input fields, for example 'First name'. Mark whether fields are required or optional. Indicate if data must be entered in a specified order. All users benefit from clear instructions. Clear instructions are indispensable for users with cognitive impairments.


Does not pass


[Solution for success criterion 3.3.2](#)

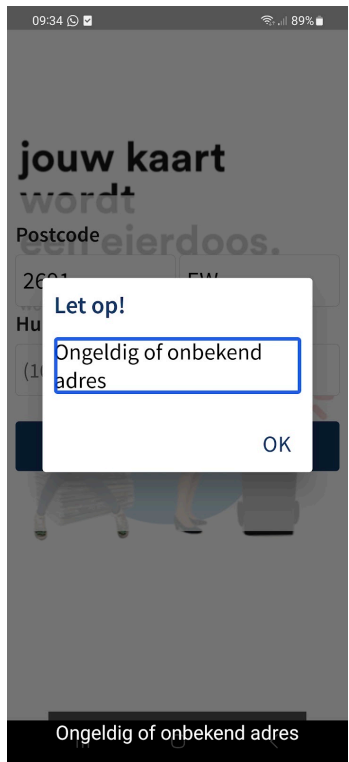
Nr	Screen	Problem	Screenshot
31	Onboarding: Postcode	<p>A specific instruction is included in the placeholder text. This information disappears when the user starts entering data. Make sure the label/instruction remains visible at all times.</p> <p>It is about the text "(1234)" and "(AB).</p> <p>Consider merging the (1234) and (AB) fields to make the postal code a single field. When doing so, the "Postcode" label is sufficient.</p>	


## Succes Criterion 3.3.3 - Error Suggestion

Ensure suggestions are provided when data has been entered incorrectly. Users regularly make mistakes when entering data. Help users to fix these errors by providing suggestions. For example, when a date has been entered incorrectly, indicate in which order the day, month and year are expected.

 Does not pass


[Solution for success criterion 3.3.3](#) 

Nr	Screen	Problem	Screenshot
32	Onboarding: Postcode	<p>No solution is provided to correct the error message. Tell the user what to do to correct the error.</p> <p>The error message does not indicate how to correct your address.</p>	 <p>The screenshot shows a mobile app interface with a dark background. At the top, it says 'jouw kaart wordt geïmporteerd.' Below that, there is a 'Postcode' field with the value '2601 EW'. A white dialog box is overlaid on the screen with the title 'Let op!' and the message 'Ongeldig of onbekend adres'. There is an 'OK' button at the bottom right of the dialog box. At the bottom of the screen, there is a black bar with the text 'Ongeldig of onbekend adres' in white.</p>

Nr	Screen	Problem	Screenshot
33	Instellingen	<p>No solution is provided to correct the error message. Tell the user what to do to correct the error.</p> <p>After submitting the data the error message "Ongeldig of onbekend adres" is not providing a solution. Also the error identification refers to "Adres" but the input was a postcode + number.</p>	 <p>The screenshot shows a mobile application interface with a settings menu. A dialog box titled 'Controleren' is displayed in the foreground, containing the text 'Let op!' and 'Ongeldig of onbekend adres' with an 'OK' button. The background shows the 'Instellingen' screen with fields for 'Postcode' (1155) and 'Huisnummer' (16).</p>

## **Succes Criterion 3.3.4 - Error Prevention (Legal, Financial, Data)**


Ensure data is submitted intentionally. Allows users to undo, correct or confirm a submission. At least one of these options must be provided for submissions that cause a legal obligation, financial transaction, or loss of data. These options reduce the chance of unforeseen consequences.


 Passes

[Additional information about success criterion 3.3.4](#)

## </> **Success Criterion 4.1.1 - Parsing**

Ensure the source code of the app does not contain any errors and does not use any deprecated functions. Assistive technologies may not behave as expected when code is not updated to modern standards. Adhere to the standards of the platforms which are supported. Check that the app works on all versions of the supported operating systems.

 Passes

[Additional information about success criterion 4.1.1](#) 




## Succes Criterion 4.1.2 - Name, Role, Value

Ensure it is clear for users of assistive technologies what actions can be performed.

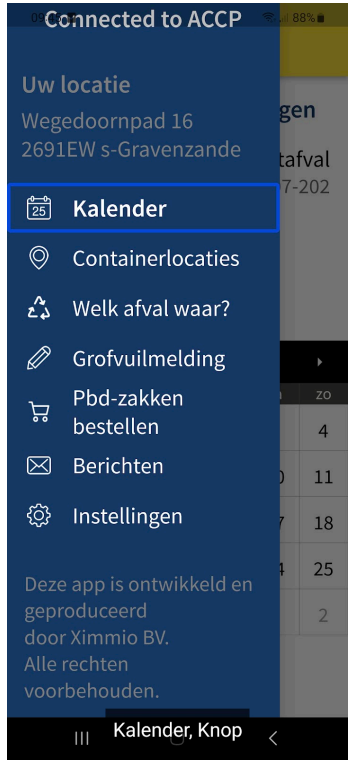
Set a name. The name is used for identification. By setting a name, assistive technologies such as voice control can perform targeted actions.

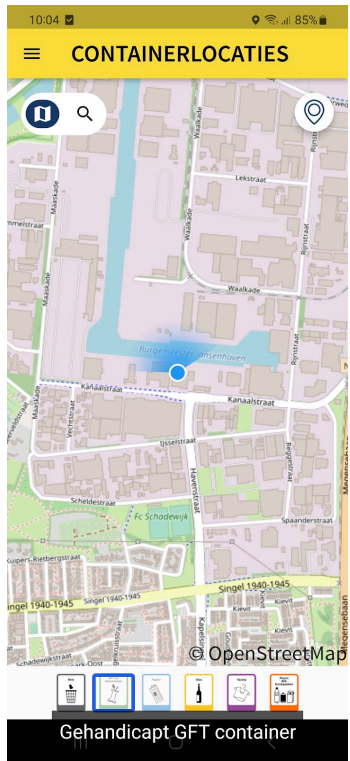
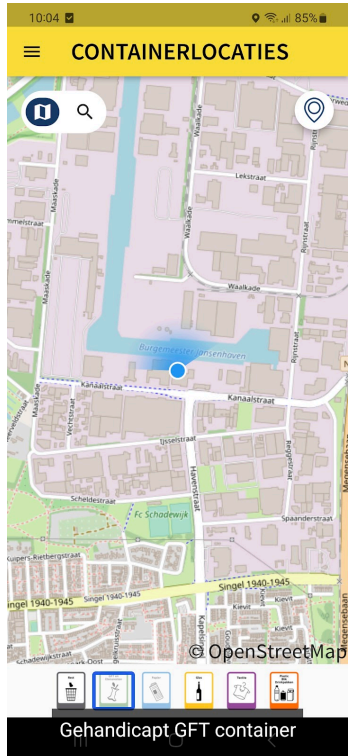
Set a role. With the role “button” it is clear that an action takes place upon activation. With the role “link” it is clear that you will be referred to another location. By setting a role, it is clear to users of assistive technologies what they can do.

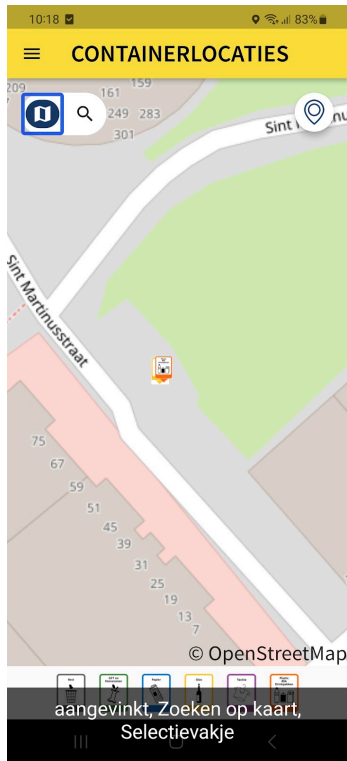
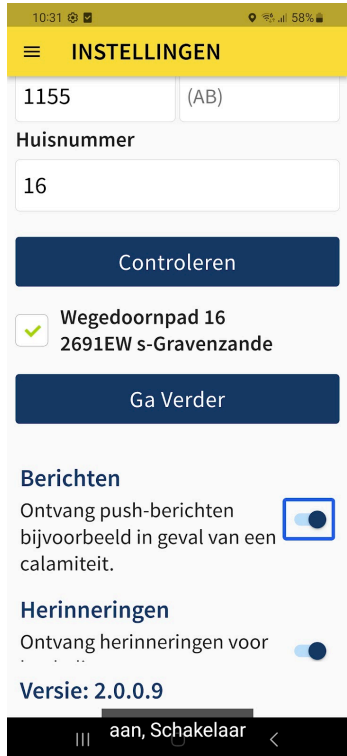
Set a value. A check box should have the value “selected” or “not selected”. With a volume control, the value can be “50%”. By setting a value, this text value can be passed to assistive technologies.

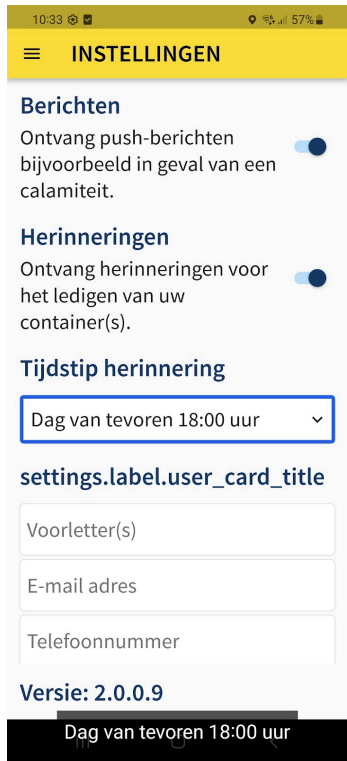
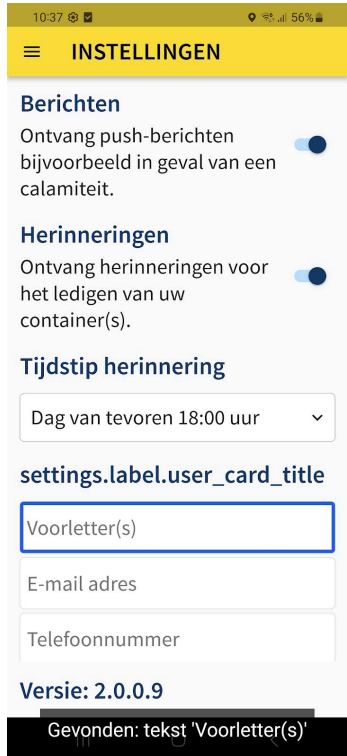
 Does not pass

[Solution for success criterion 4.1.2](#)

Nr	Screen	Problem	Screenshot
34	Afvalkalender	<p>The accessible name of this button does not describe whether it is selected or not. Make sure that this information is read by the assistive technology.</p> <p>This occurs on all buttons in the menu.</p> <p>This issue occurs on all screens with the menu present.</p>	 A screenshot of an Android application's main menu. The menu is displayed in a dark blue overlay on a lighter background. At the top, it says 'Connected to ACCP' and '88%' battery. Below that, it shows 'Uw locatie' with the address 'Wegedoornpad 16, 2691EW s-Gravenzande'. The 'Kalender' option is highlighted with a blue bar. Other menu items include 'Containerlocaties', 'Welk afval waar?', 'Grofvuilmelding', 'Pbd-zakken bestellen', 'Berichten', and 'Instellingen'. At the bottom, there is a footer: 'Deze app is ontwikkeld en geproduceerd door Ximmio BV. Alle rechten voorbehouden.' and a navigation bar with 'Kalender, Knop' and a back arrow.

Nr	Screen	Problem	Screenshot
35	Containerlocaties	<p>The value/state of a button should be obvious without changing this state. Make sure the screen reader announces the value/state together with the button name.</p> <p>The screen reader announces "Gehandicapt Restafval Container". This is not the correct value. It should be "selected". This occurs also at other similar elements.</p>	 <p>The screenshot shows a mobile application interface titled 'CONTAINERLOCATIES'. It features a map of an urban area with a blue dot indicating a location. At the bottom of the screen, a black bar contains the text 'Gehandicapt GFT container'. The top status bar shows the time as 10:04 and battery level at 85%.</p>
36	Containerlocaties	<p>This interactive element does not have a proper role. This element looks and behaves like a switch. Make sure the screen reader announces the correct role of this element.</p> <p>It is about the element "Restafval container" and occurs also at other similar elements.</p>	 <p>This screenshot is identical to the one above, showing the 'CONTAINERLOCATIES' app interface with a map and a label 'Gehandicapt GFT container' at the bottom.</p>

Nr	Screen	Problem	Screenshot
37	Containerlocaties	<p>This interactive element does not have a proper role. This element looks and behaves like a tab. Make sure the screen reader announces the correct role of this element.</p> <p>The element "zoeken op kaart" has the role "selectievakje" (checkbox). It is not possible to unselect the element by activating it. This is the way tabs work, therefore these elements should have the role tab.</p>	 <p>The screenshot shows a mobile application interface titled 'CONTAINERLOCATIES'. It features a map of an area with streets like 'Sint Martinusstraat'. A search bar is visible at the top left, and a button labeled 'Zoeken op kaart' is present. The bottom navigation bar includes the text 'aangevinkt, Zoeken op kaart, Selectievakje'.</p>
38	Instellingen	<p>The toggle button has no name. Group the toggle button and its label so that they can be read as one element by the assistive technology.</p> <p>Group the label "Ontvang push-berichten ..." and the switch.</p>	 <p>The screenshot shows the 'INSTELLINGEN' (Settings) screen. It includes a text input field for 'Huisnummer' with the value '16'. Below it is a section for 'Wegedoornpad 16' with a checked checkbox. Further down, there is a toggle switch for 'Ontvang push-berichten' which is currently turned on. The bottom navigation bar shows 'aan, Schakelaar'.</p>

Nr	Screen	Problem	Screenshot
39	Instellingen	<p>This interactive element does not have a proper role. This element looks and behaves like a button. Make sure the screen reader announces the correct role of this element.</p> <p>It is about the drop-down named "Dag van tevoren ...".</p> <p>Android does not have a drop-down role, therefore button is most similar.</p>	 <p>The screenshot shows the 'Instellingen' screen with a yellow header. The 'Tijdstip herinnering' section has a dropdown menu with the selected option 'Dag van tevoren 18:00 uur' highlighted by a blue border. Below the dropdown are input fields for 'Voorletter(s)', 'E-mail adres', and 'Telefoonnummer'. The version 'Versie: 2.0.0.9' is displayed at the bottom.</p>
40	Instellingen	<p>The input field does not have an accessible name. When tapping this input field, the assistive technology does not read out which data must be entered here. Provide a correct name.</p> <p>It is about all the input fields at the bottom of the screen, these should have their own label.</p>	 <p>The screenshot shows the 'Instellingen' screen with a yellow header. The 'Voorletter(s)' input field is highlighted with a blue border. The screen reader output at the bottom reads 'Gevonden: tekst 'Voorletter(s)''. Other elements like 'E-mail adres' and 'Telefoonnummer' are also visible but not highlighted.</p>

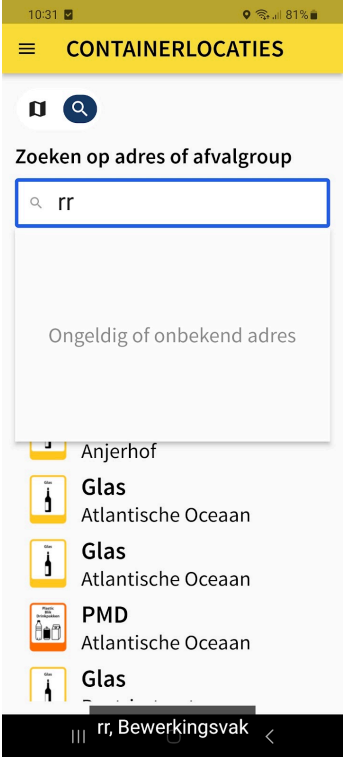


## Succes Criterion 4.1.3 - Status Messages

Ensure that status messages are also passed to assistive technologies. A blind user cannot see new information appearing anywhere on the screen. By providing a status message, the screen reader can announce that new information is available.

✗ Does not pass

[Solution for success criterion 4.1.3](#)

Nr	Screen	Problem	Screenshot
41	Containerlocaties	<p>If the search button is used, the search results will appear with a notification stating an error. This message will not be read. Make sure this information is read aloud by an assistive technology</p> <p>It is about the error message: "Ongeldig of onbekend adres".</p>	

## 4. Recommendations

To comply with the standard, the app needs to be improved on the following points:

### **Success Criterion 1.3.1 - Info and Relationships**

Ensure that the information and relationships on the screen are not only conveyed visually.

Information on the screen must be conveyed to assistive technologies. For example, make sure that headings are not only bold, but also marked as headings in the code.

Relationships on the screen must be usable with assistive technologies. Elements in a list must be navigable one by one. Elements in a table must be navigable by rows and columns.

- [Solution for success criterion 1.3.1](#)
- [Definition of success criterion 1.3.1](#)
- [Explanation of success criterion 1.3.1](#)

### **Success Criterion 1.3.3 - Sensory Characteristics**

Ensure instructions can be understood by everyone. Instructions that only use shape, size, location, orientation or sound are not understandable for everyone. For example, people who are blind cannot see shape. Combine multiple properties to allow everyone to understand the instructions.

- [Solution for success criterion 1.3.3](#)
- [Definition of success criterion 1.3.3](#)
- [Explanation of success criterion 1.3.3](#)



## Success Criterion 1.4.1 - Use of Color

Ensure colour isn't the only way information is conveyed. Information which is conveyed only by colour cannot be perceived by everyone. For example, also use shape to give instructions, e.g. reference a green checkmark or red cross. Inside a legend, use numbers in addition to colour, to allow people who are colour blind to find what they are looking for.

- [Solution for success criterion 1.4.1](#)
- [Definition of success criterion 1.4.1](#)
- [Explanation of success criterion 1.4.1](#)



## Success Criterion 1.4.3 - Contrast (Minimum)

Ensure that the contrast ratio between the text colour and background colour is at least 4.5:1. For bold and large text, a ratio of 3:1 is sufficient. By maintaining these ratios, visually impaired and colour blind users can usually read the text well. In addition, this makes an app easier for everyone to use, for example outside in the sun.

- [Solution for success criterion 1.4.3](#)
- [Definition of success criterion 1.4.3](#)
- [Explanation of success criterion 1.4.3](#)






## Success Criterion 1.4.4 - Resize text

Ensure that the text in your app supports resizing. Users specify their preferred font size in the system settings. Text in your app should resize according to the preferred font size. This is especially important for visually impaired users because otherwise they might not be able to read the text. Text should not be abbreviated with dots.

- [Solution for success criterion 1.4.4](#)
- [Definition of success criterion 1.4.4](#)
- [Explanation of success criterion 1.4.4](#)




## **Success Criterion 1.4.11 - Non-text Contrast**

Ensure that the content on the screen has a contrast of at least 3:1 with the surrounding colour. Think of graphic elements such as icons, buttons and input fields. By keeping this ratio, visually impaired and colour blind users can distinguish the content well. In addition, this makes an app easier for everyone to use, for example outside in the sun.

- [Solution for success criterion 1.4.11](#) 
- [Definition of success criterion 1.4.11](#) 
- [Explanation of success criterion 1.4.11](#) 




## **Success Criterion 2.1.1 - Keyboard**

Ensure that all functionality in the app can be used with assistive technologies. People who are blind use the screen reader. People with a motor disability use switch control, voice control and/or the keyboard. These assistive technologies are built into the operating system.

- [Solution for success criterion 2.1.1](#) 
- [Definition of success criterion 2.1.1](#) 
- [Explanation of success criterion 2.1.1](#) 

## **Success Criterion 2.4.3 - Focus Order**

Ensure assistive technologies use a logical focus order when navigating. The order of navigating a screen is usually from left to right, from top to bottom. Make sure assistive technologies use an equivalent focus order. The difference with success criterion 1.3.2 is that this only concerns the focus order.

- [Solution for success criterion 2.4.3](#) 
- [Definition of success criterion 2.4.3](#) 
- [Explanation of success criterion 2.4.3](#) 



## **Success Criterion 2.4.6 - Headings and Labels**

Ensure to use descriptive headings and labels.

Descriptive headings are important to understand how the content is constructed. Blind users can navigate through headings using a screen reader.

Descriptive labels help users identify content. Voice control users speak the labels to perform actions.

- [Solution for success criterion 2.4.6](#)
- [Definition of success criterion 2.4.6](#)
- [Explanation of success criterion 2.4.6](#)

## **Success Criterion 3.2.2 - On Input**

Ensure it is predictable what will happen when entering data. In case the focus moves automatically on correct input, this should be indicated in advance. Indicate if a new screen will be opened when submitting a form. Unexpected actions can confuse users with visual or cognitive impairments.

- [Solution for success criterion 3.2.2](#)
- [Definition of success criterion 3.2.2](#)
- [Explanation of success criterion 3.2.2](#)

## **Success Criterion 3.3.1 - Error Identification**

Ensure a clear error message is shown when data has been entered incorrectly. It often happens that data is entered incorrectly. Clearly indicate which input is incorrect and explain why. It is important that error messages are also clear for user of assistive technologies. Ensure errors are also indicated in text to allow everyone to perceive them.

- [Solution for success criterion 3.3.1](#)
- [Definition of success criterion 3.3.1](#)
- [Explanation of success criterion 3.3.1](#)



## Succes Criterion 3.3.2 - Labels or Instructions

Ensure clear instructions are provided in places users have to input data. Add a label to the input fields, for example 'First name'. Mark whether fields are required or optional. Indicate if data must be entered in a specified order. All users benefit from clear instructions. Clear instructions are indispensable for users with cognitive impairments.

- [Solution for success criterion 3.3.2](#)
- [Definition of success criterion 3.3.2](#)
- [Explanation of success criterion 3.3.2](#)



## Succes Criterion 3.3.3 - Error Suggestion

Ensure suggestions are provided when data has been entered incorrectly. Users regularly make mistakes when entering data. Help users to fix these errors by providing suggestions. For example, when a date has been entered incorrectly, indicate in which order the day, month and year are expected.

- [Solution for success criterion 3.3.3](#)
- [Definition of success criterion 3.3.3](#)
- [Explanation of success criterion 3.3.3](#)

## **Success Criterion 4.1.2 - Name, Role, Value**

Ensure it is clear for users of assistive technologies what actions can be performed.

Set a name. The name is used for identification. By setting a name, assistive technologies such as voice control can perform targeted actions.

Set a role. With the role “button” it is clear that an action takes place upon activation. With the role “link” it is clear that you will be referred to another location. By setting a role, it is clear to users of assistive technologies what they can do.

Set a value. A check box should have the value “selected” or “not selected”. With a volume control, the value can be “50%”. By setting a value, this text value can be passed to assistive technologies.

- [Solution for success criterion 4.1.2](#)
- [Definition of success criterion 4.1.2](#)
- [Explanation of success criterion 4.1.2](#)

## **Success Criterion 4.1.3 - Status Messages**

Ensure that status messages are also passed to assistive technologies. A blind user cannot see new information appearing anywhere on the screen. By providing a status message, the screen reader can announce that new information is available.

- [Solution for success criterion 4.1.3](#)
- [Definition of success criterion 4.1.3](#)
- [Explanation of success criterion 4.1.3](#)

# Appendix A: Findings per screen

In total we made 41 findings on 8 screens.

*Overview of the findings per screen*

<b>Nr</b>	<b>Screen</b>	<b>Amount of findings</b>
1	Beginscherm	0
2	Onboarding: Postcode	5
3	Afvalkalender	6
4	Containerlocaties	17
5	Afvalwijzer	3
6	Informatie	0
7	Instellingen	9
8	Berichten	1
<b>Total</b>		<b>41</b>

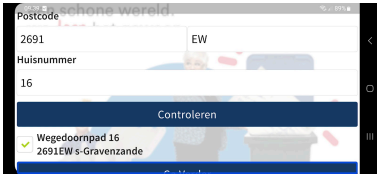

The following pages list all the findings per screen.




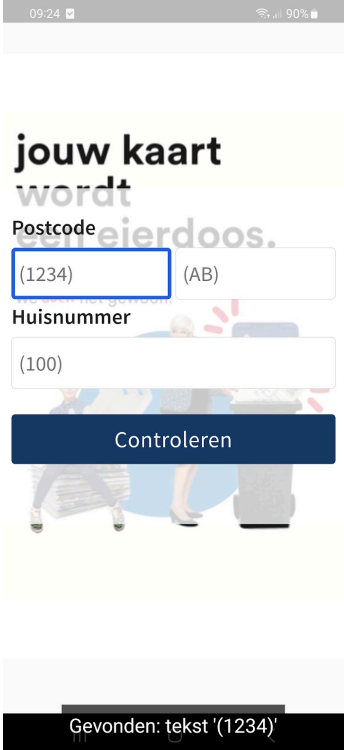
# 1. Beginscherm



We have not made any (new) findings this screen. This screen may contain recurring findings that have already been reported on other screens.

## 2. Onboarding: Postcode

We d 5 findings on this screen.

Nr	Success criterion	Problem	Screenshot
12	<a href="#">1.4.4</a> Resize text	<p>(Parts of) text on this screen are no longer visible when the text is magnified to 200%. Make sure that all text remains available to users who use the app with an enlarged text.</p> <p>The button "Ga Verder" is not fully visible. Implement a scroll function to make all elements reachable.</p>	
28	<a href="#">3.2.2</a> On Input	<p>When the user enters data in the input field, the data is sent automatically. Make sure the user is informed about this behavior in advance.</p> <p>After filling in the "Postcode number" or "Postcode letter" the focus automatically changes to the next input field. Do not change the focus to the next element automatically.</p> <p>This issue is also solved when the fields are combined.</p>	


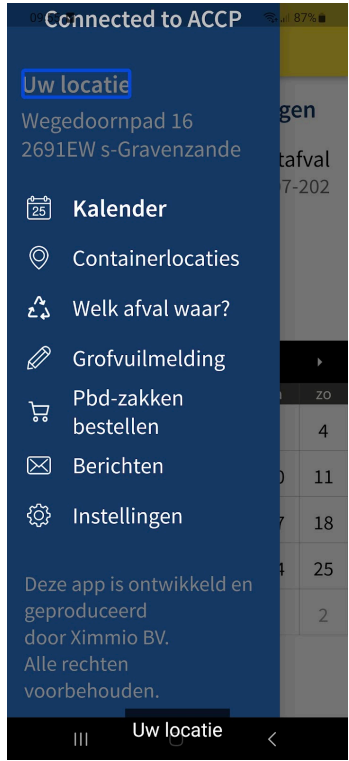
Nr	Success criterion	Problem	Screenshot
30	 <a href="#">3.3.1</a> Error Identification	<p>The error message does not describe what went wrong with the input. Provide error messages that indicate exactly which error has been made so that the user knows what to improve.</p> <p>After submitting invalid postal code, you receive an error message "Ongeldig of onbekend adres".</p> <p>This error message refers to 'adres' instead of 'postcode'</p>	
31	 <a href="#">3.3.2</a> Labels or Instructions	<p>A specific instruction is included in the placeholder text. This information disappears when the user starts entering data. Make sure the label/ instruction remains visible at all times.</p> <p>It is about the text "(1234)" and "(AB)".</p> <p>Consider merging the (1234) and (AB) fields to make the postal code a single field. When doing so, the "Postcode" label is sufficient.</p>	


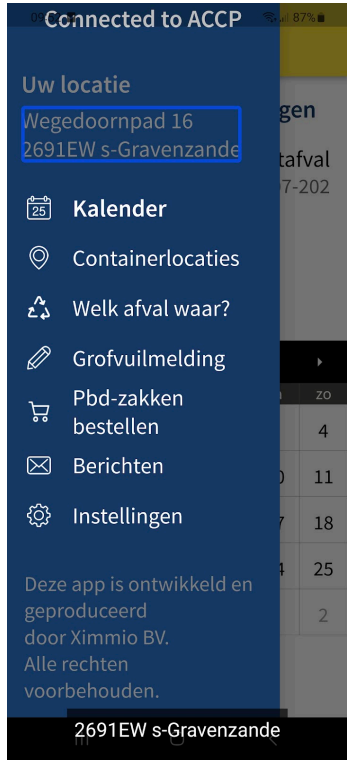

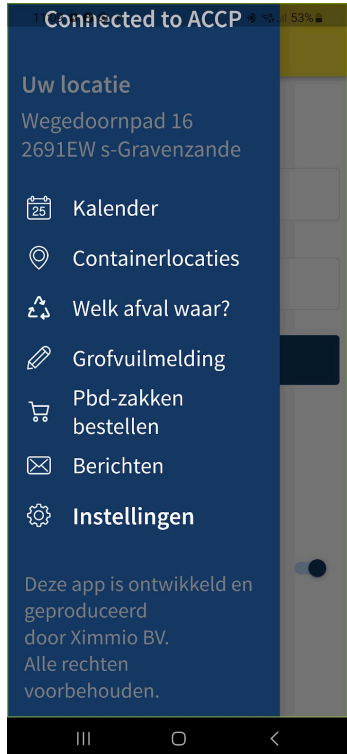
Nr	Success criterion	Problem	Screenshot
32	 <a href="#">3.3.3</a> Error Suggestion	<p>No solution is provided to correct the error message. Tell the user what to do to correct the error.</p> <p>The error message does not indicate how to correct your address.</p>	


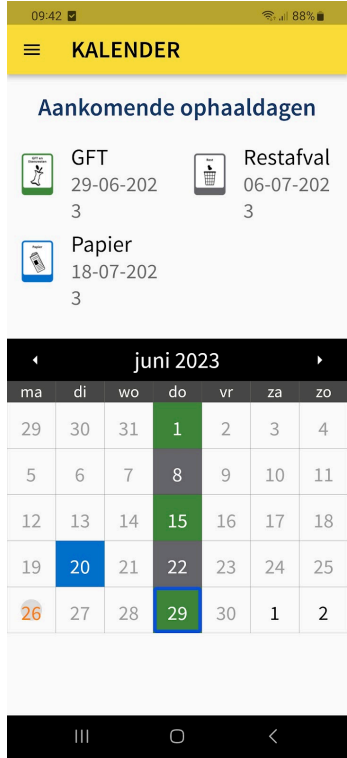

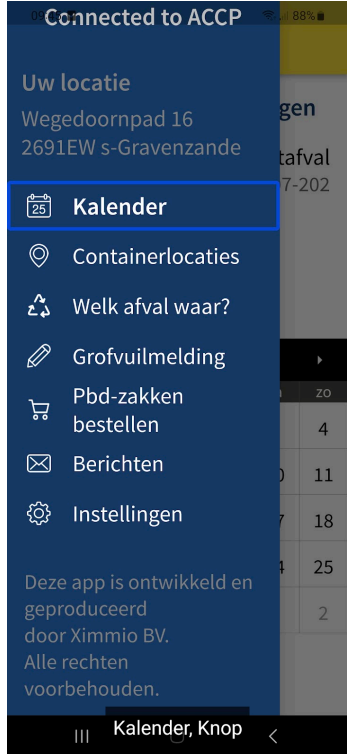



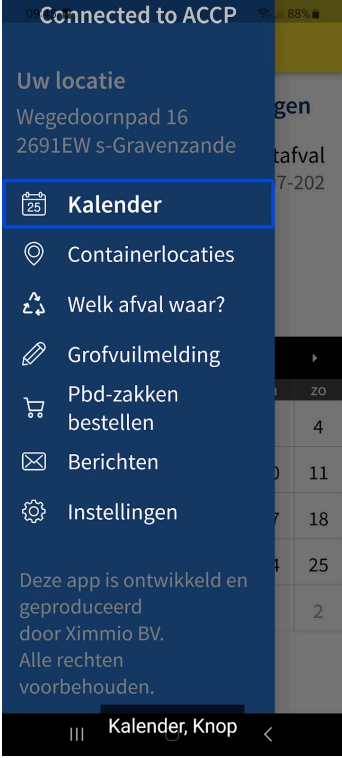
### 3. Afvalkalender

We d 6 findings on this screen.

Nr	Success criterion	Problem	Screenshot
1	<p> <a href="#">1.3.1</a> Info and Relationships</p>	<p>On this screen, there are headings that are not marked-up as headings. Make sure that assistive technology recognizes headings as headings.</p> <p>Either mark the heading "Uw locatie" as heading or group "Uw location" with the adres below.</p> <p>This issue occurs on all screens with the menu present.</p>	 <p>The screenshot shows a mobile application interface with a dark blue menu overlay. At the top, it says 'Connected to ACCP'. Below that, 'Uw locatie' is highlighted in a blue box. Underneath, there is an address: 'Wegedoornpad 16, 2691EW s-Gravenzande'. The menu items are: 'Kalender', 'Containerlocaties', 'Welk afval waar?', 'Grofvuilmelding', 'Pbd-zakken bestellen', 'Berichten', and 'Instellingen'. At the bottom of the menu, there is a footer: 'Deze app is ontwikkeld en geproduceerd door Ximmio BV. Alle rechten voorbehouden.' The bottom of the screen shows a navigation bar with 'Uw locatie' and a back arrow.</p>

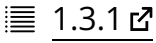
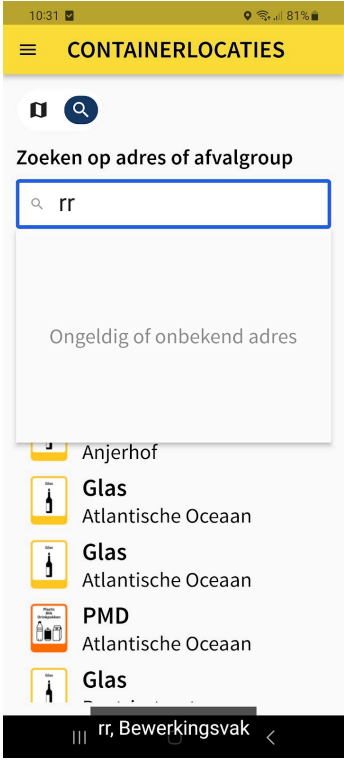
Nr	Success criterion	Problem	Screenshot
9	<p> <a href="#">1.4.3</a>            Contrast (Minimum)</p>	<p>The text contrast ratio is too low. Provide a minimum contrast of 4.5:1.</p> <p>It is about the text "Uw location", the adres and the text "Deze app ...".</p> <p>The contrast is 3:1.</p> <p>This issue occurs on all screens with the menu present.</p>	
16	<p> <a href="#">2.1.1</a>            Keyboard</p>	<p>The screen/parts of the screen cannot be operated with an external keyboard. Make sure that all functionality is available using an external keyboard.</p> <p>With an external keyboard the menu cannot be reached with the screen reader.</p> <p>This issue occurs on all screens with the menu present.</p> <p>Other screens we did not test as we cannot reach them with the Keyboard.</p>	



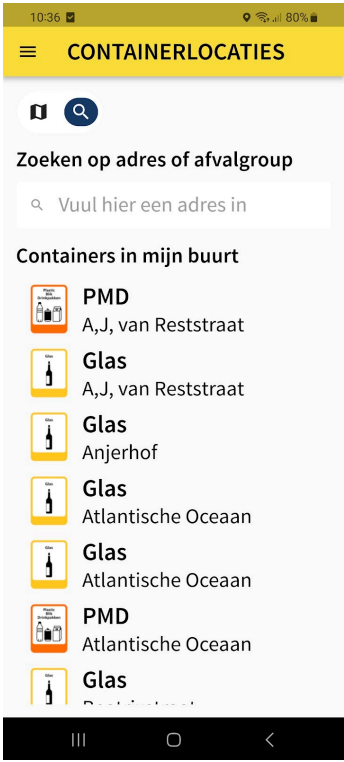


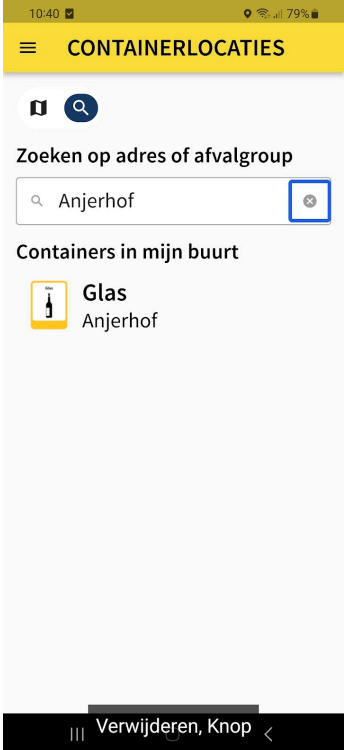
Nr	Success criterion	Problem	Screenshot
19	 <a href="#">2.4.3</a> Focus Order	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>The issue is about the "26"-button as this is the current day. The screen reader does not go to the element, but this element gives users insight in what the current day is. Make this element focusable to make it read by screen readers.</p>	
20	 <a href="#">2.4.3</a> Focus Order	<p>After landing on the screen, the focus of the screen reader does not go to the first element of the screen. Make sure that no elements are skipped. People with visual impairments then miss part of the screen.</p> <p>After opening the menu the focus of the screen reader should be placed at "uw location".</p> <p>This issue occurs on all screens with the menu present.</p>	


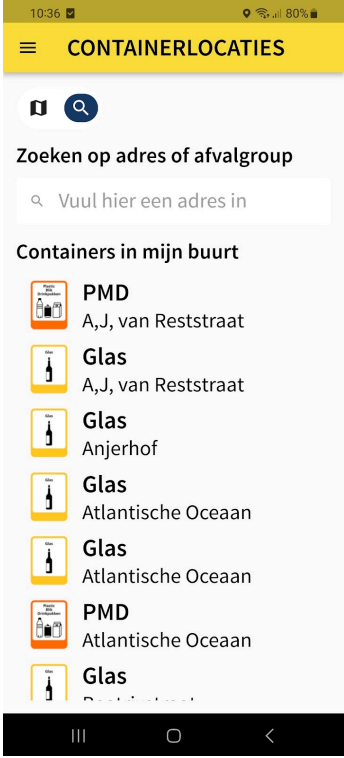

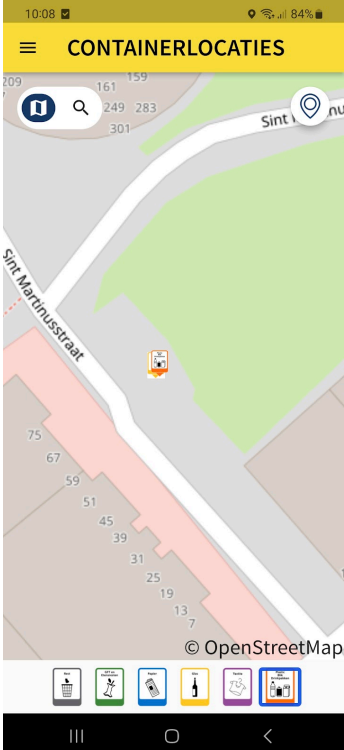
Nr	Success criterion	Problem	Screenshot
34	 4.1.2 <a href="#">↗</a> Name, Role, Value	<p>The accessible name of this button does not describe whether it is selected or not. Make sure that this information is read by the assistive technology.</p> <p>This occurs on all buttons in the menu.</p> <p>This issue occurs on all screens with the menu present.</p>	 <p>The screenshot shows a mobile application interface with a dark blue menu overlay. The menu items are: 'Uw locatie' (with address: Wegedoornpad 16, 2691EW s-Gravenzande), 'Kalender' (highlighted with a blue border), 'Containerlocaties', 'Welk afval waar?', 'Grofvuilmelding', 'Pbd-zakken bestellen', 'Berichten', and 'Instellingen'. At the bottom, there is a footer: 'Deze app is ontwikkeld en geproduceerd door Ximmio BV. Alle rechten voorbehouden.' and a navigation bar with 'Kalender, Knop' and a back arrow.</p>


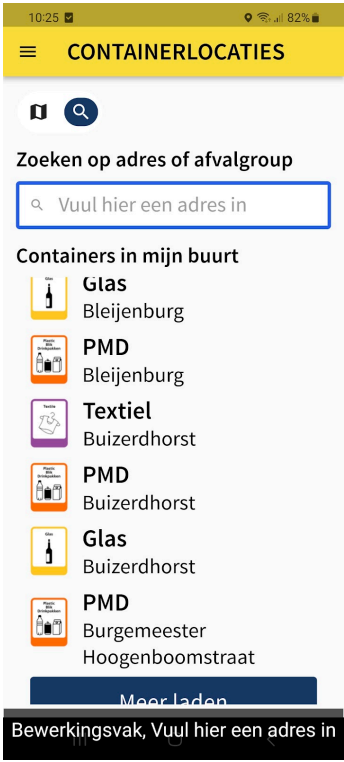

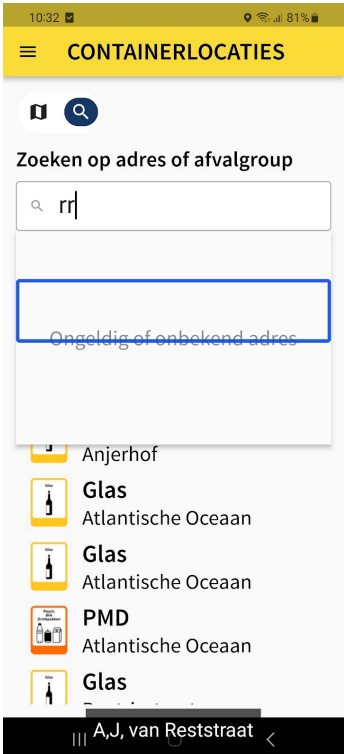
## 4. Containerlocaties

We d 17 findings on this screen.

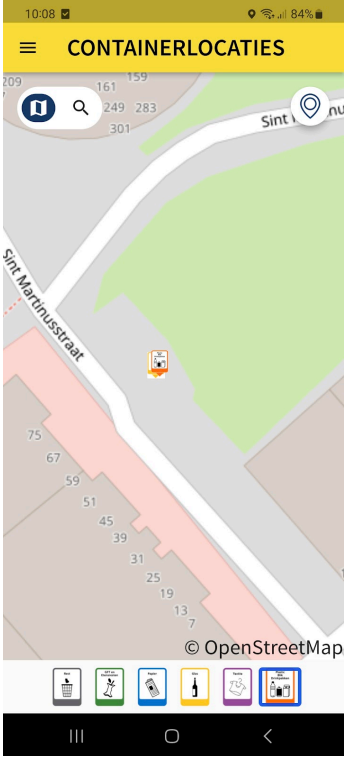

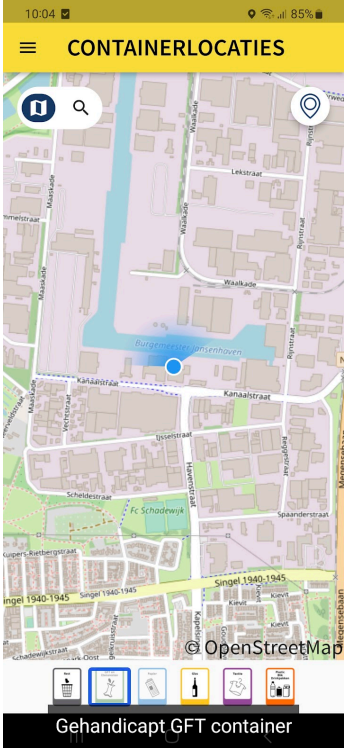
Nr	Success criterion	Problem	Screenshot
2	<p> <a href="#">1.3.1</a> Info and Relationships</p>	<p>The label is not programmatically associated with the related input field. Make sure that by selecting an input field, the screen reader reads the label.</p> <p>The label "Zoeken op adres of afvalgroep" does not get focus and is not connected to the input field.</p>	 <p>The screenshot shows the 'CONTAINERLOCATIES' app interface. At the top, there is a yellow header with the title 'CONTAINERLOCATIES'. Below the header is a search bar with the text 'Zoeken op adres of afvalgroep' and a magnifying glass icon. The search bar contains the text 'rr'. Below the search bar is a dropdown menu with the text 'Ongeldig of onbekend adres'. Below the dropdown menu is a list of suggestions: 'Anjerhof', 'Glas', 'Glas', 'PMD', and 'Glas'. Each suggestion has a small icon to its left. At the bottom of the screen, there is a black bar with the text 'rr, Bewerkingsvak' and a back arrow icon.</p>


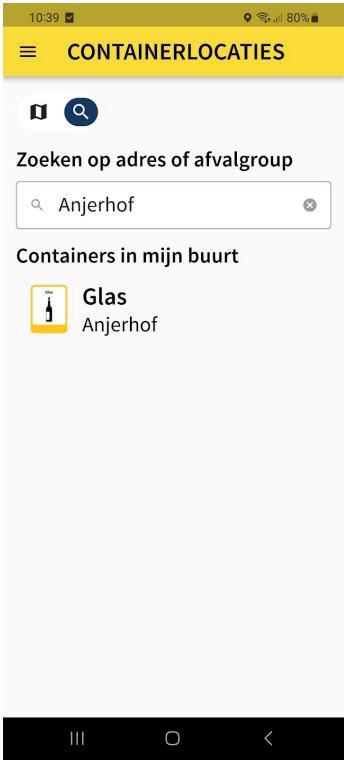

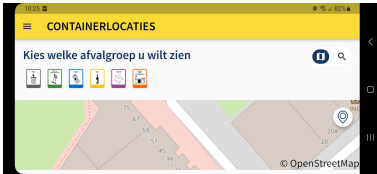
Nr	Success criterion	Problem	Screenshot
3	<p> <a href="#">1.3.1</a> </p> <p>Info and Relationships</p>	<p>On this screen, there are headings that are not marked-up as headings. Make sure that assistive technology recognizes headings as headings.</p> <p>It is about the headings: "Zoeken op adres of afvalgroep" and "Containers in mijn buurt".</p>	
4	<p> <a href="#">1.3.1</a> </p> <p>Info and Relationships</p>	<p>The label is not connected to its element. This ensures that the element cannot be activated with voice control. Make sure the label is connected to the element.</p> <p>"verwijderen, knop" is not associated to the searchfield. The label should indicate what information will be deleted. "Zoekveld leegmaken, knop" would be a better label.</p>	


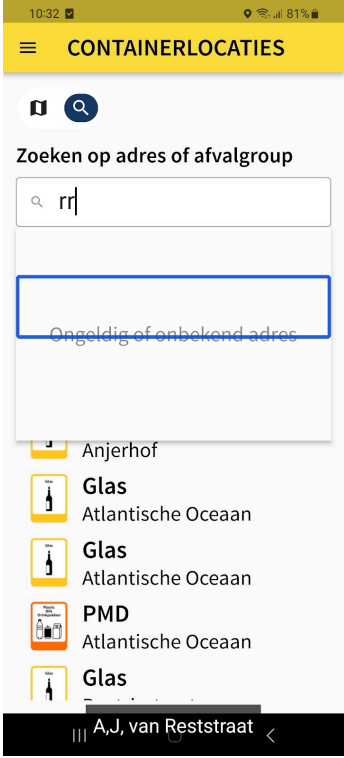

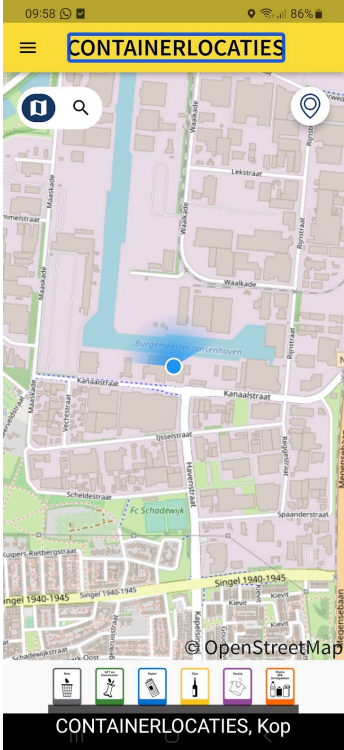
Nr	Success criterion	Problem	Screenshot
7	<p> <a href="#">1.3.3</a> Sensory Characteristics</p>	<p>The legend of the map has reference to symbol/shape. This information is inaccessible to the assistive technology. Make sure that information is not dependent on the visual representation.</p> <p>The list is an alternative for the map. It is not possible to filter on a garbage type or to search for a nearby garbage point. The list is for that reason not an equal alternative. Make sure the functionality of the map are also available in the list. People with a keyboard interface are dependent on this.</p>	
8	<p> <a href="#">1.4.1</a> Use of Color</p>	<p>Color is used to convey information. Make sure that another visual cue is used, for example, the shape of the lines.</p> <p>It is about the indicators where garbage containers are on the map.</p> <p>An exception applies to online maps and mapping services. Maps themselves do not have to be accessible. You can try to make it as accessible as possible.</p>	


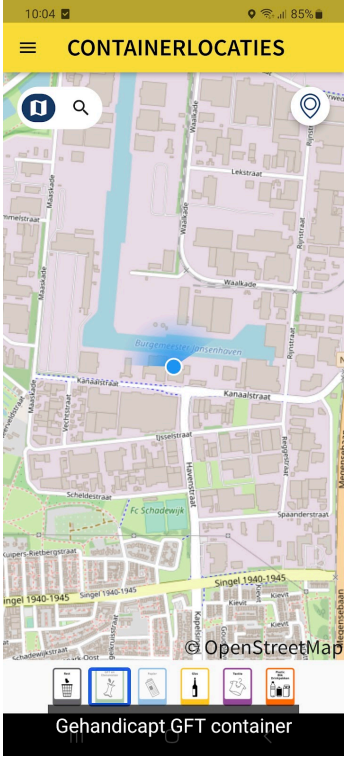

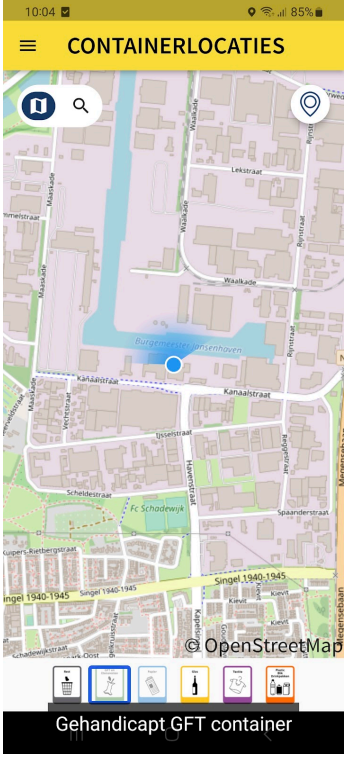
Nr	Success criterion	Problem	Screenshot
10	<p> <a href="#">1.4.3</a>            Contrast (Minimum)</p>	<p>The text contrast ratio is too low.            Provide a minimum contrast of 4.5:1.</p> <p>It is about the placeholder text "Vuul hier ...". The contrast is 2,6:1.</p> <p>Suggestion: The label of the input field and the search field both have a spelling mistake - "VuUI" (extra U) and "AfvagroUp" (U instead of E)</p>	 <p>The screenshot shows the 'CONTAINERLOCATIES' app interface. At the top, there is a yellow header with the title 'CONTAINERLOCATIES'. Below the header is a search bar with the placeholder text 'Vuul hier een adres in' highlighted by a blue box. Below the search bar, there is a list of container locations with icons and names: 'Glas Bleijenburg', 'PMD Bleijenburg', 'Textiel Buizerdhorst', 'PMD Buizerdhorst', 'Glas Buizerdhorst', and 'PMD Burgemeester Hoogenboomstraat'. At the bottom, there is a 'Meer Laden' button and a black bar with the text 'Bewerkingsvak, Vuul hier een adres in'.</p>
11	<p> <a href="#">1.4.3</a>            Contrast (Minimum)</p>	<p>The text contrast ratio is too low.            Provide a minimum contrast of 4.5:1.</p> <p>The contrast of the error message: "Ongeldig of onbekend adres" is 3.3:1.</p>	 <p>The screenshot shows the 'CONTAINERLOCATIES' app interface. At the top, there is a yellow header with the title 'CONTAINERLOCATIES'. Below the header is a search bar with the placeholder text 'Zoeken op adres of afvalgroep' and the text 'rrr' entered. Below the search bar, there is an error message 'Ongeldig of onbekend adres' highlighted by a blue box. Below the error message, there is a list of container locations with icons and names: 'Anjerhof', 'Glas Atlantische Oceaan', 'Glas Atlantische Oceaan', 'PMD Atlantische Oceaan', and 'Glas'. At the bottom, there is a black bar with the text 'A,J, van Reststraat &lt;'.</p>


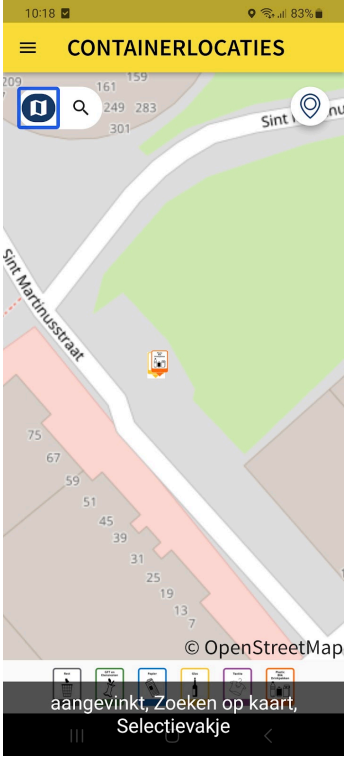

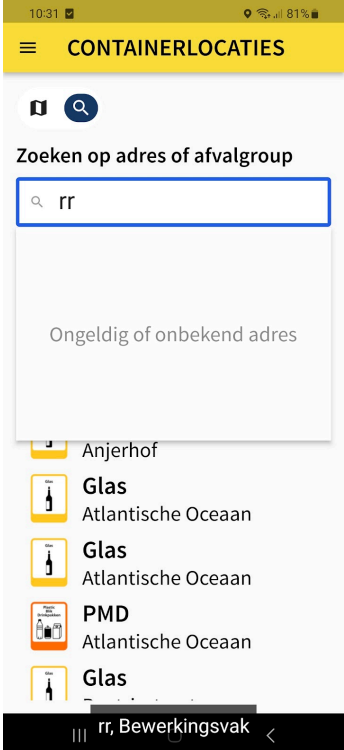


Nr	Success criterion	Problem	Screenshot
13	<p>AA <a href="#">1.4.4</a>            Resize text</p>	<p>(Parts of) text on this screen does not scale when the text is scaled to 200%. Make sure all text remains readable when magnified.</p> <p>It is about the indicators where garbage containers are on the map/ below the map.</p>	
15	<p> <a href="#">1.4.11</a>            Non-text Contrast</p>	<p>The contrast of interface elements on this screen is less than 3.0:1. Provide a minimum contrast of 3.0:1.</p> <p>The contrast of the "Glas container" yellow is 1,5:1. Also the elements for the other garbage types do not have sufficient contrast.</p>	

Nr	Success criterion	Problem	Screenshot
17	 <a href="#">2.1.1</a> Keyboard	<p>The screen/parts of the screen cannot be operated with an external keyboard. Make sure that all functionality is available using an external keyboard.</p> <p>The list is an alternative for the map. It is not possible to filter on a garbage type or to search for a nearby garbage point. The list is for that reason not an equal alternative. Make sure the functionality of the map are also available in the list. People with a keyboard interface are dependent on this.</p>	
21	 <a href="#">2.4.3</a> Focus Order	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>The focus order when using the screen reader in landscape mode is not correct. See the screenrecording: <a href="https://storage.ontogankelijk.nl/attachments/1364/Ximmio_2023-06-26-08-23-31.3gp">https://storage.ontogankelijk.nl/attachments/1364/Ximmio_2023-06-26-08-23-31.3gp</a></p>	


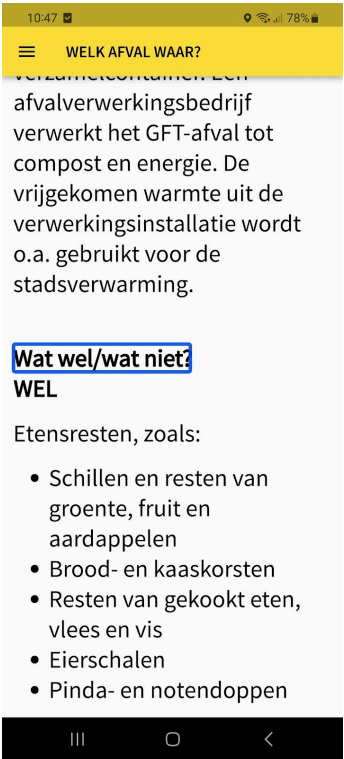
Nr	Success criterion	Problem	Screenshot
22	<p> <a href="#">2.4.3</a> Focus Order</p>	<p>The screen reader's focus should be on the error message. The focus remains on the underlying screen.</p> <p>It is about the error message: "Ongeldig of onbekend adres".</p>	
26	<p> <a href="#">2.4.6</a> Headings and Labels</p>	<p>A heading/label is present, but this heading/label is too cryptic/unclear. Provide clear headings/labels.</p> <p>The screen reader spells the complete heading "CONTAINERLOCATIONS". On the screen "Kalender" this is not the case.</p> <p>This is a suggestion not an error.</p>	





Nr	Success criterion	Problem	Screenshot
35	 <a href="#">4.1.2</a> Name, Role, Value	<p>The value/state of a button should be obvious without changing this state. Make sure the screen reader announces the value/state together with the button name.</p> <p>The screen reader announces "Gehandicapt Restafval Container". This is not the correct value. It should be "selected". This occurs also at other similar elements.</p>	
36	 <a href="#">4.1.2</a> Name, Role, Value	<p>This interactive element does not have a proper role. This element looks and behaves like a switch. Make sure the screen reader announces the correct role of this element.</p> <p>It is about the element "Restafval container" and occurs also at other similar elements.</p>	

Nr	Success criterion	Problem	Screenshot
37	 4.1.2 <a href="#">WCAG 4.1.2</a> Name, Role, Value	<p>This interactive element does not have a proper role. This element looks and behaves like a tab. Make sure the screen reader announces the correct role of this element.</p> <p>The element "zoeken op kaart" has the role "selectievakje" (checkbox). It is not possible to unselect the element by activating it. This is the way tabs work, therefore these elements should have the role tab.</p>	
41	 4.1.3 <a href="#">WCAG 4.1.3</a> Status Messages	<p>If the search button is used, the search results will appear with a notification stating an error. This message will not be read. Make sure this information is read aloud by an assistive technology</p> <p>It is about the error message: "Ongeldig of onbekend adres".</p>	

# 5. Afvalwijzer

We d 3 findings on this screen.

Nr	Success criterion	Problem	Screenshot
5	 <a href="#">1.3.1</a> Info and Relationships	<p>On this screen, there are headings that are not marked-up as headings. Make sure that assistive technology recognizes headings as headings.</p> <p>It is about the bold headings: "Wat wel/wat niet?" and "Wel" and "Niet" etc.</p>	 <p>10:47 78%</p> <p>WELK AFVAL WAAR?</p> <p>afvalverwerkingsbedrijf verwerkt het GFT-afval tot compost en energie. De vrijgekomen warmte uit de verwerkingsinstallatie wordt o.a. gebruikt voor de stadsverwarming.</p> <p><b>Wat wel/wat niet?</b> <b>WEL</b></p> <p>Etensresten, zoals:</p> <ul style="list-style-type: none"><li>• Schillen en resten van groente, fruit en aardappelen</li><li>• Brood- en kaaskorsten</li><li>• Resten van gekookt eten, vlees en vis</li><li>• Eierschalen</li><li>• Pinda- en notendoppen</li></ul>

Nr	Success criterion	Problem	Screenshot
18	 <a href="#">2.1.1</a> Keyboard	<p>The screen/parts of the screen cannot be operated with an external keyboard. Make sure that all functionality is available using an external keyboard.</p> <p>This map does not have a function. By making it an image the map becomes decorative.</p> <p>An exception applies to online maps and mapping services. Maps themselves do not have to be accessible. You can try to make it as accessible as possible.</p>	 <p>10:51 77%</p> <p>WELK AFVAL WAAR?</p> <p>Veel huisvuil wordt in onze gemeente aan huis opgehaald. Dit gebeurt op vaste dagen of op afspraak. Huisvuil kunt u ook zelf wegbrengen naar een milieustraat of naar een milieueiland.</p> <p>Zoek in scheidingswijzer</p> <p><b>GFT+e</b></p> <p>GFT+e (Groente-, Fruit-, En Tuinafval + Etenresresten) gooit u in de groene klike met bruine deksel, of (in geval van hoogbouw) in de ondergrondse verzamelcontainer. Een afvalverwerkingsbedrijf verwerkt het GFT-afval tot compost en energie. De vrijgekomen warmte uit de verwerkingsinstallatie wordt</p> <p>kaart met ondergrondse containers</p>
23	 <a href="#">2.4.3</a> Focus Order	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>The text "Veel huisvuil ..." is not in the accessibility tree and does not get focus when using the screen reader.</p>	 <p>10:49 78%</p> <p>WELK AFVAL WAAR?</p> <p>Veel huisvuil wordt in onze gemeente aan huis opgehaald. Dit gebeurt op vaste dagen of op afspraak. Huisvuil kunt u ook zelf wegbrengen naar een milieustraat of naar een milieueiland.</p> <p>Zoek in scheidingswijzer</p> <p><b>GFT+e</b></p> <p>GFT+e (Groente-, Fruit-, En Tuinafval + Etenresresten) gooit u in de groene klike met bruine deksel, of (in geval van hoogbouw) in de ondergrondse verzamelcontainer. Een afvalverwerkingsbedrijf verwerkt het GFT-afval tot compost en energie. De vrijgekomen warmte uit de verwerkingsinstallatie wordt</p>


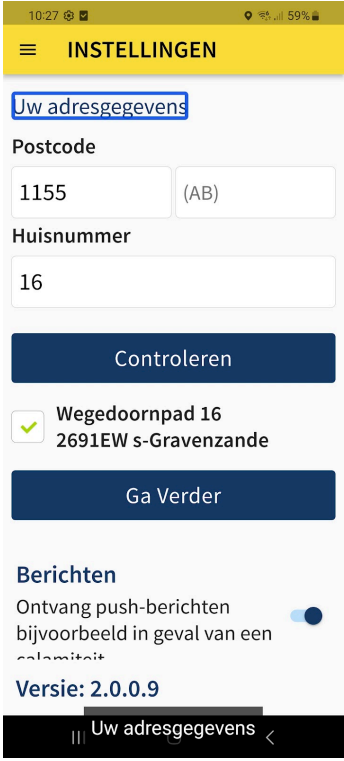

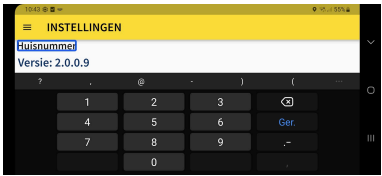
## 6. Informatie




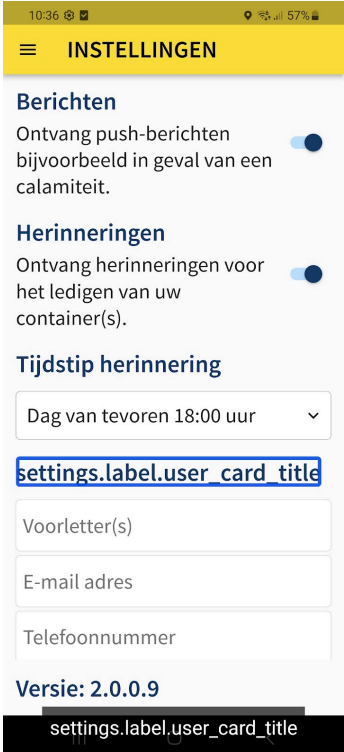
We have not made any (new) findings this screen. This screen may contain recurring findings that have already been reported on other screens.


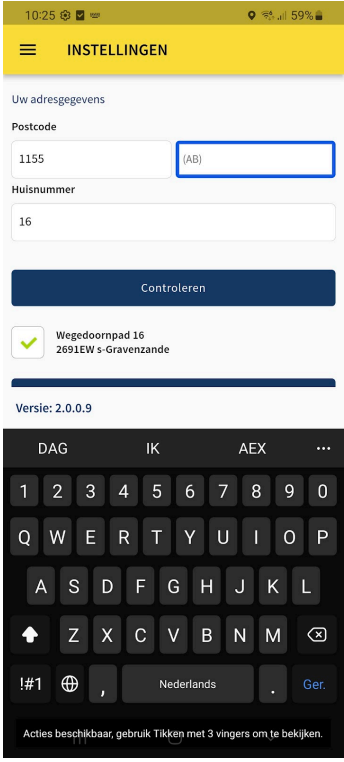

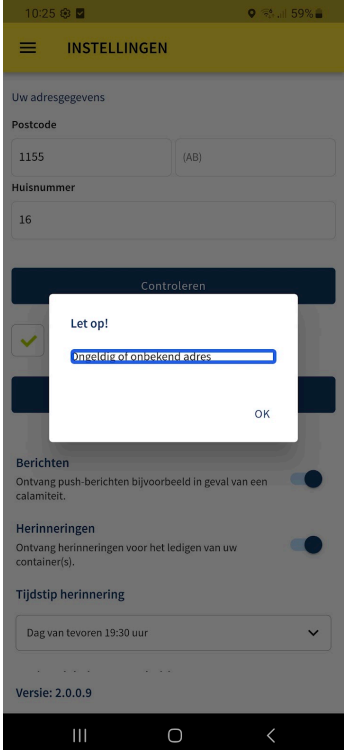



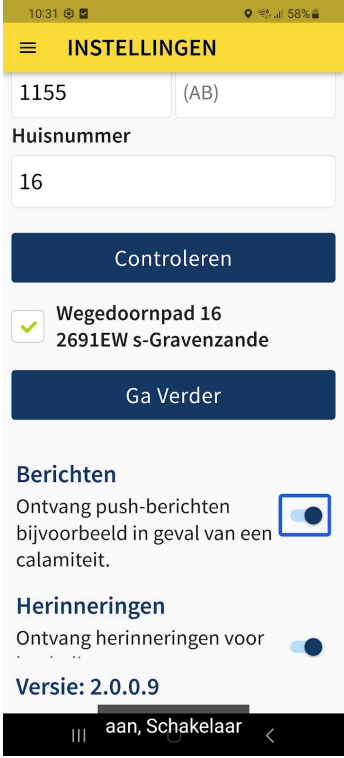

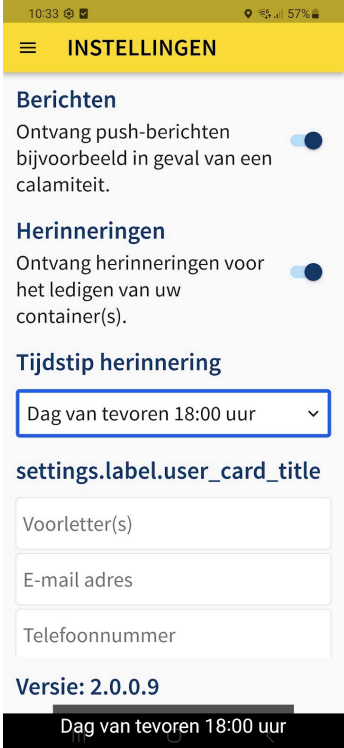
# 7. Instellingen


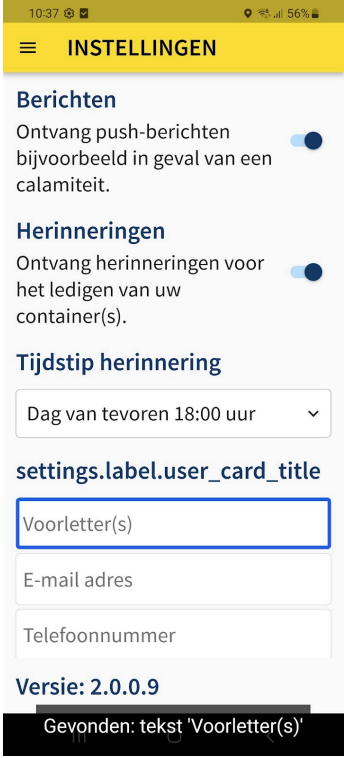
We d 9 findings on this screen.

Nr	Success criterion	Problem	Screenshot
6	<p> <a href="#">1.3.1</a> Info and Relationships</p>	<p>On this screen, there are headings that are not marked-up as headings. Make sure that assistive technology recognizes headings as headings.</p> <p>It is about the headings "Uw adresgegevens", "Berichten" and other similar headings.</p>	 <p>The screenshot shows the 'Instellingen' screen with a yellow header. Below the header, there is a section for 'Uw adresgegevens' with input fields for 'Postcode' (1155) and 'Huisnummer' (16). A 'Controleren' button is present. Below that, there is a checked checkbox for 'Wegedoornpad 16' and a 'Ga Verder' button. At the bottom, there is a 'Berichten' section with a toggle switch for 'Ontvang push-berichten'.</p>
14	<p> <a href="#">1.4.4</a> Resize text</p>	<p>(Parts of) text on this screen are no longer visible when the text is magnified to 200%. Make sure that all text remains available to users who use the app with an enlarged text.</p> <p>Suggestion: In landscape modus there is very limited space for the content. We suggest to place the version number inside the scroll view, instead of making it overlay other content.</p>	 <p>The screenshot shows the 'Instellingen' screen with a numeric keypad overlaid on top, which obscures the content below it, including the version number 'Versie: 2.0.0.9'.</p>

Nr	Success criterion	Problem	Screenshot
25	 <a href="#">2.4.3</a> Focus Order	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>After the heading the focus goes tot the version number. Visually this element is at the bottom of the screen. The focus should first go to earlier elements.</p>	
27	 <a href="#">2.4.6</a> Headings and Labels	<p>A heading/label is present, but this heading/label is too cryptic/unclear. Provide clear headings/labels.</p> <p>It is about the heading "setting.label.user_card_title".</p>	



Nr	Success criterion	Problem	Screenshot
29	 <a href="#">3.2.2</a> On Input	<p>When the user enters data in the input field, the data is sent automatically. Make sure the user is informed about this behavior in advance.</p> <p>After filling in the "Postcode number" or "Postcode letter" the focus automatically changes to the next input field. Do not change the focus to the next element automatically.</p>	
33	 <a href="#">3.3.3</a> Error Suggestion	<p>No solution is provided to correct the error message. Tell the user what to do to correct the error.</p> <p>After submitting the data the error message "Ongeldig of onbekend adres" is not providing a solution. Also the error identification refers to "Adres" but the input was a postcode + number.</p>	

Nr	Success criterion	Problem	Screenshot
38	 4.1.2 <a href="#">↗</a> Name, Role, Value	<p>The toggle button has no name. Group the toggle button and its label so that they can be read as one element by the assistive technology.</p> <p>Group the label "Ontvang push-berichten ..." and the switch.</p>	
39	 4.1.2 <a href="#">↗</a> Name, Role, Value	<p>This interactive element does not have a proper role. This element looks and behaves like a button. Make sure the screen reader announces the correct role of this element.</p> <p>It is about the drop-down named "Dag van tevoren ...".</p> <p>Android does not have a drop-down role, therefore button is most similar.</p>	

Nr	Success criterion	Problem	Screenshot
40	 <a href="#">4.1.2</a> Name, Role, Value	<p>The input field does not have an accessible name. When tapping this input field, the assistive technology does not read out which data must be entered here. Provide a correct name.</p> <p>It is about all the input fields at the bottom of the screen, these should have their own label.</p>	

## 8. Berichten

We d 1 findings on this screen.

Nr	Success criterion	Problem	Screenshot
24	 2.4.3  Focus Order	<p>The focus order of the elements on the screen is not the same as the visual order of the elements. Ensure that the screen is read by assistive technology in the same order as the visual order of elements.</p> <p>The focus goes directly to "Je hebt geen bericht" after navigating from the header "Berichten". Only after the focus of the screen reader goes to the paragraph.</p>	