

Digital accessibility AQQO Report with the results of the research into digital accessibility WCAG2.2 – AA of the Aqqo application for demo.aqqo.com.

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#### 1 Introduction

Digital accessibility is the standard that requires government organizations to make their websites and apps accessible to everyone, regardless of age or disability. The Dutch government aims for public facilities to be usable by all citizens, including digital resources such as websites and apps. Therefore, digital accessibility is legally required for all government organizations.

This report provides an overview of the extent to which Aqqo's application complies with digital accessibility guidelines. The assessment was conducted using the Website Accessibility Conformance Evaluation Methodology (WCAG-EM 1.0). For more information about this methodology, see WCAG-EM.

The report documents the evaluation of each guideline, including the manual and/or automated testing methods used, along with explanations. Additionally, for each guideline, it is specified whether the demo.accommodatiehuur.nl application meets the requirements (see "Detailed Results Overview"). In cases where the testing methods identified issues or shortcomings, the report explicitly outlines (per recommendation) how these problems or deficiencies can be addressed (see the "Findings" section for the guidelines).

# 1.1 Accessibility Compliance and Client Responsibilities

It is important to note that any custom styling preferences requested by the client may deviate from the prescribed WCAG (Web Content Accessibility Guidelines) standards. The client assumes full responsibility for such deviations if they choose to implement styling that does not conform to these standards.

Additionally, the alternative text options provided for images within the Aqqo tenant portal may not fully align with WCAG guidelines. Clients are likewise responsible for ensuring that their chosen implementation meets accessibility requirements.

Finally, we strongly recommend conducting an external accessibility audit to ensure that the client's customized tenant portal environment complies with WCAG standards. This step will provide an extra layer of assurance regarding the accessibility of the platform for all users.

#### 2 Summary of the evaluation findings

The report concludes that the Aqqo web application is largely accessible according to WCAG 2.2 Level AA guidelines. While the criteria are being met, a few areas for improvement have been identified.

Users currently have no control over manually extending the session duration. This can be a barrier for users who need more time to use the application. **Internal reference ticket: CRS-9669** 

For step 1 of the reservation page, users can't tab through the courts using the keyboard. Users can avoid step 1 by starting a reservation through the homepage cards instead, but it would be more accessible when a user gets on step 1, that the keyboard functionality is available.

Internal reference ticket: CRS-12193

# aqqo

# **3** Scope (Scope of the evaluation) Overview of the scope of this evaluation.

Website name	demo.aqqo.com
Scope of the website	All web content on the public website of the reservation system demo.aqqo.com.
WCAG Version	WCAG 2.2
Conformance target	Level AA
Additional evaluation requirements	This report will display a list of all findings found. Not only examples are given.
Accessibility support baseline	Browsers: Firefox, Chrome, Edge (JavaScript) Apparaten: Telefoon, tablets, desktop
Relied upon technologies	HTML5, CSS, SVG, DOM

# 4 Overview of audit results

Overview of all criteria broken down by domain and level.

Principle	Level A	Level AA
1. Perceivable	9/9	11/11
2. Operable	13/14	6/6
3. Understandable	7/7	6/6
4. Robust	2/2	1/1
Total	31/32	24/24

Table 1 - Overview of criteria broken down

# 5 Detailed audit results

This part provides a detailed overview of the report. This report has been prepared according to the WCAG2.2 guidelines.

# 5.1 Principle 1 Perceivable

# 1.1 Text Alternatives

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

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

- **Controls, Input** If non-text content is a control or accepts user input, then it has a name that describes its purpose. (Refer to Guideline 4.1 for additional requirements for controls and content that accepts user input.)
- **Time-Based Media** If non-text content is time-based media, then text alternatives at least provide descriptive identification of the non-text content. (Refer to Guideline 1.2 for additional requirements for media.)
- **Test** If non-text content is a test or exercise that would be invalid if presented in text, then text alternatives at least provide descriptive identification of the non-text content.
- **Sensory** If non-text content is primarily intended to create a specific sensory experience, then text alternatives at least provide descriptive identification of the non-text content.
- **CAPTCHA** If the purpose of non-text content is to confirm that content is being accessed by a person rather than a computer, then text alternatives that identify and describe the purpose of the non-text content are provided, and alternative forms of CAPTCHA using output modes for different types of sensory perception are provided to accommodate different disabilities.
- **Decoration, Formatting, Invisible** If non-text content is pure decoration, is used only for visual formatting, or is not presented to users, then it is implemented in a way that it can be ignored by assistive technology.

# Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Is met, see the results of 2 tools below. "Images have alt attribute (8 occurrences)" (reference: checkers\_eiii\_eu) & "6X Alternative text + 2X Linked image with alternative text" (reference: wave\_webaim\_org)

# 1.2 Time-based Media

**1.2.1 Audio-only and Video-only (Prerecorded)**: (Level A) Show criterion text For prerecorded audio-only and prerecorded video-only media, the following are true, except when the audio or video is a media alternative for text and is clearly labeled as such:

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



video-only content.

Understanding How to meet

Results for the entire sample:

Outcome: Not present

Findings: No audio is made available and/or used throughout the application.

#### 1.2.2 Captions (Prerecorded): (Level A) Show criterion text

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

Results for the entire sample:

**Outcome**: Not present

Findings: No audio is made available and/or used throughout the application.

**1.2.3 Audio Description or Media Alternative (Prerecorded)**: (Level A) Show criterion text

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

Understanding How to meet

Results for the entire sample:

Outcome: Not present

Findings: No audio is made available and/or used throughout the application.

#### 1.2.4 Captions (Live): (Level AA) Show criterion text

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

Understanding How to meet

Results for the entire sample:

Outcome: Not present

Findings: No audio is made available and/or used throughout the application.

#### 1.2.5 Audio Description (Prerecorded): (Level AA) Show criterion text

Audio description is provided for all prerecorded video content in synchronized media. Understanding How to meet

Results for the entire sample:

Outcome: Not present

Findings: No audio is made available and/or used throughout the application.

# 1.3 Adaptable

#### **1.3.1 Info and Relationships**: (Level A) Show criterion text

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

Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** The web page uses semantic HTML elements such as headings (<h1>, <h2>, <h3>) and structure tags (<header>, <nav>, <main>, <footer>) to describe the content and relationships to make clear.

(reference: manual\_analysis)

### 1.3.2 Meaningful Sequence: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

Outcome: Passed

**Findings:** The layout is constructed sequentially, if no styling is applied, the order of the elements in the application is the same as with styling.

This complies with G57 - "Ordering the content in a meaningful sequence"

(reference: manual\_analysis)

#### **1.3.3 Sensory Characteristics**: (Level A) Show criterion text

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

Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** All buttons that are positioned alone have a description that indicates what the function is and what the button belongs to in context.

This complies with G96 - "Providing textual identification of items that otherwise rely only on sensory information to be understood" (reference: manual\_analysis)

#### 1.3.4 Orientation: (Level AA) Show criterion text

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

# Results for the entire sample:

Outcome: Decod

Outcome: Passed

**Findings:** The application uses the Bootstrap framework in terms of layout. This makes the application suitable for many different screen sizes with different orientations. The application is therefore suitable for both portrait and landscape. (reference: manual\_analysis)

# **1.3.5 Identify Input Purpose**: (Level AA) Show criterion text

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

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

# Understanding How to meet

Results for the entire sample:

### Outcome: Passed

**Findings:** All input fields have a label with the description but also a placeholder. A placeholder indicates sample text or an additional description. All input fields work with the HTML5 standard, making the meaning of fields and attributes clear. (reference: manual\_analysis)

# 1.4 Distinguishable

1.4.1 Use of Color: (Level A) Show criterion text

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

Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

Findings: This is met - this has been checked with elements.

"Suitable difference between the attributes of link and the surrounding text. (25 occurrences)" (reference: checkers\_eiii\_eu)

# 1.4.2 Audio Control: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

Findings: No audio is made available and/or used throughout the application.

#### 1.4.3 Contrast (Minimum): (Level AA) Show criterion text

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

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



#### requirement.

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** All normal and large text have sufficient contrast and meet level AA. This also applies to the foreground and background color. (reference: wave\_webaim\_org)

#### **1.4.4 Resize text**: (Level AA) Show criterion text

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

# Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** When zooming in to 200%, the web page is easy to use and all text and other content is displayed larger. This also applies to form elements, where both the text and the input fields scale accordingly. (reference: manual analysis)

#### 1.4.5 Images of Text: (Level AA) Show criterion text

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

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

#### Understanding How to meet

#### Results for the entire sample:

#### Outcome: Passed

**Findings:** CSS is used as much as possible to style text and display images in the user interface. See C22 - "Using CSS to control visual presentation of text" and C30 - "Using CSS to replace text with images of text and providing user interface controls to switch" (reference: manual analysis, wave\_webaim\_org)

#### **1.4.10 Reflow**: (Level AA) Show criterion text

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

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** The application is mobile friendly and uses the Bootstrap framework. This framework offers the standard option to automatically scale using: media queries. At least C32 - "Using media queries and grid CSS to reflow columns" and C31 - "Using CSS Flexbox to reflow content" and C38 - "Using CSS width, max-width and flexbox to fit labels and inputs" (reference) are met. : manual\_analysis, wave\_webaim\_org)

# 1.4.11 Non-text Contrast: (Level AA) Show criterion text

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

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** All elements have a so-called title that becomes visible when you hover over them. All icons are black on a light background, so the contrast ratio is excellent and the 3:1 requirement is met. Compliance with G195 - "Using an author-supplied, highly visible focus indicator" and G207 - "Ensuring that a contrast ratio of 3:1 is provided for icons" (reference: wave\_webaim\_org, manual\_analysis)

### **1.4.12 Text Spacing**: (Level AA) Show criterion text

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

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

#### Understanding How to meet

#### Results for the entire sample:

#### Outcome: Passed

**Findings:** 16pt is mainly used as a font size. The line height is set to 1.5x the font size, therefore 24pt. C21 - "Specifying line spacing in CSS" (reference: manual\_analysis)

#### 1.4.13 Content on Hover or Focus: (Level AA) Show criterion text

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

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

#### Understanding How to meet



Results for the entire sample:

#### Outcome: Passed

**Findings:** Tooltips are used in the application, these tooltips appear when the mouse is placed over them. This disappears when the mouse is moved away from it. This is a standard tooltip functionality that is used across the web. (reference: manual\_analysis)

### 5.2 Principle 2 Operable

#### 2.1 Keyboard Accessible

#### 2.1.1 Keyboard: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** All links and all content can be reached with the keyboard focus. Actions can then be performed with the keyboard. No waiting times are required to perform actions. In addition, all actions can be performed via the keyboard via 'onclick' events. This complies with H91 - "Using HTML form controls and links" and G202 - "Ensuring keyboard control for all functionality" and SCR35 - "Making actions keyboard accessible by using the onclick event of anchors and buttons" (reference: manual\_analysis)

#### 2.1.2 No Keyboard Trap: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** It is possible to navigate through the page using tabs from start to finish. The keyboard focus does not stop anywhere on the page. This means that G21 -"Ensuring that users are not trapped in content" is met. (reference: manual\_analysis)

#### 2.1.4 Character Key Shortcuts: (Level A) Show criterion text

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

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



only active when that component has focus.

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** There are no one-letter shortcuts implemented in the application. This functionality is not present, so the application does not have to support disabling, reassigning or making it active/inactive. (reference: manual\_analysis)

#### 2.2 Enough Time

#### 2.2.1 Timing Adjustable: (Level A) Show criterion text

For each time limit that is set by the content, at least one of the following is true:

- Turn off The user is allowed to turn off the time limit before encountering it; or
- Adjust The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or
- **Extend** The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; or
- **Real-time Exception** The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or
- Essential Exception The time limit is essential and extending it would invalidate the activity; or
- **20 Hour Exception** The time limit is longer than 20 hours.

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Failed

**Findings:** The user session is valid for 12 hours by default. This validity is adjusted every time a user performs an action in the application. The user has no influence other than the above to adjust the session duration. (reference: manual\_analysis)

#### 2.2.2 Pause, Stop, Hide: (Level A) Show criterion text

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

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

#### Understanding How to meet

Results for the entire sample: **Outcome**: Passed

**Findings:** There are no actions (i.e., moving, blinking, scrolling) that last longer than 5 seconds. Auto updated components can be hidden. (reference: manual\_analysis)

# 2.3 Seizures and Physical Reactions

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

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

Results for the entire sample:

#### Outcome: Passed

**Findings:** There are no components that flash or blink more than 3 times per second in the application. This complies with G19 - "Ensuring that no component of the content flashes more than three times in any 1-second period" (reference: manual\_analysis)

# 2.4 Navigable

2.4.1 Bypass Blocks: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Each page contains a Skip to main content button to avoid repeated blocks of content (reference: manual\_analysis)

# **2.4.2 Page Titled**: (Level A) Show criterion text

Web pages have titles that describe topic or purpose.

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Title is "Home – Reserveringssysteem – Aqqo.com", this title gives a good description of the system and is present on the page. (reference: checkers\_eiii\_eu)

#### 2.4.3 Focus Order: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Focus is navigated in a sequential manner. First the header, then the navigation, then the buttons to change the view and finally the individual accommodations get the focus. (reference: manual\_analysis)



### 2.4.4 Link Purpose (In Context): (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** There are 2 links that go to the same thing, these are not visible at the same time as in both cases a mobile variant has been made for it, so a user will never have to deal with the same link (reference: wave\_webaim\_org, manual\_analysis)

#### 2.4.5 Multiple Ways: (Level AA) Show criterion text

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

Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** There are multiple ways to navigate to pages within the application (reference: manual\_analysis).

#### 2.4.6 Headings and Labels: (Level AA) Show criterion text

Headings and labels describe topic or purpose.

#### Understanding How to meet

Results for the entire sample:

Outcome: Passed

**Findings:** Headings describe the available locations in the system on the homepage. "G130 - 6 occurrences" (reference: checkers\_eiii\_eu)

#### **2.4.7 Focus Visible**: (Level AA) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** The focus elements are always outlined with a colored border. This makes it clear where the focus is currently located on the webpage (reference: manual\_analysis)

#### **2.4.11 Focus not obscured (minimum)**: (Level AA) Show criterion text

When a user interface component receives keyboard focus, the component is not entirely hidden due to author-created content.

Understanding How to meet

Results for the entire sample: **Outcome**: Passed

**Findings:** The focus elements are always outlined with a colored line. This makes it clear where the focus is currently located on the webpage (reference: manual\_analysis)

# 2.5 Input Modalities

#### 2.5.1 Pointer Gestures: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** In one place in the application, multipoint gestures are used. This is the functionality for making a selection in the week overview. In addition to this drag action, it is also possible to use a single mouse click, which achieves the same result (reference: manual\_analysis)

### 2.5.2 Pointer Cancellation: (Level A) Show criterion text

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

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Drag-and-drop actions can be canceled, for example, by dragging outside the target area or using a cancel/escape key. The down event is not used. This ensures compliance with G210 - "Ensuring that drag-and-drop actions can be canceled" (reference: manual\_analysis).

#### 2.5.3 Label in Name: (Level A) Show criterion text

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

### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** All components in the application have a label with a clear description. This applies, for example, to all buttons, including submit buttons. For buttons without text,

the aria-label attribute is added with a description. An example of this is the maps/list view button on the homepage (reference: manual\_analysis)

# 2.5.4 Motion Actuation: (Level A) Show criterion text

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

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Device motion sensors are not used. Therefore, no actions in the application are triggered by them (reference: manual\_analysis).

#### 2.5.7 Dragging movements: (Level AA) Show criterion text

All functionality that uses a dragging movement for operation can be achieved by a single pointer without dragging, unless dragging is essential or the functionality is determined by the user agent and not modified by the author.

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Device motion sensors are not used. Therefore, no actions are performed in the application based on them (reference: manual\_analysis).

#### 2.5.8 Target Size (Minimum): (Level AA) Show criterion text

The size of the <u>target</u> for <u>pointer inputs</u> is at least 24 by 24 <u>CSS pixels</u>, except where:

- **Spacing:** Undersized targets (those less than 24 by 24 CSS pixels) are positioned so that if a 24 CSS pixel diameter circle is centered on the <u>bounding box</u> of each, the circles do not intersect another target or the circle for another undersized target;
- **Equivalent:** The function can be achieved through a different control on the same page that meets this criterion;
- **Inline:** The target is in a sentence or its size is otherwise constrained by the line-height of non-target text;
- User agent control: The size of the target is determined by the <u>user agent</u> and is not modified by the author;
- **Essential:** A particular <u>presentation</u> of the target is <u>essential</u> or is legally required for the information being conveyed.

#### Understanding How to meet

Results for the entire sample: **Outcome**: Passed

**Findings:** Device motion sensors are not used. Therefore, no actions are performed in the application based on them (reference: manual\_analysis).

# 5.3 Principle 3 Understandable

### 3.1 Readable

#### 3.1.1 Language of Page: (Level A) Show criterion text

The default human language of each Web page can be programmatically determined. Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** The primary language can be determined - "The primary language of the web content can be programmatically determined" (reference: checkers\_eiii\_eu)

### 3.1.2 Language of Parts: (Level AA) Show criterion text

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

Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** The language of all elements can be determined - "The language of the document or a page element is identified." (reference: wave\_webaim\_org)

#### 3.2 Predictable

3.2.1 On Focus: (Level A) Show criterion text

When any component receives focus, it does not initiate a change of context. Understanding How to meet

# Results for the entire sample:

#### Outcome: Passed

**Findings:** A new screen is only opened when necessary, such as when opening the terms and conditions during the booking process. Additionally, no action is performed when an element is focused, so the context does not change. This complies with G200

- "Opening new windows and tabs from a link only when necessary" (reference: manual\_analysis)

#### 3.2.2 On Input: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample: **Outcome**: Passed

Report digital accessibility

**Findings:** A submit button is always used to change the context. Additionally, for 'onchange' events on select boxes, no context change occurs; all fields are simply reinitialized. This complies with G80 - "Providing a submit button to initiate a change of context" and SCR19 - "Using an onchange event on a select element without causing a change of context" (reference: manual\_analysis)

# 3.2.3 Consistent Navigation: (Level AA) Show criterion text

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

# Understanding How to meet

Results for the entire sample:

### Outcome: Passed

**Findings:** Navigation items are always displayed in the same order throughout the entire application. This complies with G61 - "Presenting repeated components in the same relative order each time they appear" (reference: manual\_analysis)

### 3.2.4 Consistent Identification: (Level AA) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Components with the same functionality are used consistently. The entire application uses the same components to display elements such as tables or navigation items. Additionally, all navigation/action items have a label or a title. G197 - "Using labels, names, and text alternatives consistently for content that has the same functionality" (reference: manual\_analysis)

# 3.2.6 Consistent Help: (Level A) Show criterion text

If a <u>Web page</u> contains any of the following help <u>mechanisms</u>, and those mechanisms are repeated on multiple Web pages within a <u>set of Web pages</u>, they occur in the same order relative to other page content, unless a change is initiated by the user:

- Human contact details;
- Human contact mechanism;
- Self-help option;
- A fully automated contact mechanism.

# Understanding How to meet

# Results for the entire sample:

#### Outcome: Passed

**Findings:** Components with the same functionality are used consistently. The entire application uses the same components to display elements such as tables or navigation items. Additionally, all navigation/action items have a label or a title.

G197 - "Using labels, names, and text alternatives consistently for content that has the same functionality" (reference: manual\_analysis)

# 3.3 Input Assistance

3.3.1 Error Identification: (Level A) Show criterion text

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

Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Error messages are clearly indicated in red boxes with red text. This complies with G83 - "Providing text descriptions to identify required fields that were not completed" (reference: manual\_analysis, manual\_screen\_01.png)

### 3.3.2 Labels or Instructions: (Level A) Show criterion text

Labels or instructions are provided when content requires user input. Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** All forms have labels for all fields. Additionally, 'placeholders' are used for all input fields, providing hints/instructions on what the user should enter in the input field (reference: manual\_analysis)

#### 3.3.3 Error Suggestion: (Level AA) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** All forms have both client-side and server-side validation. Additionally, input is automatically adjusted to the correct format. An example of this is the phone number input field, which is automatically formatted in the international ISO format. Success messages are also displayed for valid input, so the user knows that the input is correct.

This complies with SCR18 - "Providing client-side validation and alert," G177 - "Providing suggested correction text," and G199 - "Providing success feedback when data is submitted successfully" (reference: manual\_analysis)

# 3.3.4 Error Prevention (Legal, Financial, Data): (Level AA) Show criterion text

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

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

#### Understanding How to meet

#### Results for the entire sample:

#### Outcome: Passed

**Findings:** Users are required to check a 'checkbox' before submitting the registration form. Additionally, users have the option to modify the input at any time during the booking process. Even after a booking is made, users can modify the booking. Furthermore, when creating a booking, users must agree to the terms and conditions. This complies with G98 - "Providing the ability for the user to review and correct answers before submitting" and G155 - "Providing a checkbox in addition to a submit button" (reference: manual\_analysis)

### 3.3.7 Redundant Entry: (Level A) Show criterion text

Information previously entered by or provided to the user that is required to be entered again in the same <u>process</u> is either:

- auto-populated, or
- available for the user to select.

Except when:

- re-entering the information is essential,
- the information is required to ensure the security of the content, or
- previously entered information is no longer valid.

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Users are required to check a 'checkbox' before submitting the registration form. Additionally, users have the ability to modify the input at any time during the booking process. Even after a booking is made, users can modify the booking. Furthermore, when creating a booking, users must agree to the terms and conditions. This complies with G98 - "Providing the ability for the user to review and correct answers before submitting" and G155 - "Providing a checkbox in addition to a submit button" (reference: manual\_analysis)

# 3.3.8 Accessible Authentication (Minimum): (Level AA) Show criterion text



A <u>cognitive function test</u> (such as remembering a password or solving a puzzle) is not required for any step in an authentication <u>process</u> unless that step provides at least one of the following:

#### Alternative

Another authentication method that does not rely on a cognitive function test.

#### Mechanism

A <u>mechanism</u> is available to assist the user in completing the cognitive function test.

#### **Object Recognition**

The cognitive function test is to recognize objects.

#### **Personal Content**

The cognitive function test is to identify <u>non-text content</u> the user provided to the Web site.

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** Users are required to check a 'checkbox' before submitting the registration form. Additionally, users have the ability to modify the input at any time during the booking process. Even after a booking is made, users can modify the booking. Furthermore, when creating a booking, users must agree to the terms and conditions. This complies with G98 - "Providing the ability for the user to review and correct answers before submitting" and G155 - "Providing a checkbox in addition to a submit button" (reference: manual\_analysis)

#### 5.4 Principle 4 Robust

#### 4.1 Compatible

4.1.1 Parsing: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

Outcome: passed

Findings: All elements have valid IDs.

"id attribute value must be unique" (21 occurrences)(reference: checkers\_eiii\_eu), "IDs of active elements must be unique" (2 occurrences)(reference:

checkers\_eiii\_eu),

"IDs used in ARIA and labels must be unique" (2 occurrences)(reference: checkers\_eiii\_eu)

#### 4.1.2 Name, Role, Value: (Level A) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: passed

**Findings:** All buttons have a descriptive name, either through visible text or the use of aria-label where needed. Input fields are correctly labeled with <label> elements or aria-label attributes. Modals and dynamic content correctly use aria-live to announce updates. Interactive components such as custom widgets have the appropriate role and state attributes (e.g., aria-checked, aria-expanded)

### 4.1.3 Status Messages: (Level AA) Show criterion text

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

#### Understanding How to meet

Results for the entire sample:

#### Outcome: Passed

**Findings:** All status messages, including success and error messages, are displayed using Bootstrap Alert boxes with the appropriate ARIA roles (role="alert" for critical messages and role="info" for informational messages). These messages are dynamically announced by screen readers, as aria-live="assertive" is used for alerts and aria-live="polite" for non-urgent info boxes. Additionally, messages are visually emphasized with bold text for easy identification. This ensures that users, including those using assistive technologies, are notified of important updates in real-time.

#### 6 Sample of audited webpages

Overview of the subset of the evaluated pages.

- Homepage: https://demo.aqqo.com/
- Beschikbaarheid: https://demo.aqqo.com/planboard
- Reserveren: https://demo.aqqo.com/book
- Webshop: https://demo.aqqo.com/webshop
- Toegangssysteem: https://demo.aqqo.com/content/toegangscontrole
- Contact: https://demo.aqqo.com/content/contact
- Inloggen: https://demo.aqqo.com/auth
- Registreren: https://demo.aqqo.com/auth/register
- Informatie: https://demo.aqqo.com/content/handleiding
- Wachtwoord: vergeten: https://demo.aqqo.com/auth/forgotpassword
- Privacy policy: https://demo.aqqo.com/content/privacypolicy
- Algemene voorwaarden: https://demo.aqqo.com/content/algemenevoorwaarden



- Reserveringsvoorwaarden: https://demo.aqqo.com/content/reserveringsvoorwaarden
- Maintainers log-in: https://login.aqqo.com/

### 7 Recording of evaluation specifics

Overview of the tools used in this evaluation.

Tools used:

- Wave https://wave.webaim.org/
  - Version Chrome extensie 3.1.6 (<u>https://chrome.google.com/webstore/detail/wave-evaluation-tool/jbbplnpkjmmeebjpijfedlgcdilocofh</u>)
- EIII http://checkers.eiii.eu/ (13-10-2024)
- Internet.nl https://internet.nl (13-10-2024)
- Total Validator https://www.totalvalidator.com/
  - Version Chrome extensie 5.4 (<u>https://chrome.google.com/webstore/detail/total-validator/cfcjipgbidiomdljbodfhameekcfcbpk</u>)
  - Version Application 16.4.0
- Siteimprove Accessibility Checker https://siteimprove.com
  - Version Chrome extension 2.0 (https://chrome.google.com/webstore/detail/siteimproveaccessibility/djcglbmbegflehmbfleechkjhmedcopn)
- W3C validator <u>https://validator.w3.org/</u>
  - Version 21.10.12
- Google Chrome <u>https://www.google.com/intl/nl\_nl/chrome/</u>
  - Version: 94.0.4606.81 (Official Build) (64-bit)

#### 8 Related WCAG 2 resources

Overview of WCAG 2 sources.

- Web Content Accessibility Guidelines (WCAG) Overview: www.w3.org/WAI/intro/wcag
- How to Meet WCAG 2.2Quick Reference https://www.w3.org/WAI/WCAG22/quickref/
- WCAG Evaluation Methodology (WCAG-EM) Overview: <u>https://www.w3.org/WAI/test-evaluate/conformance/wcag-em/</u>

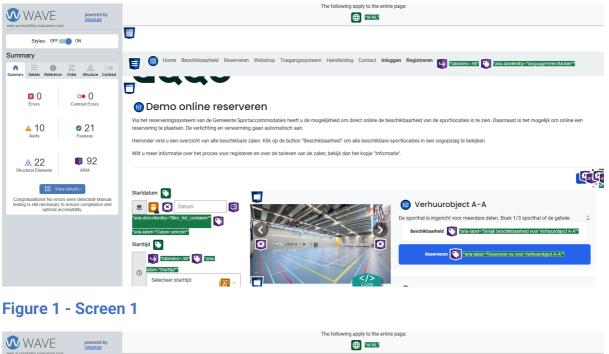


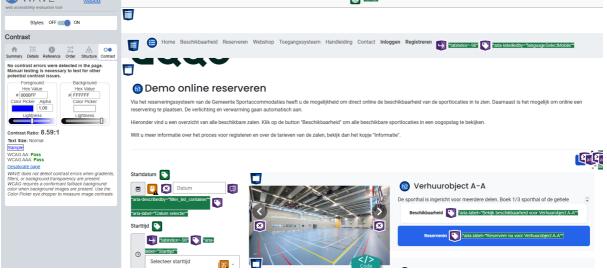
# 9 Attachments

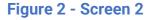
This chapter contains an overview of all attachments.

# 9.1 Wave (wave\_webaim\_org)

Tool: https://wave.webaim.org/







web accessibility evaluation tool	-		
Styles: OFF ON Details Summary Details Reference Order Studue Contrast	Staridatum Stari		Verhuurobject A-A De sporthal is ingericht voor meerdere delen. Boek 1/3 sporthal of de gehele      Beschikbaarheid      Reschikbaarheid      Reschikba
A 10 Alerts 2 X Redundant link 2 X Device dependent event handler 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Starttijd 💽		Reserveren 💽 fana tabel-"Reserveer nu voor Verhaurobject A.A."
C X Redundant title text	Selecteer starttijd		Turnhal De turnhal bevat de nieuwste materialen waardoor er op goed niveau geturned kan
21 Features     6 X Alternative text     1 X Null or empty alternative text	aria-label="Datum selecter"		🛣 1:10
2 X Linked image with alternative text	Eindtijd indtijd tabindex=96° *aria-	1 ATTON	Beschikbaarheid 💽 Farla-kabel="Bekgik beschikbaarheid voor Turnhaf" Reserveren 💽 Tarla-kabel="Reserver nu voor Turnhaf"
10 X Form label      10 X Fieldset	© Selecteer eindtijd		
© TX Language © 0 © 1X Language © 0 ■ 0 • 22 Structural Elemente *	Activiteit	5	Dans en fitnesszaal      Kik op onderstaande button om de beschikbaarheid in te zien.      Beschikbaarheid      Tritte stateste Beschikbaarheid voor Dans en firresszatier

Figure 3 - Screen 3

# 9.2 EIII (checkers\_eiii\_eu)

Tool: http://checkers.eiii.eu/

Tingtun Checker		English (en) 🗸	
eAccessibility Contact			
Page Checker	eAccessibility / Page Checker		
Benchmarking			
Benchmarking Results	Checked page:	http://demo.aqqo.com Recheck >Check another page	
Checkers Tests			
Checker HTML Tests	Time:	2024-12-19T08:04:40Z	
Checker PDF Tests Checker Manual Tests			
	Applied Tests:	Total: 116 Fail: 0 Verify: 0 Pass: 116	
FAQ			
User testing tool (beta)	Score:	■ 100.00	
eAccessibility Contact Page Checker PDF Checker		(where 100 is the best)	
Benchmarking Benchmarking Results Checkers Tests Checker HTML Tests Checker PDF Tests FAQ User testing tool (beta) Dev Blog	Link:	/en/pagecheck2.0/?uuid=c2ab0111-4d5f-48e3-999d-31f20172e13d	

Figure 4 - Resultaten EIII checker

# 9.3 Siteimprove Accessibility Checker (site\_improve)

# Tool: https:/siteimprove.com

#### Accessibility Resultaten

Prob	Probleem			
$\oslash$	Afbeelding zonder alt kenmerk 0			
$\oslash$	Afbeeldingslink ontbreekt alternatieve tekst 🖲			
$\oslash$	Invoerveld heeft geen beschrijving 🔍			
$\oslash$	Tekstgebied heeft gren beschrijving 0			
$\oslash$	Vervolgkeuzemenu heeft geen beschrijking 0			
$\oslash$	Webpagina heeft meerdere titelelementen of geen titelelement			
$\oslash$	De bitel van de webpagina ontbreekt tekst			
$\oslash$	Kop tekst ontbreekt 🔍			
$\oslash$	Alternatieve tekst voor de afbeelding is een bestandsnaam			
$\oslash$	Element-ID is niet uniek 0			
$\oslash$	Formuliercontrolelabel ontbreekt tekst 9			
$\oslash$	Het gebruik van een automatische omleiding na een trage laadbijd			
$\oslash$	Taal van pagina is niet ingesteld			
$\oslash$	WAI-ARIA-afbeelding mist alternatieve tekst 🖸			

# Figure 5 – Results Siteimprove



# 9.4 W3C validator (w3c\_validator)

# Tool: https://validator.w3.org/

ı Html Checker	
ool is an ongoing experiment in better HTML checking, and its behavior remains subject to change	
ing results for https://demo.aqqo.com/	
hecker Input	
hOW   sourcewineways reportOptions	
heck by address v	
Inc. K y autoss v thys://den.sago.com/	
Check	
the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.	
aage Filtering	
Info Trailing slash on void elements has no effect and interacts badly with unquoted attribute values.	
From line 3, column 9; to line 3, column 76	
Seeta http:-equiv="Content-Type" content-"text/html; charset-uff-0"/>+2	
Info Trailing slash on void elements has no effect and interacts badly with unquoted attribute values.	
From line 4, column 5, to line 4, column 75	
-8"/>+* <pre>kmeta name="viewport" content="width=device-width, initial-scale=1.0"/&gt;+* </pre>	
Info Trailing slash on void elements has no effect and interacts badly with unquoted attribute values.	
From line 8, column 5; to line 8, column 129	
n ->>> clink rel="shortcut icon" href="https://www.accommodatiehuurstorage.com/s/favicons/aqqocom/favicon.ico" type="image/x-icon"/>	
Info Trailing slash on void elements has no effect and interacts badly with unquoted attribute values.	
From line 8, column 138, to line 9, column 268	
/> <li><pre>/&gt; <li>/&gt; clink rel="apple-touch-icon" href="https://www.accommodatiehuurstorage.com/s/favicons/aqqocom/apple-touch-icon.png"/&gt;+&gt;</li></pre></li>	
Info Trailing slash on void elements has no effect and interacts badly with unquoted attribute values.	
From line 9, column 17; to line 9, column 166	

### Figure 6 - Results w3c

# 9.5 Webapplicatie register form (manual\_screen\_01)

Registreren	
E-mailadres *	
Vul hier uw email in	
E-mailadres (controle) *	
Vul hier uw email (controle) in	
Vereniging/bedrijf	
Vul hier uw vereniging/bedrijf in	
Voomaam *	
Vul hier uw voornaam in	
Achternaam *	
Vul hier uw achternaam in	
Telefoonnummer*	
- Telefoonnummer	
Informatieve mailings ontvangen	
Alle velden gemarkeerd met een * zijn verplicht.	
Registreren	

Figure 7 – Register form