



DRUPALCAMP GHENT

23 & 24 NOVEMBER 2018

# Quick wins for an accessible website

Baris Wanschers & Marloes Bosch - LimoenGroen

**AUSY**  
a Randstad company

**LEVEL** 27

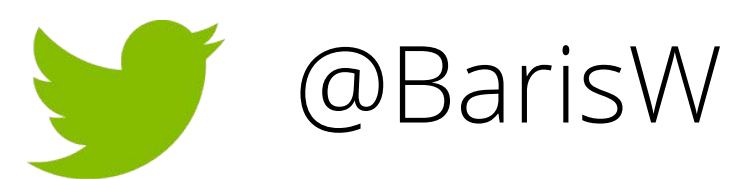
# Quick wins

For an accessible website

## Who are we?

### Baris

- › Partner @ LimoenGroen.
- › Co-organizer of Frontend United Utrecht.
- › Board member of the Dutch Drupal Association.



### Marloes

- › Frontend developer @ LimoenGroen.
- › Co-organizer of Frontend United Utrecht.



# Table of contents

1. Define accessibility
2. For who?
3. Why is it important?
4. What can go wrong?
5. How do we make a website accessible?
6. Quick wins
7. Tools & plugins

# **1. Define accessibility**

## The meaning of

“ Web accessibility means that websites, tools, and technologies are designed and developed to work for all people, whatever their hardware, software, language, location, or ability.

Source: <https://www.w3.org/WAI/fundamentals/accessibility-intro/>

## Statistics

15%

of the world's population has a form of disability.

Source: <http://www.who.int/news-room/fact-sheets/detail/disability-and-health>

## **2. For who?**



## Accessibility not only helps disabled people

- › **Subtitles:** deaf people && people in the train.
- › **Contrast:** visually disabled && people in the sun.
- › **Semantic HTML:** screen readers && Google.
- › **Keyboard navigation:** physically disabled && advanced users.

**3. Why is it important?**

## For many reasons

- › More products are being offered online.
- › More people are becoming dependent of digital services.
- › More people benefit from it.
- › More organizations want it, because it targets a larger audience.
- › More governments want it, because it's legally required.
- › Just because we can! Technology is no longer a limiting factor.

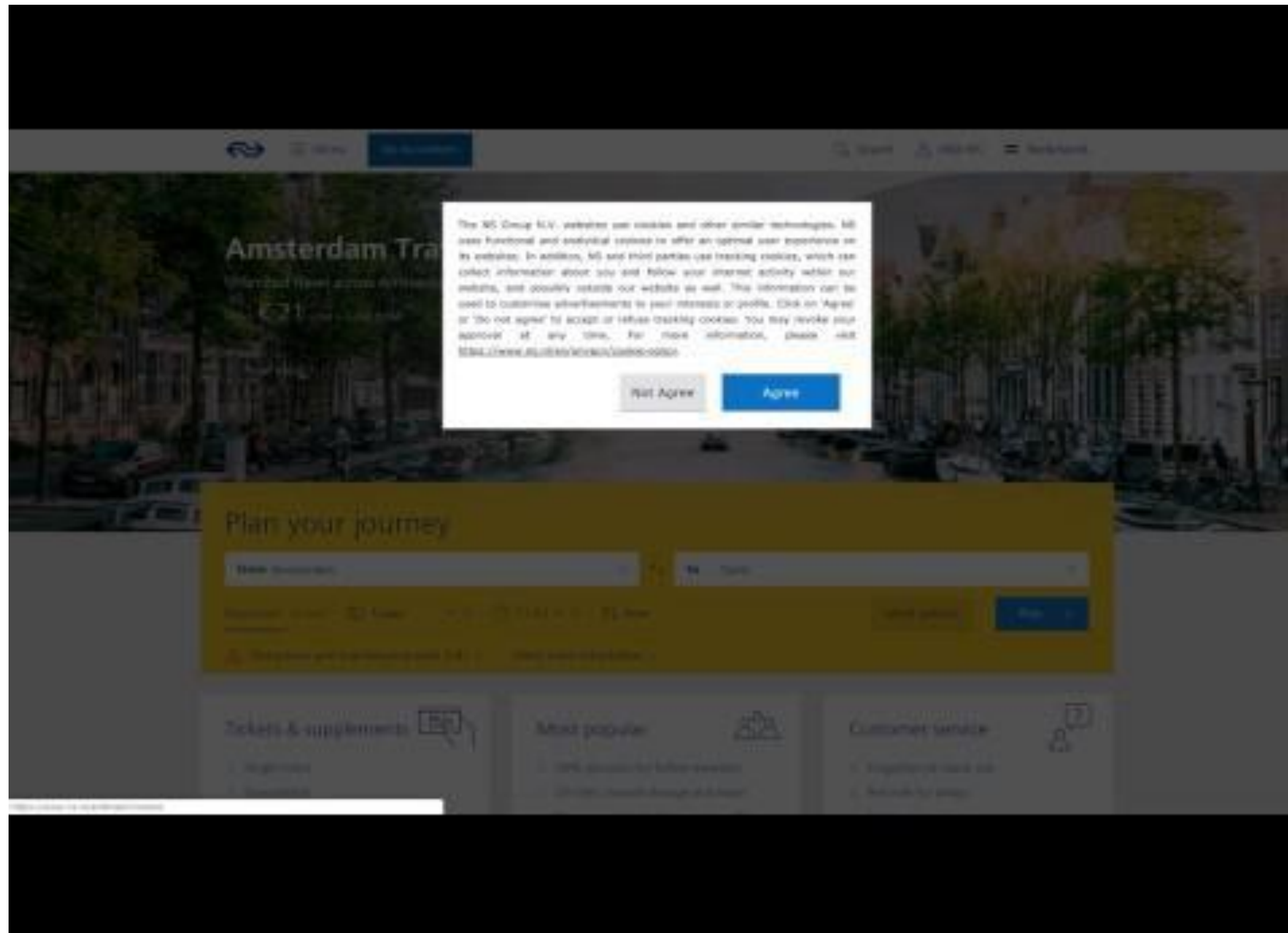
## **4. What can go wrong?**

## **The devil is in the details**

- › A perfect accessible website can become totally inaccessible with the smallest bug

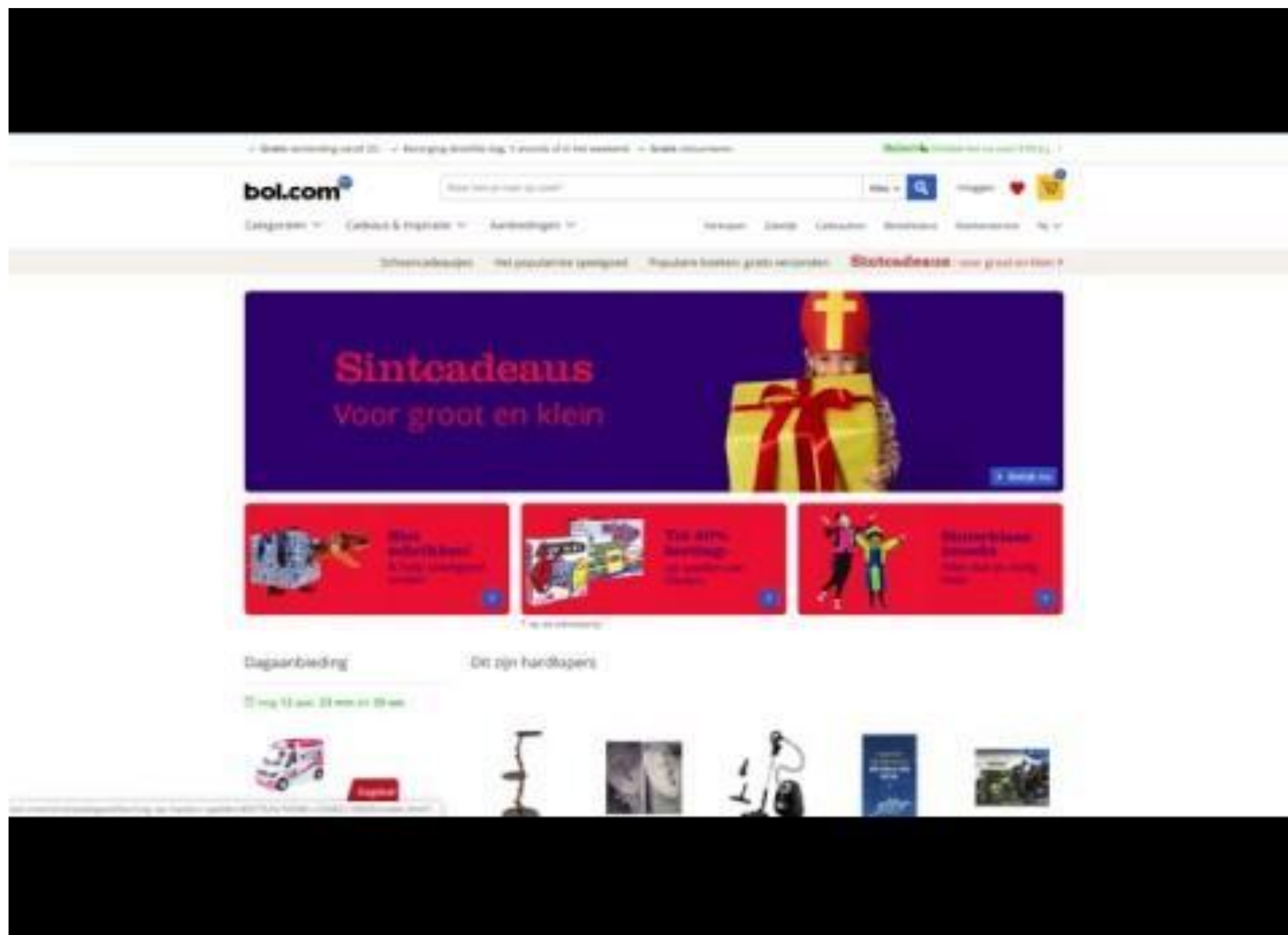
# Bug: incorrect focus order

- › Unable to close a modal with a keyboard.



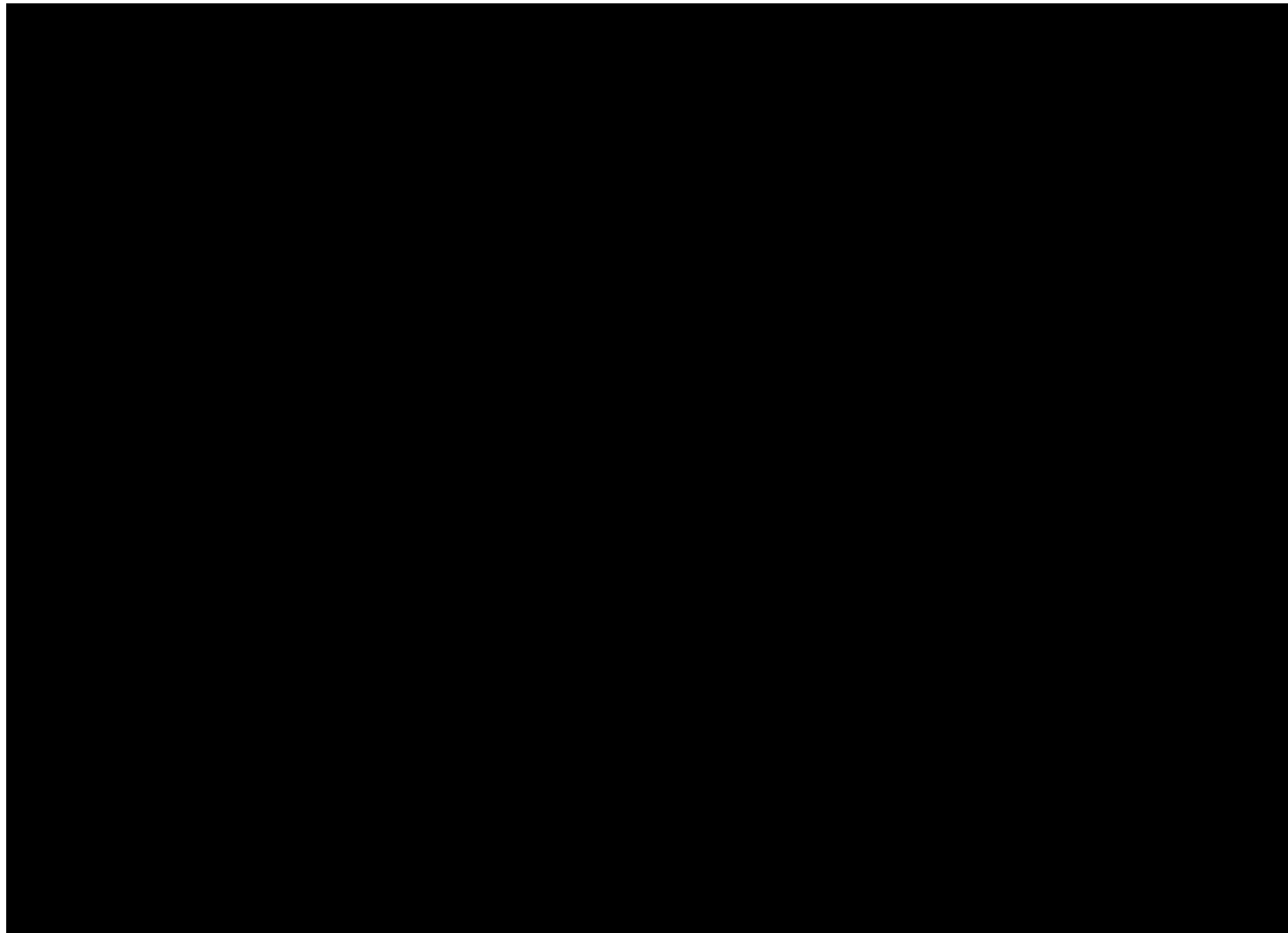
# Bug: incorrect focus visibility

- › Being totally lost in a website when there's no focus at all.



## Bug: incorrect contrast

- › No idea what the error is, because of low contrast.





**5. How do we make a website accessible?**

# WCAG

- › Web Content Accessibility Guidelines (WCAG)
- › Developed by World Wide Web Consortium (W3C).

# Levels of conformance

## Level A

The most basic web accessibility features.

## Level AA

Deals with the biggest and most common barriers.

## Level AAA

The highest (and most complex) level.

GOVERNMENT STANDARD

# Principles

## 1. Perceivable

Perceiving all the content of a website (text and non-text).

## 2. Operable

Getting through all the pages (with keyboard as well).

## 3. Understandable

Understanding the sites' intended meaning.

## 4. Robust

Accessing the content from a wide variety of devices.

# Success criteria (WCAG 2.1)

## 1. Perceivable

### > Level A

9 success criteria

### > Level AA

11 success criteria

### > Level AAA

9 success criteria

29 IN TOTAL

## 2. Operable

### > Level A

14 success criteria

### > Level AA

3 success criteria

### > Level AAA

12 success criteria

29 IN TOTAL

## 3. Understandable

### > Level A

5 success criteria

### > Level AA

5 success criteria

### > Level AAA

7 success criteria

17 IN TOTAL

## 4. Robust

### > Level A

2 success criteria

### > Level AA

1 success criterion

### > Level AAA

None

3 IN TOTAL

## Example: Language detection (Understandable)

### Language of Page (A)

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

### Language of Parts (AA)

The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language.

### Abbreviations (AAA)

A mechanism for identifying the expanded form or meaning of abbreviations is available.

## Example: Language detection (Understandable)

### Language of Page (A)

```
<html lang="nl">
```

### Language of Parts (AA)

```
<p>Prepping the meal is called "<span lang="fr">Mise en place</span>" in French.</p>
```

### Abbreviations (AAA)

```
Websites are written in <abbr title="HyperText Markup Language">HTML</abbr>.
```

## **6. Quick wins to make your website accessible**

The real how!



# Covering

1. Alternatives
2. Contrast
3. Color
4. Semantic HTML
5. Keyboard navigation

## **Alternatives**

- › Providing a textual alternative to non-text content.

# Image

- › Alt-text is used by screen readers and is displayed when an image doesn't load.
- › Don't start the description with "photo/picture of".
- › Make the alt-text useful and descriptive.

## Don't

Image \*



Alternative text \*

Photo of a cat

Short description of the image used by screen

## Do

Image \*



Alternative text \*

A cat wearing sunglasses

Short description of the image used by screen

# Image

- › Use an empty alt (`alt=""`) in twig when the image is decorative.
- › Images that are links should describe where they go.

## Don't

### No alt

```

```

### No link description

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

## Do

### Empty alt

```

```

### Link description

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

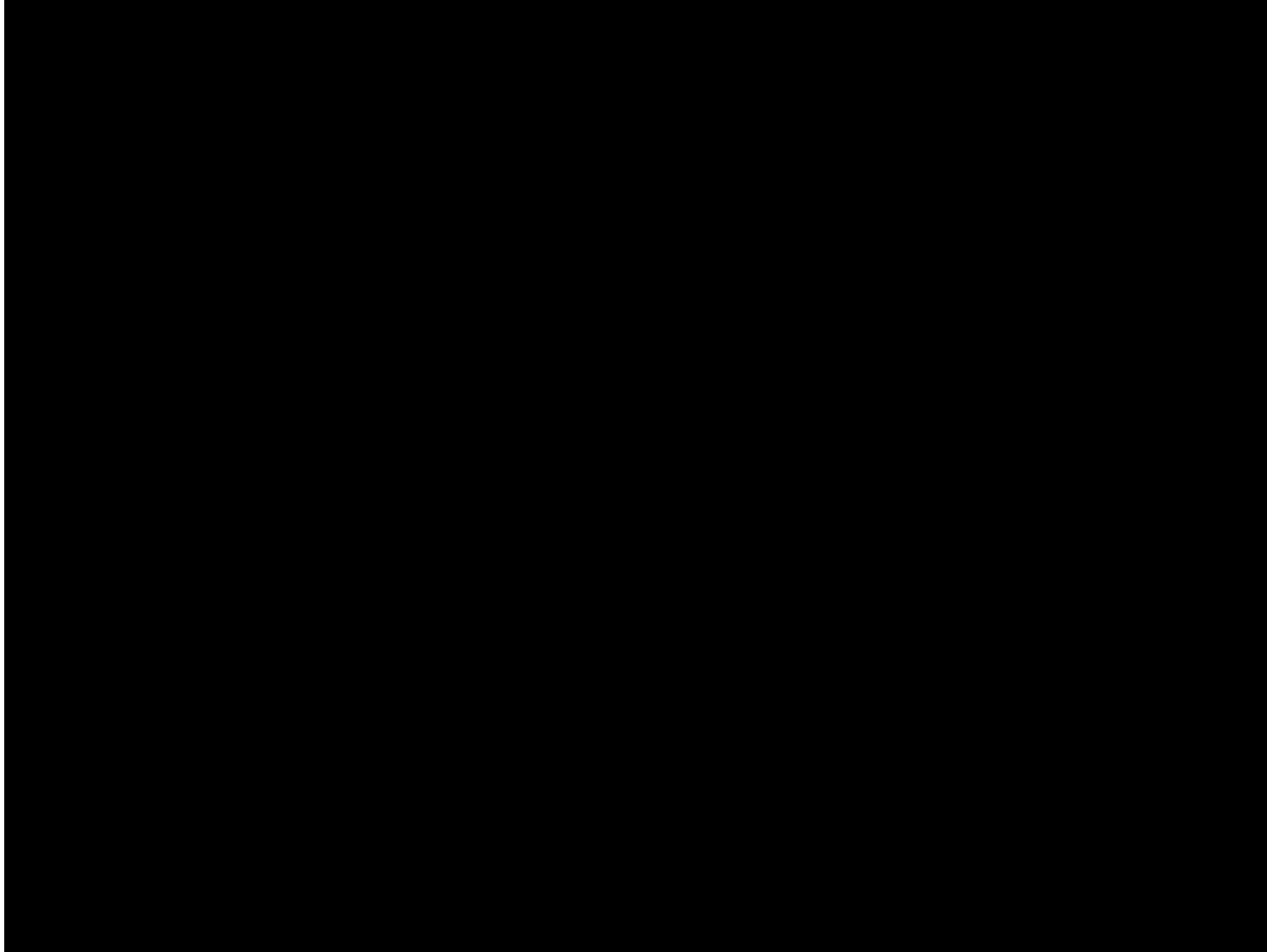
## Video

- › Subtitles help deaf people to understand what is being said in the video.
- › Comes in handy in crowded rooms.
- › YouTube has great support for adding subtitles.

Video => Don't



Video => Do



## **Contrast**

› Making elements strikingly different.



## Contrast ratio

- › Default text contrast should have at least a **4,5:1** contrast ratio between the foreground and background colors.
- › Large text (24px or 19px bold) should have at least a **3:1** ratio.
- › Assists visually impaired people and makes reading in the sun more pleasant.

### Don't

marloes@m.com

Did you mean marloes@me.com?

### Do

marloes@m.com

Did you mean marloes@me.com?

## Text over image

- › Prevent placing text over images.
- › Add an overlay if it's unavoidable.



**Don't**



**Do**



# Color

- › Color alone is not enough to communicate information.

## Error color

- › Don't use color alone for error messages, add inline errors as well.
- › Helps screen reader users, color-blind people.
- › Enable inline form errors module.

### Don't

#### Create Article

Title \*

### Do

#### Create Article

Title \*

⊗ Title field is required.

## Link color

- › Add a underline to links when they are placed in continuous text.
- › Helps visually impaired people to recognize a link.

### Don't

I had a black cat called Magoo  
The [slippers](#) and clothes it would chew  
This damaged its jaw  
And broke every claw  
Thank goodness I had super glue!

### Do

I had a black cat called Magoo  
The [slippers](#) and clothes it would chew  
This damaged its jaw  
And broke every claw  
Thank goodness I had super glue!

## **Semantic HTML**

- › Providing context and structure to your website, whatever the visual presentation.

# Language

- › Set language of the content with an HTML lang attribute to help screen readers to pronounce the text correctly.
- › Configuration > Regional and language > Languages

NAME	DEFAULT	INTERFACE TRANSLATION
⊕ English	<input checked="" type="radio"/>	not applicable
⊕ Spanish	<input type="radio"/>	0/2535 (0%)

NAME	DEFAULT	INTERFACE TRANSLATION
⊕ English	<input type="radio"/>	not applicable
⊕ Spanish	<input checked="" type="radio"/>	0/2535 (0%)

Do

Results in:  
`html lang="en"`

Results in:  
`html lang="es"`

# Page title

- › Describes the subject or purpose of the page, therefore it should be unique.
- › First thing a screen reader mentions.
- › Helps navigating between browser tabs.

## Don't

### Frontpage

```
<title>My website</title>
```

### Other page

```
<title>My website</title>
```

A browser tab with a grey background, a 'G' icon, and the text 'My website'.



A browser tab with a grey background, a 'G' icon, and the text 'My website'.



## Do

### Frontpage

```
<title>My website</title>
```

### Other page

```
<title>Other page</title>
```

A browser tab with a grey background, a 'G' icon, and the text 'My website'.



A browser tab with a grey background, a 'G' icon, and the text 'Other page'.





# Page title

- › `<title>` is generated by the title field.
- › Metatag module can manipulate `<title>`

## Do

### Default

```
<head>
  <head-placeholder token="{{ placeholder_token }}" />
  <title>{{ head_title|safe_join(' | ') }}</title>
  <css-placeholder token="{{ placeholder_token }}" />
  <js-placeholder token="{{ placeholder_token }}" />
</head>
```

### Metatag

#### ▼ GLOBAL

title: [current-page:title] | [site:name]

# Landmarks

- › Communicating structural information to screen reader users.
- › Great boost for your SEO.

Landmark	Role
<code>&lt;header&gt;</code>	Banner
<code>&lt;footer&gt;</code>	Contentinfo
<code>&lt;main&gt;</code>	Main
<code>&lt;nav&gt;</code>	Navigation
<code>&lt;aside&gt;</code>	Complementary

## Don't

```
<div class="sidebar">Sidebar</div>
```

## Do

```
<aside class="sidebar">Sidebar</aside>
```

# Headings

- › Consider headings as a table of contents.
- › Use `<h1>` - `<h6>` tags to nest headings by their rank.
- › Bundles information for screen readers and it improves SEO.

## Don't

```
<div class="h1">Awesome conference</div>  
<div class="h2">And awesome sessions</div>  
<div class="h3">And pizza?</div>
```

## Do

```
<h1>Awesome conference</h1>  
<h2>And awesome sessions</h2>  
<h3>And pizza?</h3>
```

# Headings

› Don't skip any ranks.

## H1. News item title

5 november 2018

De Afterparty is uitverkocht! Het is dus helaas niet meer mogelijk om een kaartje te kopen voor ons jaarlijks terugkerende evenement.

Zoals elk jaar organiseren we weer een gigantisch groot en gezellig feest: de Boer zoekt Vrouw Afterparty! Ontmoet de boeren (hopelijk met aanhang) van deze en voorgaande seizoenen, geniet van de vele muziektredens, doe mee aan de live speeddate of ga los op de Boerenkermis.

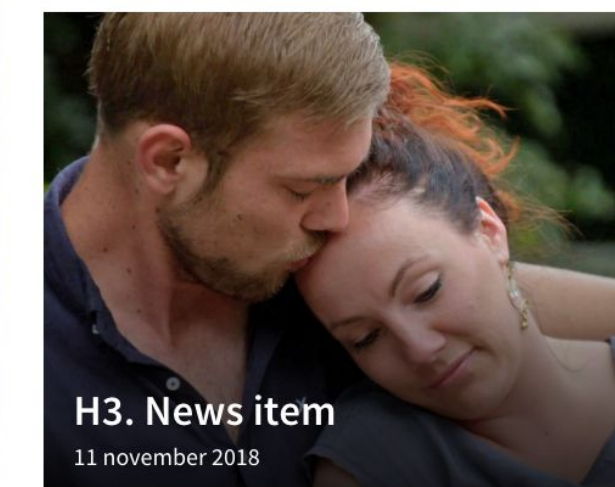
## H2. Related news items



[See all news items](#)

## Don't

### H1. Latest news



Missing H2 tag

# Meaningful (DOM) order

- › Place no content above headings.
- › Order should be meaningful when CSS is disabled.

DATE: FRIDAY 23 OF NOVEMBER 2019

## DINNER WITH RANDOM DRUPALERS

An awesome way to meet new people and connect with fellow Drupalers after the first day of Drupalcamp and share your experiences over a great plate of food.



DATE: SATURDAY 24 OF NOVEMBER 2019

## DRUPALCAMP GHENT

Drupalcamp Ghent is an annual gathering of people loving, learning and discussing the open-source content management system, Drupal.



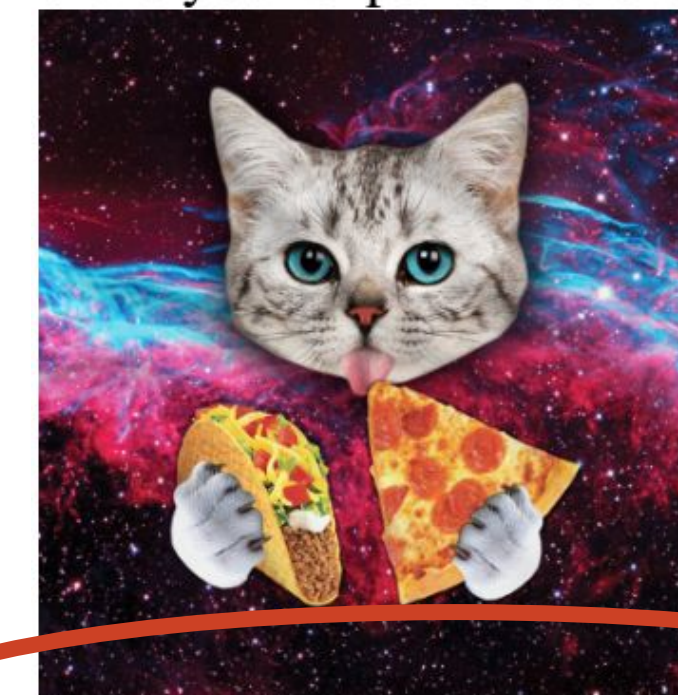
## Don't

```
<article class="event">
  <div class="event-info">
    <span class="date">Date: Friday 23 of November 2019</span>
    <h2>Dinner with random Drupalers</h2>
    <p class="description">
      An awesome way to meet new people and connect with fellow
      Drupalers after the first day of Drupalcamp and share your
      experiences over a great plate of food.
    </p>
  </div>
  
</article>
```

Date: Friday 23 of November 2019

## Dinner with random Drupalers

An awesome way to meet new people and connect with fellow Drupalers after the first day of Drupalcamp and share your experiences over a great plate of food.



Date: Saturday 24 of November 2019

## Drupalcamp Ghent

## Meaningful (DOM) order

- › Use CSS to visually change the order.
- › Makes sure everyone is attending the dinner tonight and not tomorrow!

```
/*Direct parent wrapper*/
.event-info {
  display: flex;
  flex-direction: column;
}

/*Targeted element*/
.date {
  order: -1;
}
```

### Do

```
<article class="event">
  <div class="event-info">
    <h2>Dinner with random Drupalers</h2>
    <span class="date">Date: Friday 23 of November 2019</span>
    <p class="description">
      An awesome way to meet new people and connect with fellow
      Drupalers after the first day of Drupalcamp and share your
      experiences over a great plate of food.
    </p>
  </div>
  
</article>
```

### Dinner with random Drupalers

Date: Friday 23 of November 2019

An awesome way to meet new people and connect with fellow Drupalers after the first day of Drupalcamp and share your experiences over a great plate of food.



### Drupalcamp Ghent

Date: Saturday 24 of November 2019

## **Keyboard navigation**

- › Operating the website with your keyboard only.

## Focus outline

- › Add visible focus styling.
- › It helps keyboard users to navigate through the website.



### Don't

```
*:focus {  
  outline: 0;  
}
```

### Do

```
*:focus {  
  outline: .125rem dotted $brand-color;  
}
```

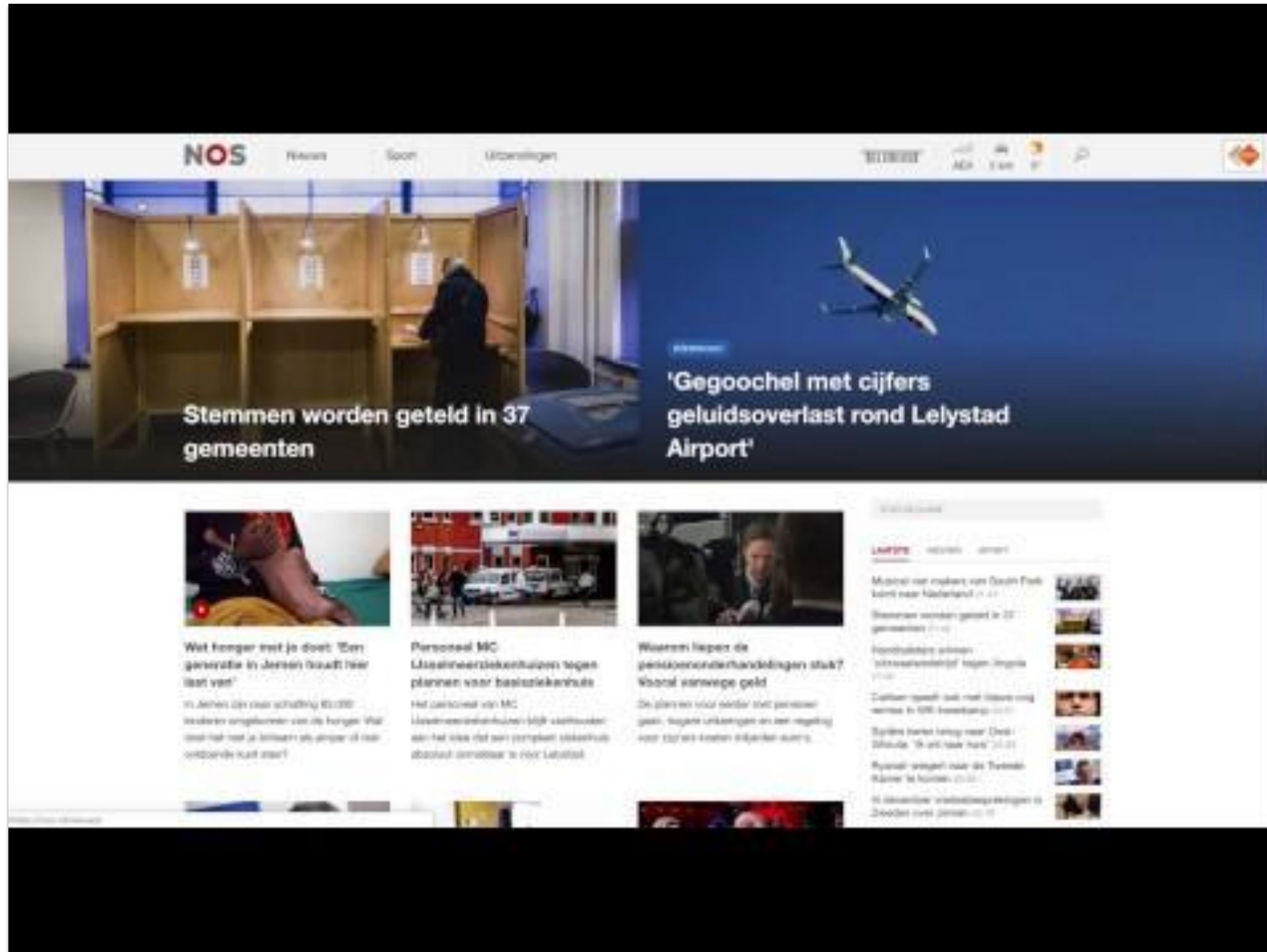
A screenshot of the Schiphol logo, which consists of the word "Schiphol" in a bold, dark blue, sans-serif font. The logo is centered within a white rectangular area. A dotted purple border is drawn around the text, indicating a visible focus outline.



## Focus order

- › Make focus order logical.
- › Hidden elements should not receive focus.

# Focus order => Don't



# Link text

- › Add a descriptive link text.
- › “Read more” or “Click here” is very unclear.
- › Helps screen readers and it makes Google happy.

## Don't



**Burger King**

[Read more →](#)



**Café Chocolat**

[Read more →](#)

## Do



**Burger King**

[Where taste is king →](#)



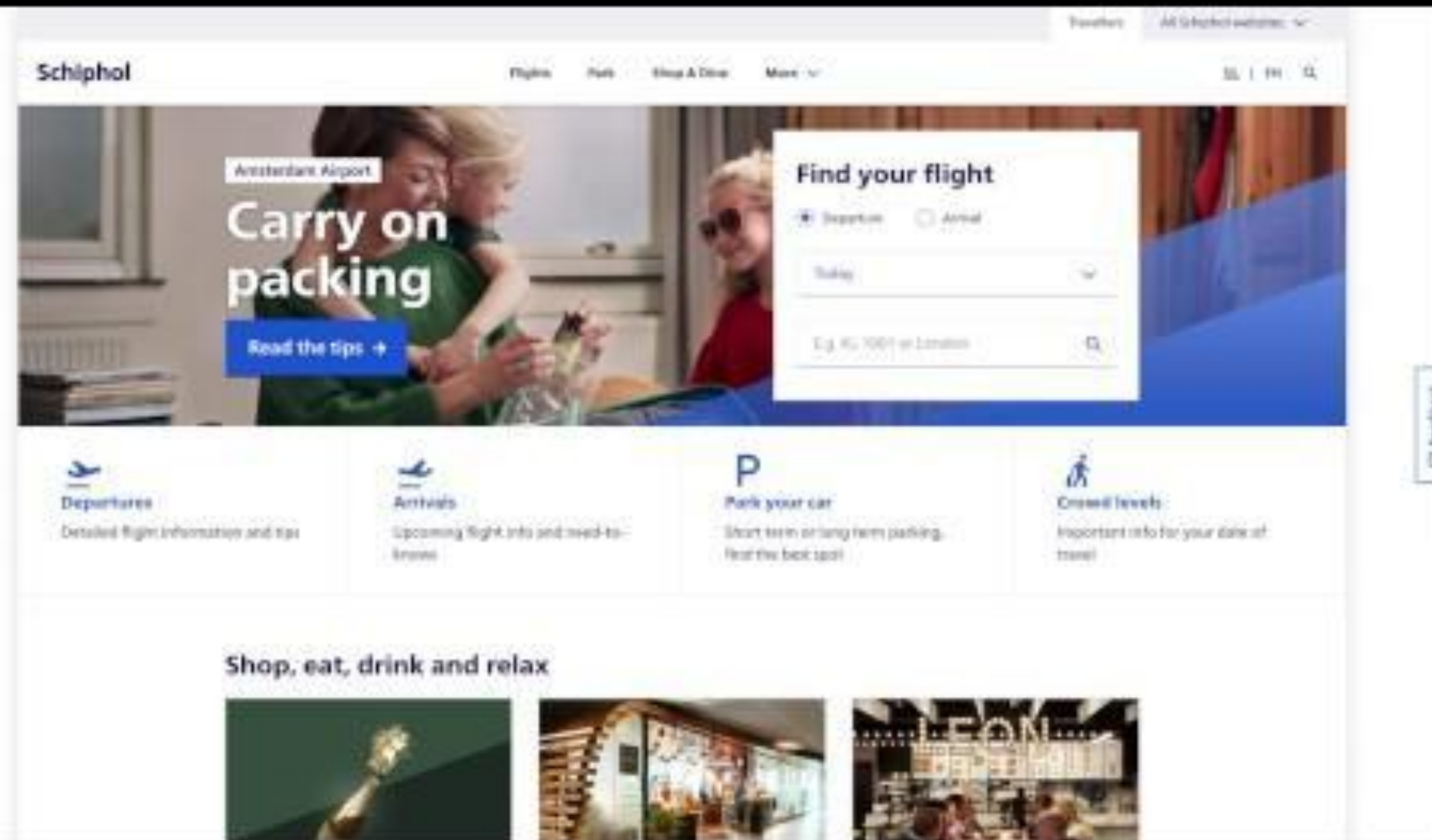
**Café Chocolat**

[It's not too late for chocolate →](#)

## Skip-link

- › Helps to skip repetitive content.
- › Visually hidden, unless it receives focus.

Skip-link => Do



## Skip-link

› Styling is done with out-of-the-box Drupal classes.

Do

```
visually-hidden {  
  position: absolute !important;  
  height: 1px;  
  width: 1px;  
  overflow: hidden;  
  clip: rect(1px, 1px, 1px, 1px);  
}
```

```
focusable:focus {  
  position: static !important;  
  clip: auto;  
  overflow: visible;  
  height: auto;  
  width: auto;  
}
```

## Skip-link

- › The skip-link is added to `html.html.twig`.
- › The anchor is placed in `page.html.twig`.

### Do

```
{#  
  Keyboard navigation/accessibility link to main content section in  
  page.html.twig.  
#}  
<a href="#main-content" class="visually-hidden focusable skip-link">  
  {{ 'Skip to main content' |t }}  
</a>
```

In `html.html.twig`

```
<a id="main-content" tabindex="-1"></a>{# link is in html.html.twig #}
```

In `page.html.twig`

## **7. Gimme tools & plugins**



## Tools & plugins

- › Axe Developer Tools
- › Wave Toolbar
- › Tota11y
- › Heading Map
- › Web Developer
- › Contrast Analyzer
- › Funkify

# Funkify demo

The screenshot displays a website interface for 'Funkify'. At the top, there is a navigation bar with a logo on the left and links for 'VENUE', 'SCHEDULE', 'SPONSOR', and 'CONTACT' on the right. Below the navigation bar is a large banner image featuring a stylized city skyline silhouette against a dark background.

The main content area is divided into two sections. The upper section is titled 'SCHEDULE FRIDAY 23/11' and lists the following activities:

- AUST ROOM**
- 08:15 - 09:00**  
Registration, breakfast and coffee!
- 09:00 - 09:50**  
Advanced Solr - Build Data Driven Features | Better tools for content editors - Modifiers and

The lower section is a list of interactive simulation activities, each with a circular profile picture, a title, a brief description, and a 'Start' button. The 'Color Cart' activity is highlighted with a pink background and includes a 'Stop' button and an 'About this simulator' button.

Activity Name	Description	Action
Dyslexia Dan	Scramble letters and make them dance.	Start
Trembling Trevor	Lose some control of your mouse pointer.	Start
Tunnel Toby	Simulate partial vision loss on your screen.	Start
Peripheral Pierre	Experience loss of central vision.	Start
<b>Color Cart</b>	Matchup colors with different fillers.  About 5% men and about 0.5% women have a color vision deficiency.	Stop  About this simulator



# FRONTEND UNITED

Utrecht | 2019

WORKSHOPS

**16 May 2019**

CONFERENCE

**17-18 May 2019**



**DRUPALCAMP GHENT**  
23 & 24 NOVEMBER 2018

