



Kick start your accessibility work

- or -

How to succeed with the web accessibility
directive in large organizations

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Use
it.

What's the problem?

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Your organization



Your organization





We are humans

What we see

- Single individuals trying to move the organization
- All competence depending on one person
- No real enforcement power
- No time, no money
- Project orientated
- No birds-eye perspective

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This will NEVER work



Strategy Innovation

Our strategy...

Vision
Creativity

Support

Solution

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A wooden bridge with railings spans across a forest. The path on the bridge is illuminated with a warm, golden light that leads towards a bright, glowing light source at the far end of the bridge. The trees in the background are silhouetted against the light, creating a magical atmosphere.

**WAD gives us a golden
opportunity right now!**

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You need power!



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Educate top management

- Why accessibility?
- Laws
- Economy
- Risks
- The nature of the subject
- Mandate and responsibility



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Create an expert team in-house

- At least 2 persons + 1 lawyer
- Budget to build and maintain competence
- Authority in the whole organization
- Create a space to document everything
- Create support channels
- Set up contact with:
 - End user- / disability organizations
 - Experts and suppliers of alternative formats

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**Distribute responsibility
across the organization**



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**Raise awareness
and competence**



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Pilot study

- Which systems do we have?
- Prioritize
- Who is system owner for each system?
- Training
- Evaluate
 - System owners evaluate their own systems
 - Support from the internal expert team
 - Walk through the results together
 - Create an action plan
 - Produce an accessibility statement

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**The core of the methodology is
to do things together with the
system owners**

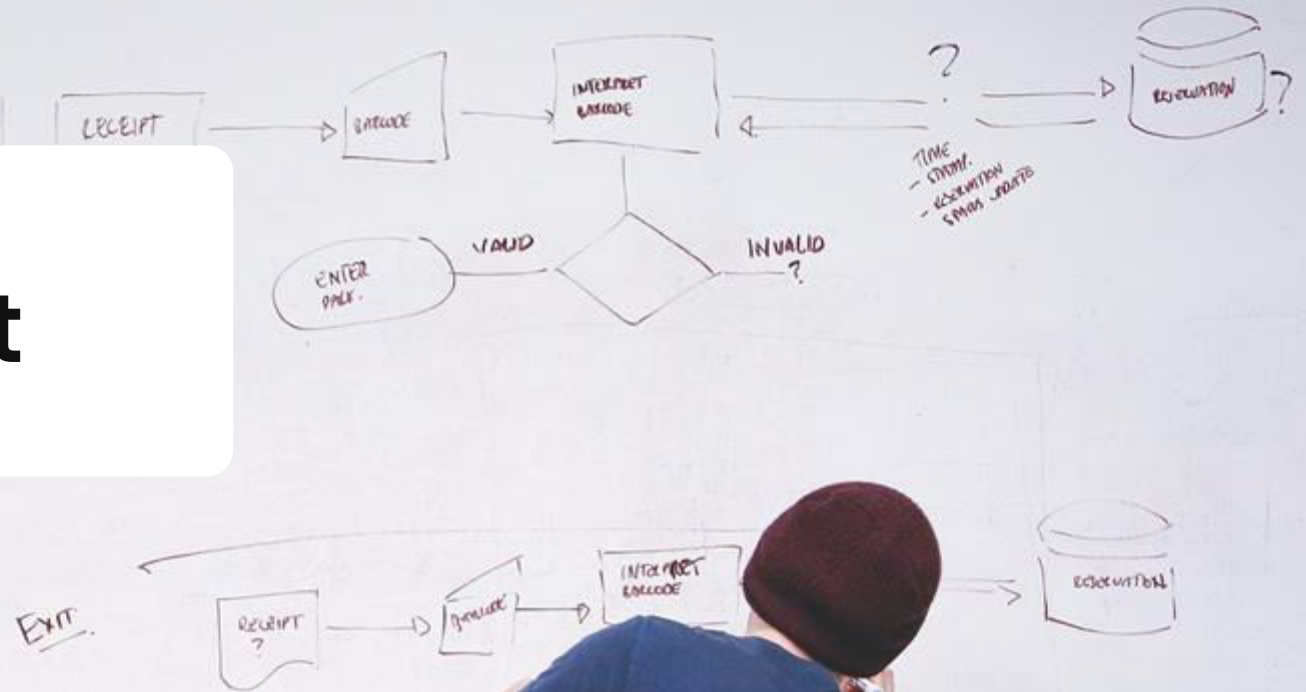
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**Use tools to aid
your work**



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Example,
this is how we do it
<http://ace.useit.se/en/>



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All requirements

+ Enter, edit or remove access key

+ Filters

Show 87 out of 87 requirements

Download as Excel file [↗](#)

All links in the protocol opens in a new window or tab.

U1: The interface is built according to specification using accessibility supported techniques

- + U101 Accessibility-supported technologies are used (e.g. HTML5, WAI-ARIA, CSS3, JavaScript)
- + U102 All HTML markup follows the HTML5 specification, and as a minimum, does not contain the four errors forbidden by WCAG

U2: Every interface component providing information or interactivity is described in text

- + U201 All meaningful images and graphical elements have a text alternative that provides the equivalent information to non-sighted users
- + U202 Graphical elements that are purely decorative, or where the alternative text would cause repetition for the user, do not have any text alternative
- + U204 Podcasts and other pre-recorded audio-only content have an equivalent text description available on the same page

A hands-on checklist

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Working on it...

The result below is automatically updated

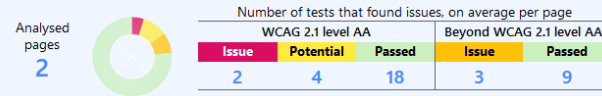
Analysing...

Analysing 4 out of 10 - estimated time remaining: 02:35 min

Stop, and show the result when the analysis of the current page is done

Overview

Analysing: www.bbc.co.uk



Accessibility index



- Over 99: Ace it has not found any potential problems related to WCAG.
- 90-99: There are some issues identified, but the interface probably only has minor accessibility problems..
- 75-89: There clearly are accessibility issues in the interface.
- Under 75: There are quite a lot of accessibility problems.

- 3: Number of issues violating WCAG 2.1 level AA, on average per page
- 12: Number of potential issues violating WCAG 2.1 (AA), on average per page
- 14: Number of issues beyond WCAG on average per page

What does the numbers say?

The 3 most common types of issue related to WCAG 2.1 level AA.
The total number of issues found in this analysis:

- 26: Number of images that are at least 5 x 5 pixels, and where the image doesn't have an alternative text description.
- 4: Number of validation errors violating the requirements in WCAG.
- 3: Number of form fields that have a placeholder text which doesn't seem to be present in any other description associated with the form field. This can be problematic since the placeholder text isn't always presented to users with assistive technology.

Create a protocol based on the results or (2019-10-10) - Update protocol

Results table

Tell me about the results table

List all issues

#	Page	Structure	Headings	Images	Links	Tables	Forms	Frames	HTML	Texts
1	BBC - Home	without JavaScript								www.bbc.co.uk
		Occurrences on page	11	100	19	130	0	4	0	7
87 %		WCAG 2.1 level AA:	-	0 0	0	0 0 0	0 0 0	0	1	0
		Potential issues:	0 0	0 0	17 0	1 1	-	1	-	-
		Beyond WCAG:	1 0 0	1	0	0	0	0	13	0 0
1	BBC - Homepage	after JavaScript execution								www.bbc.co.uk
		Occurrences on page	7	90	57	213	0	7	3	33
70 %		WCAG 2.1 level AA:	-	0 0	0	0 0 0	0 0 0	1 0 0	3	3
		Potential issues:	0 0	0 1	9 0	0 1	-	2	-	-
		Beyond WCAG:	1 0 0	1	0	0	0	1	0	22
2	BBC - My Web My Way - Home	without JavaScript								www.bbc.co.uk/accessibility/
		Occurrences on page	0	17	2	74	0	3	0	6
94 %		WCAG 2.1 level AA:	-	0 0	0	0 0 0	0 0 0	0	0	0
		Potential issues:	1 1	0 0	0 2	0 0	-	0	-	-
		Beyond WCAG:	0 0 1	0	0	0	0	0	0	0

Automatic testing tool

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**Combine automatic testing
with guided manual testing to
complete a full accessibility
review**

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**The expert team sets up an
initial automatic test for each
interface**

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#	Page	Structure	Headings	Images	Links	Tables	Forms	Frames	HTML	Texts
2	Little Britain returns for Brexit special - BBC News after JavaScript execution									
		Occurrences on page	11	31	19	202	0	5	5	18
81 %		WCAG 2.1 level AA:	-	0 0	0	0 0 0	0 0 0	4	4	0
		Potential issues:	0 0	0 1	0 1	-	1	-	-	-
		Beyond WCAG:	2 0 0	1	0	3	0	0	55	0 0
3	Kurt Cobain cardigan sells at auction for \$334,000 - BBC News without JavaScript									
		Occurrences on page	13	24	4	170	0	4	0	13
89 %		WCAG 2.1 level AA:	-	0 0	0	0 0 0	0 0 0	0	8	0
		Potential issues:	0 0	0 1	1 0	0 0	-	1	-	-
		Beyond WCAG:	2 0 0	1	0	2	0	0	37	0 0
3	Kurt Cobain cardigan sells at auction for \$334,000 - BBC News after JavaScript execution									
		Occurrences on page	13	31	16	194	0			
83 %		WCAG 2.1 level AA:	-	0 0	0	0 0 0	0 0 0			
		Potential issues:	0 0	0 1	0 0	0 1	-			
		Beyond WCAG:	2 0 0	1	0	2	0			
6	Protestas en Chile: incendios y fuertes disturbios sacudieron Santiago durante multitudinaria marcha hacia La Moneda - BBC News Mundo without JavaScript									
		Occurrences on page	9	10	6	97	0	5		44
93 %		WCAG 2.1 level AA:	-	0 0	0	0 0 0	0 0 0	0	13	0
		Potential issues:	0 0	0 0	0 0	0 0	-	1	-	-
		Beyond WCAG:	1 0 0	1	0	2	0	1	39	0 0
6	Protestas en Chile: incendios y fuertes disturbios sacudieron Santiago durante multitudinaria marcha hacia La Moneda - BBC News Mundo after JavaScript execution									

Get help from
automatic testing

Improve the precision

3 `<h1>Kurt Cobain cardigan sells at auction for $334,000</h1>`

4 `<h2>Related Topics</h2>`

5 `<h2>Share this story About sharing</h2>`

6 `<h2>More on this story</h2>`

7 `<h2>Top Stories</h2>`

8 (Possible heading) Labour to back early general election

Possibly a text that should be coded with a heading element

Ignore this issue on this page Ignore this issue on all pages on this website

9 `<h2>Features</h2>`

10 `<h3>A mother and son have been living on a bench for four years</h3>`

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U1: The interface is built according to specification using accessibility supported techniques

- | | | | |
|-------------------------------|---|---------------|-------------------------------|
| <input type="checkbox"/> U101 | Accessibility-supported technologies are used (e.g. HTML5, WAI-ARIA, CSS3, JavaScript) | Not evaluated | <input type="checkbox"/> Done |
| <input type="checkbox"/> U102 | All HTML markup follows the HTML5 specification, and as a minimum, does not contain the four errors forbidden by WCAG | Failed | <input type="checkbox"/> Done |

U2: Every interface component providing information or interactivity is described in text

- | | | | |
|-------------------------------|--|---------------|-------------------------------|
| <input type="checkbox"/> U201 | All meaningful images and graphical elements have a text alternative that provides the equivalent information to non-sighted users | Failed | <input type="checkbox"/> Done |
| <input type="checkbox"/> U202 | Graphical elements that are purely decorative, or where the alternative text would cause repetition for the user, do not have any text alternative | Not evaluated | <input type="checkbox"/> Done |
| <input type="checkbox"/> U204 | Podcasts and other pre-recorded audio-only content have an equivalent text description available on the same page | Not evaluated | <input type="checkbox"/> Done |
| <input type="checkbox"/> U205 | All pre-recorded video content has captions | Not evaluated | <input type="checkbox"/> Done |

Create a protocol

**System owners get to work
through the protocol to
evaluate the interface**

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✘ U503 Users can zoom the content at least 200 percent

Not evaluated

Done

Explanation

"Don't block zooming of content in the viewport, allow users to zoom at least 200 percent.

In mobile applications, users should also be able to zoom the text at least 200 percent, this might require settings in the app itself."

✘ How to test

1. Display the web site in a web browser on a desktop computer with the zoom factor set to 100 %.
2. Change the zoom factor to 200 %
3. Make sure that all texts are zoomed properly and that you can read all texts and use all functions. If there are texts that disappears or are cut off in a way that makes the text hard to read this requirement is not met. If there are functions that you cant use anymore this requirement is not met.
4. Now, use a browser on a smartphone. We recommend Chrome for Android. Visit the web site.
5. Check the settings in the browser to make sure that it does not override zoom settings on web sites. You can find this in the Accessibility section in the browser settings.
6. Try to zoom the web site. If you can make the text at least twice as big as the original size, and you can reach all functions and read all texts this requirement is met.

You should also look at the HTML code. Show the source code by pressing F12 on the keyboard, and look within the HEAD element for a META tag with the type viewport. This can look like this:

```
<meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=1">
```

In this example developers have forced the browser to show the page at original size and to stop users from

Roles:

✓ Developers.

Subjects:

✓ Screen and size.

Standards:

✓ EN 301 549.

✓ WCAG 2.1 level AA.

Manual evaluation with guiding instructions

</bfbameneiokkgbdmiekhjnfmfkcndhdm?hl=en>) to inspect images.

✖ Results from the automatic testing (3)

Test performed:

Make sure that the text description is detailed enough

67%

This potential issue is found on 67% of the tested pages. You need to assess the impact among users.

1.5:

Number of images with alternative text descriptions that are shorter than 6 letters. It is very unusual that such a short description can give enough information.
(on average on pages with this issue)

Showing the 6 most common issues out of a total of 6:

⚠ This issue is found on 1 out of a total of 6 analysed pages.

This issue only appears **after** scripts are executed.

```

```

Pages with this issue:

🔗 [BBC - Homepage](http://www.bbc.co.uk) - <http://www.bbc.co.uk>

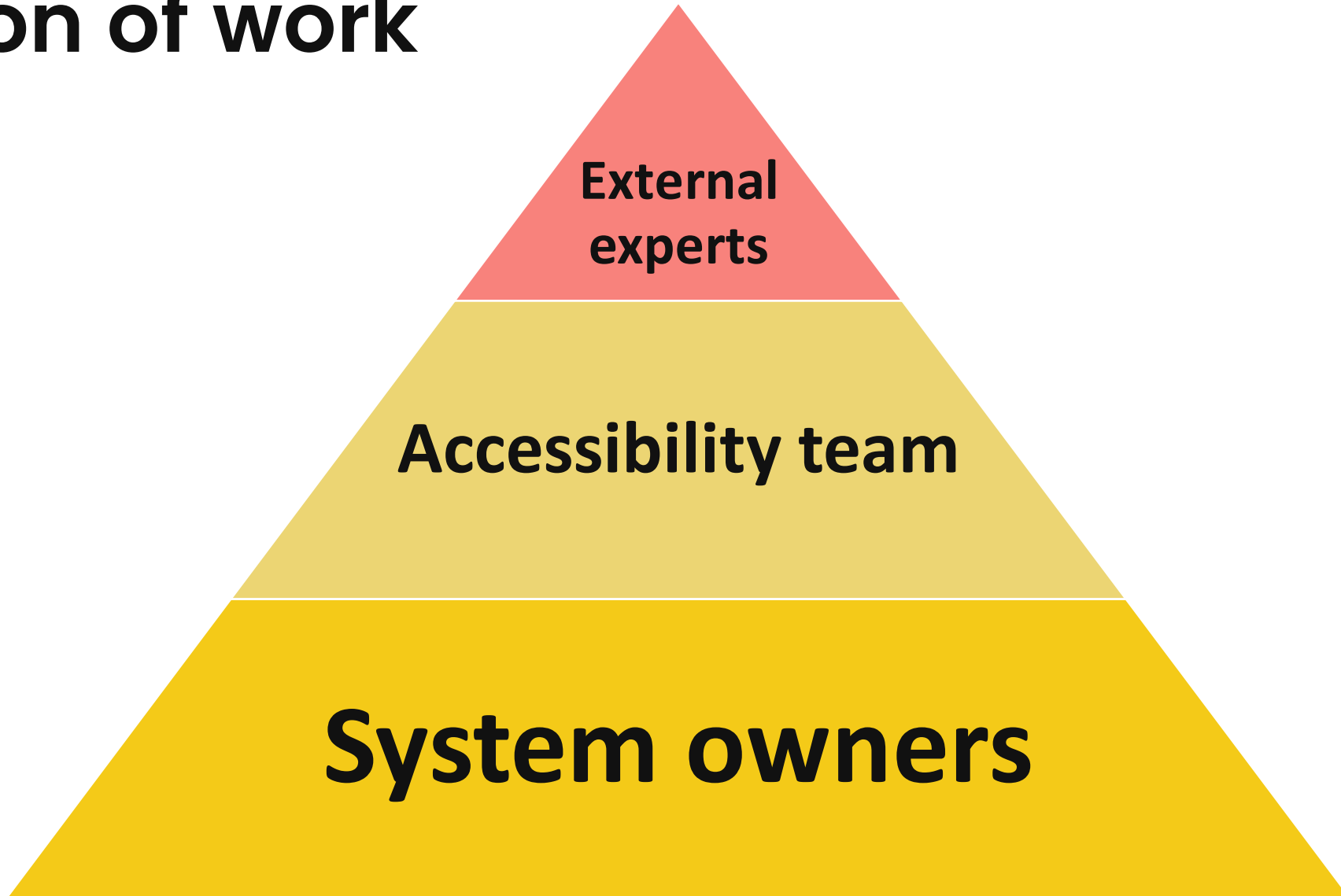
⚠ This issue is found on 1 out of a total of 6 analysed pages.

...and with input from
the automatic tool

**...the accessibility team helps
out with the difficult parts**

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Division of work



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**Few manages to do
everything, but everyone
manages to do a few things**

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Accessibility as part of the daily work

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Procurement is a key factor

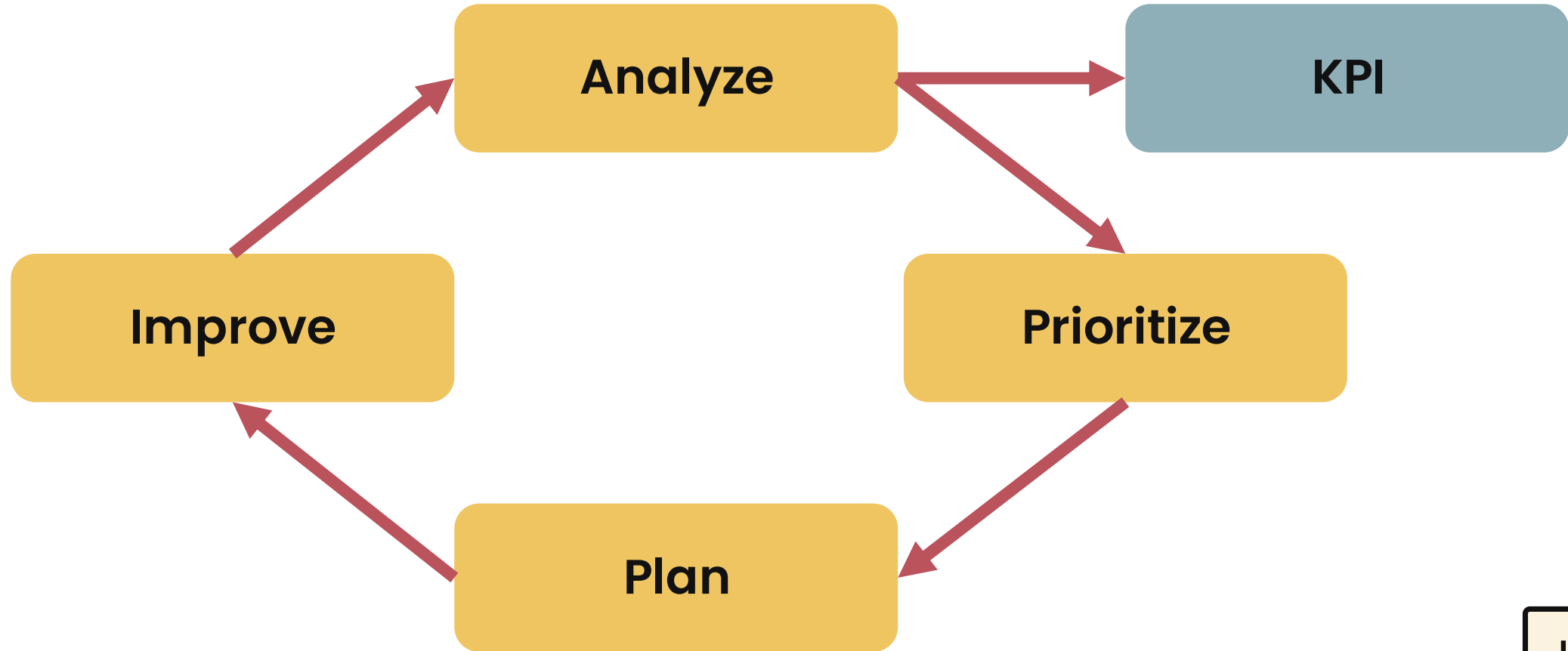
- Use very concrete requirements
 - Don't just use WCAG SC, describe how to meet
 - Set up an accessible graphic profile and component library
- Always check that you get what you've ordered
 - ...or at least "threaten" that you will
- Use well written contracts that put the costs for problems on the supplier's/contractor's side



**Accessibility and User
experience must be seen as a
quality aspect in the whole
organization**

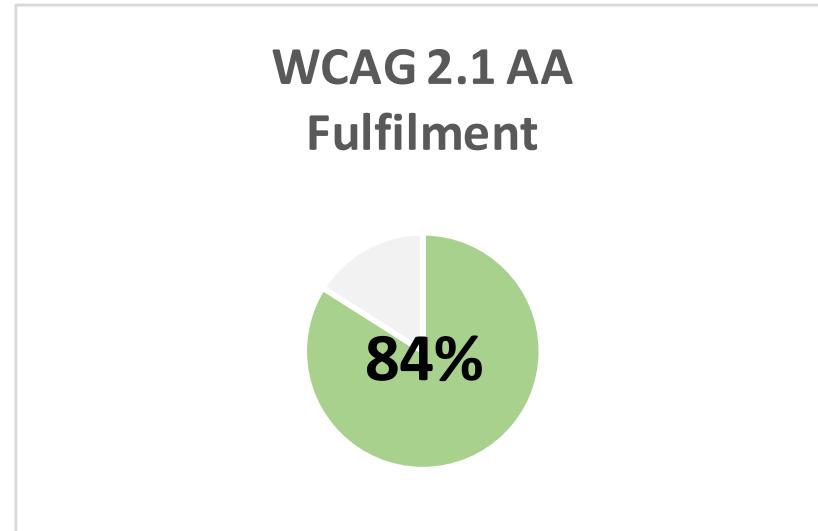
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Continuous quality work



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Key Performance Indicators **Example**



Web sites:	76	st
WCAG 2.1 AA:	84	percent
Change:	+ 2	last month
Accessibility issues solved:		
September	23	st
August	18	st
This year	128	st

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Important factors

- Educate top management
- Get a clear mandate for change
- Create an expert team
- Distribute responsibility
- Raise awareness in the organization
- Target the procurement process
- Accessibility must become a quality factor
- Work with gamification and KPIs
- Your never done!

Use
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Do it
together!

Use
it.



**Cooperate
with others**

Use
it.



Together we are strong!

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2019-11-16

