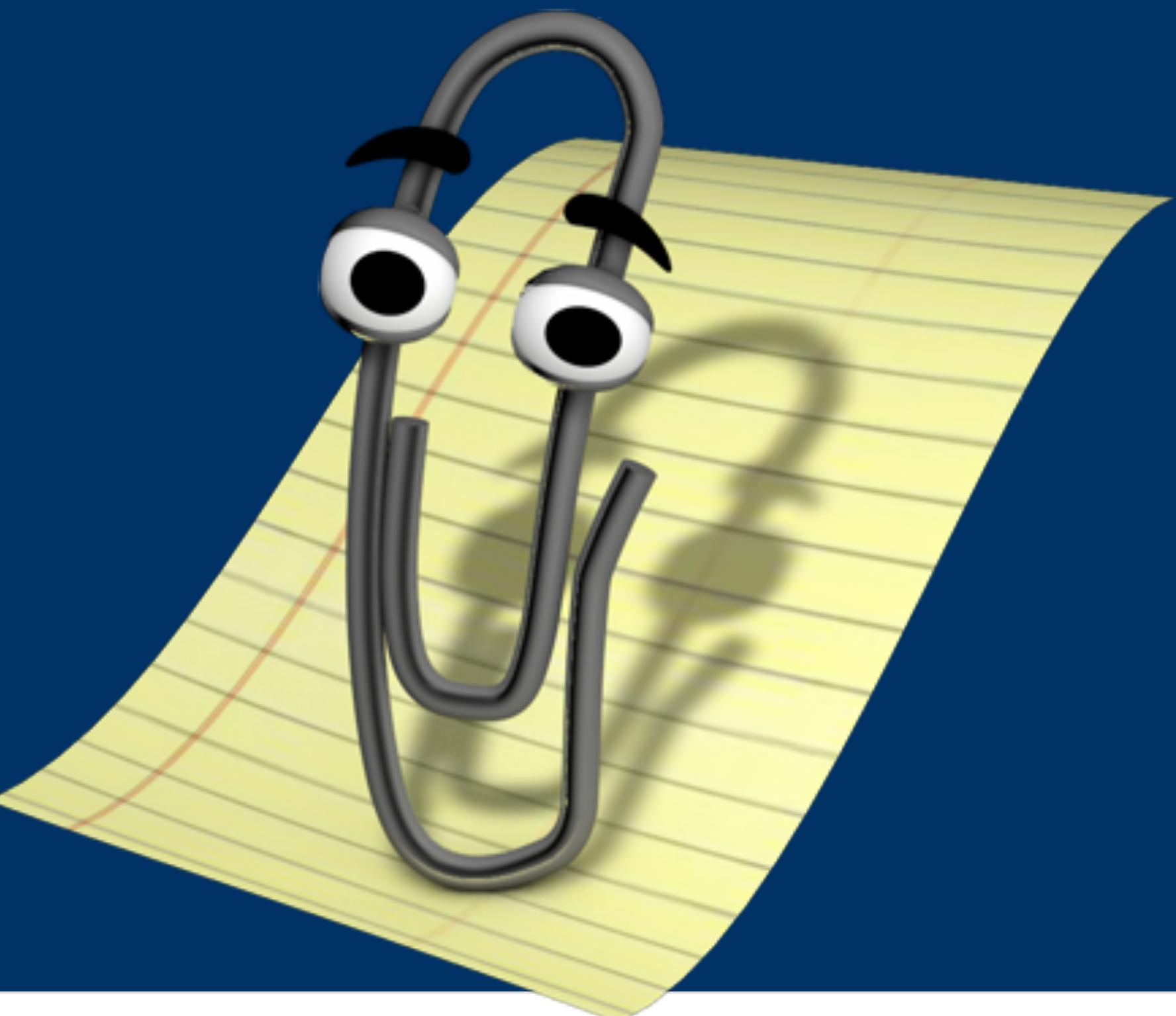


YOUR CMS IS AN ACCESSIBILITY ASSISTANT

Hidde de Vries

WordPress Accessibility Day

3 October, online



Hidde de Vries

Accessibility Specialist at W3C's
Web Accessibility Initiative (WAI).



**Planning,
designing,
developing,
testing,
advocating
training...**

w3.org/WAI

The screenshot shows the W3C WAI homepage. At the top, there's a navigation bar with links for Accessibility Fundamentals, Planning & Policies, Design & Develop, Test & Evaluate, Teach & Advocate, and Standards/Guidelines. Below the navigation is a main section titled "Making the Web Accessible" with sub-sections for "W3C", "WAI", and "You". Each section includes an icon and a brief description. The "W3C" section says it develops international standards like HTML and CSS. The "WAI" section says it develops standards and support materials for accessibility. The "You" section says you can use W3C resources to make your websites more accessible. On the left side of the main content area, there's a "News" section with an invitation to a meeting on September 22, 2020. On the right, there's a "Get Resources for..." section with a list of target audiences.

Making the Web Accessible

Strategies, standards, and supporting resources to help you make the Web more accessible to people with disabilities.

 **W3C**
The World Wide Web Consortium (W3C) develops international standards for the Web: HTML, CSS, and many more.

 **WAI**
The W3C Web Accessibility Initiative (WAI) develops standards and support materials to help you understand and implement accessibility.

 **You**
You can use W3C WAI resources to make your websites, applications, and other digital creations more accessible and usable to everyone.

News

Invitation: WAI-Tools Online Meeting 22 September 2020
(2020-08-24)

You are invited to the [WAI-Tools Online Open Meeting on 22 September 2020](#). The meeting is intended for web accessibility practitioners, evaluation and quality assurance tool vendors, website owners, European monitoring bodies, researchers, and users interested in large-scale monitoring of web accessibility. Agenda, logistics, and registration information is in the [meeting page](#). This meeting is free, and registration is required.

See what we have for you:
Get Resources for...

- [Content Writers](#)
- [Policy Makers](#)
- [Designers](#)
- [Trainers, Educators](#)
- [Developers](#)
- [Web Users, People with Disabilities, Advocates](#)
- [Evaluators, Testers](#)
- [Managers](#)
- [Other Languages](#)

Authoring tools

Authoring tools: tools that create web content

Authoring tools: tools that can improve lots of accessibility at once

wYSIWYG editors

Course creators / LMS

CMS

Wikipedia

“Save as HTML”

“New Tweet”

Form generators

Site builders

CMS

- The CMS itself
- Plugins
 - form builders, custom field managers, cookie banners, event management tooling, social buttons, web shop et cetera
- Themes



THIS IS FOR EVERYONE

WCAG

web content

UAAG

browsers/UAs

ATAG

authoring tools

WCAG

web content

UAAG

browsers/UAs

ATAG

authoring tools

WCAG

web content

UAAG

browsers/UAs

ATAG

authoring tools

Why authoring tools, like CMSEs, are essential

(besides content and browsers)

- Include more content creators
- Content creators can fix accessibility problems before their website goes live

ATAG 2.0

ATAG at a Glance

The screenshot shows a web browser displaying the 'ATAG at a Glance' page from the W3C Web Accessibility Initiative (WAI) website. The page has a dark blue header with the W3C logo and the text 'Web Accessibility Initiative WAI'. Below the header, there's a navigation bar with links for 'Accessibility Fundamentals', 'Planning & Policies', 'Design & Develop', 'Test & Evaluate', 'Teach & Advocate', and 'Standards/Guidelines'. The main content area features a sidebar on the left with a dark blue background and white text, listing 'Standards/Guidelines' such as 'Web Content - WCAG', 'Authoring Tools - ATAG' (which is highlighted in yellow), 'User Agents - UAAG', 'WAI-ARIA', 'Evaluation - ACT & EARL', 'Personalization', and 'Pronunciation'. The main content area has a light gray background and contains the following text:

ATAG at a Glance

Summary

This page provides a paraphrased summary of Authoring Tool Accessibility Guidelines (ATAG) 2.0. For the normative technical specification, see www.w3.org/TR/ATAG20.

To learn about ATAG 2.0, please see the [ATAG Overview](#).

Part A: Make the authoring tool user interface accessible

A1 The authoring tool user interface follows applicable accessibility guidelines

- Ensure that web-based functionality is accessible
- Ensure that non-web-based functionality is accessible

ATAG at a Glance · <https://www.w3.org/WAI/standards-guidelines/atag/glance/>

Part A: Editing experience



Photo left: Austin Public Library (Flickr), photo right: source of Wikipedia page for “Content Management System”

Part A: Editing experience



Part B: Output

```
ead>
eta charset="UTF-8" />
itle>Content management system - Wikipedia</title>
script>document.documentElement.className="client-js";RLCONF={"wgBreakFrames":!1,"wgS
ikipedia articles with GND identifiers","Content management systems","Information sy
xt.globalCssJs.user.styles":"ready","site.styles":"ready","noscript":"ready","user.s
mw.bootstrap.autostart","ext.popups","ext.visualEditor.desktopArticleTarget.init","e
script>(RLQ>window.RLQ||[]).push(function(){mw.loader.implement("user.tokens@tffin",f
});</script>
ink rel="stylesheet" href="/w/load.php?lang=en&modules=ext.cite.styles%7Cext.ul
script async="" src="/w/load.php?lang=en&modules=startup&only=scripts&raw
eta name="ResourceLoaderDynamicStyles" content="" />
ink rel="stylesheet" href="/w/load.php?lang=en&modules=site.styles&only=sty
eta name="generator" content="MediaWiki 1.35.0-wmf.18" />
eta name="referrer" content="origin" />
eta name="referrer" content="origin-when-crossorigin" />
eta name="referrer" content="origin-when-cross-origin" />
ink rel="alternate" href="android-app://org.wikipedia/http/en.m.wikipedia.org/wiki/
ink rel="alternate" type="application/x-wiki" title="Edit this page" href="/index
ink rel="edit" title="Edit this page" href="/index.php?title=Content_management_s
ink rel="apple-touch-icon" href="/static/apple-touch/wikipedia.png" />
ink rel="shortcut icon" href="/static/favicon/wikipedia.ico" />
ink rel="search" type="application/opensearchdescription+xml" href="/w/opensearch_d
ink rel="EditURI" type="application/rsd+xml" href="//en.wikipedia.org/w/api.php?act
ink rel="license" href="//creativecommons.org/licenses/by-sa/3.0/" />
ink rel="canonical" href="https://en.wikipedia.org/wiki/Content_management_system" />
ink rel="dns-prefetch" href="//login.wikimedia.org" />
ink rel="dns-prefetch" href="//meta.wikimedia.org" />
!--[if lt IE 9 ]><script src="/w/resources/lib/html5shiv/html5shiv.js"></script><![en
'head>
body class="mediawiki ltr sitedir-ltr mw-hide-empty-elt ns-0 ns-subject mw-editable
div id="mw-page-base" class="noprint"></div>
div id="mw-head-base" class="noprint"></div>
div id="content" class="mw-body" role="main">
  <a id="top"></a>
  <div id="siteNotice" class="mw-body-content"><!-- CentralNotice --></div>
  <div class="mw-indicators mw-body-content">
    <!-- <div class="mw-indicator" -->
  </div>
  <h1 class="firstHeading" lang="en">Content management system</h1>
  <div id="contentSub" class="mw-body-content"><!-- ContentSub --></div>
  <div id="mw-content-text" class="mw-body-content"><!-- ContentText --></div>
</div>
```

Photo left: Austin Public Library (Flickr), photo right: source of Wikipedia page for "Content Management System"

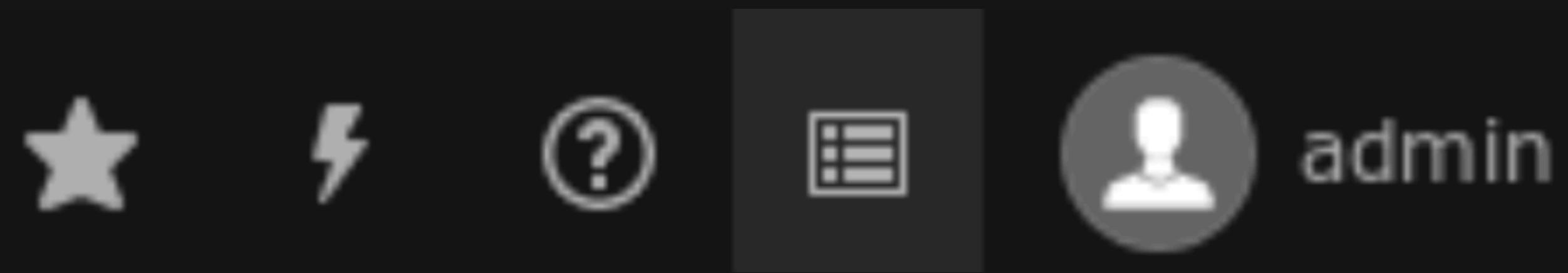
Part A of ATAG

Accessibility of the editing experience

font-size

A.1.1.1

Test with text zoom



A.2.1.1

Provide text alternatives for icons



A.3.1.1

Make it work with keyboard

- visible focus
- can use all controls

[Edit file](#)[Preview changes](#)

Spaces

2

Soft wrap

1 # [Draft] ATAG Report Tool (ART)

A.3.7.1

Display previews accessibly

auttoring tools

A.4.1.1

Help with spelling

Part B of ATAG

Support the production of accessible content

accessible content

tables with headers

contrast-rich hero images

form fields with labels

captioned video

sensible heading structures

nested according
to spec

carousels that
can pause

multilingual content with
lang attributes

tables with no headers

heros with illegible text

avoid inaccessible content

headings for the
wrong reasons

nameless form field

carousels with no
pause button

non-standard
nesting

multilingual content
without lang
attributes

no captions on videos

Good CMSes can...

**Help content editors
make their content
more accessible**

	A	AA	Total
Perceivable	8	9	16
Operable	10	3	13
Understandable	2	1	3

	A	AA	Total
Perceivable	8	9	16
Operable	10	3	13
Understandable	2	1	3

B.1.1.2

When content is generated, it is accessible

- nested according to HTML spec
- no empty links

	A	AA	Total		A	AA	Total
Perceivable	8	9	16	Perceivable	8	9	16
Operable	10	3	13	Operable	10	3	13
Understandable	2	1	3	Understandable	2	1	3

B.1.1.2

**When content is generated,
there is a prompt for required
accessibility information**

- caption for a table
- alt text for images in a carousel
- labels for form fields

	A	AA	Total
Perceivable	8	9	16
Operable	10	3	13
Understandable	2	1	3

	A	AA	Total
Perceivable	8	9	16
Operable	10	3	13
Understandable	2	1	3

B.1.1.2

**When content is generated,
there are automated
accessibility checks**

	A	AA	Total		A	AA	Total
Perceivable	8	9	16	Perceivable	8	9	16
Operable	10	3	13	Operable	10	3	13
Understandable	2	1	3	Understandable	2	1	3

B.1.1.2

When content is generated, manual checks are suggested

- check if heading structure makes sense
- verify if centrally managed image alternatives apply in this use case

```
<ul><li>List item</li></ul>
```

B.2.1.1

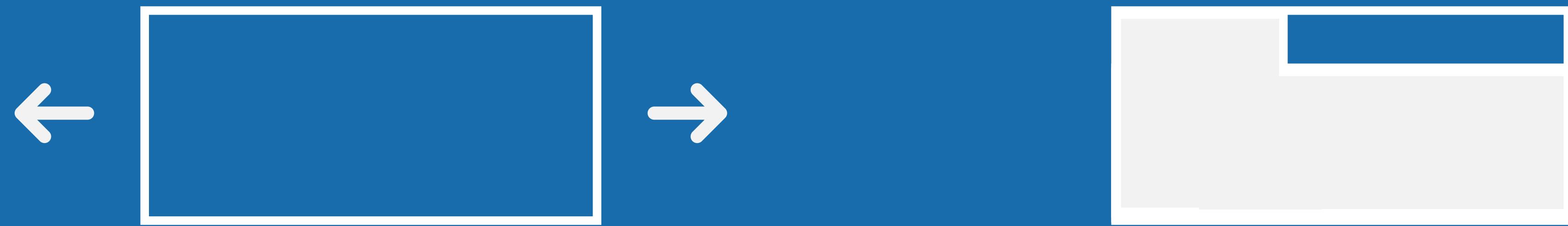
Allows for creating accessible content

- for each image field, there is an alt text field
- for each video player field, there is a captions upload button

- SEO friendly
- Multilingual
- Accessible
- Custom colors

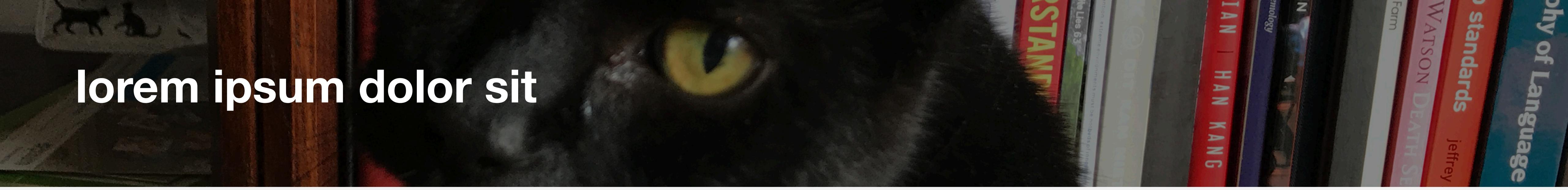
B.2.4.1

Have accessible templates for common use cases



B.2.5.1

Provide accessible UI components *"pre-authored content"*



lorem ipsum dolor sit

B.3.1.1

**Warn user when they introduce
a colour contrast issue**



lorem ipsum dolor sit

B.3.1.1

**Warn user when they introduce
a colour contrast issue**



lorem ipsum dolor sit



Not enough contrast
Use a background color, larger
text or a bolder font.

B.3.1.1

Warn user when they introduce a colour contrast issue

```
<button type="button">Swbmit</button>
```

B.3.1.1

Add a spellchecker to content fields



Swbmit

```
<button type="button">Submit</button>
```

B.3.1.1

Add a spellchecker to content fields



Submit

Did you know that the average attention span for a website visitor has dropped from 12 seconds to around 7 seconds in the last six years? That's roughly how long it takes the average person to read that last sentence. It's important to make your writing easy to read and easy to understand.

The trick is to keep sentences short and simple. If you have a long sentence, consider rewriting it to be shorter or splitting it into smaller sentences. This sentence is very long. Consider rewriting it to be shorter or splitting it into smaller sentences which drone on and on and try to say too much and your readers lose interest part way through like this one. Avoid complex words where simple alternatives work just as well. And that is where Readable comes in - Readable helps you take control of your content.

The app highlights lengthy, complex sentences and common errors; if you see a yellow sentence, shorten or split it. If you see a red highlight, your sentence is so dense and complicated that your readers will get lost trying to follow its meandering, splitting logic — try editing this sentence to remove the red.

B.3.1.1

Report readability levels

B.4.2.1

Provide accessible examples

The 'right' CMS can...

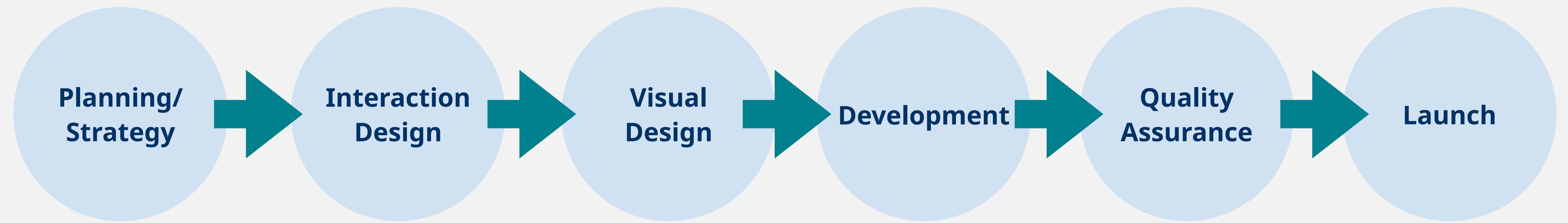
Encourage more accessible content

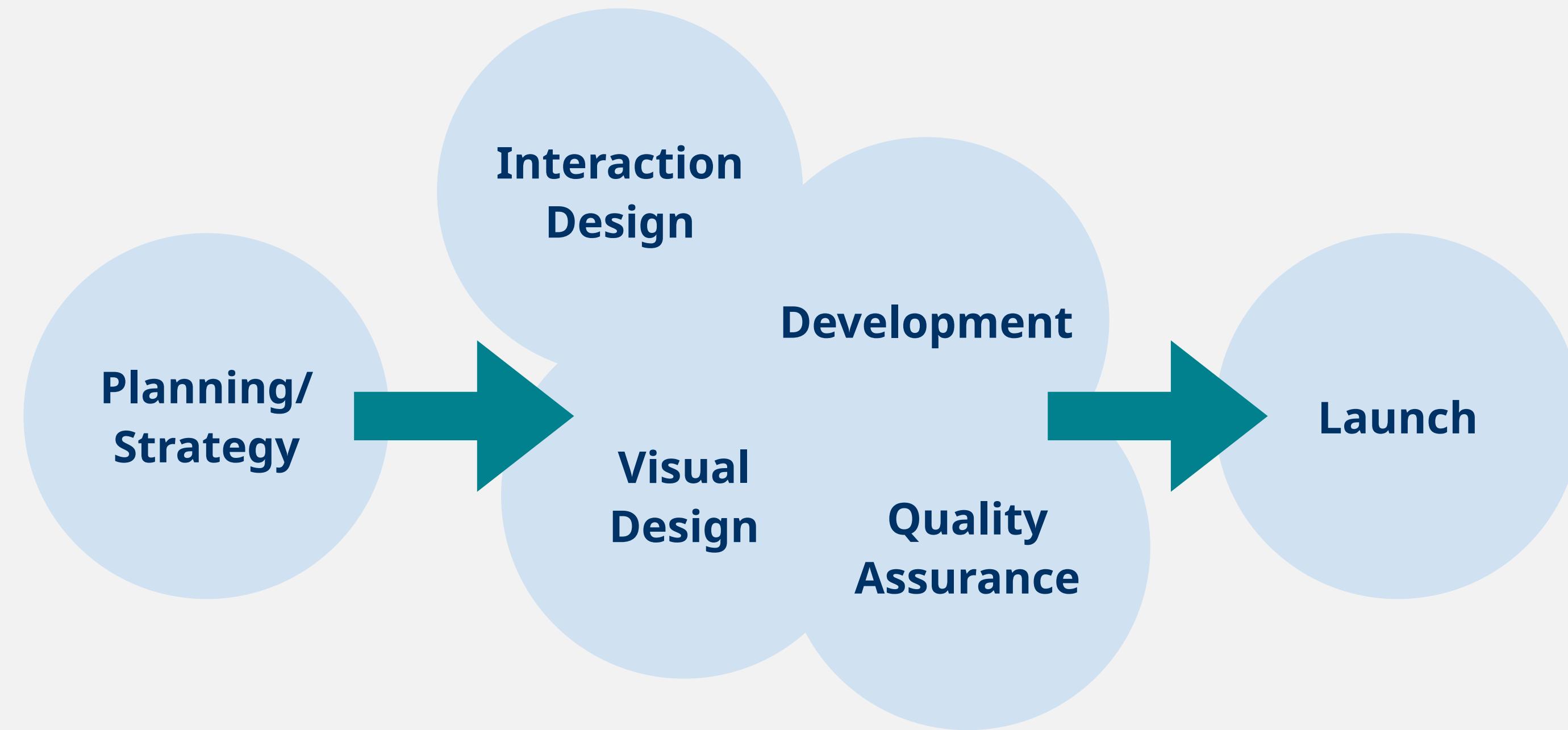
The 'right' CMS can...

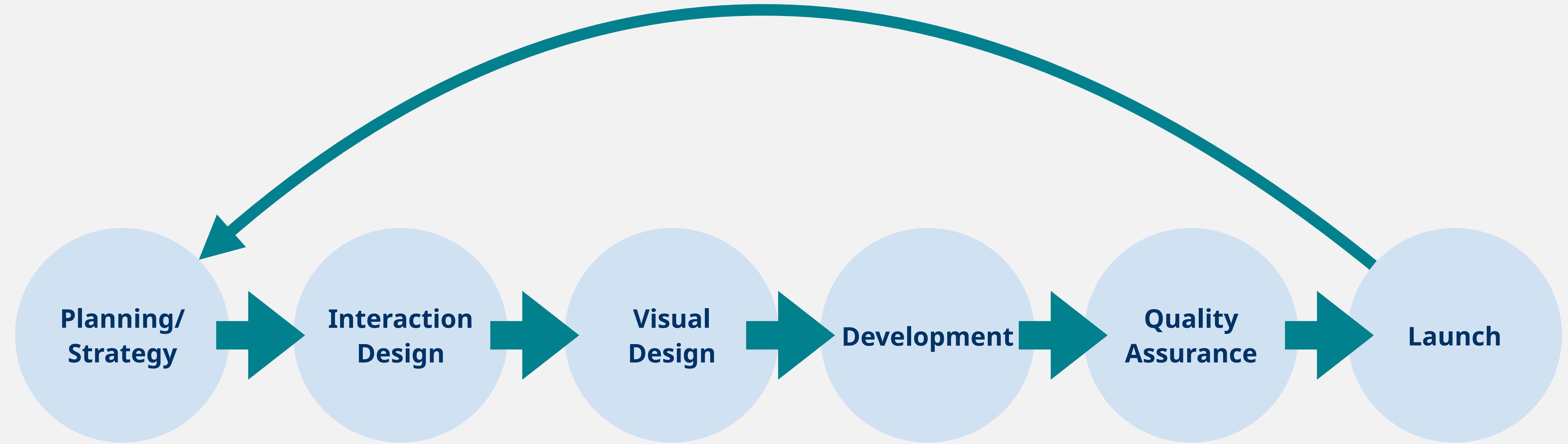
Be a personal accessibility assistant

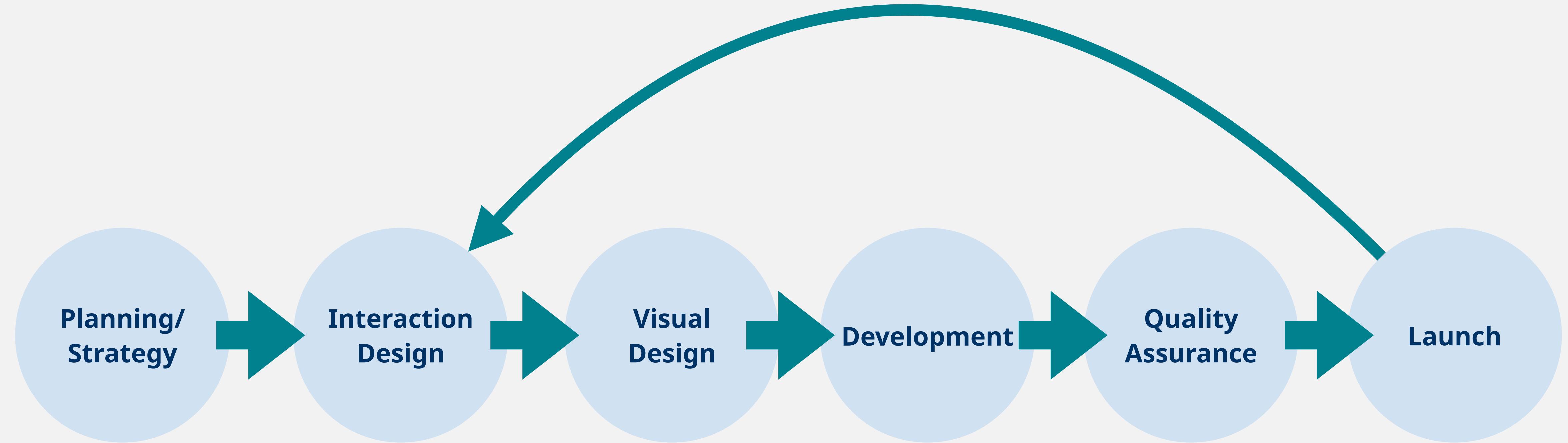
Process

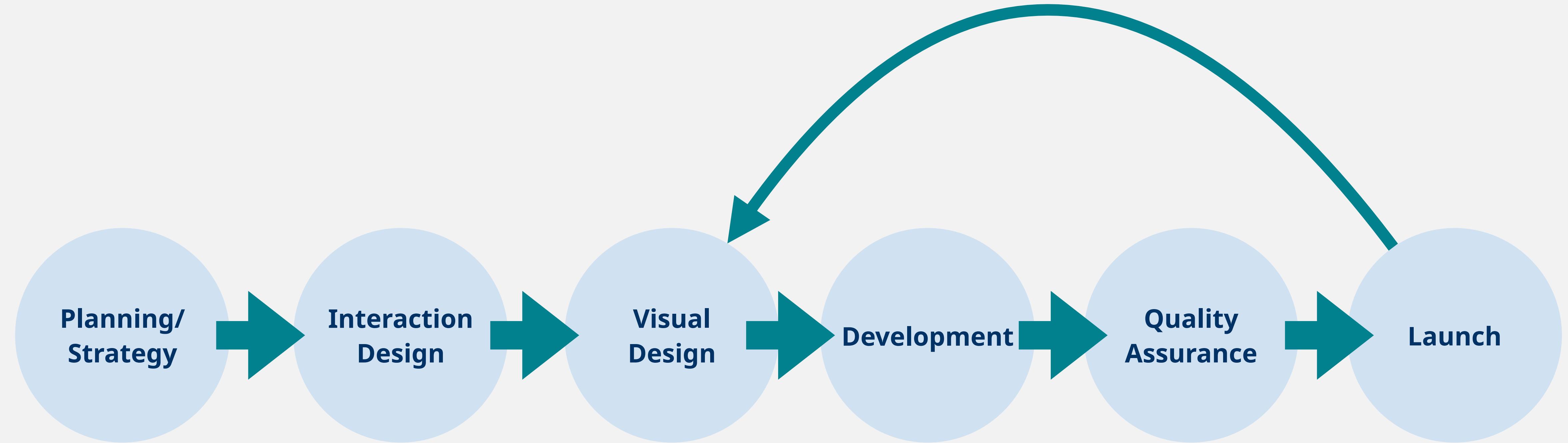
When can better authoring tools help?

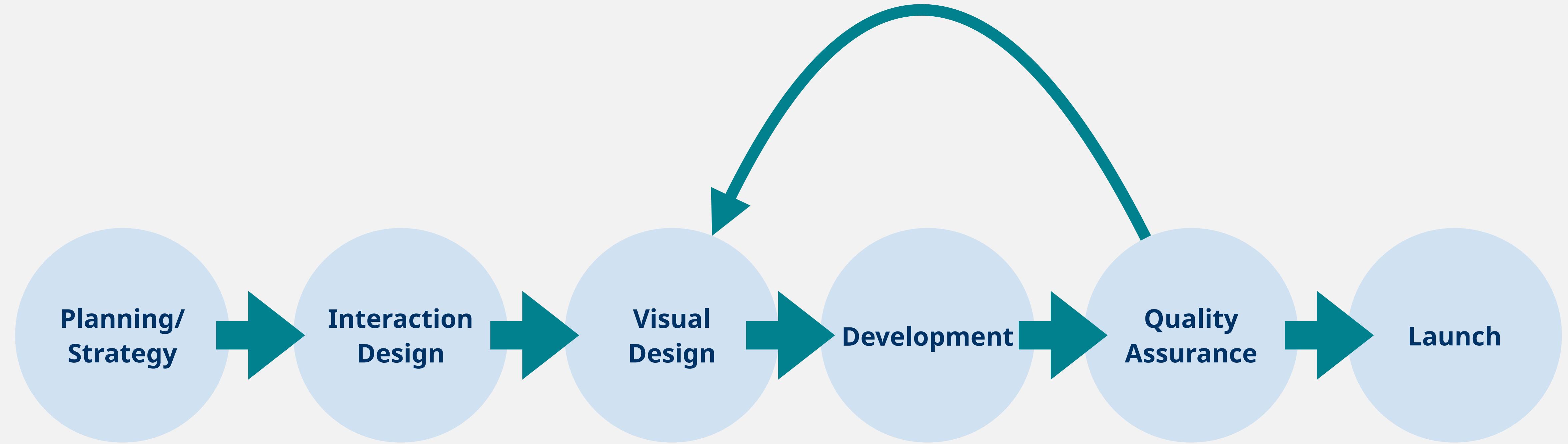


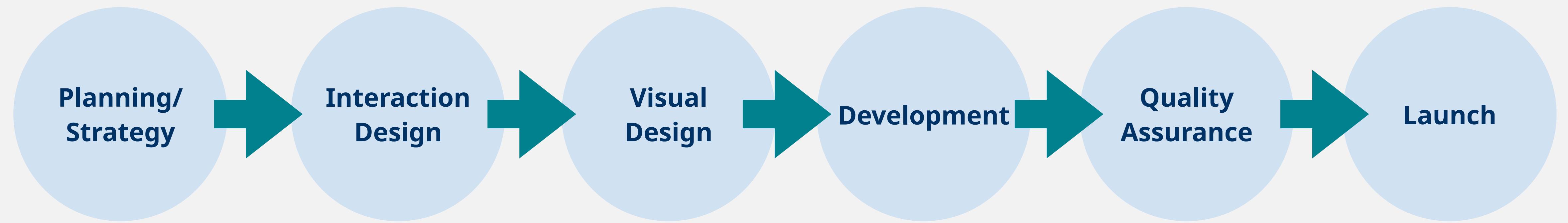


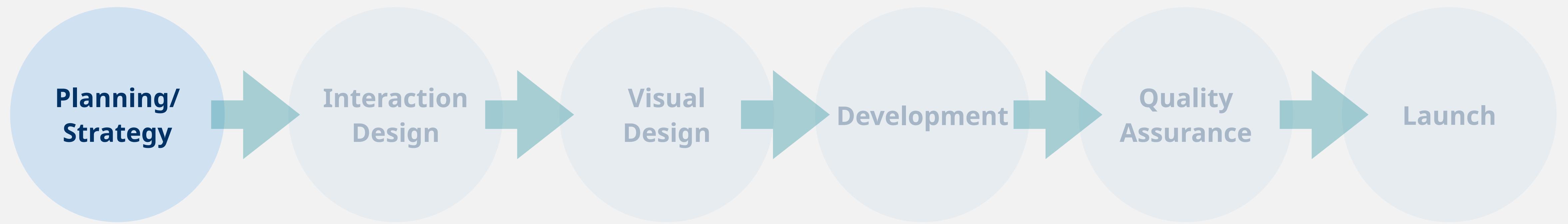




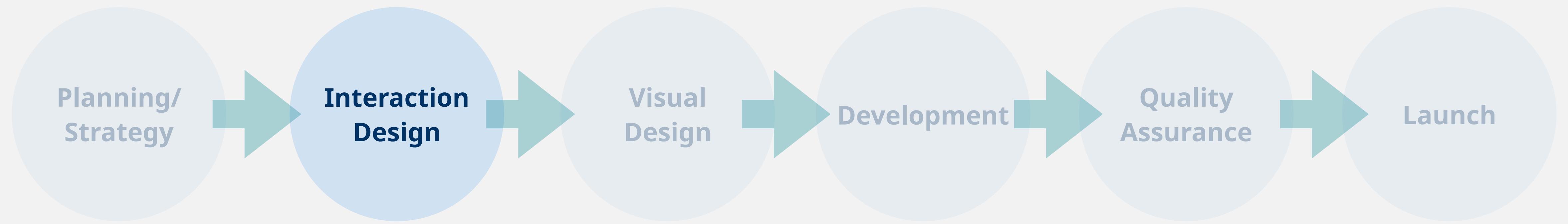






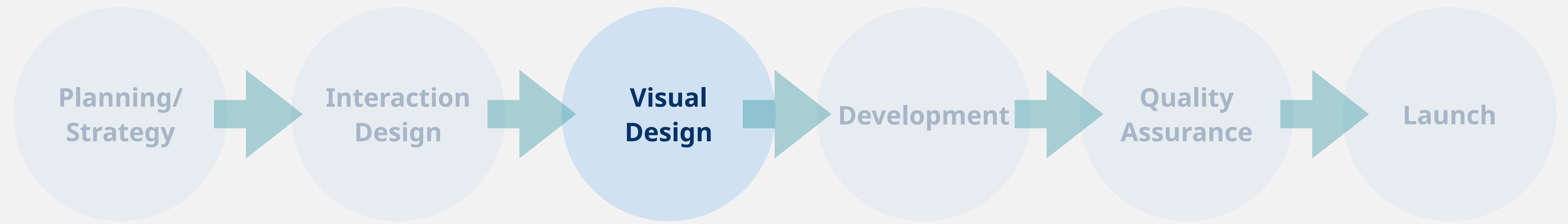


*Choose an authoring tool
that supports accessibility*



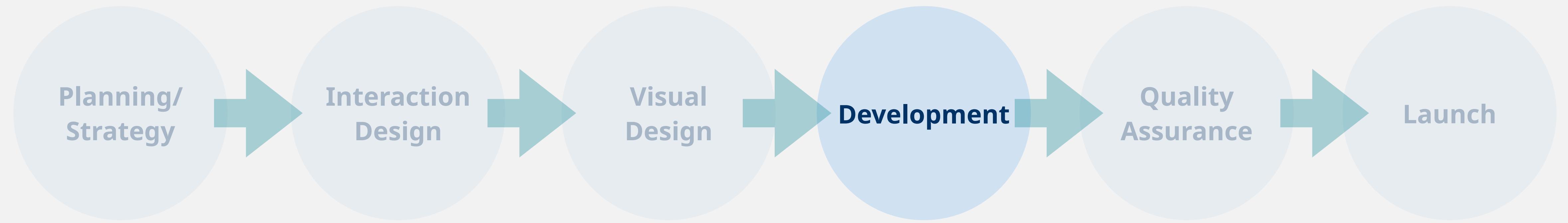
Document how flow can
be authored accessibly

Test authoring with
users with disabilities



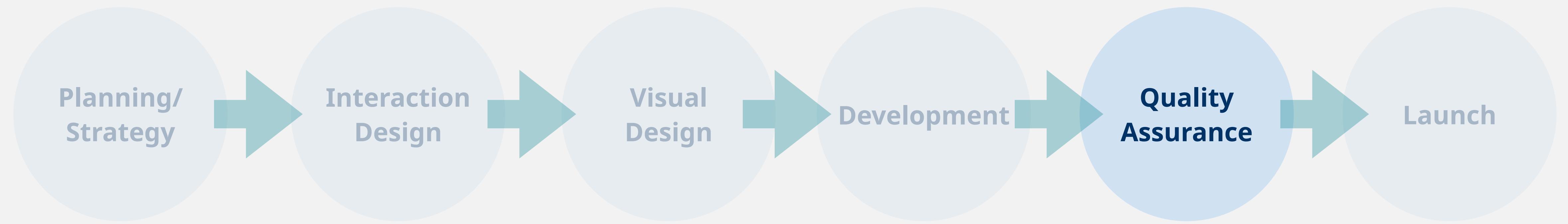
*Set constraints for customising
colour combinations (for contrast)*

*Provide accessible examples, like
large enough touch targets*

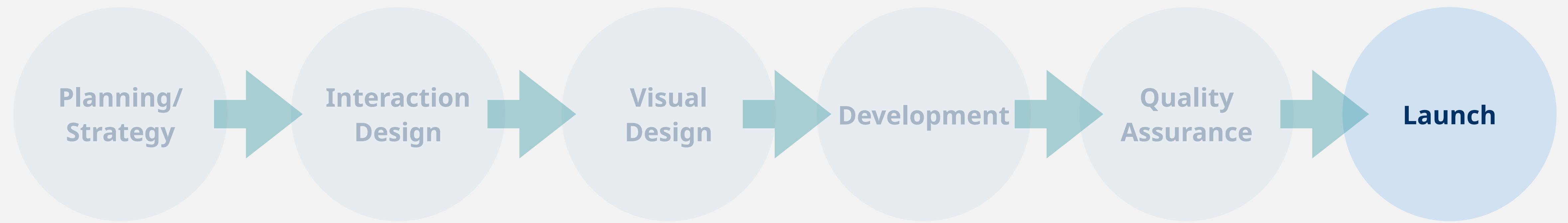


*Pick themes with
accessibility support*

*Pick plugins with
accessibility support*



*Embed automated
accessibility tests
in the authoring process*



Improving authoring tools at WAI

The screenshot shows a web browser window with the title "Implementing ATAG 2.0". The URL in the address bar is <https://www.w3.org/TR/IMPLEMENTING-ATAG20/>. The page content includes the W3C logo, a navigation bar with "[Contents]" and "[Guidelines]" links, and the following text:

Implementing ATAG 2.0

A guide to understanding and implementing Authoring Tool Accessibility Guidelines 2.0

W3C Working Group Note 24 September 2015

This version: <http://www.w3.org/TR/2015/NOTE-IMPLEMENTING-ATAG20-20150924/>

Latest version: <http://www.w3.org/TR/IMPLEMENTING-ATAG20/>

Previous version: <http://www.w3.org/TR/2015/WD-IMPLEMENTING-ATAG20-20150721/>

Editors:
Jan Richards, Inclusive Design Institute, OCAD University
Jeanne Spellman, W3C
Jutta Treviranus, Inclusive Design Institute, OCAD University

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Abstract

Implementing ATAG 2.0

- Rationale and intent
- Practical examples

Implementing ATAG · <https://www.w3.org/TR/IMPLEMENTING-ATAG20/>

WAI-Guide



- Part of EC's Horizon 2020
- 3 years
- Embedded in W3C's vendor neutral environment
- “Accelerate Support for Accessible Authoring”

WAI-Guide · <https://www.w3.org/WAI/about/projects/wai-guide/>

DRAFT Authoring Tools with Accessibility Support

Browse [tools that create web content](#), like CMSes and LMSes, website creators, discussion forums and other authoring tools, and filter for [accessibility features](#).

Note: tools are user-submitted, not W3C-endorsed, see [disclaimer for vendor-submitted content](#).

[Submit a tool](#)

- Type of tool
- Content management system (CMS)
 - Learning management system (LMS)
 - Forum or discussion software
 - Website creators
 - Wiki

Showing 9 authoring tools

Stripmetrics by Travelsprint

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus in urna rhoncus, luctus mauris in, porta sem. Sed lobortis mauris purus, nec varius turpis accumsan sed.

[+ Details](#)

List of Authoring Tools

- Filter by ATAG criteria
- Find tools that support accessibility
- Submit your own tool

The screenshot shows the ATAG Report Tool interface. At the top, there's a blue header bar with the W3C logo and "Web Accessibility Initiative WAI". Below the header, a navigation bar includes links for Overview, About, A.1, A.2, A.3, A.4, B.1, B.2, B.3, B.4, and Report. The "Overview" link is highlighted. The main content area has a title "Overview" and a paragraph explaining the tool's purpose: "This tool helps evaluators report on the accessibility of authoring tools. It guides you through the Authoring Tool Accessibility Guidelines (ATAG) requirements, lets you record your evaluation results for each requirement, and generates a report of the authoring tool's ATAG conformance." Below this is a section titled "Tips for using this tool:" with a bulleted list of instructions. Further down are buttons for "+ Expand All Sections" and "- Collapse All Sections". On the right side of the screenshot, there's a detailed report summary for "PerfectCMS". It starts with a heading "Report for PerfectCMS" and a "Hide >" button. The summary states: "Reported on 8 of 52 Level A, AA Success Criteria." Below this, there are four rows of data for categories A.1 through A.4. Each row contains two columns: A.1 (2 of 3) and B.1 (0 of 6), A.2 (0 of 4) and B.2 (0 of 10), A.3 (2 of 13) and B.3 (0 of 6), and A.4 (4 of 4) and B.4 (0 of 6). Each row has a horizontal progress bar indicating the count of checked items. At the bottom of the report summary are two buttons: "View Report" and "New Report".

ATAG Report Tool

- Manually report on ATAG criteria
- Save report as JSON or HTML
- Use it to create a listing in the Authoring Tools List

ATAG Report Tool · <https://w3.org/WAI/atag/report-tool>

Conclusion

Conclusion

- CMSes are essential for an accessible web
- CMSes should help content editors get accessibility right

Thanks for listening. How would turn a CMS/plugin/theme into an assistant?

- Slides: talks.hiddedevries.nl
- Email: hidde@w3.org