Ontario Design System

Federal-Provincial-Territorial working group meeting

March 30, 2021

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Agenda

1. Why a design system?
2. Ontario Design System: where we are today
3. Evaluation and future goals
4. Questions

Why a design system?

We've made a law, and it's great, but it simply sets up a high-level framework for digital and user-centered government. We now need to fill in that framework with **tools that will empower and enable ministries to actually work in the way we've legislated**.

We must continue to create and implement **standards, guidance, practices, and rules** that teams across government can apply in their daily work.

— David Eaves, "The Simple, Faster, Better Services Act: Solidifying Ontario's Digital Government Standards"

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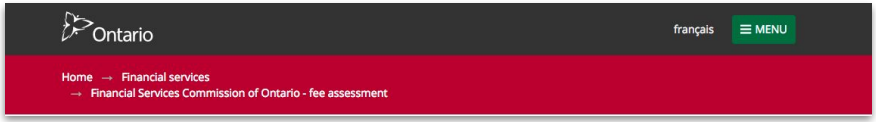
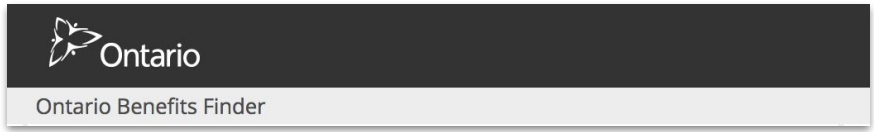
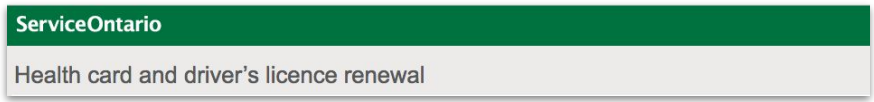
Status quo

- Existing guidance is platform-specific
- Components and guidance are non-modular and difficult to scale
- Styles are not portable from ontario.ca
- Teams lack clear guidelines and patterns for application based sites







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We still don't have that big overarching thing that everybody follows...somebody needs to say: this is it, you need to follow this.

— Business Analyst, Ministry of Government and Consumer Services

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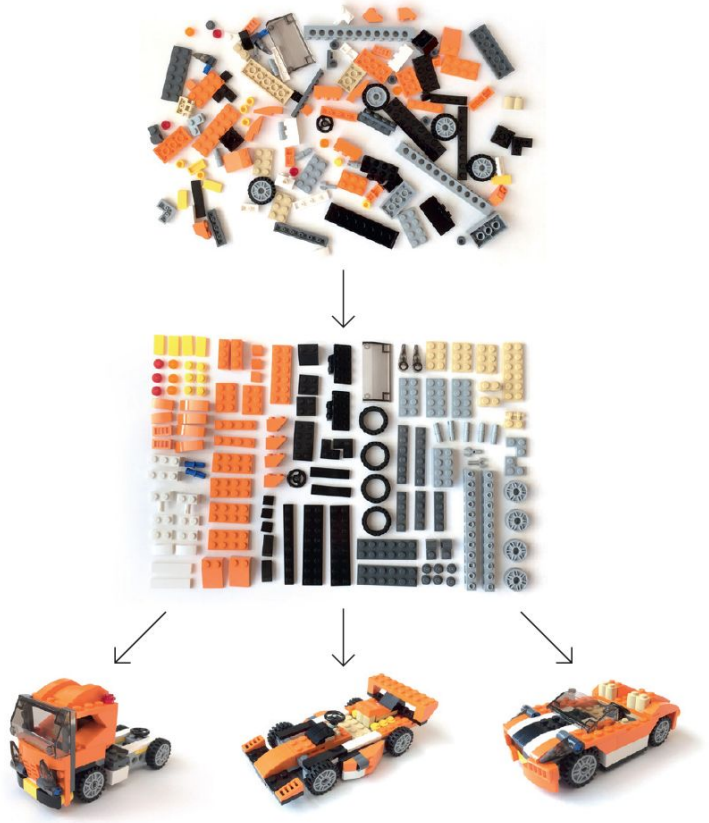
Building with LEGO Blocks

> A design system is a set of interconnected *patterns* and *shared practices* coherently organized to achieve the purpose of digital products.

Design Systems: A practical guide to creating design languages for digital products by Alla Kholmatova



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Value of a Design System

For government:

- Make components once to increase **efficiency** and **cost-savings**
- Give teams time to focus on **bigger challenges**
- Create components that are **high-quality**
- Give teams confidence that their designs are **consistent** with government standards

For the public:

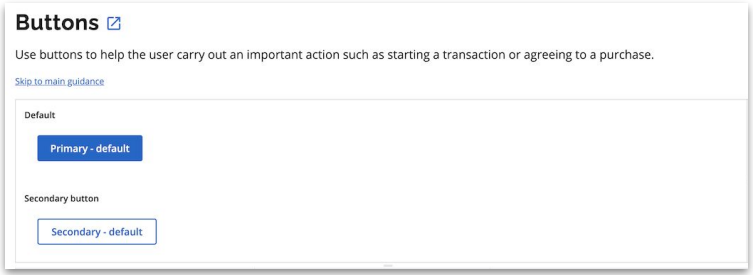
- Through consistent design, make it **easier to recognize** legitimate government sites
- Improve usability by making designs **consistent** and **predictable**

Where we are today

Technology platform: Fractal

- A free, open source tool specifically for building and documenting design systems: https://fractal.build
- Used by the U.S. Design System, City of Boston, the City of Ghent, and others
- Hosted in cloud infrastructure (AWS) managed by the Ontario Digital Service
- Provides the public-facing interface where Design System users access code and documentation

Example component



- Visual preview of the component
- Code (HTML, SCSS, compiled CSS)
- Guidance
  - Technical specifications
  - When to use
  - Examples
  - Dos and don’ts

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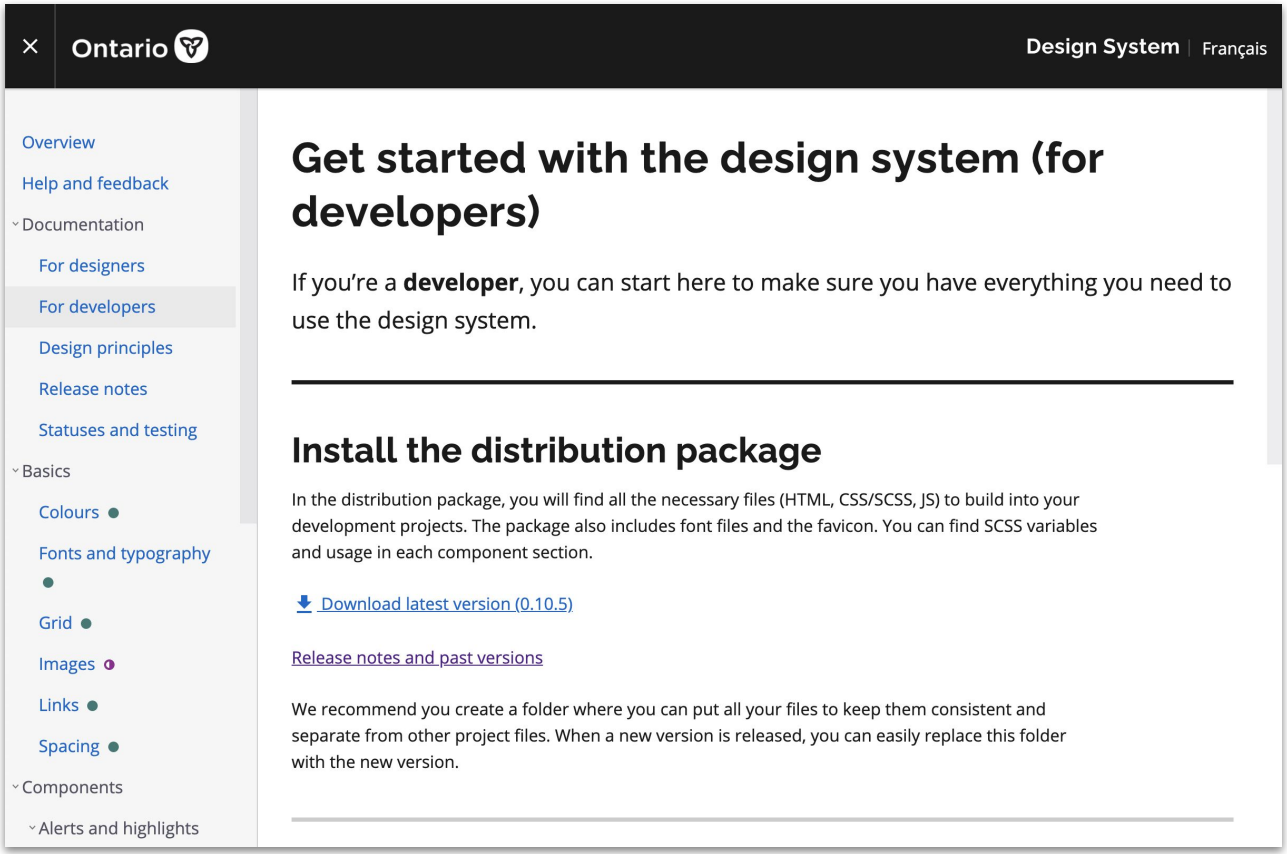
For developers



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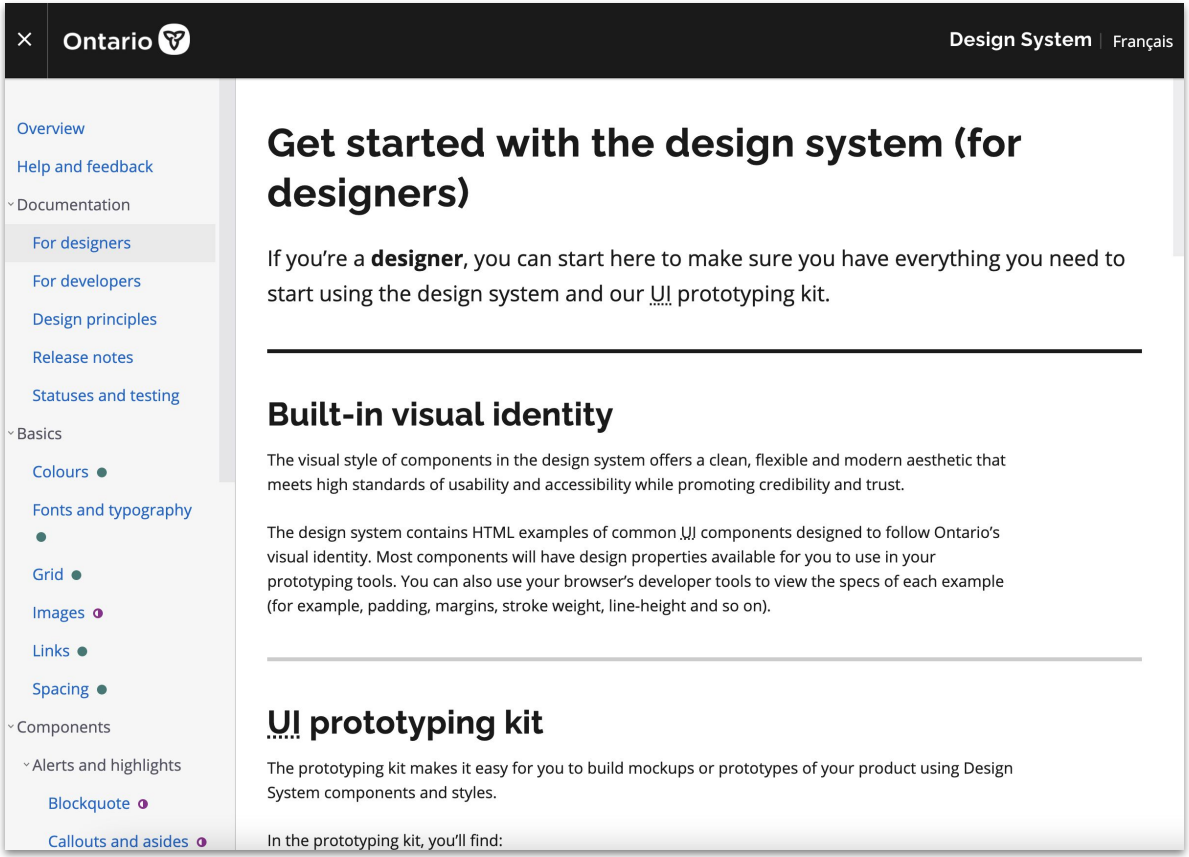
For designers



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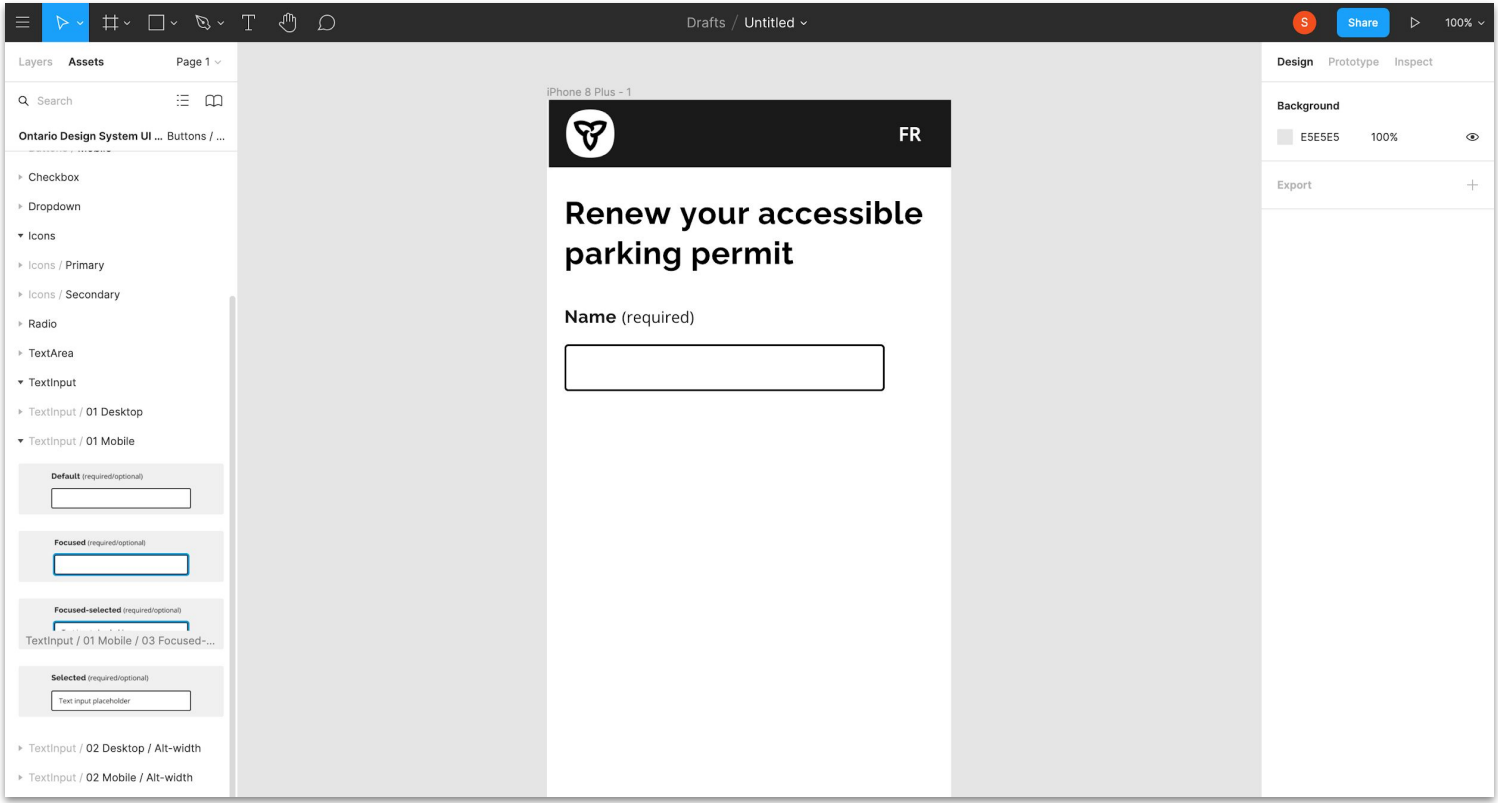
Prototyping kit



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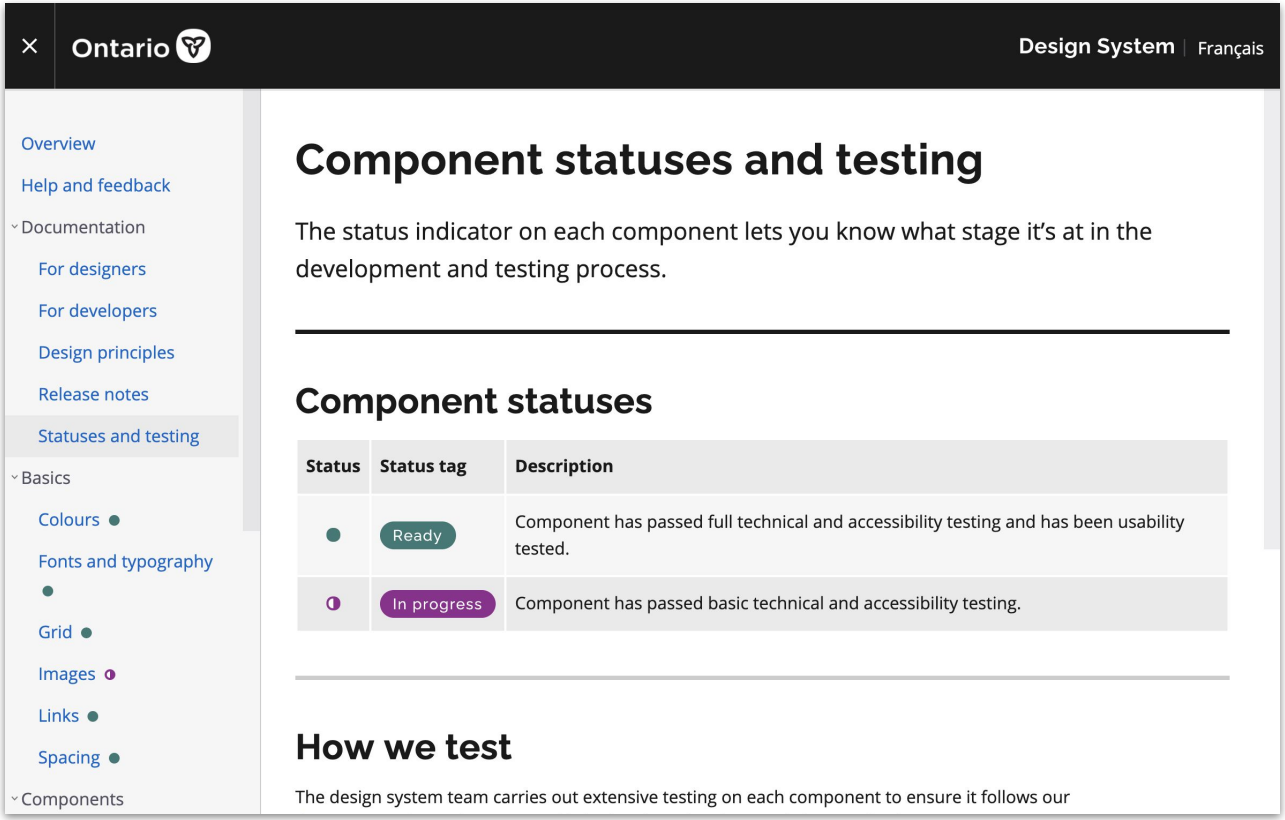
Component statuses



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Component backlog

Order	Item	Component or pattern	Description	Raw notes	Guidance	Design	Coded in Fractal	Testing
1	Colours	Style		Done	Done	Done	Done	
2	Grid	Style		Done	Done	N/A	Done	
3	Spacing	Style		Done	Done	N/A	Done	
4	Typography	Style		Done	Done	Done	Done	
5	Icons	Style		Done	Done	Done	Done	
6	Images and photography	Style		Done	Done	Done	Done	
7	Links	Style		Done	Done	Done	Done	
8	Buttons	Component		Done	Done	Done	Done	
9	Text inputs	Component		Done	Done	Done	Done	
10	Text areas	Component		Done	Done	Done	Done	
11	Checkboxes	Component		Done	Done	Done	Done	
12	Radio buttons	Component		Done	Done	Done	Done	
13	Select (dropdowns)	Component		Done	Done	Done	Done	
14	Intro page	Other	Introduction to the design system	N/A	Done	N/A	Done	
15	Headers	Component	Will need to think about search box, menu button, sub-logo branding	Done	Done	Done	Done	In progress
16	Subsite headers	Component	AKA extended header	In progress	Not started	In progress	Not started	
17	Footers	Component		Done	Done	Done	Done	In progress
18	Focus state	Component		N/A	N/A	Done	Done	
19	Hint text	Component		Done	Done	Done	Done	
20	CC payment	Pattern	Requested as part of top 10	Done	N/A	Done	Done	
21	Alerts/Callouts	Component		Done	Done	Done	Done	In progress
22	Errors (in-line)	Component	Includes inline and summary	Done	In progress	In progress	Not started	
23	Accordion	Component		In progress	In progress	In progress	Not started	
24	Hint expander	Component	How to handle long hint text on forms	In progress	In progress	Done	In progress	In progress
25	Cookie consent banner	Component						
26	Progress indicator	Pattern	Labelling as pattern very contenxt-dependent					

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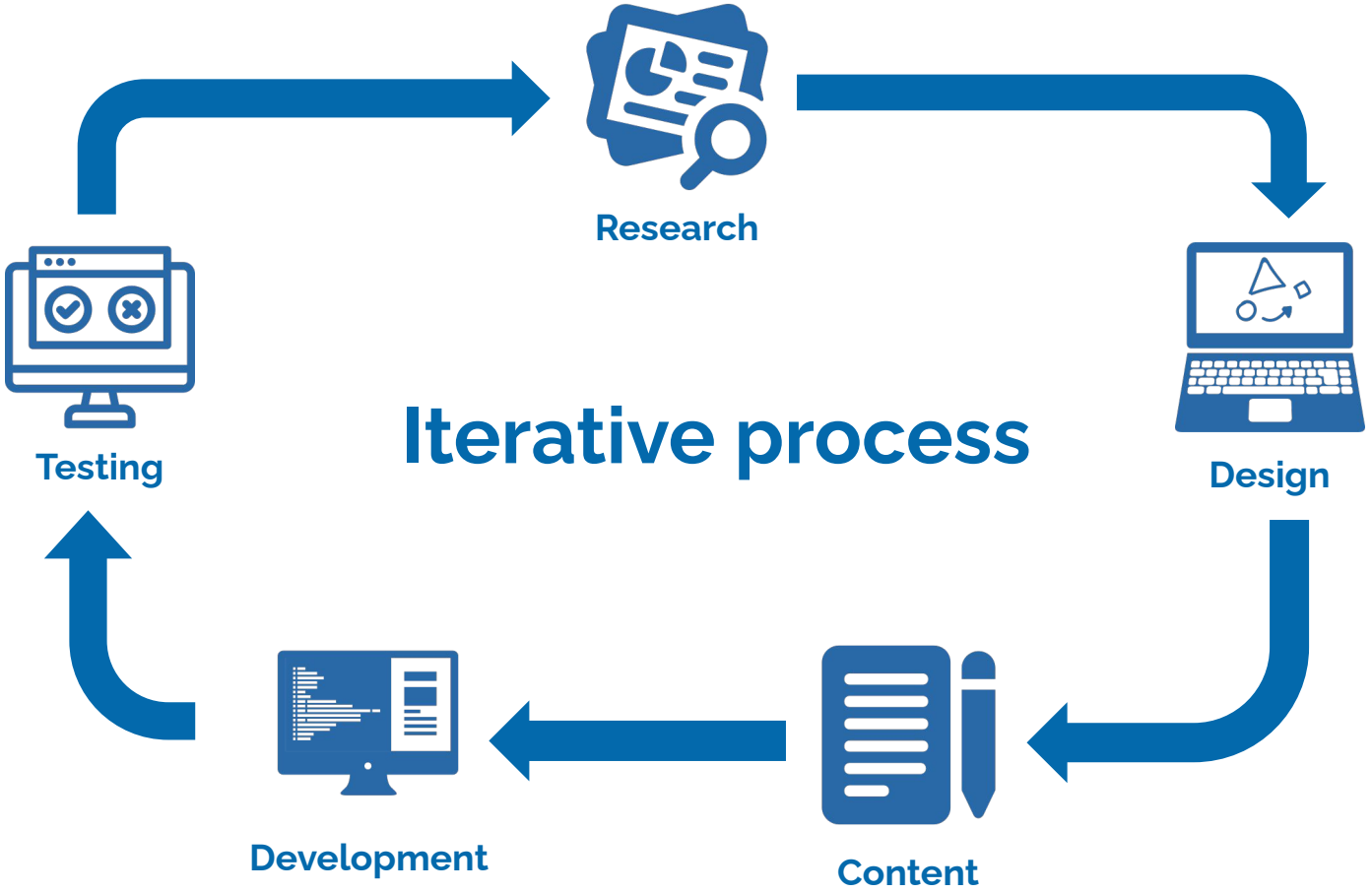
Research
Design
Content
Development
Testing
Iterative process

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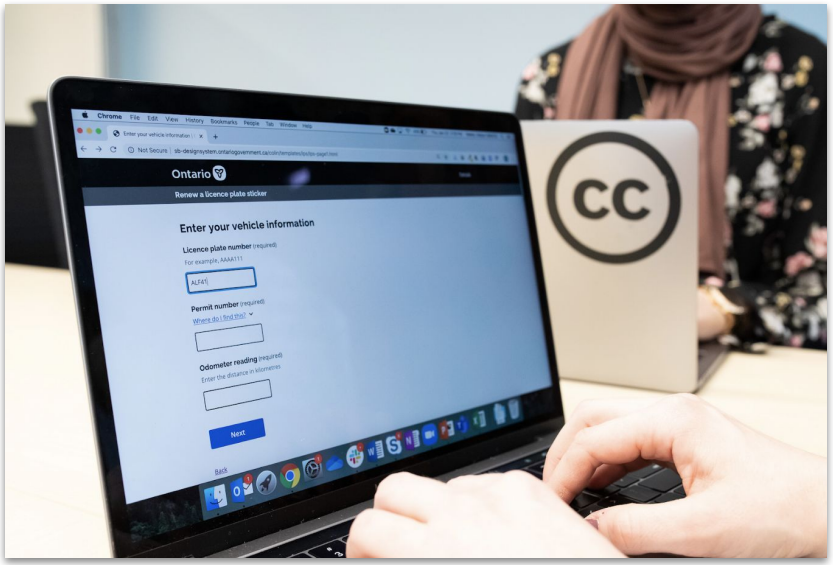
Evaluation and future goals

Testing



The design system requires two different testing approaches:

- **Component testing:** the components and elements that make up the design system need to be tested and iterated on to ensure they are accessible and usable
- **Design system site testing:** the design system itself needs to be tested with its target users (developers and designers) to ensure it meets their needs

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Testing the Design System site

- Participants: OPS designers and developers
- Findings included:
  - Real examples preferred over generic “lorem ipsum” content
  - Information architecture could be improved (e.g. create grouping for form elements)
  - User want quick access to colour palette (move descriptive info below)
  - Site search would be helpful as the amount of content grows

Content testing

- Participants: OPS developers
- Users were asked to highlight parts of the content that did and didn't make sense to them
- Content was revised based on feedback
- This process helped the team establish a standard template for guidance content

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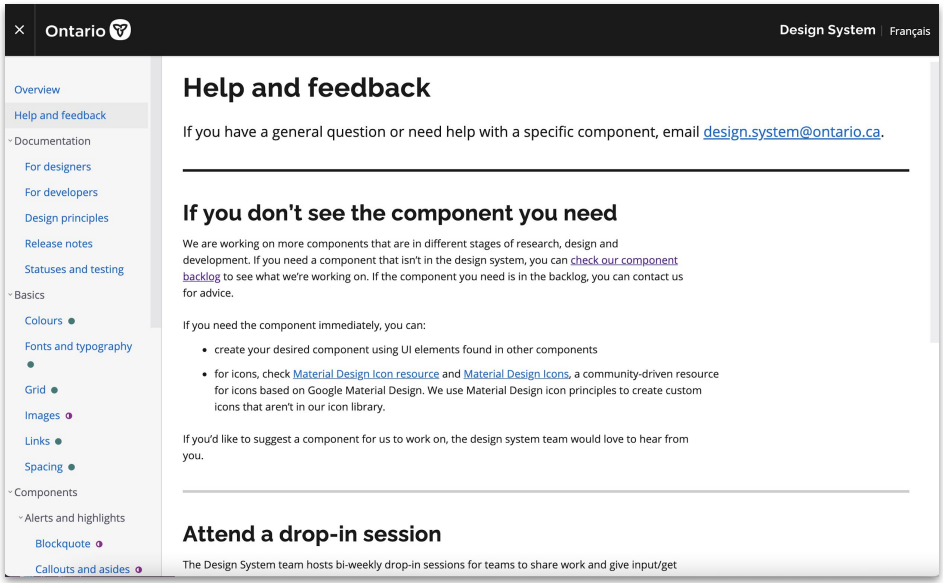
Accessibility evaluation

		Automated Tests	
	Light house	Axe	WAVE accessiblity
Component			
Grid	✅	✅	✅
Colours	✅	✅	✅
Focus & Active States			
Fonts & Typography	✅	✅	✅
Links		✅	✅
Spacing	✅		
Buttons	✅	✅	✅
Text Inputs	✅	✅	✅
Dropdowns	✅	Element's background color could not be determined due to a background image	✅
Textareas	✅	✅	✅
Labels	✅	✅	✅
Radio Buttons	✅	✅	✅
Checkboxes	✅	✅	✅
Hint text	✅	✅	✅
Fieldsets	✅	✅	✅

- Automated testing of components using standard tools (Lighthouse, WAVE)
- Manual testing of components using assistive technologies (JAWS, ZoomText, VoiceOver, etc.)
- Third-party review of the design system site by the Accessibility Centre of Excellence

Feedback mechanisms



- Bi-weekly review sessions open to other teams
- Feedback page (linked at bottom of all design system pages) includes:
  - Email address for contacting the design system team
  - Link to survey
- Presentations to key user groups
- Meetups for OPS staff

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Short-term goals

- Continue to work through component development backlog
- Enhance the design system platform
  - Apply the design system to the design system site
- Do more user research and testing
- Continue building community and adoption

Longer-term goals

- Establish standards and a process for contributions from other teams

- Enhance the design system platform
  - Content management
  - Site search

- New technical approaches
  - JavaScript component library?
  - CDN?

Questions?

designsystem.ontario.ca

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