



# DESIGN SYSTEMS IN GOVERNMENT Summary version

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March 31st 2021

行政におけるデザインシステムのあり方に  
関する調査研究 - 概要編



## Introduction

Welcome to the summary version of the research report on design systems in government.

In this summary we will present an overview of the research conducted, as well as ten key learnings. The research was initiated by AIS in Tokyo, on behalf of the Japanese Digital Agency.

# Agenda

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# RESEARCH OVERVIEW



## Research Overview

The research was conducted to get a sense of how design systems in government are planned, developed and maintained. The report is structured in a way such as to reflect these different stages.

As the digital transformation increases in speed and scope in governments around the world, having rules and approaches such as design systems in place to move ahead in a cost-efficient and user-centric way becomes more important than ever.

The learnings presented in this summary are taken from the report, but even as they pertain particularly to one stage or area of design system development in the report, their implementation have effects on other stages as well, and so will be presented here in a more generalized form.

It is our sincere hope that your government design system will benefit from this research.

The Research Team

## Research Sources

### Survey

English-language survey, shared in global community. Niche topic, so few but engaged responses.

### Desktop Research

Mainly blogs and articles in order to stay close to a variety of lived experience and advice.

### Interviews

#### Developers

GDS (UK)

BBC (UK)

Board of Digitization (DK)

Gebruiker Centraal (NL)

Ministry of Modernization (fmr) (ARG)

Digital Transformation Agency (AUS)

#### Users

Board of Public Pension (ATP) (DK)

Board of IT and Learning (STIL) (DK)

## Country Descriptions

DENMARK 	UK 	NETHERLANDS 	ARGENTINA 	AUSTRALIA 
<b>Status</b> Rolled out, 2019	<b>Status</b> Rolled out, 2018	<b>Status</b> Soft launch, 2019	<b>Status</b> Launched 2016, but disintegrating	<b>Status</b> Launched 2015, but disintegrating
<b>Team</b> Part-time with external people of about ~5 people	<b>Team</b> Full-time time of ~10 people	<b>Team</b> Part-time team of 3 people	<b>Team</b> Part-time team of 2-3 people	<b>Team</b> -
<b>Community Interaction</b> Bi-yearly forums with stakeholders to discuss progress and challenges	<b>Community Interaction</b> Comprehensive and thorough engagement of multiple communities across government	<b>Community Interaction</b> Community-led effort to build design system from bottom up	<b>Community Interaction</b> Close collaboration around implementation, but little community around development of design system	<b>Community Interaction</b> Close collaboration around implementation, but little community around development of design system



# TEN KEY LEARNINGS





## Key Learnings

- |                                |                                       |  |  |   |
|--------------------------------|---------------------------------------|--|--|---|
| 1<br>Service, Not a<br>Project | 2<br>Voluntary or<br>Mandatory        | 3<br>Funnel for<br>Decentralised<br>User Testing | 4<br>Roles Change as<br>Design System<br>Matures | 5<br>Putting External<br>Actors into Play |
| 6<br>UX or UI<br>Consistency   | 7<br>Build on the Power<br>of Example | 8<br>Map out<br>Communities                      | 9<br>Plan how to Enable<br>Use                   | 10<br>Roadmap and<br>Transparency         |



# 1

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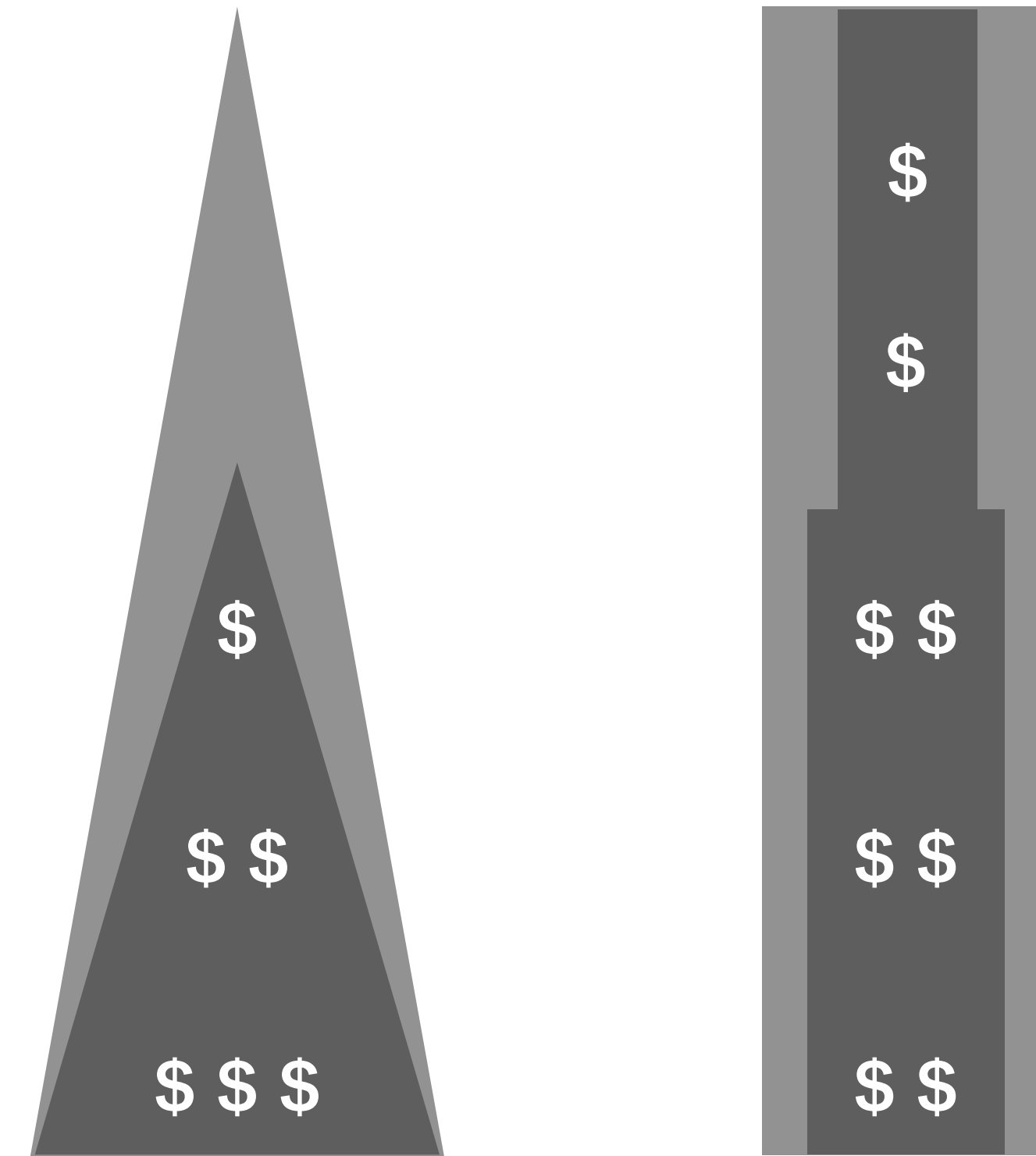
## Policy

## Service, Not a Project

A common thread throughout the research has been, how all the teams we've talked to have mentioned issues with continuous funding. This can in part be attributed to the fact that the teams in some cases began the design systems in small iterations, rather than a big, grand sell. This has meant that as the design system grew, and steadily secured more and more funding, people around the design system making funding decisions got used to it being on a funding-when-needed basis.

**Left**, decreasing funding pattern, with design system maturity deteriorating.

**Right**, sustained but adaptive funding pattern, with design system flourishing.





# 1

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## Policy

## Service, Not a Project

### KEY LEARNING

The key learning here is that there should be an understanding at decision-maker level, not only of the benefits of a/the design system itself, but also of the need for sustained funding as a separate department and team.

### ACTION

Agree on how the design system is talked about and presented, in order to create the right frame of mind.

DK 

Intermittently funded

UK 

Fully funded and recognised team

“Design System as a Service”

NL 

A grass roots initiative with “Project” status

ARG 

Not prioritized, almost abandoned



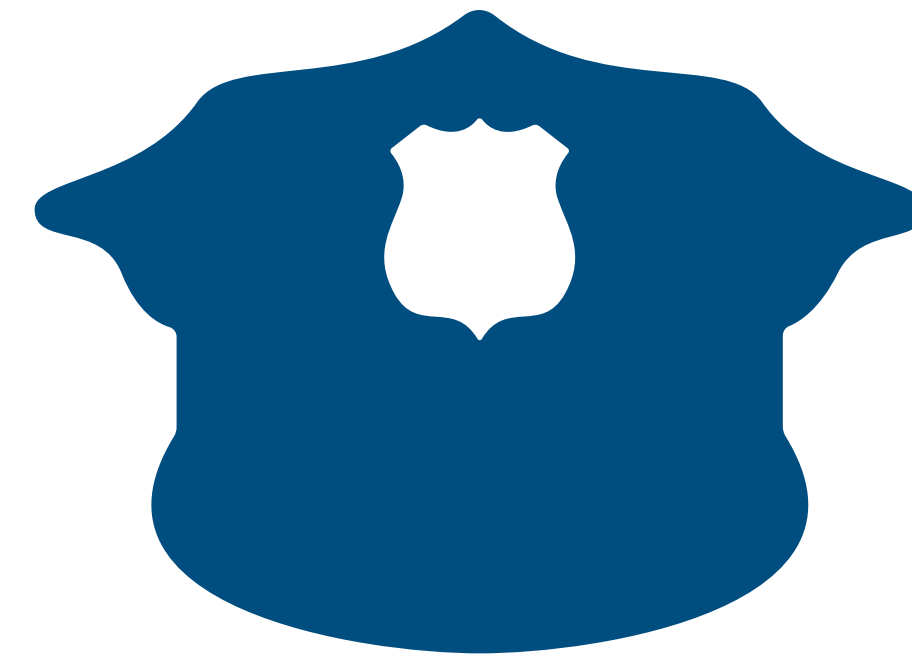
## 2

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### Policy

#### Voluntary or Mandatory

Design systems work well when implemented broadly. This can be achieved in many ways. Fundamentally a design system can be either mandatory or voluntary, each with advantages and disadvantages.



## 2

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### Policy

### Voluntary or Mandatory

#### KEY LEARNING

It is essential for the team to responsible for the roll out to have strong connections and trustful relations to at least some of the main user agencies, in order to be able to plan and coordinate the implementation strategy necessary

#### ACTION

Consider how to enable use (see #9)

DK 

Contract basis

UK 

Mandated

NL 

Voluntary

ARG 

Mandated



# 3

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## User Research

### Funnel for Decentralised User Testing

There were subtle differences in how teams went about research on components. In Argentina the design system team did project-agnostic (end) user tests of patterns, while in UK and DK for example, the (end)-user tests are conducted by the individual service provider using the design system to create their services.

An example of how  
GOVUK displays  
research on  
component level



#### Research on this component

There is [evidence that some users avoid clicking the link to show more details](#), as they think it will take them away from the page.

There are [concerns that some users of voice assist software will not be able to interact with the component](#). Some software might require the user to specifically refer to the link to show more details as a button in order to interact with it.

When printing, there is currently no way to force the page to show details hidden inside a details component. [This issue has been raised with the W3C](#).

# 3

## User Research

### Funnel for Decentralised User Testing

#### KEY LEARNING

There should be a framework in place for learnings from the tests to benefit everyone and make the system better. Being able to explain the why of every design decision is one of the intangible, but essential, keys to making a flourishing and solid design system.

#### ACTION

Consider the shortest route to user feedback, whether direct or indirect

#### DK

##### Pre Launch

Small scale in order to launch

##### Post Launch

Relying on user tests in context

#### UK

##### Pre Launch

Small scale in order to launch

##### Post Launch

Relying on user tests in context

#### NL

##### Pre Launch

Relying on user tests in context

#### ARG

##### Pre Launch

None, built on existing

##### Post Launch

- Component testing
- Hands-on test for implementation



# 4

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## Team Building Roles Change as Design System Matures

It is clear that the needs of the design system team changes, as the system matures in both scope and implementation. In the beginning only a few people is needed to set up, and their efforts can then be augmented by community involvement.



# 4

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## Team Building Roles Change as Design System Matures

### KEY LEARNING

The key learning here is to make sure everyone on the team understands the likely path the design system will take, and have them be ready to adapt.

### ACTION

Examine current and future team roles based on milestones and user-community needs.

DK 

Established, but need to solidify team

UK 

Strong, permanent team

NL 

Team is 'homeless'

ARG 

Established, but need to solidify team



# 5

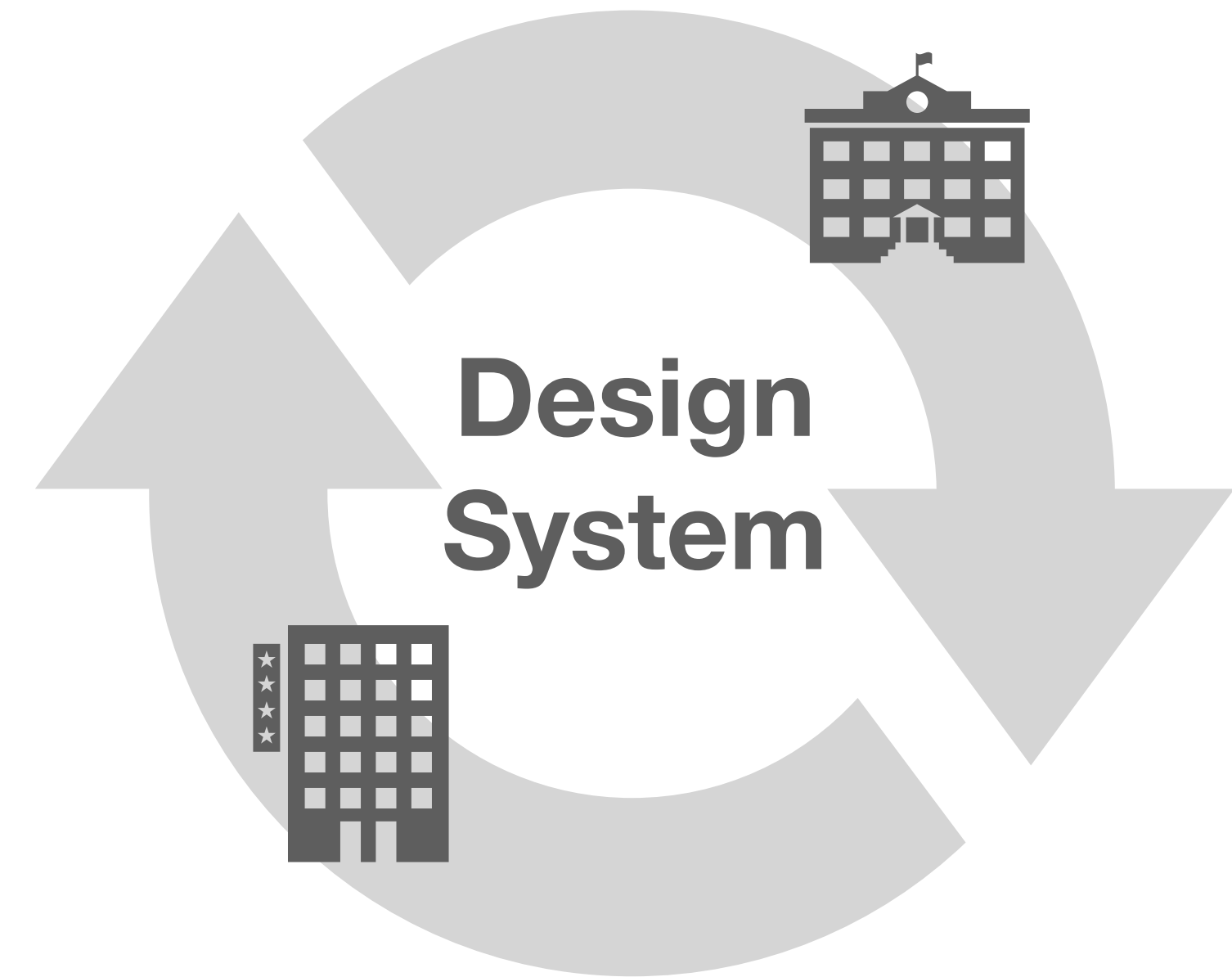
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## External Resources

### Putting external actors into play

It is interesting to see how external development actors become key players in the adoption of the design system, and in many cases contributing to it as well, because they are helping the service delivery organizations put their services online. This means that a lot of hands-on experience with the design system lies in external hands, and so these professionals become key actors in community creation as the design system gets adopted.

Private IT suppliers play a positive role in spreading adoption of design system within the government ecosystem



# 5

## External Resources

### Putting external actors into play

#### KEY LEARNING

The key learning here is to be aware of who interacts with the design system in what way, and welcoming their input in the most beneficial way.

#### ACTION

Engage external stakeholders such as suppliers in an open way to gain trust and build enthusiasm.

DK 

Used external vendors from beginning

UK 

Considered external vendors, but chose in-house

NL 

Working only with government teams

ARG 

Chose in-house

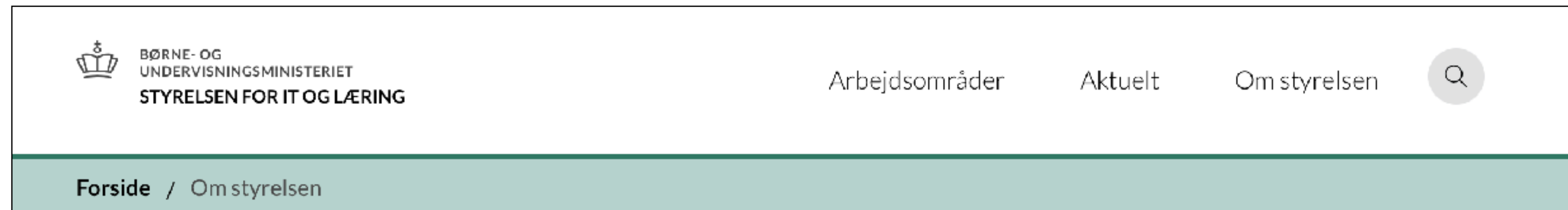
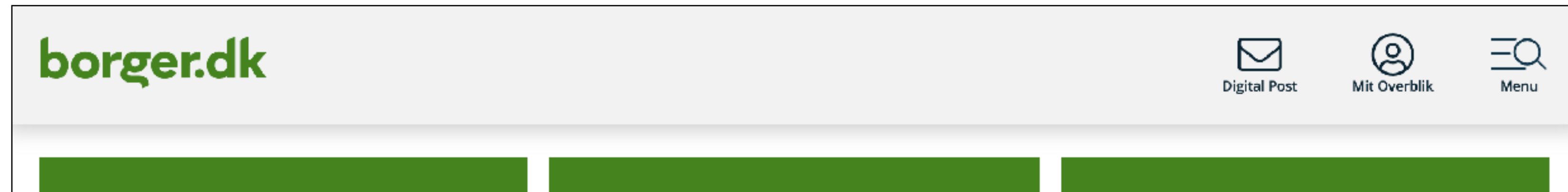


# 6

## Development Approach

### UX or UI Consistency

A fundamental consideration is whether the design system is conceptualized as a common UX or if the aim is a common UI.



An example of how the Danish Common Design System is deployed as a common UX



# 6

## Development Approach

### UX or UI Consistency

#### KEY LEARNING

The key learning here is that there has to be a clear understanding internally, about whether the aim is common UI or common UX. If this is not present, it can pose unnecessary conflict down the line.

#### ACTION

Consider the political and technological readiness to determine which way to proceed.

DK 

Consistent UX

UK 

Consistent UI

NL 

Consistent UX

ARG 

Consistent UI

# 7

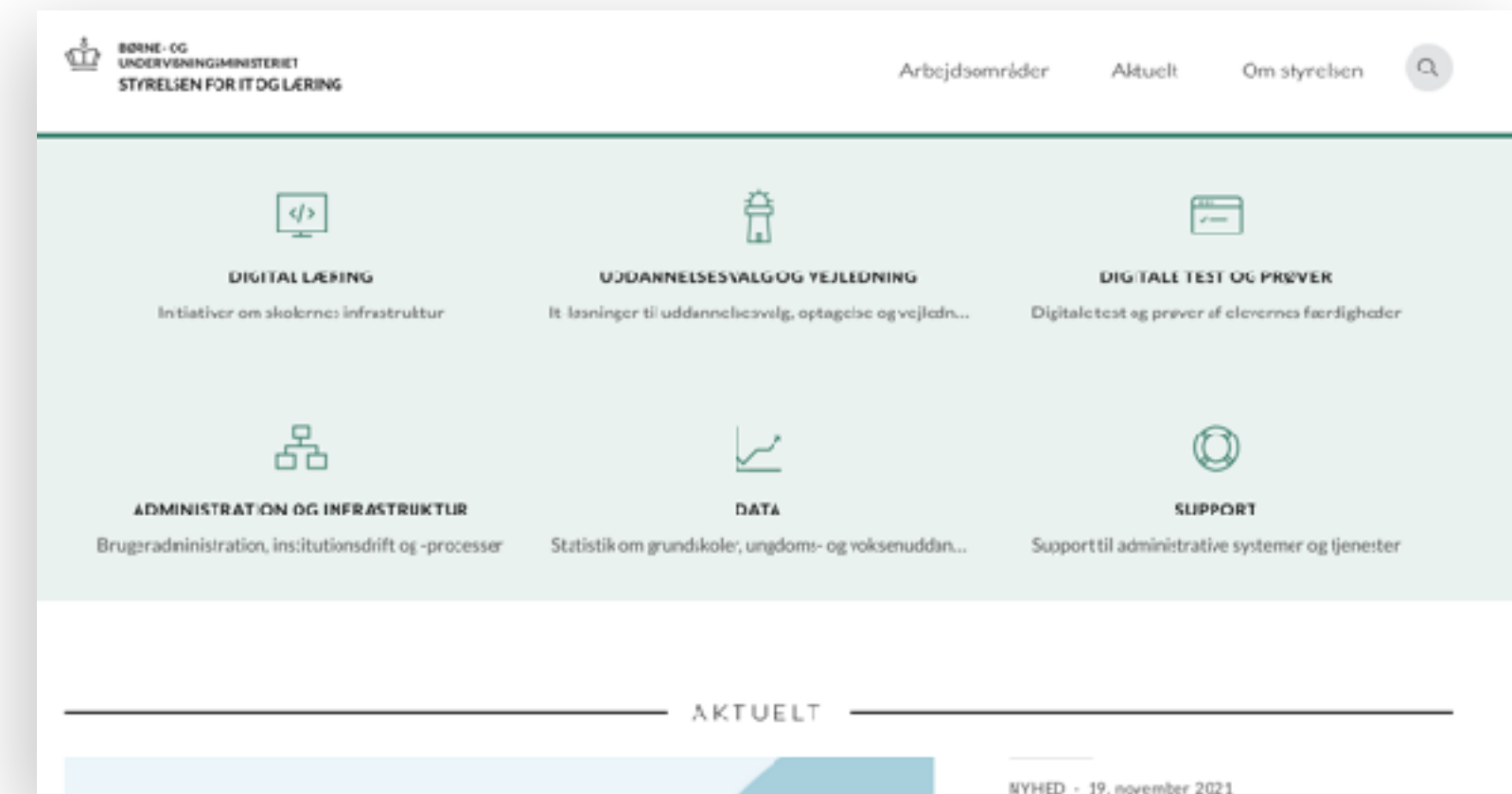
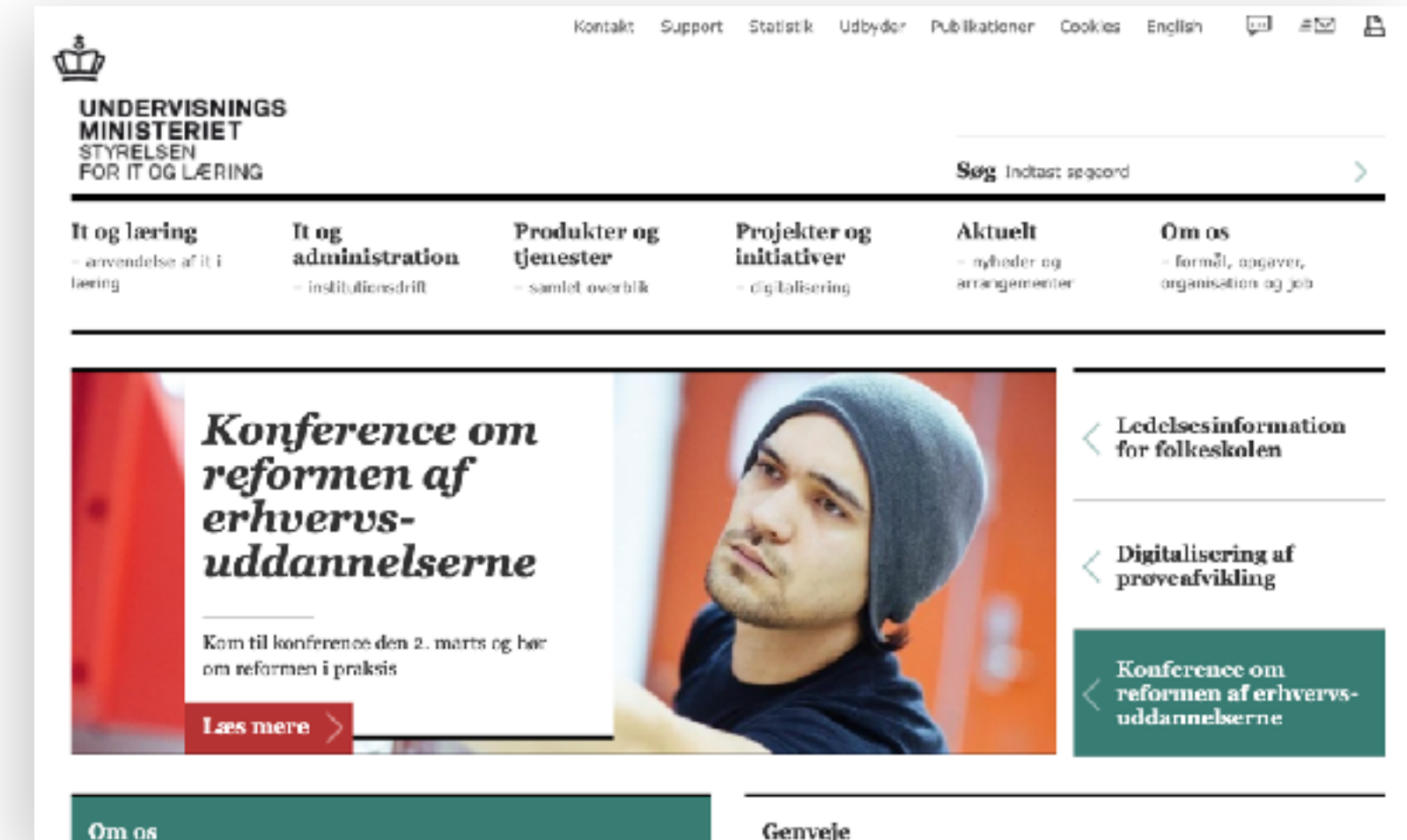
## Development and management framework

### Build on the Power of Example

It was a common theme around starting a design systems, that it is difficult to get buy-in to do a full-scale launch from the beginning. Rather, small steps are recommended, to show proof of value and to give decision makers a sense of what a design system actually entails. Not least in a visual sense, to make them understand what can get better. In Denmark, they took the website of two services, and made versions with the proposed design system to get going under the radar.

**Top** The old website of the Danish Agency for IT and learning

**Bottom** New version of the website





# 7

## Development and management framework

### Build on the Power of Example

#### KEY LEARNING

Starting out small to create examples to build on, is the way to go if there is a lack of understanding of the benefits of a design system in the organization.

#### ACTION

Choose a simple, yet known site or app and give it a make over without necessarily making it a project in and of itself.

#### DK

Started out making examples of existing services.

#### UK

Made very basic working prototypes and brought them forward as proof of concept.

# 8

## Development and management framework

### Map out Communities

Creating a community around the design system was highlighted as a key to success by many. But what was particularly interesting was how there was varied success in nurturing the community, and how that energy was directed towards the development of the design system.

it was clear in our research that there are different kinds of community at play around a given design system - especially in government.

**Right** The types of community identified in our research



### **Community of Practice**

A network across specialities in government

### **Community of Interest**

Participation in international forums to look outside one's own context

### **Community of Users (Delivery)**

Clear engagement of the people who use or deal with the design system

### **End-users (Citizens)**

Can be engaged directly and indirectly, but the end-goal is ultimately to have a fundamental user-focus across government

# 8

## Development and management framework

### Map out Communities

#### KEY LEARNING

Mapping out potential communities of interest based on the needs of the current context, seems to be a practical way to effectively engage the people who can contribute most to success of the design system.

#### ACTION

Map agencies, suppliers, decision makers around design system implementation

#### DK

Community of end-users through a panel, and community of users through bi-yearly conferences, as well as vendors.

#### UK

Particularly strong community of practice, Guilds, and international community of interest. Active community with robust feedback pipelines

#### NL

Building a community of users, in order to create a community-driven design system as a grass roots initiative.

#### ARG

Passive community



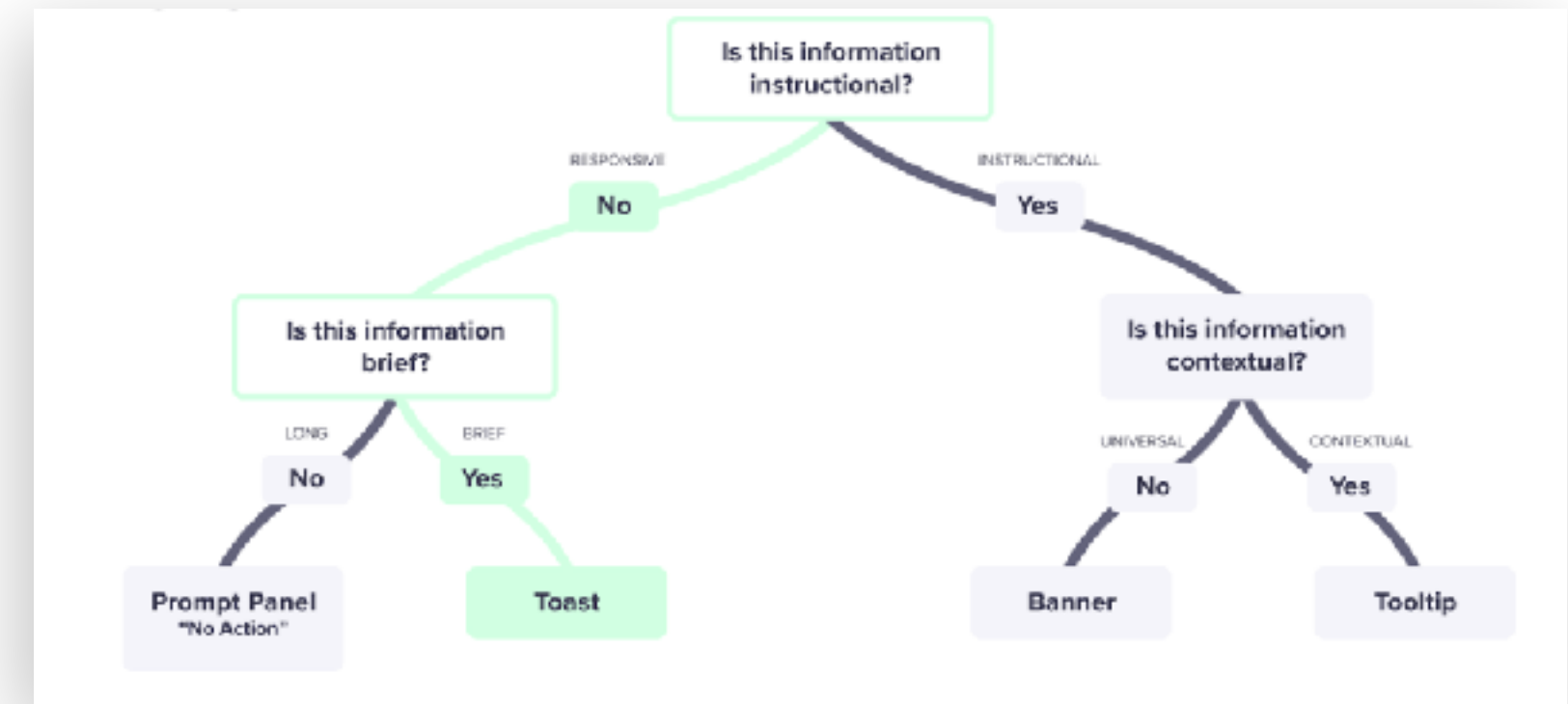
# 9

## Training

### Plan how to Enable Use

Through this research it has become clear, that the tough part of design systems is less about how things look, or even how they are made, but rather about the people that has to interact with the system and vice versa. Whether it is decision makers keeping the design system going, delivery teams, end-users or external consultants, the level of understanding that the design system is met with, dictates how it should or can be adopted.

**Below**, an example of how Lyft uses decision trees to help choose components



Screenshot 1: A decision tree around a design system component  
Source: <https://medium.com/tap-to-dismiss/user-centered-design-system-resources-2df958d90749>

# 9

## Training

### Plan how to Enable Use

#### KEY LEARNING

Because the design system in government will inevitably be played into many different contexts, creating internal clarity on how to meet the challenges is a way to stay ahead and provide the best support.

#### ACTION

Consider what kinds of support is needed and can be supplied

#### DK

Having 1-on-1 sessions through and open door policy, as well as doing education days for developers in different ministries

#### ARG

Worked on a scale from only reviewing solutions, to actually dispatching UX'ers to help create solutions based on the design system.

#### AUSTRALIA

Worked hard on introducing new ways of working to sustain independent use of design system

# 10

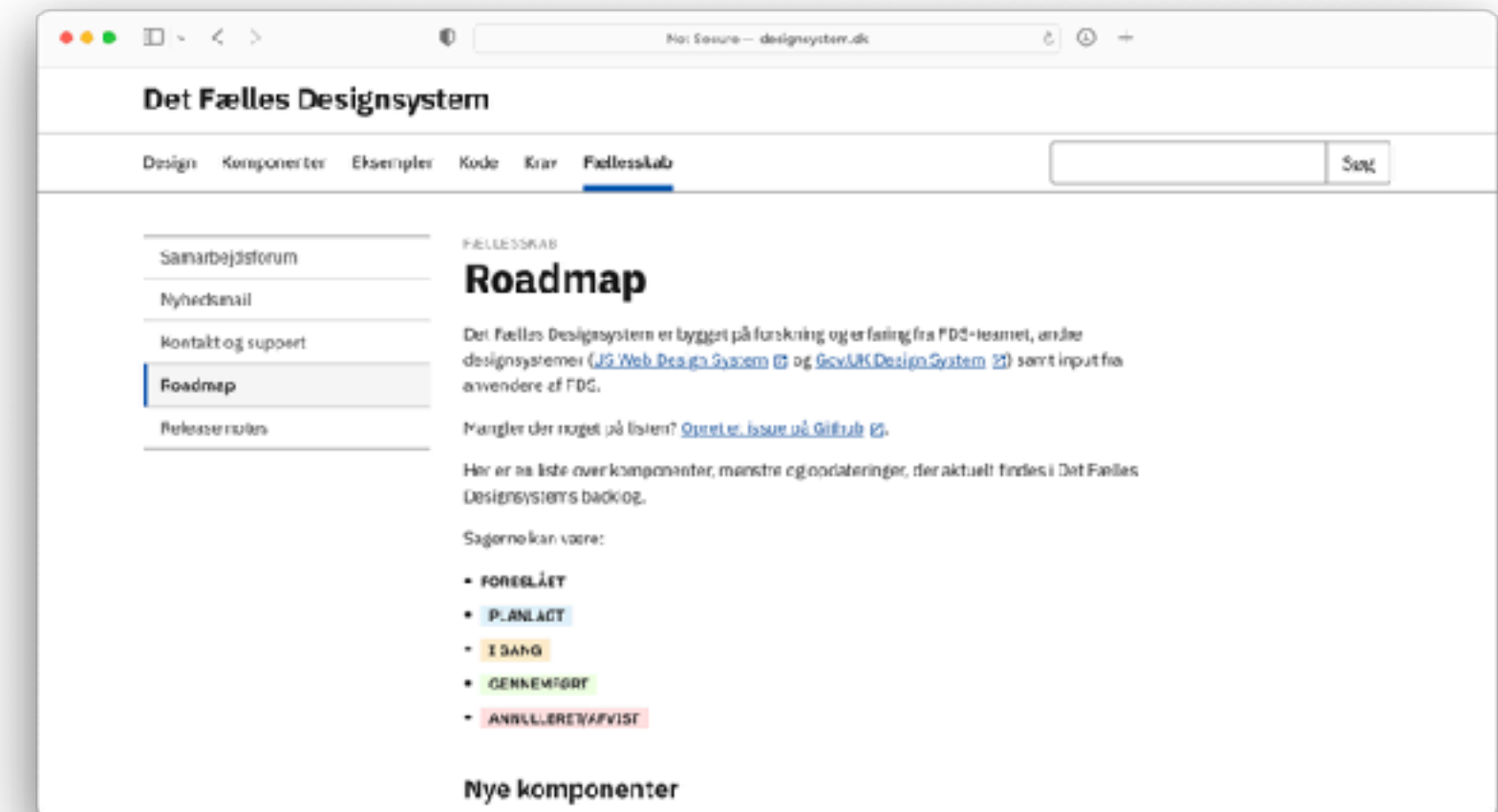
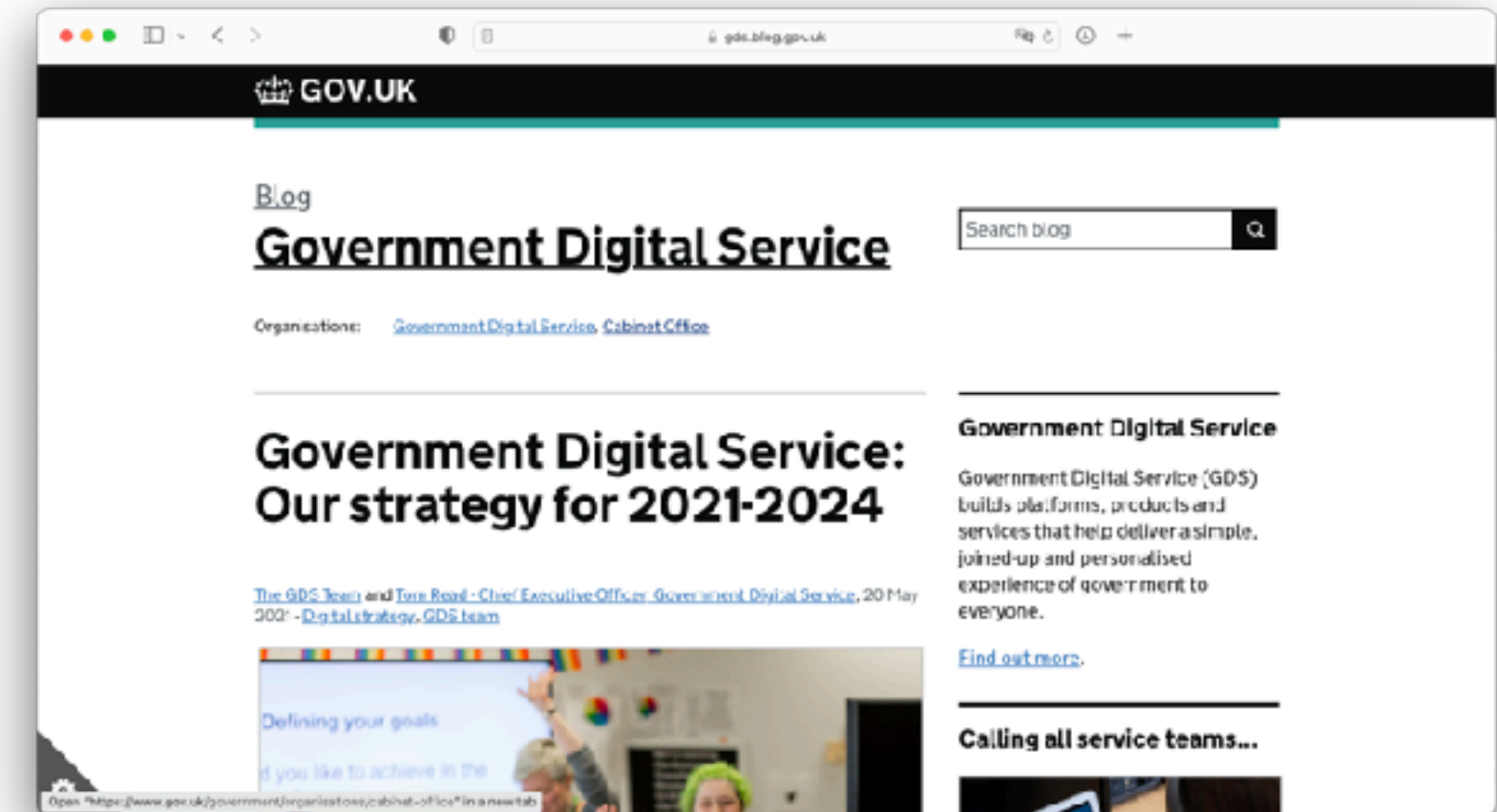
## Future Plans

### Roadmap and Transparency

The design system relies on authority built on trust. This can be nurtured through transparency, and by playing with open cards in terms of what is in store for the future - both towards decision makers, and to aid the planning processes of the user community.

**Above**, a post on the GDS blog about their strategy

**Below**, the roadmap of the Danish design system





# 10

## Future Plans

### Roadmap and Transparency

#### KEY LEARNING

Working transparently is a cornerstone maintaining and encouraging community, which has been highlighted throughout this research. Being honest about the road ahead is a practical way of doing this.

#### ACTION

Maintain a blog, publish a roadmap and host events with purpose

#### DK

Maintaining a roadmap and sharing development status with community at conferences

#### UK

Roadmap as well as hosting events and publishing articles about concrete issues.

# PERSPECTIVES FOR STARTING OUT



## Perspectives for Starting Out

Working on creating and implementing a design system in government, based on our research, we propose looking at the following three actions to concretely focus on, as the design system is being built and introduced.

- **Build community**  
Build confidence on government side in terms of procurement and facilitation, and build trust and enthusiasm on developer side through honest engagement.
- **Grow through the power of example**  
Use the community activities above to make small, but tangible wins in terms of implementation.
- **Frame it as a service, not a product**  
The design system is ultimately a service that enables people in and around government to do their jobs better, and users to use government better.



