

DESIGNING A ONE HEALTH WEBSITE

TIPS FOR USER-FRIENDLINESS AND VISUAL APPEAL

CLÉMENCE KOREN - 23RD SEPTEMBER 2021

SYKDOMSPULSEN WEBSITES

Campylobacter er en bakterie som kan gi diareesykdom hos mennesker. Mennesker blir smittet gjennom forurenset mat eller vann, eller ved kontakt med smittede dyr eller fugler.

Oversikt

Campylobacter hos slaktekylling

Campylobacter hos mennesker

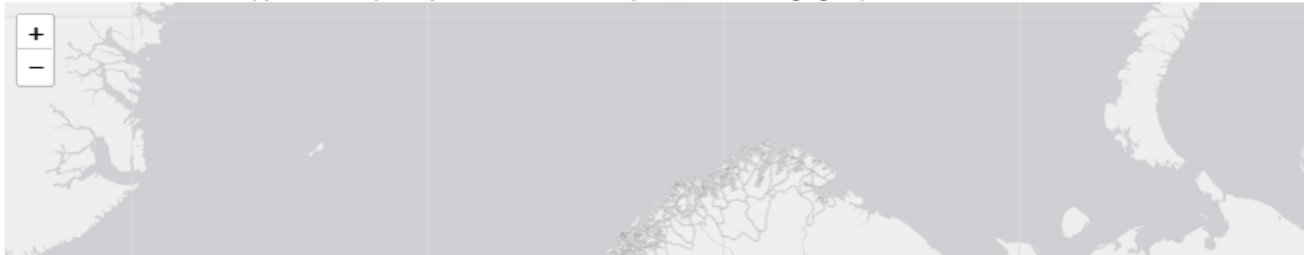
Meteorologiske data

Informasjon om datakildene

Her finner du oversikter over de tre overvåkningssystemene for *Campylobacter* i Norge.

Vi har et system for slaktekylling, et for overvåking av laboratorieverifisert *Campylobacter* hos mennesker og et for mage-tarminfeksjoner hos lege og legevakt.

Figur 1. Municipality map of the risk of a gastro event one week ahead. Only valid in municipalities where there is surveillance of *Campylobacter* in poultry farms. The model only focuses on the age group 30-64.



THE WEB MEDIUM

- What are the strengths and weaknesses of **this specific medium**?

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QUALITIES

- Interactivity
- Complex network structure
- Variety of media

CONSTRAINTS

- Variety of users and user's skill
- Shorter attention span
- Developer's skill / budget

- Keep it in mind to make a great platform

STEPS OF WEBDESIGN



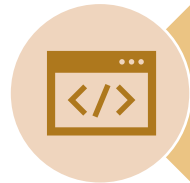
Define your project



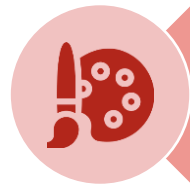
Know your users



Design your website



Make the website



Visual design

WHAT IS A WEBSITE?

HTML

```
<h1>Main Title</h1>  
<p>This is a paragraph.</p>  
<p>This is another paragraph.</p>
```

Main Title

This is a paragraph.

This is another paragraph.

Keep content and form separate!

WHAT IS A WEBSITE?

HTML

```
<h1>Main Title</h1>  
<p>This is a paragraph.</p>  
<p>This is another paragraph.</p>
```

CSS

```
h1 {  
  border: 1px solid blue;  
}  
  
p {  
  color: blue;  
}
```

Main Title

This is a paragraph.

This is another paragraph.

Keep content and form separate!

KNOW YOUR PROJECT

- Usually you already know – but still useful to **define it better**
 - *Why are you making a website?*
 - *What is the main objective?*
 - *What is the scope?*
 - *How long do you have before delivery?*
 - *How long will it be used?*
 - *Any constraints on platform, material, media, nature of content?*
 - *Do you have all your content already or will more be added over time?*

KNOW YOUR PROJECT

RESPIRATORY DISEASES AND AIR POLLUTION

Main partners: Institute of Public Health,
Meteorological Institute

Project A

Public open website for prevention and education

Goals:

- raise public awareness
- educate on best practices
- make data public
- promote citizen science

Characteristics:

- medium budget
- fixed content (+ eventual updates and articles)

Project B

Internal website for monitoring of respiratory dis.

Goals:

- aid collaboration between the partner institutions
- close monitoring of pollution and resp. diseases
- make research easier with a central info hub

Characteristics:

- low budget
- possibility for extension later on

KNOW YOUR PROJECT

RESPIRATORY DISEASES AND AIR POLLUTION

Main partners: Institute of Public Health,
Meteorological Institute

Project A

Public open website for prevention and education

Goals:

- raise public awareness
- educate on best practices
- make data public
- promote citizen science

Characteristics:

- medium budget
- fixed content (+ eventual updates and articles)

Content: More educational than technical

- emergency contact number
- learning sections, educational videos...
- real-time air pollution map, annual nb of deaths...

Project B

Internal website for monitoring of respiratory dis.

Goals:

- aid collaboration between the partner institutions
- close monitoring of pollution and resp. diseases
- make research easier with a central info hub

Characteristics:

- low budget
- possibility for extension later on

Content: Very research-focused

- internal contact list of experts
- more sensitive and higher resolution data
- list of publications

KNOW YOUR USER

- Different users call for different products / platforms

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- **User-first design**
 - *Who is your user?*
 - *What do they need?*
 - ***How do I solve their problem?***
- Especially relevant in a **One Health approach**
 - *Variety of sectors and users working together or using the same platforms*

KNOW YOUR USER

- Different users call for different products / platforms
- **User-first design**
 - *Who is your user?*
 - *What do they need?*
 - ***How do I solve their problem?***
- Especially relevant in a **One Health approach**
 - *Variety of sectors and users working together or using the same platforms*
- Create **user personas** to guide your design (based on the previous step)

KNOW YOUR USER



Maya, 28yo
Young Mother

Wants to provide the safest environment for herself and her child + no specific scientific education

Project A

Content ideas:

- emergency number
- blog articles for prevention
- indoor air pollution information
- real-time air pollution map

KNOW YOUR USER



Maya, 28yo
Young Mother

Wants to provide the safest environment for herself and her child + no specific scientific education



Sophie, 31yo
High School Science Teacher

Wants to create a fun project for her student + interested in citizen science

Project A

Content ideas:

- emergency number
- blog articles for prevention
- indoor air pollution information
- real-time air pollution map
- **educational posters for class**
- **link to citizen science program**

KNOW YOUR USER

Project A



Maya, 28yo
Young Mother

Wants to provide the safest environment for herself and her child + no specific scientific education



Sophie, 31yo
High School Science Teacher

Wants to create a fun project for her student + interested in citizen science



Jan, 63yo
General Practitioner

Curious about respiratory diseases + wants to give good advices to his patients + not very good with tech

Content ideas:

- emergency number
- blog articles for prevention
- indoor air pollution information
- real-time air pollution map
- educational posters for class
- link to citizen science program
- **more advanced learning material and scientific graphs (yearly death graph)**

KNOW YOUR USER



Marie, 35yo
Public Health Research.

Wants detailed data
analyses on health and
pollution + a central
platform with all up-to-
date info

Project B

Content ideas:

- weekly updated graph for nb of hospitalisations and deaths
- detailed info on the statistics and models used
- contact list of experts
- list of sci. publications

KNOW YOUR USER



Marie, 35yo
Public Health Research.

Wants detailed data analyses on health and pollution + a central platform with all up-to-date info



Arthur, 37yo
Meteorologist

Wants an easy but detailed monitoring of air pollution + doesn't know much about health science

Project B

Content ideas:

- weekly updated graph for nb of hospitalisations and deaths
- detailed info on the statistics and models used
- contact list of experts
- list of sci. publications
- **real-time air pollution map**
- **downloadable historic tables**
- **general learning pages**

KNOW YOUR USER

Project B



Marie, 35yo
Public Health Research.

Wants detailed data analyses on health and pollution + a central platform with all up-to-date info



Arthur, 37yo
Meteorologist

Wants an easy but detailed monitoring of air pollution + doesn't know much about health science



Jakob, 40yo
Ministry of Health Official

Wants to be able to alert the press and population quickly when there is a risk + has zero time

Content ideas:

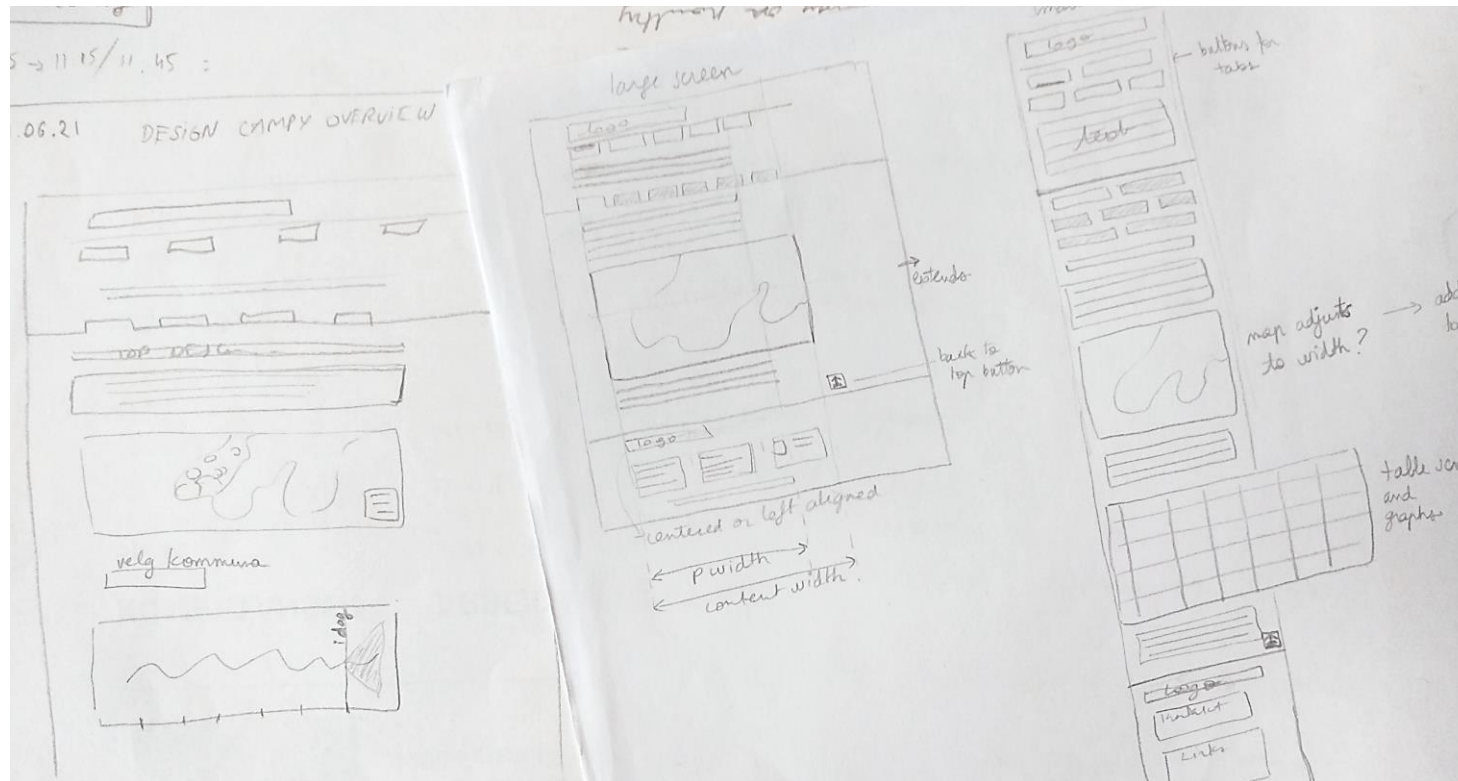
- weekly updated graph for nb of hospitalisations and deaths
- detailed info on the statistics and models used
- contact list of experts
- list of sci. publications
- real-time air pollution map
- downloadable historic tables
- general learning pages
- **very clear alert system**
- **downloadable graphs for the press**

DESIGN THE WEBSITE

- How to **structure your content** in the most efficient way? What is the easiest way for the user to access the information they seek?
 - *Which type of content?*
 - *Photos, graphs, tables, texts, videos...*
 - *In which order?*
 - *Which layout?*
 - *Single page, multiple tabs, sidebar, top navigation menu...*

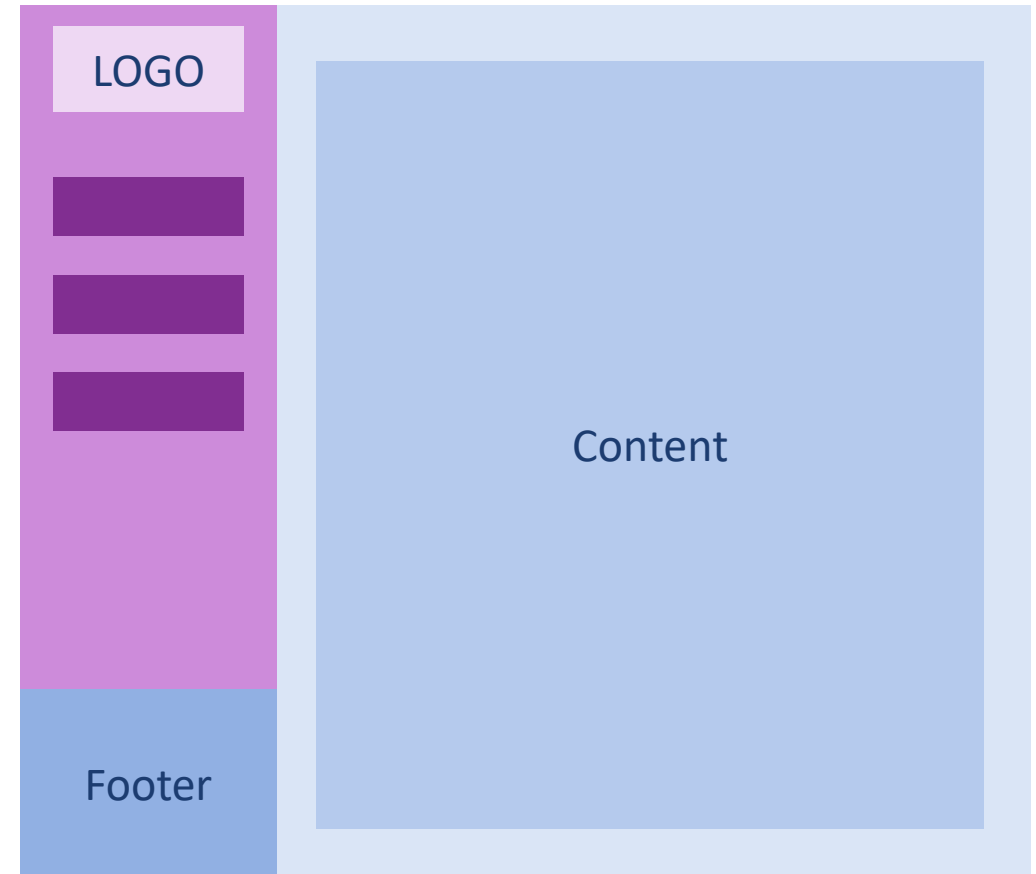
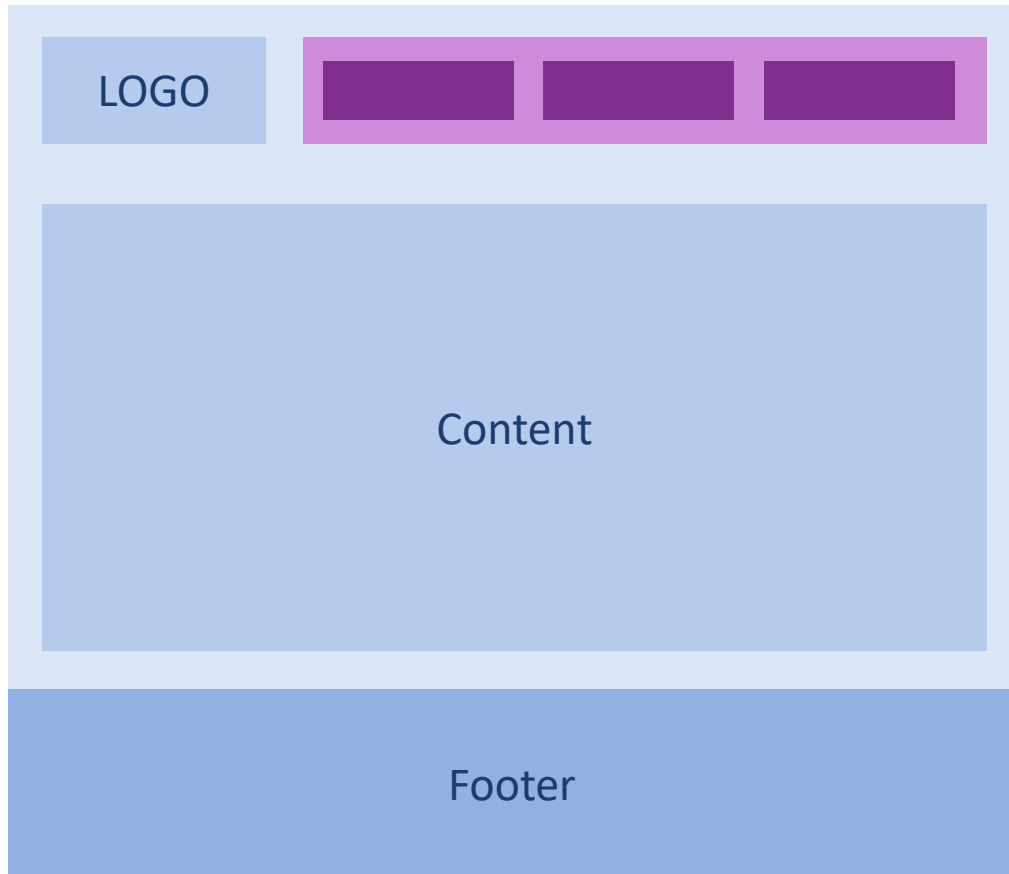
DESIGN THE WEBSITE

- **Wireframing** = designing the **flow of content** without the distraction of colour, images, details...



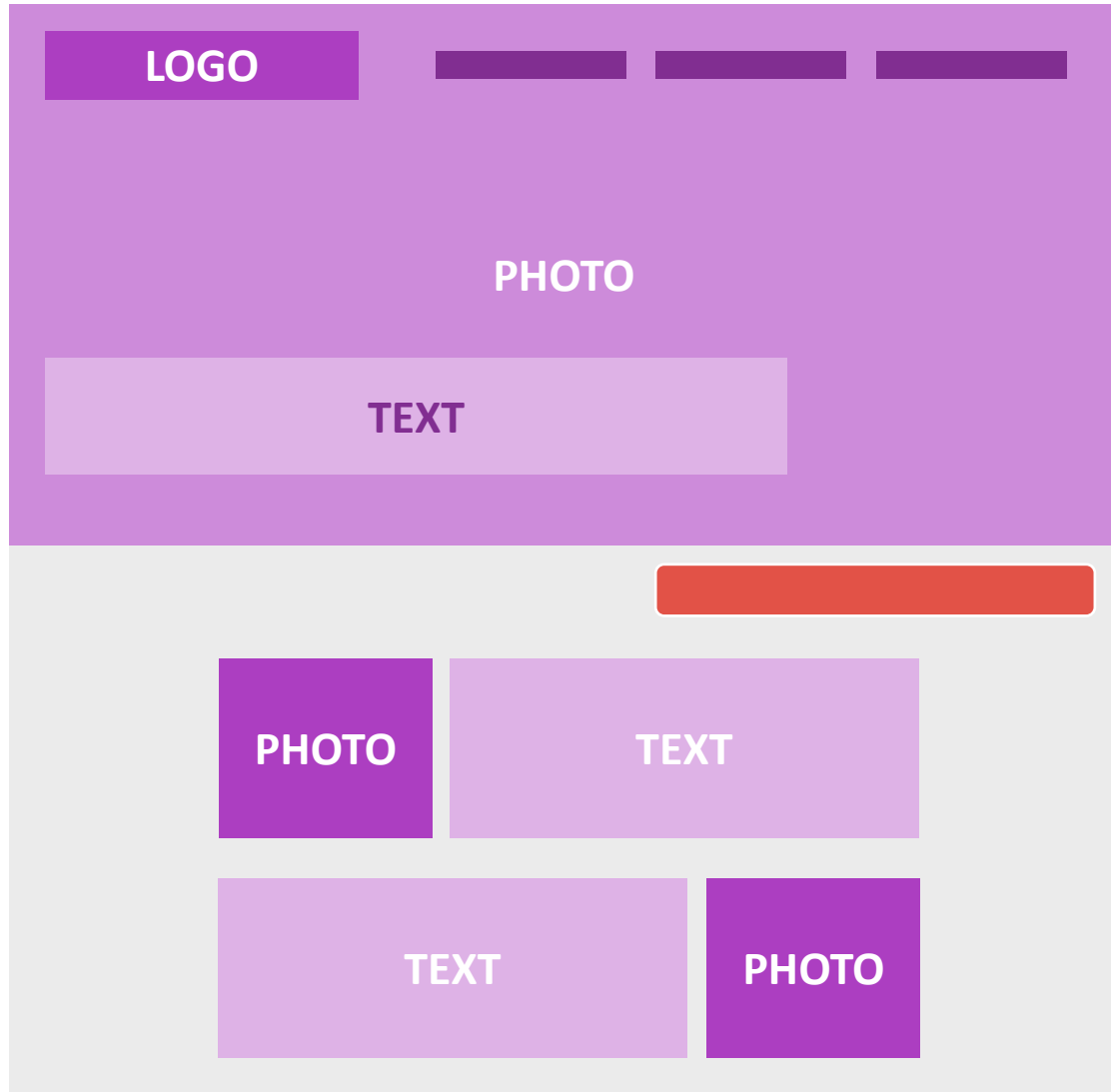
DESIGN THE WEBSITE

- You can be creative, but **don't try to be original** – people have expectations on how to navigate a website

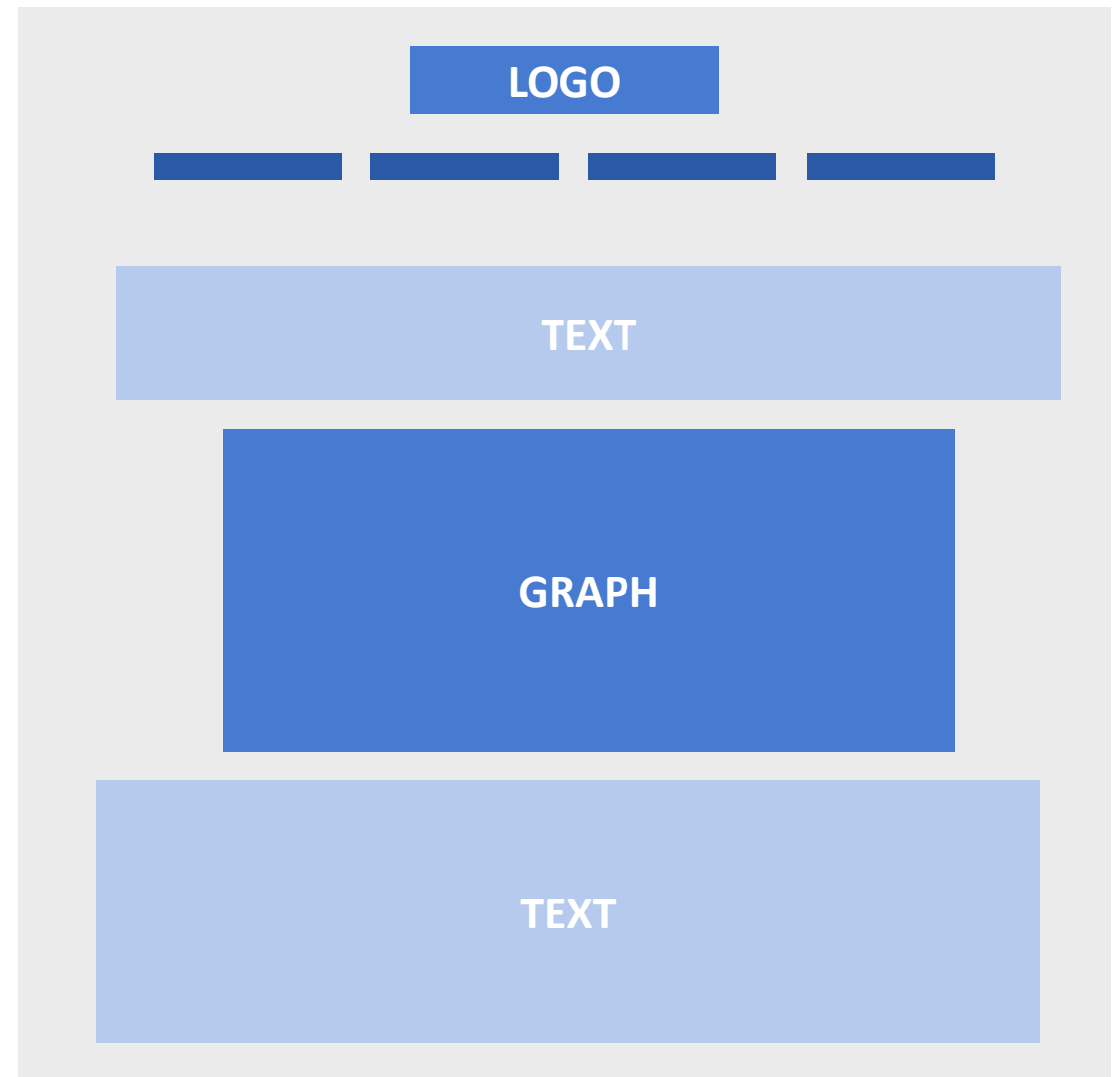


DESIGN THE WEBSITE

Project A



Project B



WEB DEVELOPMENT

- No time to get into this today 😊

PLATFORM MATRIX

Technology \ Output	Static webpage	Online “web app”
Software environment	<ul style="list-style-type: none">• E.g. notebooks (Rmarkdown, Jupyter, ...)• Integrated data	<ul style="list-style-type: none">• E.g. PowerBI, ArcGIS, Google Analytics...• Easy to use but less control
Self-written code	<ul style="list-style-type: none">• HTML, CSS, JavaScript• Independent (but static) data	<ul style="list-style-type: none">• E.g. RShiny or HTML/JS frontend + server backend• Full control, steepest learning curve

VISUAL DESIGN

- Once your content flows well, visual design helps the users **find the information easily**
 - *gives the impression of higher usability*

example:
Sykdomspulsen with or without CSS

VISUAL DESIGN

- Once your content flows well, visual design helps the users **find the information easily**
 - *gives the impression of higher usability*
- Fundamentals of design
 - *Hierarchy, white space, contrast, repetition, balance, alignment, ...*
- Tools of visual design
 - *typography, colours, shapes, composition...*

FONTS

- Font family



Aa

The image shows the letters 'A' and 'a' in a serif font. Red circles are drawn around the small horizontal lines (serifs) at the bottom of the letters to highlight their presence.

SERIF

traditional, reliable, printed



Aa

The image shows the letters 'A' and 'a' in a sans serif font, which lacks the small horizontal lines (serifs) seen in the first example.

SANS SERIF

contemporary, clean, digital



Aa

The image shows the letters 'A' and 'a' in a monospace font, where the letters are spaced evenly and have a distinct, blocky appearance.

MONOSPACE

*technical, old-school,
code on screen*

- Mix across font families, not within (**or don't mix at all**)

FONTS

- Font Hierarchy – lead the eye with **font size** and **font weight**

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Cupidatat non proident

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NEGATIVE SPACE

- Allows some breathing room and **better processing of information**

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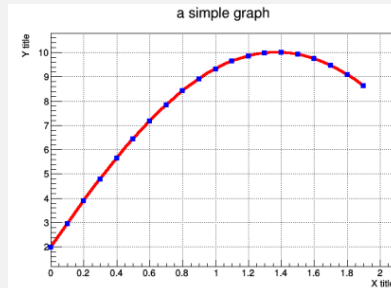
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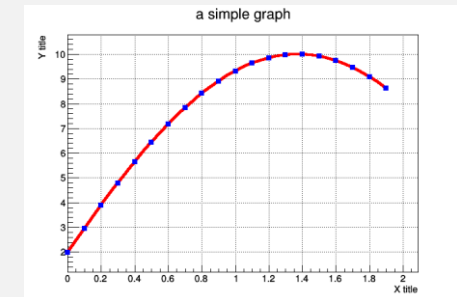
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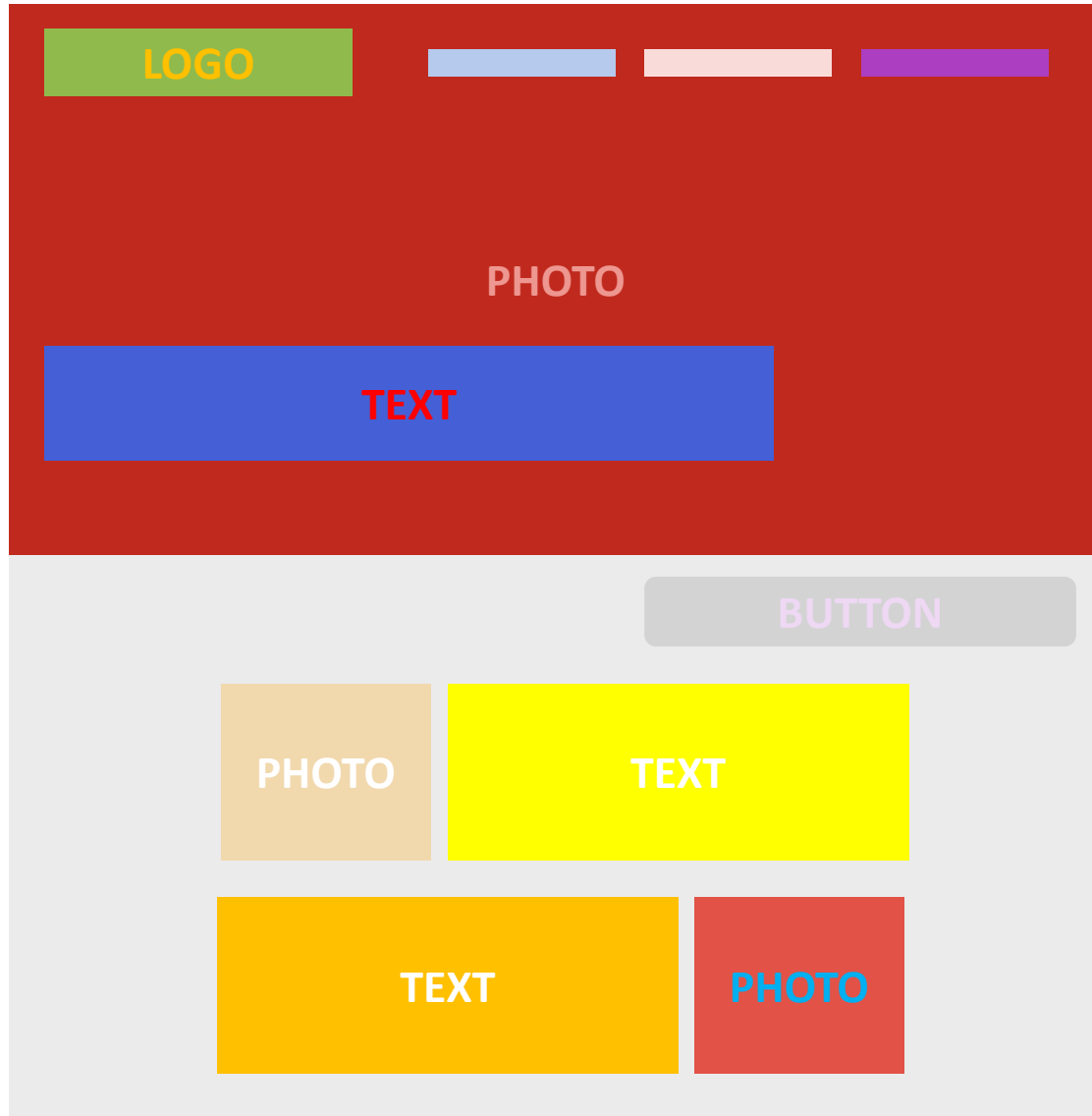
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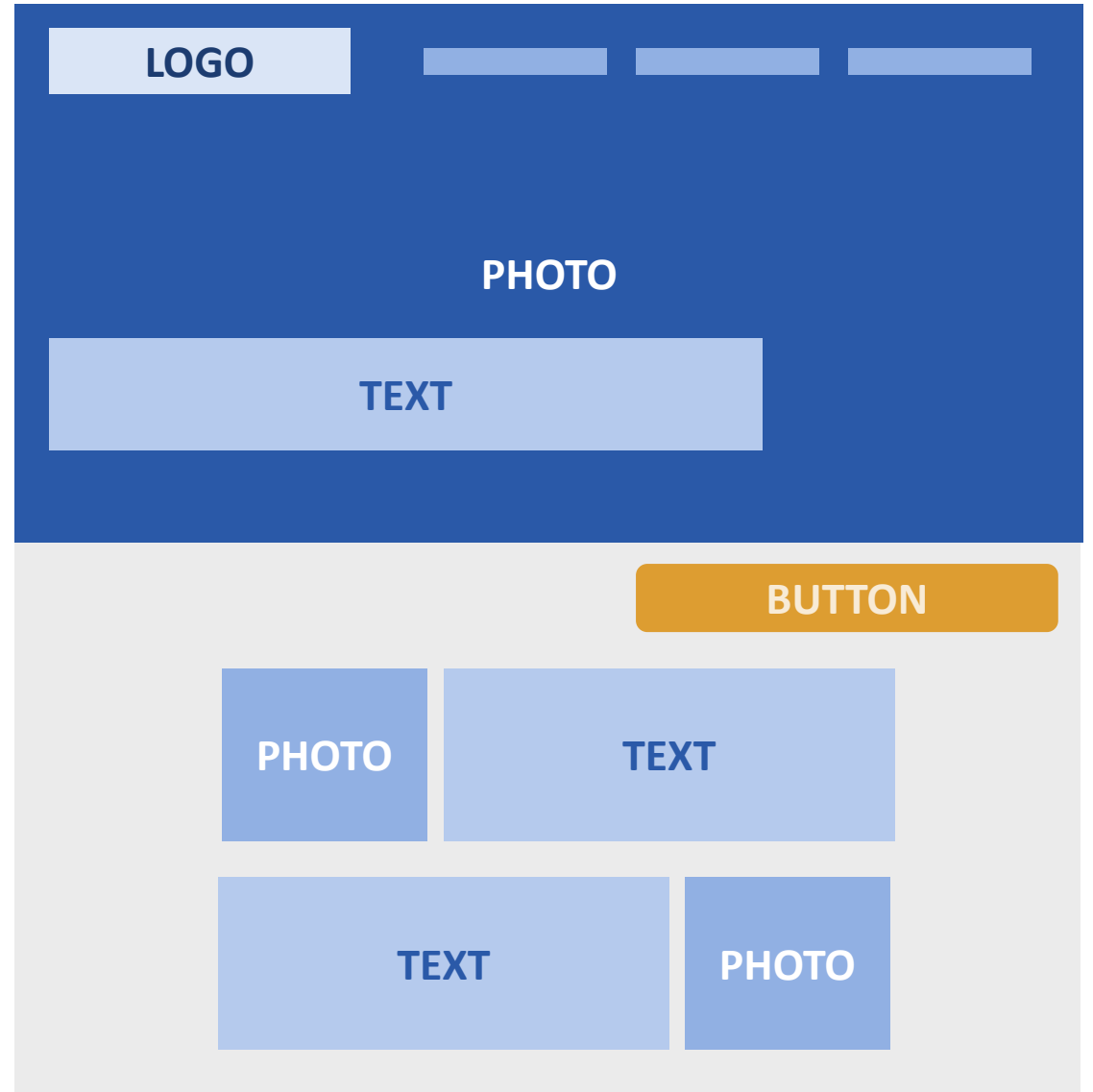
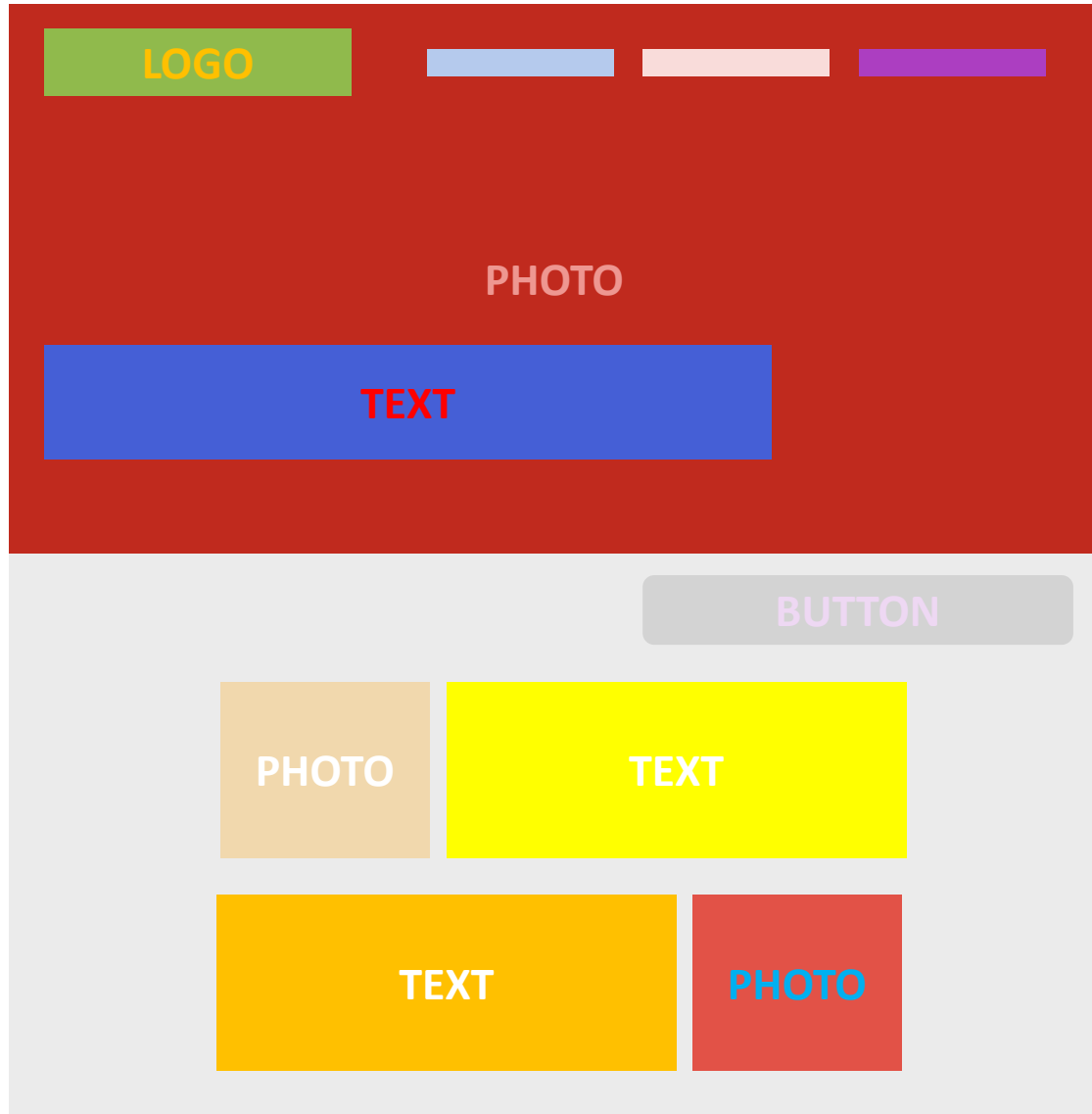
COLOURS

- A good colour palette enhances the user's experience
 - *Creates implicit rules*
 - *Leads the eye to areas of interest*
 - *Creates consistency with your institution and other communication media*
- **Stay consistent!**
- Keep in mind visually impaired users
 - <https://colors.co/contrast-checker/000000-ffffff>

COLOURS

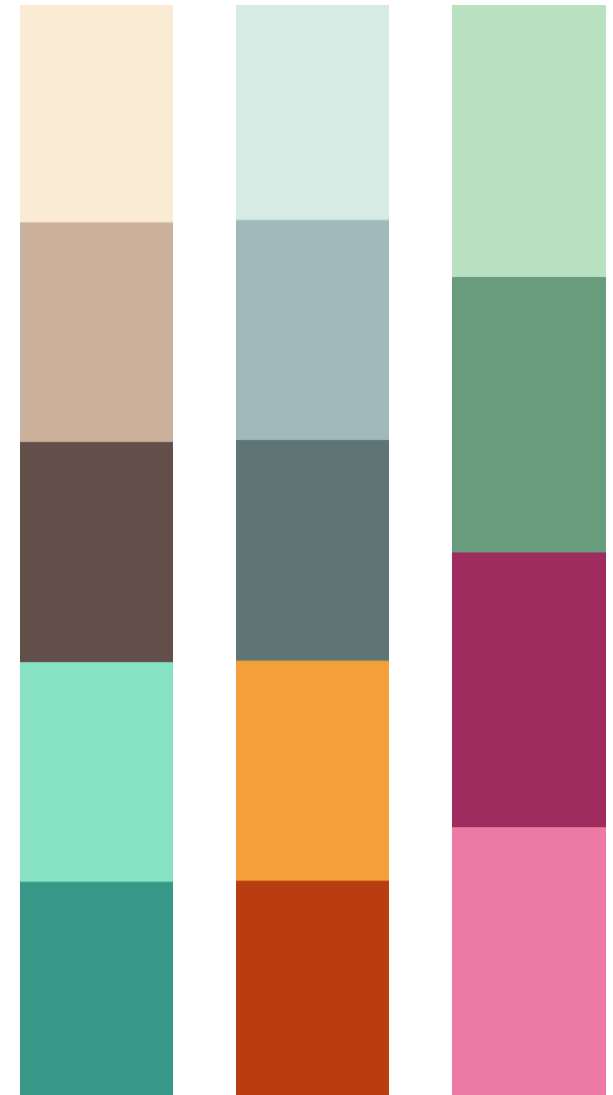


COLOURS



BASIC PALETTE IDEA

- Background colour
 - *White + 2-3 shades of a neutral colour (beige, grey, blue...)*
 - *Optional 1 contrasting colour for decoration*
- Text colour
 - *Black, white, dark version of the main background colour*
- Accent colour (for buttons, links, important elements...)
 - *Pop of colour*
 - *1-2 shades*
- <https://colors.co/generate>



TAKE HOME MESSAGE

Think User-First !!

