# Interactive Swiss Sustainability Map - Milestone 2

Initial website: https://com-480-data-visualization.github.io/datavis-project-2022-mng/

**Project Goal Description:**

The MVP of the project will consist of a website with a single interactive map and 3 bar charts nearby that will automatically update with data according to selected geographical regions.

The bar charts will display the following data: renewable heating share (share of buildings with renewable heat technologies), electric car ownership (share of electric cars) and solar potential usage (share of roof area that is economically and technologically exploitable that already has solar panels installed).

Initially, the website will provide a view of all of Switzerland with only country wide statistics displayed (Figure 1). While hovering over the map canton names and outlines will be shown. Once a canton is selected a zoom animation onto the canton will play and canton specific statistics will be shown alongside the country wide ones (Figure 2). A percentage comparison will also be shown to give users an idea of how well that region is performing compared to the rest.

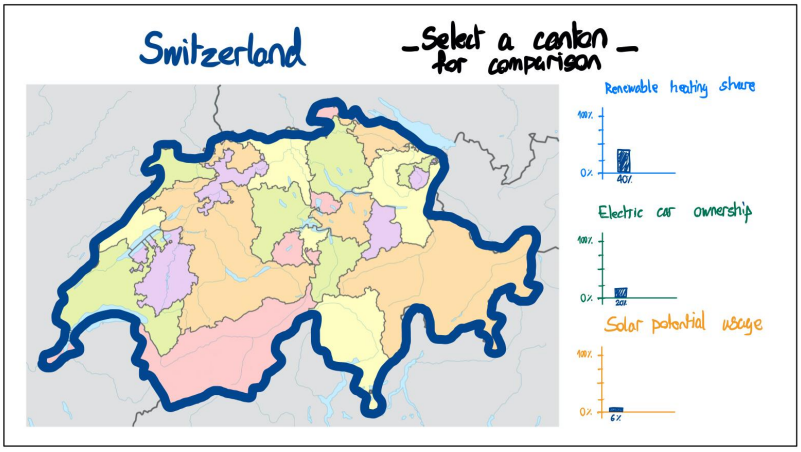


*Figure 1. MVP - Default View*

Hopefully, if one sees their canton is behind it will encourage them to contribute themselves and otherwise one can be proud of his region while understanding that more progress is still necessary.

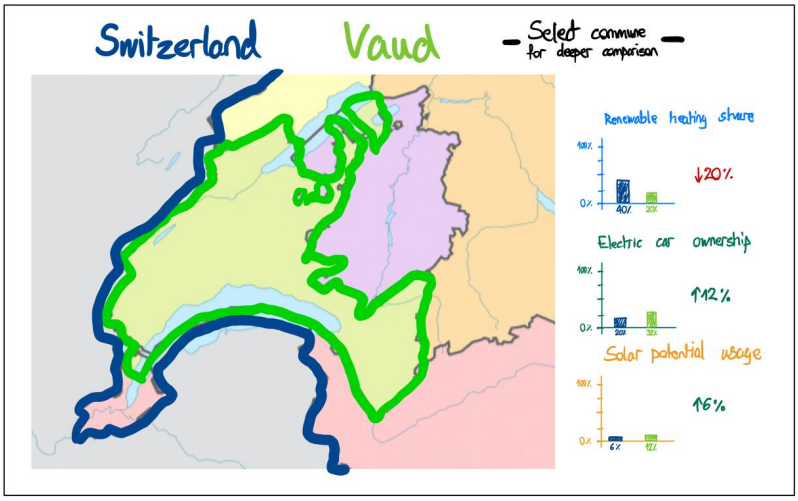


*Figure 2. MVP - Selected Canton View*

**Extensions:**

We intend to attempt to implement 2 extensions.

The first will be the functionality to further zoom onto a commune and see a canton vs commune comparison, giving the user a more fine grained view (Figure 3). The statistics update and are displayed on the same charts as in the MVP.

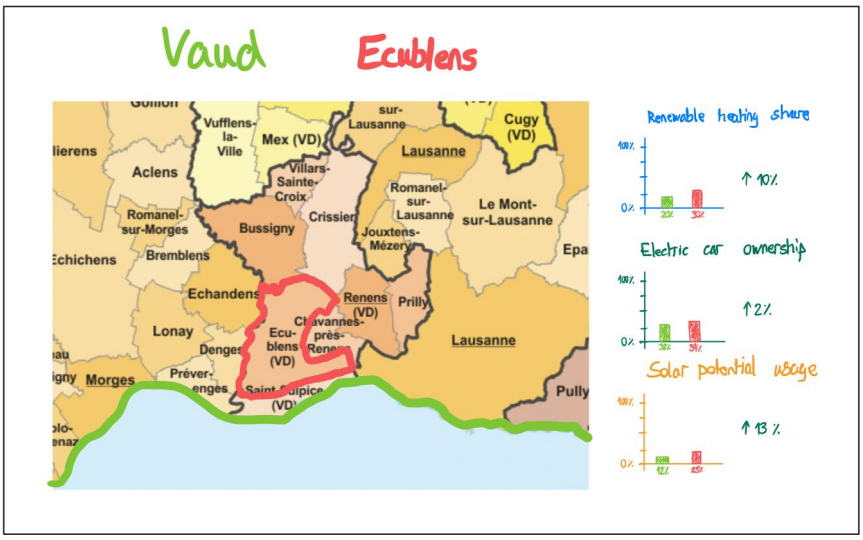


*Figure 3. Extension - Commune Zoom*

The second extension will consist of displaying a time series for all 3 metrics (Figure 4). Users will be able to drag a slider at the bottom of the time series to examine specific dates. This should give users an idea of how the adoption of sustainable technologies are progressing over time.

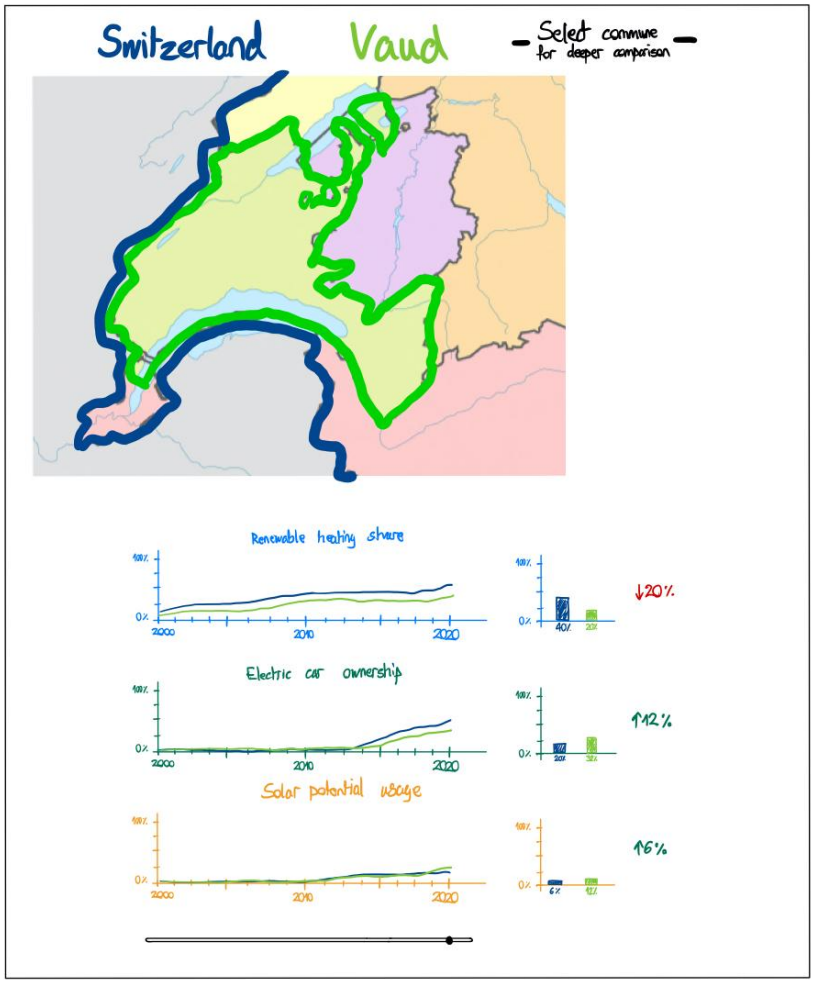


*Figure 4. Extension - Time Series (with slider)*

## Tools for each visualization:

Table 1 summarizes what toosl we will use for each visualization and which lectures we need.

| Visualization | Tools | Reference Lectures |
|---|---|---|
| Drawing of the map and it's interactive tools (display canton names while hovering over data and zoom animations) | d3.js | Lecture 8: Maps, Lecture 5: Interaction and more interactive d3 |
| Bar charts | d3.js | Lecture 5: Interaction and more interactive d3 |
| Time series plots | d3.js | Lecture 5: Interaction and more interactive d3 |

*Table 1. Tools required for each visualization*