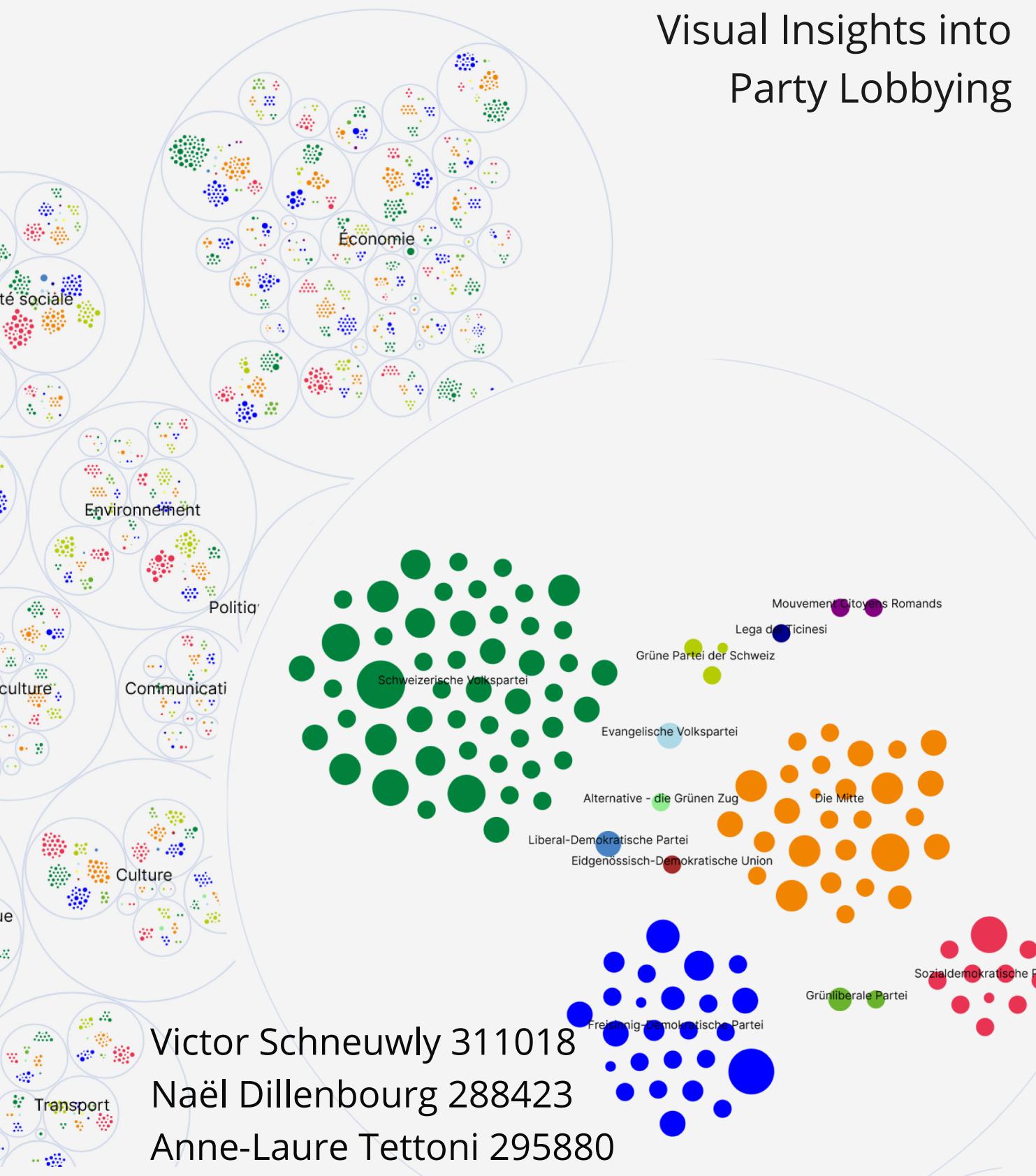


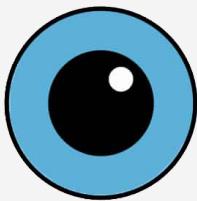
Data Visualization Process book

Political Spheres:
Visual Insights into
Party Lobbying



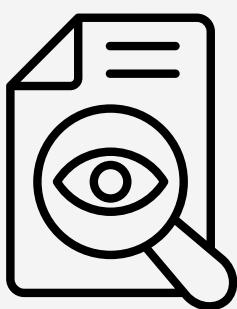
Introduction:

In the Swiss **political landscape**, understanding the **complex influences** of lobbies is crucial for encouraging **transparency** and informed **citizenship**. This project introduces a **visualization platform**, utilizing data sourced from **Lobbywatch**, that maps the lobbying efforts and affiliations of Swiss parliamentarians. Our tool, "*Political Spheres: Visual Insights into Party Lobbying*," leverages a dataset comprising over **48,000 entries** detailing connections between politicians and various interest groups: from large corporations to small non-profits.



lobbywatch.ch
Plattform für transparente Politik
Plateforme pour une politique transparente

The primary objective of this platform is to provide a **clear**, **engaging**, and **interactive** visual representation of how political parties and their members engage with different causes and **what's in it for them**. By doing so, we aim to discover **global trends** in lobbying groups and better understand the processes of political influence and advocacy, making this information **accessible** and comprehensible. This process book details the development of the visualization tool, the challenges encountered during the data integration process, and the insights gained from the development of this interactive visualization.



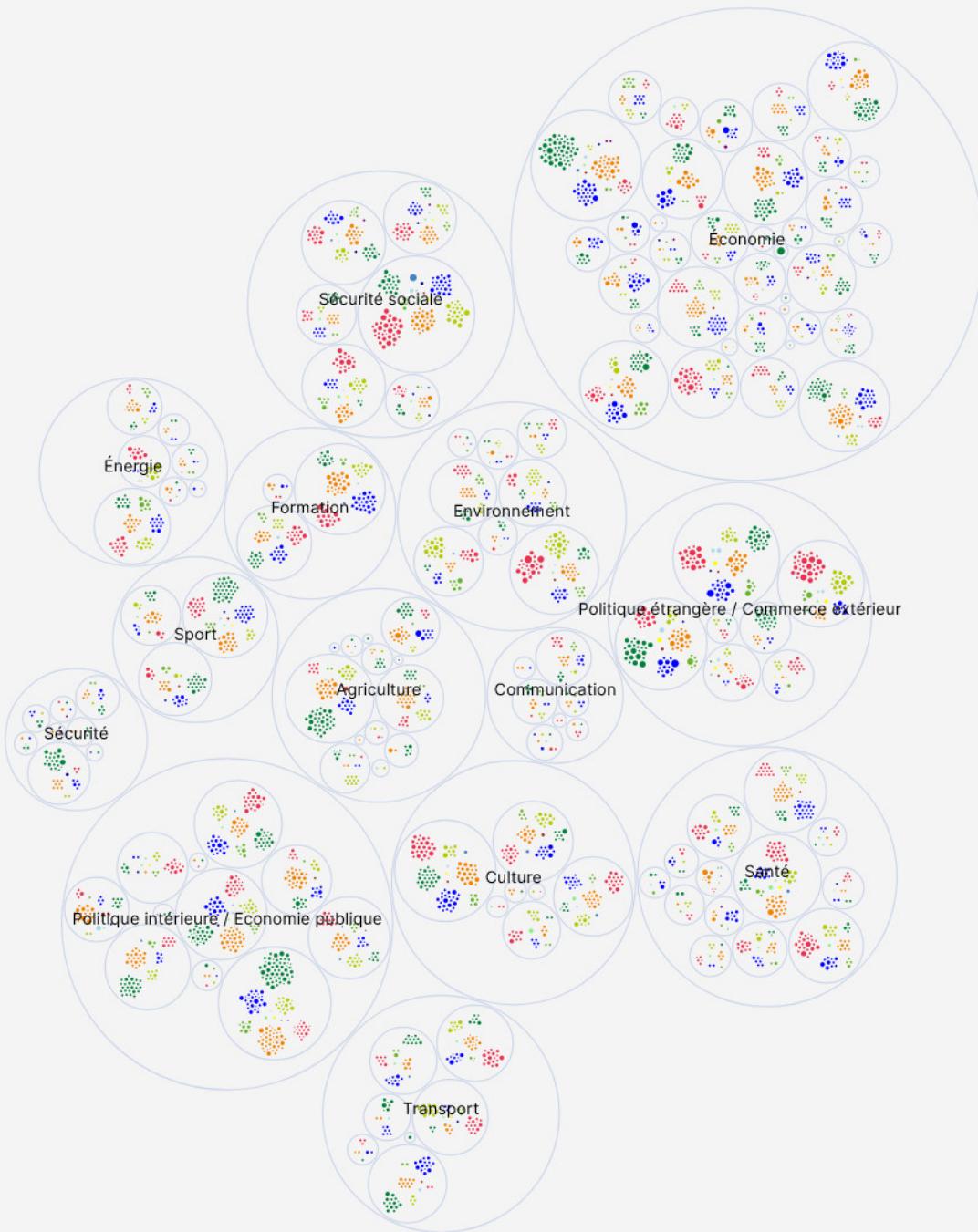
Through the use of a web-based interactive visualization, this project not only suggest an **engaging way** for public understanding of political lobbying but also contributes to the broader discourse on **political transparency** in Switzerland. By making complex data **approachable** and visually **intuitive**, we empower users to explore and analyze the political landscape, potentially leading to more informed discussions and decisions in the realm of public policy.

Path:



Most tools used to visualize how parliament members are influenced focus on the **individual level**. We wished to develop a tool that helps understand **trends in party affiliations** with different lobbies.

For this, we looked at **datasets available** on the internet and already knew about the one made by **Lobbywatch**. We spent some time doing the first data analysis to understand what **useful information** we could extract from the dataset.



We were also looking into adding another dataset to **supplement the pieces** of information at our disposal. Either by adding a **French dataset** to enable comparison to another country's parliamentary lobby influence, or using the Swiss open data dataset on **political funding**.

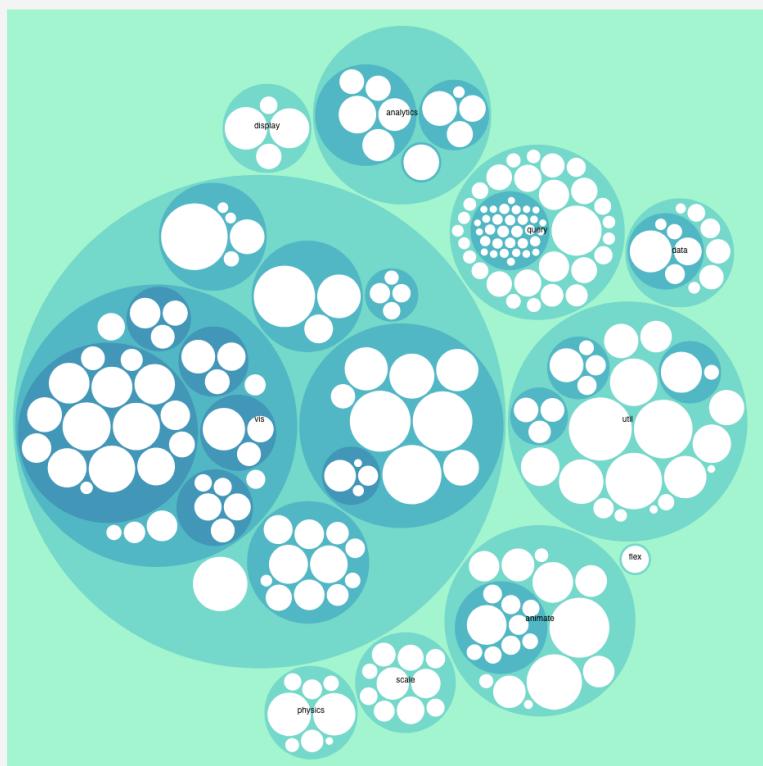
This however proved to **not be necessary** as we deemed to have extracted enough information from the lobbywatch dataset to create informative visualizations.

First sketches and ideas :

We were inspired by this visualization :

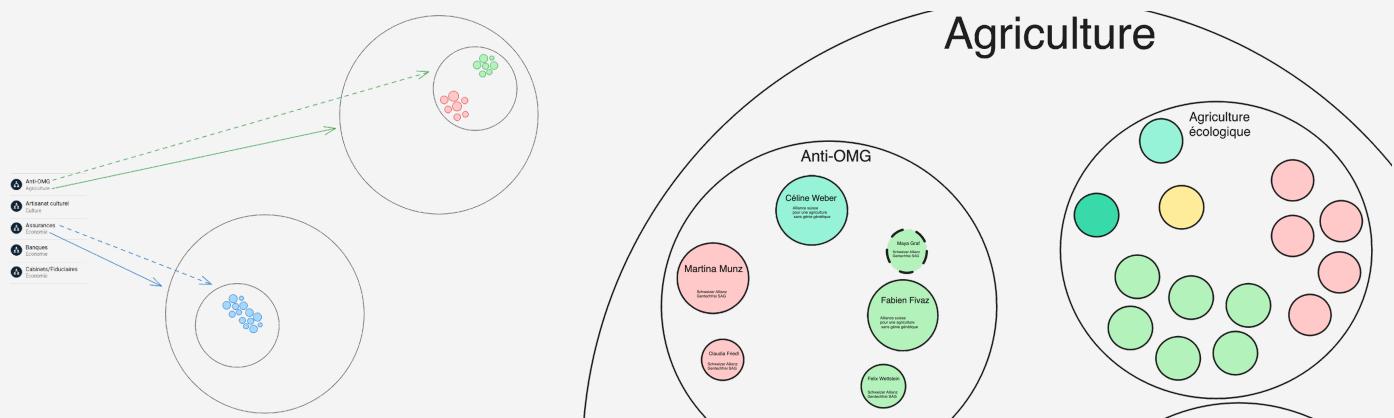
Zoomable circle packing

Click to zoom in or out.



The next decision to make was which circles should represent which data.

Here are the first sketches we created of the data, keeping this inspiration in mind :

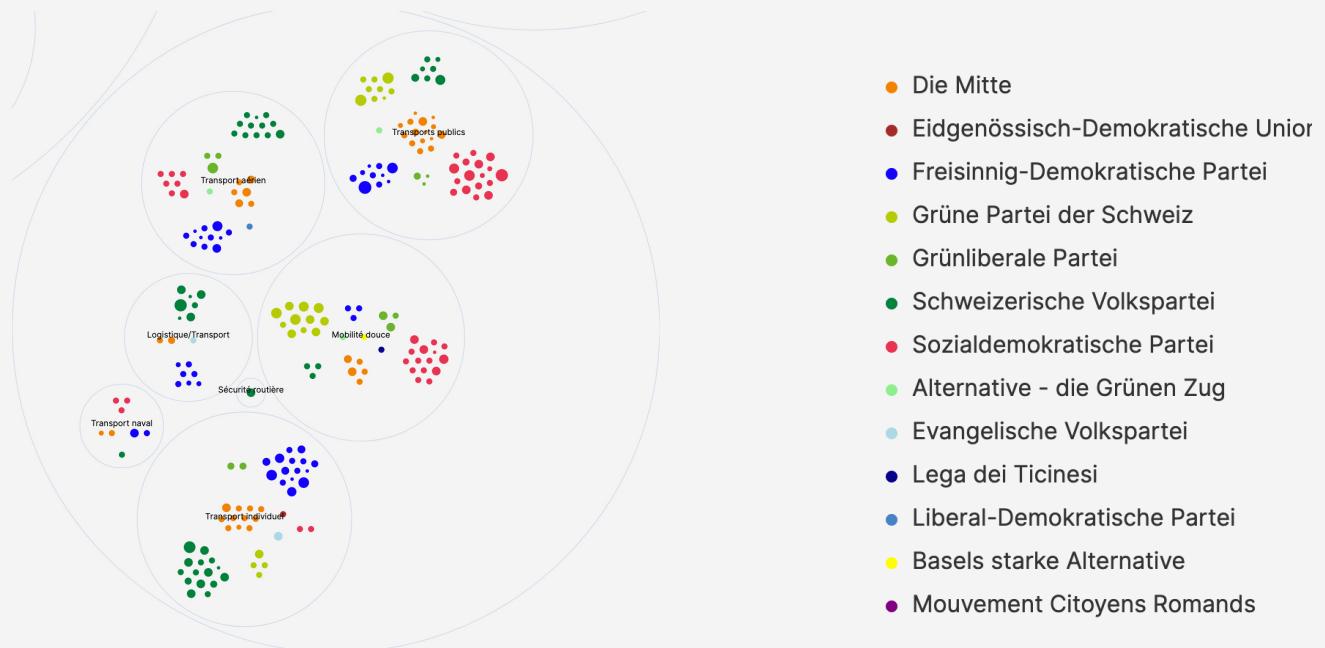


We decided we wanted to have the **biggest circles** representing the **main category** of the data, the smaller circle representing the sub-category and inside group the parliamentarians that are related to this sub-category by party. This fit well our desire to have a **global** view. First we wanted to have different outlines (dashed, continuous) if the person was invited to parliament or an elected official.

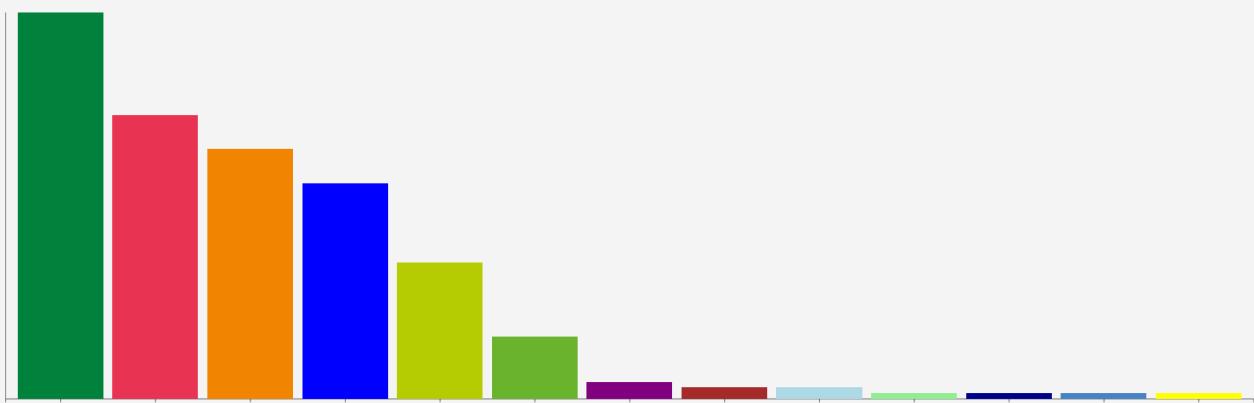
However, in the end, we decided to keep only parliamentarians and create a second visualization for the people invited.

The idea that the size of the circle represents the effectiveness of the person was kept.

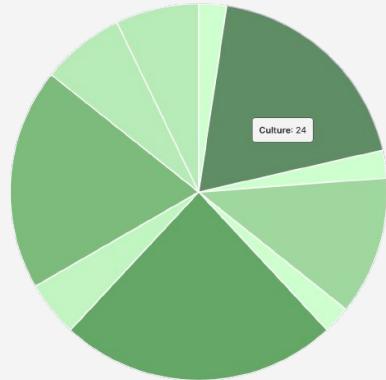
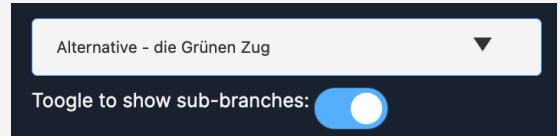
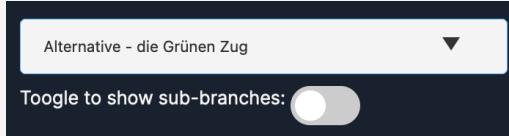
The main **challenge** was selecting the information **we wish to display**. What information to aggregate and how to represent the information at the individual level while keeping the big picture. We found that having these circles as described above fits our needs. How to show who is paid for their commitment was a big question, and in the end it was solved by adding a tooltip.



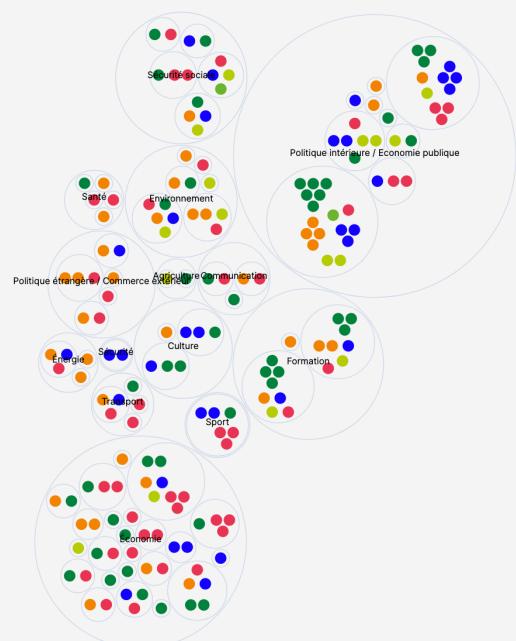
To complete our visualization, we added a **caption** with the colors associated with each party on the right of the visualization, as well as an **interactive histogram** that represents the percentage of each party across all lobbies.



We also added an **interactive pie chart** to see in which category each party is most active. This pie chart changes in function of the bar we click on. It is also possible to search by party and activate a toggle bar to show by sub category involvement instead of by category.



Each parliamentary has the right to **invite two people** who can, for a limited time, access non-public parts of parliament. The second visualization shows these people and the groups of interest they are affiliated to.



On the circles representing the people, a tooltip was added to explain which group(s) of interest the person is affiliated to and which year they were paid for their commitment.



Peer assessment:

Victor:

Creating the code for the project meant first **adapting** our inspiration to our dataset to create a beautiful visualization. This implied understanding the data and **implementing the interactive parts of the visualization**. The histogram and pie chart were created to help the understanding of the data and create a complete experience.



The question to use one or many JSON files was raised, but in the end only one was necessary per main visualization. From the first visualization, the second one with invited people was created.



Anne-Laure:

Experimenting with **sketches**, on paper as well as digitally, to decide how to represent the data in the circles was a necessary first step. To complement the data, a **tooltip** was added to give more information about each parliamentary. The tooltip solves the problem of how to represent the monetary involvement of each elected official.

The **screencast** shows how to interact with the visualization. The **data story** and explanation were written to give more information about the process and the visualization.

Naël:

Initial data exploration was necessary to understand the key elements of this dataset. This included finding the **best form** and the **most complete** dataset that Lobbywatch had to offer, and handling automatic downloading and extraction of the files.



The question of building a database and to query the data using SQL was shortly put under consideration, but the amount of data stored in this dataset does not necessitate the use of a more complex system. We ended up using a JSON file and handling the data in this format.

Once we got a solid understanding of the dataset utilizing the data model provided by lobbywatch, we were able to start the **preprocessing, transformation** and **aggregation** of the data to a size and shape that would fit the needs of our visualization. This also meant only extracting the **necessary data** to avoid reading a large dataset and **hurting the performance**.

Conclusion:



The "*Political Spheres: Visual Insights into Party Lobbying*" platform represents a new opportunity to **better understand** and **enhance the transparency** of political lobbying in Switzerland. By utilizing a dataset from Lobbywatch, we believe that this project has the potential to successfully **translate complex political relationships into a clear and accessible visual format**. The interactive circles effectively highlight the extent of **party** and **individual** politician involvement in various causes, allowing users to **discern patterns of political advocacy** with clarity.

Looking forward, there are **several opportunities** for enhancement. Expanding the dataset to include historical data could provide insights into trends over time, while incorporating additional variables might offer **deeper analyses** of the impact of political lobbying. Furthermore, developing personalized user interaction features, such as customizable filters and alerts for new data, could increase the platform's utility and user engagement.

Source:

LobbyWatch logo. Dinacon. <https://awards.dinacon.ch/awards/lobbywatch-ch/>
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Inspiration for visualization : <https://observablehq.com/@d3/zoomable-circle-packing?intent=fork>

About parliament : <https://www.parlament.ch/fr/%C3%BCber-das-parlament/parlamentsw%C3%B6rterbuch/parlamentsw%C3%B6rterbuch-detail?WordId=482>