

Data Visualization

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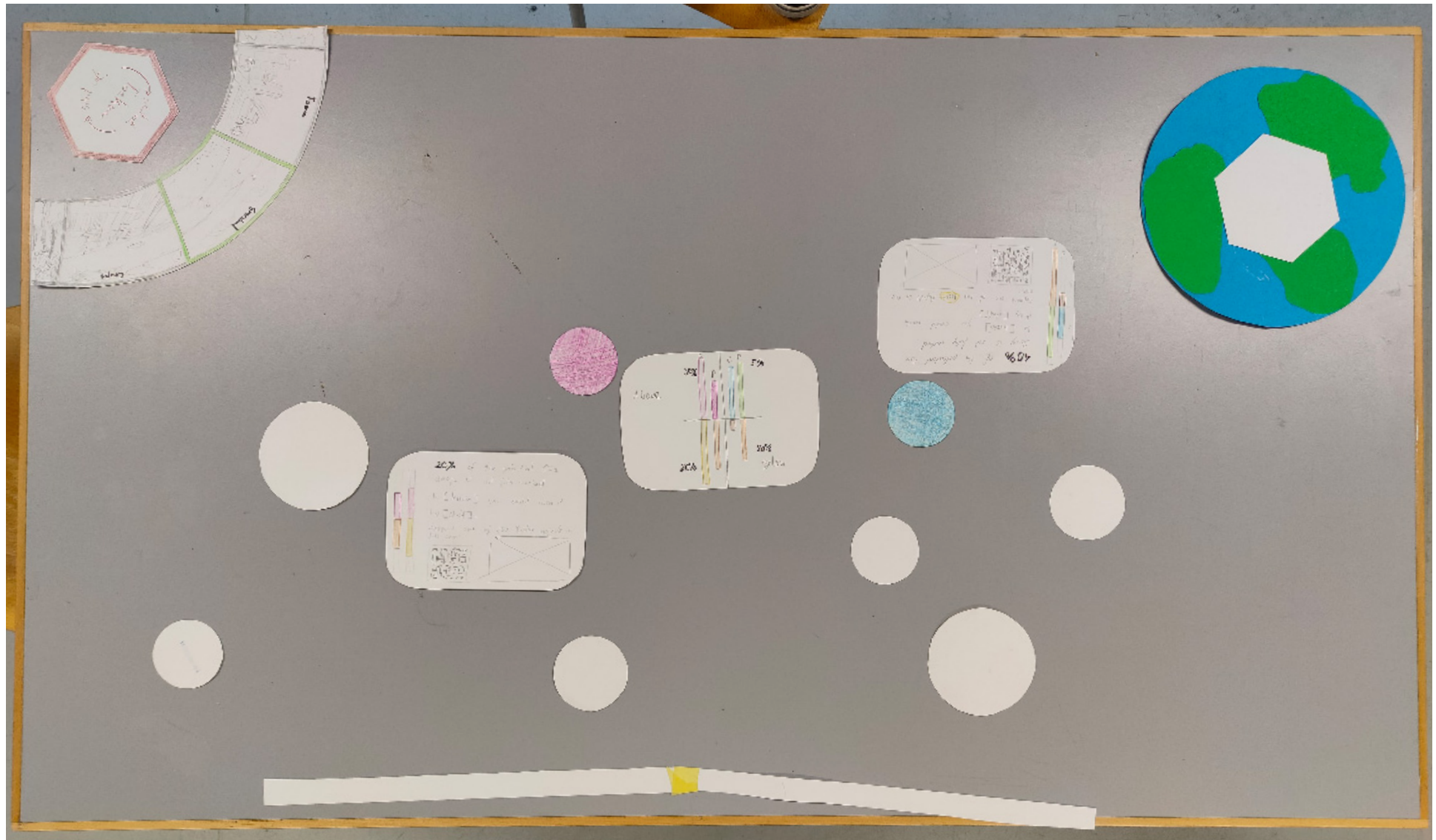
Introduction

Humans have exploited the earth's CO₂ cycle for their own gain. Now we are all experiencing slowly the first consequences.

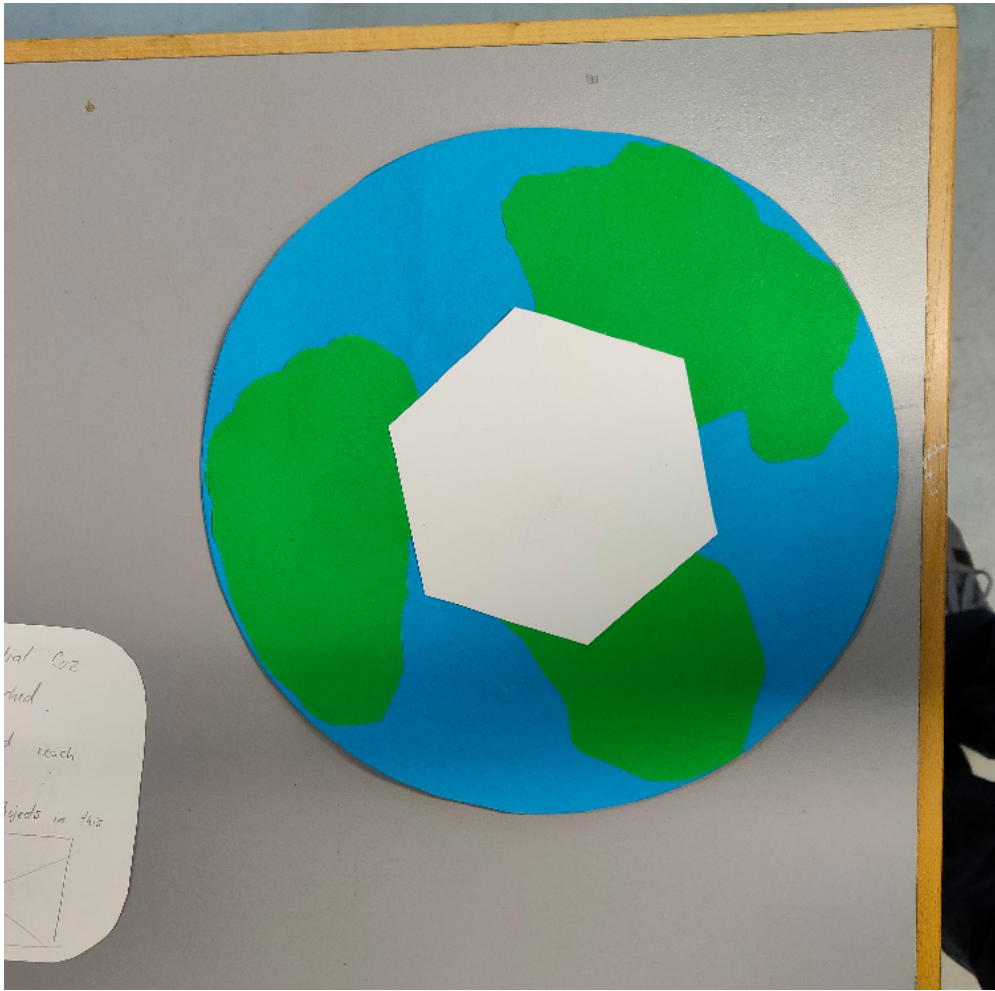
In recent years researchers have discovered how we could use CO₂ storage in the ground in plants to restore a part of the balance of the CO₂ in our atmosphere. This project aims to visualize the data that supports this claim and creates an interactive experience for the FocusTerra exhibition. The data and the development is supported with the collaboration with the Crowther Lab of ETH.



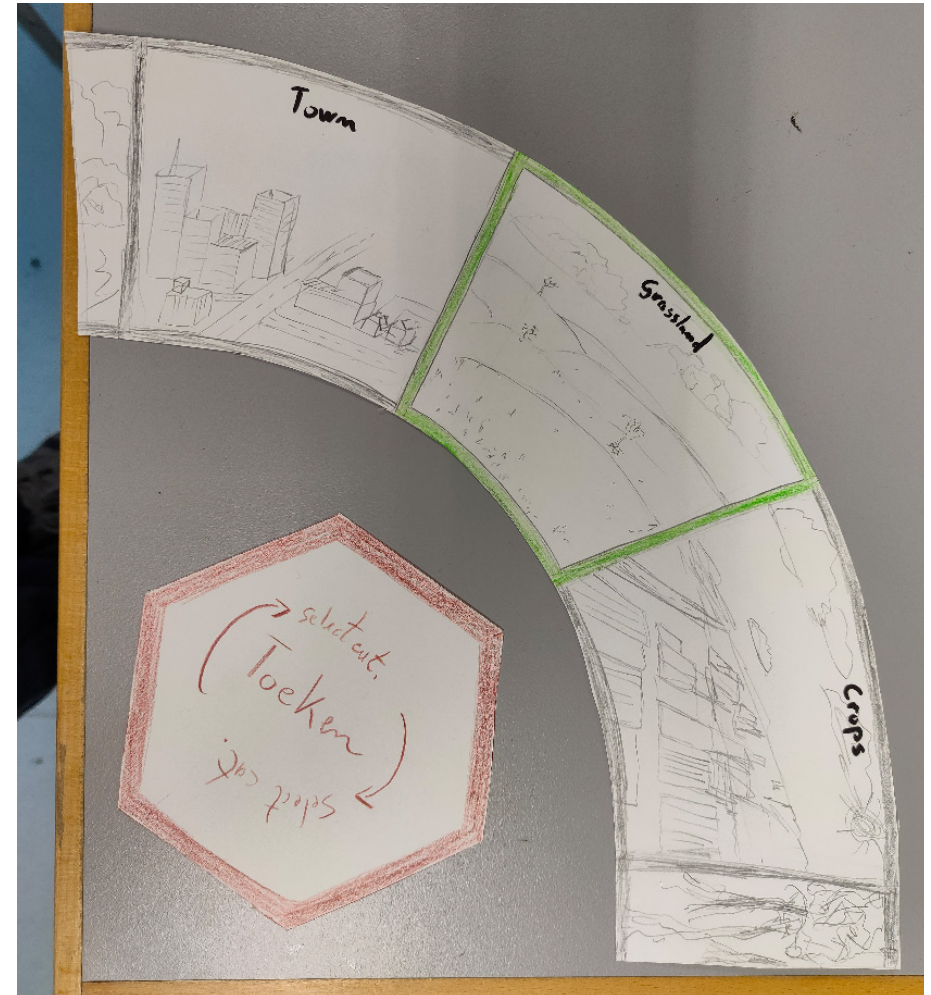
First ideas



Paper prototype with information bubbles and selection wheel



Globe to select a continent...



Land selection...

Concept

On the main screen, the user is presented with a global screen, which contains data-bubbles, showing information about the CO2 storage in the earth at different land covers and places.

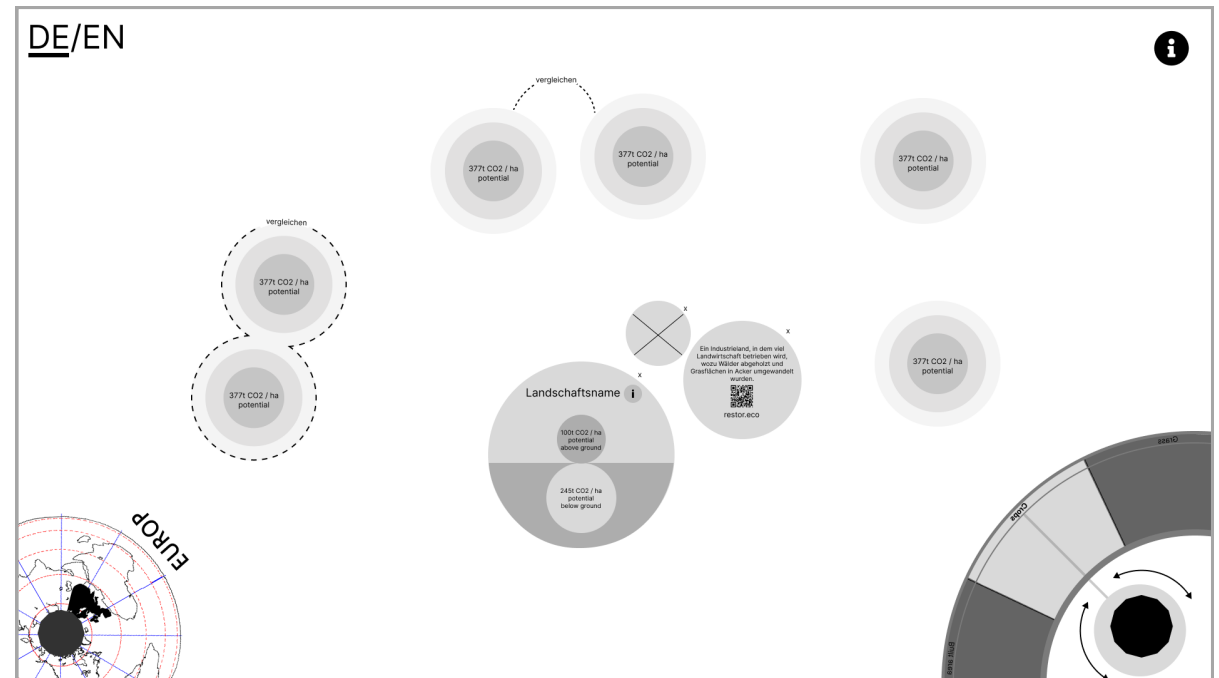
By using the selection wheel or the globe, the user should be able to select land cover and a continent.



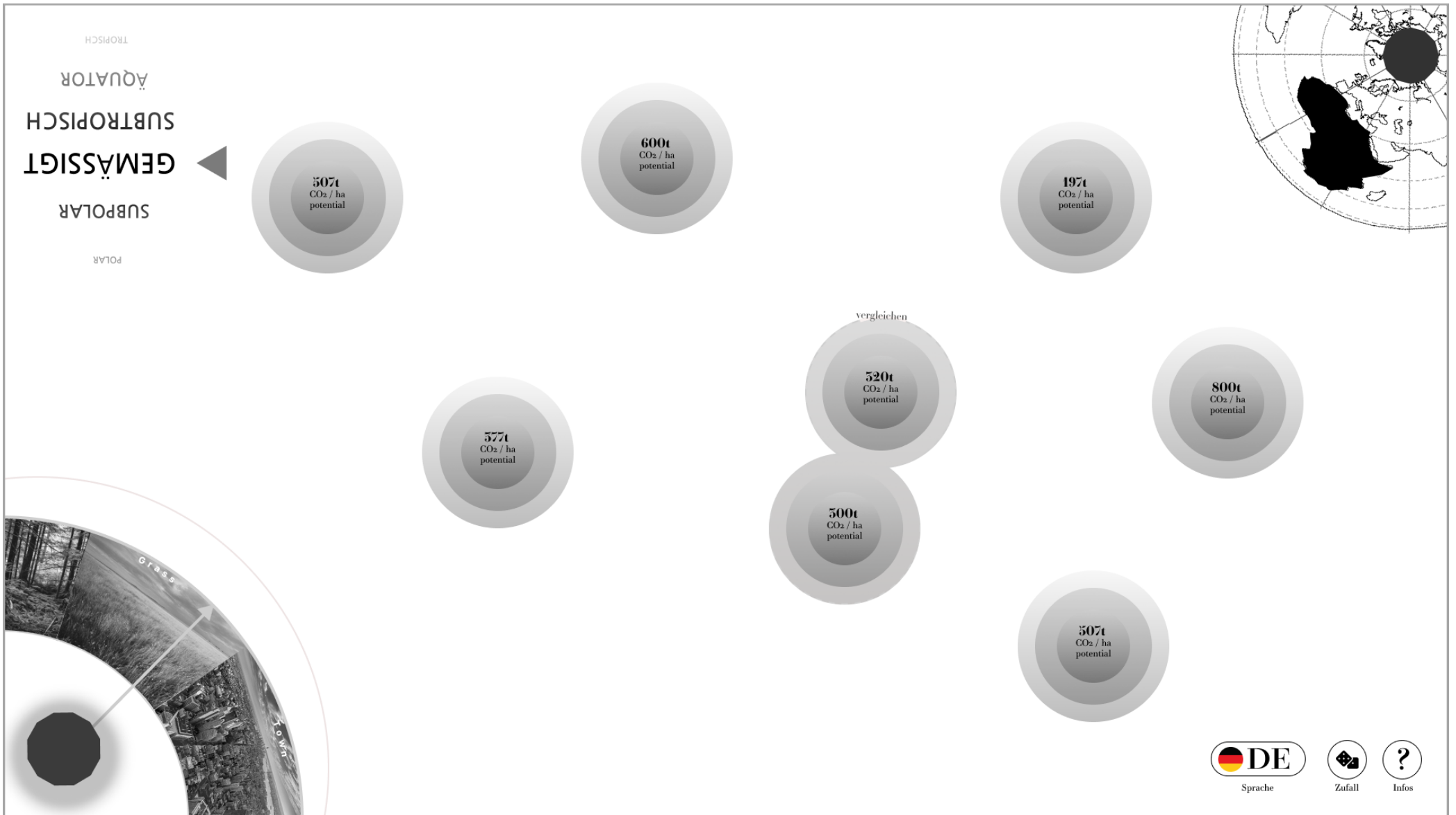
Prototype & development

During our process, we iterated through a few wireframes, containing different layouts and arrangements of the selection tools.

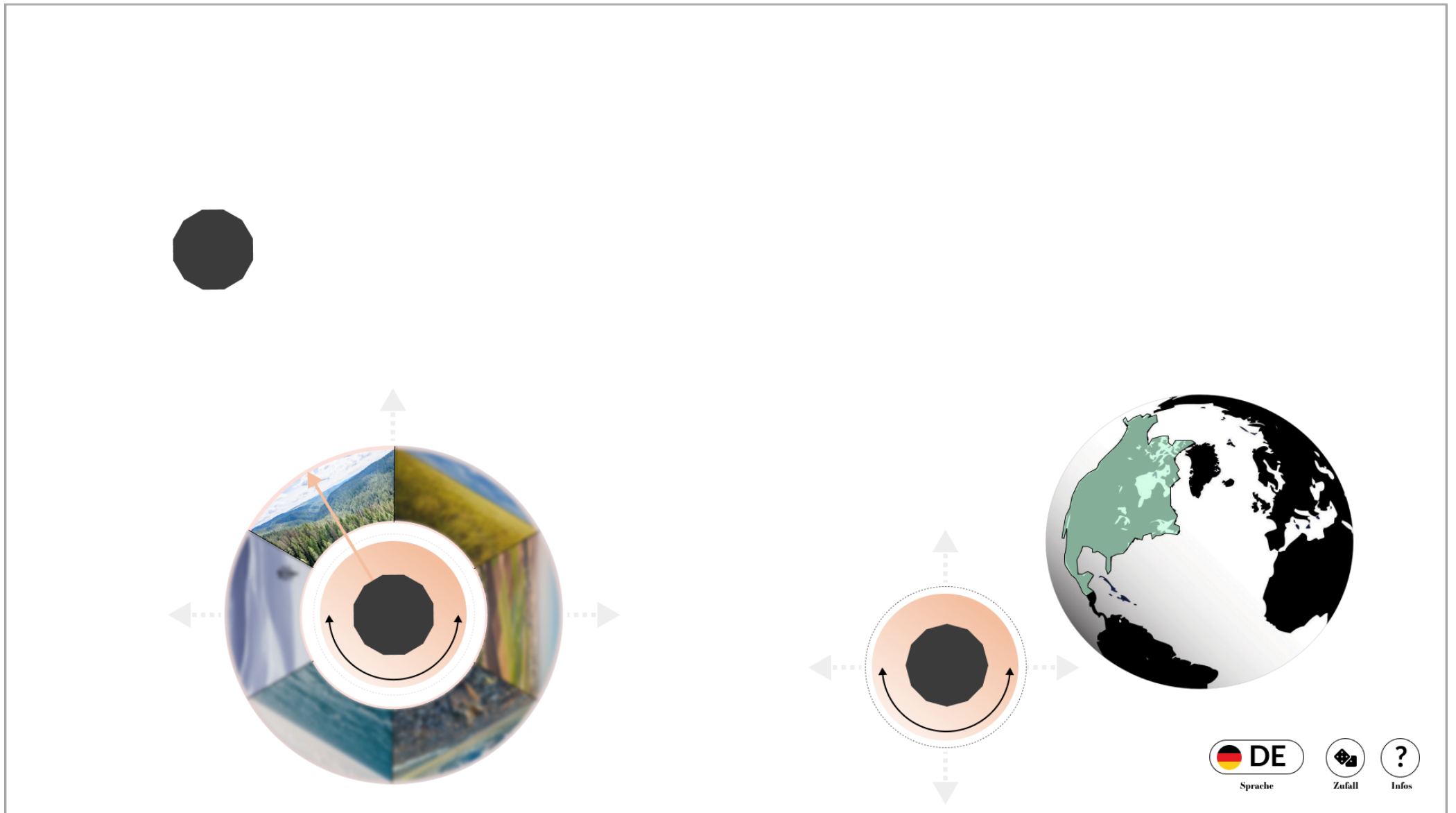
We faced several difficulties during the process. We were unsure at the beginning where the selection wheels should be placed and which information the bubbles should contain. At some point, we decided that the user should determine the location of the selection wheels by arranging the tokens accordingly on the display.

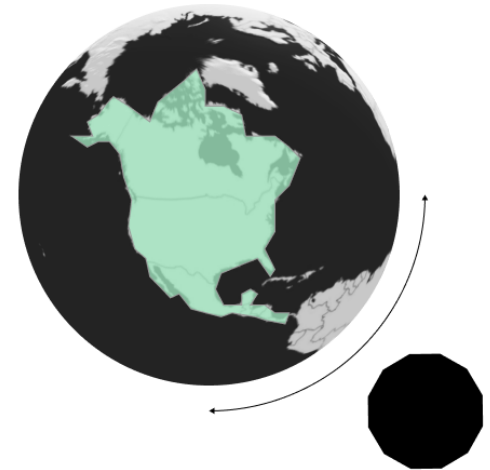
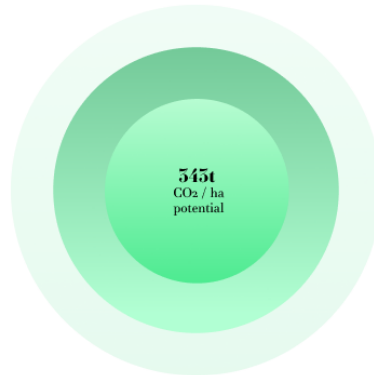
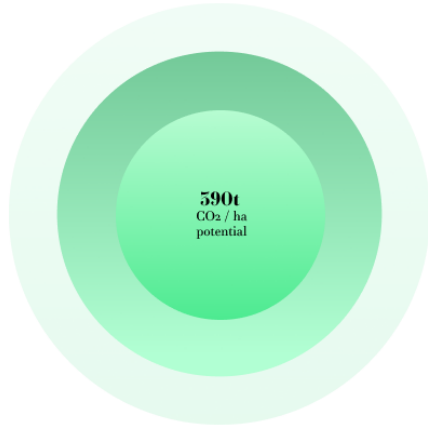


Selection wheels and bubbles





Varriants







First design attempts


❖ Landcover with token


❖ Landcover with token

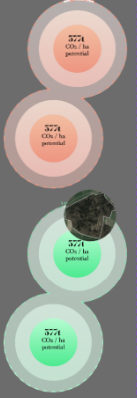
❖ Bubble




❖ Bubble open



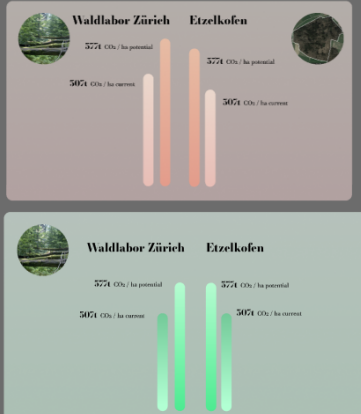
❖ Vergleich...



❖ Vergleichen Infobox



❖ Vergleichen Infobox Varinate kacke



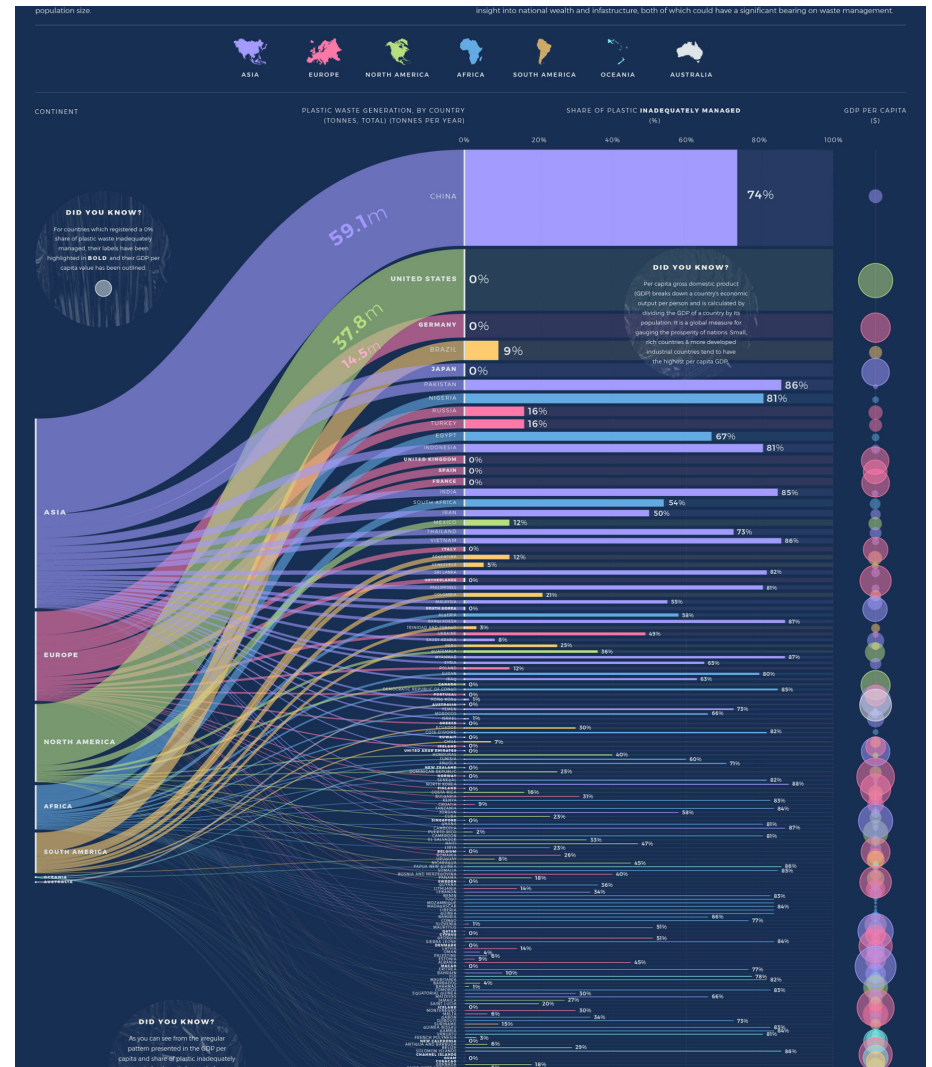
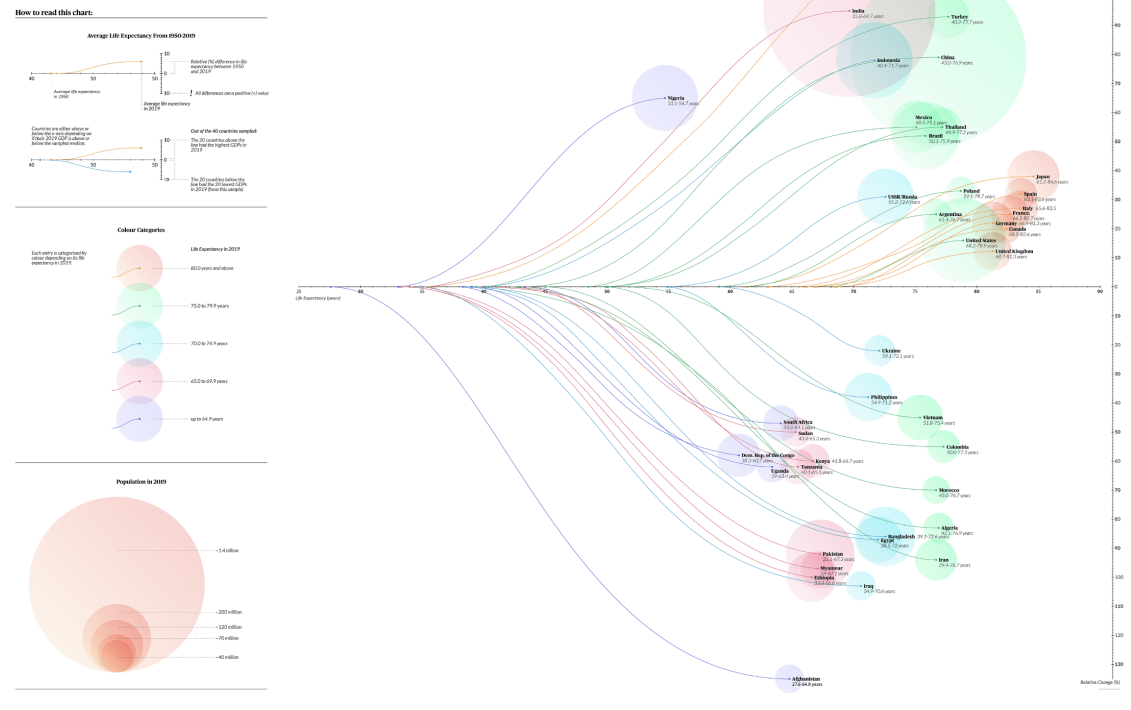
Design & progress

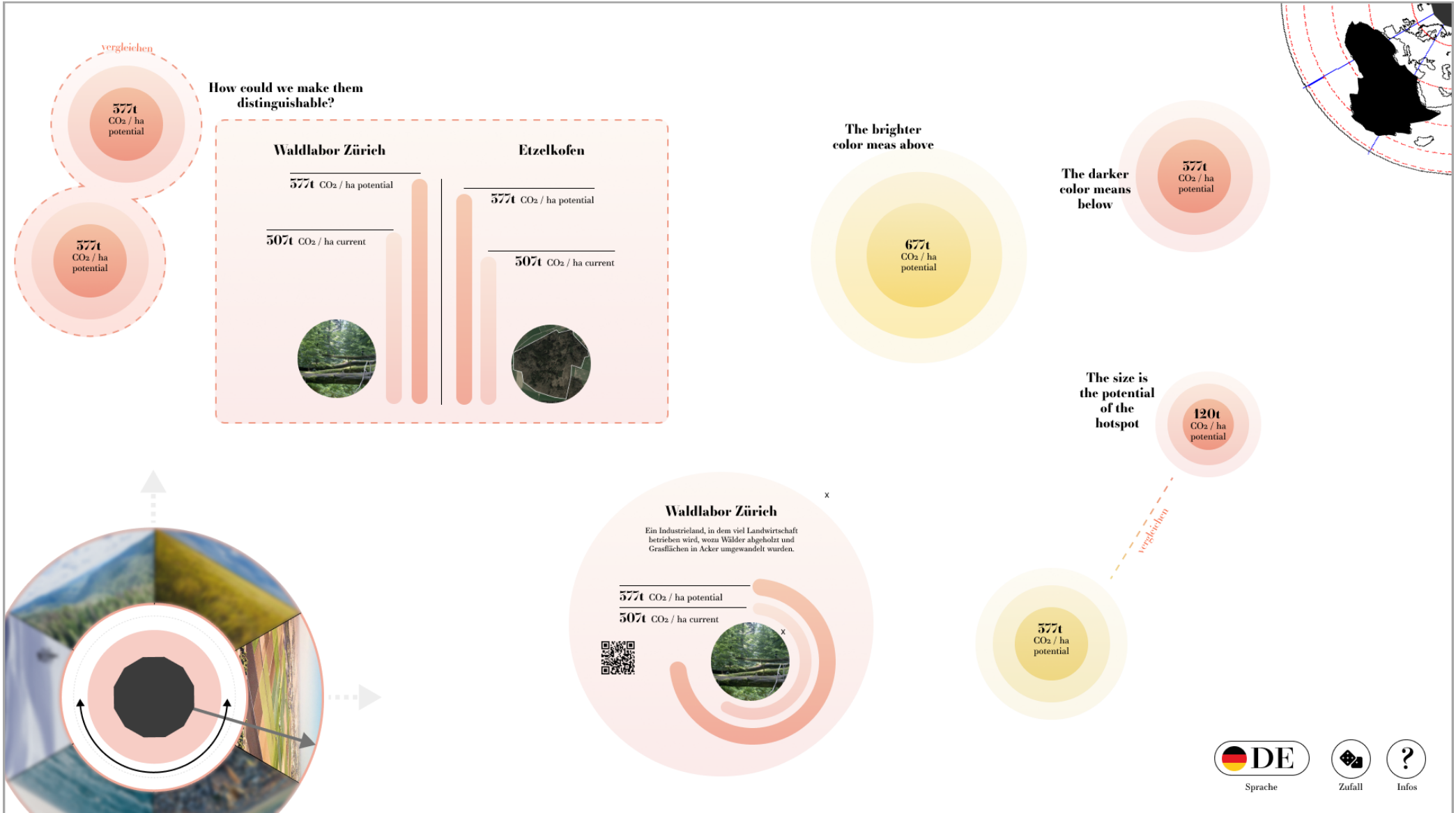


Moodboard & inspiration

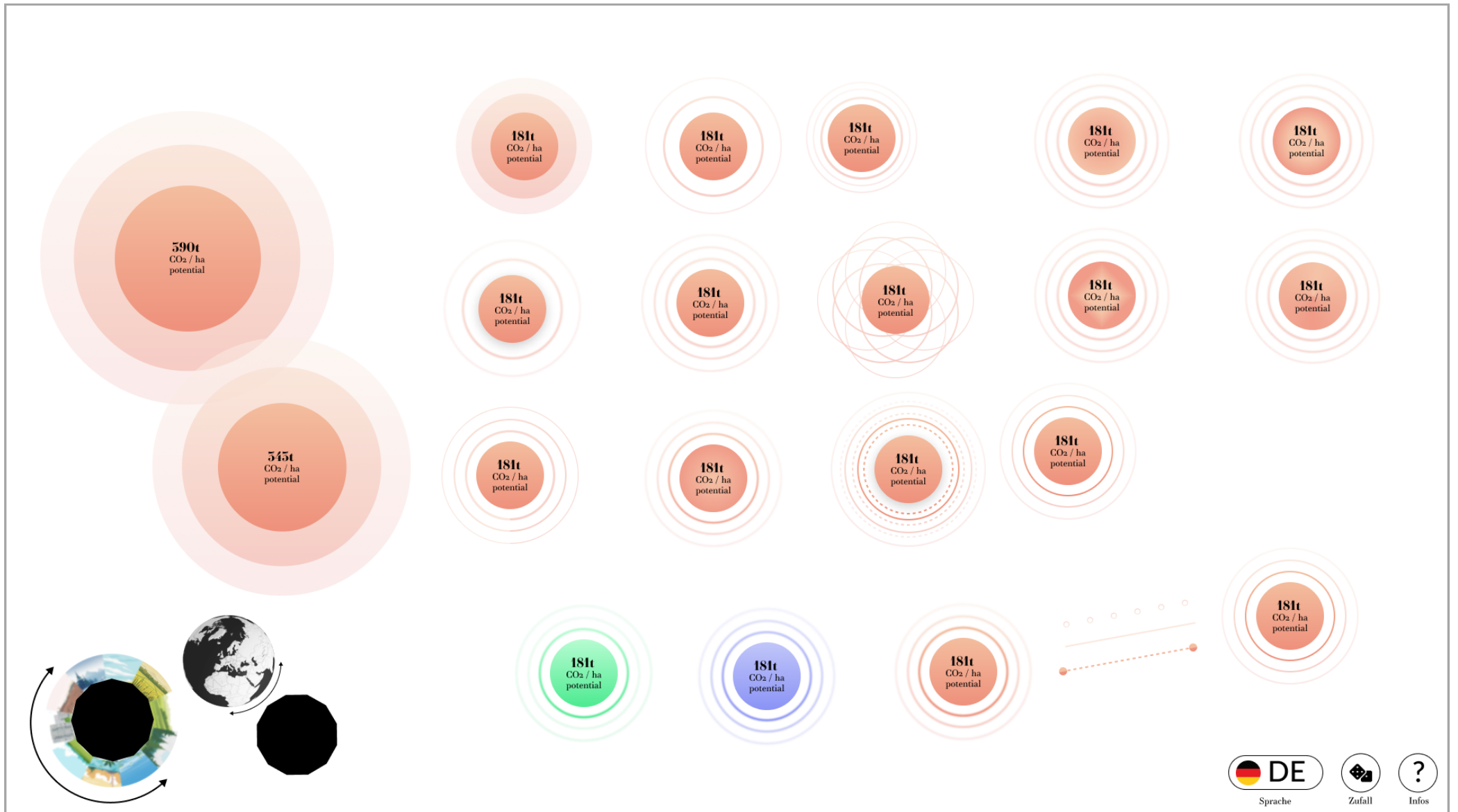
How Much has Life Expectancy Increased Worldwide Since 1950?

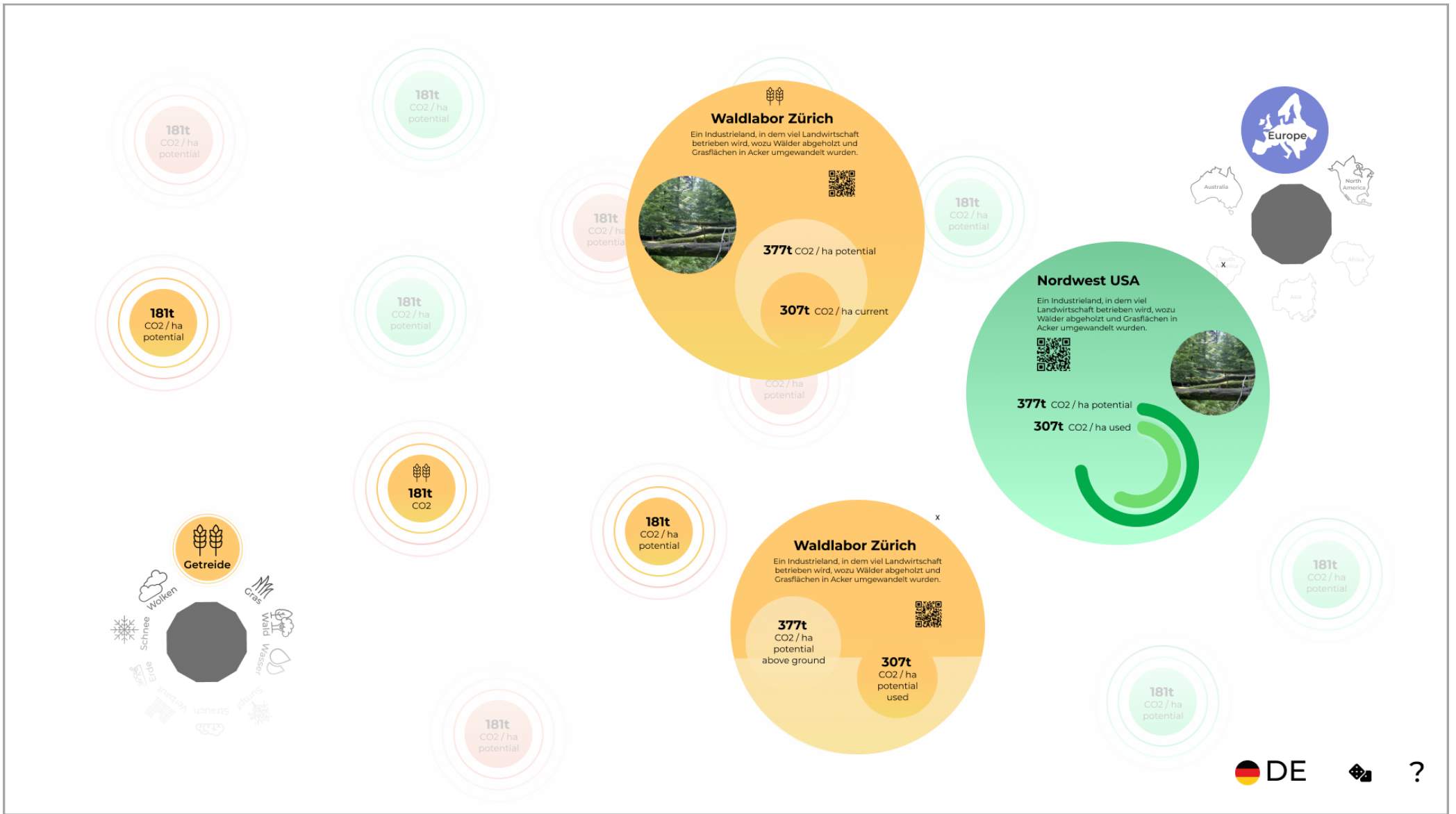
A Chart to Show the Increase in Life Expectancy (in Years) and Relative Change (%) Between 1950 and 2019 Along with Current Population Data (2019)



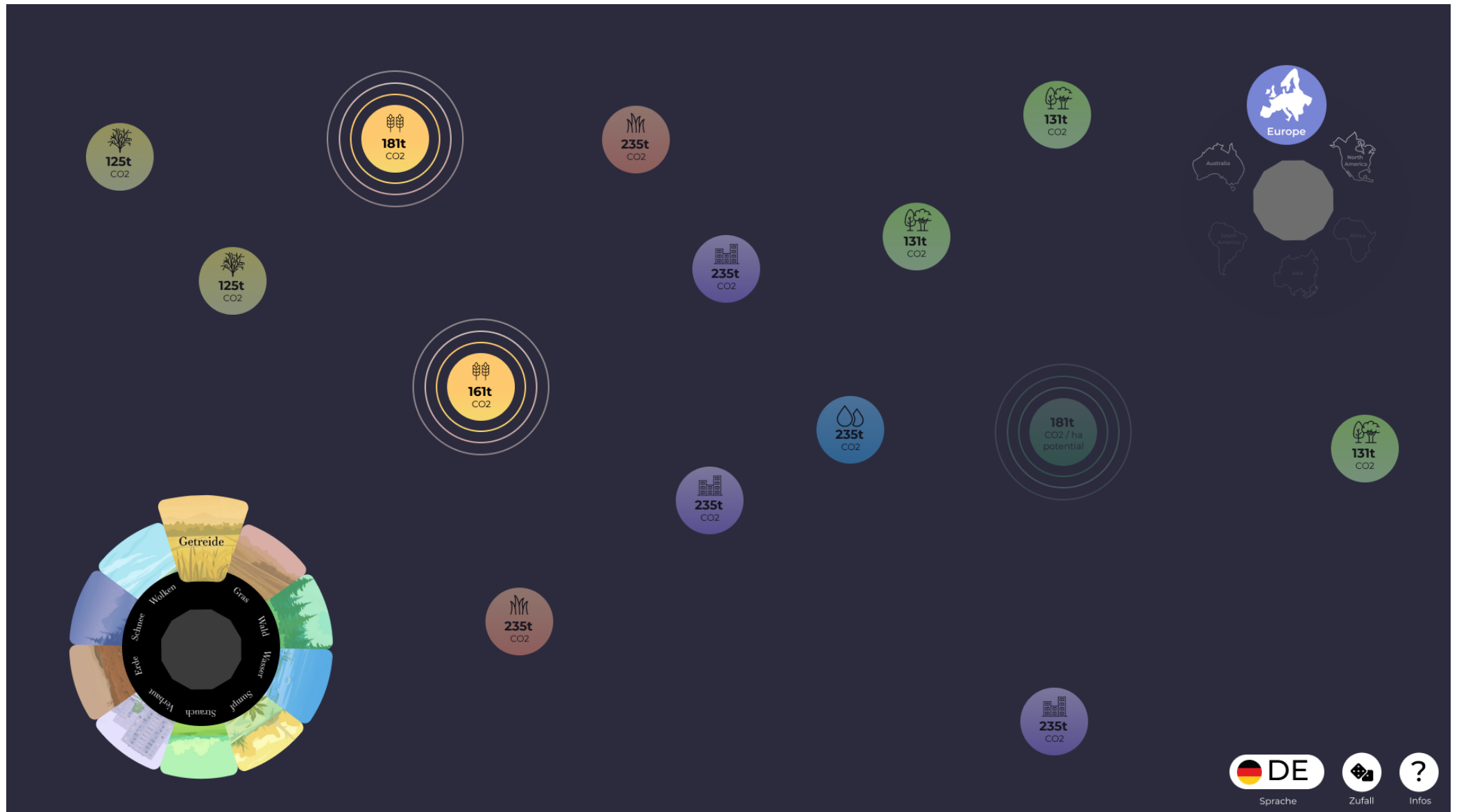


Variants of data-bubbles

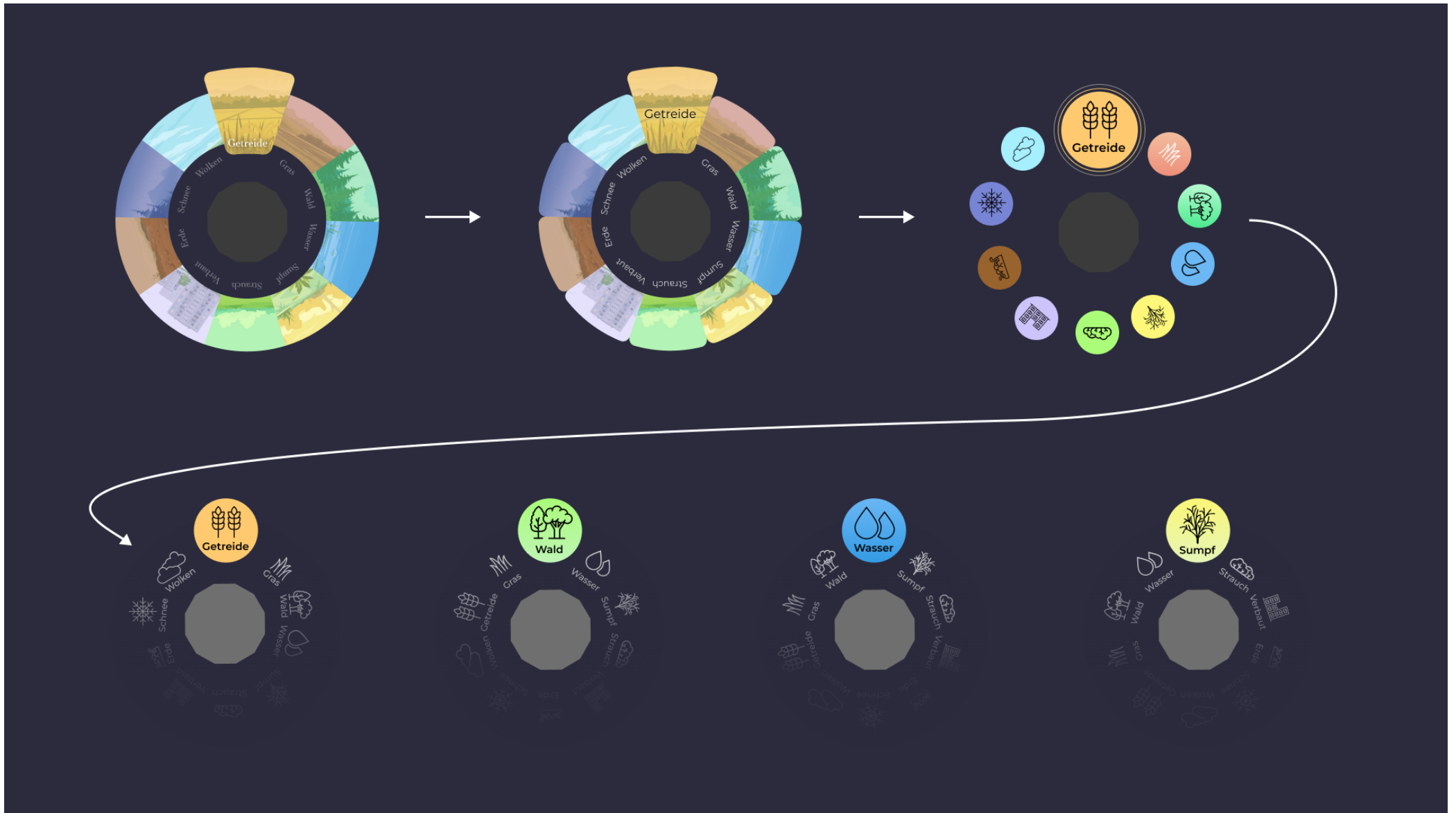




Moving into the final design

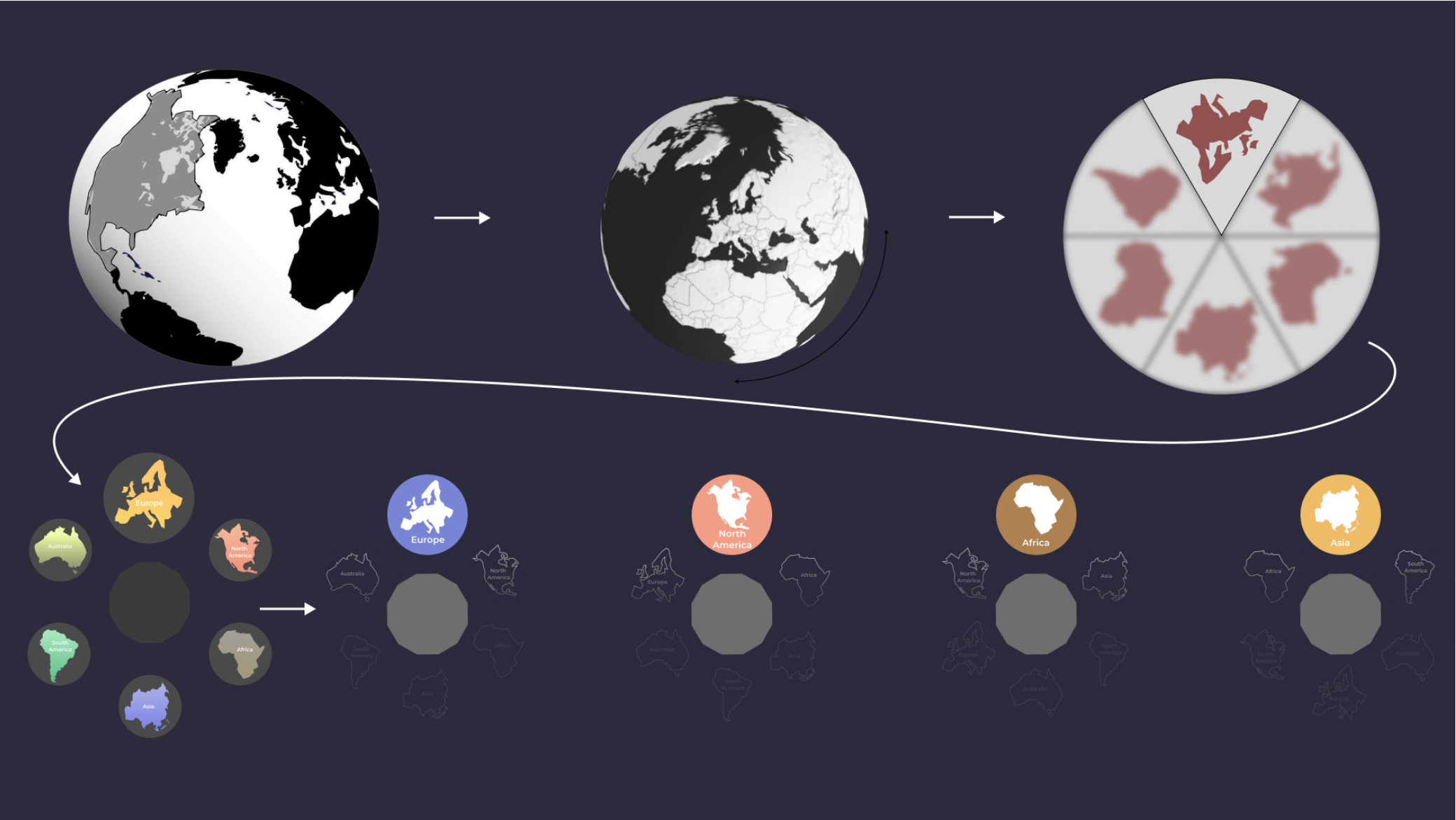


Category selection

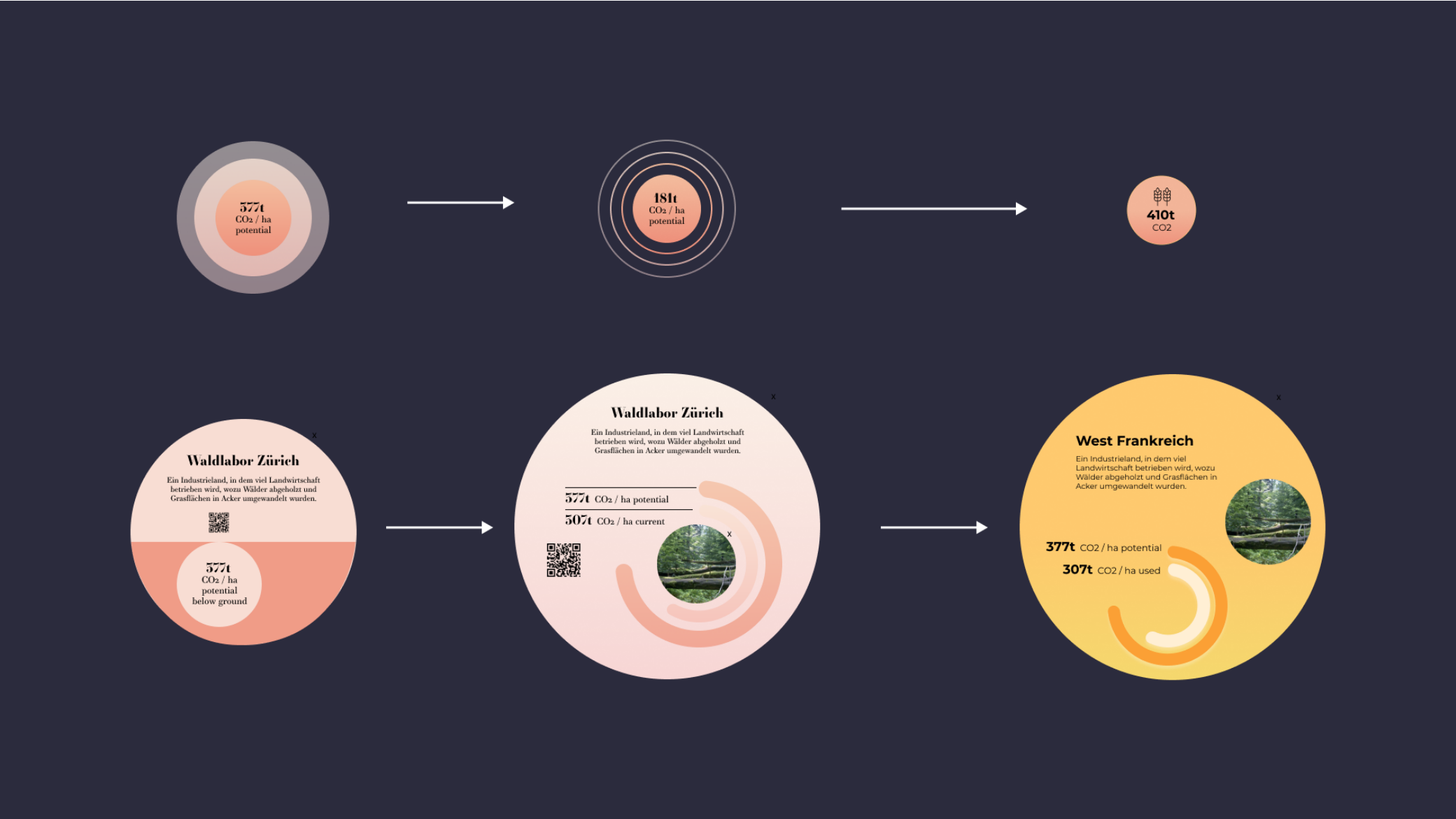


Design development ...

Continent selection



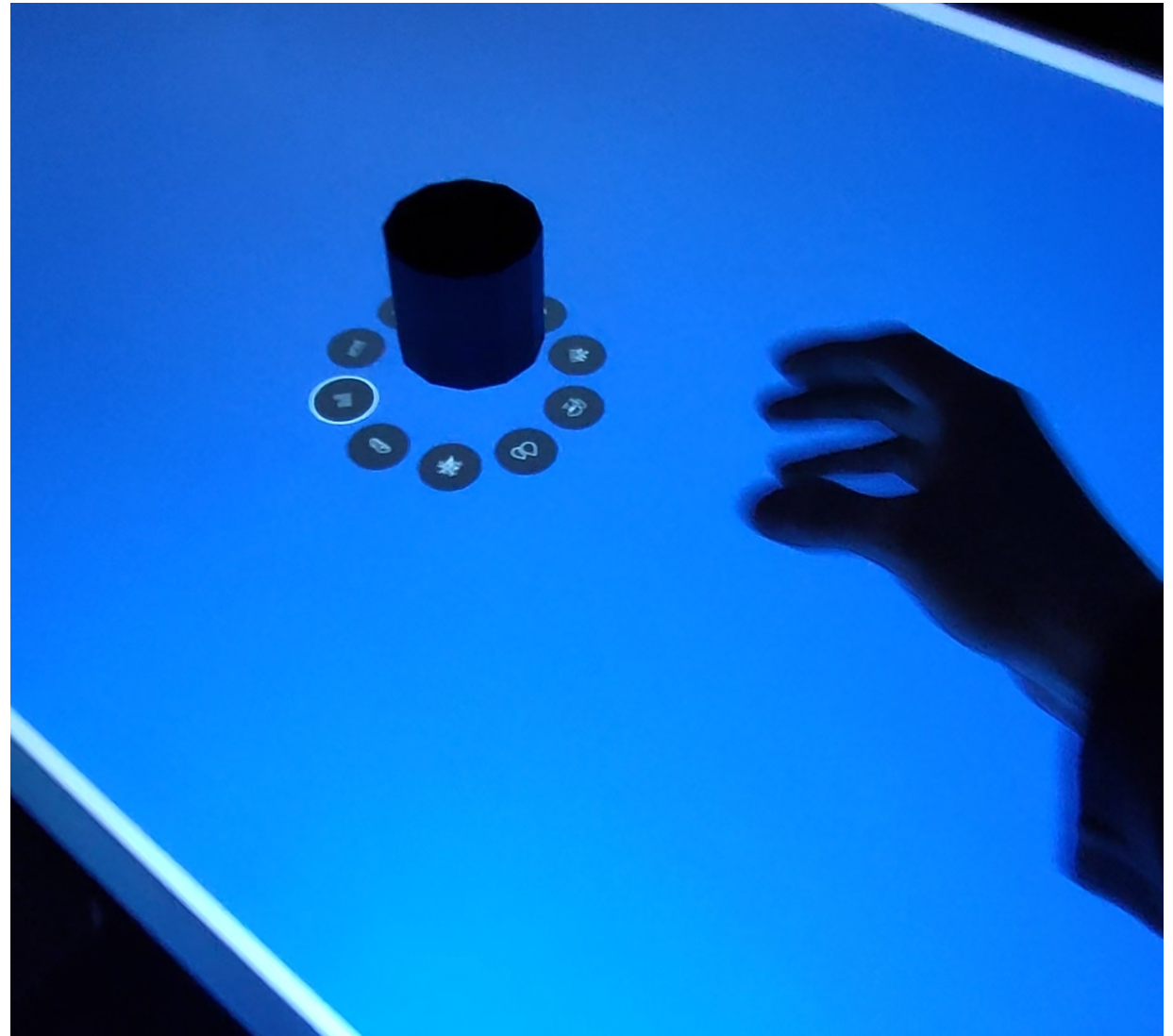
Bubble development



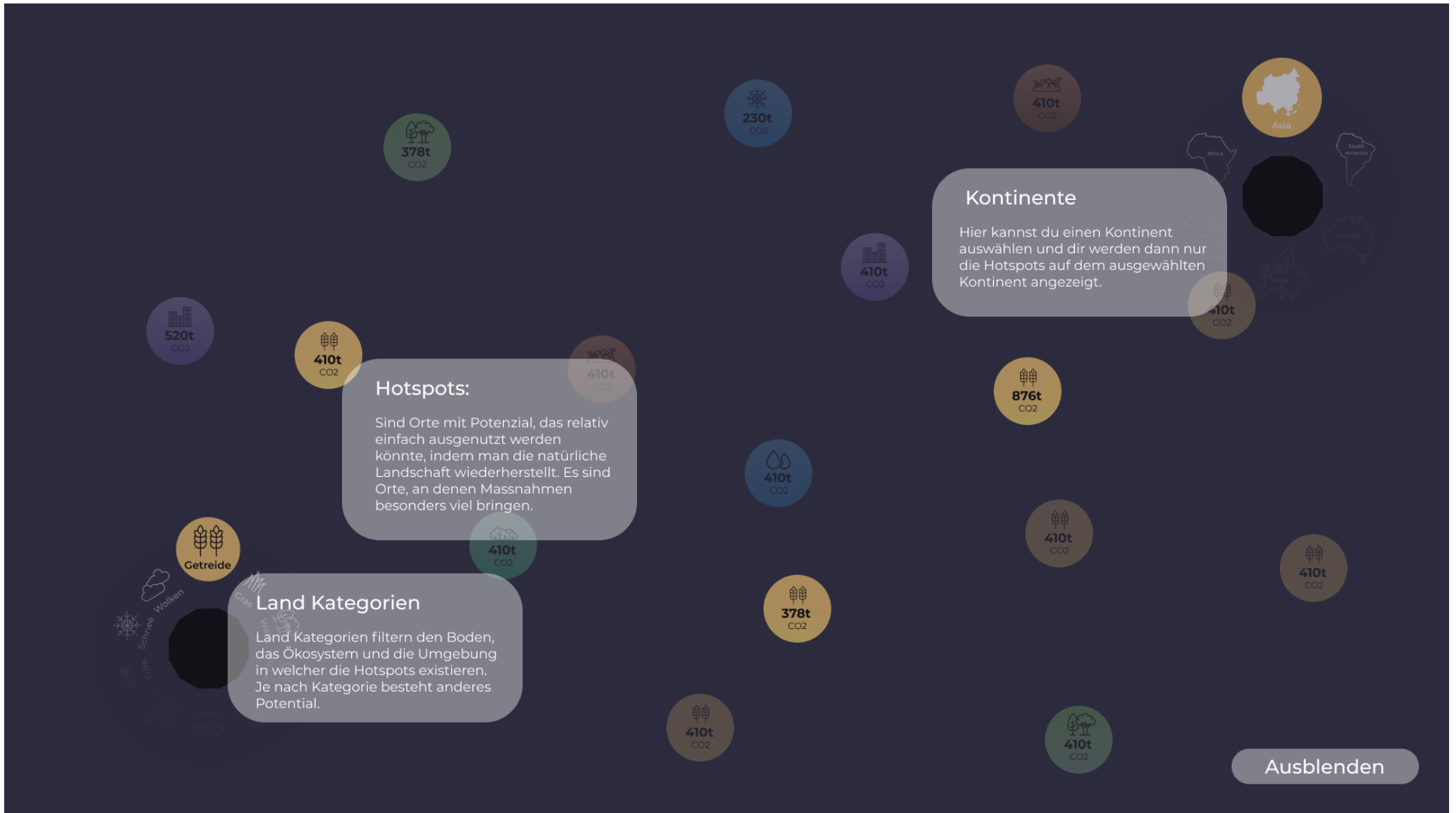
Token interaction

The selection of the landcover categories.

As the token interaction on the table was not possible to integrate into the figma prototype. We decided to implement it with javascript in separate project to show how it works. The selection follows the token on the table and by turning the token the selected category changes.



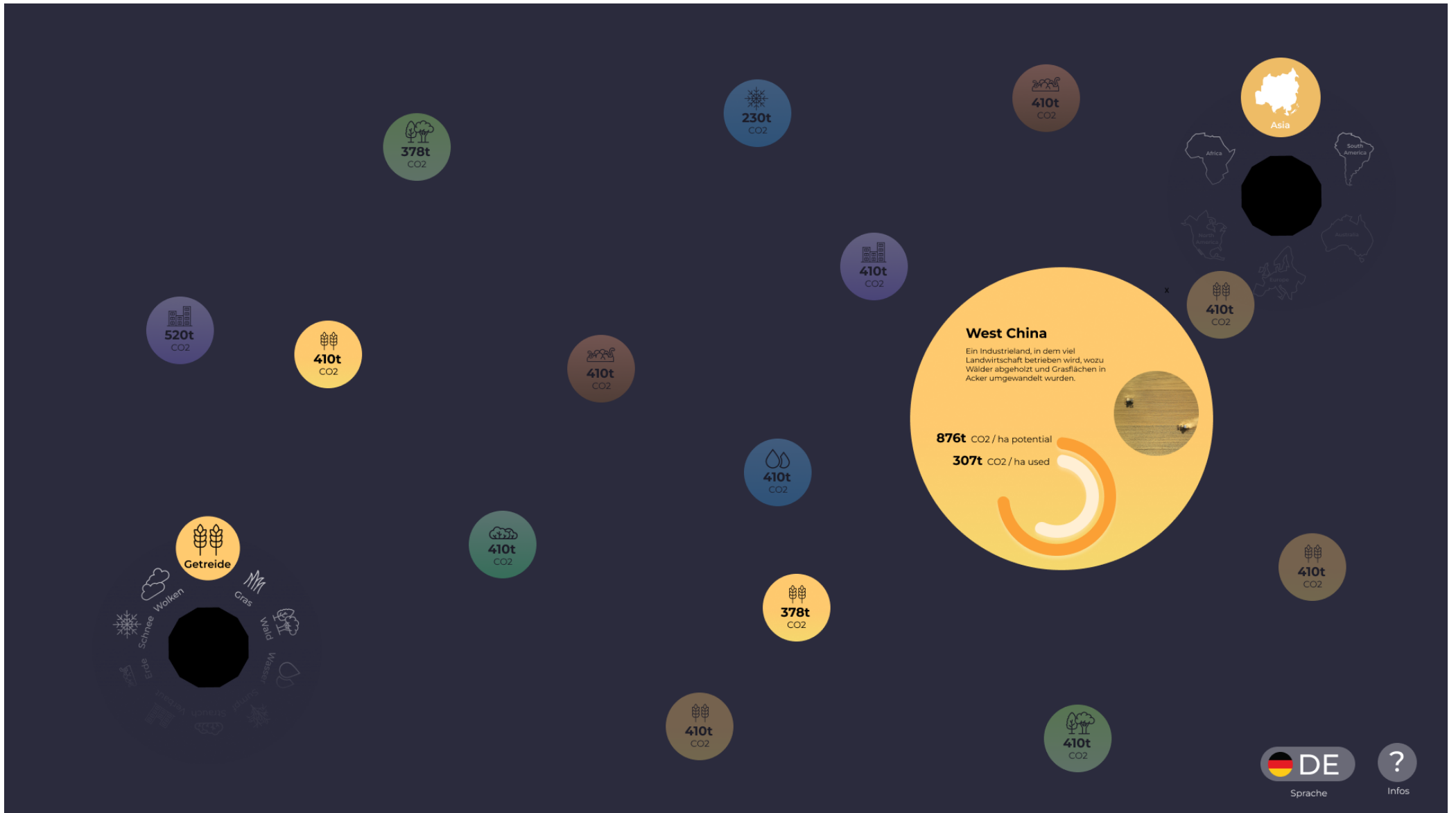
Final Prototype



Final prototype at main screen, set at grain and Asia

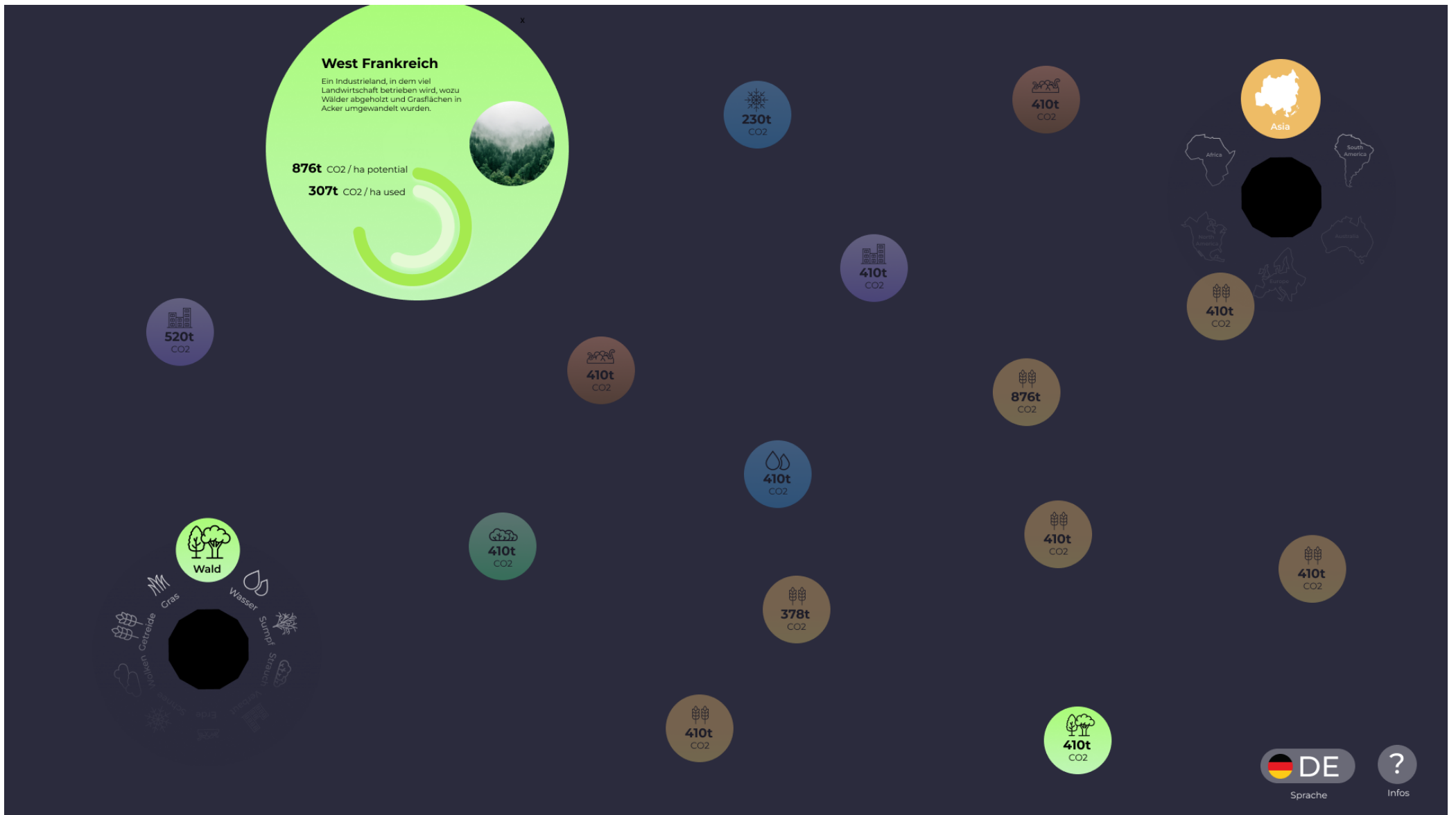


Opening different bubbles



Dirt and Africa selected...





Process of comparing and merging



Final prototype displayed on the touch table with the tokens

