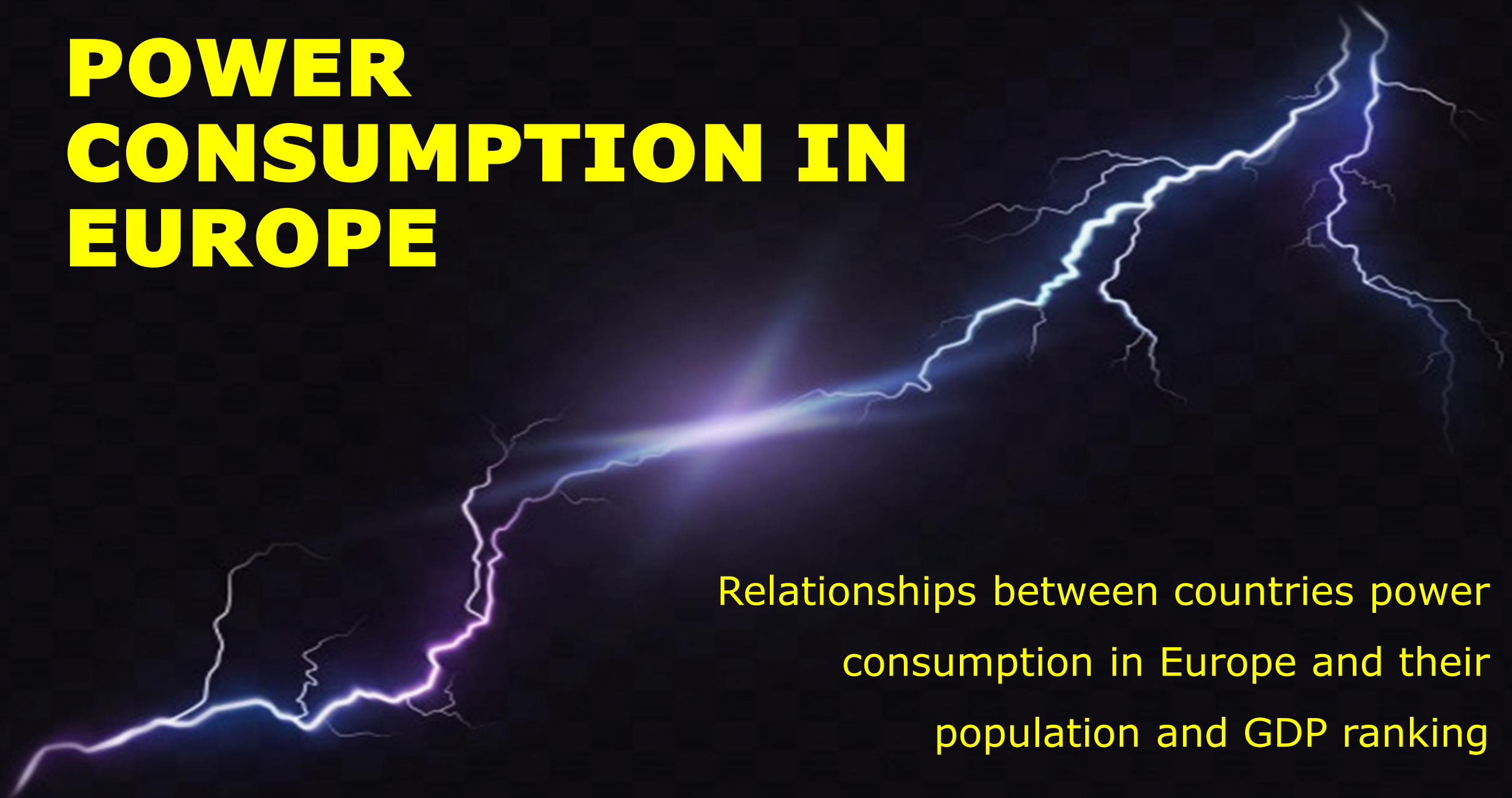# POWER CONSUMPTION IN EUROPE

Relationships between countries power consumption in Europe and their population and GDP ranking

Hypothesis

- The hypothesis is that there is a direct relationship between the energy

  consumption and the population in each country.

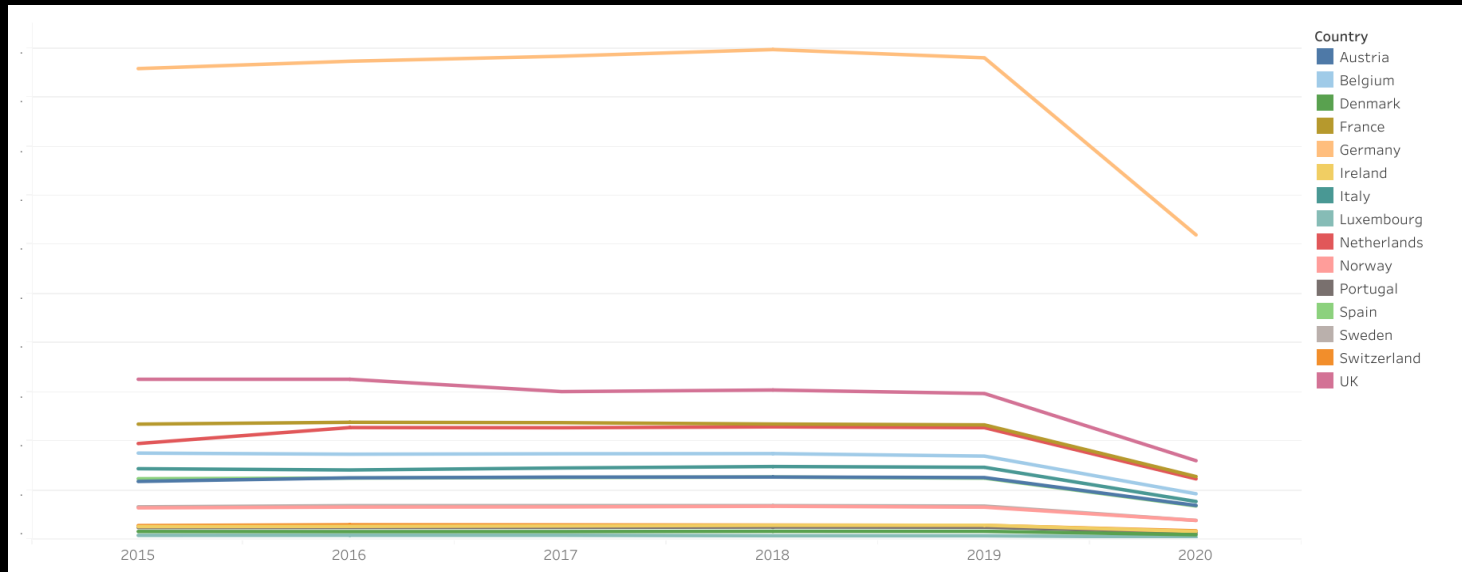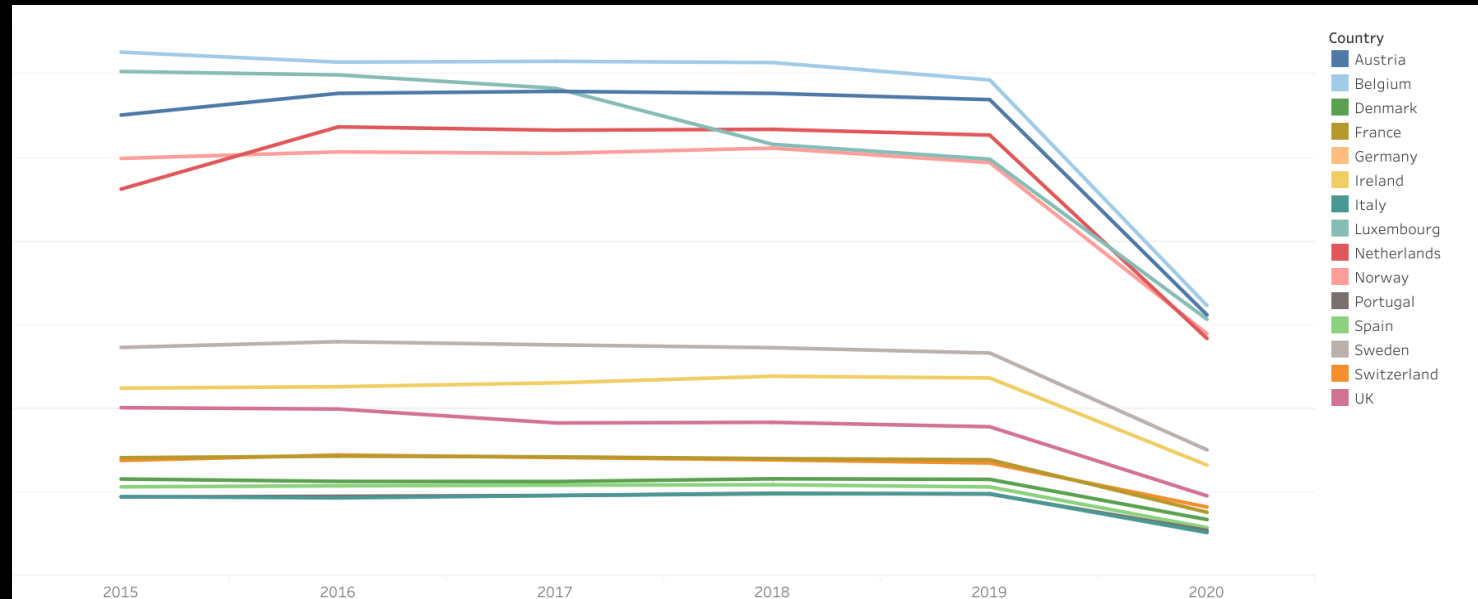- The study is focused in 15 countries of West Europe between 2015 and 2020

- The sources of information:

  - Power consumption in Europe dataset from 2015 to 2020. Data source: **Kaggle**

  - Europe's countries population from 2011 to 2020. Data source: **Eurostat**
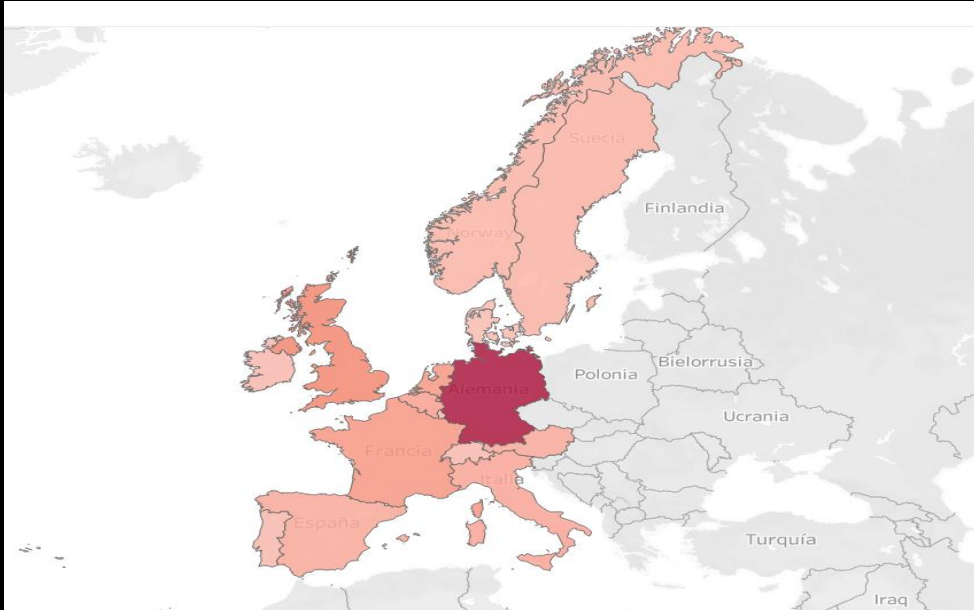
Consumption Variation between 2015 and 2020

In this chart we can see the total power consumption from2015 to 2020.
It is clearly steady through years in all countries until the pandemy.
We can also realice that there is a big difference of power utilization between Germany and the rest of the countries.

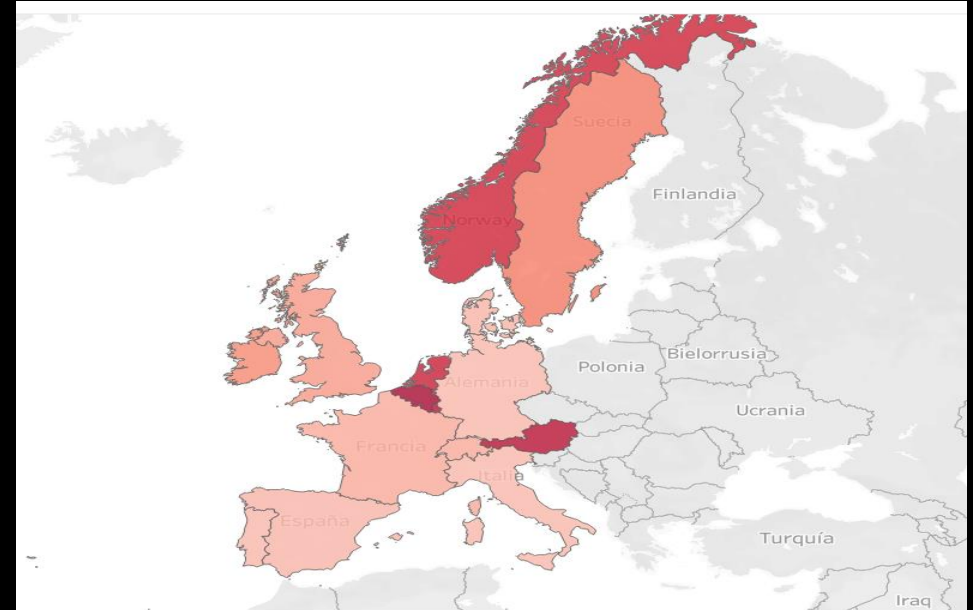# Consumption Variation between 2015 and 2020

This chart shows the consumption per person in each country. Most of them show a stability too. Only Netherlands (increasing in 2016) and Luxembourg (decreasing) have slightly different patterns before the pandemy.
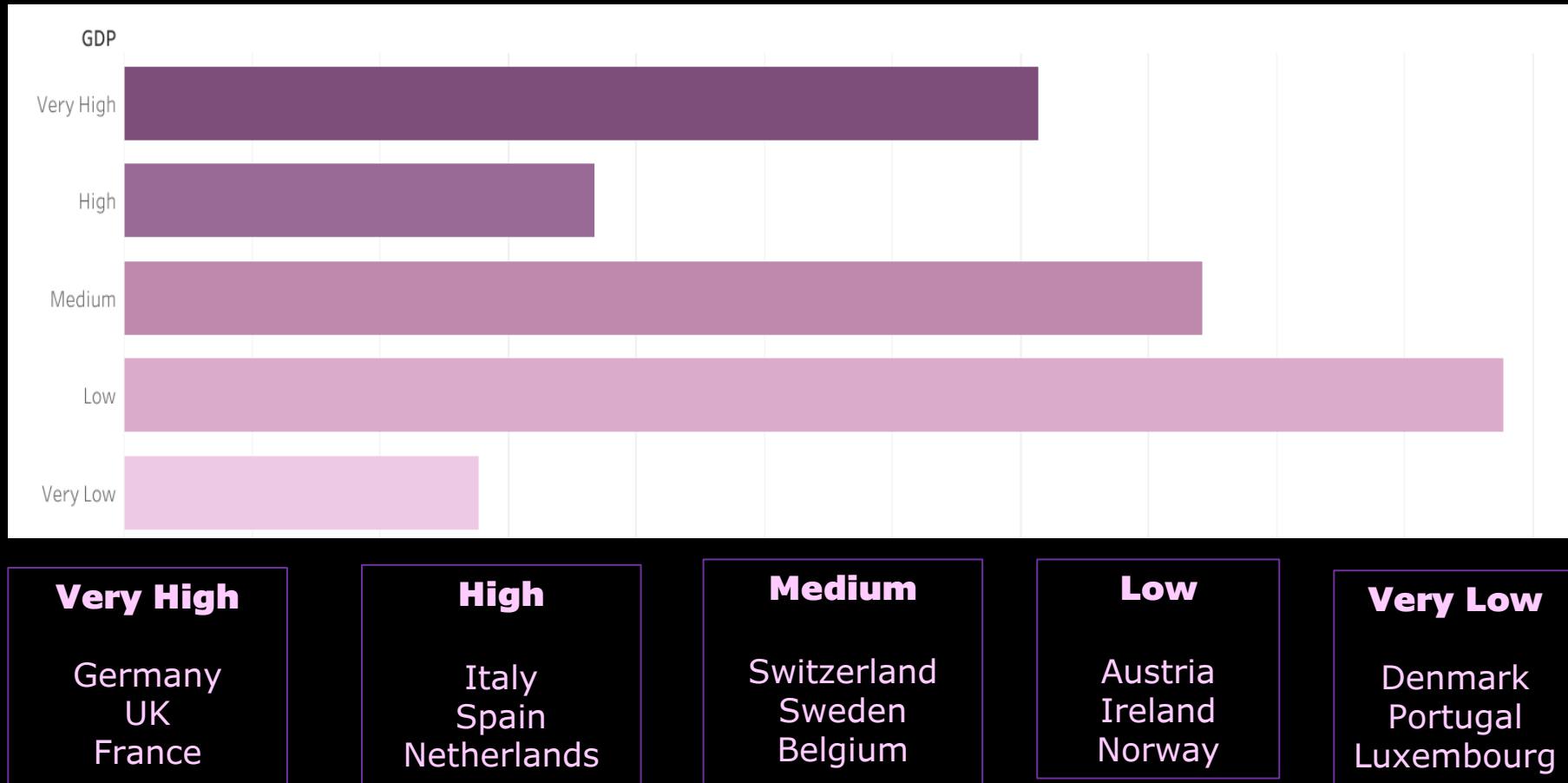
Consumption by Country

Absolut Values

Value per Capita

We can clearly see in the map charts that we cannot really explain with the data we have, but we can make some hypothesis for example, it could be due to the GDP per country.

Consumption by GDP

GDP

Very High	
High	
Medium	
Low	
Very Low	

Very High

Germany
UK
France

High

Italy
Spain
Netherlands

Medium

Switzerland
Sweden
Belgium

Low

Austria
Ireland
Norway

Very Low

Denmark
Portugal
Luxembourg

We can see that there is no linear relation but we could consider clustering categories or looking at the distribution.

Conclusion

It does not seem to be a direct relation between energy consumed and

population number with the data we have

The descriptive analysis allows us to formulate new question around energy

consumption

Furhter Analysis

- How much power used related to economic sectors?

- Does countries' wealth change the energy consumption?

- Is the quantity of power used related to energy sources? Or its Price?

- Why does Germany consume as much?

- Since when did we have such the stability in energy consumption that lasted until 2019? And why?

- Can we predict future changes?

THANKS