The Battle of Neighborhoods in Bonn

Analysing a City of choice: Bonn, Germany

Introduction

This project aims at finding answers for questions such as:

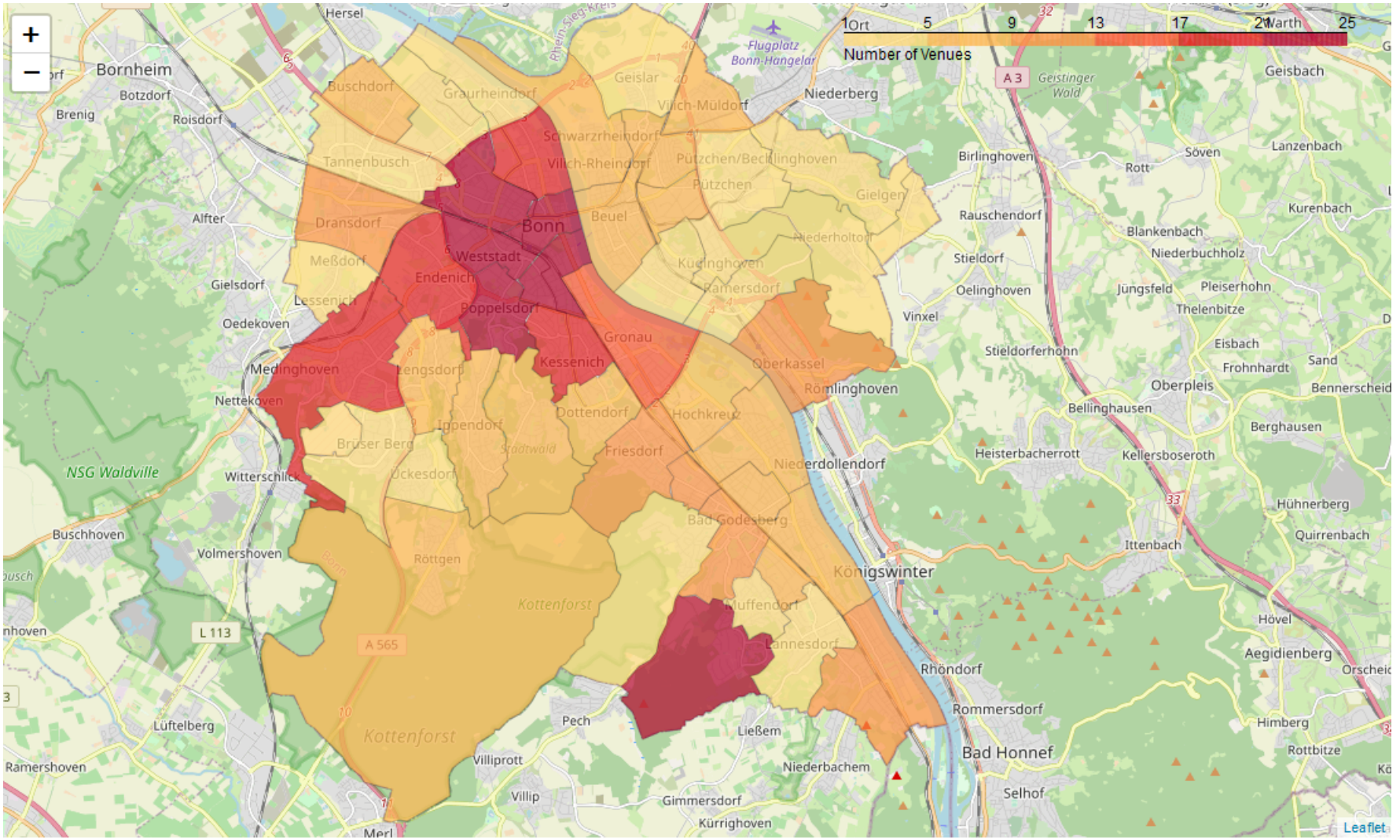
- "If someone is looking to open a coffee shop in Bonn, where have your competitors theirs shops?"
- "If you would move for a job to Bonn which neighborhood would you choose for housing?"

A description of the data

- **open data GeoJSON file** for allowing choropleth map visualization
- publicly availiable data about the **population distribution** per **municipal district** from wikipedia
- the core data for this analysis, i.e. venue data will be retrieved by API calls from **Foursquare** servers

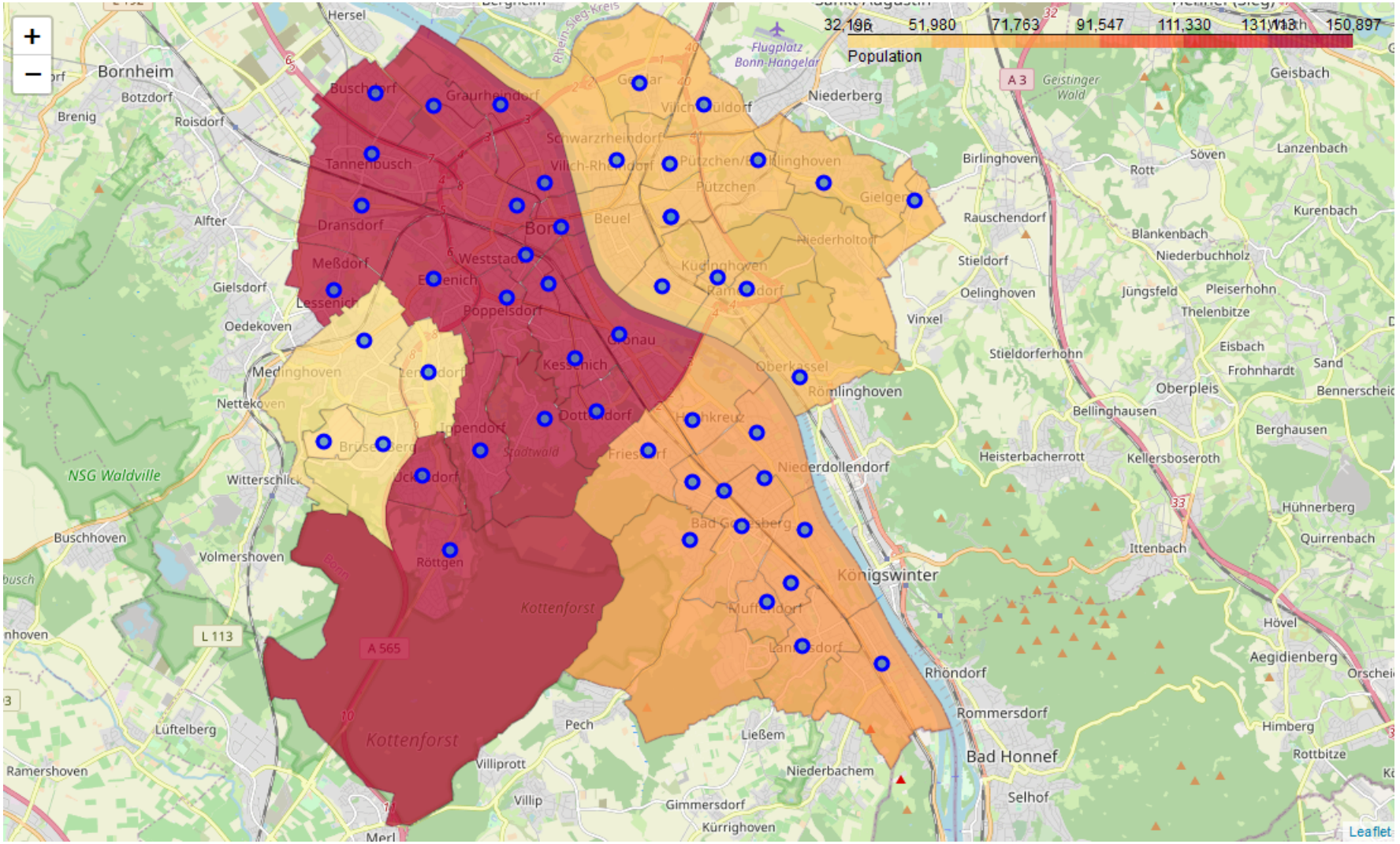
(for more information please consult the JuypterNotebook or the report)

Results (Number of Venues)



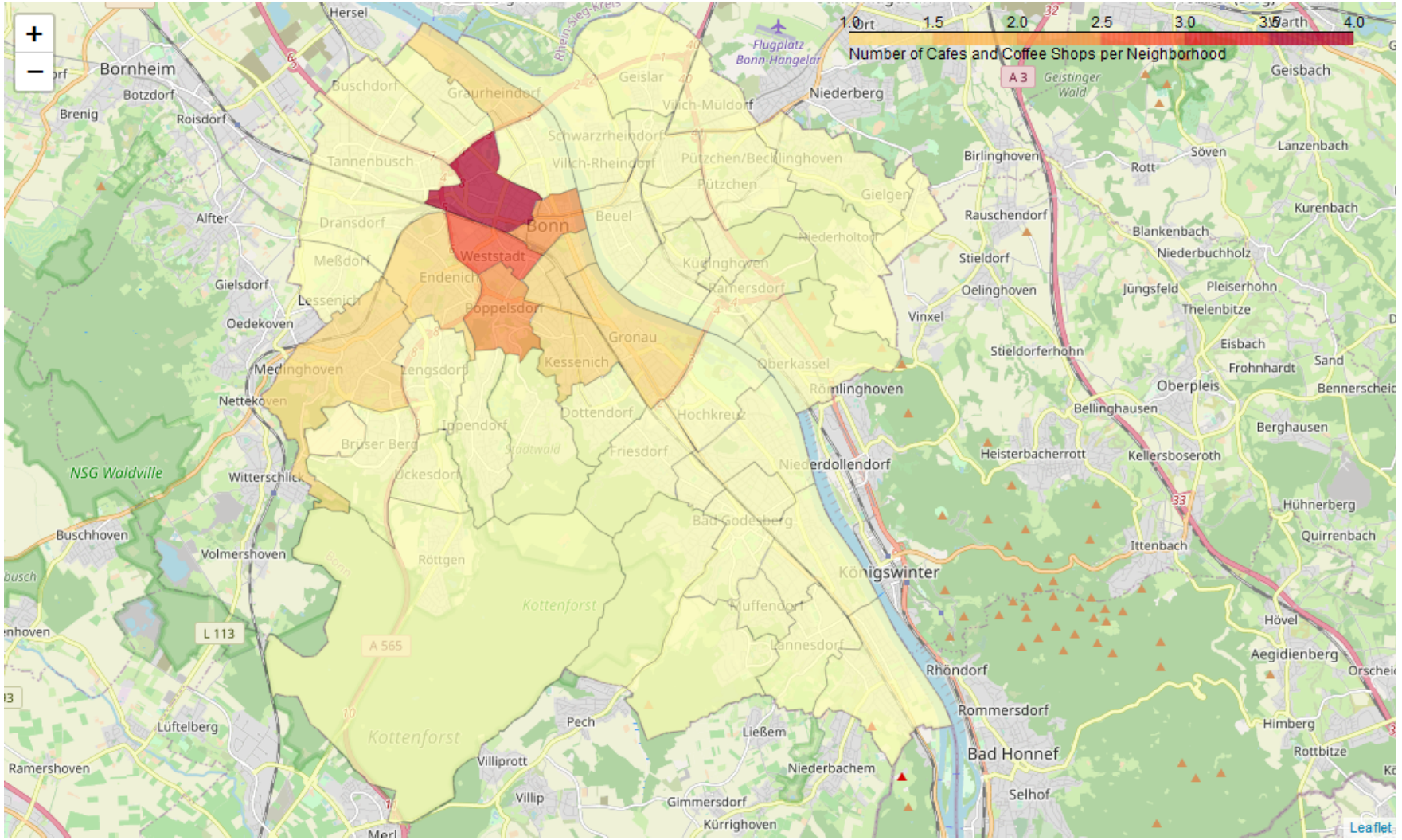
• some neighborhoods are **venue rich** (25 venues or more, color coded in red) and other neighboorhodds are **poor in venues** (color coded in light yellow).

Results (Population per District)



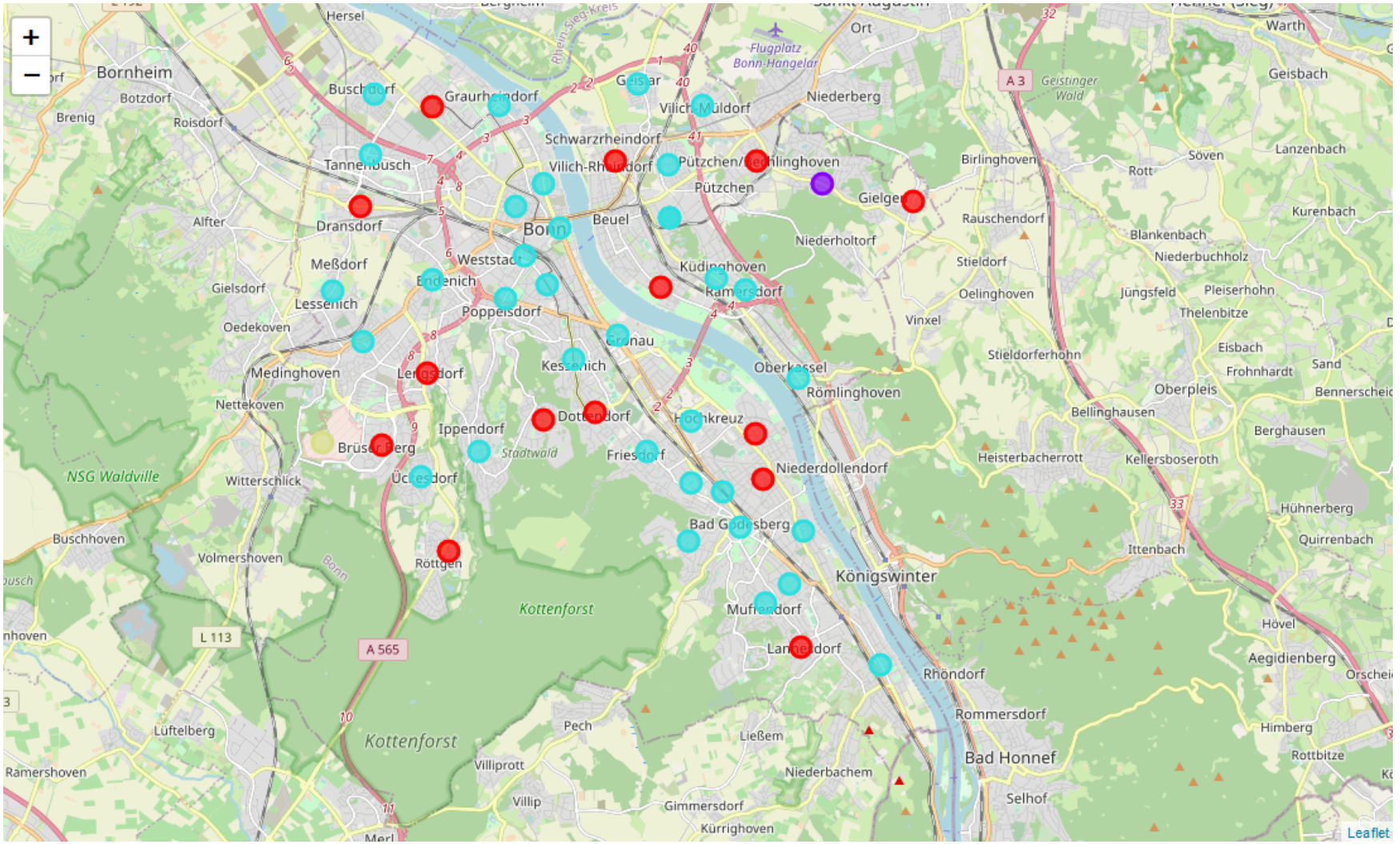
- **districts with higher population** (color coded) have **more neighborhoods** (blue dots) than districts with lower population

Results (Coffee Shops/Café)



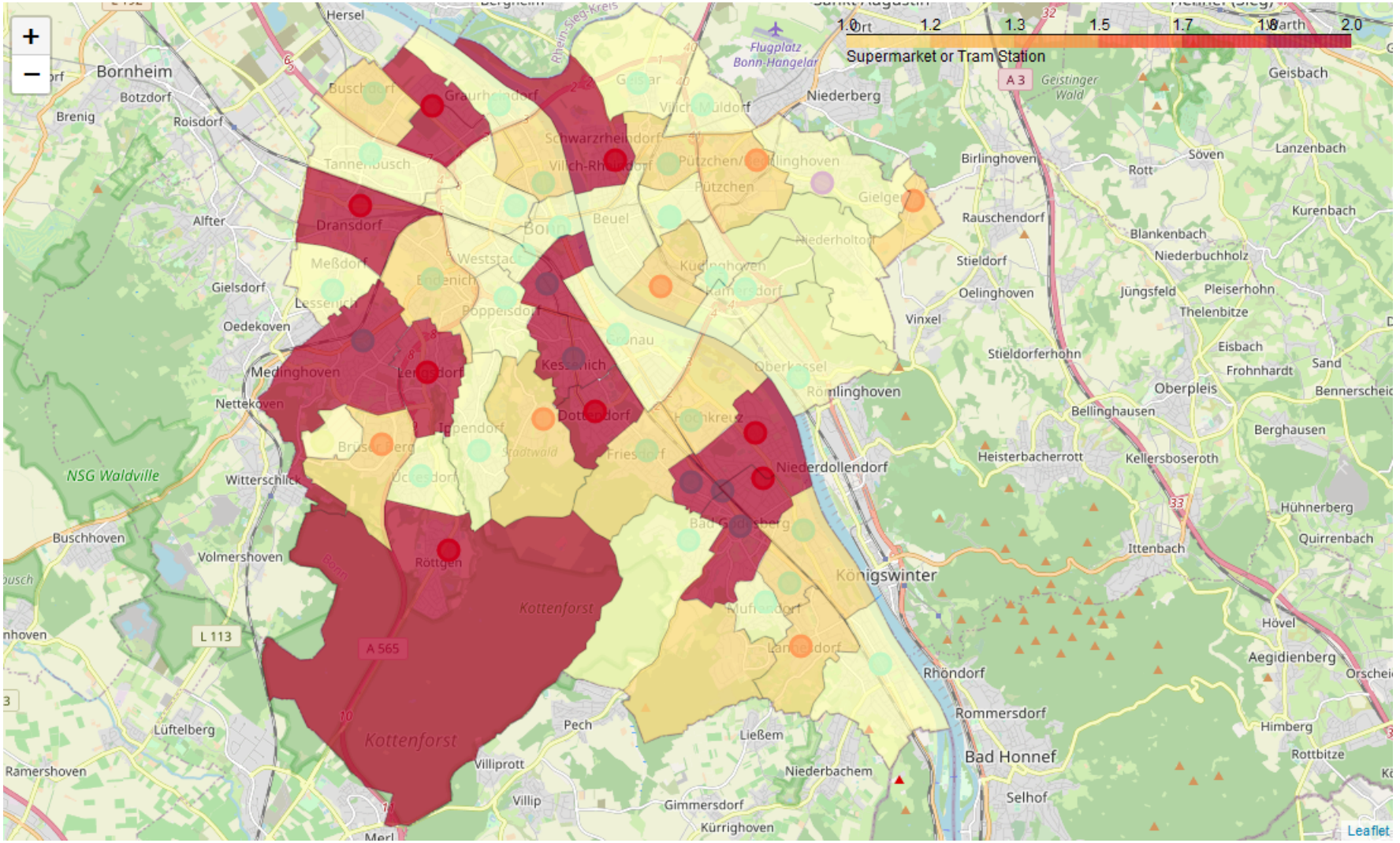
- the **center of Bonn** is **rich in cafés and coffee shops**

Results (k-clustering with k = 4)



• most neighborhoods are classified as belonging to the c**luster represented by red markers** or as belonging to the **cluster represented by cyan markers**.

Results (k-clustering with k = 4)



• The neighborhoods with venue categoriy **supermarket** or **tramstations (highlighted in red)** are **only partly overlapping** with neighborhoods belonging to the **cluster** where supermarket and tramstations are the **dominant venue categories**

Conclusion

- buisness founder or investor in the coffee shop field can learn form this analysis that a **coffee shop hot spot** exitst in the **center of Bonn**

- the cluster analysis can help someone who wants to live in a **diverse neighborhood in Bonn** to find a neighborhood belonging to the cluster representing a high diversity of venues