

# Capstone Project - The Battle of the Neighbourhoods

20 July, 2020

## 1. Introduction

Stuttgart is the sixth largest city in Germany with a rapidly growing population. It has a huge variety of restaurants for every taste and, thus, to start a restaurant business in this area is not an easy task. Our stakeholder is willing to open the beer restaurant in the city of Stuttgart with middle-high level prices. Of course, choosing a location for business is one of the stressful and controversial tasks, since there are a lot of criteria that should be satisfied in order to achieve the highest revenue.

Here are some of them:

- the density of other restaurants
- the density of specifically beer restaurants - population density around the location
- solvency of the population around the location

In this project, we will implement the basic analysis and try to find the most optimal Borough to open the beer restaurant according to those criteria. It's obvious, that there are many additional factors, such as distance from parking places or distance from the main streets, but this analysis can be done after choosing the Borough, and thus will not be performed within the scope of this project.

## 2. Data description

Based on criteria listed above the following data will be utilized in our analysis:

- The number of restaurants within the certain radius of each borough (Foresquare API)
- The net income per person in each borough. Since the restaurant will have middle-high prices, it is important to consider the solvency of population. Source: Socialmonitoring der Landeshauptstadt Stuttgart (<https://statistik.stuttgart.de/statistiken/sozialmonitoring/atlas/Stadtbezirke/out/atlas.html>)
- The population and the population density of the borough. Source: Statistikatlas Stuttgart (<https://statistik.stuttgart.de/statistiken/statistikatlas/atlas/atlas.html?indikator=i0&select=00>)
- The population above 18 years age. It is obvious, that potential visitors of our beer restaurant are men and women of full age. Source: Statistikatlas Stuttgart (<https://statistik.stuttgart.de/statistiken/statistikatlas/atlas/atlas.html?indikator=i0&select=00>)
- The coordinates of the borough. Source: Open street map ([https://nominatim.openstreetmap.org/details.php?place\\_id=17476218](https://nominatim.openstreetmap.org/details.php?place_id=17476218))