## 1. Introduction

### Background

Year 2020 has started with the threat of worldwide pandemic under the name COVID-19. Over the first weeks of January and February virus has been spreading all around the world. In the first days of March Switzerland became an effected country with the exponential growth of the infections. Due to that fact, many governmental measures have been implemented where one of them was to close temporarily all leisure places such as restaurants, pubs, clubs, theaters and cinemas.

Since the end of May, after more than two months of country lockdown, Swiss government has decided re-open many places again under security instructions such as keeping distance between people, tables and oblige guests to use disinfectants and giving their contact details in case COVID-19 will be detected in the person sitting next to you or the person will be infected itself.

#### **Business Problem**

Many Swiss cities have centralized urbanistic plan of the city and lake/river oriented. It means that majority of cultural/entertainment areas are placed next to each other. It gives higher opportunity for meeting of healthy and infected people what can have an impact on the first ones. In my analysis I would like to understand:

- Which places (district) in the biggest Swiss city, Zürich have this huge concertation factor
- What are alternatives in other districts where distribution is more flattened

# 2. Data preparation

### Data model

For my questions, I need to have data describing Zürich coordinates in general:

- City (Zürich)

Zip Code (example: 8001)Longitude (example: 8.53)Latitude (example: 47.38)

Where I will be able to compare them with Foursquare information such as:

- Food
- Coffee
- Shopping
- Breakfast
- Longitude
- Latitude
- City

## Data cleaning

To prepare a general data about Zürich, I have downloaded the information about Zürich Zip Codes from <a href="https://realadvisor.ch/en/property-prices/city-zurich">https://realadvisor.ch/en/property-prices/city-zurich</a> and coordinates from <a href="https://rueegger.me/blog/schweizer-postleitzahlen-mit-koordinaten/">https://rueegger.me/blog/schweizer-postleitzahlen-mit-koordinaten/</a>