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# WHAT'S THE BEST LOCATION FOR A RESTAURANT IN MILAN?

Capstone Project for the Coursera IBM Data Science Professional Course

# AGENDA

- \* **The problem**
- \* **The data**
- \* **Tackling the problem**
- \* **Machine Learning**
- \* **Discoveries**
- \* **The best location**

# THE QUESTION

- The restaurant industry is among the riskiest ones for an investor
- It involves great capital expenditure but big rewards if the investment is successful
- The location is the most important factor which determines the success of a new venture

SO:

How could an investor determine the  
**best location** for a new restaurant?

# THE DATA

- We'll be discovering what's the best neighborhood for a new restaurant in the city of Milan, Italy
- The Administration of the City of Milan has joined the Open Data movement, making many datasets publicly available
- Foursquare's crowdsourced database is freely accessible and contains many information about Milan's venues

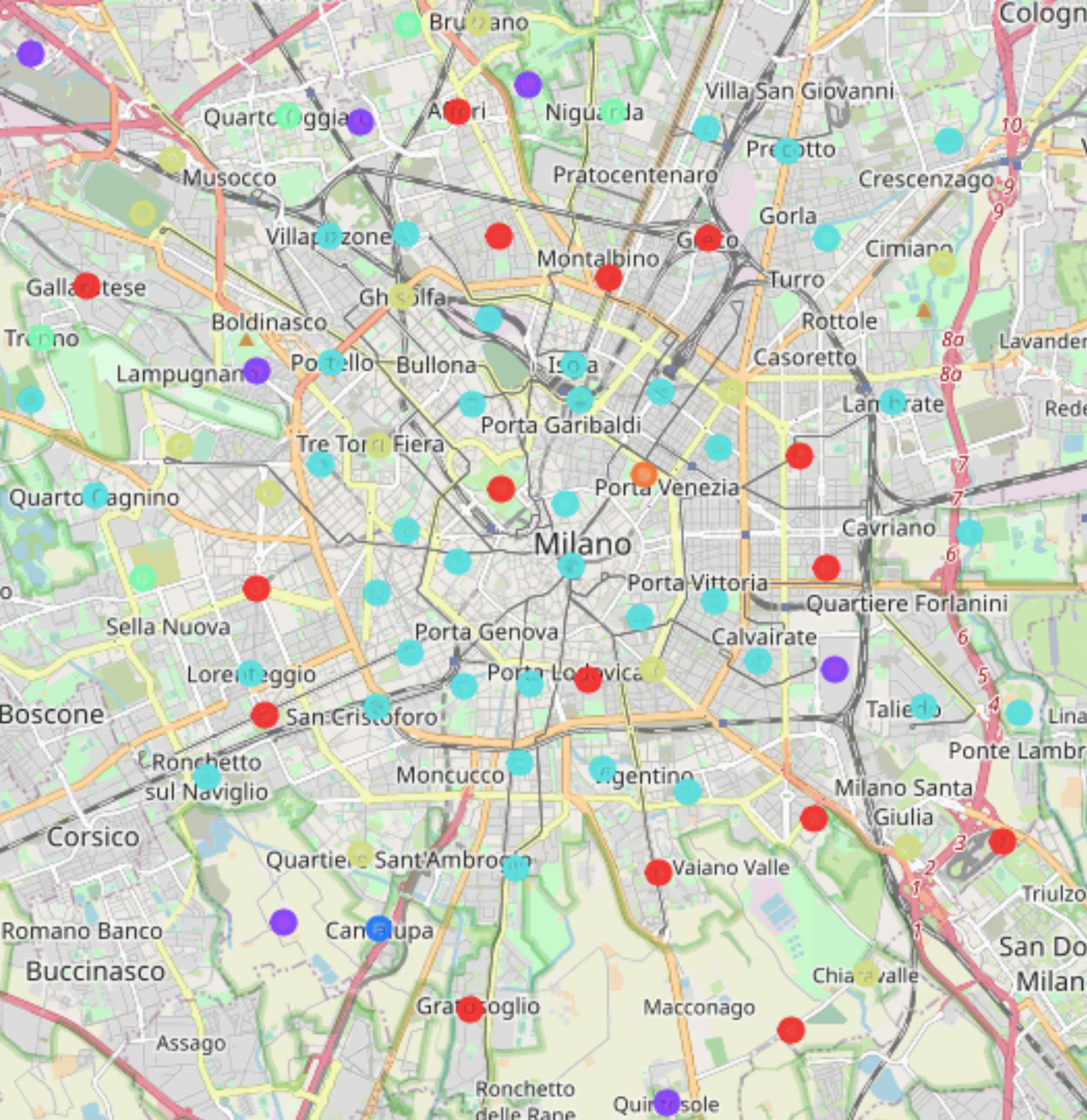


# TACKLING THE PROBLEM

- How can we determine the best neighborhood for a new restaurant?
- Neighborhoods are usually **different** in terms of kind of people who live in them
- There are “young” neighborhoods, “residential” neighborhoods, “business” neighborhoods...
- This differentiation determines the different kind of restaurants in each neighborhood!
- We may then determine the market demand for a certain category of restaurant by looking at the **top5** restaurant categories **in each neighborhood**

# MACHINE LEARNING

- By using the “K-Means” machine learning technique, I was able to determine the different “mix” of restaurants in each neighborhood
- The image shows the computer-assigned colors per each type of restaurant mix in each neighborhood

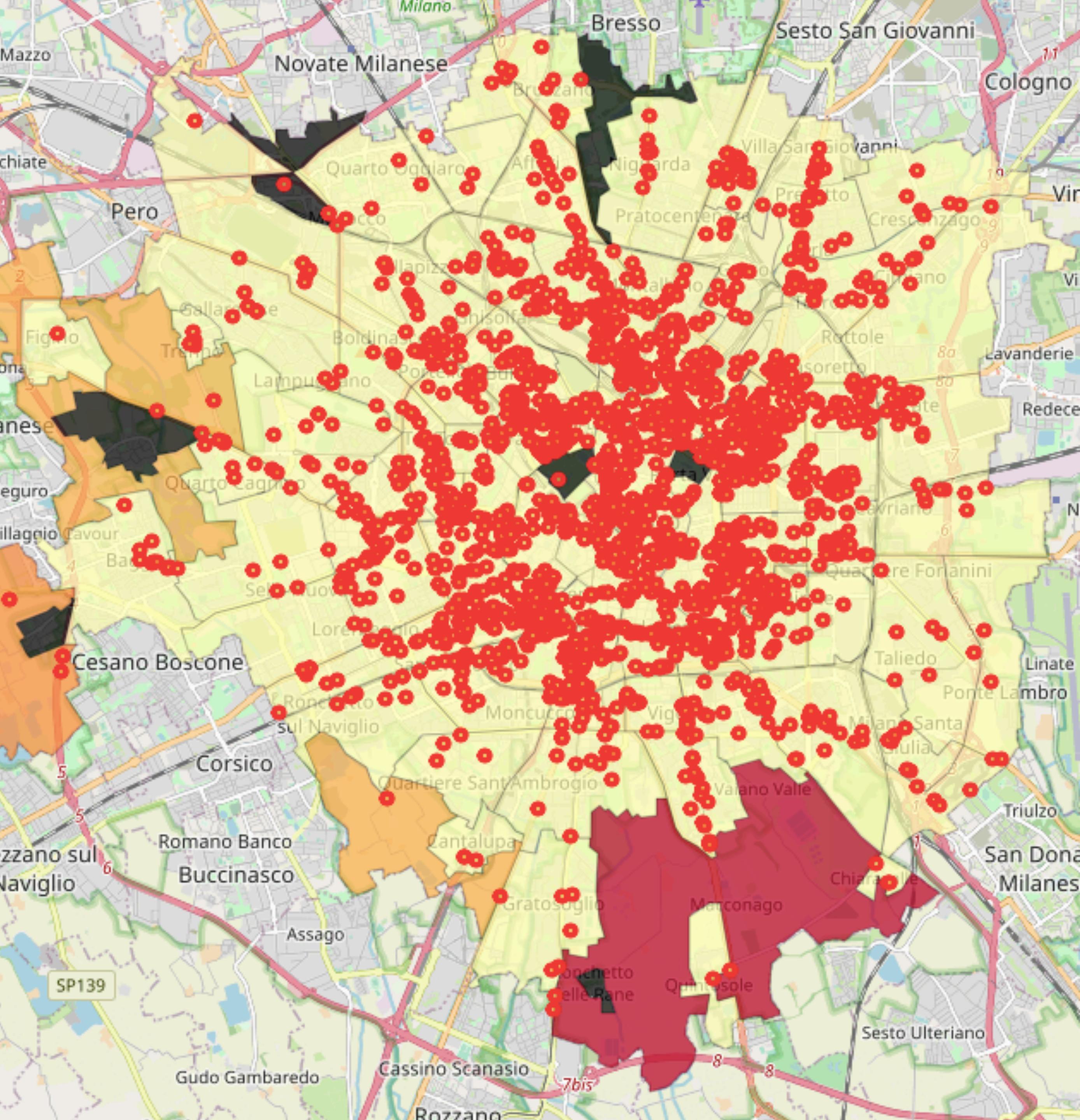


# DISCOVERIES

- The analysis uncovered three insights:
  1. The highest concentration of **Italian** restaurants is in the central neighborhoods, probably due to the high tourist demand of Italian cuisine
  2. The highest concentration of **Pizzerias** is in the neighborhoods mostly attended by young people, suggesting a high demand for low-cost food
  3. The highest concentration of **Ethnic** restaurants is in the suburbs, where the lowness of real estate prices has stimulated the presence of foreign low-wage workers

# THE BEST LOCATION

- In the year 2025, the suburban areas will show the most increase in high-spending population
- These areas have now the lowest restaurant density, meaning less competition for a future new venue
- So, I'd suggest to establish an **Ethnic** restaurant in a **Suburban** neighborhood



THANK YOU!