Best place to open new Souvlaki Shop
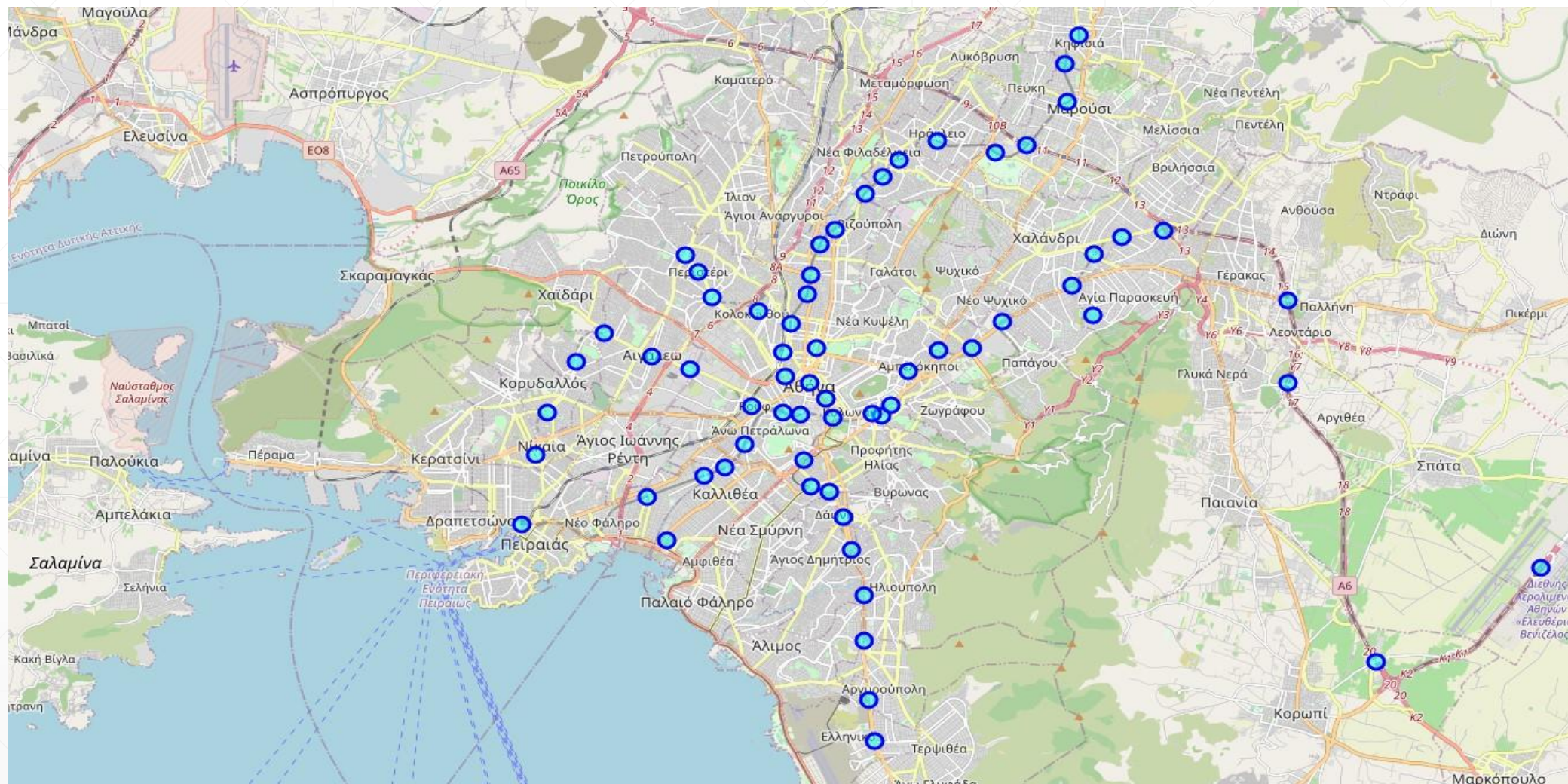
Kostas Smonos

Determining the best spot is crucial for success

- People tend to gather in places with the most venues, therefore a place with high people density is a safe bet

- Accessibility is key for any kind of shop. That's why our target areas are within 400 meter range from subway stations

- Overloading an area with a lot of shops offering the same commodity is bad for business. That's why in the end we cluster areas depending on the number of preexisting Souvlaki Shops.

- Being a pioneer is good but risky, that's why we choose areas that already have at least one Souvlaki Shop in range to ensure there is a market in the area.
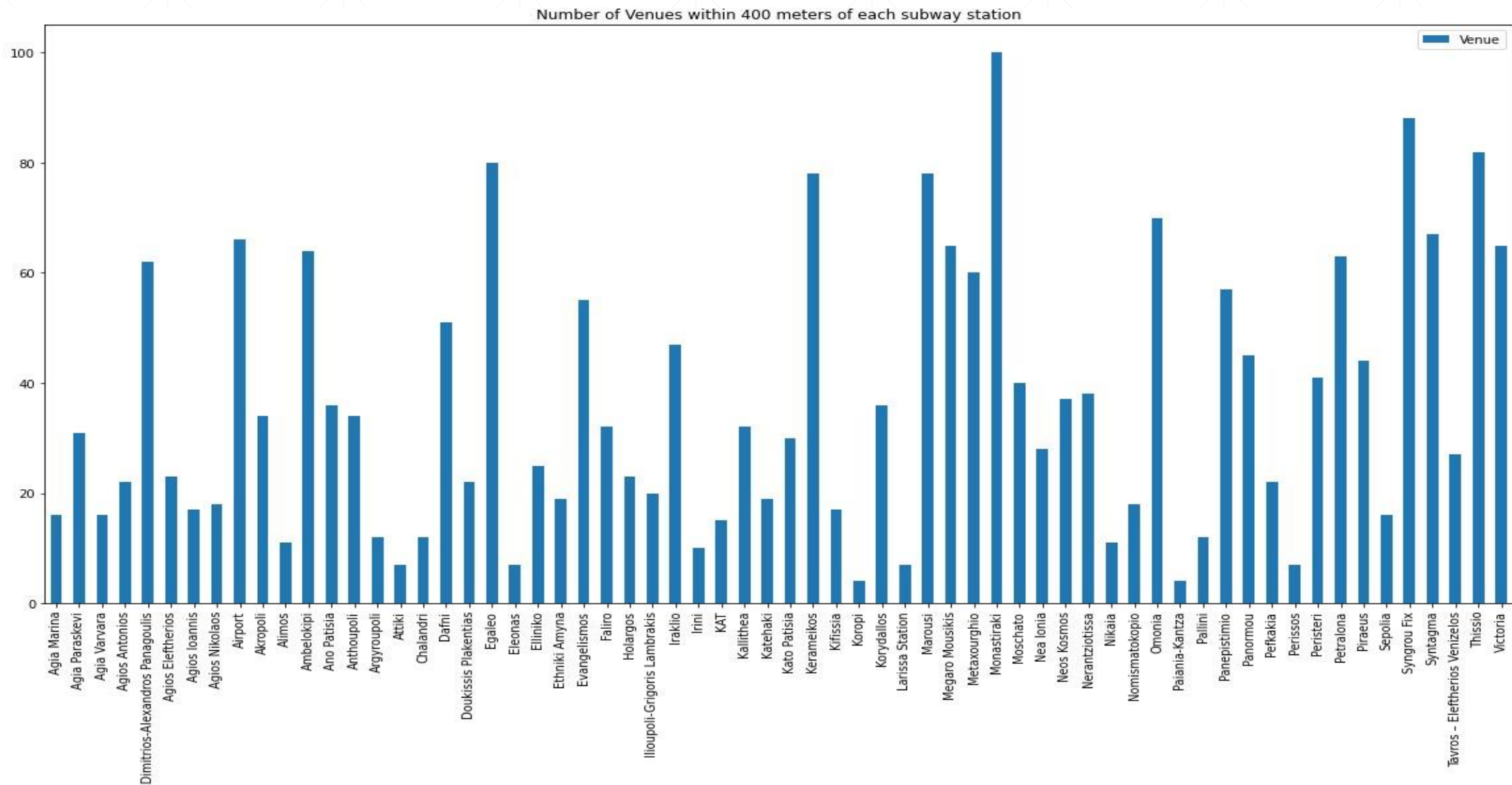
Data Acquisition and cleaning

- Subway station names scraped from https://en.wikipedia.org/wiki/List_of_Athens_Metro_stations

- Subway station locations scraped from each respective link in the above table. They were afterwards converted from DMS to DD for use with Folium maps.

- Surrounding venue data was acquired from Foursquare API

- In total 2295 samples in my venue dataset, of 249 unique venue categories.

Created with Folium using scraped Wikipedia data.

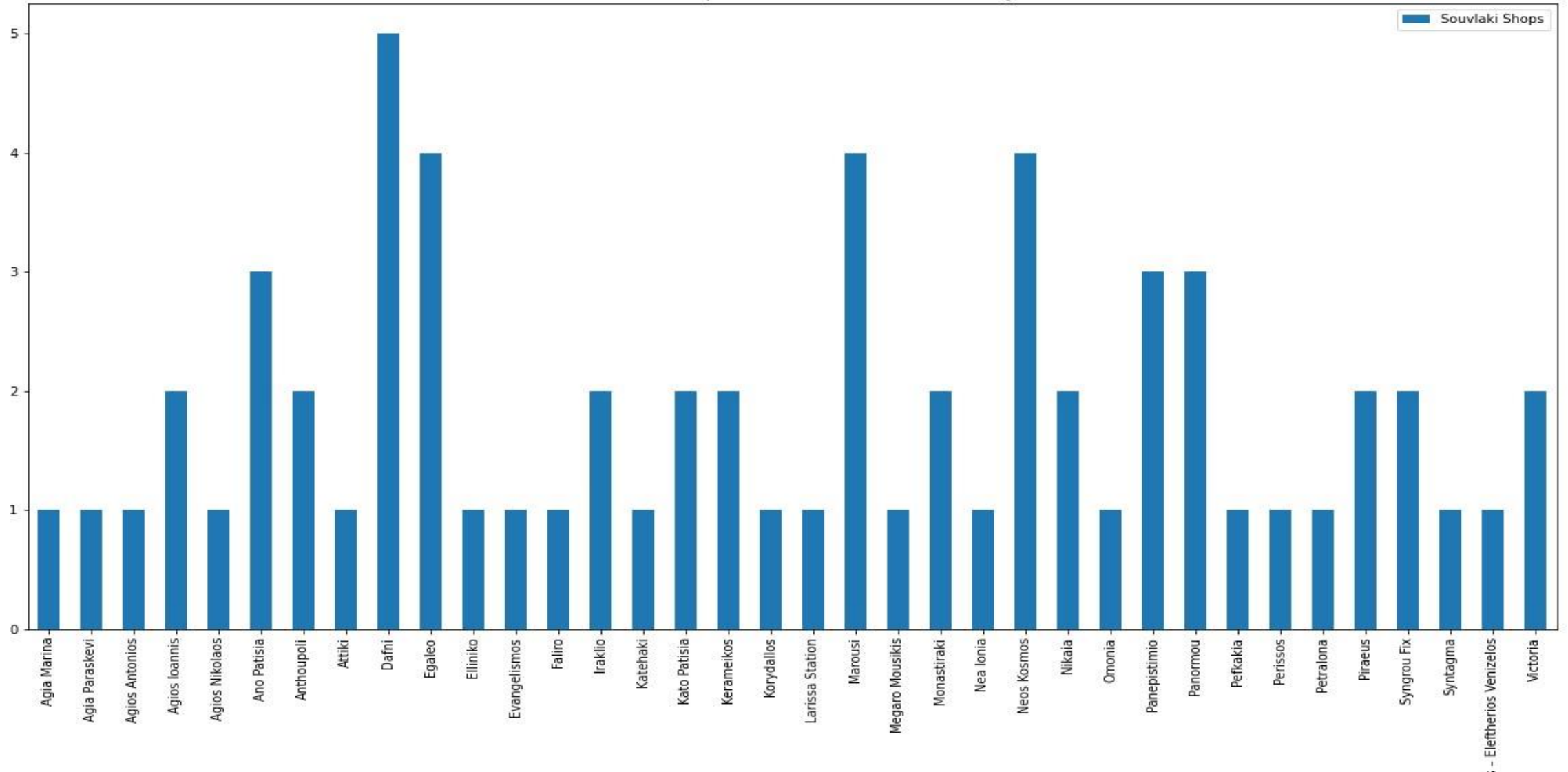# Map of all subway stations in Athens.

Number of Venues within 400 meters of each subway station

We use this data to determine the most venue – dense locations around subway stations.

Venue count by area

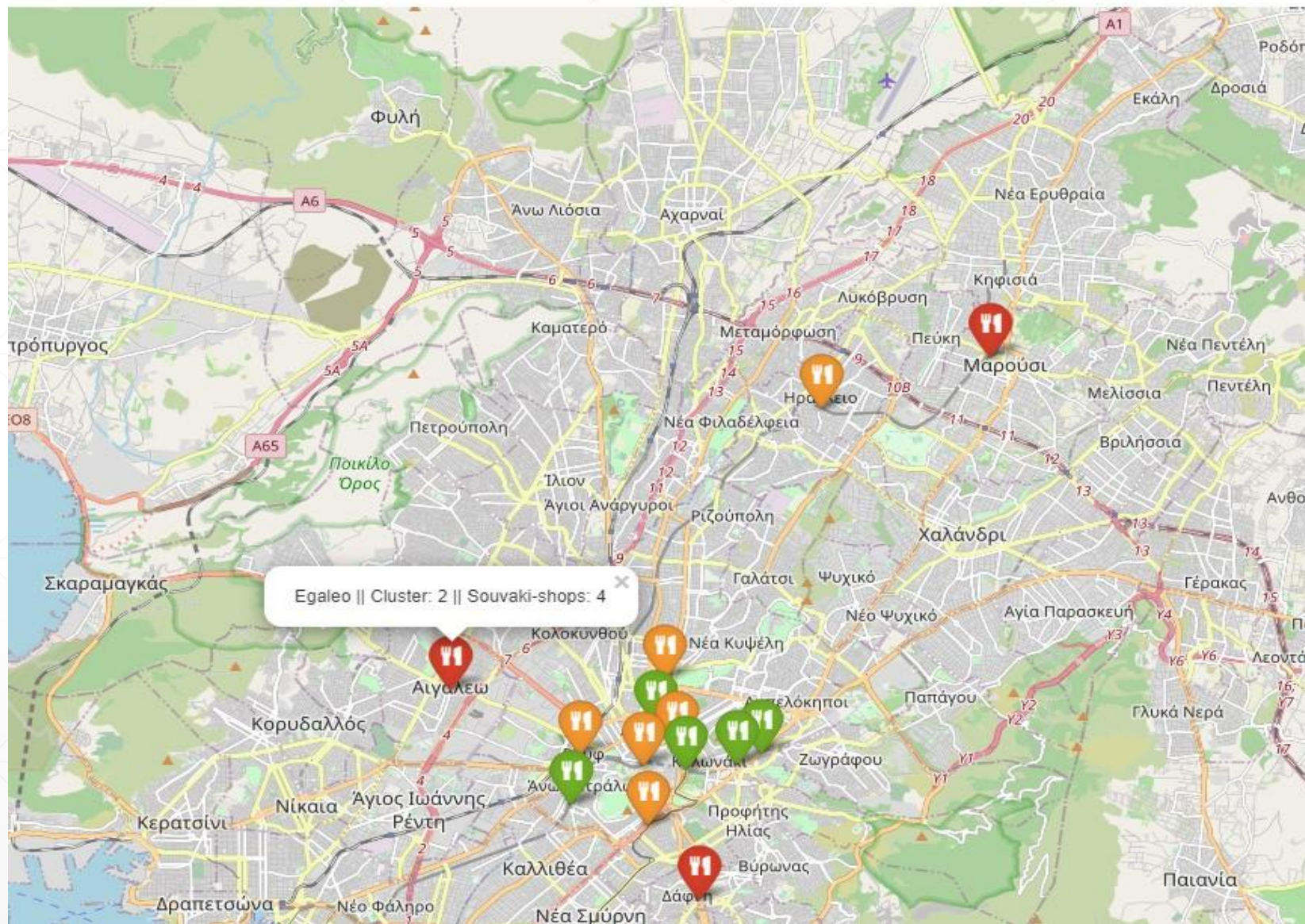- **We want a dense area with a small amount of Souvlaki Shops already present**

Number of Souvlaki Shops within 400 meters of each subway station

Station	Cluster Labels	Municipality	Latitude	Longitude	Souvlaki Shops
Dafni	2	Dafni	37.950000	23.738333	5.0
Egaleo	2	Aigaleo	37.991111	23.681667	4.0
Evangelismos	0	Athens	37.976389	23.746944	1.0
Iraklio	1	Irakleio	38.046111	23.766111	2.0
Kerameikos	1	Athens	37.978333	23.711389	2.0
Marousi	2	Marousi	38.056111	23.804722	4.0
Megaro Mousikis	0	Athens	37.978611	23.752500	1.0
Monastiraki	1	Athens	37.976111	23.725556	2.0
Omonia	0	Athens	37.984167	23.728333	1.0
Panepistimio	1	Athens	37.980278	23.733056	3.0
Petralona	0	Athens	37.968611	23.709167	1.0
Syngrou Fix	1	Athens	37.964444	23.726667	2.0
Syntagma	0	Athens	37.975278	23.735278	1.0
Victoria	1	Athens	37.993056	23.730556	2.0

Clusters of venue-dense subway areas based on num of Souvlaki Shops present

Best areas to open a new Souvlaki Shop (based on our criteria) map

Conclusion

▪ It seems the best areas for a new Souvlaki Shop based on our criteria are very close to the center of Athens. This reenforces our confidence that our model is correct as those are also the most populated areas in Athens.

▪ Specifically the best options would be within 400 meters of subway stations in:

  ▪ Petralona

  ▪ Omonoia

  ▪ Megaro Mousikis

  ▪ Evangelismos

  ▪ Sintagma

▪ Results were produced analyzing results from Foursquare which were a bit lacking in some areas so further analysis might be in order.