

# Project: „Airbnb”

Investment in Airbnb apartments in Europe

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# 5 Million € for Airbnb apartments in European cities

- Value to be invested:  
**5 Million Euros**
- All kind of cities taken  
under consideration:  
**small, big, cheap and  
expensive**
- Goal is to invest money  
with **highest rate of  
return**
- Predictions based on  
**XGBoost** Machine  
Learning Model



# Where we want to invest?

- Athens
- Geneva
- Riga
- Vienna





# Size does matter!

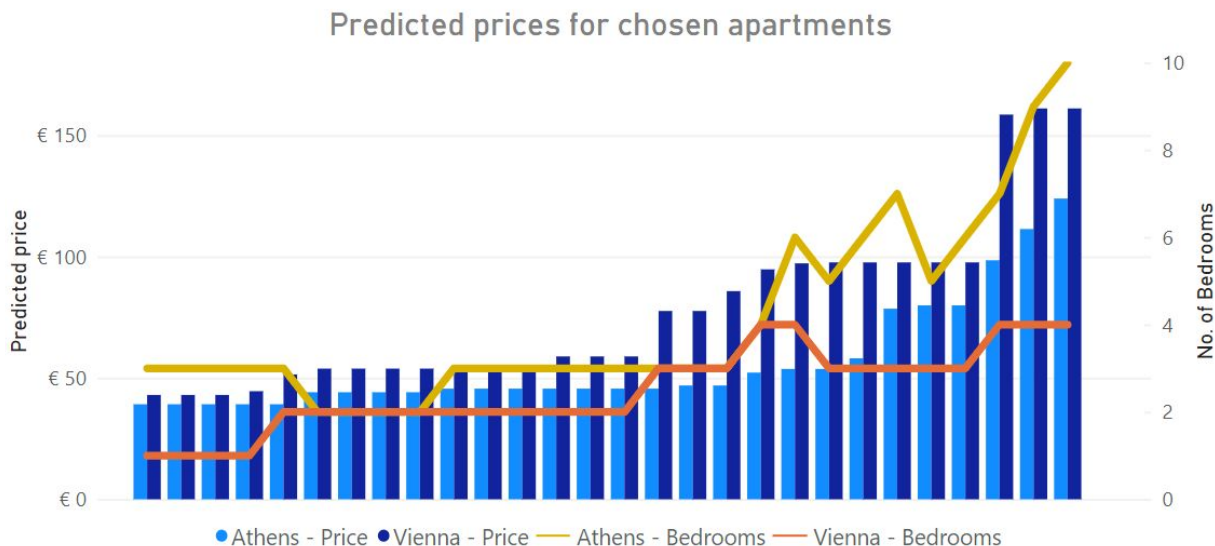
- Riga and Geneva have only around **2000 records** in Airbnb.
- Algorithms used didn't provide valuable data for those cities.
- Error of predicted renting price values in Athens and Vienna were **significantly smaller**.
- Models used for those cities are **accurate**.



# Single apartment in Vienna earns more

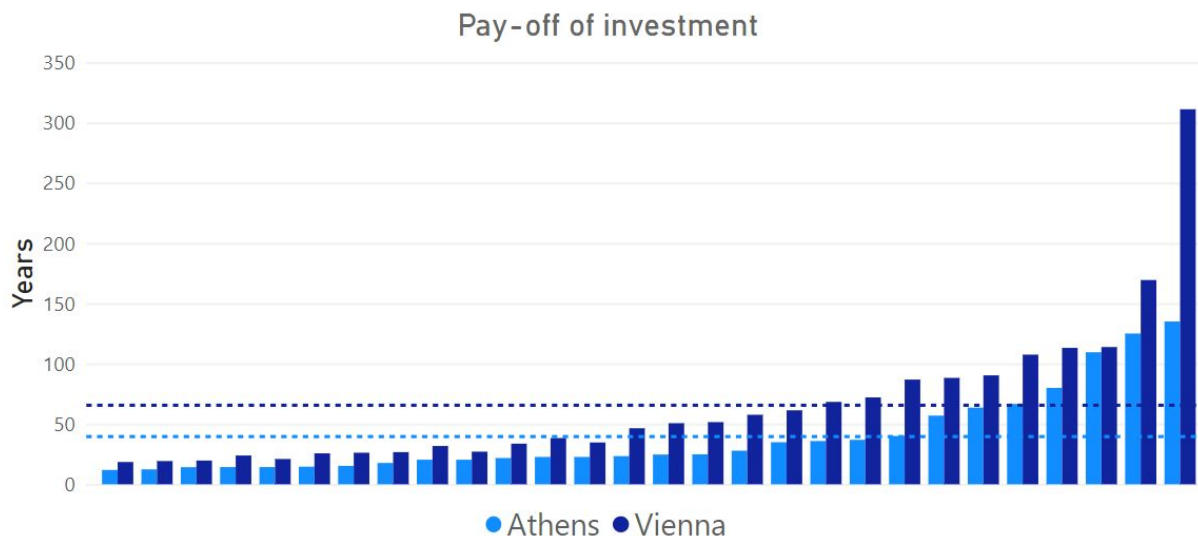
For chosen **28 apartments**, model classifies **Vienna** as more profitable, even though chosen apartments were much **smaller**, than those in Athens.

Does it mean that we can count for better profit in Vienna?



# Investment in Athens can generate more profit

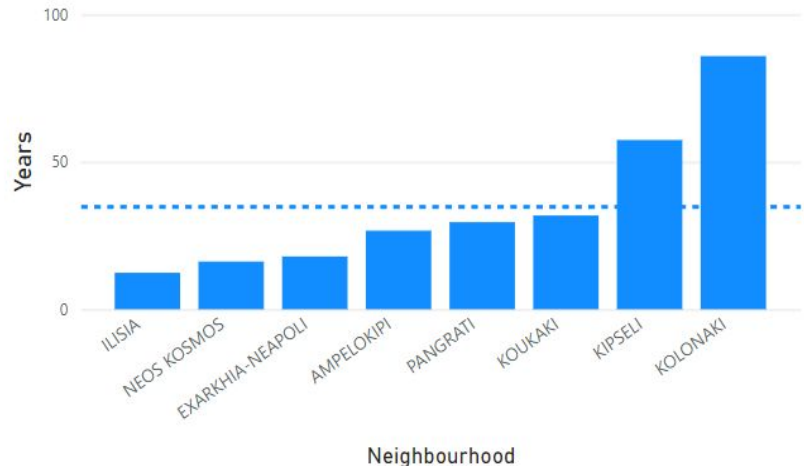
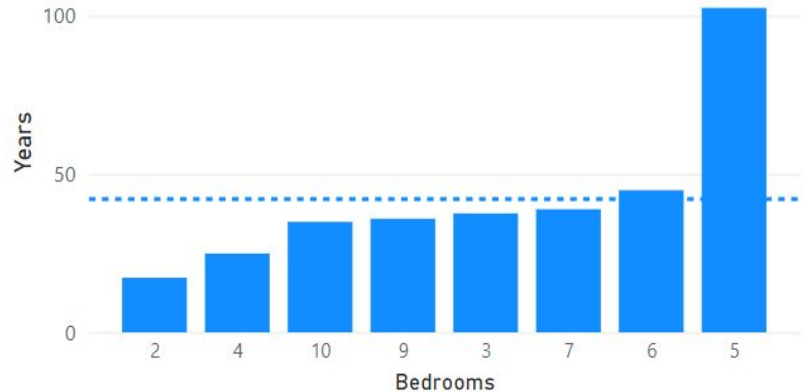
Factor, which says more about rate of return is the number of years, which are needed to **pay off** investment in one of chosen **28 apartments**. On this field **Athens** seems to be **more attractive** for investors.



# Influence on rate of return

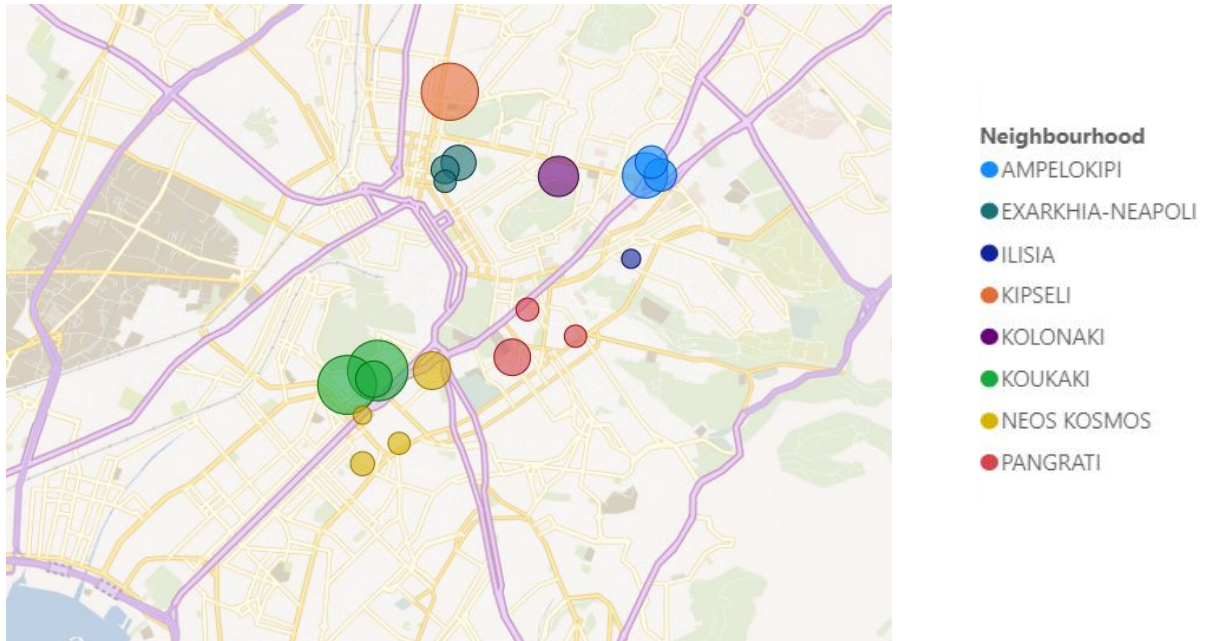
- Number of bedrooms have high influence on price.
- The most profitable are apartments with the **lowest and highest** number of bedrooms.
- Some neighborhoods offers **high renting prices** in comparison to cost of apartment.
- According to model 4 **most profitable neighborhoods** in Athens are: Ilisia, Neos Kosmos, Exarkhia-Neapoli and Ampelokipi.

Pay-off of investment



# Plan: 2-bedroom flats in Neos Cosmos

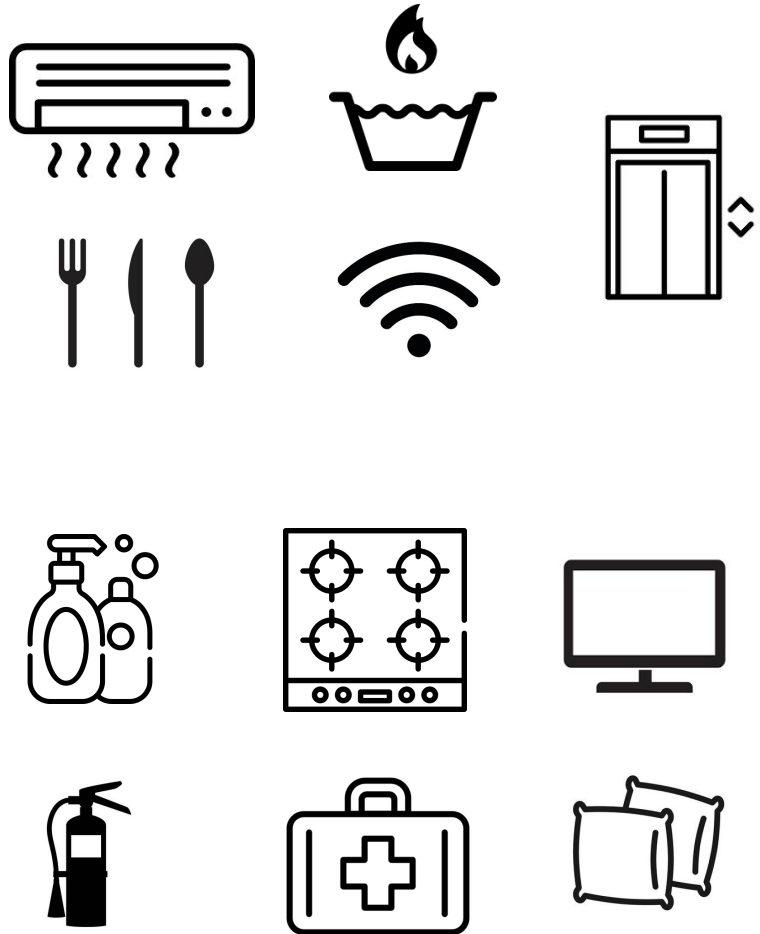
Map below shows apartments with pay-off time below average. **Smallest bubbles** represents **best return rate**. They are placed in well communicated neighborhoods, close to main city attractions





# Equipment have influence on price too

- **Size and location** of the apartment is most important strategic decision
- Nevertheless, Airbnb price may be bumped by raised by equipping flat with **amenities** valued by tourists in **Athens**
- Some amenities are **must have**, due to local practices i.e. **A/C**
- Others aren't so commonly used, but statistical tests showed, that he also may **bump the price!**



# Investment plan

- Our target are **small apartments in Athens** with around **2 bedrooms**, which will be rented as whole rental unit.
- Apartments shall be placed in **well communicated**, but rather cheap **neighborhoods**, like Ilisia, Neos Kosmos, Exarkhia-Neapoli and Ampelokipi.
- Money spent on apartments shall be adjusted to fact, that amenities also need some investment.
- Models used have assumptions, that **Superhost** status is needed, as well as aspiration to be properly rated by former guests.
- According to calculations **13 apartments** may be bought and prepared for renting for **5 Million €**.
- This investment would pay off in **17 years**. Not including rising prices of apartments.