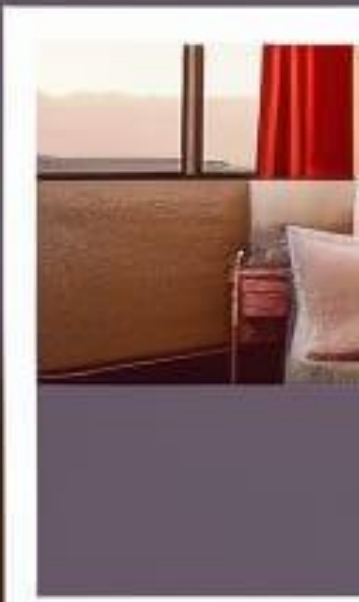
AirBNB Data Analysis



1 – INTRODUCTION

Title:

Analyzing AirBNB Data for European Cities

Objective:

To identify AirBNB statistics according to the cities, accommodation preferences and subway distance.

Data Source:

Kaggle - AirBNB prices in European Cities(CHRDIM)

2 – OVERVIEW OF DATA

Number of observations:

51,707

Variables included:

‘City', 'realSum', 'room_type', 'room_shared', 'room_private’, 'person_capacity', 'host_is_superhost’, 'cleanliness_rating’, 'guest_satisfaction_overall', 'bedrooms’, 'dist', 'metro_dist’, 'Day’

Data cleaning:

Duplicates removed, missing values imputed or removed, column data types identified and corrected.

3 – DESCRIPTIVE ANALYSIS

Which cities are the most expensive?

Most Expensive City: Amsterdam

Cheapest City: Athens

Average Entire Home/Apt Cost (€)

Weekday

Amsterdam, Barcelona and Paris are the most expensive cities among the other cities.

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Average Private Room Cost (€)

Weekday

Barcelona, Amsterdam and Berlin have the highest price drop from entire home/apt category to private room category.

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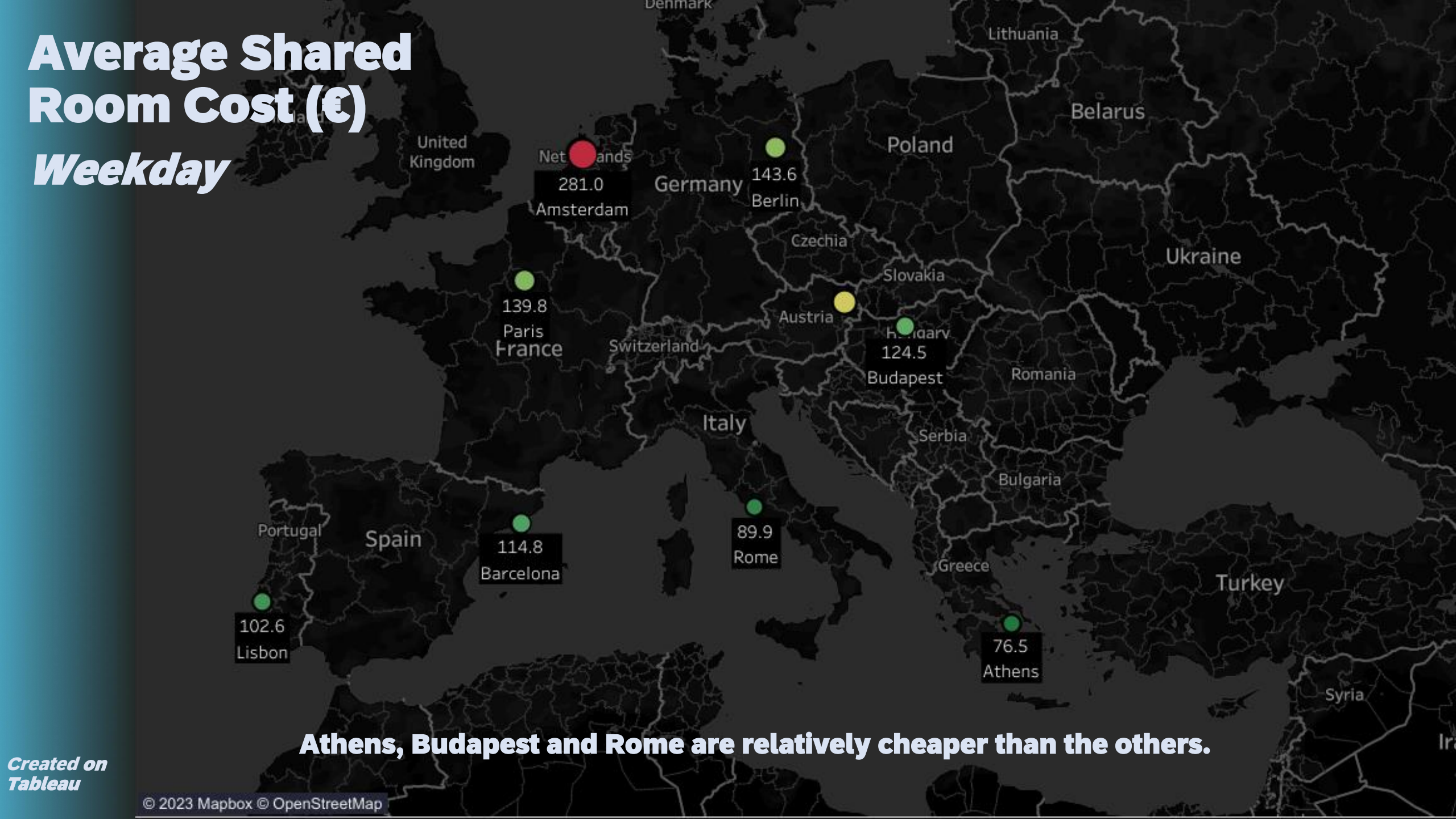
Average Shared Room Cost (€)

Weekday



Athens, Budapest and Rome are relatively cheaper than the others.

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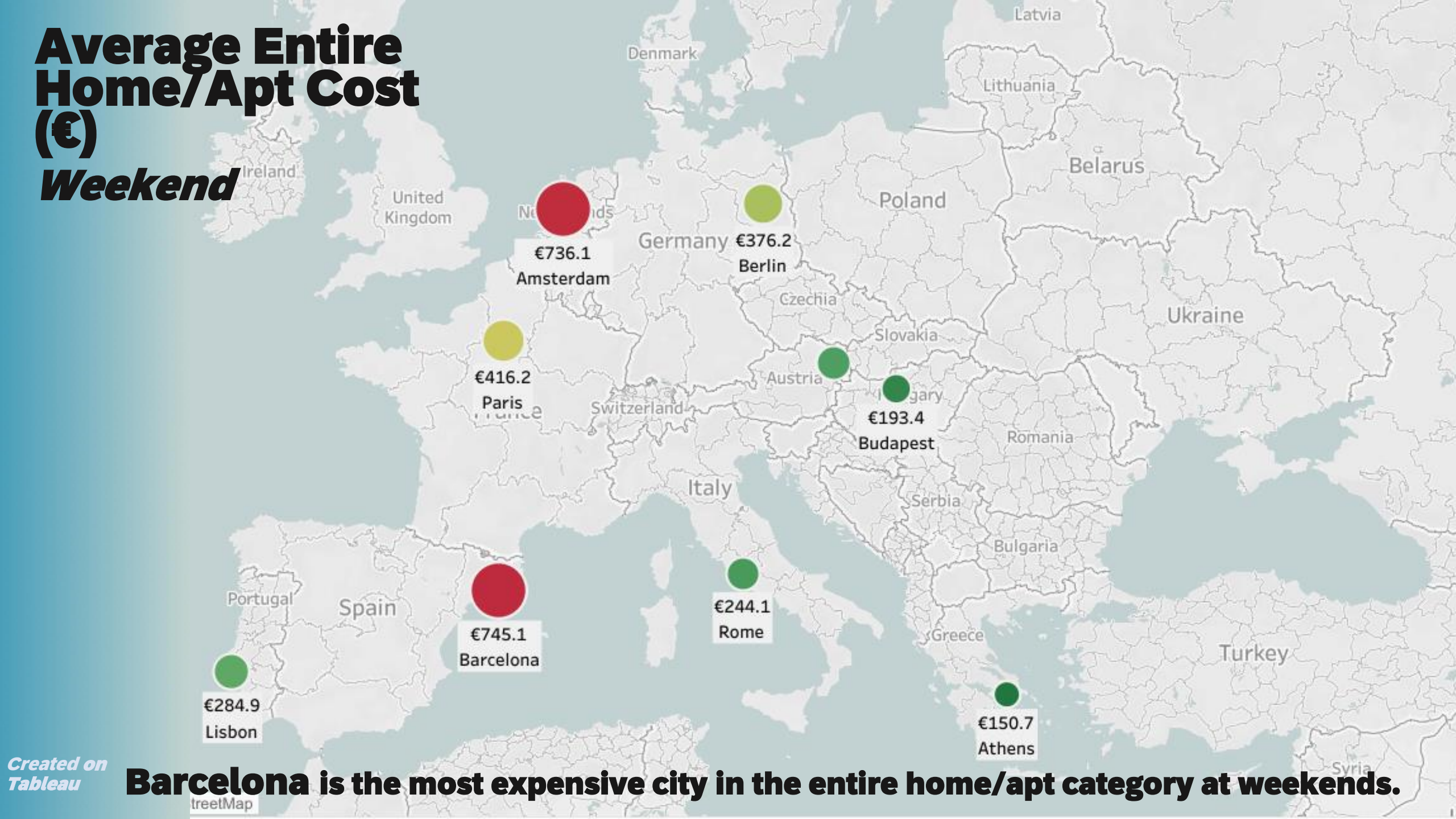
Average Entire Home/Apt Cost (€)

Weekend



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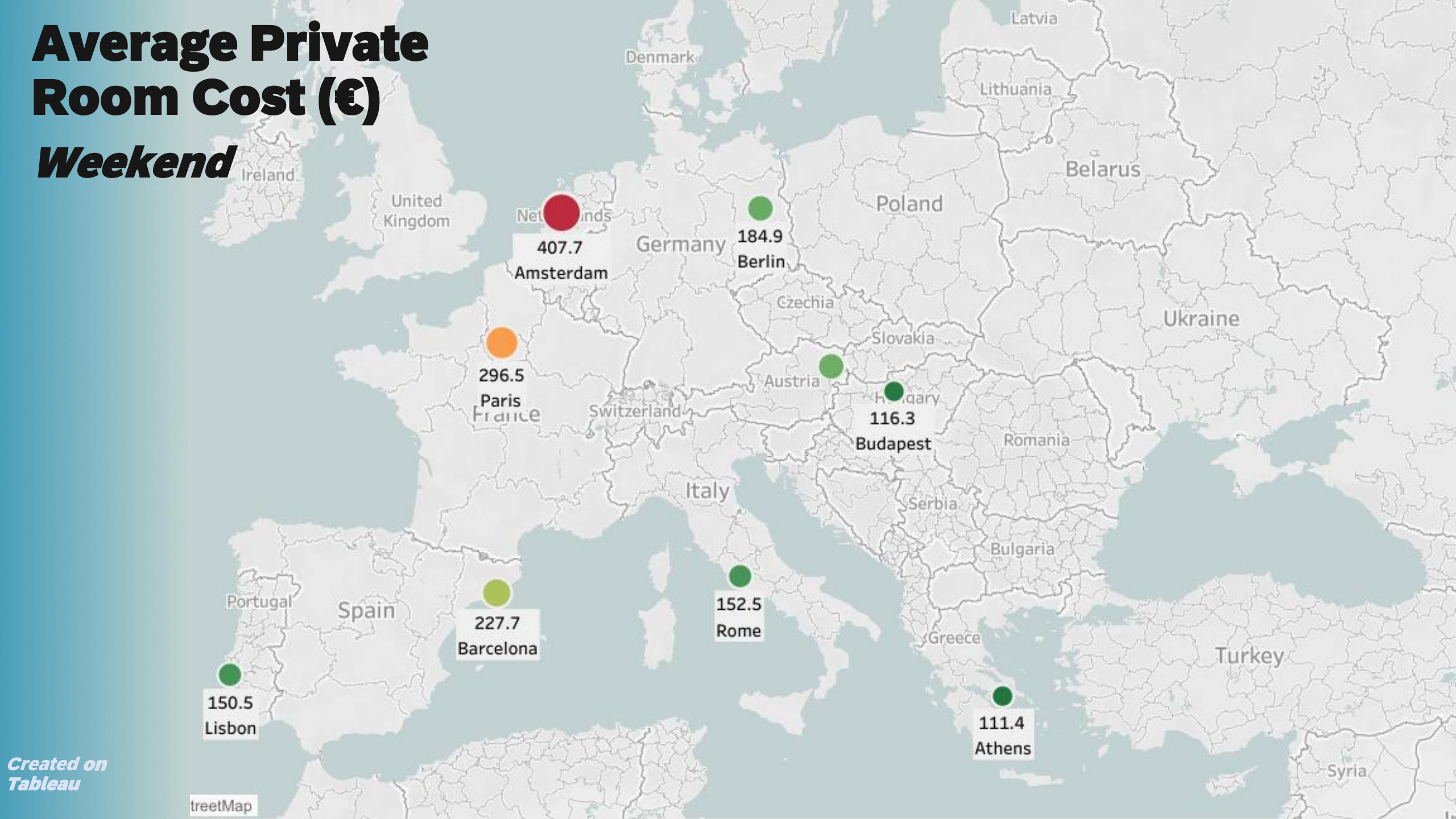
Barcelona is the most expensive city in the entire home/apt category at weekends.

Average Private Room Cost (€)

Weekend



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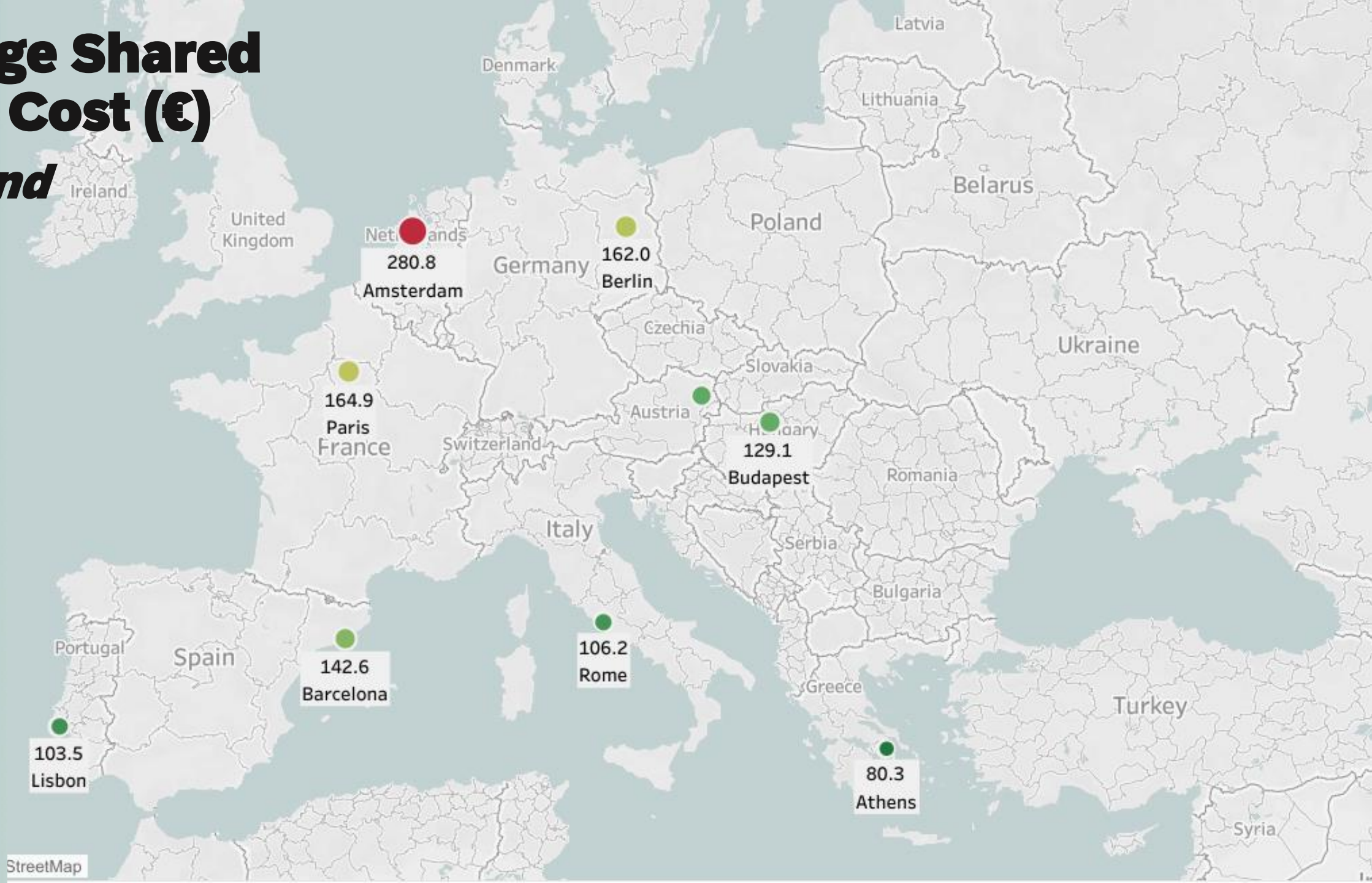
Average Shared Room Cost (€)

Weekend



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Average Prices of accommodation

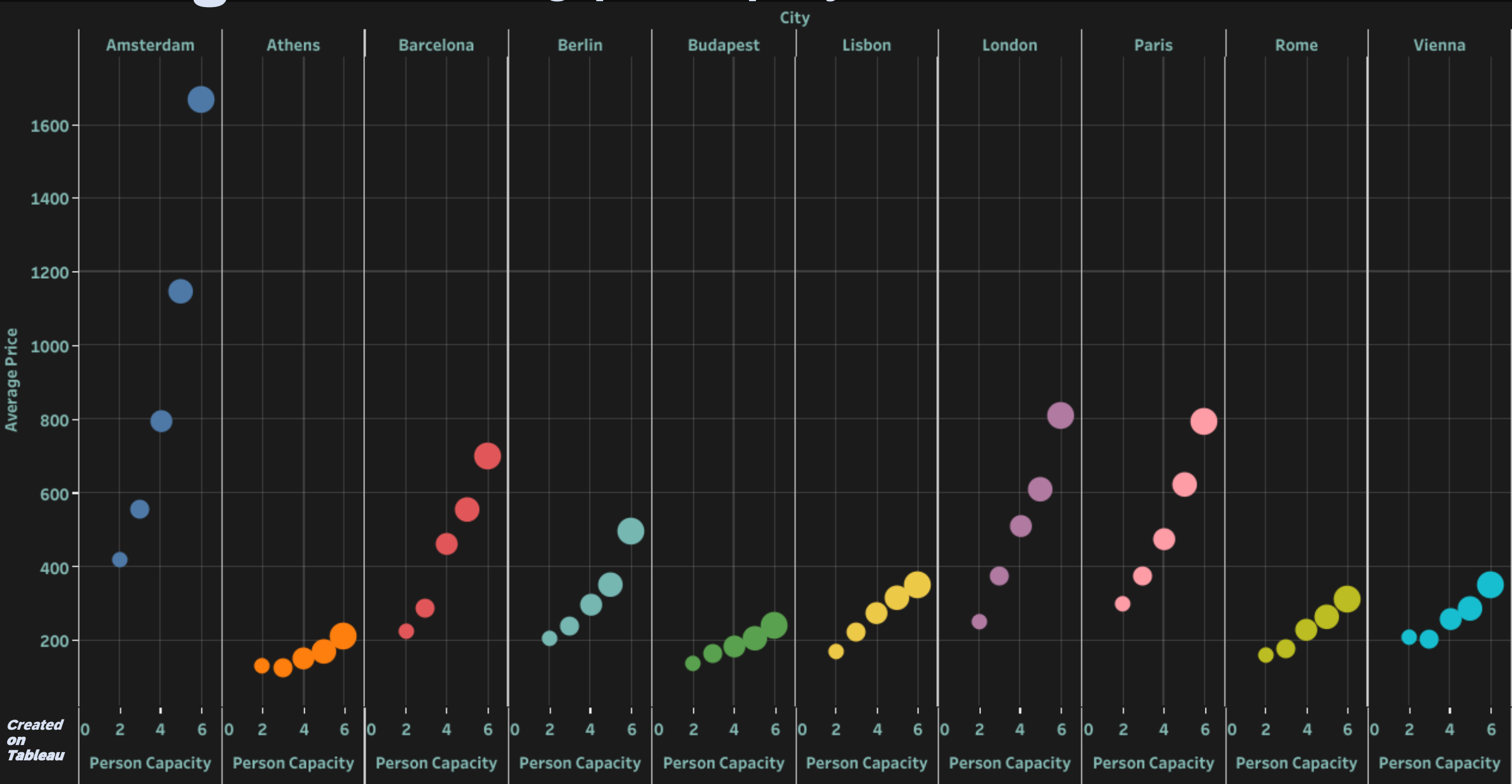
What is the relationship between person capacity and price in the cities?

- Price gaps between rooms are bigger in Amsterdam.

- 3 person rooms may be cheaper than 2 person rooms in Athens and Vienna.

- Average 2 person room prices in Amsterdam are equal to average 6 person prices in Lisbon.

Average Prices through person capacity



Which cities have the highest number of places?

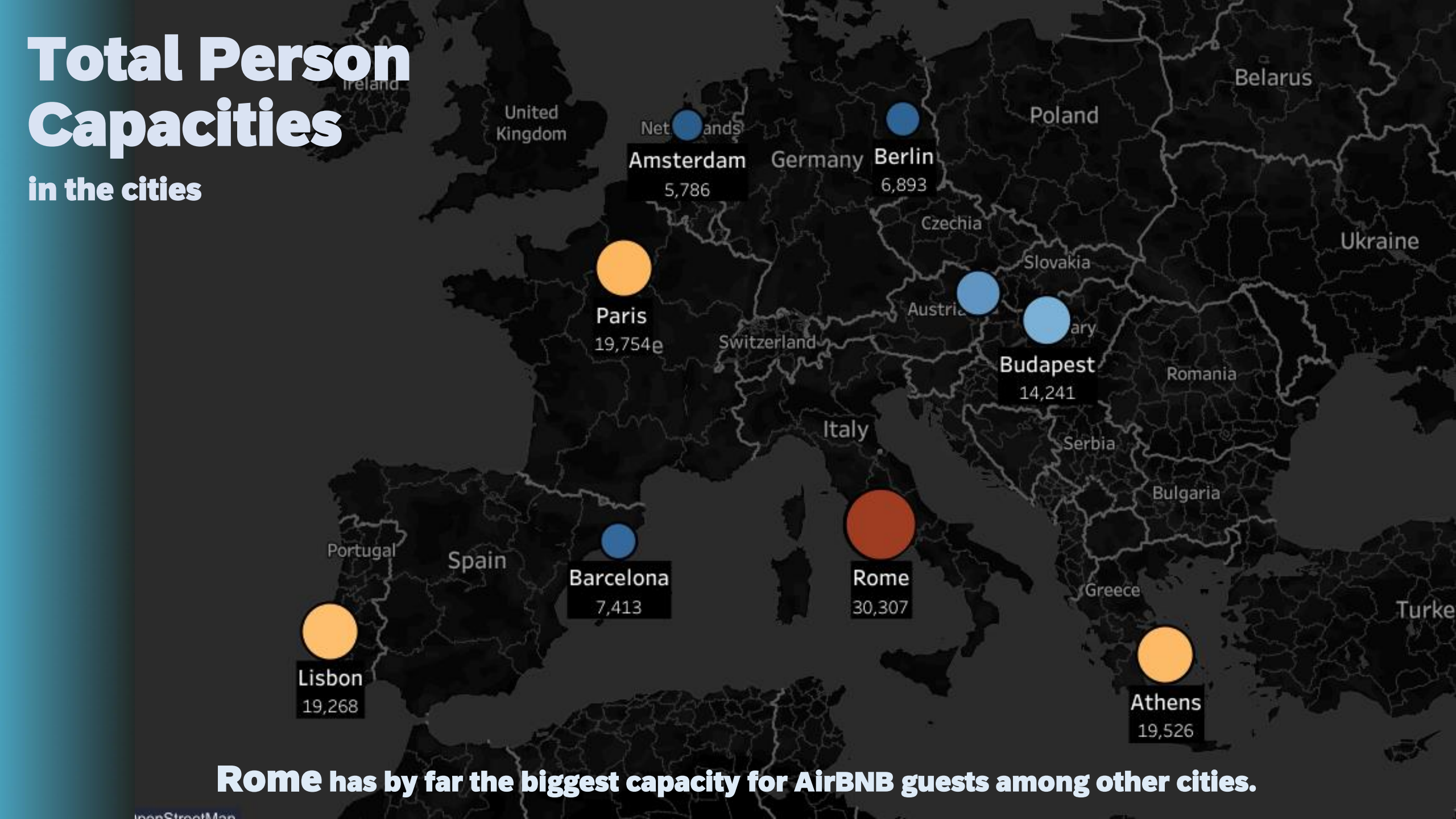
Highest Number of AirBNB Places: London

Lowest Number of AirBNB Places: Amsterdam

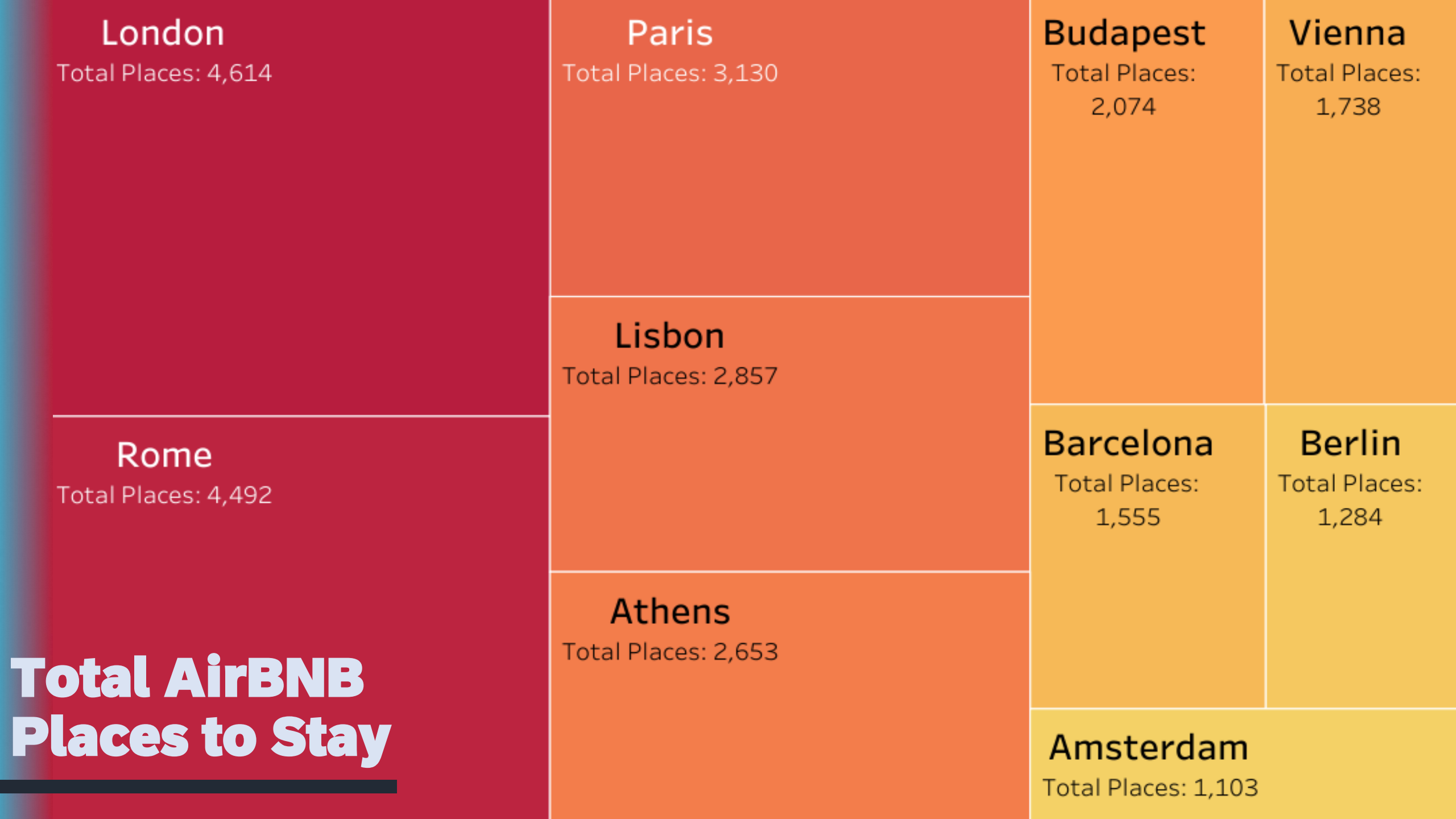
- **Amsterdam** has relatively less AirBNB places among others, on the other hand, has the highest prices.

Total Person Capacities

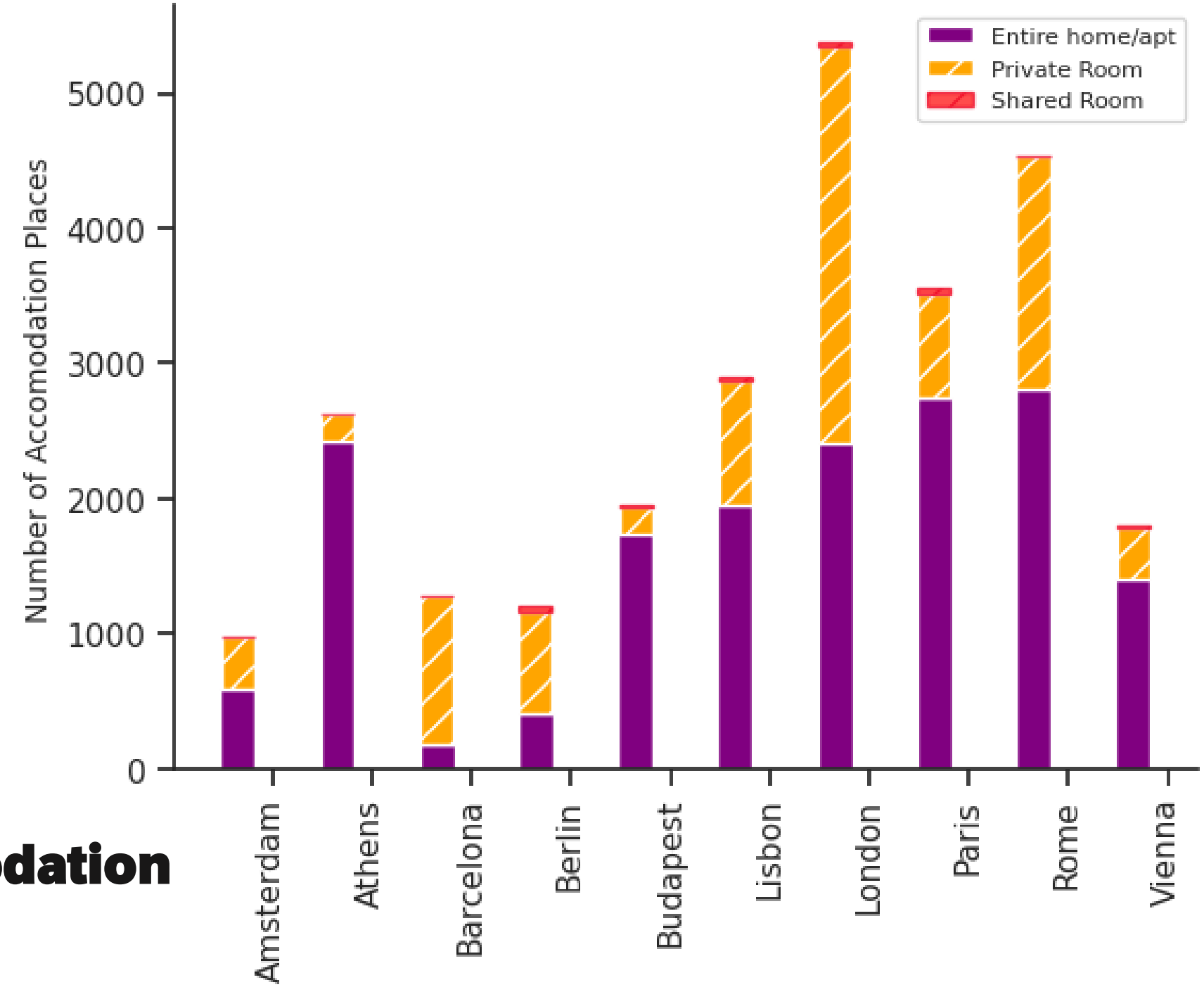
in the cities



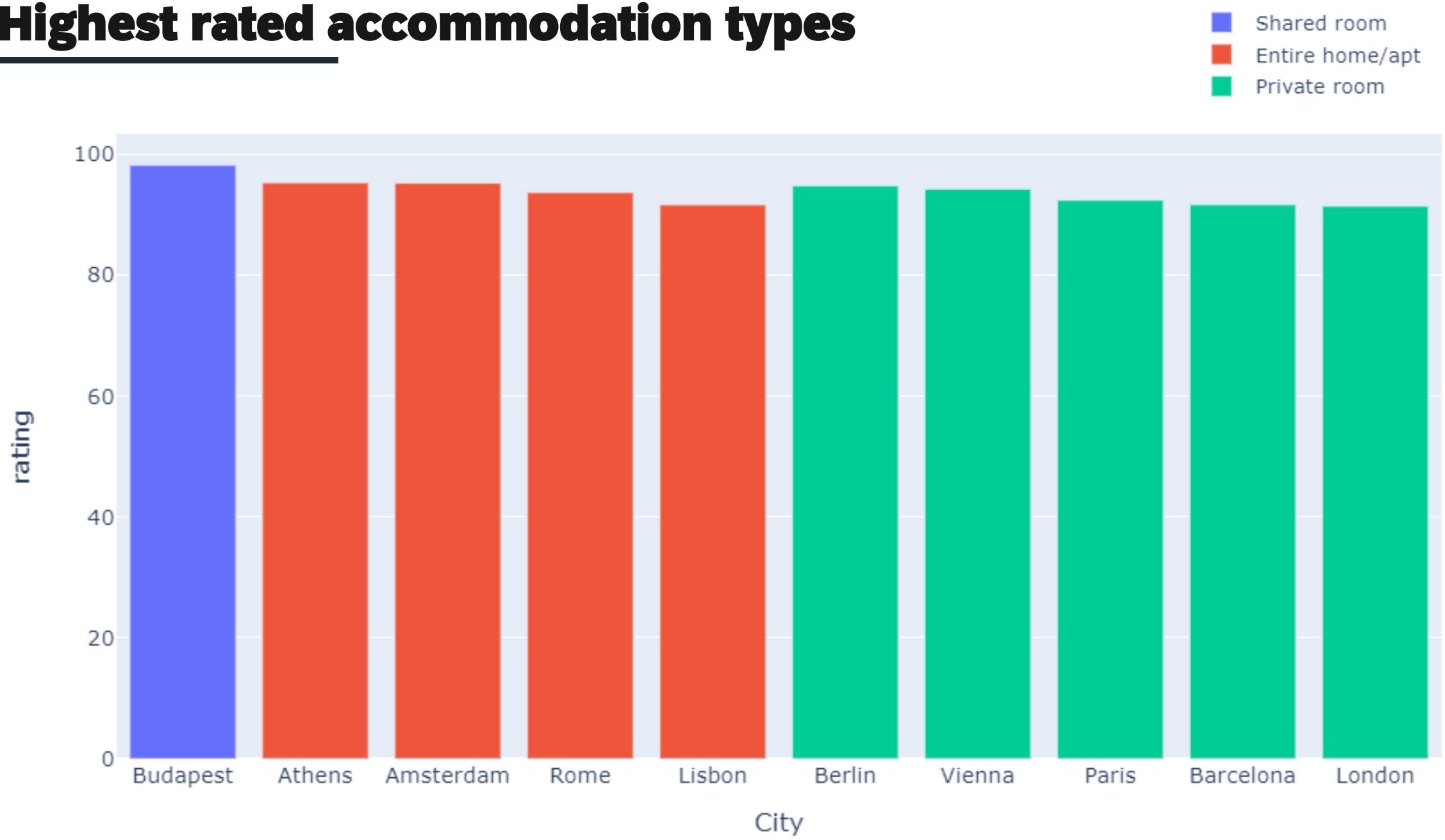
Rome has by far the biggest capacity for AirBNB guests among other cities.


London
Total Places: 4,614
Paris
Total Places: 3,130
Budapest
Total Places: 2,074
Vienna
Total Places: 1,738
Lisbon
Total Places: 2,857
Rome
Total Places: 4,492
Barcelona
Total Places: 1,555
Berlin
Total Places: 1,284
Athens
Total Places: 2,653
Amsterdam
Total Places: 1,103
Total AirBNB Places to Stay

AirBNB accommodation types



Highest rated accommodation types



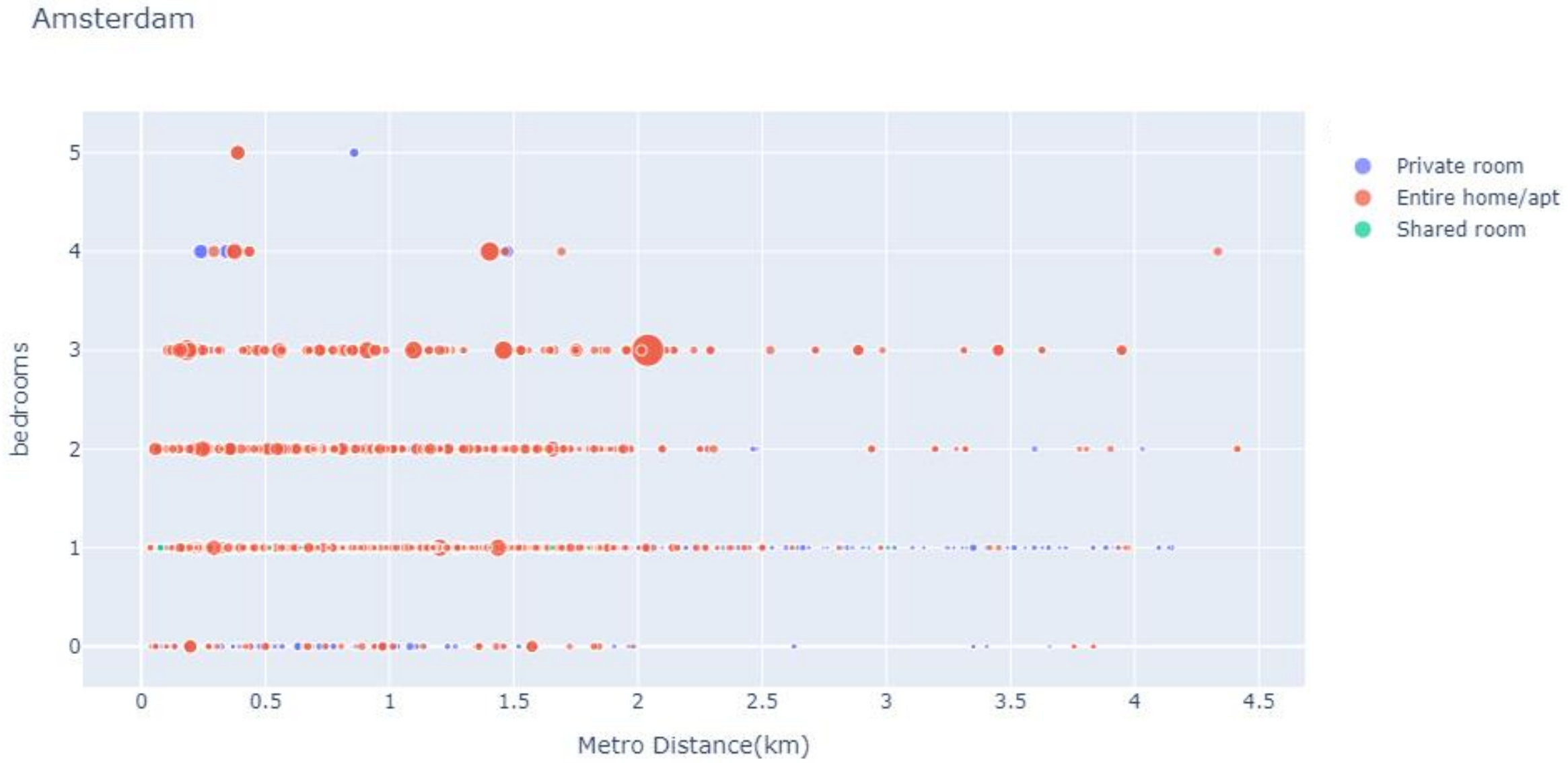
What is the relationship between subway distance and price?

- AirBNB accommodation in Paris, Athens, Barcelona and Vienna is mostly 0-1 km from metro.

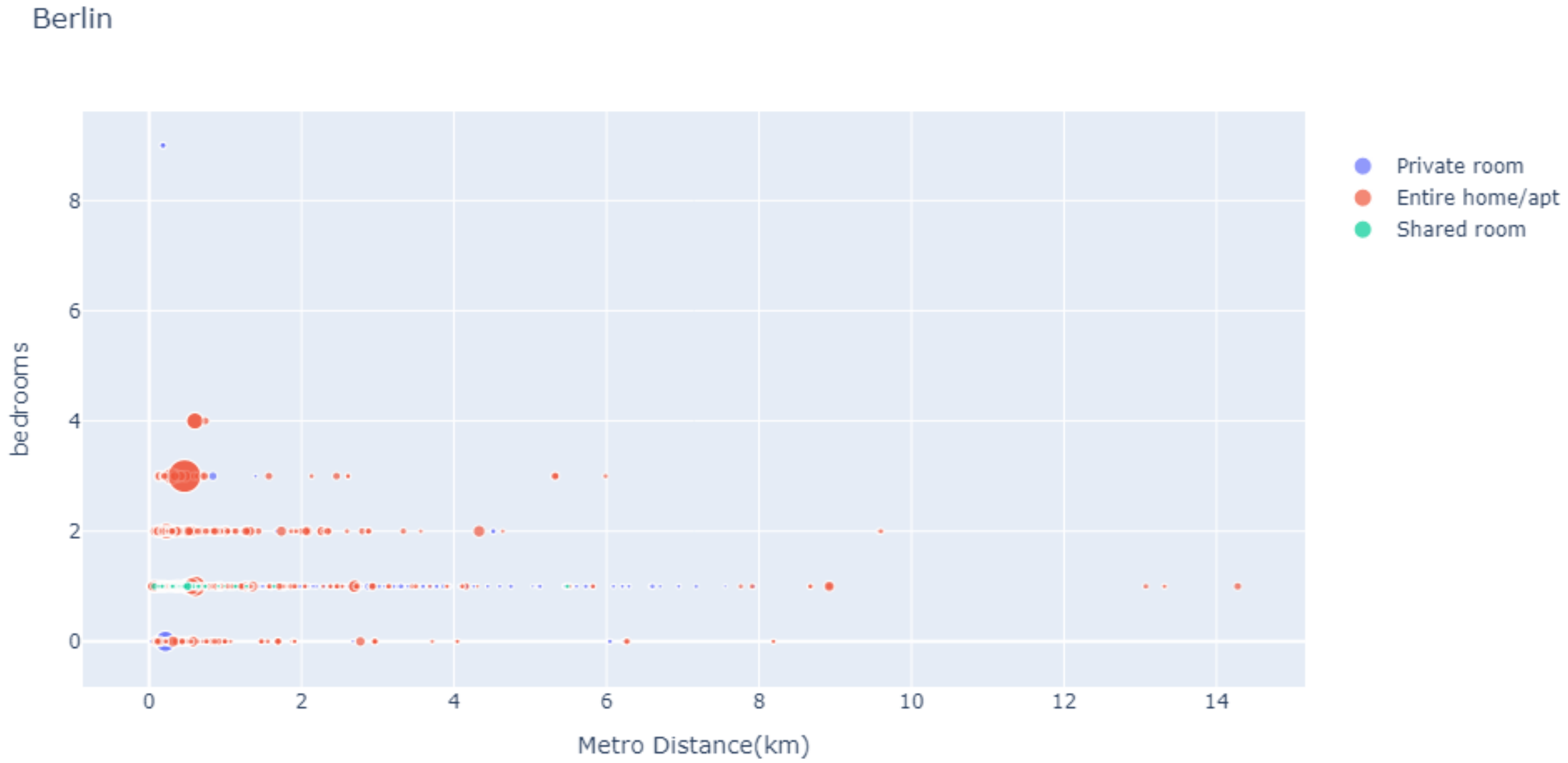
- In Lisbon, the distance from metro might be a problem.

- Except Amsterdam and Berlin, accommodation places which have the highest prices are mostly 1 bedroom-rooms and close to metro station.

Metro Distance – Bedroom Count – Price Graph



Metro Distance – Bedroom Count – Price Graph



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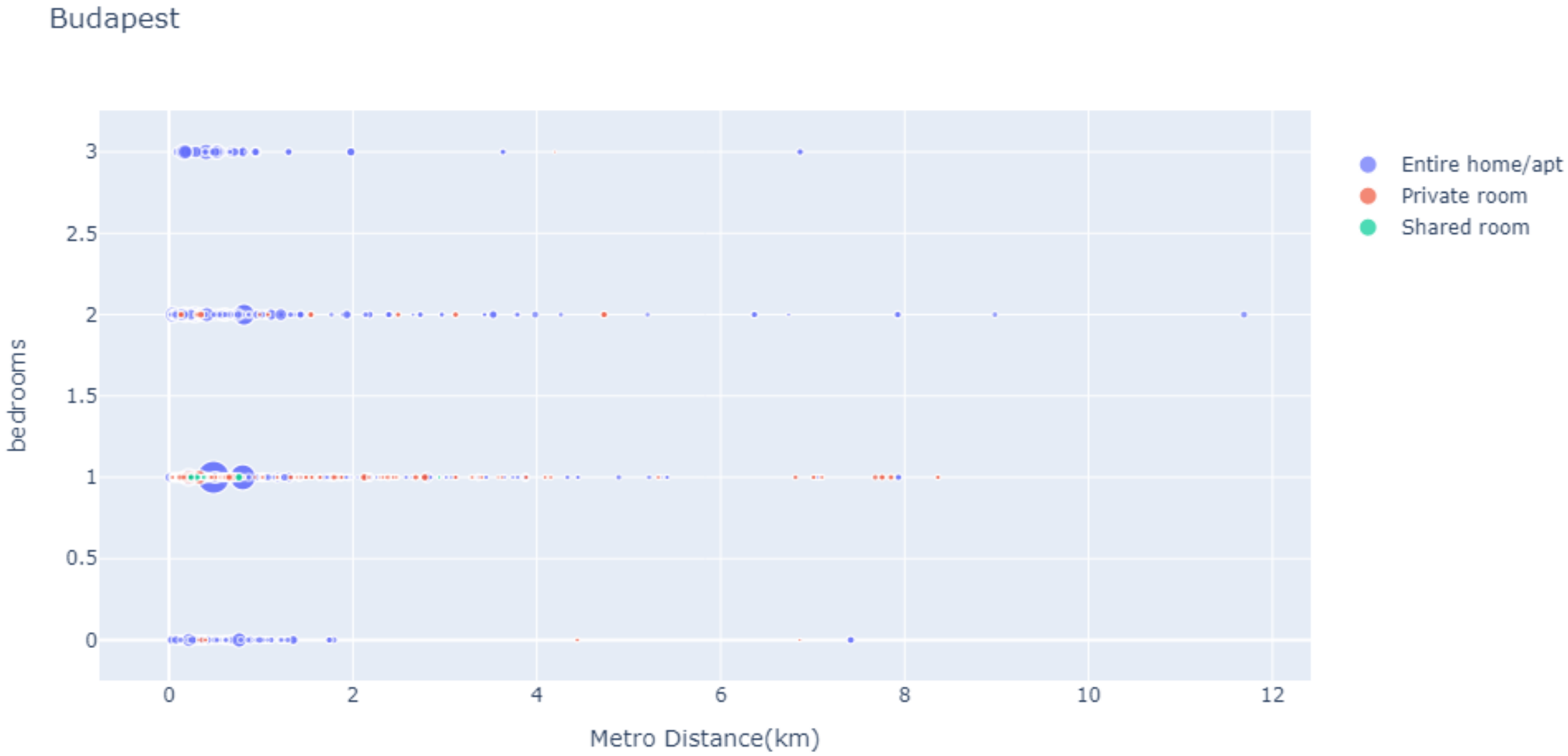
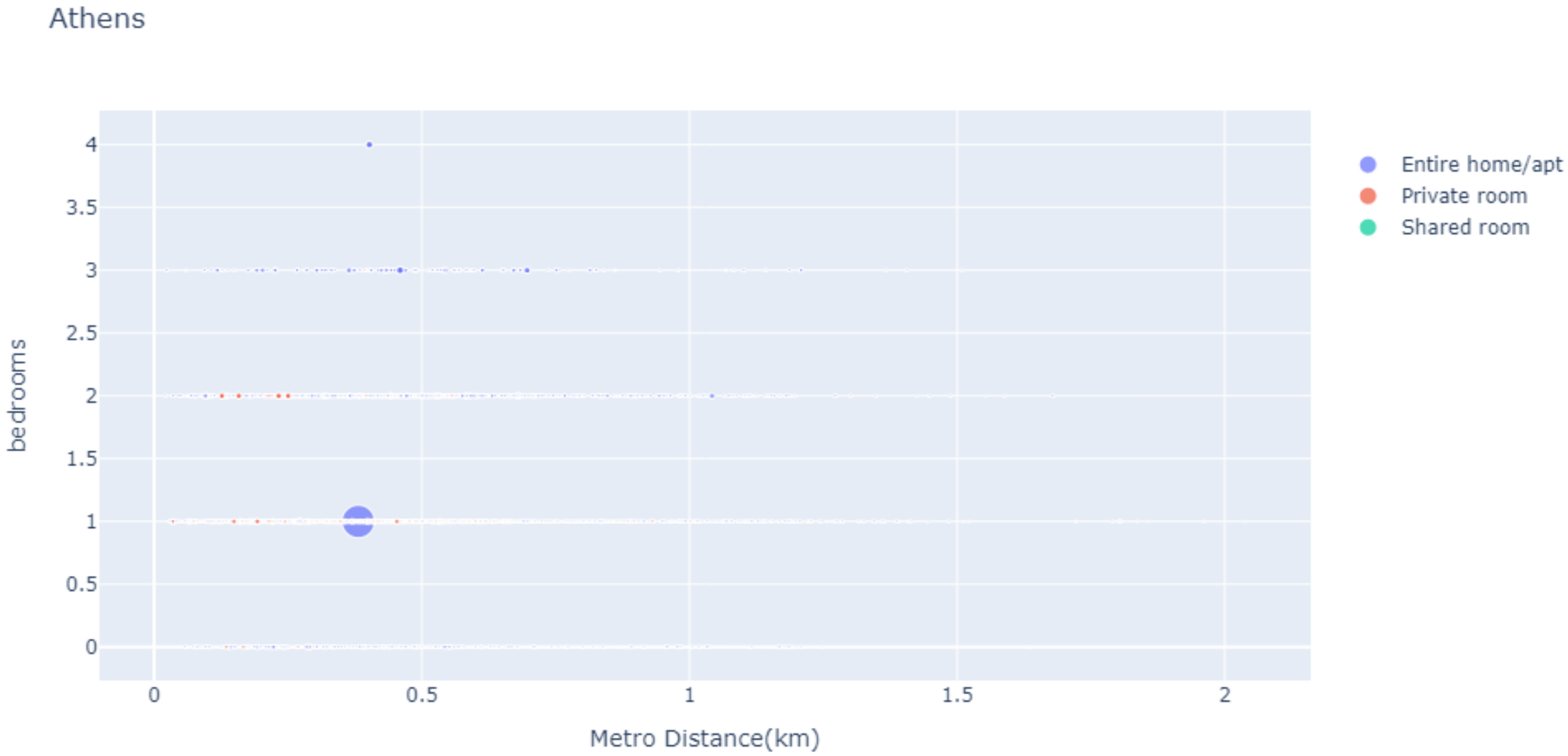


Metro Distance – Bedroom Count – Price Graph



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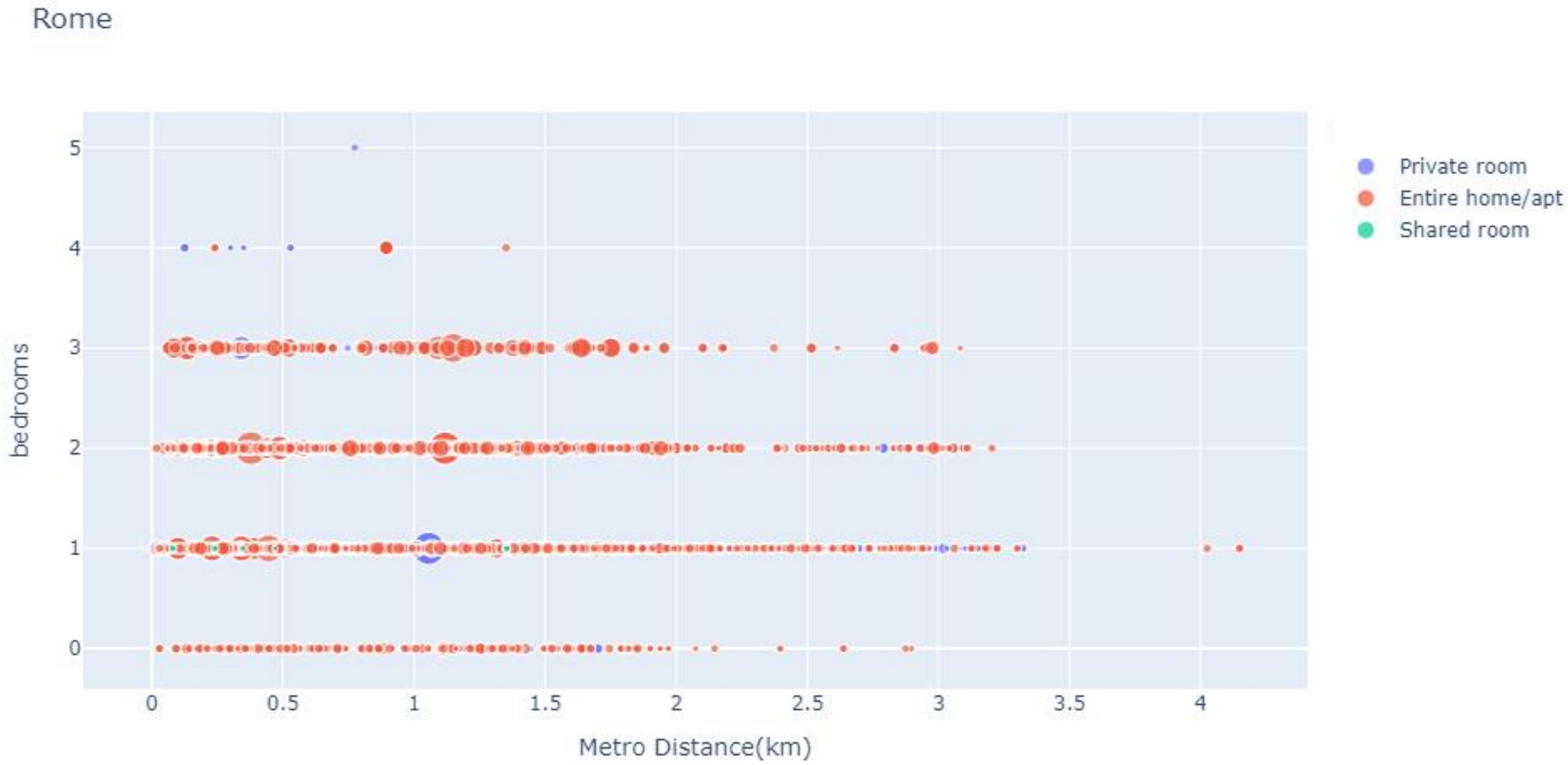

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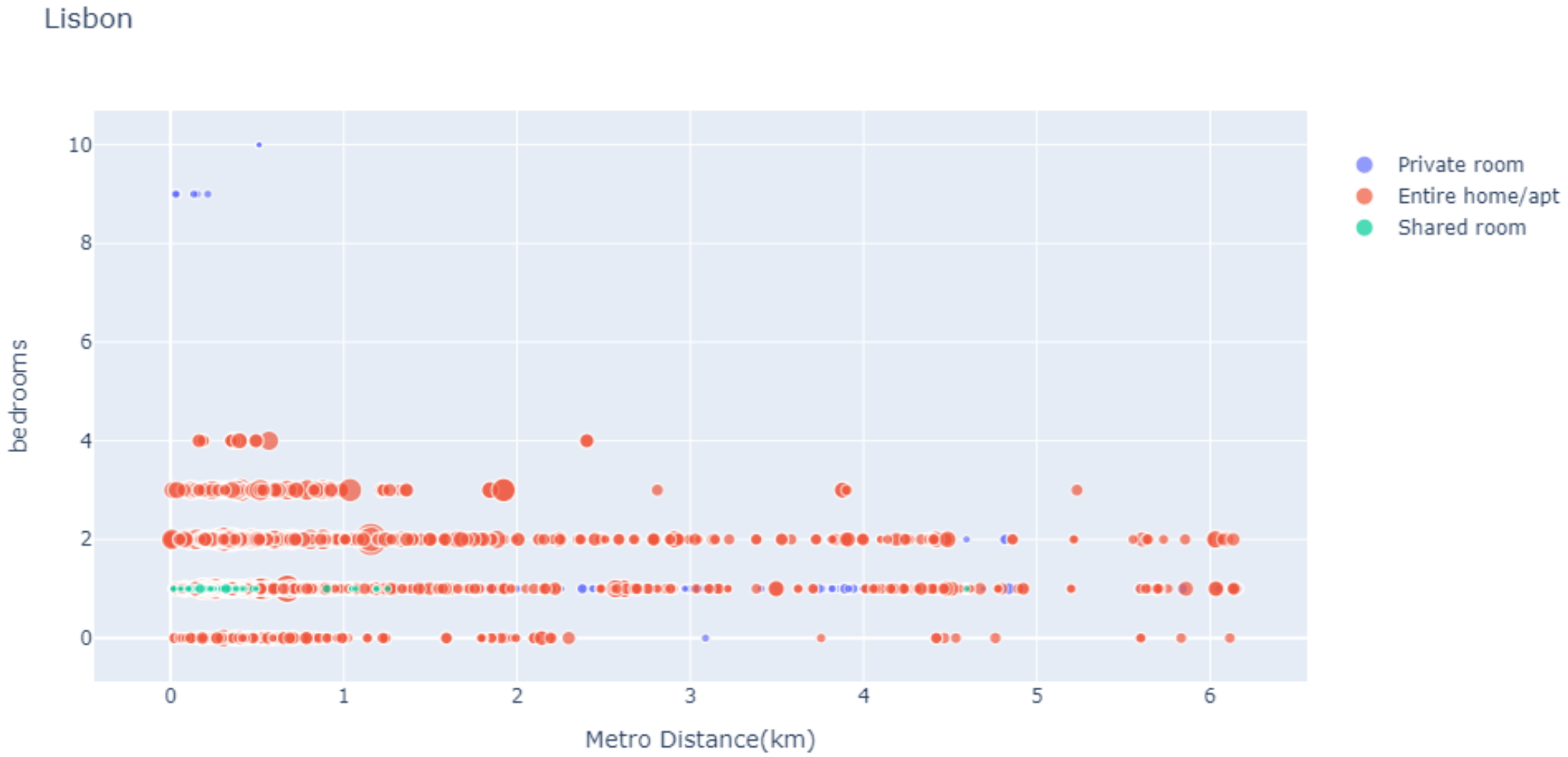
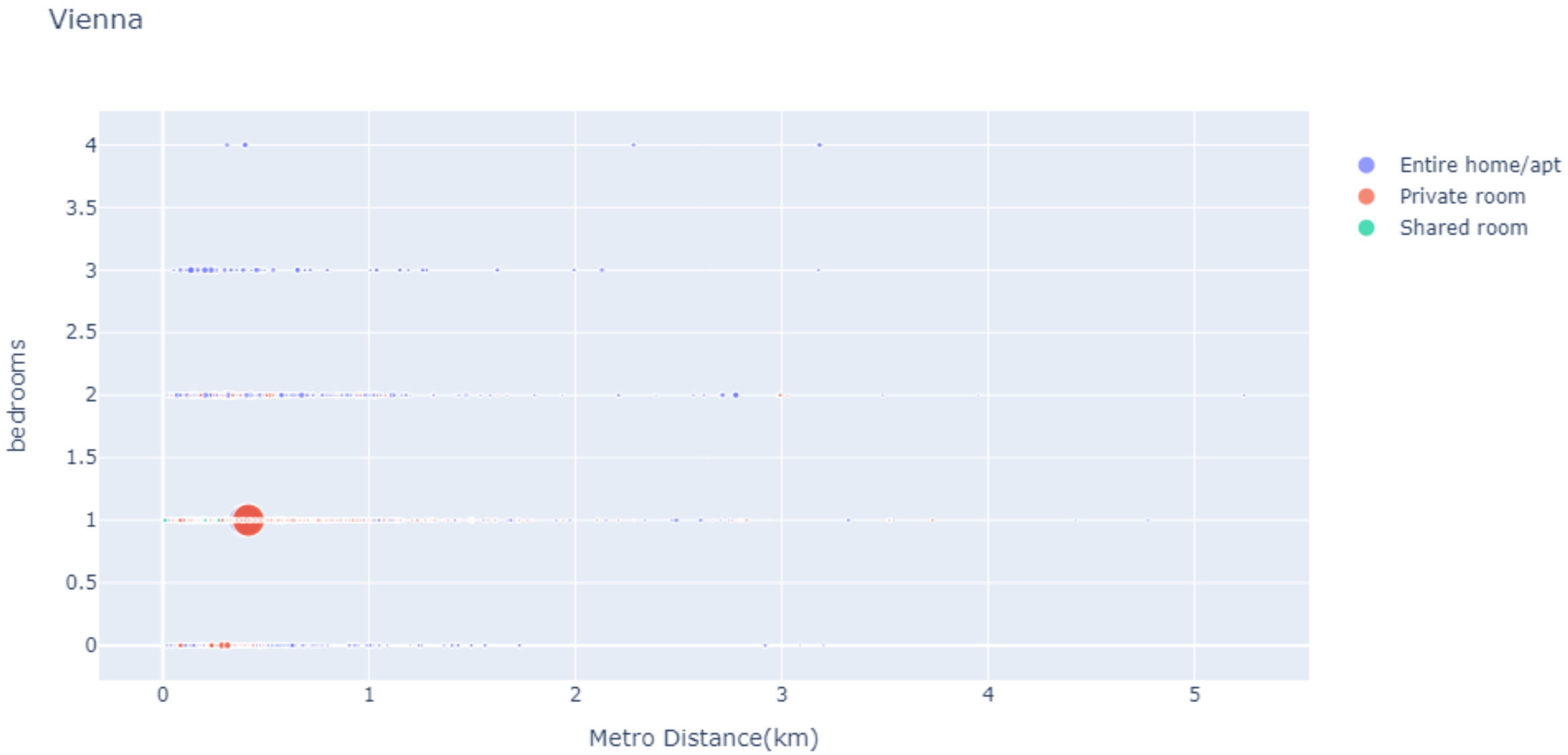


Metro Distance – Bedroom Count – Price Graph



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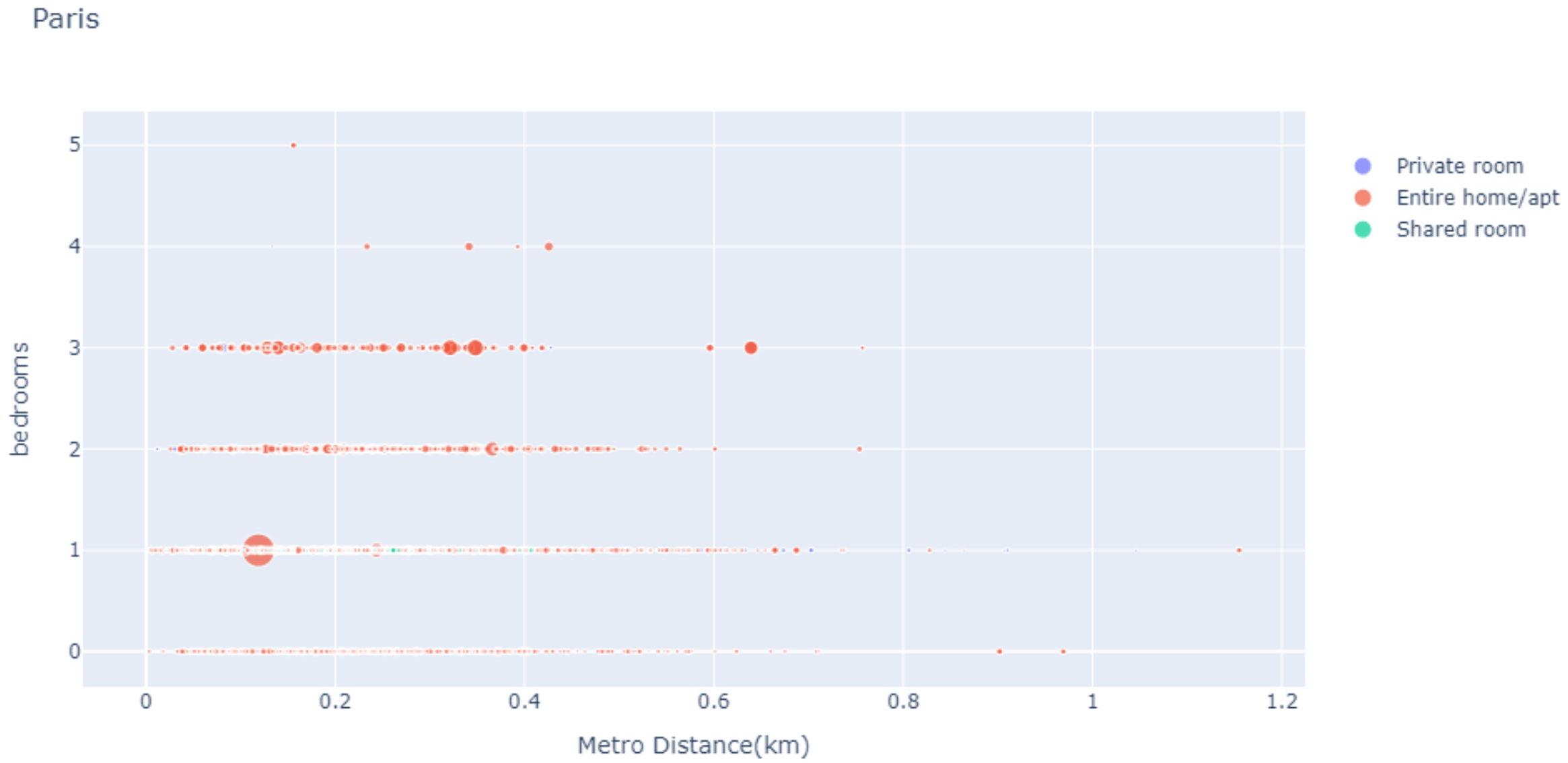

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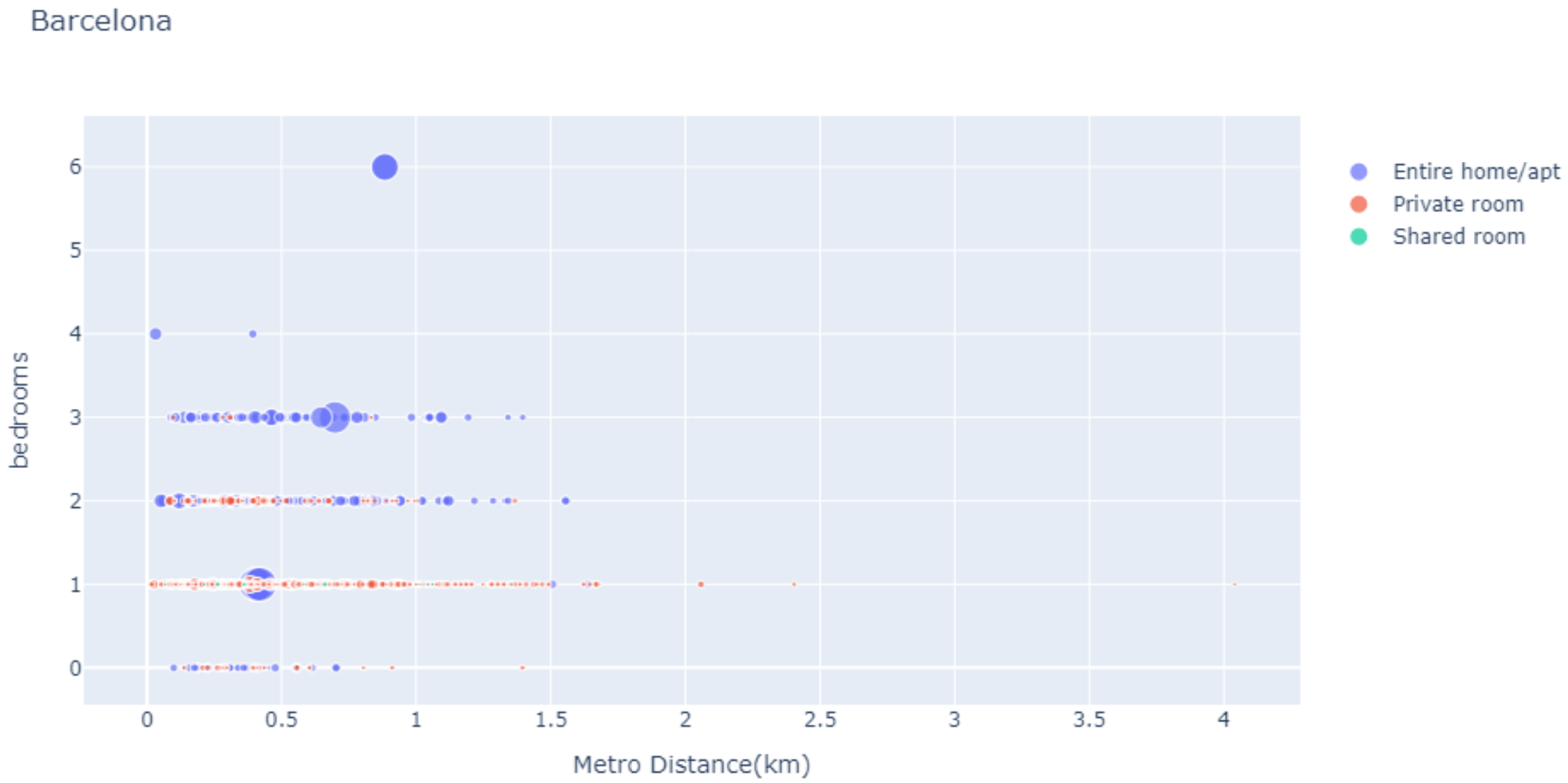

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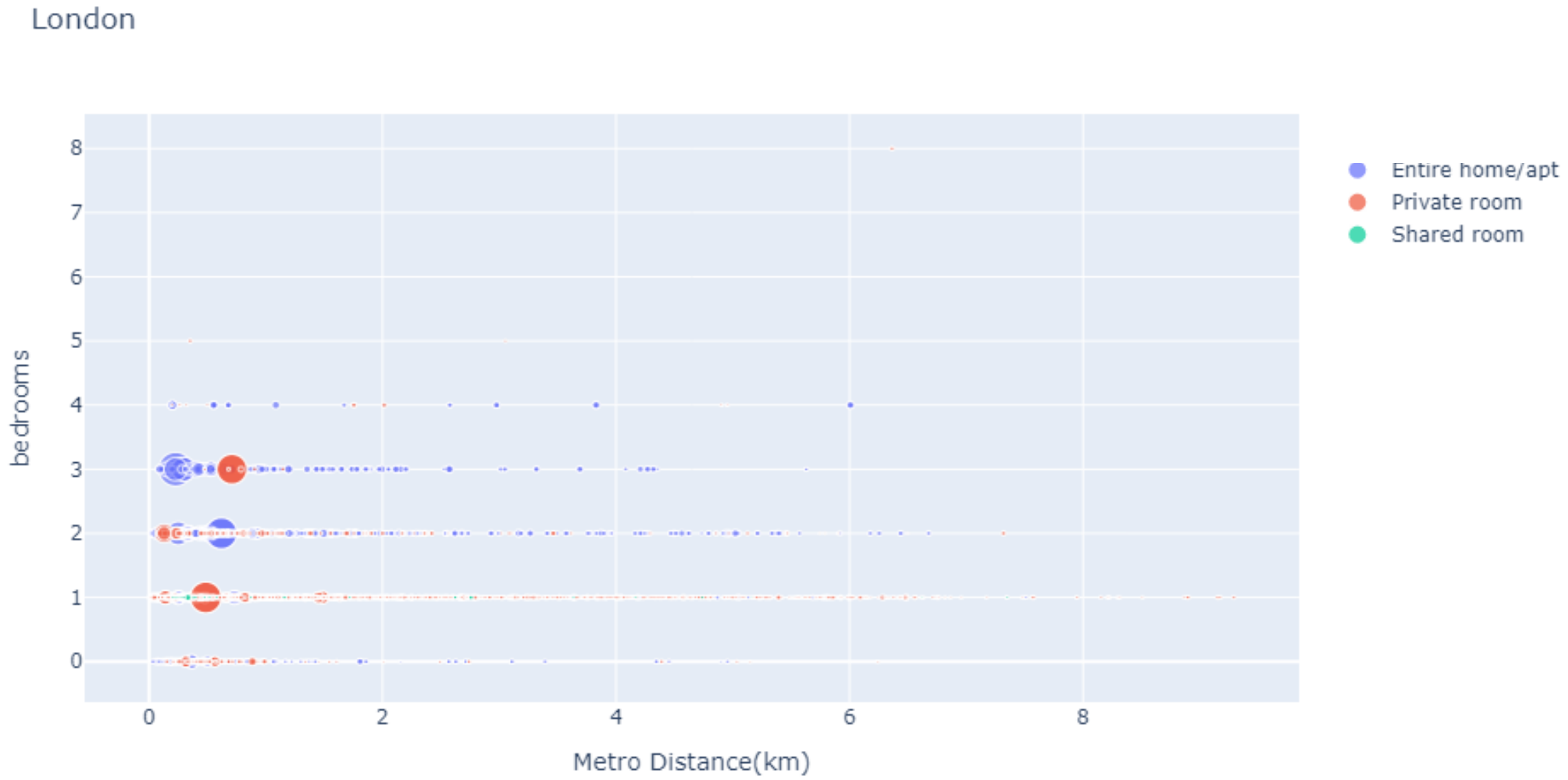
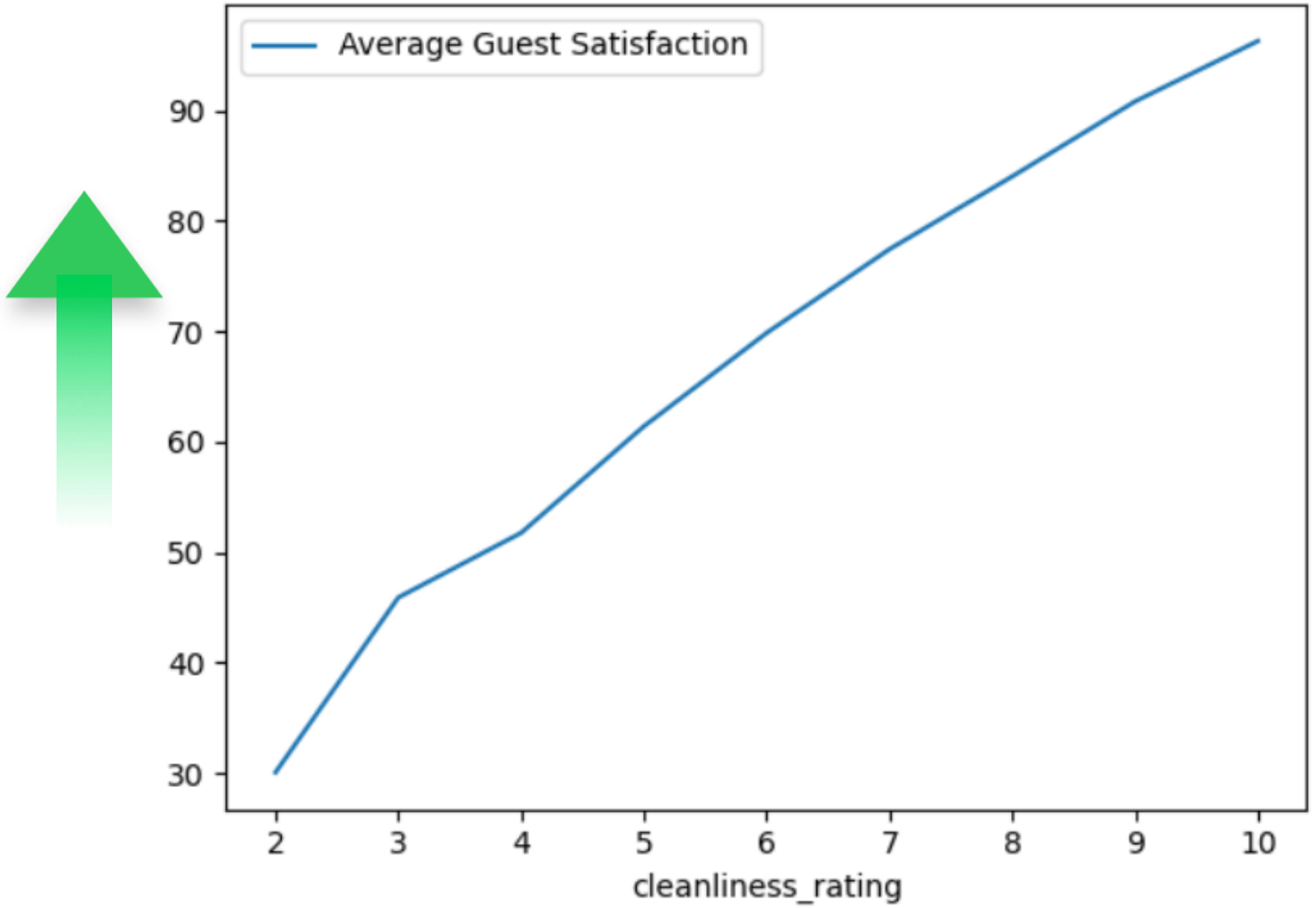


4 – CORRELATIONS

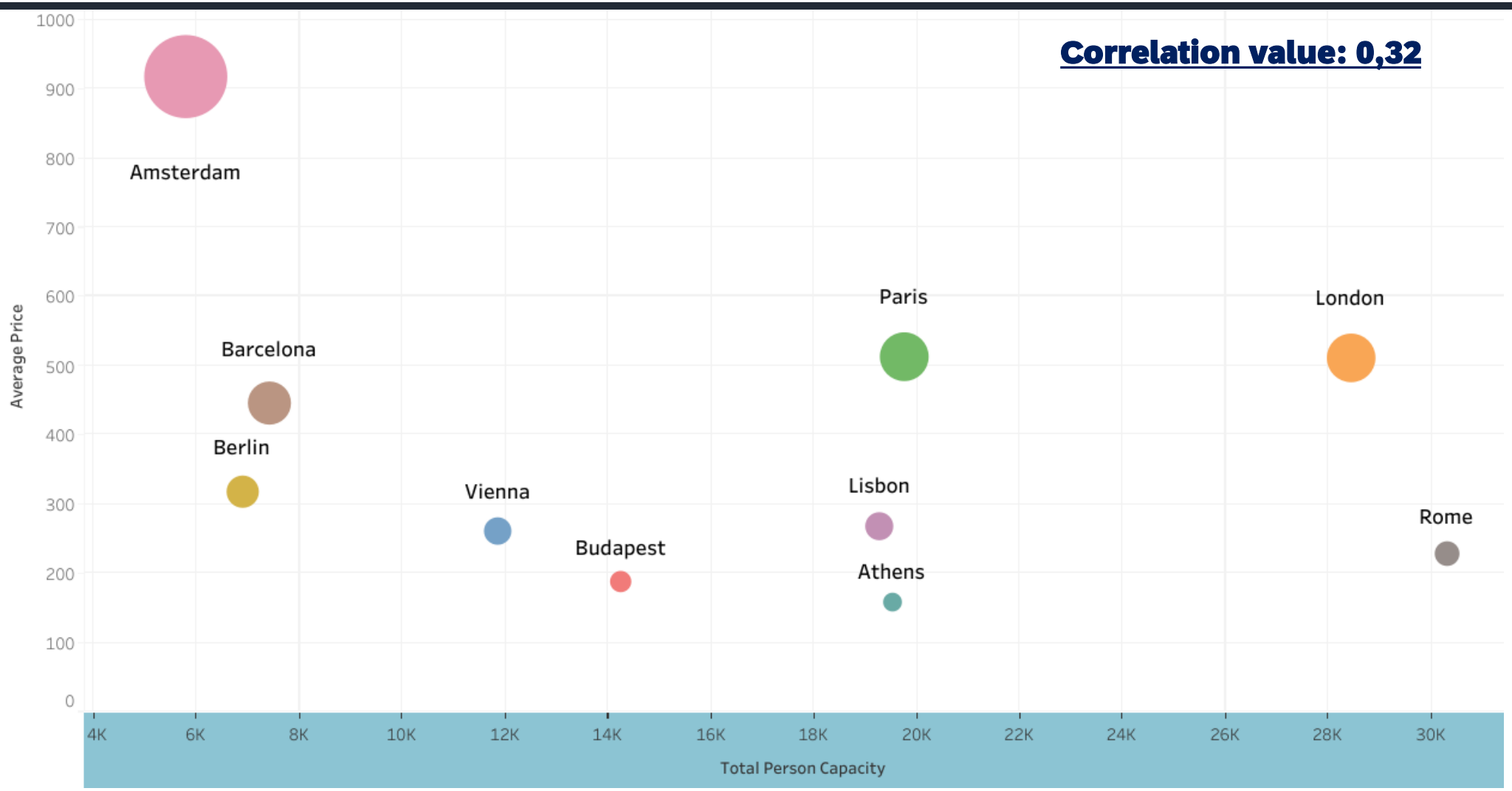
What is the most effective factor on guest satisfaction?

Cleanliness

Is the most important factor for the customer while evaluating their experiences.



What is the relationship between total person capacity and average prices?



Created on Tableau

There is moderate correlation between total AirBNB guest capacity in a city and the prices.

5 – RECOMMENDATIONS

- Explore AirBNB business opportunities in Amsterdam. It may be a good idea to invest AirBNB places in Amsterdam, as the prices are relatively high and the quantity of AirBNB places is relatively low.
- Consider adjusting pricing strategy to increase revenue without sacrificing sales volume.
- Keep an eye on cleanliness standards of the AirBNB place, because it's strongly correlated to the overall satisfaction of the guest.
- Consider metro distance factor if it's been decided to start a business with AirBNB.
- Quantity of entire home options in Barcelona and private room options in Budapest are relatively low. Increasing investments in these places is one of my recommendations, based on my analysis on this data.

6 – CONCLUSION

In conclusion,

- **This analysis of the AirBNB data for has provided valuable insights into travelling trends and an option of submitting choices according to the budgets of the customers.**

- **Also these findings can lead the business owners to adjust their pricing strategy in order to become more competitive in the market.**

While this analysis has some limitations, including the availability and quality of the data, i believe that these recommendations provide a strong starting point for further exploration and improvement.