Catchment Area Calculation

Sommario

This analysis was performed using the Iso4app portal in February 2026

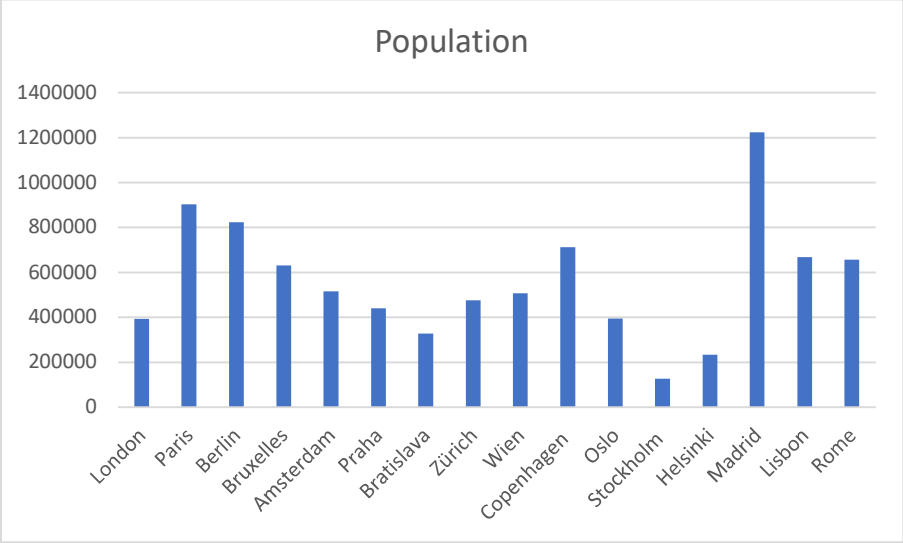
Introduction

The catchment area represents the geographic area from which a service, store, or facility attracts its population. Using Iso4App, it is possible to accurately calculate the population living within a defined polygon, enabling detailed spatial analysis and market evaluation.

Beyond the total population count, Iso4App also provides a breakdown of the population by administrative areas (such as municipalities or districts) that fall within the catchment area. This allows for a deeper understanding of territorial distribution, supporting strategic planning, site selection, and decision-making processes.

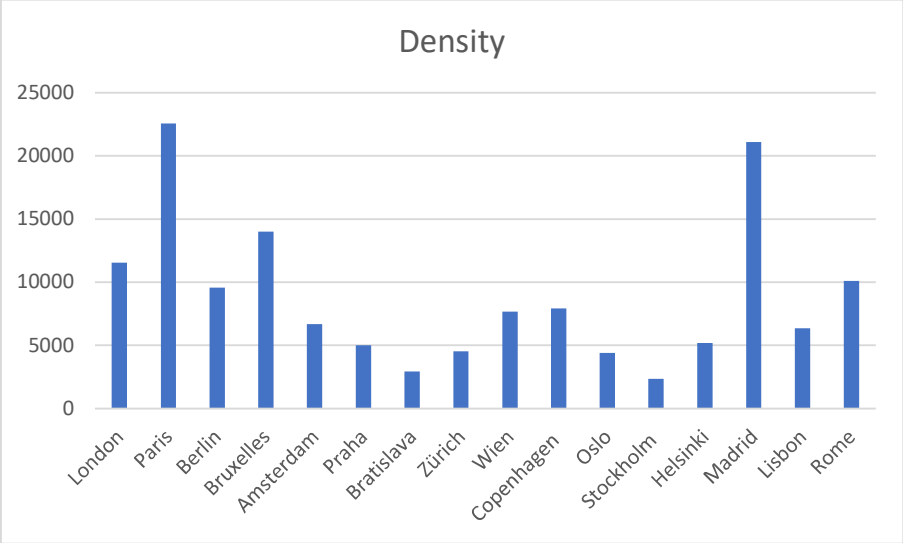
The following images illustrate how the system defines the catchment area and automatically aggregates the population data within the selected boundary, including its subdivision by administrative units. For each city the central point was taken by calculating the catchment area with car mobility for 10 minutes with no or slow traffic.

Population within 10 minutes



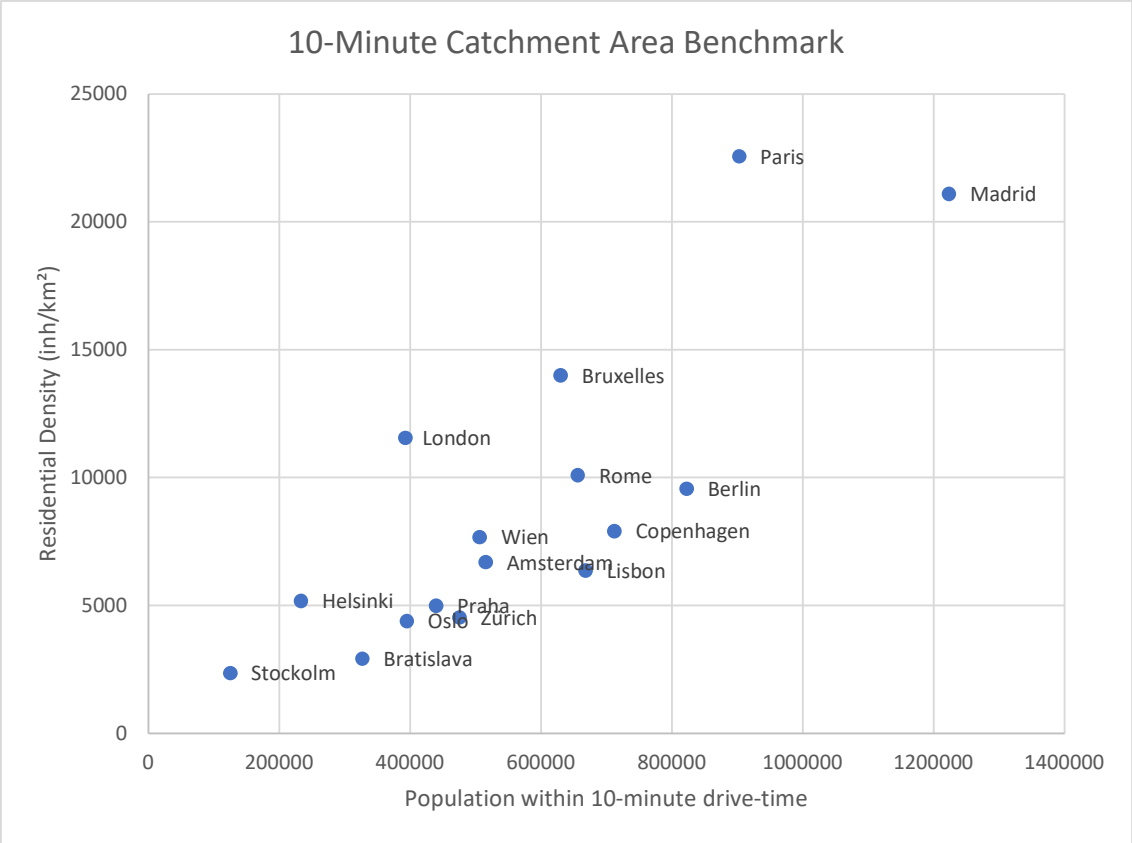
The 10-minute drive-time population highlights real urban concentration. Madrid and Paris demonstrate exceptional immediate market mass, while Nordic capitals show a more distributed structure.

Density Comparison



Density reveals urban intensity. High-density cities offer stronger commercial gravity within compact areas, a key factor for retail and service location strategies.

Population vs Density – 10-Minute Catchment Area



The scatter plot clearly highlights structural differences in urban market intensity across European capitals.

Upper-Right Quadrant – High Population & High Density

Madrid and Paris clearly stand out as the strongest markets.
They combine:

- Very high accessible population (over 900,000 and 1.2M respectively)
- Exceptional density (above 21,000 inh/km²)

These cities demonstrate extremely high urban concentration and immediate commercial potential within a short drive-time radius.

They represent the most intense and centralized urban markets in the sample.

High Population – Medium Density

Berlin and Copenhagen show strong accessible population but with lower density compared to Paris and Madrid.

This suggests:

- Large urban scale
- More spatially distributed structure
- Strong market size, but less extreme concentration

They remain highly attractive but structurally different from ultra-compact cities.

Medium Population – Medium Density

Cities such as Rome, Brussels, Vienna and Lisbon fall into a balanced profile:

- Solid population within 10 minutes
- Moderate to high density

These markets show stable, structured urban environments with consistent commercial potential.

Lower Population – Lower Density

Stockholm and Bratislava are positioned in the lower-left quadrant:

- Lower accessible population
- Lower density

This reflects more dispersed urban development and lower immediate market concentration within a 10-minute radius.

However, this does not imply weaker economies — rather, a different urban morphology.

Strategic Insight

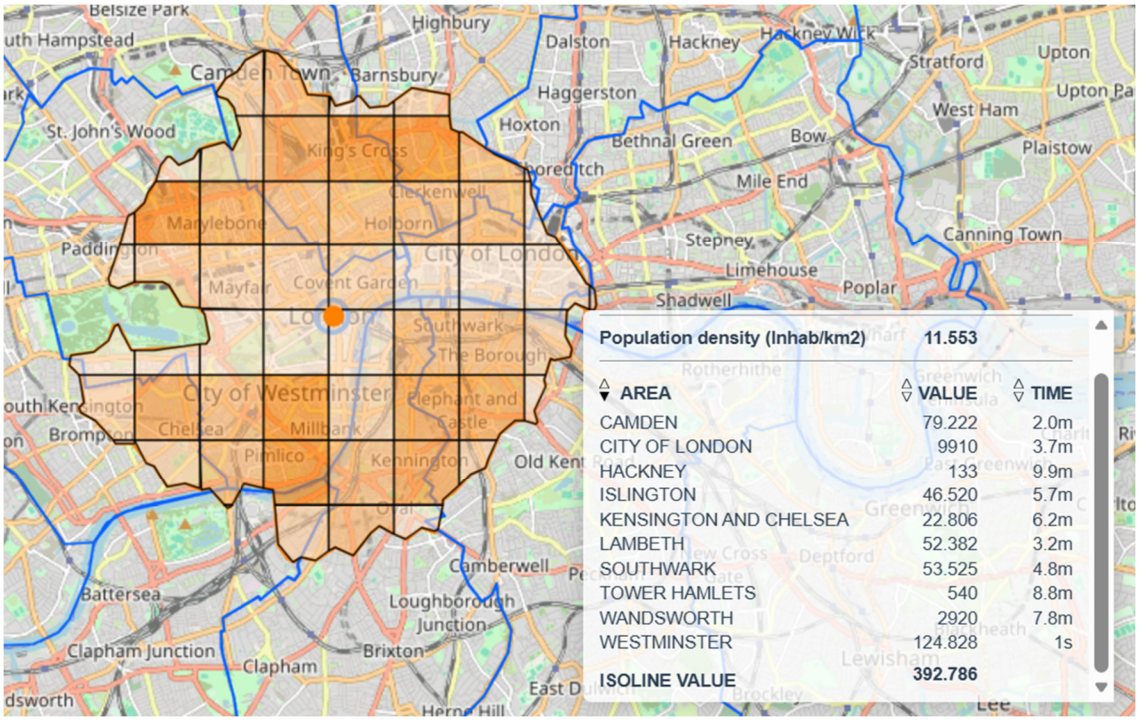
The scatter analysis demonstrates that:

- City reputation does not automatically translate into higher immediate accessibility.
- Urban compactness significantly impacts market intensity.
- The 10-minute drive-time metric provides a standardized and comparable indicator of real local market potential.

This visualization shows how Iso4App transforms geographic data into strategic market intelligence, enabling objective comparison of cities based on accessibility and urban structure rather than administrative size alone.

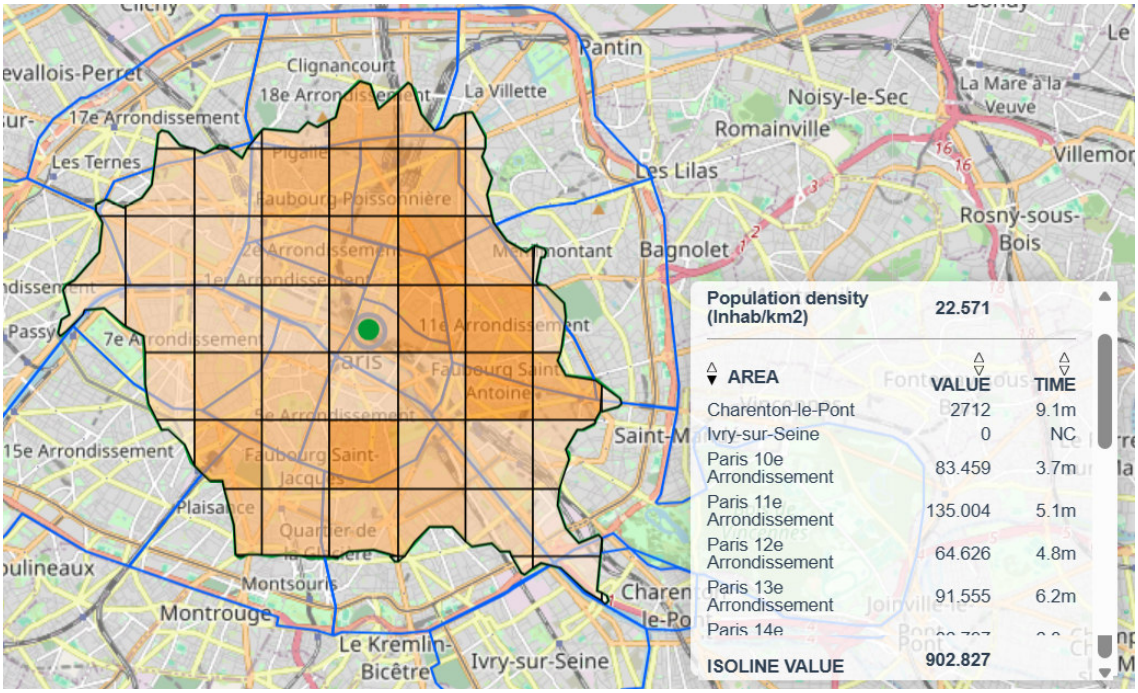
London Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 51.5072387 -0.1274556 (Charing Cross)



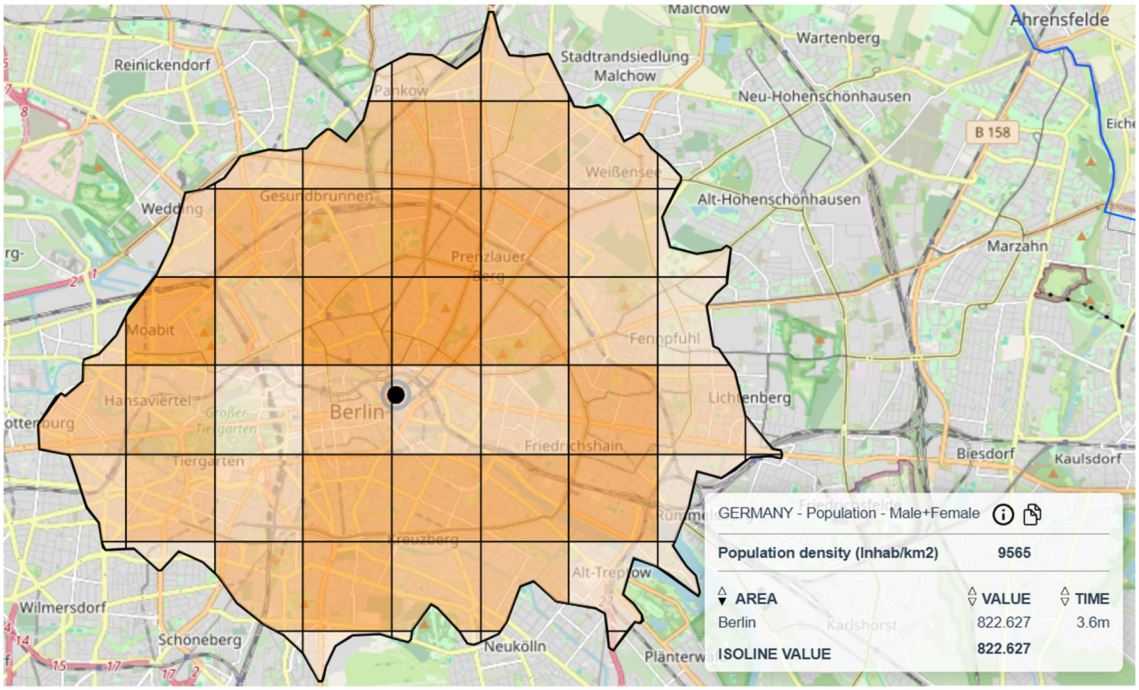
Paris Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 48.8576489 2.3515362 (Rue du Renard)



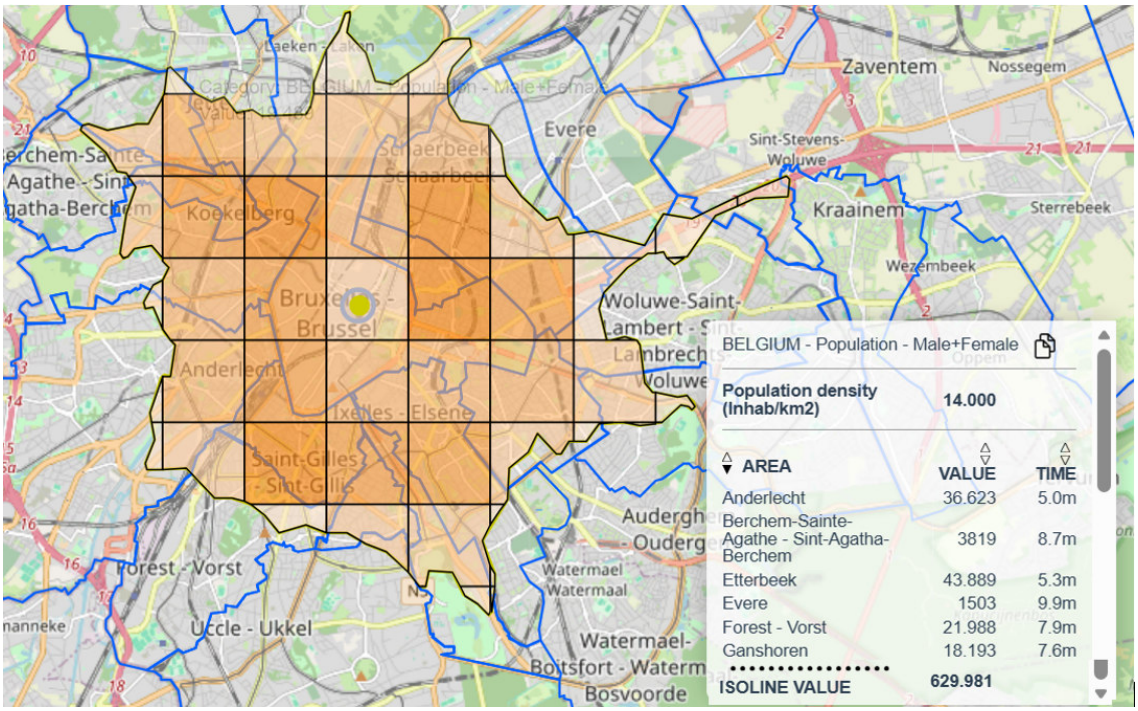
Berlin Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 52.5199537 13.4050646 (Spandauer Straße)



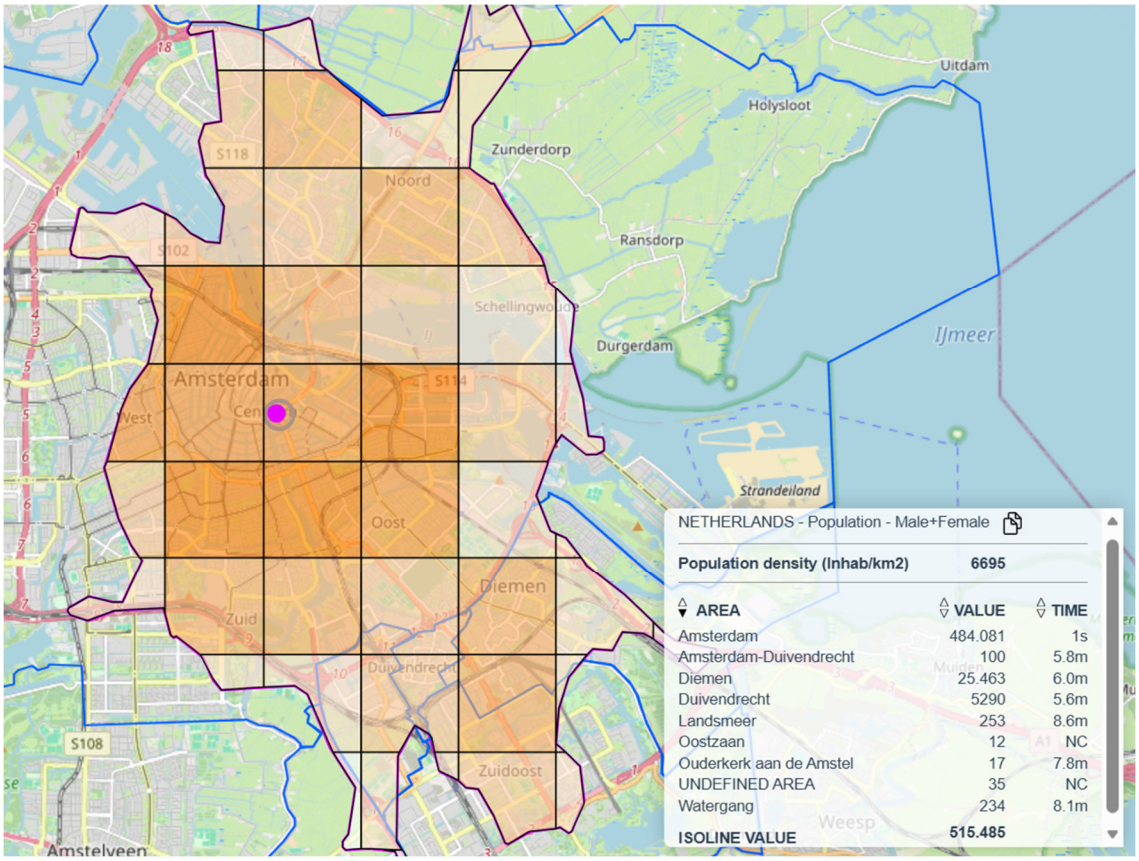
Bruxelles Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 50.8478593 4.3573532 (Boulevard de l'Impératrice - Keizerinlaan)



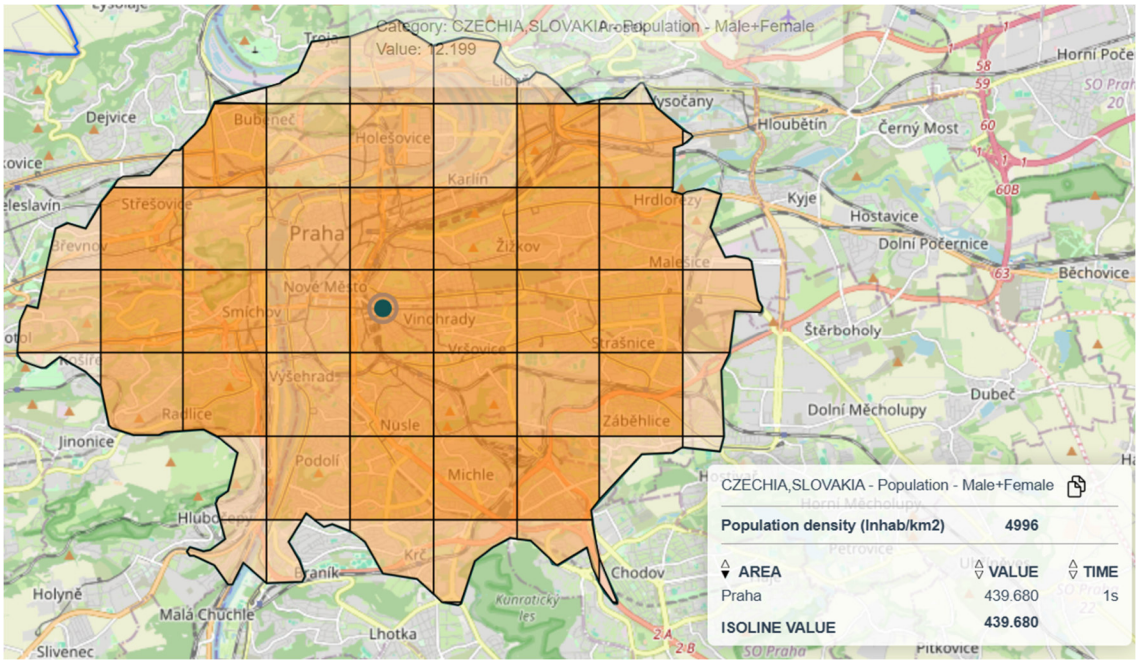
Amsterdam Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 52.3678678 4.9032634 (Waterlooplein)



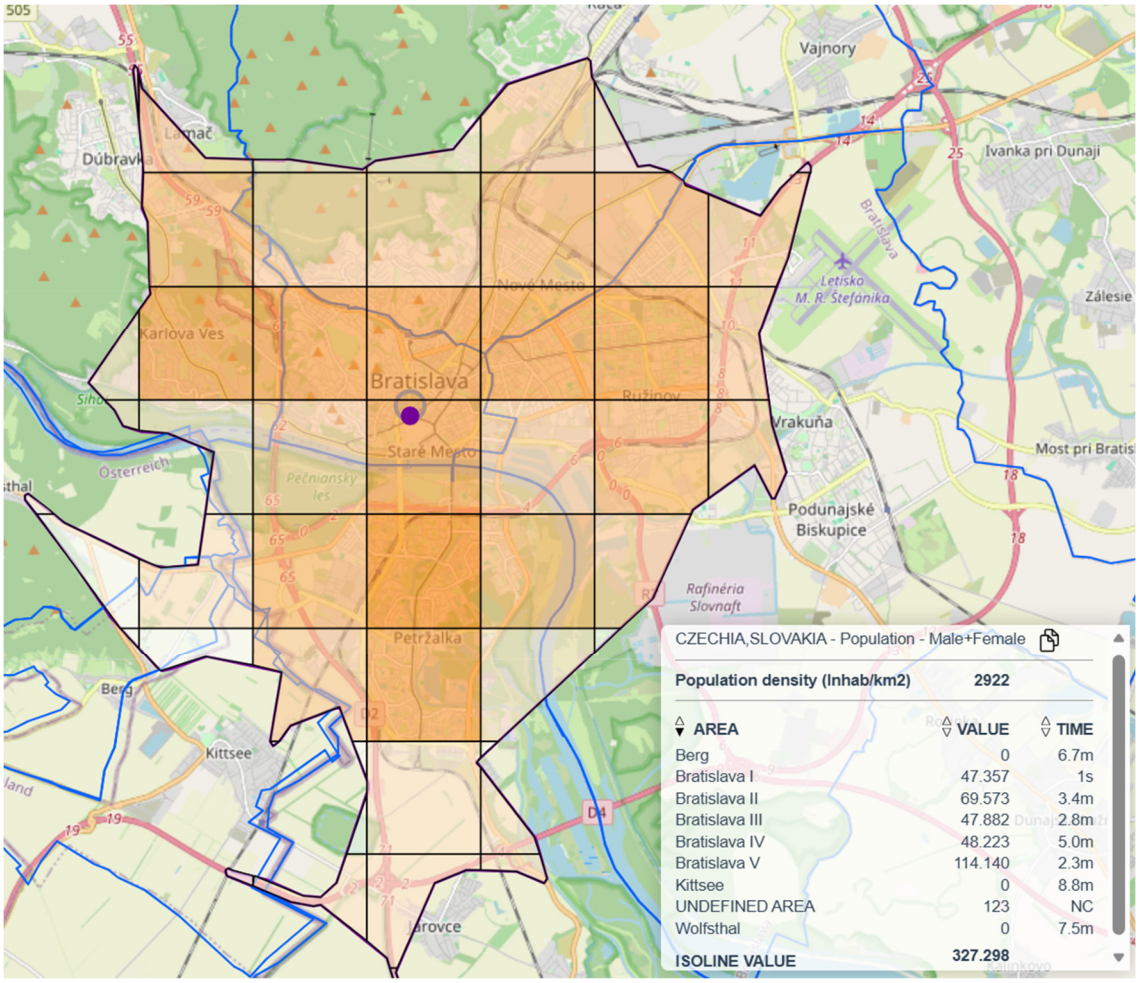
Praha Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 50.0755404 14.4377448 (Náměstí Míru)



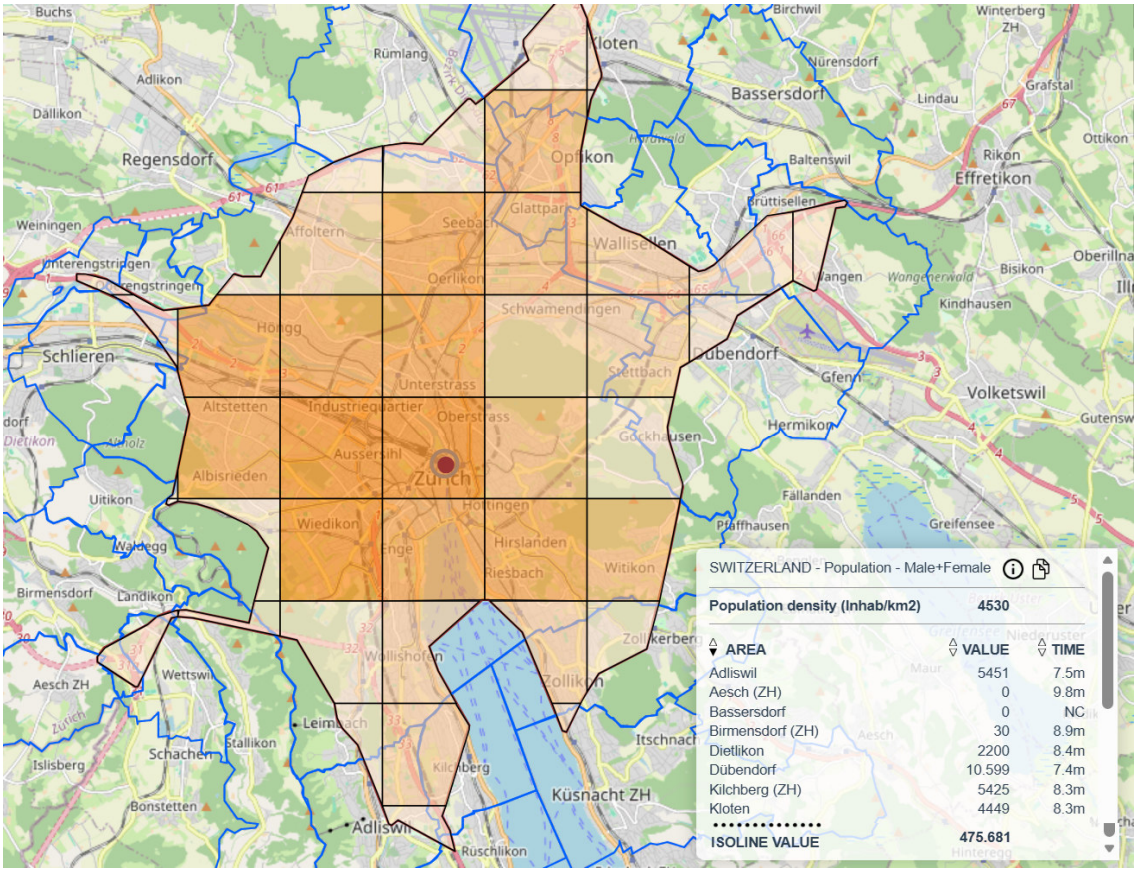
Bratislava Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 48.1461496 17.1070837 (Hurbanovo námestie)



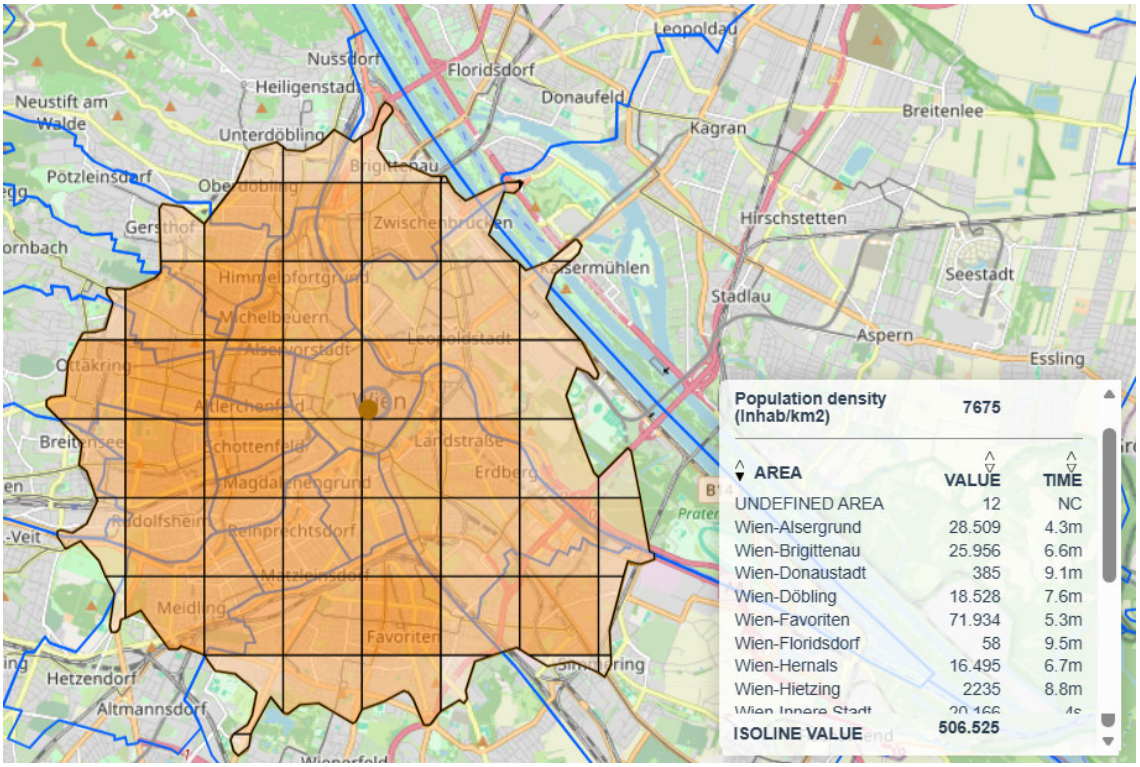
Zürich Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 47.3766613 8.5417436 (Bahnhofquai)



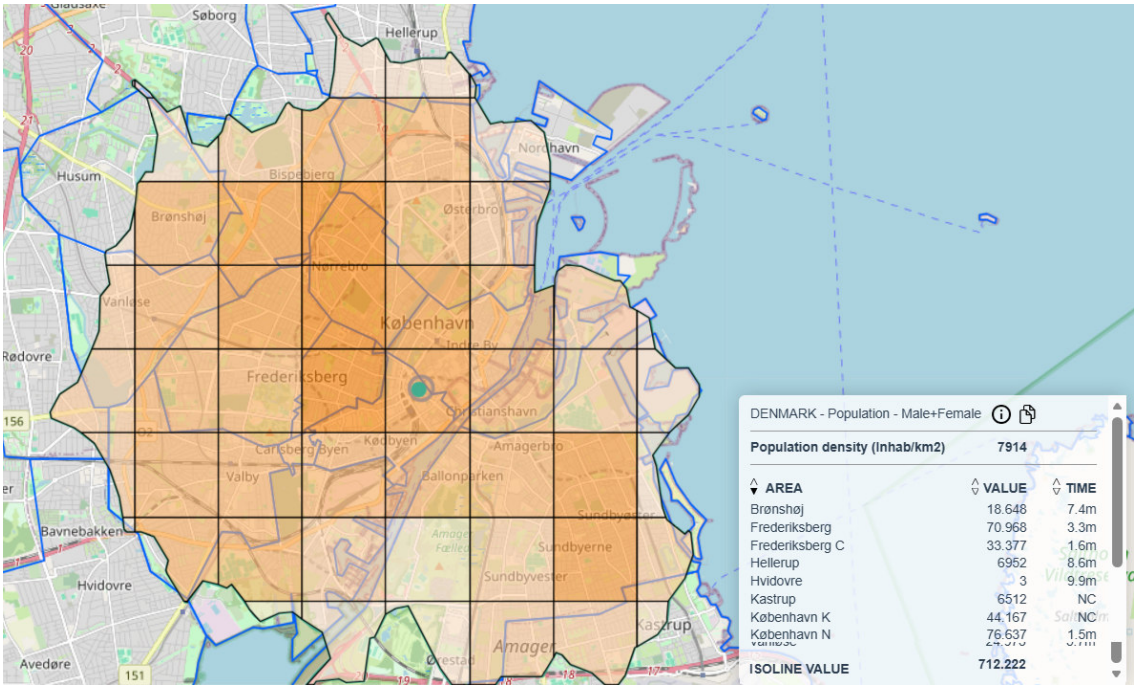
Wien Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 48.2070371 16.3699629 (Spiegelgasse)



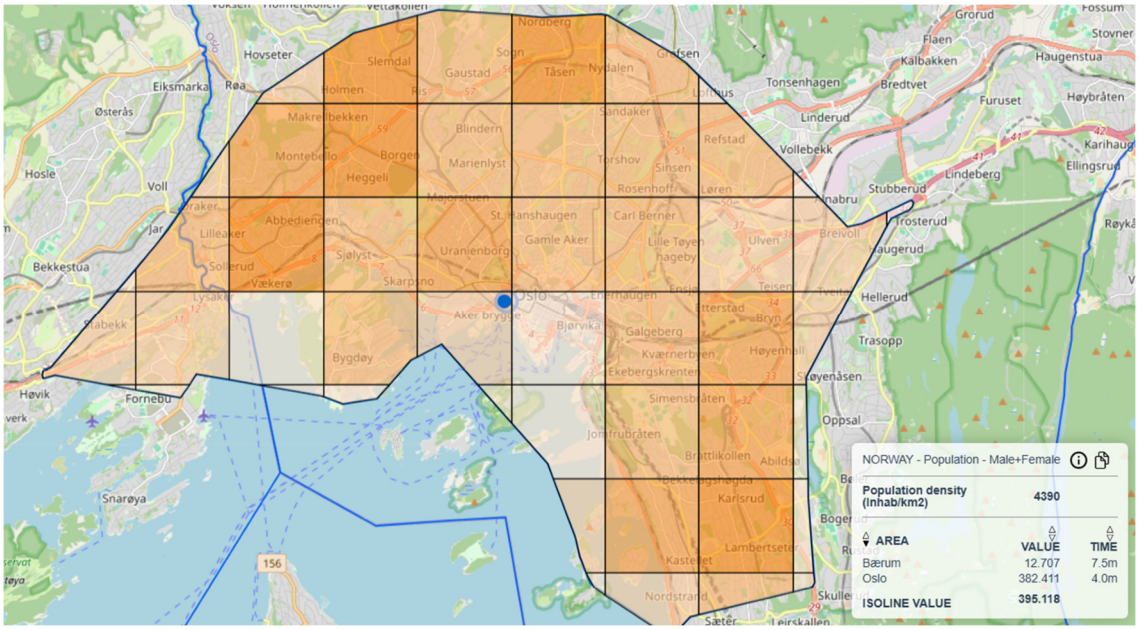
Copenhagen Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 55.6758908 12.5675868 (H.C. Andersens Boulevard)



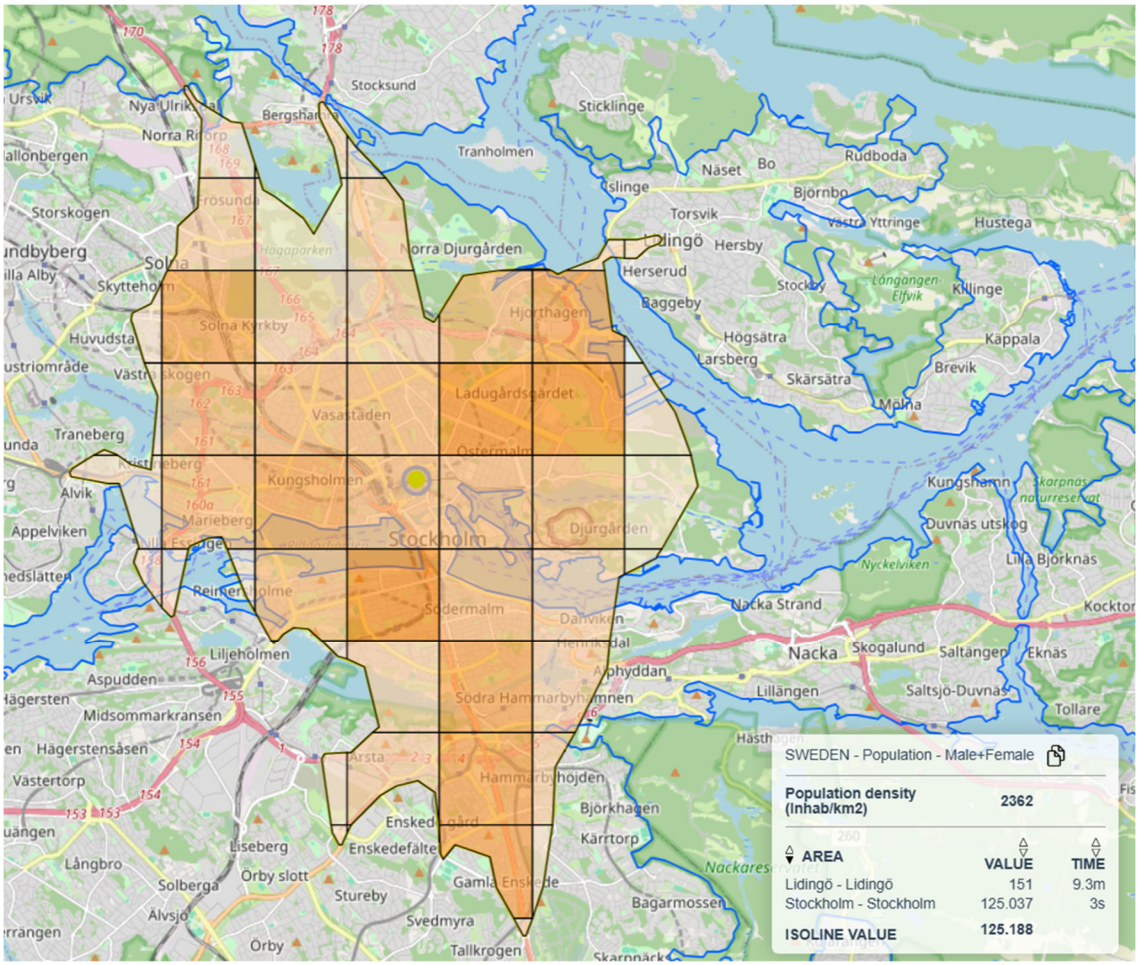
Oslo Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 59.9122294 10.7307001 (Dronning Mauds gate)



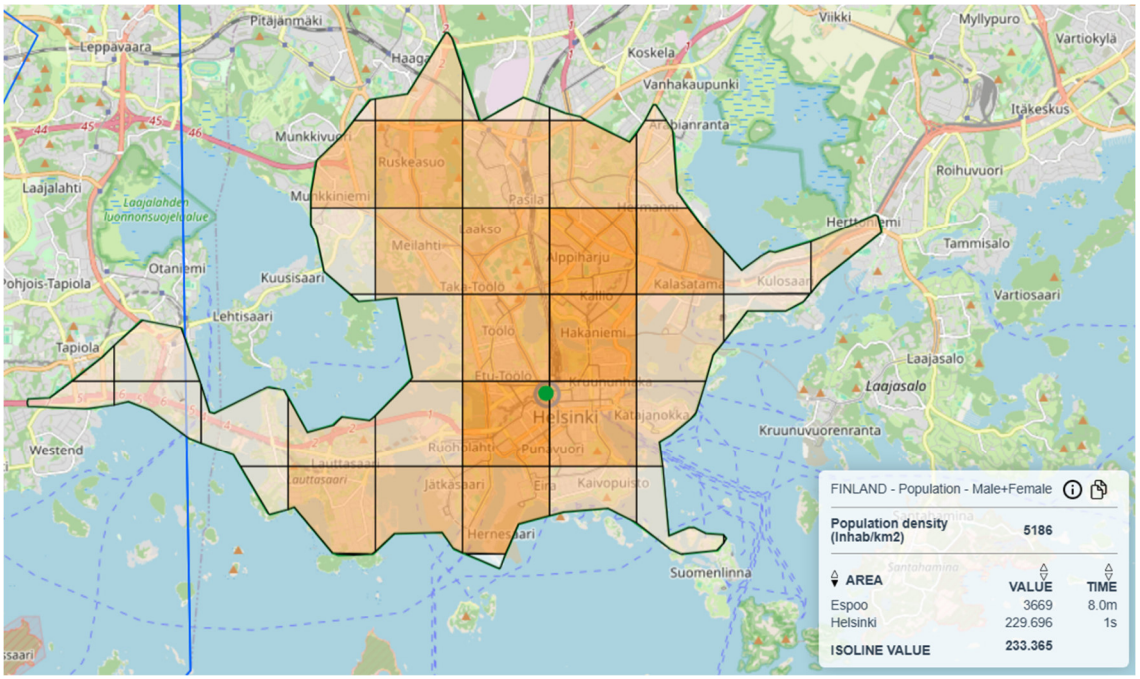
Stockholm Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 59.3327657 18.0657043 (Klaratunneln)



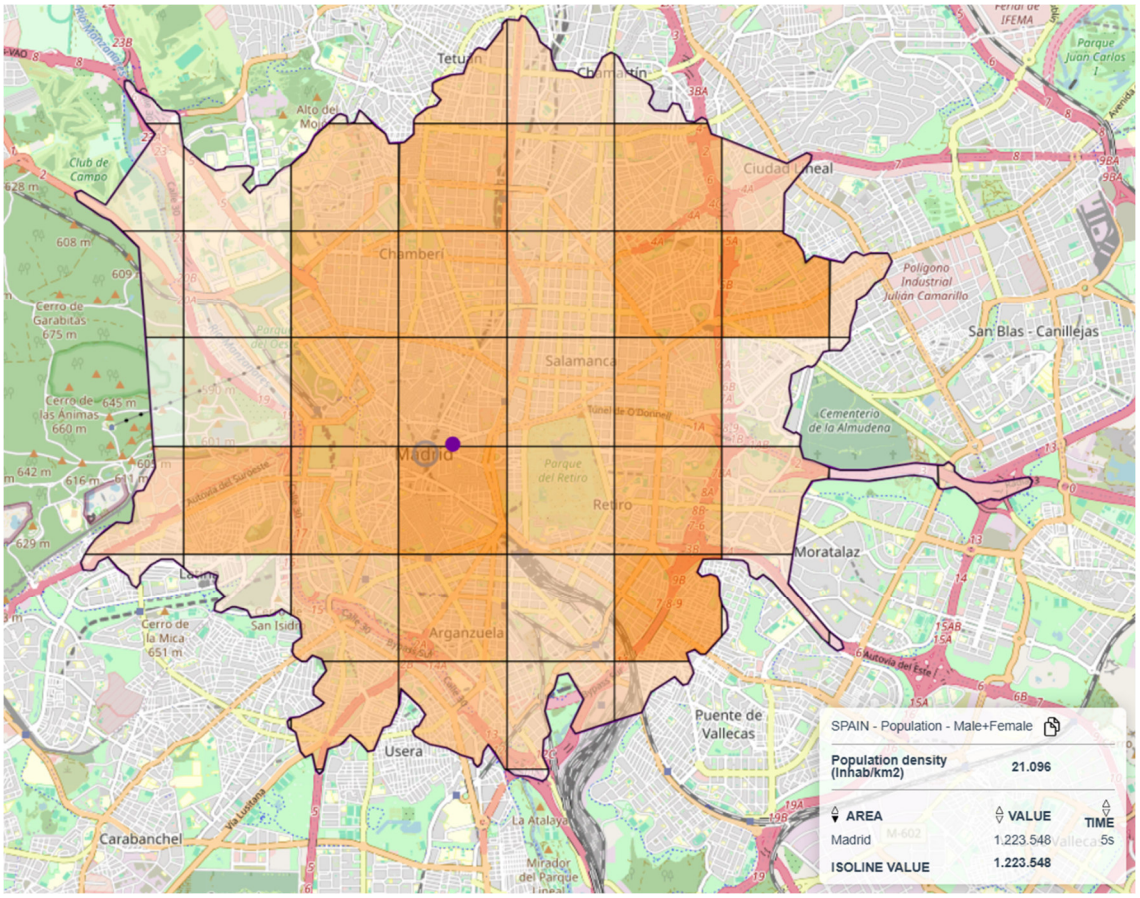
Helsinki Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 60.1700426 24.9379748 (Mannerheimintie)



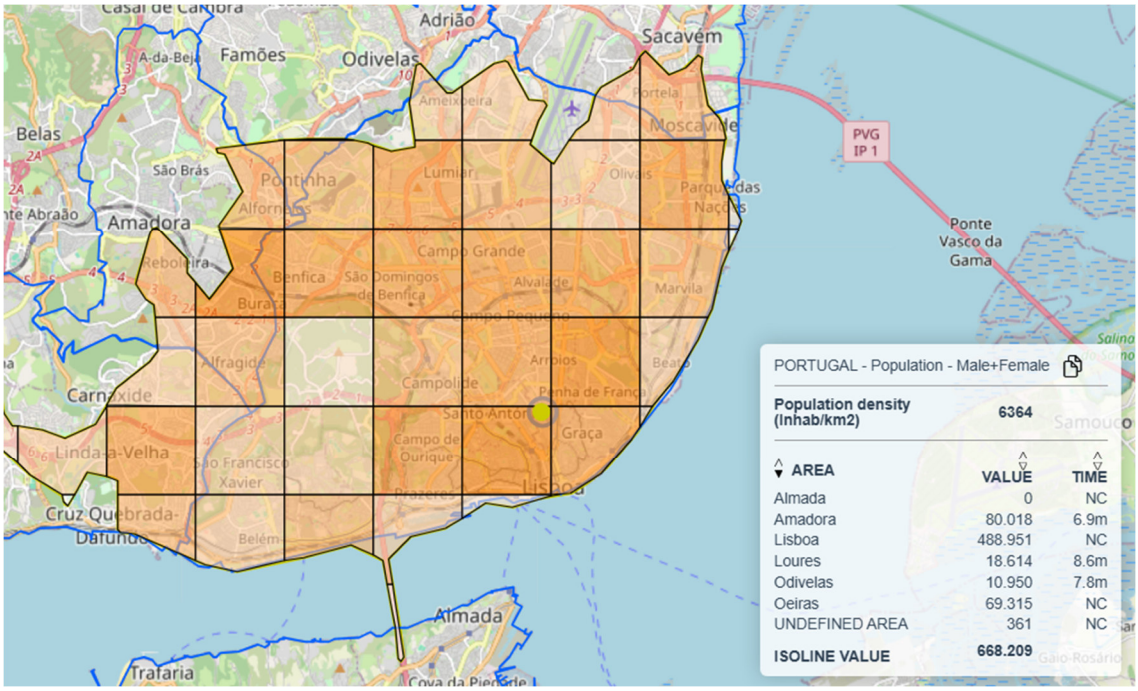
Madrid Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 40.4181571 -3.6983966 (Calle de Alcalá)



Lisbon Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 38.7223105 -9.139629 (Campo dos Mártires da Pátria)



Rome Catchment Area

Isochrone - 10 min - Motor vehicle from coordinate: 41.8965978 12.4818564 (Via del Plebiscito)