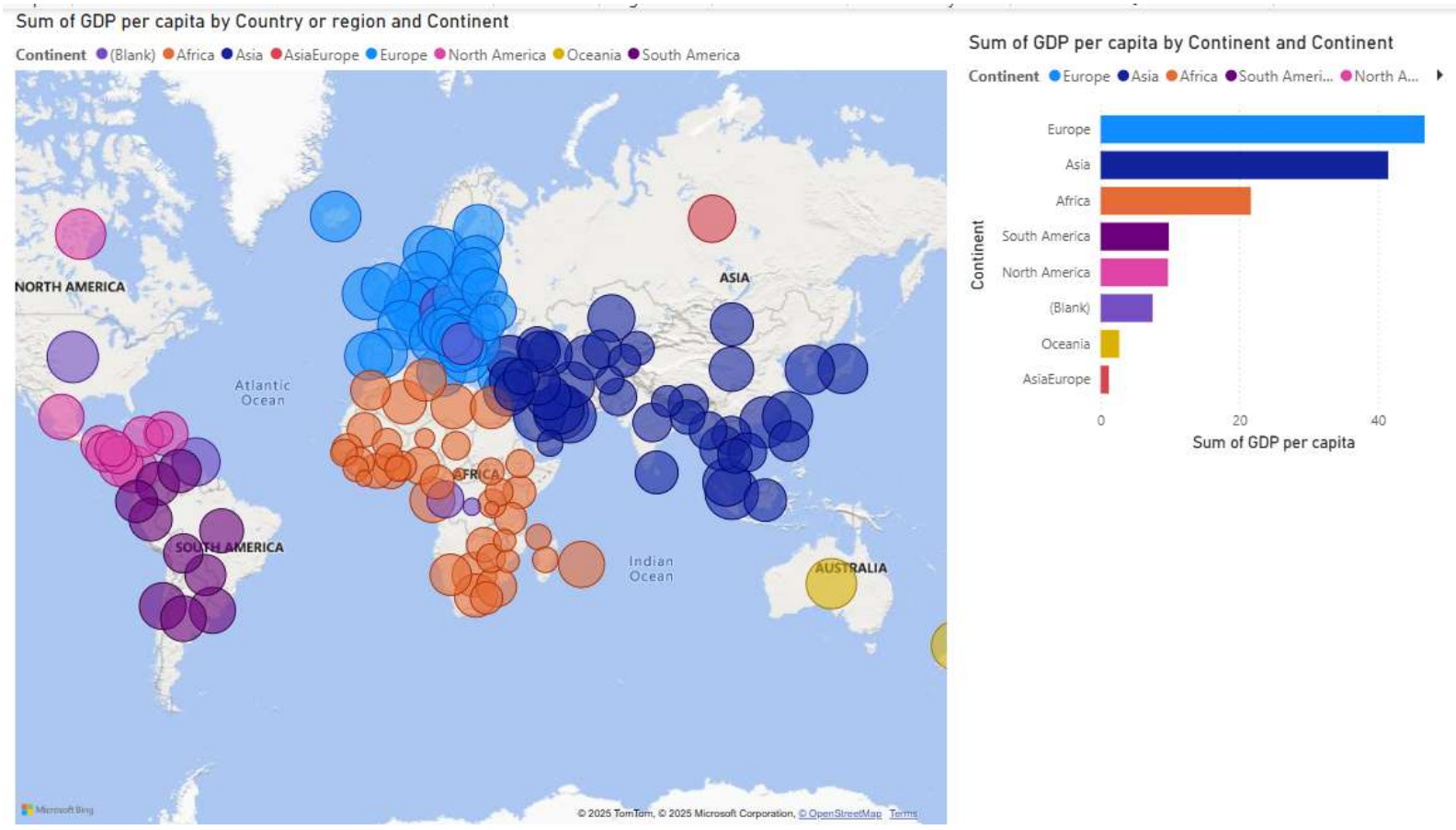
MAP VISUALIZATION

- In Power BI, a **Map visualization** is used to display **geographical data** on a world map by plotting data points using **location fields** such as country, region, or city.
- It helps in identifying **spatial patterns, regional trends, and geographic comparisons** in data.
- It uses Bing Maps to automatically detect location coordinates and represent them using **bubbles or color gradients**.



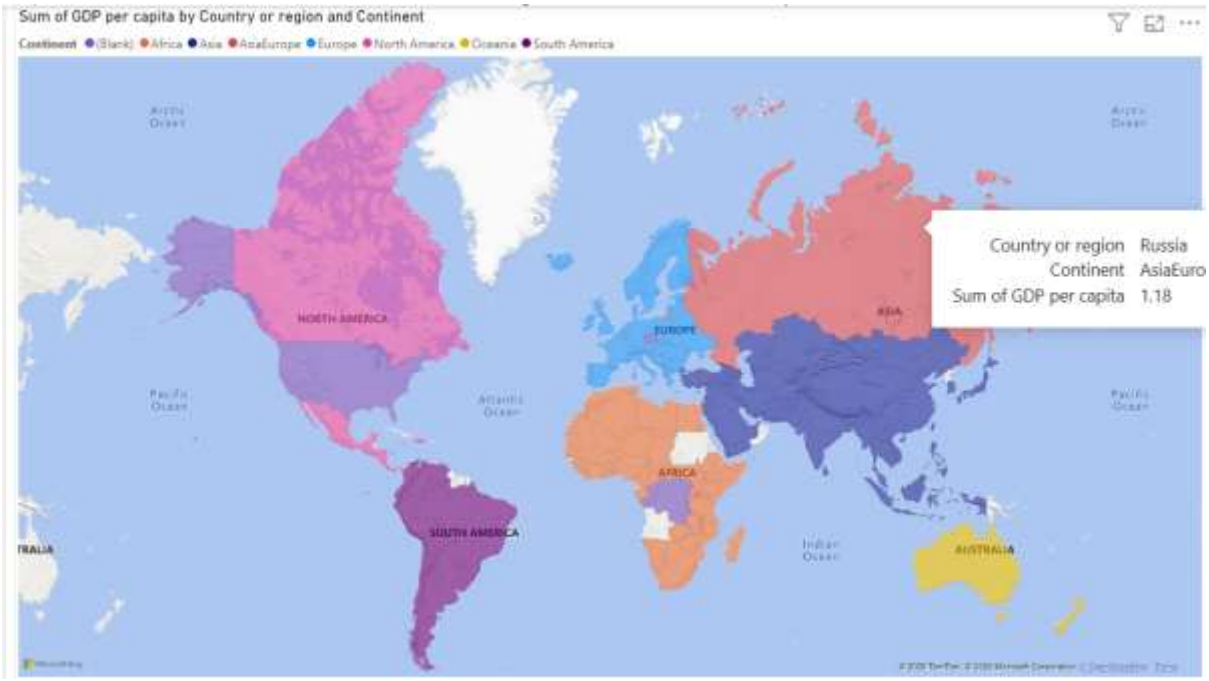
- **Europe** has the **highest total GDP per capita**, followed closely by **Asia**, as shown in the bar chart on the right.
- The **map bubbles** show that **European countries (blue)** have dense clusters with larger bubble sizes — indicating high GDP per capita values.
- **Africa (orange)** and **South America (purple)** have smaller bubbles, reflecting **lower GDP per capita** in most regions.
- **North America (pink)** shows moderate to high GDP per capita but fewer data points compared to Europe.

- **Oceania (yellow)** — represented mainly by **Australia** — contributes a smaller share overall.

- The visualization provides a **clear geographic comparison** of economic performance between continents and countries.

Filled Map

- ✓ A **Filled Map** in Power BI visualizes geographical data by **coloring entire regions (countries, states, or continents)** based on a numerical value such as GDP, population, or sales.
- ✓ It helps users **compare values across geographical boundaries** and easily identify **regional trends or disparities**.
- ✓ The color intensity represents the **magnitude of the selected measure** — darker shades often indicate higher values.

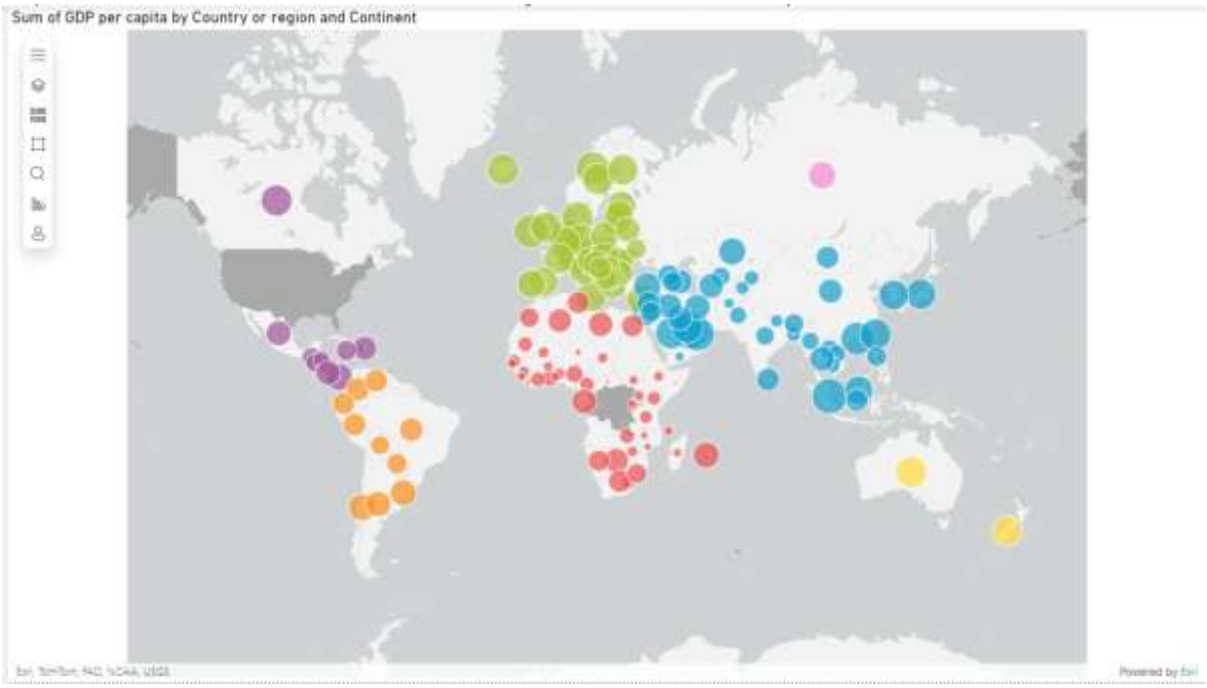


- Europe (blue region) and Asia (red region) stand out with higher GDP per capita compared to other continents.
- Africa (orange) and South America (purple) display relatively lower GDP per capita values, indicating economic disparities.
- North America shows moderate to high GDP per capita, while Australia (Oceania) also has a notable contribution.
- The tooltip shows country-specific details — for example, *Russia* belongs to both *Asia and Europe* with a GDP per capita sum of *1.18*.

- This visualization clearly highlights economic performance variations across continents and regions.

ArcGIS Map

- An **ArcGIS Map** in Power BI is an advanced geographical visualization created using **Esri's ArcGIS mapping technology**.
- It allows users to visualize spatial data with enhanced mapping features, **layer controls, zoom tools, and heat intensity options**, helping to identify **geographical trends, patterns, and relationships**.
- It provides more customization and accuracy than the basic Power BI map visuals.



- **Europe (green)** and **Asia (blue)** show higher GDP per capita values with densely packed large bubbles — indicating economically stronger regions.
- **Africa (red)** and **South America (orange)** have smaller bubble sizes, representing **lower GDP per capita**.
- **North America (purple)** and **Oceania (yellow)** show moderate to high GDP per capita levels.
- The **size of the bubbles** represents the **sum of GDP per capita** — larger circles indicate higher values.
- The map clearly shows **global economic disparities**, highlighting regions of prosperity and development gaps.