

IDEAS:

- Map: - Choropleth
- Proportional Symbol
- Scaled Cartogram
- Dot Density
- Framed Bar Charts
- Pie Charts

- Charts: - Column
- Stacked Column
- Grouped Column
- Bar
- Stacked Bar
- Grouped Bar
- Pie
- Donut
- Tree Map
- Bubble

COMBINE & REFINER:

- Choropleth + Proportional Symbol
or + Pie Charts:

Using a Choropleth map to show the predominant vehicle type, and use proportional symbol or pie charts to show the proportions of each type.

FILTER:

- Map: - Choropleth
- Proportional Symbol
- Pie Charts

- Charts: - Stacked Bar
- Grouped Bar
- Pie
- Bubble

CATEGORIZE:

- Map: - Choropleth
- Proportional Symbol
- Pie Chart Map

- Proportional: - Pie
- Stacked Bar
- Grouped Bar

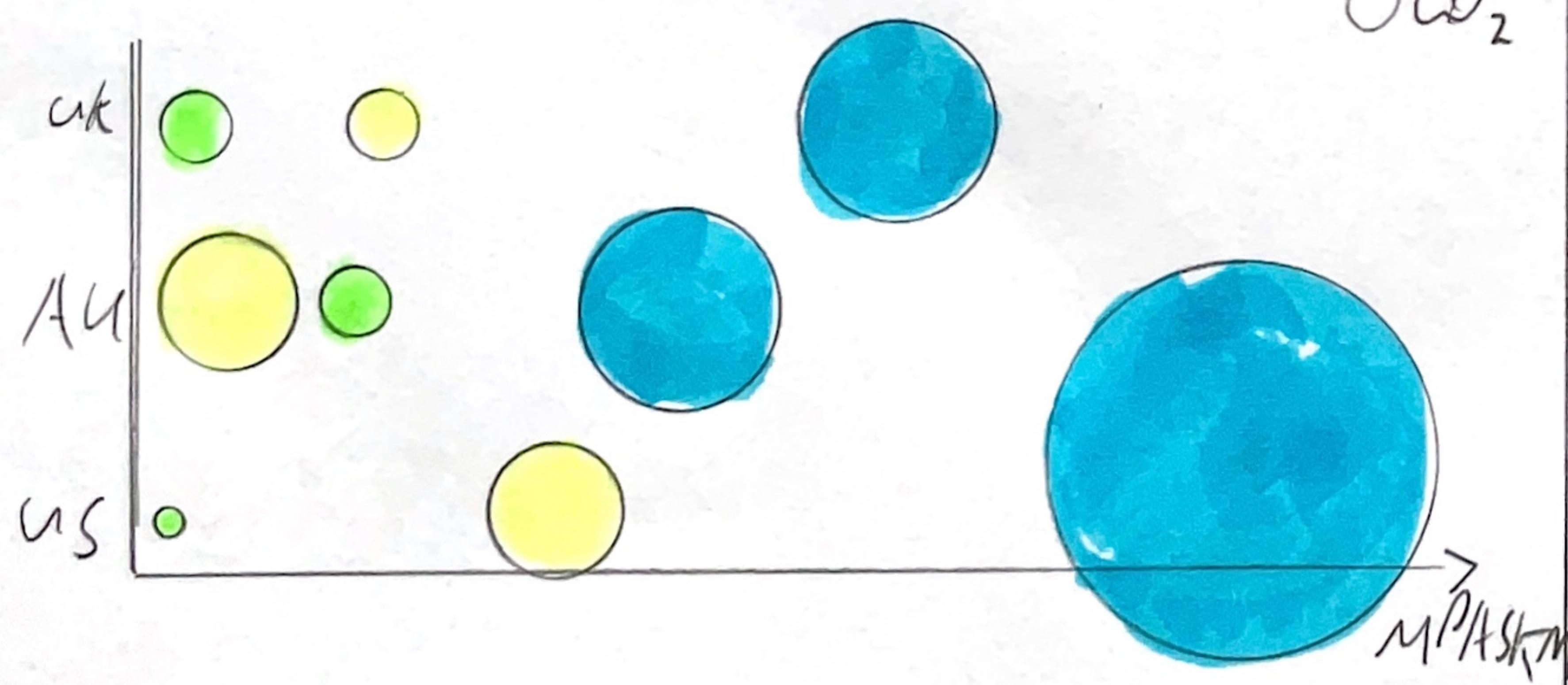
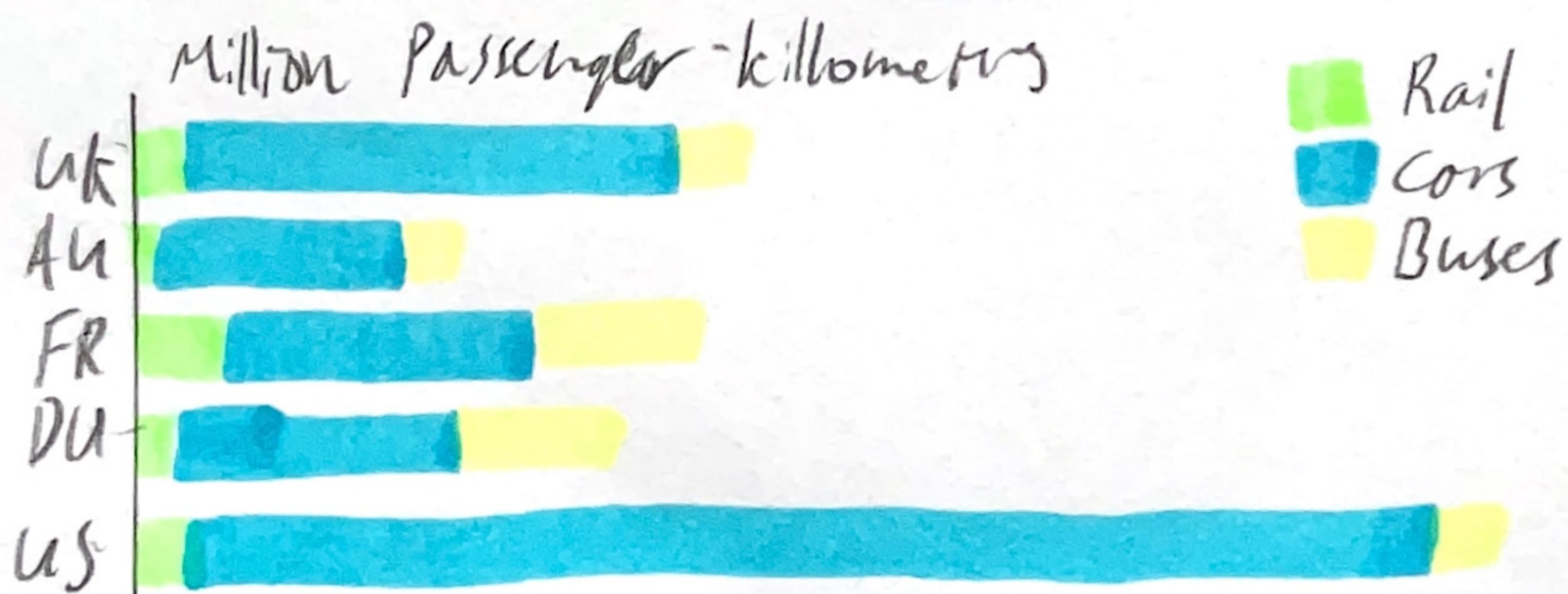
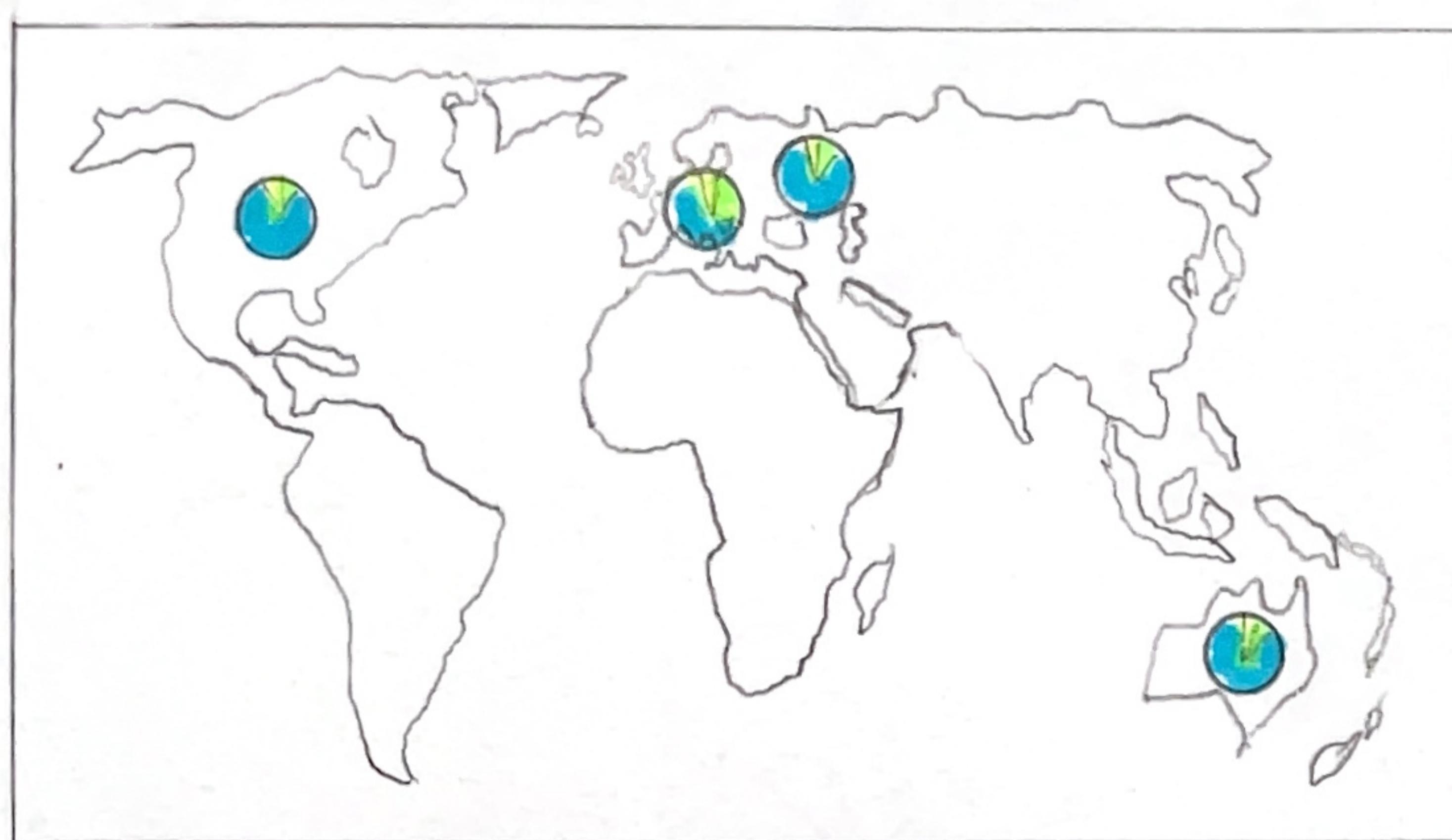
- Absolute: - Stacked Bar
- Grouped Bar
- Bubble

QUESTION:

The Map idioms would make it easy to compare data between countries.
Bubble charts would allow multiple aspects to be compared in one chart.

Bar charts would allow comparisons between fields either by the use of the length (and

LAYOUT:



DISCUSSION:

- Pie Charts may become unclear when clustered together
- Vega-Lite is not an appropriate program for a pie chart map
- Total passenger-kilometer bar charts may become difficult to read due to the data for the U.S.

TITLE: Sheet 2
AUTHOR: Bradley Spiess
DATE: 12/10/2025
SHEET: 2
TASK: Visualization 2

OPERATION:

Tool TIN to show numerical data

Dropdown menu to Filter by vehicle type (For Bar and Bubble Charts)

FOCUS:

Pie Chart Map

Total MPASKM
Bar Chart

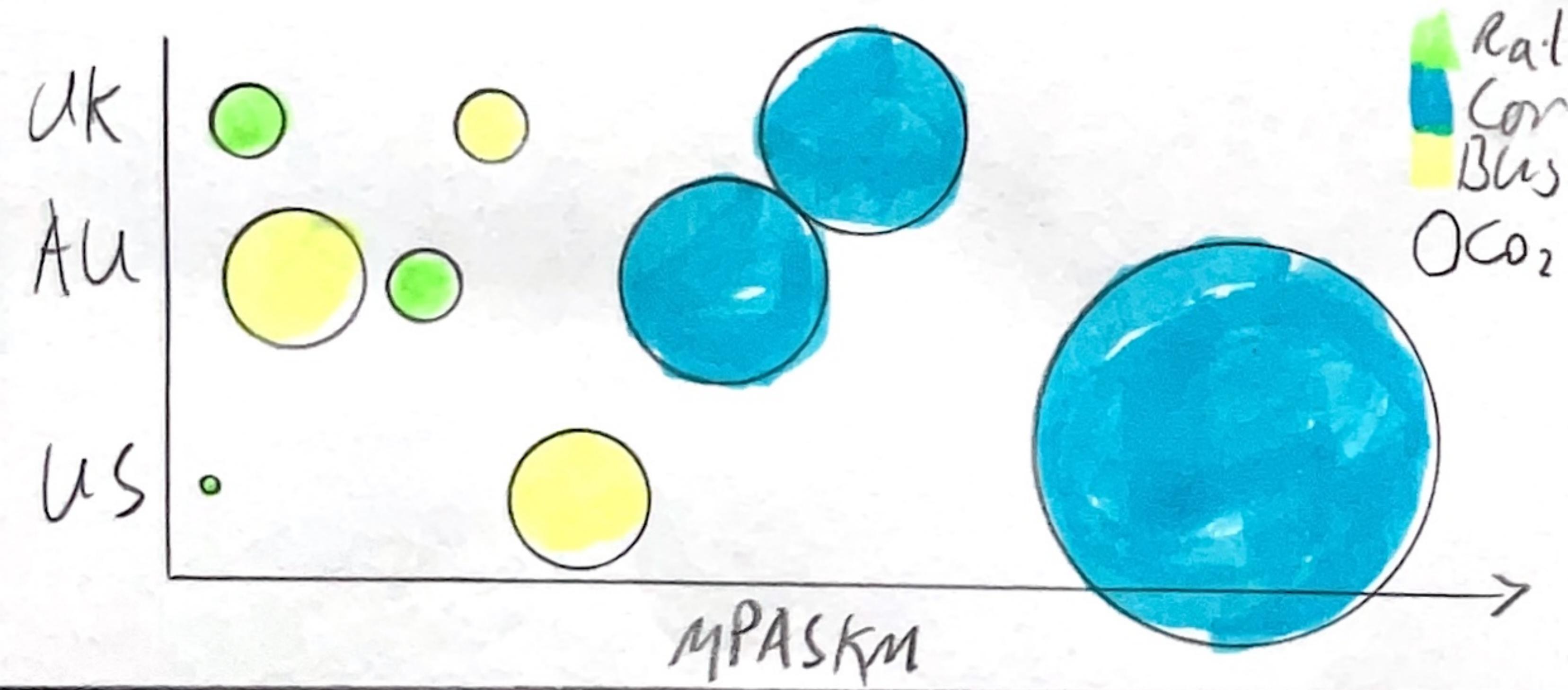
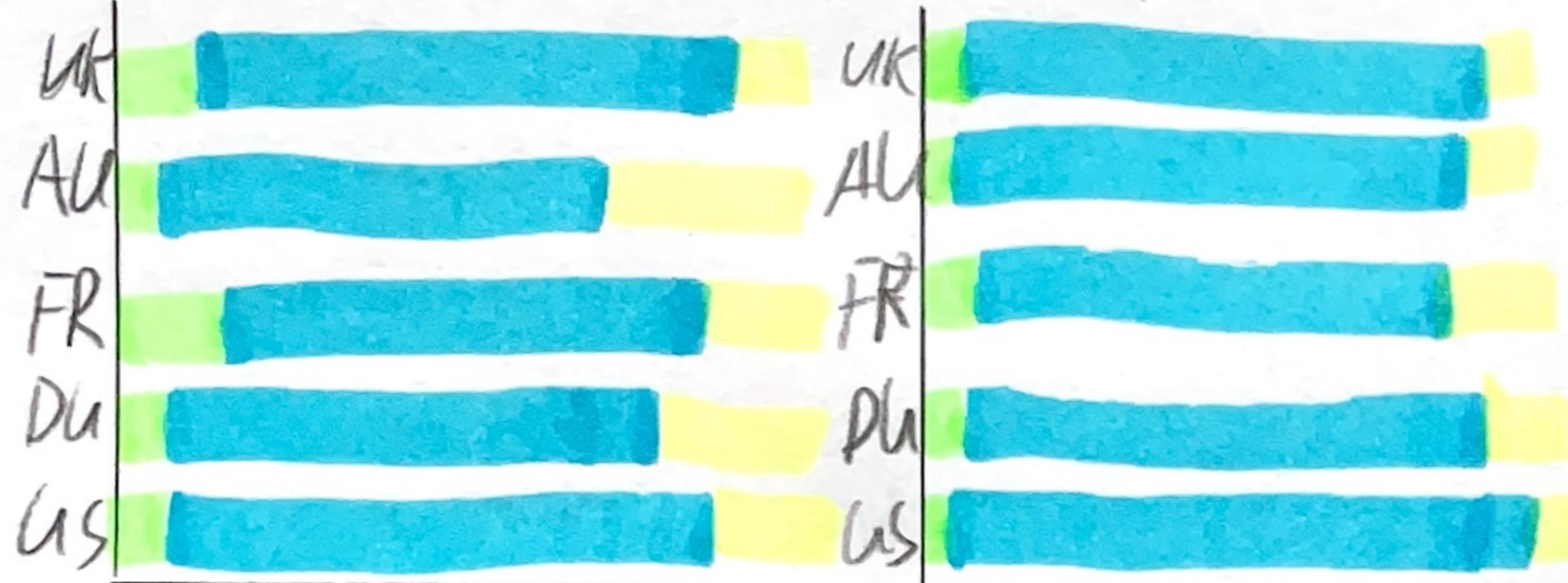
CO₂ and MPASKM
Bubble Chart

LAYOUT:



i. PASKM

i. CO₂



DISCUSSION:

- Symbols may become unclear when clustered together
- Symbol map is better for vegatite
- Percentage bar charts lead to less white space
- Side by side bar charts would be cluttered with axis types and legends. Could also decrease readability and fidelity of data

TITLE: Sheet 3
 AUTHOR: Bradley Spiers
 DATE: 12/10/2025
 SHEET: 3
 TASK: Visualisation2

OPERATION:
 Tooltip to display numerical information
 Dropdown menu to filter bar charts and bubble chart by vehicle type

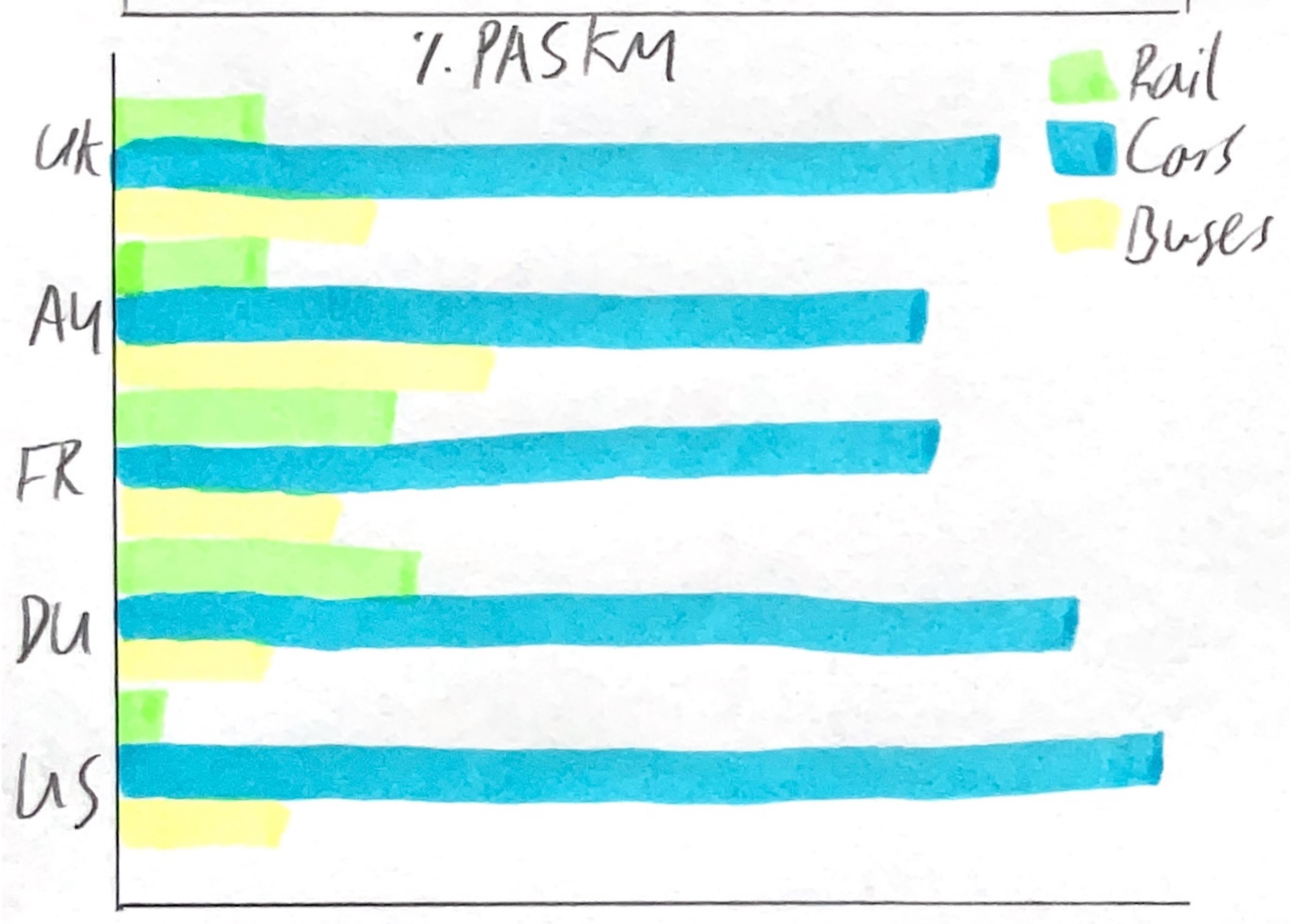
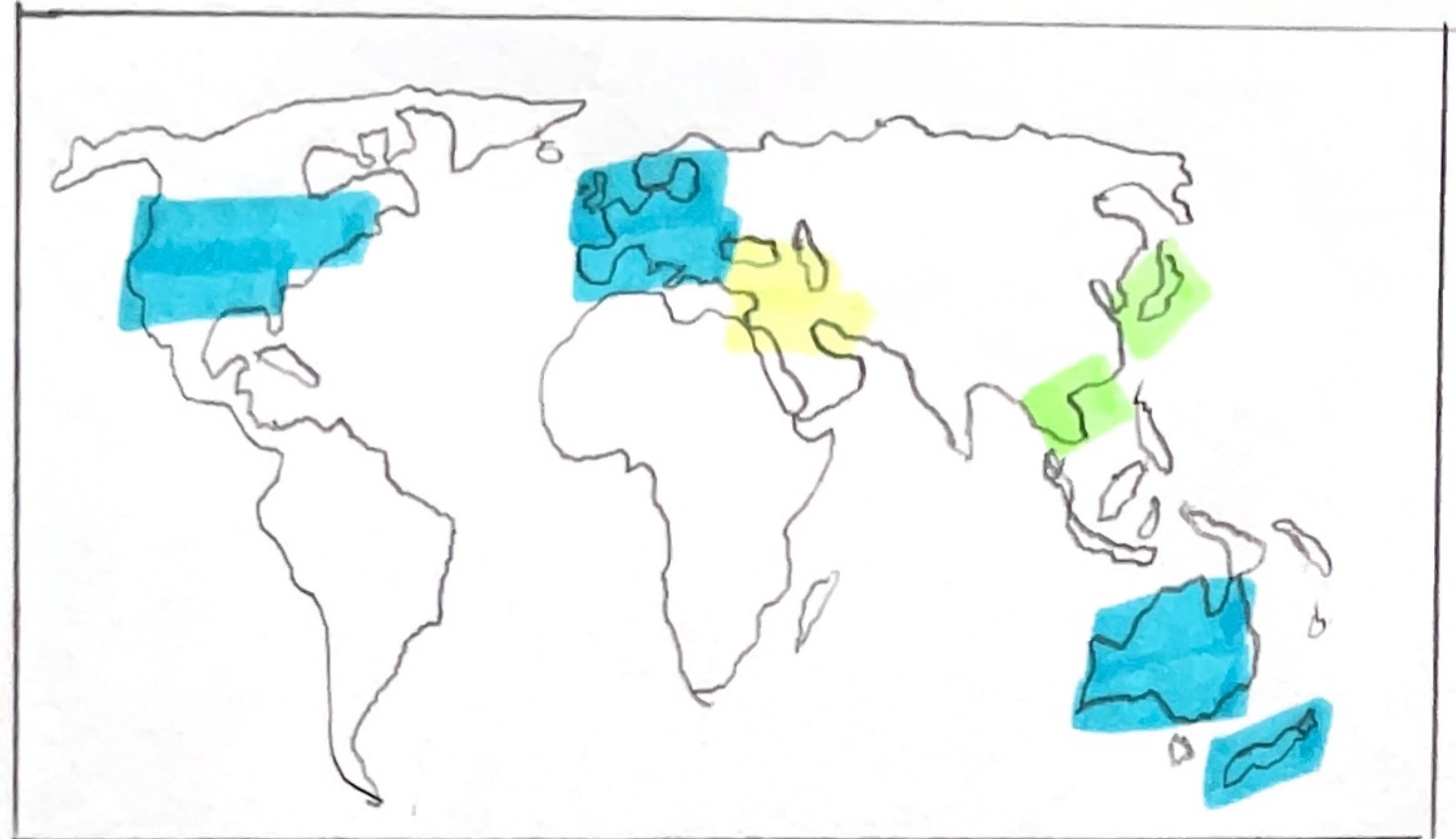
Focus:

Proportional Symbol Map

i. PASKM	i. CO ₂
Bar Chart	Bar chart

CO ₂ and PASKM	Bubble Chart
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LAYOUT:



DISCUSSION:

- Choropleth map displays limited information, it does not allow for comparisons of multiple types of transport
- Grouped bar chart is not spatially efficient leaving white space
- Choropleth map more effectively shows which countries have data, and which do not

TITLE: Sheet 4
AUTHOR: Bradley Spiers
DATE: 12/10/2025
SHEET: 4
TASK: Visualization 2

OPERATION:

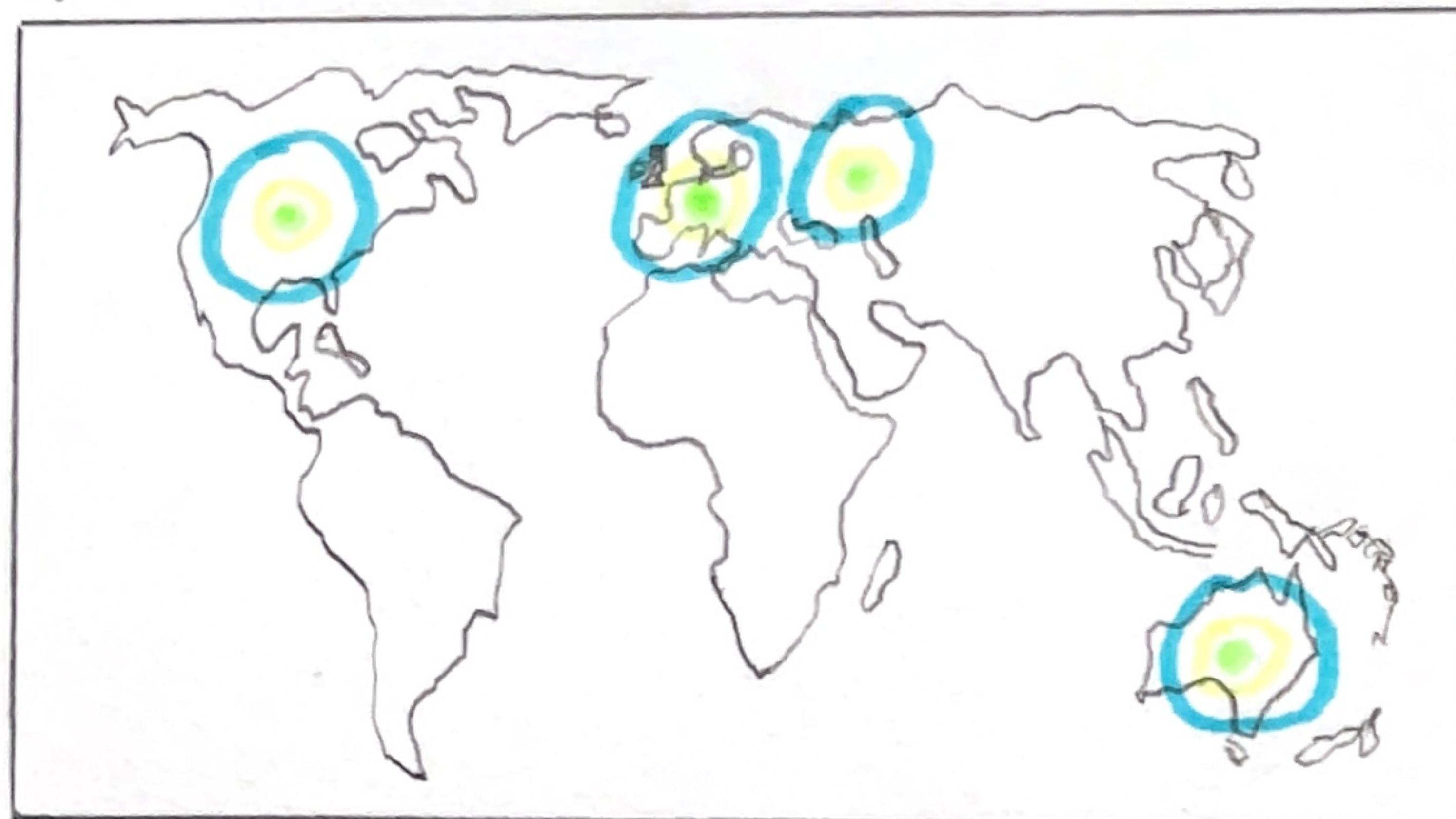
Tool(s) to display numerical data
Dropdown menu to filter by Transport type

FOCUS:

Choropleth Map

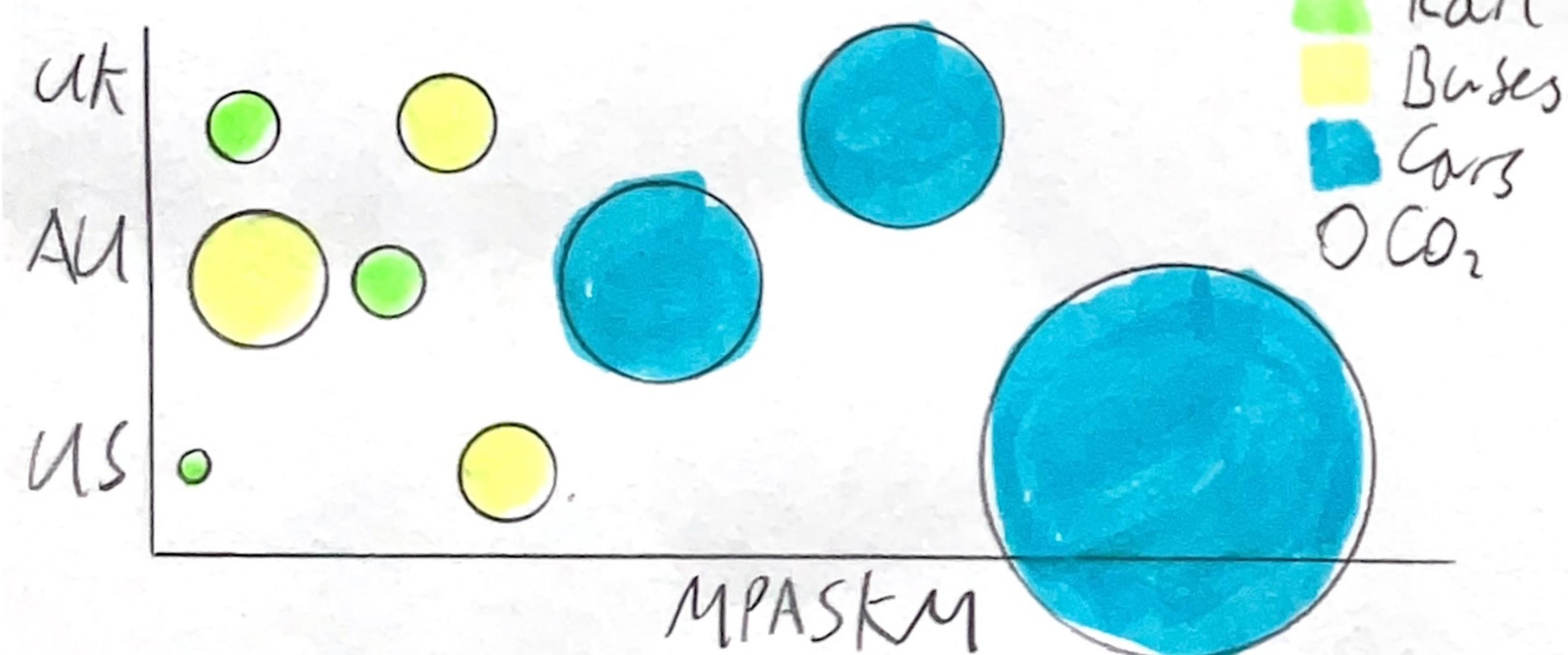
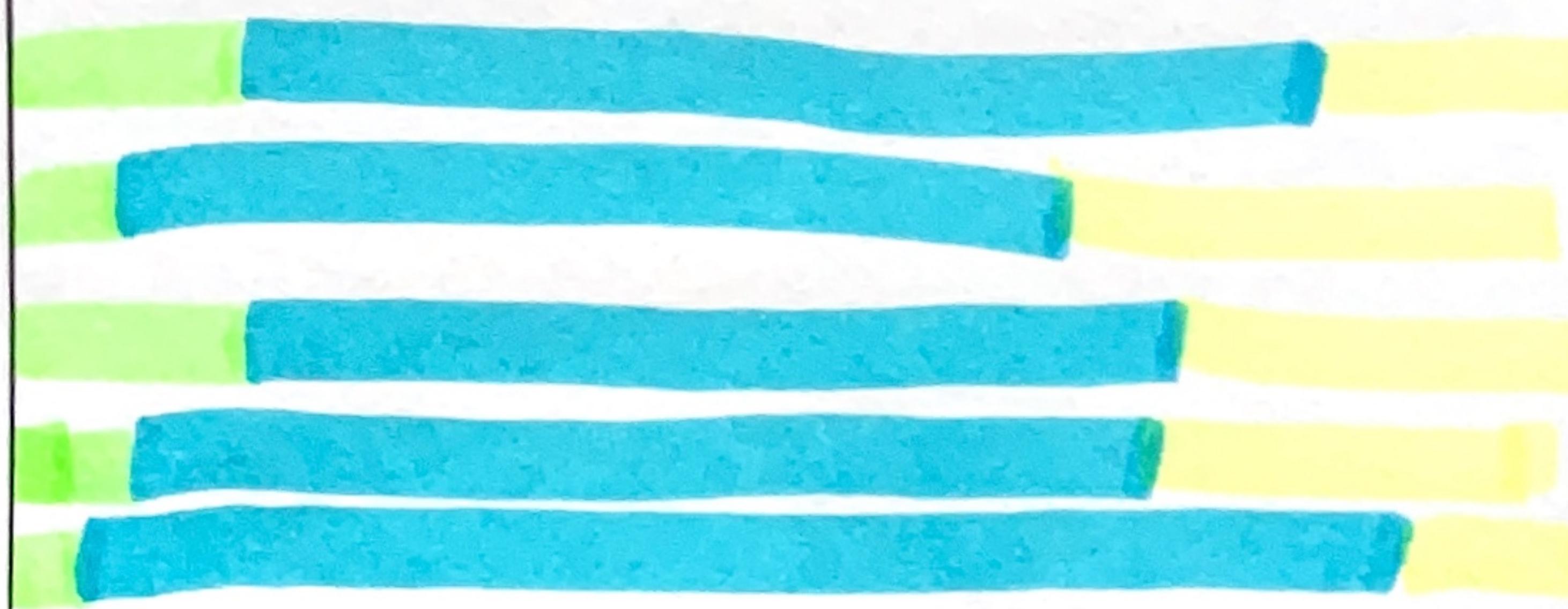
Grouped Bar Chart
1. PASKM

LAYOUT:



y. PASKM

uk
AU
FR
DU
US



MPASKM

DETAIL:

- The visualisation will use data from the OECD website
- The data will need to be normalized to total passenger-kilometres of each country
- Average CO₂ Emissions per Passenger Kilometres will need to be sourced and applied to the OECD Data
- The visualisation should be complete within 5 days

TITLE: FINAL
AUTHOR: Bradley Spiers
DATE: 12/10/2025
SHEET: 5
TASK: Visualisation 2

OPERATION:

Tooltip to display Numerical Information
Dropdown menu to filter Bar chart and Bubble chart by vehicle type

FOCUS:

Proportional Symbol Map

y. Pas KM
Stacked Bar
Chart

CO₂ and PASKM
Bubble Chart