UNECE Visualizing Rail Volumes

Alex Blackburn BlackburnA@un.org

Secretary, Working Party on Transport Statistics (WP.6)

Presentation to Group of Experts on International Railway Passenger Hubs. Geneva, 7-9 July 2021
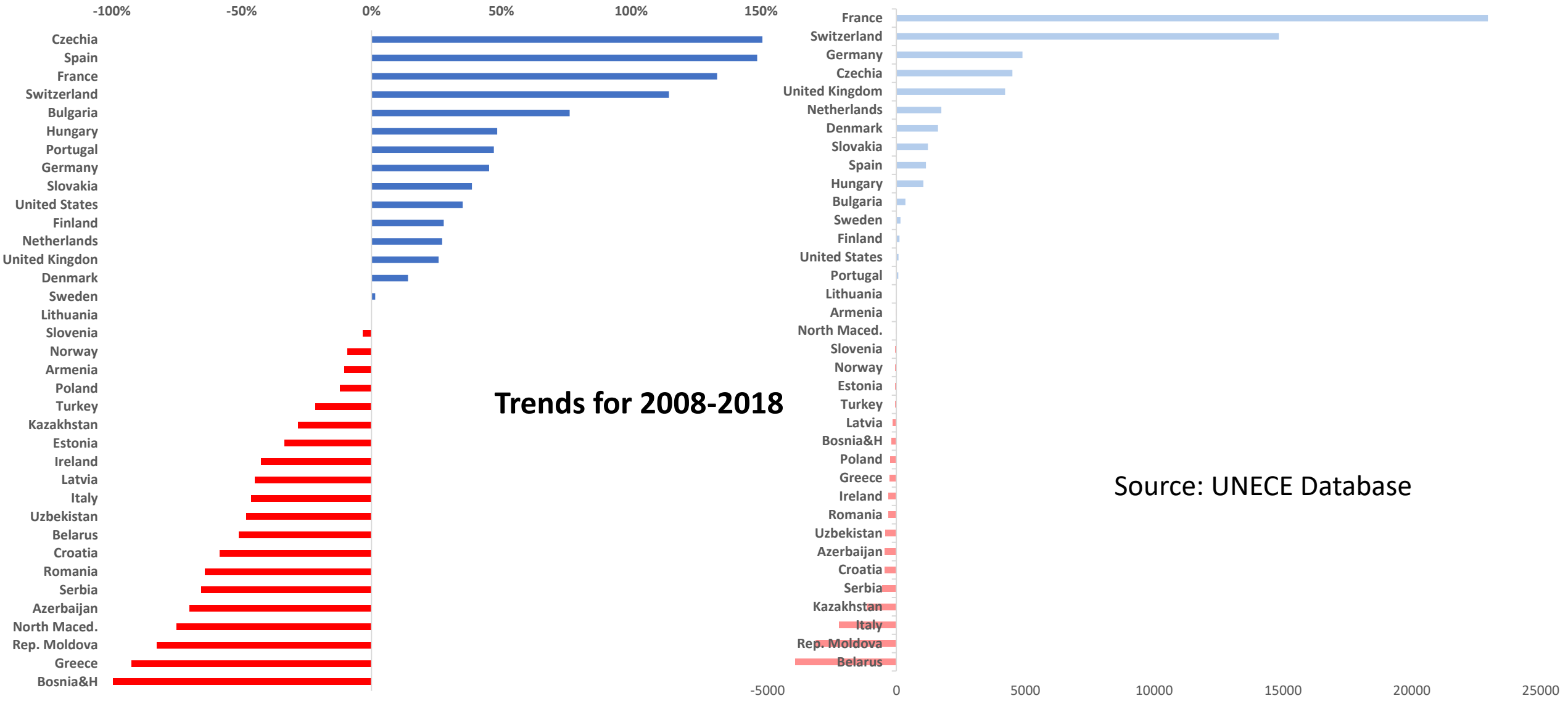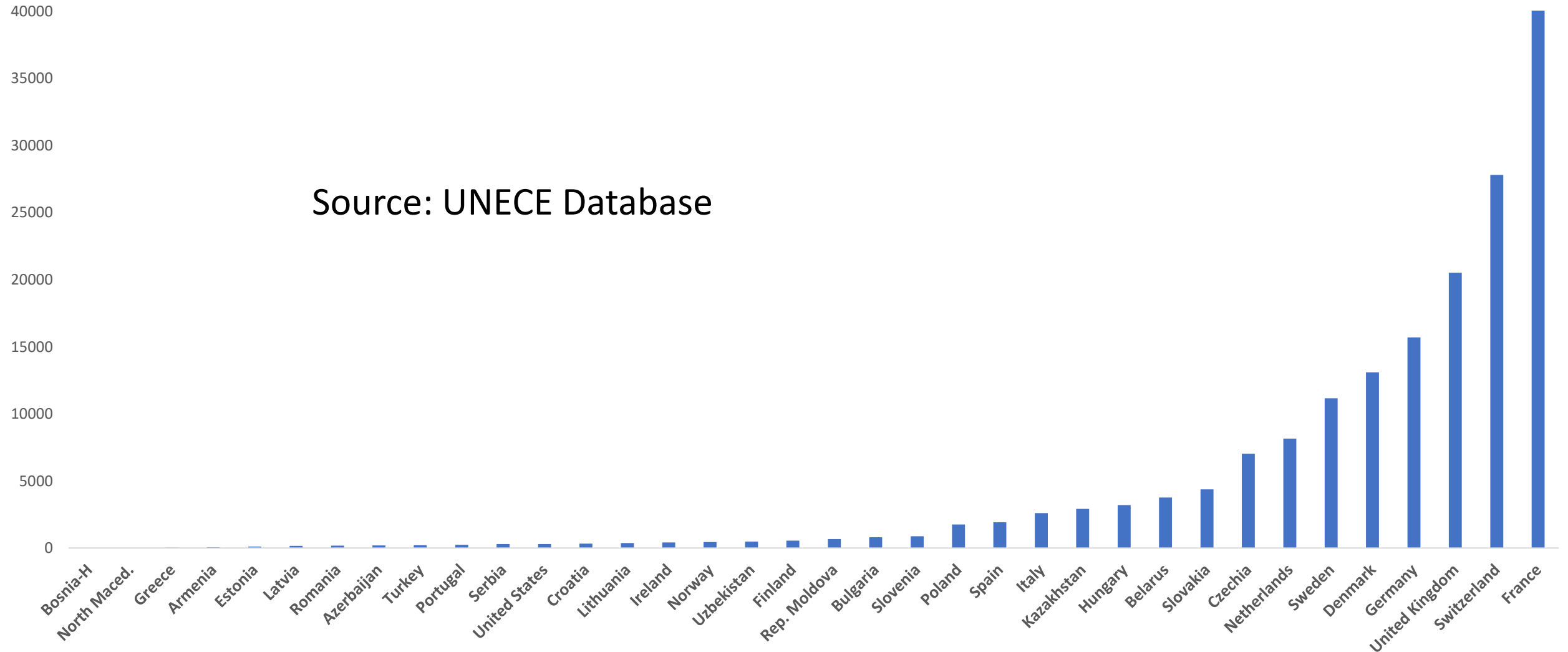
International Rail passenger numbers

- Percentage changes show strong growth for some countries but sharp declines for others. But many of the declines were in small markets, and in terms of overall numbers the trend is much more positive.

Trends for 2008-2018

Source: UNECE Database

International Rail passenger numbers   Thousands, 2018 or latest

Source: UNECE Database

Data Sources for sub-regional Rail Traffic

- Eurostat has detailed country-level passenger data country-to-country on an annual basis
  - But some key country data are confidential: Austria, Belgium, Hungary, Netherlands...
- Regional data (NUTS2) also exist, but only collected every five years.
  - Give regional perspective (shows the balance between Capital cities and other regions)
  - But challenge of data inconsistencies when both countries provide data. Big differences (e.g. factor of 3) between sources, and sometimes data are not assigned to a region but just a country.

Visualising Rail Traffic: Results

Source: Eurostat data visualized by UNECE
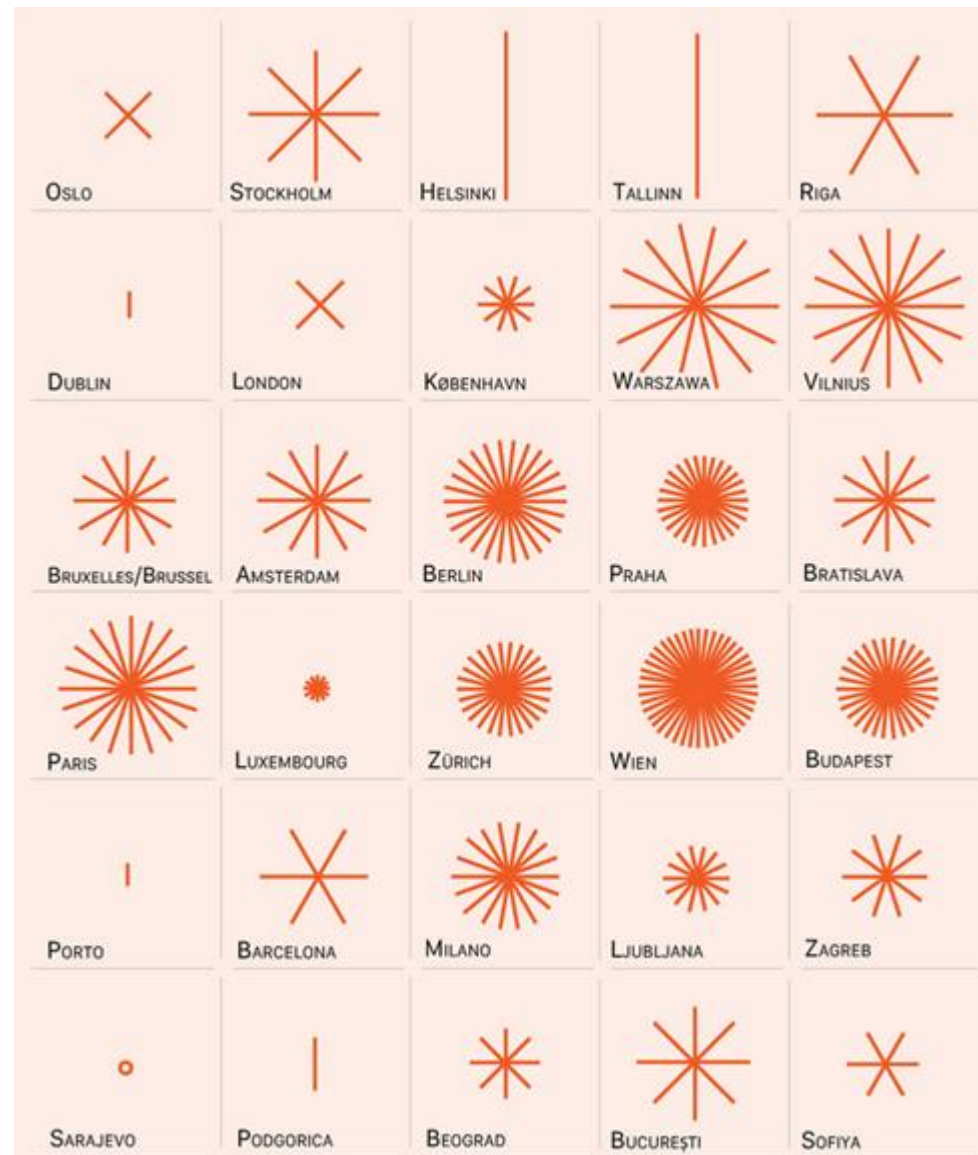
Visualising Rail Traffic: Results

Source: Eurostat data visualized by UNECE

Visualisations by others

- European Data Journalism article https://www.europeandatajournalism.eu/eng/News/Data-news/More-and-more-trains-crossing-European-borders

- Collected data from primary sources and provided several interesting visualisations

Source: Gianluca de Feo and Lorenzo Ferrari|EDJNet. Does not cover all UNECE countries.

Number and length of direct rail links between major European and foreign cities
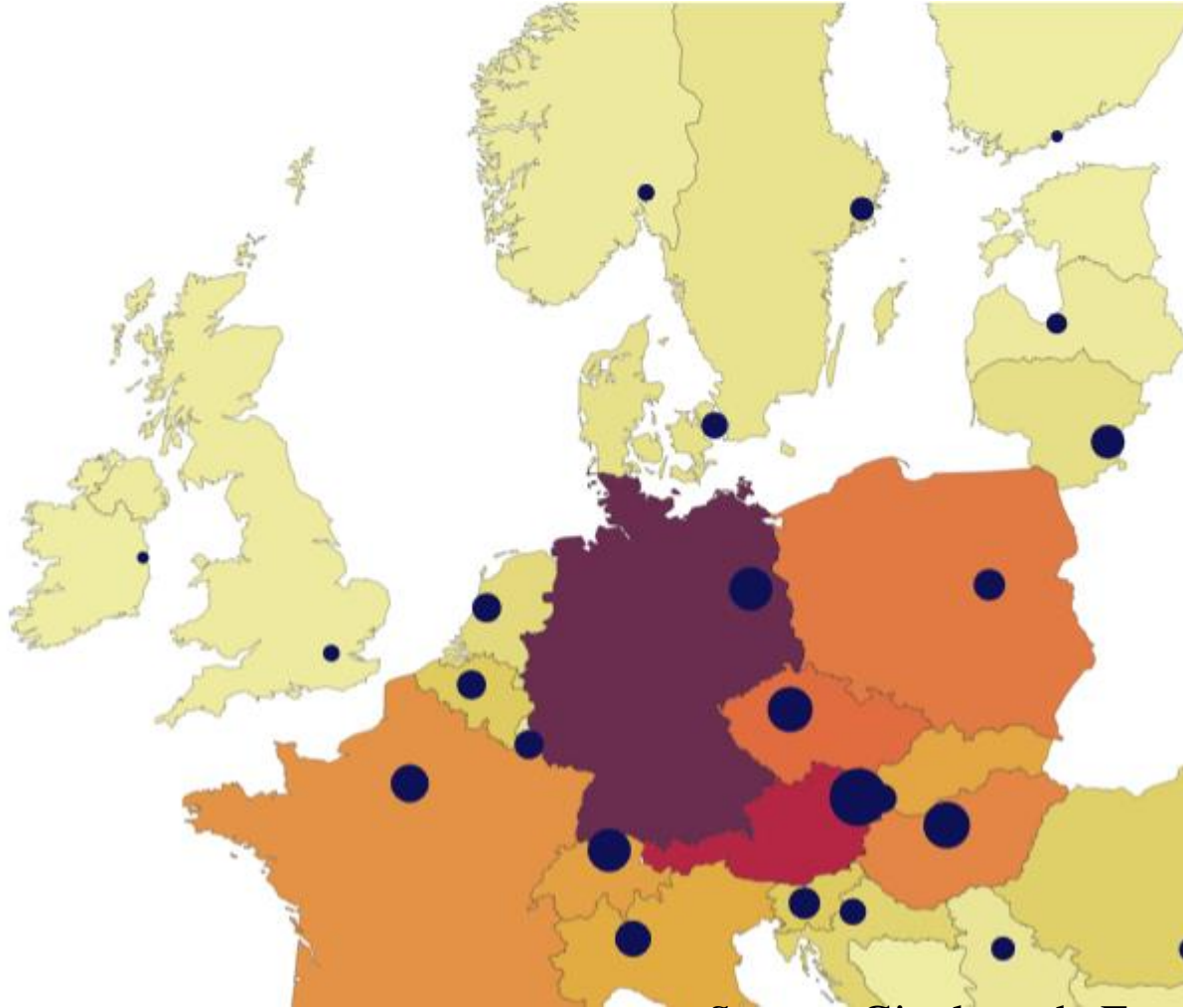
Intensity of rail connections across different borders in Europe (connections per 1000km)
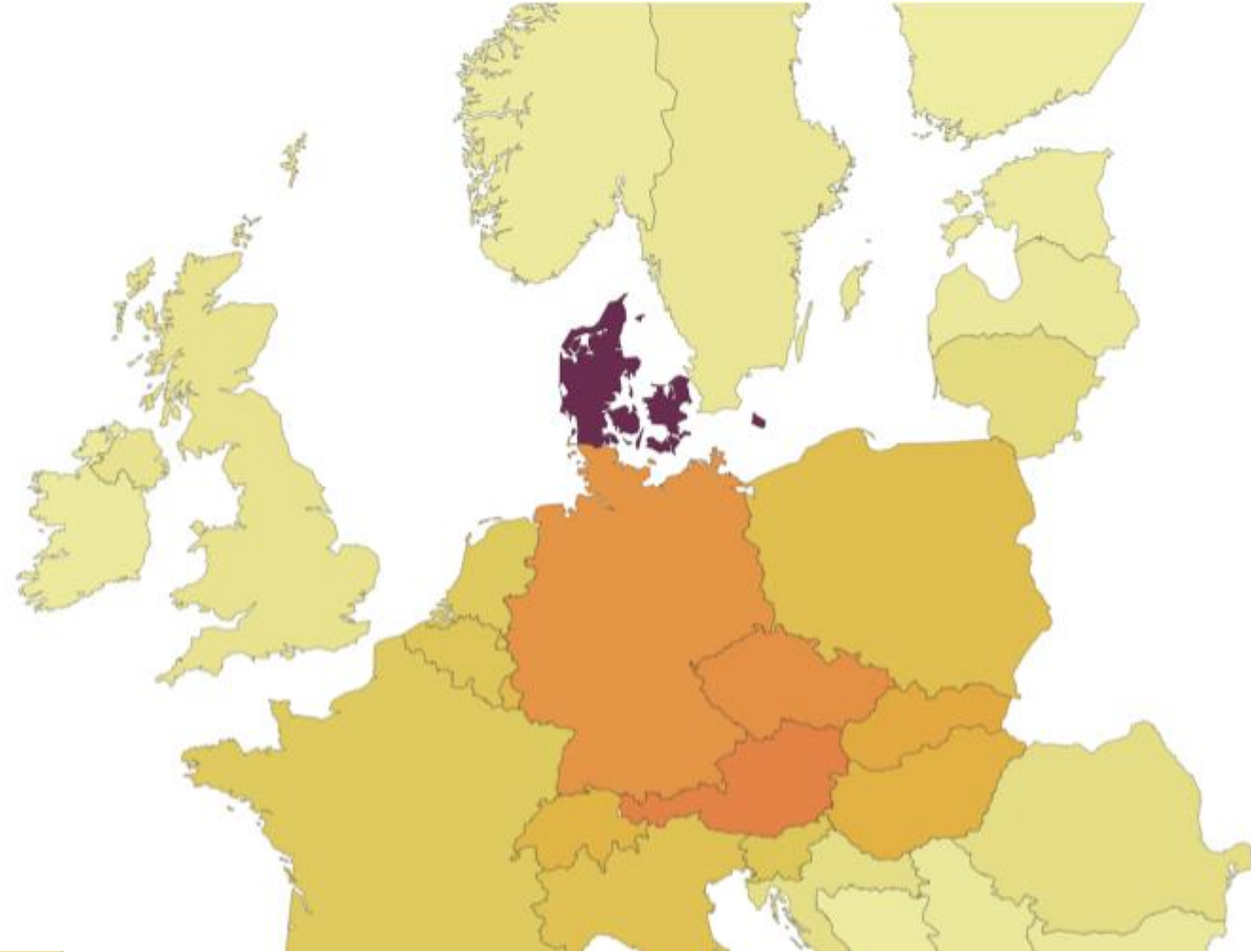

Source: Gianluca de Feo and Lorenzo Ferrari|EDJNet.
Does not cover all UNECE countries.

OBC TRANSEUROPA/EDJNET 2021

Legend:
— Border not crossed by any train
····· Border crossed by less than 1 railway link per 100 km of border
···· Border crossed by more than 1 railway link per 100 km of border
∗ Sea borders crossed by rail

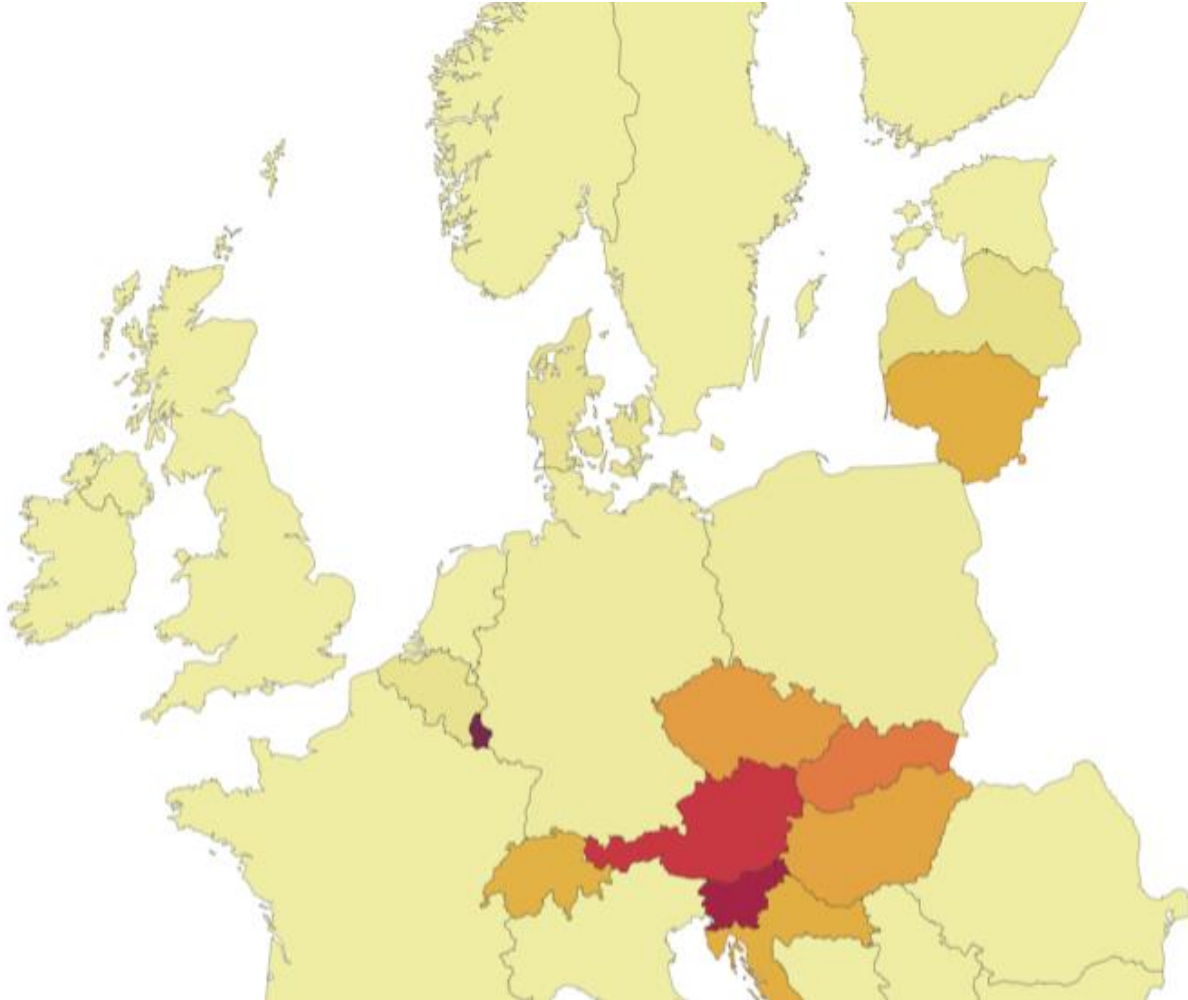**Number of cross-border rail connections per country and its city with most connections**

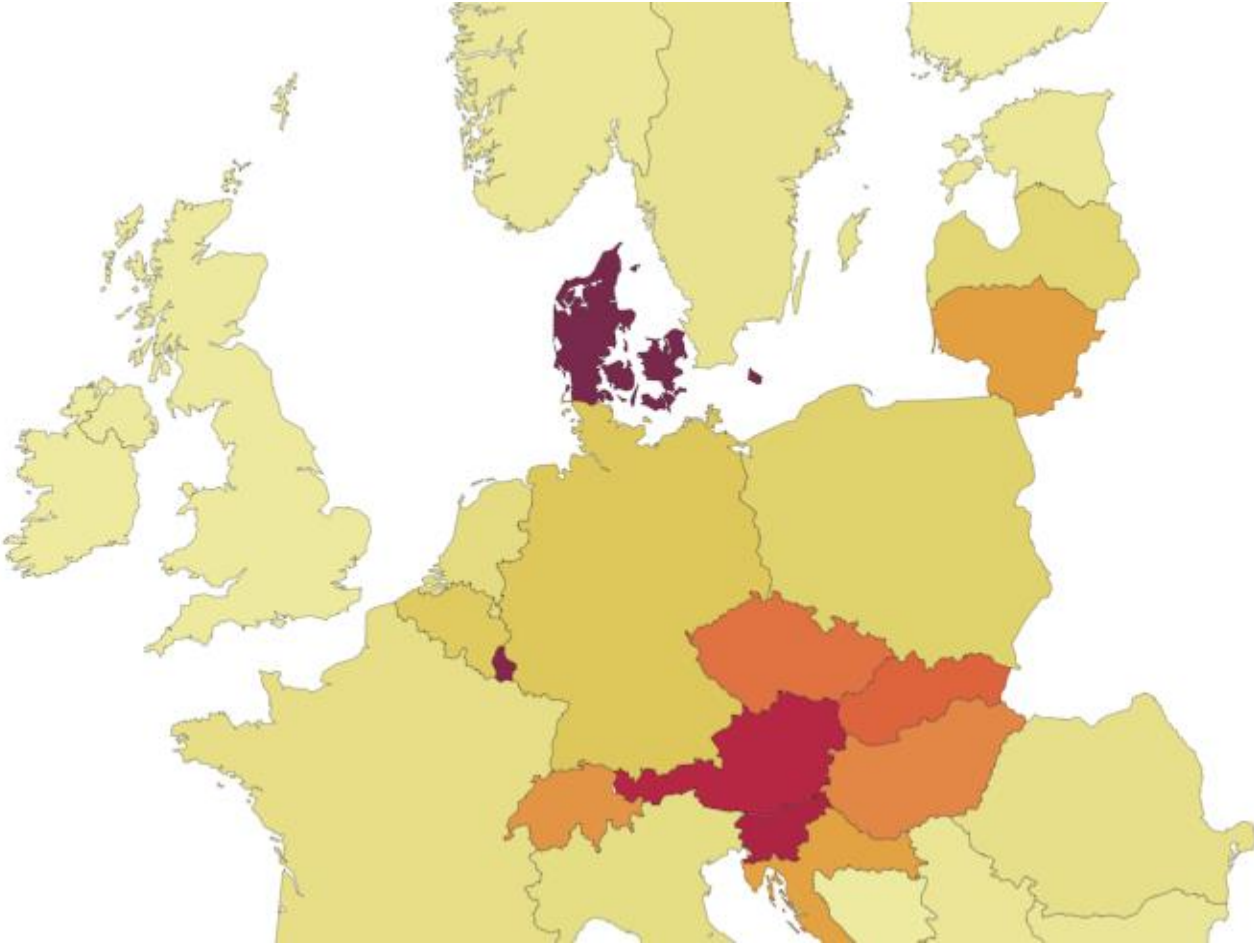**Number of cross-border rail connections per 100 km of border**

Source: Gianluca de Feo and Lorenzo Ferrari|EDJNet.
Does not cover all UNECE countries.

Number of cross-border rail connections per million people

Cross-border rail connectivity Index

Source: Gianluca de Feo and Lorenzo Ferrari|EDJNet.
Does not cover all UNECE countries.

Summary

- Explore our statistics https://unece.org/transport/transport-statistics.

- There are many ways to visualize existing (or potential) international rail connectivity of cities.

- Further statistical analysis is possible based on the needs of the Group of Experts.

BlackburnA@un.org