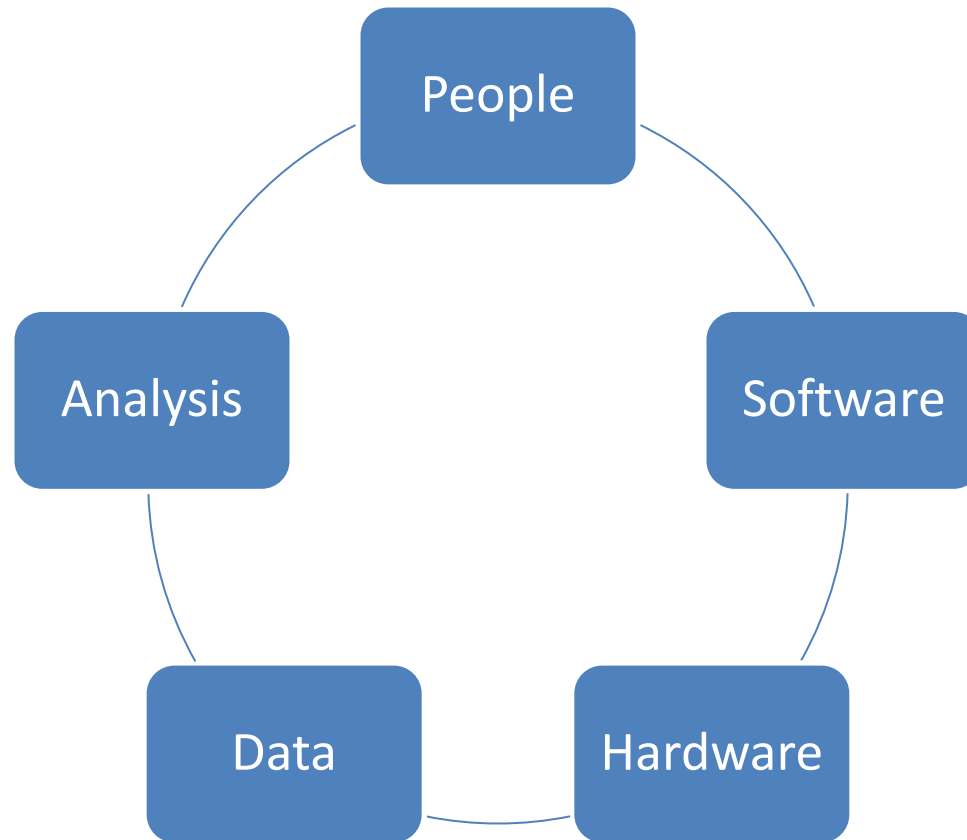
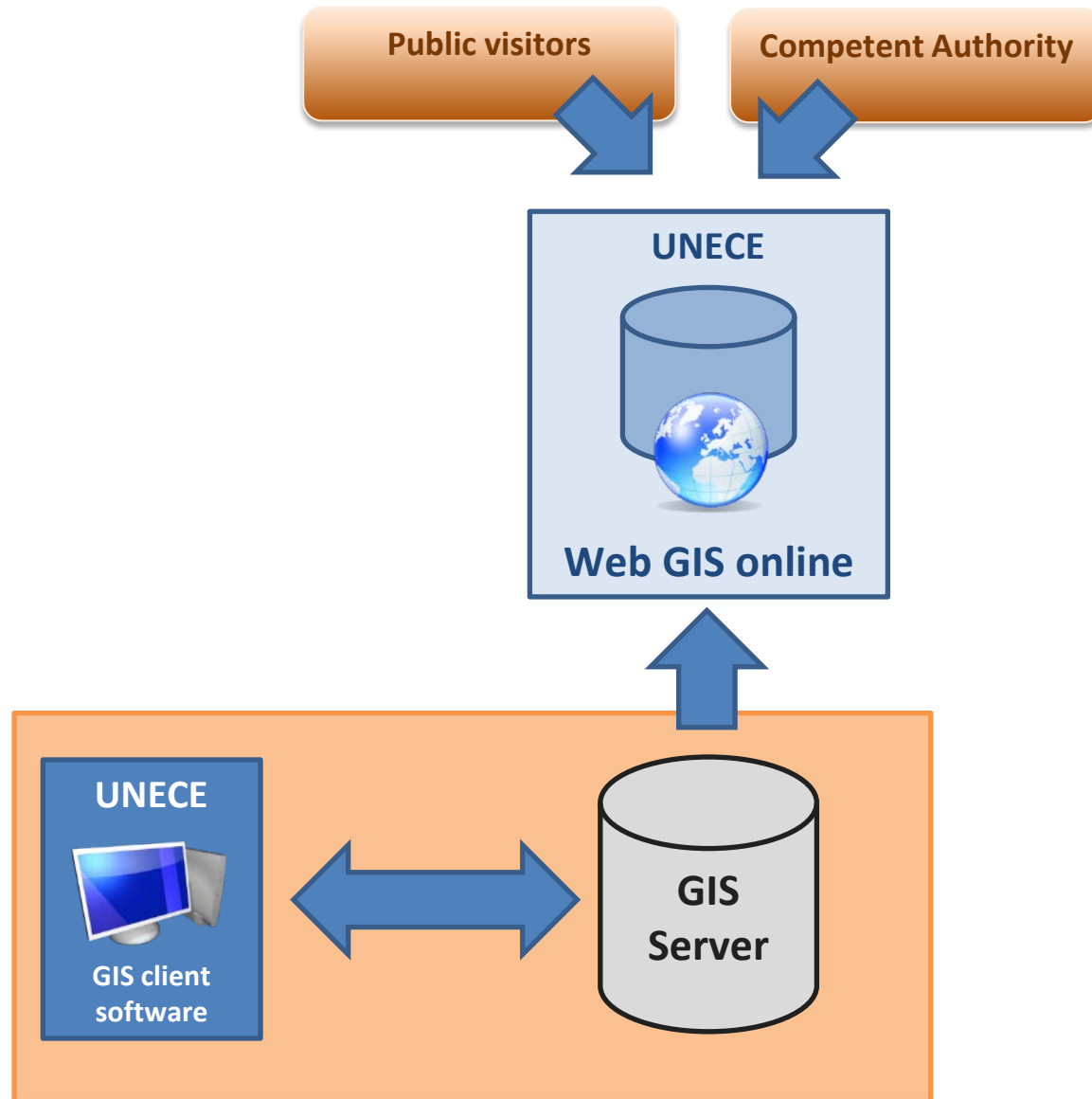


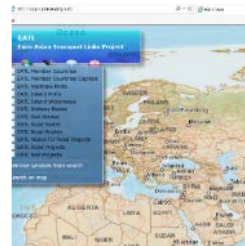
# The five basic components of a Geographical Information System



# GIS architecture - UNECE Transport Division

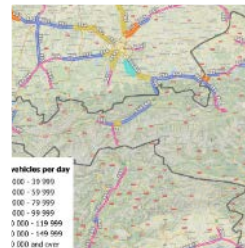


# GIS projects / applications - UNECE Transport Division



## Euro-Asian Transport Links

## Blue Book (AGN) Web Application



## Road and Rail Census

## Legal Instruments Web Application








## Large variety of data sources with heterogeneous quality

**networks are not always complete**

**update frequency varies**

**geographic accuracy varies**



Source	Geographical data available	Overview
<b>UNECE Blue Book</b>	E Waterways E Waterways sections E Ports  <b>Scale:</b> world to region	 A map of Europe and its surrounding regions, including parts of North Africa and the Middle East. The map is overlaid with a network of blue lines representing waterways and small blue dots representing ports. Major rivers like the Rhine, Danube, and Volga are clearly visible.
<b>UNECE EATL</b>	EATL corridors data Ports Inland waterways Roads (E roads when applicable) Rails (E rails when applicable)  <b>Scale:</b> world to region	 A map of Europe and its surrounding regions, similar to the first map. It shows a dense network of orange and red lines representing EATL corridors, which include roads and rails. Blue lines and dots also represent waterways and ports.
<b>UNECE Road and rail census</b>	Roads (E roads when applicable) Rails Data such as trains/day, infrastructure...  <b>Scale:</b> world to region	 A map of Europe and its surrounding regions, showing a very dense network of red lines representing roads and rail lines. Blue lines and dots represent waterways and ports. The density of lines is much higher than in the previous maps.



## Data collected through questionnaires

Constraints for geographical data collection (can be time consuming, need a minimum GIS expertise)

How data is used (UNECE reports and publications)

How data is disseminated (charts, maps, online databases)



## Geographical data collection needs:

Agreed definitions for each variable

Collection process (national focal points, frequency, automated forms...)



# Road and Rail Census data used for the Climate Change Adaption project

Group of Experts on Climate Change impacts and adaptation  
for transport networks and nodes (WP.5/GE.3)

**Prepare appropriate  
policy actions  
Exchange information  
about best practices  
for climate change  
adaptation**

- **Identify transport networks in the ECE region vulnerable to climate change impacts, if possible in GIS;**
- **Use/develop tools and good practices to address potential extreme hazards;**
- **Identification and analysis of case studies on the potential consequences of the climate change impacts.**



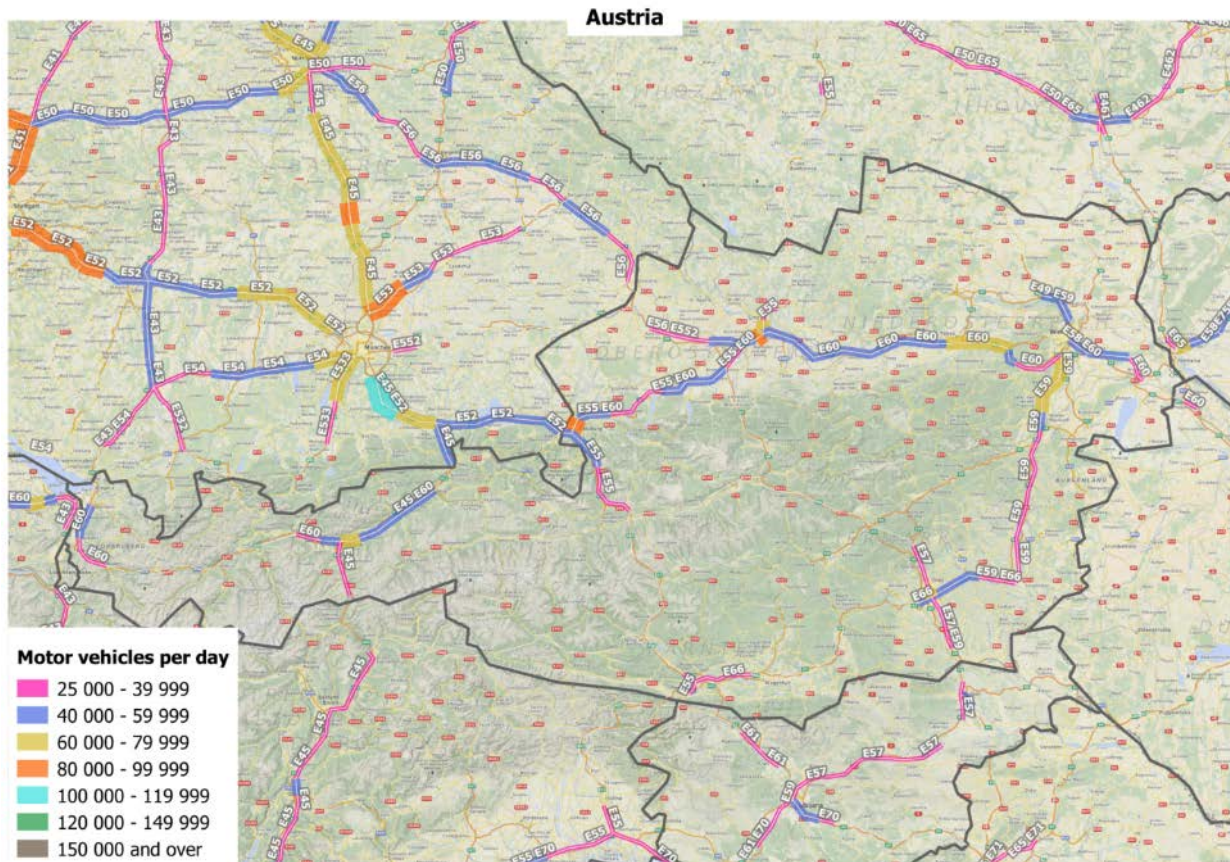
## Road and Rail Census: geographical data

Year	Geographical data
2000	Roads
2005	Roads and rails
2010	-
2015	Only for some countries

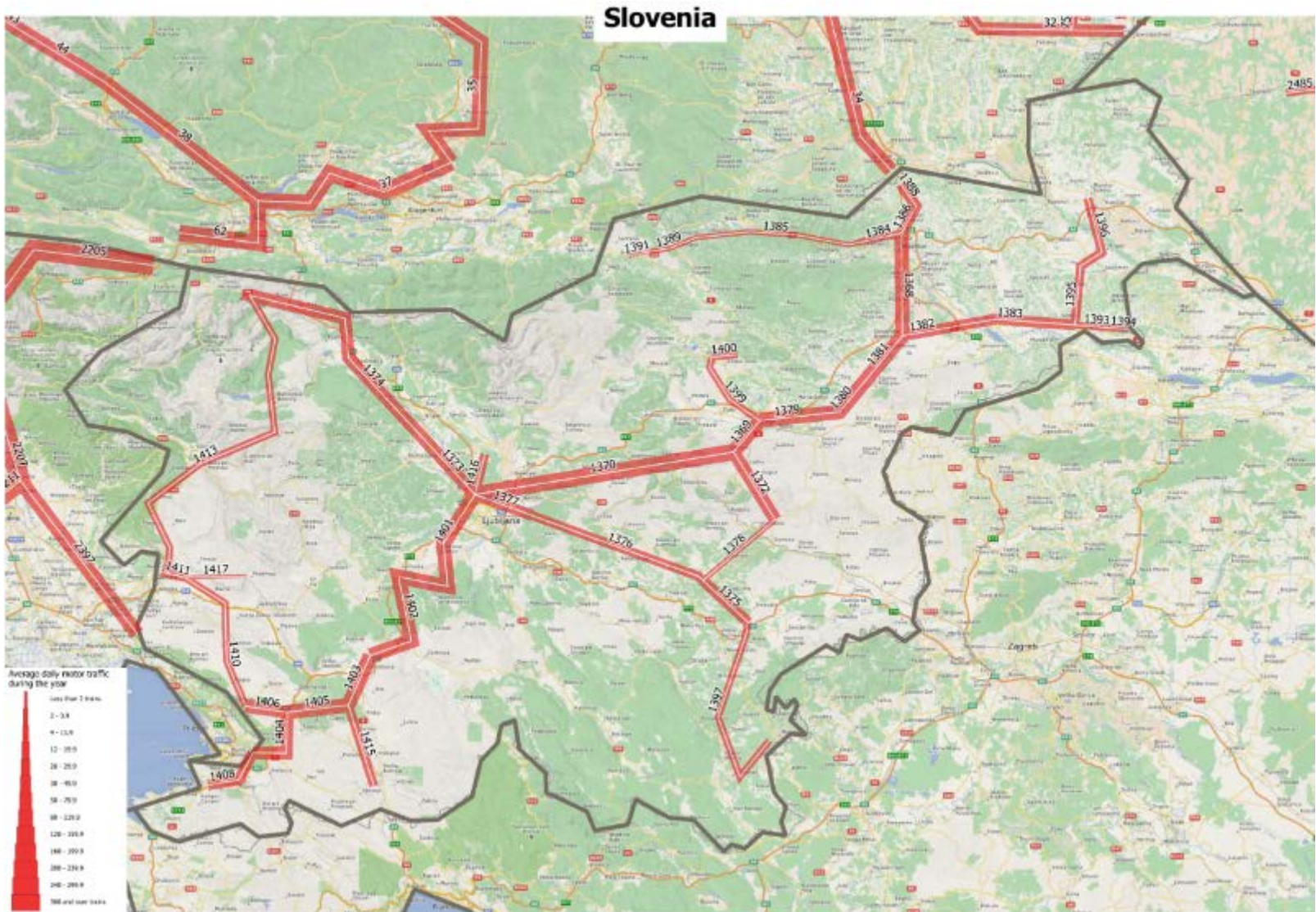
- The road and rail E networks (of international importance) still need to be completed
- Geographical precision: regional

# Road and Rail Census data used for the Climate Change Adaption project

- Maps of the traffic data for the road and rail E network
- Geographical precision: regional



# Road traffic census data used for the Climate Change Adaption project



# Rail traffic census data used for the Climate Change Adaption project

