

Joint Research Centre

The European Commission's in-house science service

www.jrc.ec.europa.eu

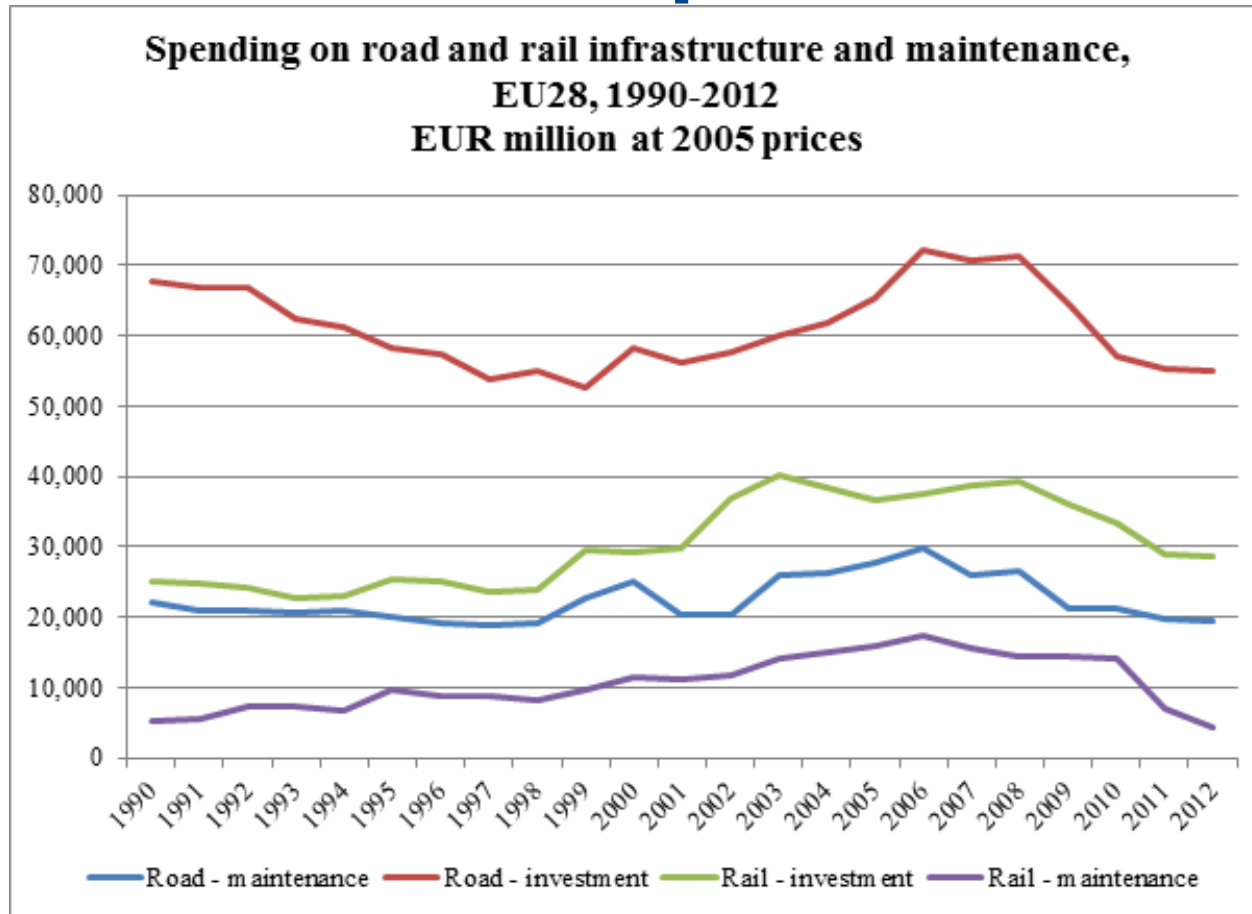
*Serving society
Stimulating innovation
Supporting legislation*



Why do we need good infrastructure cost data?

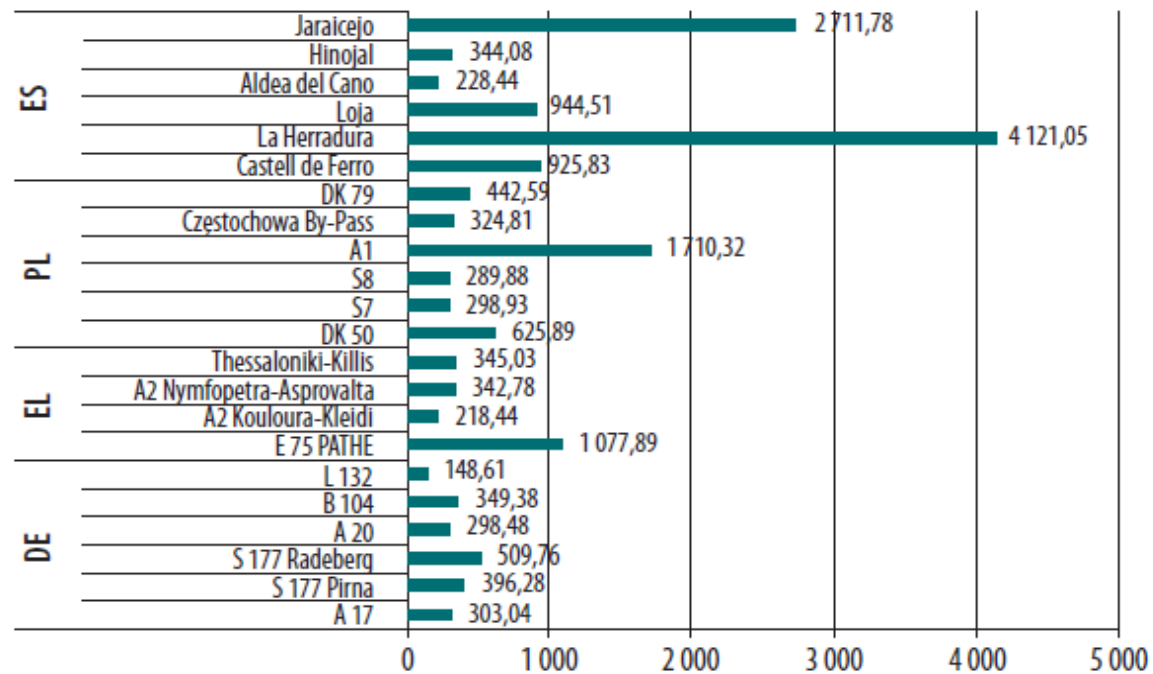
- Estimated cost of transport infrastructure in EU until 2050:
€ 1.5 to 2 trillion
- Need for public and private capital to be raised?
- Future needs for infrastructure maintenance?
- Charging for infrastructure use, wear and tear?
- Impact of climate change?

Data available at aggregate level, trends difficult to explain



Limited project level data

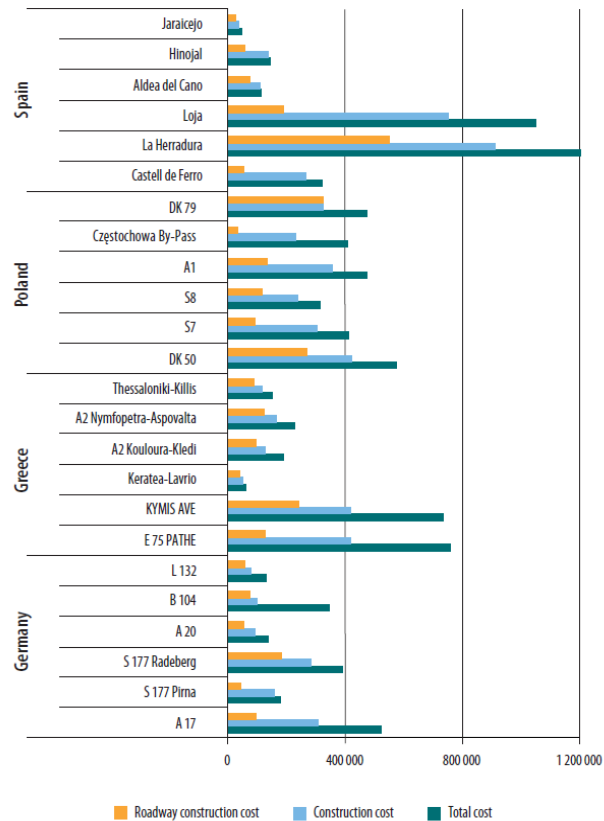
TOTAL COST OF 1 km OF AUDITED ROAD PROJECTS PER COUNTED TRAFFIC (AADT) IN EURO



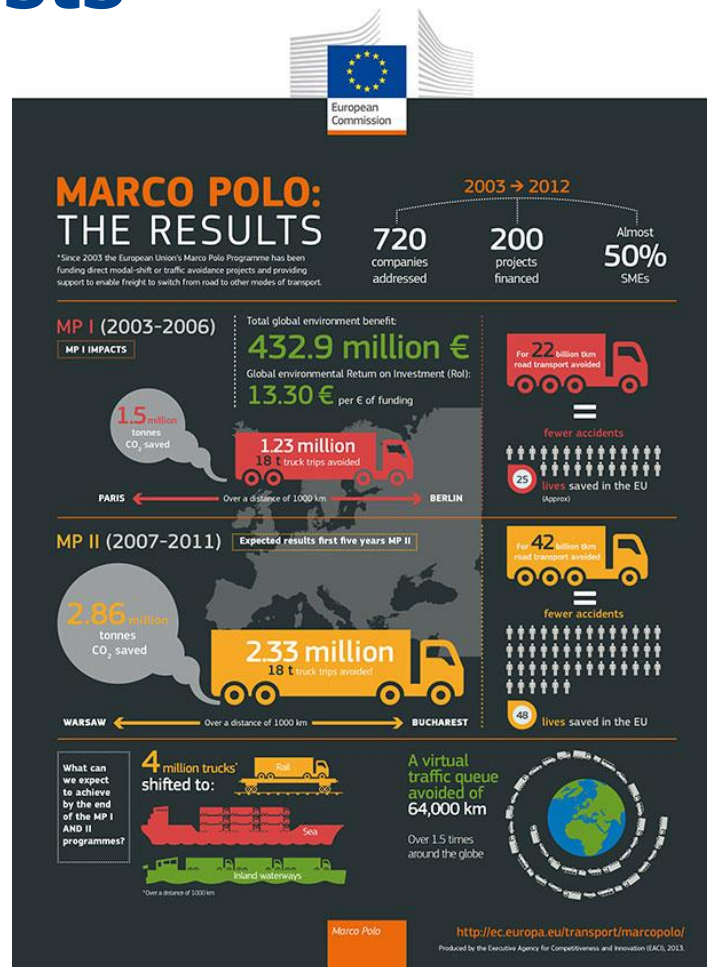
Source: Calculation by the Court of Auditors.

Big country level differences

COMPARISON OF TOTAL COST, CONSTRUCTION COST AND ROADWAY CONSTRUCTION COST OF THE PROJECTS AUDITED PER 1 000 m² (IN EURO)

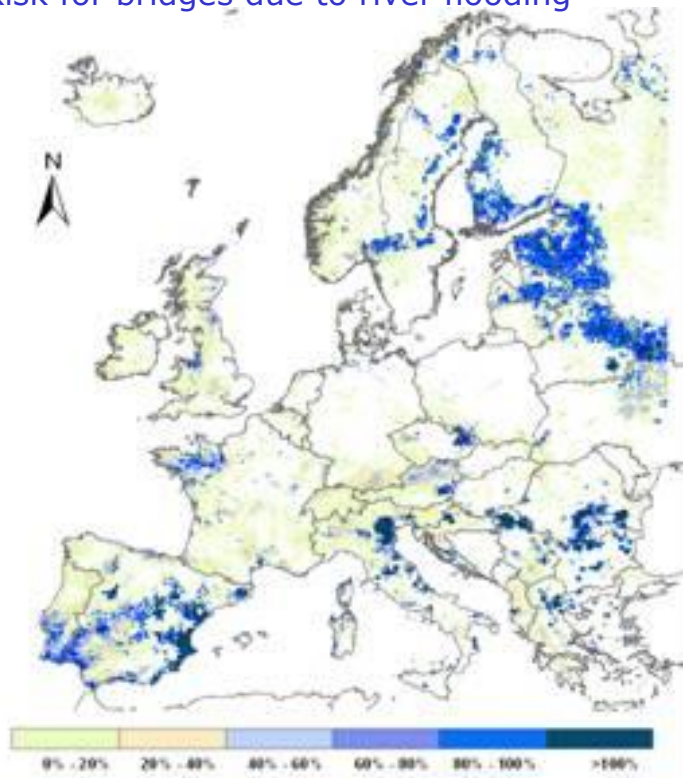


External costs

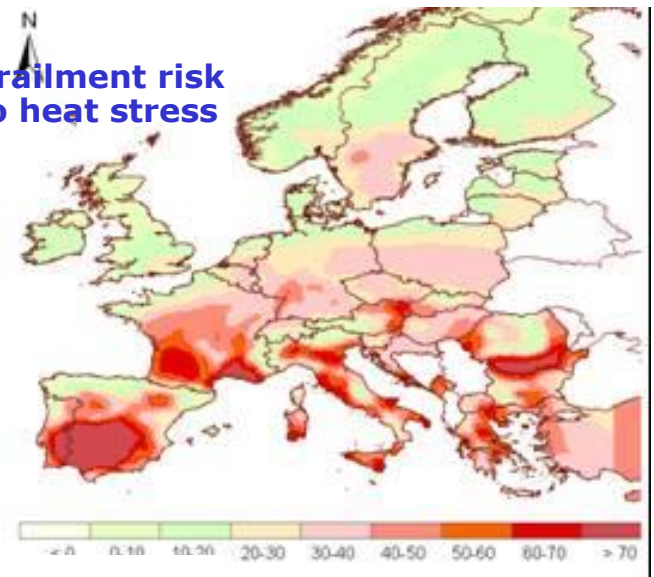


Adaption of transport to Climate Change

1. Risk for bridges due to river flooding



2. Rail derailment risk due to heat stress



3. Permanent and episodic inundation risk (1 m Sea level rise)

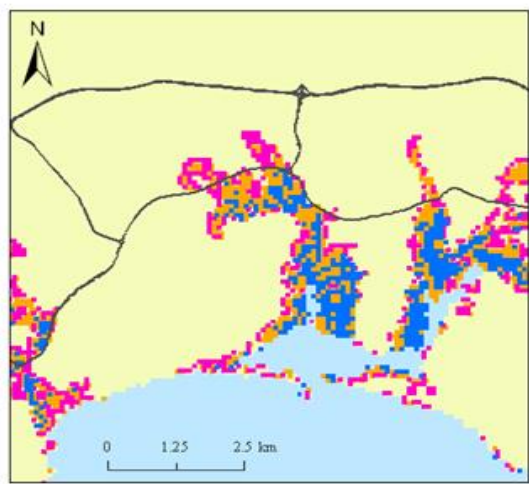
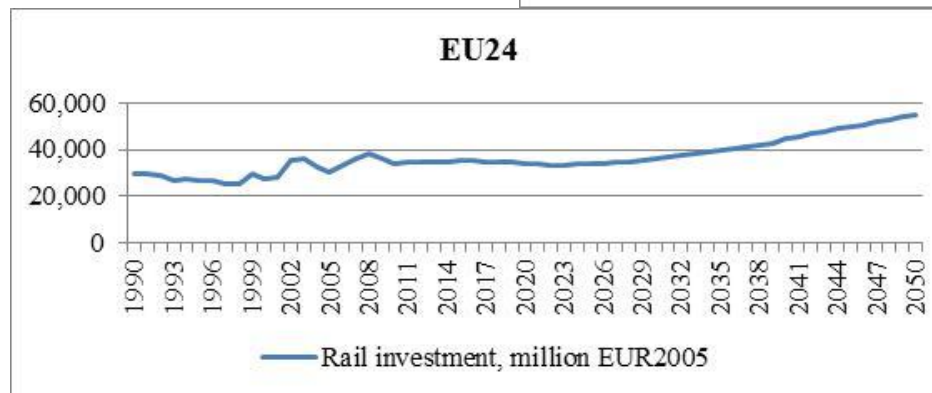
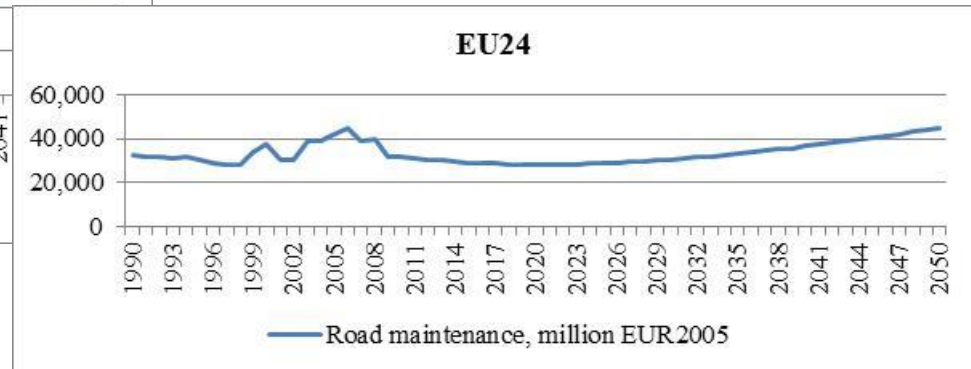
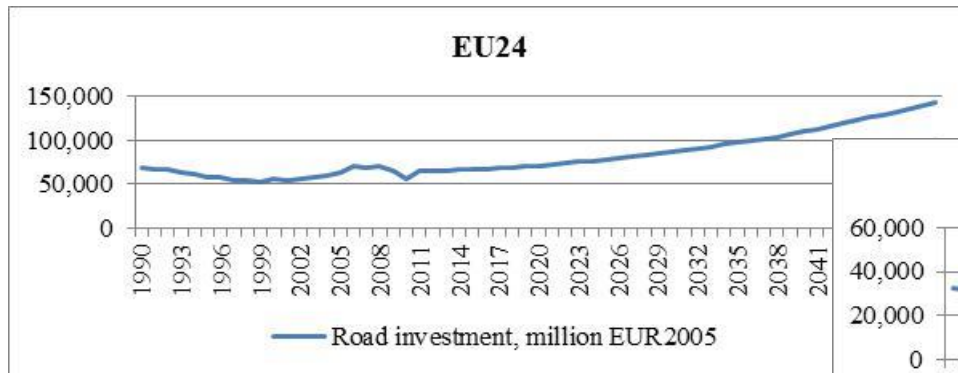


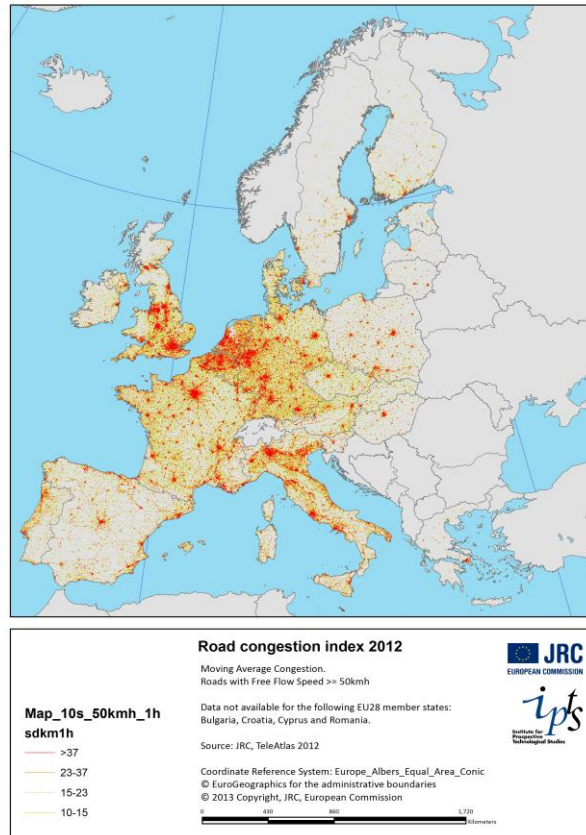
Illustration: One local situation (Portugal)

- 1m SLR plus 100yr sea storm
- 1m SLR
- Baseline

Econometric modelling



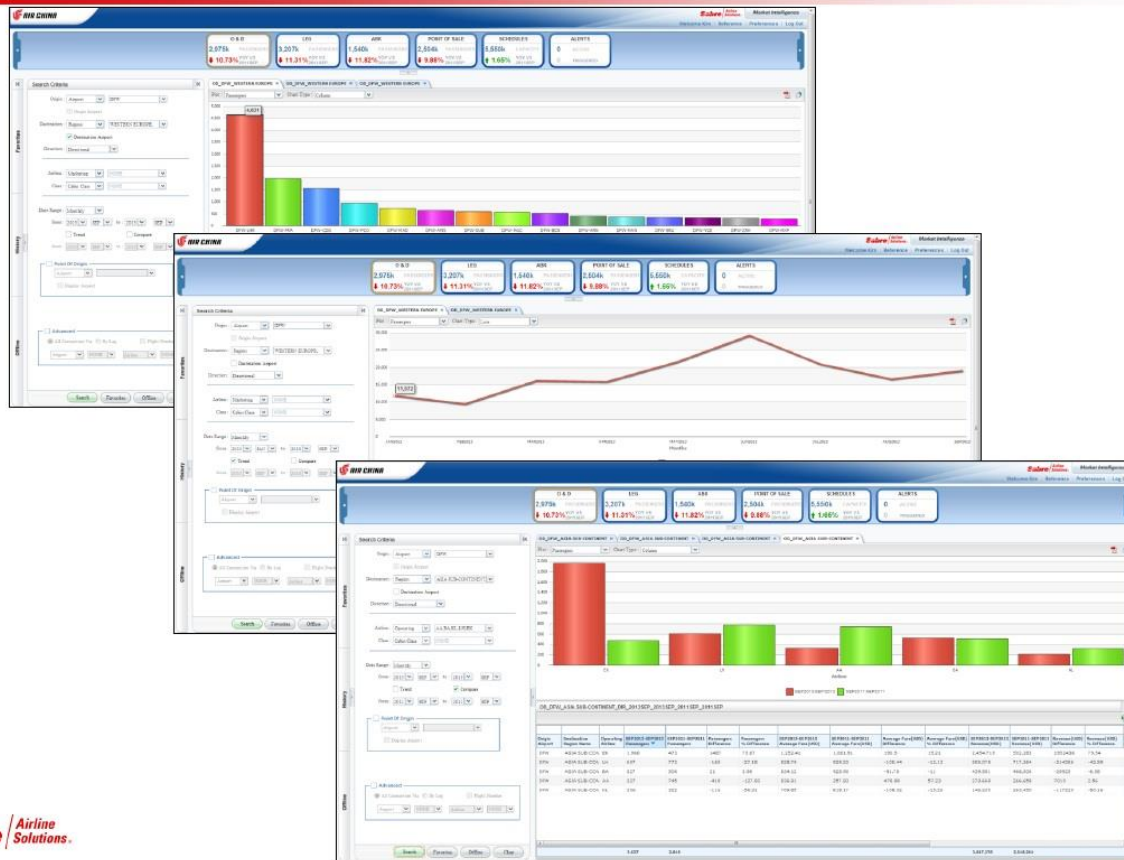
New methods: GPS



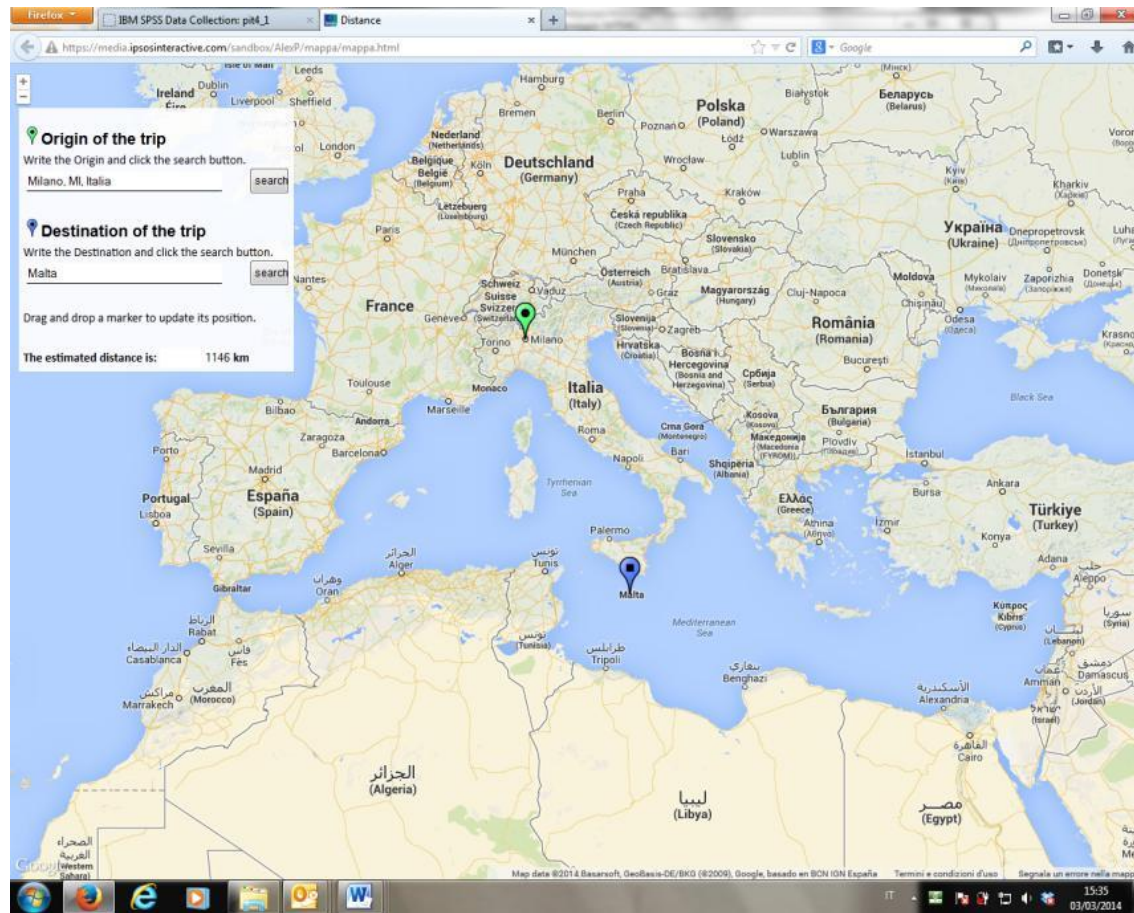
New methods: AIS



New methods: Commercial data



New methods: Web-based surveys



To summarize:

- Impact assessment =
evidence for current problems + quantification of benefits
- Evidence-based policy support needs good data
- EU statistics = common questionnaire solid basis, possible extensions?
- Global/ OECD statistics = growingly important (aviation, maritime)
- New methods = exchange of experiences
- Research = welcome cooperation