

The EU White Paper on Transport - impacts on Regional Development



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The White Paper



Business as usual scenario to 2050:
Transport about 90% dependent
on oil;
CO2 emissions 1990 level +30%;
Congestion costs increase by
50%;
Widening accessibility gap
between central and peripheral
areas;
Costs of accidents and noise



White Paper - Vision

- ▶ Vision for a competitive and sustainable transport system:
 - ▶ a system that underpins European economic progress;
 - ▶ enhances competitiveness and offers high quality mobility services while using resources more efficiently. In practice, transport has to use less and cleaner energy;
 - ▶ better exploit a modern infrastructure and reduce its negative impact on the environment and key natural assets like water, land and ecosystems.



Breaking transport's dependence on oil

- ▶ No more conventionally-fuelled cars in cities.
- ▶ 40% use of sustainable low carbon fuels in aviation; at least 40% cut in shipping emissions.
- ▶ A 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport.
- ▶ All of which will contribute to a 60% cut in transport emissions by the middle of the century.



Connecting and opening rail to competition

- ▶ By 2050, complete a European high-speed rail network.
- ▶ Triple the length of the existing high-speed rail network by 2030 and maintain a dense railway network in all Member States.
- ▶ By 2050 the majority of medium-distance passenger transport should go by rail.
- ▶ Create conditions for the privatisation of railways – separate ownership / management of the tracks from running the trains.



The White Paper

- ▶ Curbing mobility is not an option. However:
 - ▶ Transport users should pay for the full costs of transport in exchange for less congestion, more information, better service and more safety.
 - ▶ Decisions today will shape transport in 2050 – infrastructure takes a long time to plan and provide and then lasts a long time.



Consolidation and integration

- ▶ More resource-efficient vehicles and cleaner fuels are unlikely to achieve the necessary cuts in emissions and they would not solve the problem of congestion. They need to be accompanied by:
 - ▶ Greater use of buses and coaches, rail and air transport for passengers and, for freight, multimodal solutions relying on waterborne and rail modes for long-hauls.
 - ▶ Greater integration of the modal networks: airports, ports, railway, metro and bus stations, should increasingly be linked and transformed into multimodal connection platforms for passengers.



In urban areas – Urban Mobility Plans

- More use of public transport: better density and frequency of service.
- Demand management and land-use planning can lower traffic volumes.
- Facilitate walking and cycling.
- Road pricing.



From a patchwork...
TEN-T Projects
completed in 2011



... to a network
EU 27 Core Network
to be completed in 2030



Directorate-General
for Mobility
and Transport



Summary

- ▶ Strong contribution from technological innovations in vehicle design and logistics to meet emissions targets.
- ▶ Calls for closer links to Cohesion Funds (as well as pricing, and national and private sector investment) to deliver new infrastructure.
- ▶ Define in new TEN-guidelines a core network of strategic European infrastructure integrating the eastern and western part of the European Union and shaping the Single European Transport Area. Look for appropriate connections with neighbouring countries.



Siemens eHighway



Audi prototype Driverless Car



Road charging

Smart GPS-based charging in Eindhoven. Costs based on distance, time of day, route and fuel efficiency of vehicle

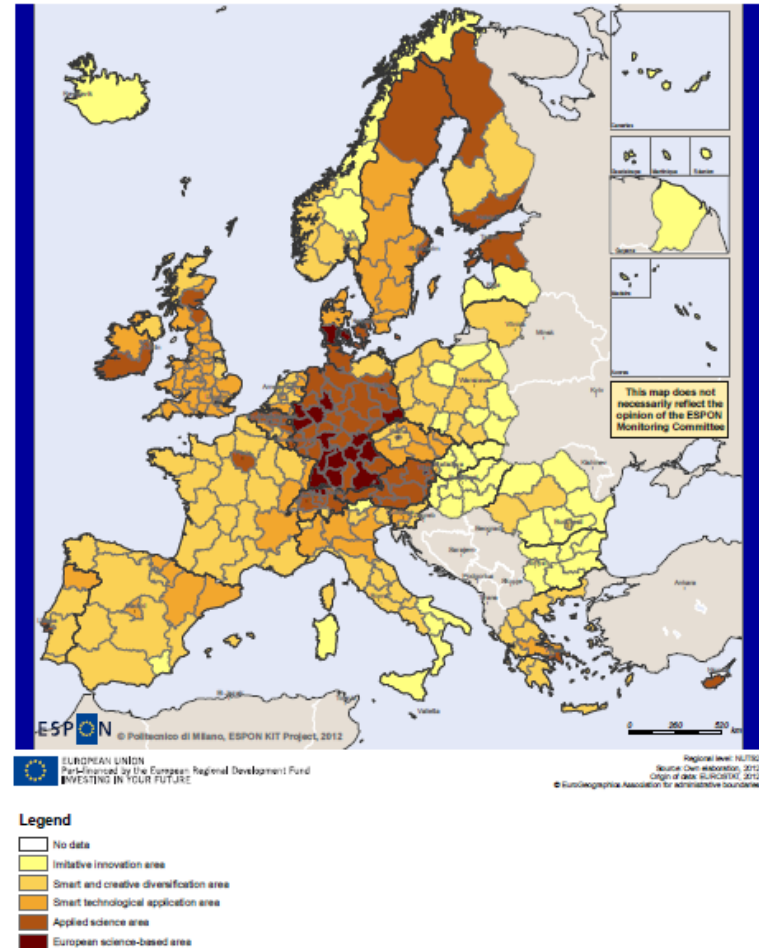


Distance based charging of trucks on Germany's autobahns raises €2.4 billion each year.



What will be the territorial impacts of the White Paper?

- ▶ Emphasis on technological innovation will favour regions in the European science-based area.
- ▶ High speed train connections will favour nodes on the network, but disadvantage places that are not served.
- ▶ Narrow the West-East gaps but widen gaps between capital cities and other places within countries.



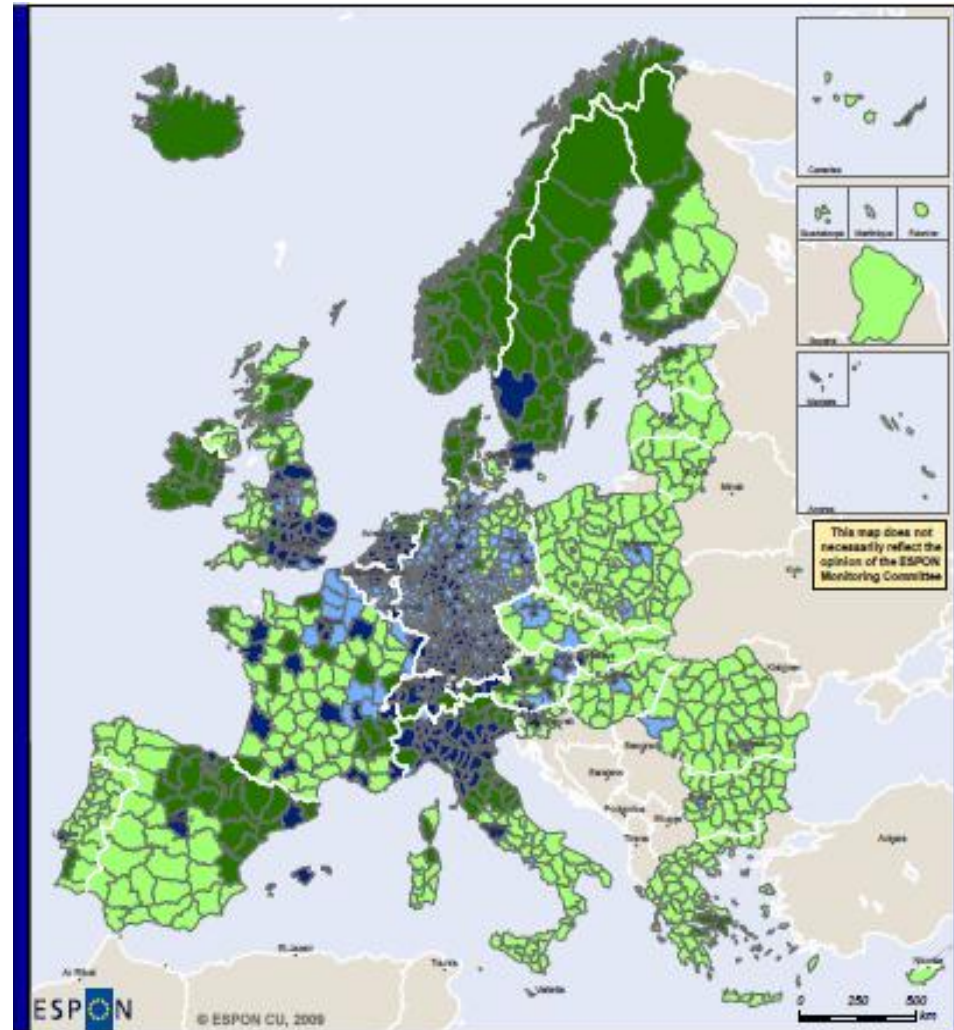
Map 1. Territorial patterns of innovation in Europe

Oil and European regional development

- ▶ The global oil picture:
 - ▶ Fracking potentially opens up vast US shale oil and gas reserves, changing the geopolitics of oil.
 - ▶ Environmental and economic obstacles to large-scale European exploitation of its own oil shale resources, but imports from the US and elsewhere could still transform Europe's dependency on Russia and other petro-states.
 - ▶ Cheaper energy for US manufacturing will put competitive pressure on Europe.
 - ▶ Access to cheap energy will further increase CO₂ emissions and climate change.
 - ▶ How strong will EU's political will power be? What about CO₂ in new infrastructure provision?



Does accessibility increase competitiveness?



Accessibility is only one factor that influences regional competitiveness

Human capital and innovation as influences on regional competitiveness

Norwich Research Park: one of Europe's largest single-site concentrations of research in Health, Food and Environmental Sciences.



Some research findings on accessibility and regional development (ESPON TRACC)

- ▶ The impact of transport infrastructure on regional development has been difficult to verify empirically.
- ▶ There seems to be a clear positive correlation between transport infrastructure endowment or the location in interregional networks and the *levels* of economic indicators such as GDP per capita.
- ▶ However, in most countries this correlation may merely reflect historical agglomeration processes rather than causal relationships effective today.



ESPON TRACC project

- ▶ Difficult to explain *changes* in economic indicators, i.e. economic growth and decline, by transport investment.
- ▶ This may be because for countries with an already highly developed transport infrastructure, further transport network improvements bring only marginal benefits.
- ▶ A different situation can be observed in some regions of the new EU member states where the lack of modern infrastructure (motorways, high-speed trains) is still a major barrier to economic development, and where the rapid increase of freight flows by road on the main transport corridors between western and eastern Europe was not followed by new road, rail or multimodal transport

However...

- ▶ An increased proportion of international freight comprises high-value goods for which transport cost is much less than for low-value bulk products. For modern industries the *quality* of transport services matters more than transport cost.
- ▶ “The best regional development policy is a bad road”.



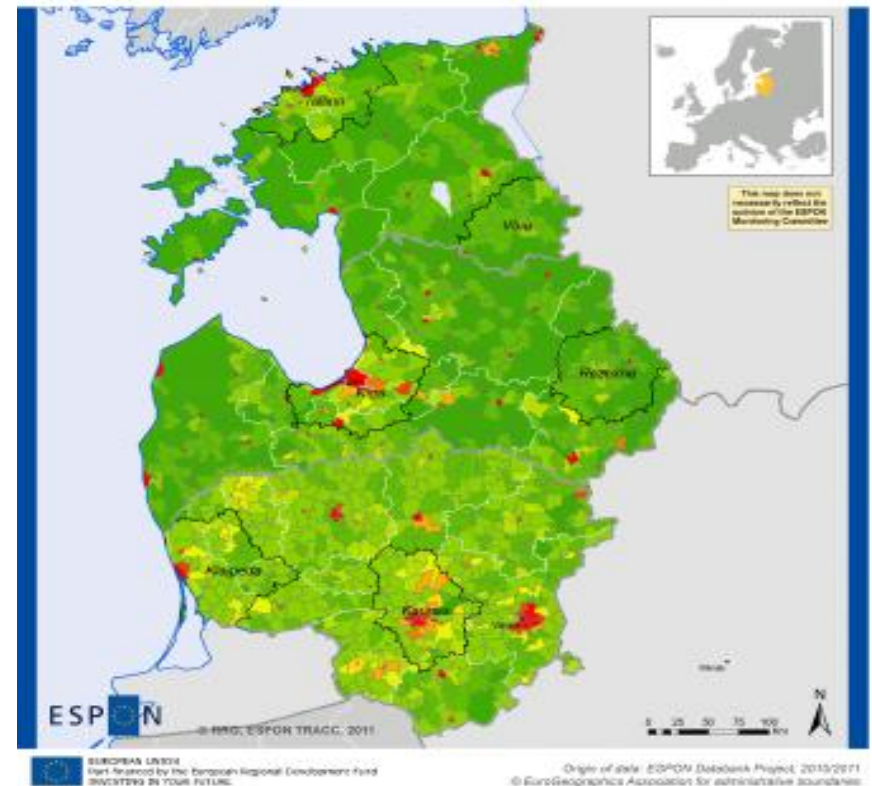
A service-based economy

- ▶ In the knowledge economy, urban and regional economies are less open than we think.
- ▶ The key to retaining and growing local jobs is likely to be personal services that cannot be outsourced.
- ▶ Slow Towns? Transition Towns?



Transport challenges in the Baltic States

- ▶ A rural region with few agglomerations.
- ▶ Historical legacy of east-west routes but poor north-south connections. For instance there is no direct north-south train connection between Poland and Tallinn.
- ▶ Few motorways or high quality rail routes.



Baltic States Case Study
Population density (Inh./sqkm, 2006)



Baltic States Ports

- ▶ No inland waterways network to provide feeder-shipping to coastal ports.
- ▶ Good ferry connections around the Baltic, but poor hinterland connections in Baltic States.



Baltic Sea Airports

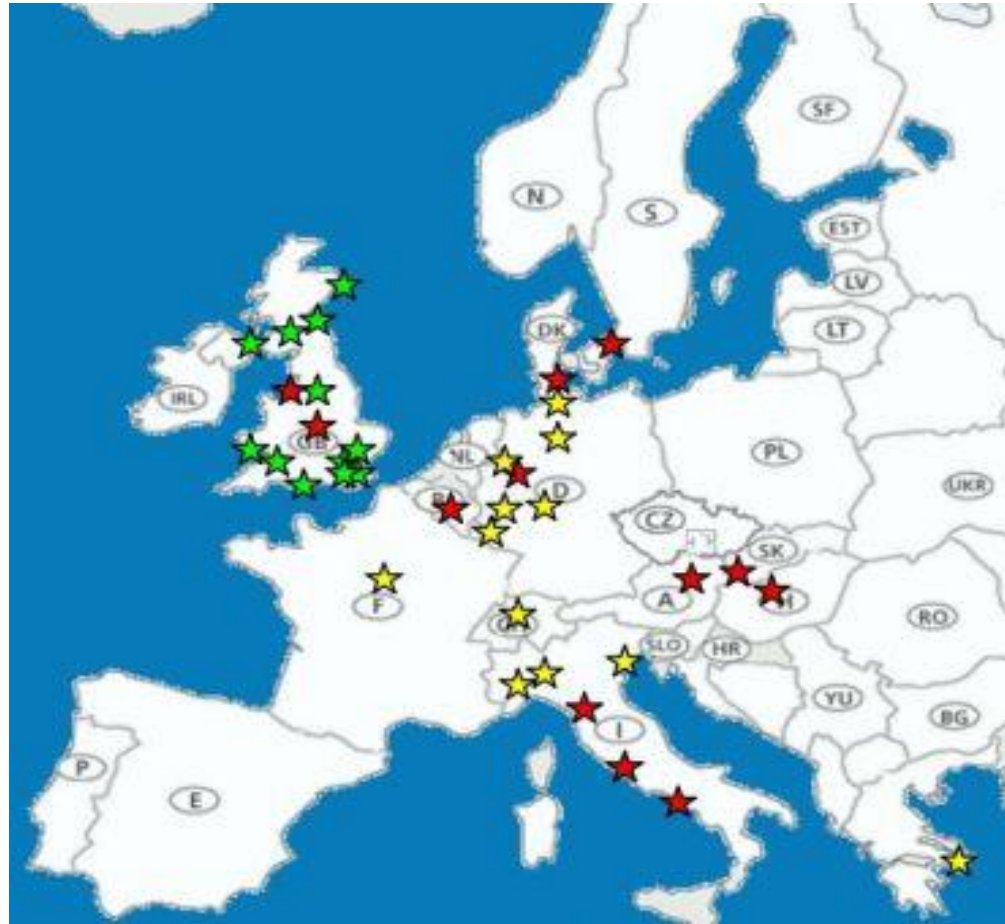
- ▶ International airports in the capital cities.
- ▶ Limited range of direct connections when compared to Central Europe's airports.
- ▶ Some problems of regional accessibility to main airports.
- ▶ Importance of budget airlines.



Pressure for airport privatisation

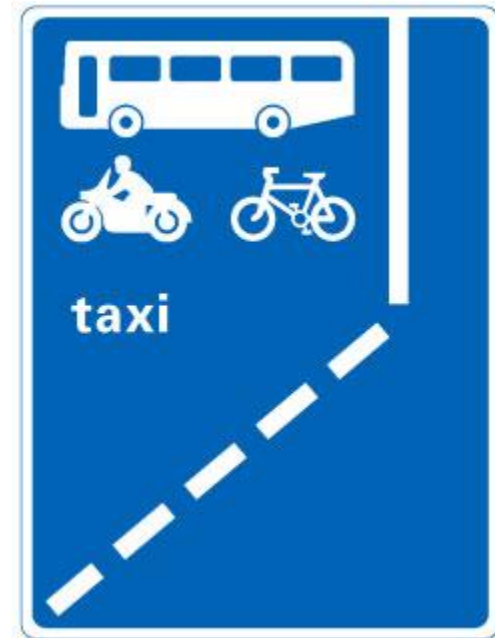
Private airports
(Gillen &
Neimeier)

- ★ Fully privatized airports
- ★ Partially privatized airports with a majority share
- ★ Partially privatized airports with a minority share



Ideas for transport-led development

- ▶ Urban public transport upgrades – bus lanes, better bus stops, real time bus information etc.
- ▶ Design of streets for cycling and walking.
- ▶ Transit-oriented development – high density / high activity around stations; warehousing around motorway interchanges.



Rural areas

- ▶ Unless oil price drops, likely to face rising costs of transport.
- ▶ Austerity measures will not help to sustain rural bus services or roads.
- ▶ Need for creative thinking – ways to reduce need to travel while sustaining local services, e.g. “tele-cottaging” and micro-business.

