



● WHITE PAPER 2011

Roadmap to a Single European Transport Area

Towards a competitive and resource efficient transport system

Directorate-General
for Mobility
and Transport



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Outline

- Challenges ahead
- A vision for the transport system of 2050
- 1 target (-60% of GHG emissions) and 10 indicative goals/benchmarks to guide policy action
- How to do it – 4 “i”s and 40 actions

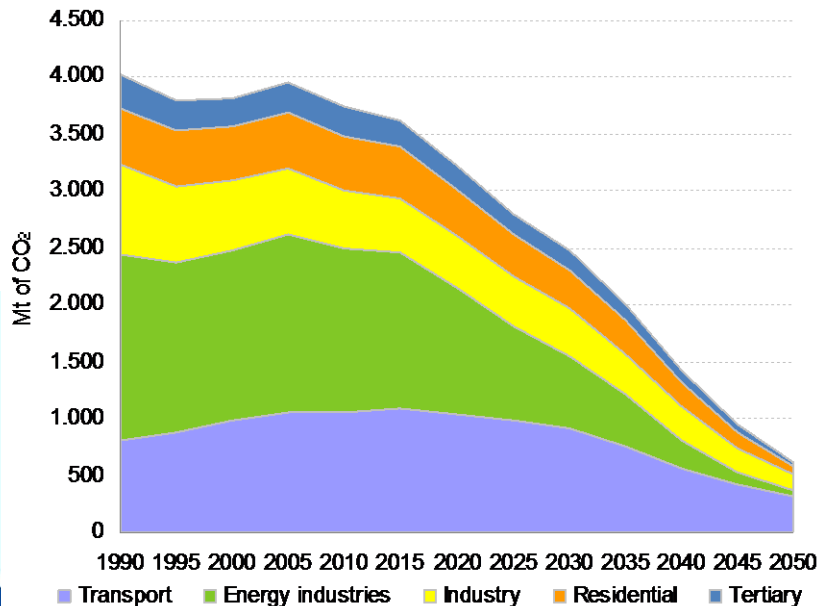
● Competitiveness in the global economy

- The EU economy is one of the most open in the world. The future prosperity of our continent will depend on the ability of all of its regions to remain part of a fully integrated world economy
- The transport industry is an important part of the economy: in the EU it directly employs around 10 million people and accounts for about 5% of GDP
- Many European companies are world leaders in infrastructure, logistics, manufacturing of transport equipment and traffic management systems

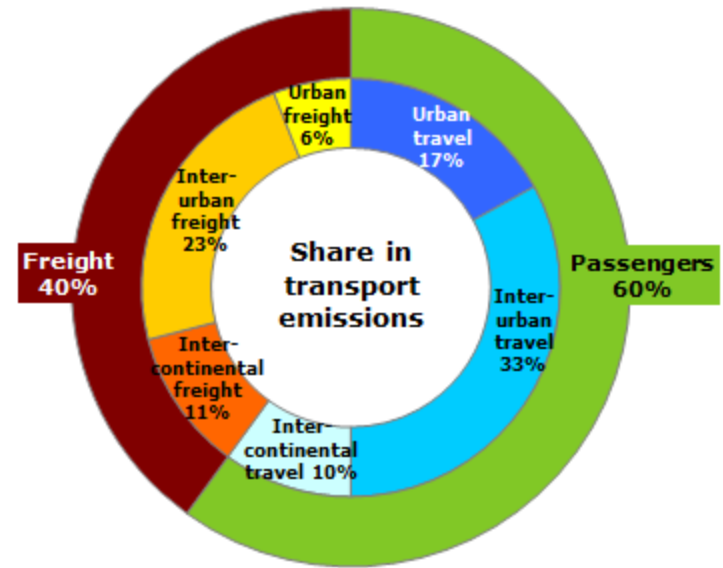


● A tight carbon budget for the transport sector

- In October 2009, the European Council showed support for the objective of reducing GHG emissions in the EU by 80 to 95% by 2050 compared to 1990 levels



Source: PRIMES, NTUA (E3MLab)

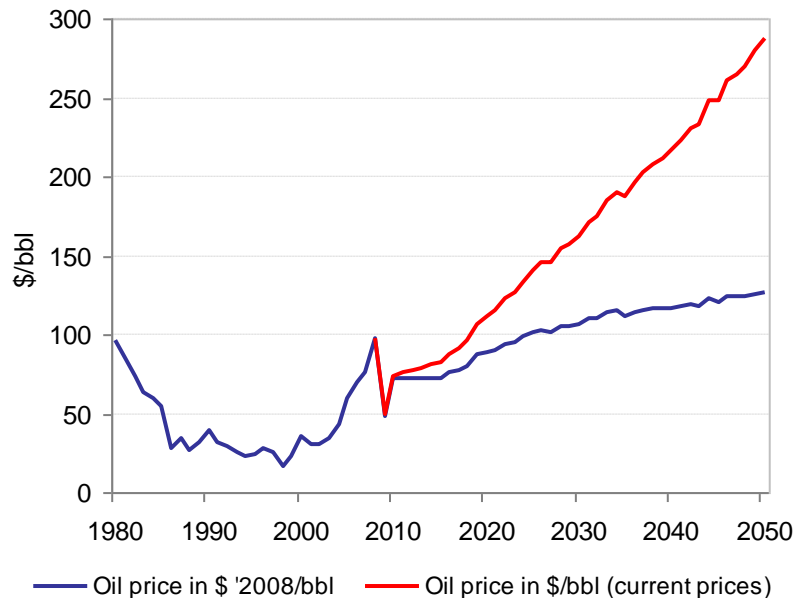


Source: PRIMES-TREMOVE and TREMOVE

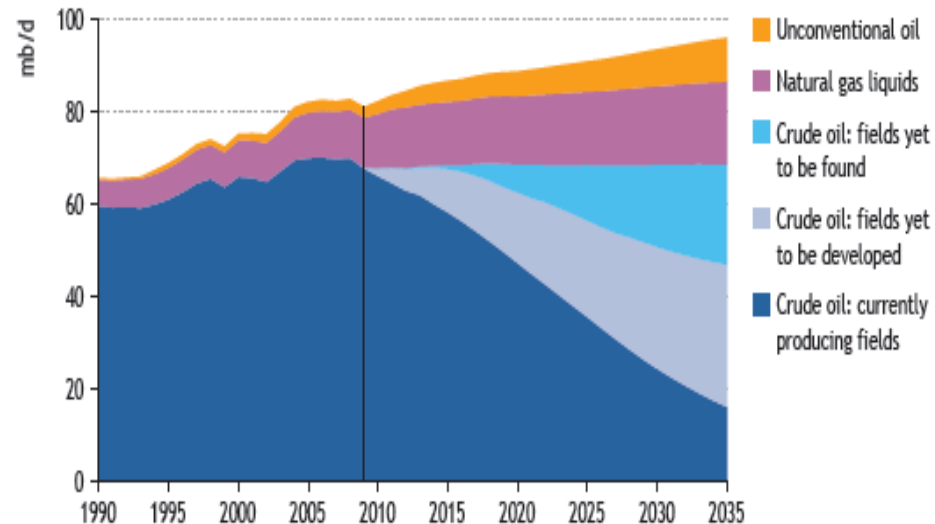
- Transport accounts for about one fourth of GHG emissions: 60% comes from passenger transport, one quarter is urban, less than one quarter is inter-continental and over half is medium-distance

Increasing oil price and persistent oil dependency

- Transport depends on oil for about 96% of its energy needs. The transport sector accounts for almost 90% of the projected increase in global oil use.



Source: Prometheus, NTUA (E3MLab)

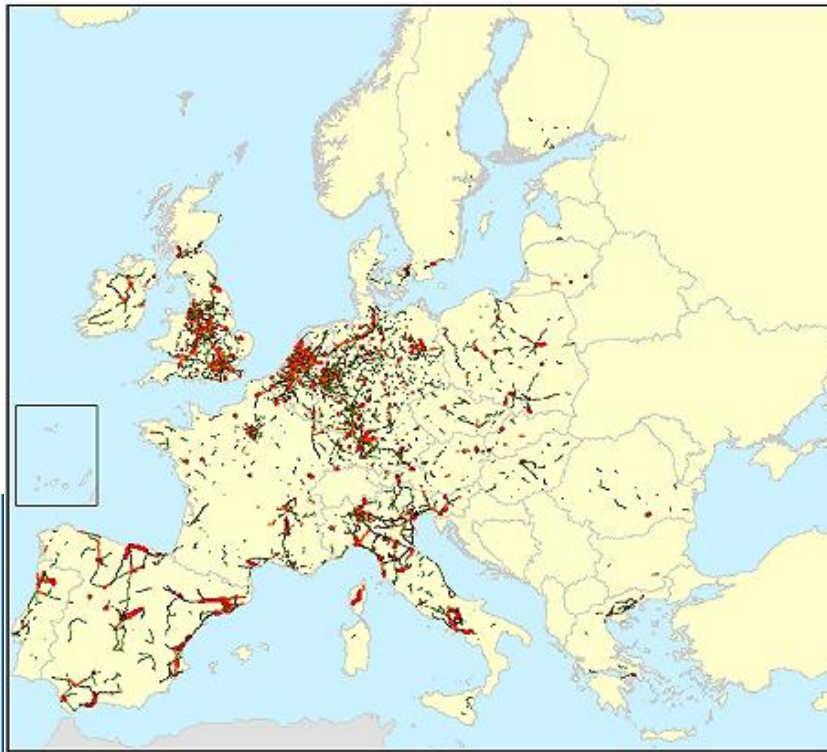


Source: IEA World Energy Outlook 2010

- The depletion of reserves and growing global demand would lead to ever higher oil prices. The number of cars in the world is projected to increase from around 750 million today to more than 2.2 billion by 2050.

● Growing congestion and poorer accessibility

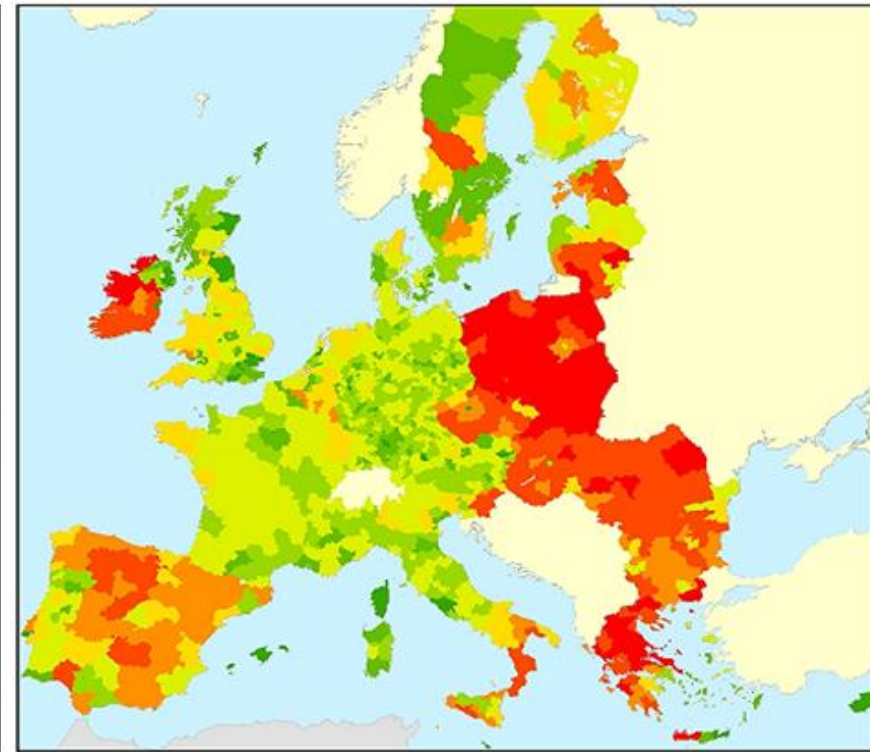
- Fuel costs and congestion levels are expected to rise significantly by 2030, leading to further divergences in accessibility



Congestion levels 2030
Inter-urban road traffic
TRANSTOOLS projection, major links
Use of available traffic capacity

— 60% - 70% — 80% - 90%
— 70% - 80% — over 90%

Sources : TransTools v2.1.10, reference scenario
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Coordinate Reference System:
ETRS89 Lambert Azimuthal Equal Area



Change in accessibility between 2005 and 2030
Evolution of average transport costs per NUTS 3 zone
compared to the average transport costs at EU level

— -24.6% - -10% — -2.4% - 0% — 5.1% - 10%
— -9.9% - -5% — 0.1% - 2.5% — 10.1% - 104.1%
— -4.9% - -2.5% — 2.6% - 5%

Sources : TransTools v2.1.10, reference scenario
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● Meeting the challenge

- To meet the challenges, transport has to:
 - Use less energy
 - Use cleaner energy
 - Exploit efficiently a multimodal, integrated and 'intelligent' network



● A vision for sustainable transport

	Passengers	Freight
Long-distance travel and intercontinental freight	<ul style="list-style-type: none"> • Adequate capacity and improved overall travel experience (non-intrusive security checks; better connections rail/airports...) • Efficient aircraft and operations • Cleaner fuels 	<ul style="list-style-type: none"> • High global maritime standards • More efficient hinterland connections for ports • Modern vessels and cleaner fuels for shipping
Intercity travel and transport	<ul style="list-style-type: none"> • Seamless multimodal travel (online multimodal info and ticketing, multimodal hubs...) • Quality service and enforced passengers' rights • Near-zero casualties for road 	<ul style="list-style-type: none"> • Paperless logistics • Multimodal long-distance freight corridors • No barriers to maritime transport • Cleaner trucks on shorter distances
Urban transport and commuting	<ul style="list-style-type: none"> • Non-fossil mobility (Clean and efficient cars; Higher share of public transport; Alternative propulsion for urban buses and taxis; Better infrastructure for walking and cycling) 	<ul style="list-style-type: none"> • Better interface between long distance and last-mile • Freight consolidation centres and delivery points • ITS for better logistics • Low-noise and low-emission trucks for deliveries

● Additional considerations on local transport

- Changing attitudes towards car ownership → demand for mobility services
- Corresponding changes on the supply side → ‘Integrators’
- Public transport, pricing and land planning → Urban Mobility Plans, Transport authorities
- Integrated infrastructure → multimodal hubs

● **Ten Goals** for competitive and resource efficient transport (I)

New and sustainable fuels and propulsion systems

- Halve the use of ‘conventionally-fuelled’ cars in urban transport by 2030; phase them out in cities by 2050; achieve essentially CO₂-free city logistics by 2030
- 40% of low-carbon sustainable fuels in aviation and 40% (if feasible 50%) less emissions in maritime by 2050



● **Ten Goals** for competitive and resource efficient transport (II)

Optimising the performance of multimodal logistic chains, including by making greater use of more energy-efficient modes

- 30% of road freight over 300 km should shift to other modes by 2030, and more than 50% by 2050
- Triple the length of the existing high-speed rail network. By 2050 the majority of medium-distance passenger transport should go by rail
- A fully functional and EU-wide multimodal TEN-T 'core network' by 2030
- By 2050, connect all core network airports to the rail network; all seaports to the rail freight and, where possible, inland waterway system



● **Ten Goals** for competitive and resource efficient transport (III)

Increasing the efficiency of transport and of infrastructure use with information systems and market-based incentives

- Deployment of SESAR by 2020 and completion of the European Common Aviation Area. Deployment of ERTMS, ITS, SSN and LRI, RIS and Galileo
- By 2020, establish the framework for a European multimodal transport information, management and payment system
- 2050, move close to zero fatalities in road transport
- Move towards full application of “user pays” and “polluter pays” principles



● How to do it – 4 “i”s and 40 actions

Internal market: Create a genuine Single European Transport Area by eliminating all residual barriers between modes and national systems.

Innovation: EU research needs to address the full cycle of research, innovation and deployment in an integrated way.

Infrastructure: EU transport infrastructure policy needs a common vision and sufficient resources. The costs of transport should be reflected in its price in an undistorted way.

International: Opening up third country markets in transport services, products and investments continues to have high priority.

● Some of the **40 actions** affecting urban areas

- Establish procedures and financial support mechanisms at European level for preparing Urban Mobility Audits, as well as Urban Mobility Plans, and set up a European Urban Mobility Scoreboard based on common targets.
- Define a strategy for moving towards ‘zero-emission urban logistics’
- Develop a validated framework for urban road user charging and access restriction schemes and their applications
- Smart mobility partnerships and demonstration projects for sustainable urban transport solutions
- Promote awareness of the availability of alternatives to individual conventional transport



● **Thank you for your attention!**

http://ec.europa.eu/transport/strategies/2011_white_paper_en.htm

