

European Union TRANSPORT 2050¹

The Transport 2050 roadmap sets different goals for different types of journey: (1) Intercity between near and medium distance cities, (2) Long distance travel, and (3) Urban transport within cities.

1. INTERCITY TRAVEL: 50% of all medium-distance passenger and freight transport should shift off the roads and onto rail and waterborne transport.

- By 2050, the majority of medium-distance passenger transport, about 300 km and beyond, should go by rail.
- By 2030, 30% of road freight over 300 km should shift to other modes such as rail or waterborne transport, and more than 50% by 2050.
- Deliver a fully functional and EU-wide core network of transport corridors, ensuring facilities for efficient transfer between transport modes (TEN-T core network) by 2030, with a high-quality high-capacity network by 2050 and a corresponding set of information services.
- By 2050, connect all core network airports to the rail network, preferably high speed; ensure that all core seaports are sufficiently connected to the rail freight and, where possible, inland waterway system.
- By 2020, establish the framework for a European multimodal transport information, management and payment system, both for passengers and freight. Move towards full application of “user pays” and “polluter pays” principles and private sector engagement to eliminate distortions, generate revenues and ensure financing for future transport investments.

¹ European Commission Proposal dated March 28, 2011. ²

U.S. TRANSPORTATION 2050²

The Transportation 2050 framework sets different goals for different types of trips: (1) Intercity for distances under 200 miles, (2) Long distance travel, and (3) Urban transportation within cities.

1. INTERCITY TRAVEL: Over 50% of all medium-distance freight should shift to truck-only lanes serving tractor-trailer and road train combinations. Intercity express buses will be promoted.

- Except for the Northeast corridor between Boston and Washington, D.C., intercity travel of less than 200 miles (~320 km) is uncommon. High speed rail is a very limited option.
- Rail and high speed rail provide limited mobility in the US, and waterborne transportation is limited, slow, oil dependent and energy inefficient.
- Heavy duty, truck-only lanes and highways shall be developed to expedite delivery and separate heavy vehicles from the burden they create on highway traffic flow and their pavements.
- In addition to government support for express buses, higher landing fees and airport congestion are making short distance flights less attractive.
- Intelligent Transportation Systems, freight security and clearance, tolling equipment and traffic management should become interoperable and connected among states.
- The 2010-2020 decade will be telling on the adoption and actual usage patterns of electric vehicles. If needed, after 2025 the development of standardized battery pack swapping stations should be promoted to facilitate intercity travel by electric vehicles.

² Corresponding U.S. Plan developed by Dr. Panos D. Prevedourous on March 30, 2011.

2. LONG-DISTANCE TRAVEL and inter-continental freight: Air travel and ships will continue to dominate. New engines, fuels and traffic management systems will increase efficiency and reduce emissions.

- Low-carbon fuels in aviation to reach 40% by 2050; also, by 2050, reduce EU CO₂ emissions from maritime bunker fuels by 40%.
- A complete modernization of Europe's air traffic control system by 2020, delivering the Single European Sky: shorter and safer air journeys and more capacity. Completion of the European Common Aviation Area of 58 countries and 1 billion inhabitants by 2020.
- Deployment of intelligent land and waterborne transport management systems (e.g. ERTMS, ITS, RIS, SafeSeaNet and LRIT).
- Work with international partners and in international organizations such as ICAO and IMO to promote European competitiveness and climate goals at a global level.

3. URBAN TRANSPORT will have a big shift to cleaner cars and cleaner fuels. 50% shift away from conventionally fuelled cars by 2030, phasing them out in cities by 2050.

- Halve the use of 'conventionally fuelled' cars in urban transport by 2030; phase them out in cities by 2050; achieve essentially CO₂-free movement of goods in major urban centers by 2030.
- By 2050, move close to zero fatalities in road transport. In line with this goal, the EU aims at halving road casualties by 2020. Make sure that the EU is a world leader in safety and security of transport in aviation, rail and maritime.

2. LONG-DISTANCE TRAVEL and inter-continental freight: Air travel and ships will continue to dominate. New engines, fuels and traffic management systems will increase efficiency and reduce emissions.

- Low-carbon fuels in aviation to reach 10% by 2050; also, by 2050, reduce U.S. CO₂ emissions from maritime bunker fuels by 25%.
- The modernization of US air traffic control system is well under way. Focus on GPS-based "free flight" with sufficient redundancy for safety.
- Incentivize off-peak runway usage and airline code-sharing arrangements that result in fuller flights.
- Optimize intercontinental routes with international agreements.
- Further improve maritime and truck pollution in harbor operations with intelligent management and monitoring.
- Work with international partners and in international organizations such as ICAO and IMO to promote global logistics competitiveness.

3. URBAN TRANSPORT will have a big shift to smaller, less polluting vehicles. Incentives for electric vehicles (up to \$12,500 in some states) shall continue until 2016 and will be phased out by 2020.

- The U.S. supports hybrid, plug-in hybrid, battery electric and fuel cell electric vehicles. Tax credits are given to offset the high cost of advanced technology vehicles.
- The U.S. supports mixed fuel and bio-fuel production for internal combustion engines.
- The U.S. shall maintain its top air and sea safety record. 10% reduction by 2050 will be made in highway casualties with in-vehicle instrumentation that disallows the use of a vehicle by an impaired driver.