

Energy efficient transport



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Millions of people across the EU use forms of transport such as cars, trains, buses, and planes every day. Transport plays a central role in the economy; it is an engine for businesses and commerce. For individuals it enables us to expand our work and personal horizons.

However, transport patterns have a big impact on energy use. The sector accounts for almost 20% of total energy consumption in the EU, with 98% of this coming from fossil fuels. A wider single market and global trends mean that the transport of goods and people is increasing in the EU and it is the fastest growing sector in energy use and greenhouse

gases emissions. Furthermore, within the EU, the majority of goods are transported by road, one of the most energy intensive modes.

Cleaner and less energy-consuming means of transport do already exist, such as intelligent mobility management or clean vehicle technologies. But achieving wider take up will mean a change in people's attitudes and the correct policies at local and national levels.

:: What is the EU doing?

Important policies

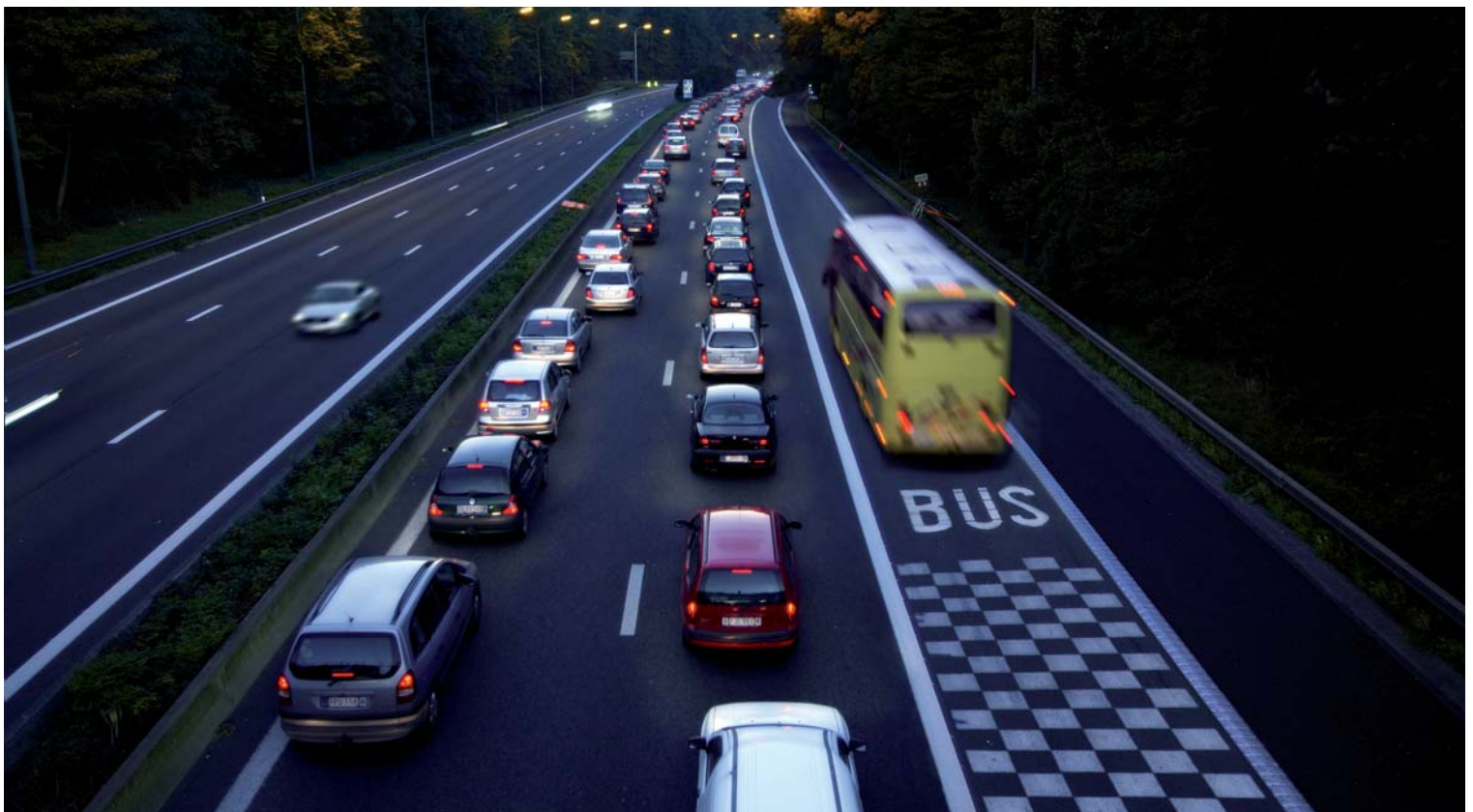
- The **energy efficiency action plan** (2006) includes a series of measures for more energy-efficient transport.
- The European Policy on Energy (March 2007) commits to reduce greenhouse gases by 20% by 2020 and to increase energy efficiency respectively.
- Under the **car fuel efficiency-labelling directive** (1999/94/EC), dealers in new cars must provide customers with information on vehicles' fuel consumption and CO₂ emissions. This information must appear on labels and promotional material.
- The White Paper on Transport (2001) "Time to decide" and its revision (2006) "Keep Europe Moving" set the base for shifting to more sustainable transport modes by placing users at the heart of transport policy.
- The **green paper on urban mobility** (Sept 2007) launched a debate on key issues: free-flowing and greener towns and cities; smarter urban mobility; and making urban transport more accessible and safer.

Initiatives addressing sustainable mobility:

- **CIVITAS** helps cities achieve more energy-efficient transport systems by implementing and evaluating technologies and policies.

<http://www.civitas-initiative.org/main.phtml?lan=en>

- The **Intelligent Energy Europe (IEE) STEER** programme funds about 30 projects to remove non-technological barriers for achieving more sustainable mobility http://ec.europa.eu/energy/intelligent/index_en.htm
- The **LIFE** programme supports sustainable transport projects addressing a wide variety of initiatives http://ec.europa.eu/environment/life/themes/urban/documents/urban_transport.pdf
- The EU supports research for **energy-efficient transport technologies**, such as hydrogen-fuelled cars.
- **ELTIS** supports the transfer of knowledge and exchange of experience in urban and regional transport <http://www.eltis.org>.
- The **Marco Polo** programme supports projects to shift from road transport to more energy-efficient modes, such as rail transport, inland waterways, short-sea shipping or 'motorways of the seas'.
- The annual **Mobility Week** promotes sustainable transport to the public and businesses, with many towns and cities participating across the EU.



:: Towards cleaner road vehicles and urban transport

Maximising the use of the most efficient forms of transport, such as public transport in towns and cities and trains for longer journeys is vital. However, cars will always be a significant transport mode. It is therefore important to ensure that the cars that are used are as fuel-efficient as possible.

Ensuring the efficiency of cars' individual components, such as air conditioning systems or tyres, gives considerable potential to save energy. According to estimates, the correct tyre pressure can reduce fuel consumption by up to 5% –introducing pressure-monitoring systems on all new vehicles would help reduce wasted energy.

Cleaner cars already exist but they cannot compete on the market against traditional models. Public procurement and awareness-raising campaigns are two other ways to stimulate the market. There is also a need for greater financial support to encourage manufacturers to develop more efficient vehicles.

More support is needed for the research and development of energy-efficient vehicles using alternative propulsion technologies such as electric, hybrid, or fuel cells.

Inefficient urban transport causes unnecessary energy consumption. Local authorities can act first by fitting fleets of public vehicles such as buses or waste collection trucks to run on clean energy such as biofuels, compressed natural gas or electricity. Efforts such as these can stimulate change among the public if they are correctly communicated.

:: Good practice

La Ribera in biodiesel (2003 onwards)

This community project in the La Ribera region of Spain solves waste problems and helps fight climate change by using old vegetable oils to create a sustainable fuel. Co-ordinated by L'Agència Energètica de la Ribera (AER) and financed by regional authorities and the EU, it involves collecting waste oil from food producers and restaurants, and converting it into biodiesel. The fuel is used in public vehicle fleets, replacing traditional diesel and so avoids CO₂ emissions.

In 2004, the first year of collection, 260 698 litres of oil were collected from 418 businesses. The biodiesel that was produced was used in the local authority vehicles of 32 towns.

The scheme also significantly raised local awareness of recycling and biofuels, both among businesses and consumers. Collection will also be extended to household oil in the future.

<http://www.managenergy.net/download/gp2005.pdf>



:: Energy efficiency in other transport modes

It is important to raise awareness of modes of transport that are less energy-consuming than road transport, especially for moving goods long distances. Switching to rail transport or developing efficient short sea shipping ('motorways of the sea') can be particularly effective. Emphasis is being put to combine different modes of transport more effectively.

Air transport still has a much greater environmental impact than other modes and is growing fast. Great efforts are needed to reduce the demand for air travel and to make necessary trips more energy-efficient.

:: Re-thinking mobility



Changing our attitudes is key to more sustainable transport. Greater use of public transport, car-sharing, using bicycles, walking or working from home are steps that individuals can take.

Local authorities and businesses can take the lead at a community level by promoting and giving incentives for more sustainable mobility among their own employees. Meanwhile, education and schools can raise awareness among future generations.

Changing the way we drive can have a dramatic effect on the amount of fuel used. Golden rules for saving fuel are to change gears as soon as possible, to maintain a steady speed, to check tyre pressure frequently and to decelerate smoothly.

Awareness-raising of 'eco-driving' can start at driving schools and car retailers. More fuel-efficient practices can be part of drivers' curricula and the financial benefits can be a selling point – an average driver can save up to €100 on his annual fuel bill.

:: Good practice

European campaign to improve driving behaviour, energy efficiency and safety (ECODRIVEN)

This campaign across nine countries throughout 2007 and 2008 aims to raise awareness of 'eco-driving' – smart, smooth and safe driving techniques that lead to average fuel savings of 5-10%.

Eco driving offers other benefits for drivers of cars, vans, lorries or buses: cost savings, fewer accidents and lower noise levels, in addition to reductions in emissions. Campaign activities are organised by municipalities, SMEs and hauliers with car dealers, fuel stations, touring clubs, shops, drivers' associations, schools.

The campaign aims to reach 2.5 million drivers and avoid 0.5 million tonnes of CO₂ in the period up to 2010.

<http://www.ecodrive.org>

<http://ec.europa.eu/energy/intelligent/projects/doc/factsheets/ecodriven.pdf>



:: What is ManagEnergy?

ManagEnergy is an initiative of the European Commission Directorate-General for Energy and Transport, financed by the Intelligent Energy Europe programme. It aims to support local and regional actions on energy efficiency and renewable energies through training workshops and on-line events. In addition, information is provided on case studies, good practice, and European legislation and programmes.

ManagEnergy is also a European network of local and regional energy agencies (LEAs). These agencies promote the introduction of good energy management practices, support sustainability, provide information and guidance, and offer other services depending on local needs.

www.managenergy.net

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