Nordic comparison on the future of road freight energy efficiency and CO₂ emissions

ABOUT THE PROJECT
The purpose of NORFREN is to compare and forecast the development of energy efficiency and CO₂ emissions of road freight transport in Denmark, Finland, Norway and Sweden. By doing this, the project provides adequate information for international evaluation of the Nordic countries and policy measures to govern the future direction of energy efficiency and CO₂ emissions reductions measures for road freight.

THE OBJECTIVE
The project objective is to improve knowledge on energy use in road freight transport and to better understand the relationship between economic activity and CO₂ emissions in the sector. More specifically, this will be achieved by investigating the historical development (2000-2010) of road freight transport in all Nordic countries (except Iceland). Transport statistics, haulier surveys and workshops will be used to gather information, and on the basis of this the future energy efficiency and CO₂ emissions will be forecast.

THE RESULTS
Reaching the CO₂ emission targets for the year 2030 is challenging yet possible based on expert forecasts and in the light of the project’s scenarios. However, the target can be achieved with very different development paths, e.g. the structure of the national economy and the volume of transport seem to vary widely in the different scenarios. In the proposed recommendations on measures for achieving the targets, cooperation and division of responsibilities between various stakeholders of the road freight sector is key.

From the haulier survey, the project found that:

- Energy efficiency indexes proved to be a very useful tool for comparing the hauliers
- The shippers’ interest in the hauliers’ performance improves the level of energy efficiency
- Fuel monitoring practices are fairly similar in the four Nordic countries
- The level of implementation of energy efficiency measures is similar in the four countries

The results show that the Nordic countries have not succeeded in significantly improving the energy efficiency of the road freight sector, as Denmark is the only country that has been able to improve energy efficiency and to reduce CO₂ emissions of national road freight transport.

Looking further at the developments, Norway has the biggest challenge ahead in order to achieve the future sustainable development targets.

PROJECT PARTNERS
Transport Research Centre Verne (FI), Tampere University of Technology (FI), Technical University of Denmark (DK), Institute of Transport Economics (NO) and University of Gothenburg (SE).

Learn more about the project — www.energyandtransport.net