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Is Europe ready for a new era in road transport?

Reducing emissions in the transport sector is a major challenge. Currently, this sector accounts for roughly 25% of all CO₂ emissions in the EU. The aim is for the transport sector in the EU to reduce its CO₂ emissions by 60% in 2050¹. This will entail a reduction from 800 Mt of CO₂ in 1990 to 320 Mt in 2050 in order to reach the 60% target². A large share will have to come from road transport.

This requires a considerable effort. At the same time, reducing emissions from road transport is a great opportunity to achieve green growth within the EU while at the same time improving air quality and combating climate change. As the European Commission writes: "Support to the market development of alternative fuels and investment in their infrastructure in Europe will boost growth and a wide range of jobs in the EU. Research convened by the European Climate Foundation finds that 'greening' cars could generate about 700,000 additional jobs by 2025. Vigorous action of the Union as a first-mover on innovative alternative fuel solutions (for instance on batteries and powertrains) will create new market opportunities for European industry and bolster Europe's competitiveness on the emerging global market."³

With a view to worldwide investments in innovations and new technologies aimed at low and zero emissions, a promising decade is about to begin. More and more mass-market low/zero-emission vehicles are being developed and launched by car makers around the world. Exciting new players like Google, Apple and Tesla are entering the transport market. In the EU, innovation is taking place as well: SymbioFCell and Michelin are developing hydrogen fuel cell systems, Solaris and VDL are manufacturing electric busses, and Renault-Nissan and BMW are producing electric cars, to name but a few examples. Low/zero-emission fuel sources such as sustainable and advanced biofuels, LNG, electricity and hydrogen are also appearing on the scene. In several member states (like Denmark, Italy, and Spain), bio-ethanol from lignocellulose is being produced. In Germany, France, the UK, and other Member States, networks of hydrogen filling stations are being rolled out.

Developments are affecting the transport sector in all respects. The agreement reached at COP21 in Paris underlines the need for all stakeholders to take action to combat climate change. Moreover, the Commission will publish a Communication on the decarbonisation of transportation in June of this year. This Communication will accompany the 2030 Effort Sharing Decision for the non-ETS sectors, which includes the road transport sector.

Taking all these developments into account, Ministers will be invited to share their views during in an informal setting on the 14th of April on how to start a new, green chapter in road transport.

The main questions that we would like to address in this meeting are:

¹ Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system (White paper, 2011)

² Modelling by TNO, based on Eurostat statistics and the report "EU energy, transport and GHG emissions – Trends to 2050 – Reference scenario 2013" from the European Commission

³ Clean Power for Transport: A European alternative fuels strategy (COM 2013, 17)

- **What policy frameworks and financial and other instruments are needed at EU and Member State level to scale up and accelerate the transition to low/zero-emission fuels and vehicles for road transport?**
- **What measures do Ministers intend to take at Member State level to support the 'greening' of fuels and vehicles?**

The meeting is also intended to learn from one another. What are the drivers for greening road transportation? Which measures have worked well, and which have not? All participants are invited to share best practices from their own Member States.

Background

Transport is of vital importance, for our economic prosperity and personal welfare, and to ensure we live in an attractive and accessible society. At the same time, the transportation of people and goods has a negative impact on our economies, our health, and the environment, including congestion problems, NO_x and SO₂ emissions, global warming, emissions of particulate matter, and dependency on fossil fuels. To solve these issues on our route towards 2050, it is essential that sustainable and low-emission fuels as well as zero-emission power trains are generally available and broadly accepted.

Each mode of transport and each Member State has its own transition path towards a low and zero emission road transport sector. On these paths, demand management and improving energy efficiency are important steps in reducing emissions. In combination with sustainable biofuels and the deployment of hydrogen and electricity from renewable sources, there is considerable potential to reduce emissions in road transportation.

There are four major developments that underline why the transition to a low/zero-emission transport sector is important:

- **Economic and security issues related to fossil fuels**

The EU imports 53% of all its energy, at a cost of more than 1 billion euro per day. Importing over 50% of our total energy consumption in an increasingly unstable political climate raises concerns relating to the security of supply. The EU needs to become more self-supporting by ensuring sustainable, renewable energy sources are available for transportation, such as electricity, hydrogen, and biofuels.

- **The need for reduction in local air pollution**

Especially in cities, the need to combat air pollution is a powerful incentive to make the switch to low/zero-emission transportation. In the Netherlands for instance, cities and regions are working towards zero-emission logistics and public transport by 2025, as agreed in so-called 'Green Deals' for the relevant sectors.

- **Global climate change policies**

At COP21 in Paris, it was agreed to restrict a global rise in temperature well below 2 °C degrees this century, and to boost efforts to limit the temperature increase even further to 1.5 °C above pre-industrial levels. A commitment to move away from fossil fuels was made, which will affect both the energy and the transport sector.

- **The rapid advancement of technology**

A recent inventory among stakeholders to demonstrate a wide range of climate-friendly solutions in transportation provides an impressive insight into the technical possibilities and the latest innovations⁴. From the construction of zero-emission busses and ferries to the further optimisation of fuels and technologies that make a difference in the whole logistics chain – the technological solutions are available to achieve a low/zero-emission transport sector. In combination with the willingness seen among consumers and frontrunners in the market, the time is right to enter a new era in transport.

It is clear there is a lot to be gained by switching to a low/zero-emission transport sector. The big question is: how do we set the EU on this path? Technologies to further improve our present energy and transport needs and to save the environment are on the verge of a break-through. What is needed are policies and instruments to scale and accelerate technologies and innovations that can contribute to our goals with regard to energy, climate, transportation, competitiveness, and air quality. The longer we wait, the higher the costs will be. We have the technology, now we need the policy!

⁴ <http://ppmc-cop21.org/80dayscampaign>