

Political, socio-economic and technological environments affecting transport energy use in Europe

Steenberghen T.¹ and Lopez E.²

¹ SADL/K.U.Leuven R&D, V. Decosterstraat 102, B-3000 Leuven, Belgium, therese.steenberghen@sadl.kuleuven.be, Telephone (32) 16-329732, Fax: (32) 16-

² Department of transport engineering, Universidad Politecnica de Madrid

Demand forecasts are expected to have a substantial impact on international fossil fuel prices. However, this trend could be reduced by international and national efforts to promote renewable energy and energy efficiency, for example in the fight against climate change.

One of the main objectives of new technologies is improved energy efficiency. Most new technologies are developed to achieve the reduction both in dependence from oil and the emissions derived from energy use, e.g. the development of “cleaner” energy services and technologies, as one of the key aspects of sustainable transportation.

The success of advanced technologies depends on their cost, performance and reliability. Ongoing research, development, and demonstration are important to their evolution. But the key to commercialising promising technologies in the near term will be overcoming market barriers common to many new technologies.

The paper briefly presents the technical development status, and then discusses the market potential, market barriers for introduction, critical success factors for the introduction, and the applicability in various market segments for: gaseous and alternative fuels, biofuels, electric and hybrid vehicles, and hydrogen/fuel cells.

At country level, a wide variety of policy measures affect the use of energy in transport. Generally, a combination of policies is required, and a number of supporting measures such as public education, increases the effectiveness of many political measures. The expected results of this kind of measures are difficult to predict, because the trends in energy use may be due to external factors interacting with the effect of the policies. The following policies affecting energy use in transport are discussed: market incentives, policies targeting technology and vehicle efficiency, and overall system improvement.

The research was conducted as part of the project “Scenarios for the Transport System and Energy Supply” (STEPS), Framework Programme 6, Call 1A, Thematic Priority 1.6.2, Area 3.1.2, Task 1.10.

Workshop presentation