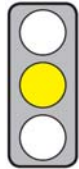


MAIN ISSUES

Objective of the Communication: The Commission wants to encourage the development of green road vehicles.

Parties Affected: Car manufacturers and their suppliers, buyers.



Pros: (1) The Commission does not intend to favour certain technologies over others.

(2) The planned standardisation is a preventive measure against expensive parallel structures.

Cons: The fact that the EU does not establish a harmonised set of instruments applicable to climate protection in the automotive sector causes unnecessary costs.

CONTENT

Title

Communication COM(2010) 186 of 28 April 2010: **A European strategy on clean and energy efficient vehicles**

Brief Summary

► Objectives

- The Commission sets out a strategy for encouraging the “development and uptake of clean and energy efficient” road vehicles (“green cars”) which
 - are operated by low-carbon energies (alternative fuels, electricity, hydrogen) and
 - have low air pollutant and noise emissions.
- The strategy refers to
 - two- and three-wheelers and quadricycles (Directive 2002/24/EC: L-category vehicles),
 - light commercial vehicles (cars and vans; Directive 2007/46/EC: M1- and N1-category vehicles) and
 - heavy-duty vehicles (buses and trucks; Directive 2007/46/EC: M2-, M3-, N2-, N3-category vehicles).
- The strategy pursues a “two track” approach (p. 3) which supports:
 - “clean and energy efficient” vehicles based on conventional internal combustion engines as well as
 - “ultra-low-carbon” vehicles through the deployment of “breakthrough” technologies such as
 - alternative fuels (e.g. liquid biofuels, gaseous fuels, compressed natural gas or biogas),
 - electric motors and
 - fuel cells generating electricity from hydrogen fuel producing only water vapour.

► EU regulatory framework

- According to the Commission, the automotive industry should invest more in technologies which reduce emissions and improve engine efficiency.
- The Commission intends to
 - propose in 2010 a regulation on type-approval requirements for two- and three-wheelers and quadricycles (L-category vehicles) that will set emission standards and develop measures to take account of new technologies;
 - adopt implementing rules in 2011 on the application of a derogation from CO₂ emission targets for small volume and niche manufacturers and on the procedure for approving “eco-innovations” [cp. Regulation (EC) No. 443/2009];
 - present a proposal in 2011 to amend the Directive (70/157/EEC) to reduce noise emissions of vehicles;
 - propose a strategy to reduce fuel consumption and CO₂ emissions from heavy-duty vehicles;
 - submit proposals in 2013 for a revised test cycle for measuring emissions, as developed by the United Nations Economic Commission for Europe (UNECE), and a methodology for taking into account innovative technologies;
 - assess in 2013 how the emission targets set for 2016 can be reduced from a maximum of 130g CO₂/km fleet average emission for new cars [Regulation (EC) No. 443/2009; see [CEP Policy Brief](#)] to 95g CO₂/km by 2020;
 - assess in 2013 how the emission targets set for 2016 can be reduced from a maximum of 175g CO₂/km fleet average emission for new light-duty vehicles [Regulation (EC) No. 443/2009; see [CEP Policy Brief](#)] to 135g CO₂/km by 2020;

► **Encouraging "green technologies"**

- According to the Commission, the development of electric and hydrogen fuel cell vehicles must be intensified to improve their range and driveability as well as to bring costs down.
- The Commission wants to
 - draw up in 2011 a strategy plan for transport technology and present a long-term research strategy on clean transport systems in a communication;
 - explore with the European Investment Bank (EIB) how to continue supporting research and innovation projects aiming to develop clean and energy efficient vehicles.

► **Market uptake and consumer information**

- Currently green vehicles are significantly more expensive than conventional ones.
- The Commission wants to
 - present in 2010 guidelines on financial incentives for consumers to buy green vehicles and encourage the coordination of demand-side measures adopted in Member States;
 - revise the energy taxation Directive (2003/96/EC) to better incentivise the efficient use of conventional fuels and the gradual uptake of alternative fuels;
 - propose an amendment of the Directive (1999/94/EC) on car labelling.

► **Electric vehicles**

– **Placing on the market**

- According to the Commission, EU-wide requirements are needed for electric vehicles in order to facilitate legal certainty and to better protect consumers.
- In cooperation with the UNECE the Commission wants to
 - propose in 2010 electric safety requirements for vehicle type-approval;
 - review in 2012 crash safety requirements;
 - review in 2012 whether the quietness of electric vehicles is potentially dangerous to road users.

– **Standardisation**

- EU-wide common standards should allow all electric vehicles to communicate with the electricity grid and to be charged by all types of chargers.
- The Commission wants to
 - mandate in 2010 the European standardisation bodies to develop by 2011 a standardised charging interface between the electricity supply point and the charger;
 - contribute to the adoption of the interoperable interface by all vehicle manufacturers, electricity providers and electricity distribution network providers.

– **Infrastructure**

- A charging network open to public access requires considerable investments and the stipulation of standards on safety and interoperability.
- The Commission wants to
 - build up a charging and refuelling infrastructure at national and regional level in the EU together with Member States;
 - explore with the EIB how to invest in infrastructures and services in order to support green vehicles.

– **Power generation and distribution**

- According to the Commission, an expansion of CO₂ intensive electricity generation can be avoided if electric vehicles are integrated into a "smart grid" which
 - saves excess intermittent renewable electricity in electric vehicle batteries and
 - charges the vehicles automatically during "off peak hours".
- The Commission wants to
 - compare the environmental and carbon footprint of vehicles with internal combustion engine, electric, gas fuelled vehicles and hydrogen based on a life-cycle approach;
 - evaluate whether the promotion of electric vehicles leads to the generation of additional low carbon electricity from renewable energy sources.

– **Recycling and transport of batteries**

- The use of batteries and fuel cells leads to raw material consumption and environmental pollution.
- The Commission wants to
 - consider possible changes to existing legislation in relation to the recycling of batteries and end of life vehicles;
 - review whether an amendment of Directive (2008/68/EC) on the transport of batteries is necessary.

► **Global issues: trade, standardisation and raw materials**

- The Commission stresses that an open access to markets in third countries and level playing fields are key to the European automotive industry.

- Large-scale production of electric and hydrogen fuel cell vehicles depends on scarce raw materials (e.g. rare earth elements for batteries and noble metals for fuel cells) which can only be found in very few regions in the world (e.g. China).
- The Commission wants to
 - provide technical assistance to third countries in order to promote green vehicle trading;
 - engage in international standardisation activities;
 - work towards a worldwide harmonisation;
 - facilitate access to raw materials through its raw material initiative [COM(2008) 699].

Statement on Subsidiarity by the Commission

The Commission emphasises that measures at EU level should focus on areas with "clear European added value, in line with the principle of subsidiarity" (p. 5).

Policy Context

The "green vehicle strategy" forms a vital part of the "Europe 2020" [COM(2010) 2020 of 3 March 2010; see [CEP Policy Brief](#)] flagship initiative "Resource-efficient Europe". It seeks to promote green vehicles by encouraging research, introducing EU-wide common standards and developing infrastructures so as to decarbonise the transport sector. The "green vehicle strategy" builds on the existing strategy to reduce CO₂ emissions from passenger cars and light-duty commercial vehicles [COM(2007) 19] and on the European initiative for green cars as part of the European economic recovery plan [COM(2008) 800]. It is to complement ongoing and planned actions to decarbonise the transport sector. That includes the emission cap of 130g CO₂/km fleet average emission for new passenger cars, as of 2016 Regulation (EC) No. 443/2009; see [CEP Policy Brief](#), and the proposed emission cap of 175g CO₂/km fleet average emission for new light-duty commercial vehicles, as of 2016 [COM(2009) 593; see [CEP Policy Brief](#)].

Options for Influencing the Political Process

Leading Directorate General:	DG Enterprise and Industry
Consultation Procedure:	Not planned.

ASSESSMENT

Economic Impact Assessment

Ordoliberal Assessment

The Commission announces a number of measures without specifying them in detail. Therefore, an evaluation of the individual projects cannot be made at present.

Climate protection policy in the EU and in other parts of the world, the wish to become independent of fossil fuels as well as to lower pollution in large cities, specifically in Asia and South America, will presumably lead to a profound technological shift in the automotive sector. **As it is not to the task of politics to decide whether or not certain technologies fit better than others, it is appreciated that the Commission does not expressly favour the promotion of certain technologies.**

Since combustion engines, fuel cells and electric drives have very different environmental impacts it is further positive that the Commission intends to review their impacts on the basis of the entire life cycle, from production to the utilisation phase to disposal.

Impact on Efficiency and Individual Freedom of Choice

For an efficient climate protection policy, fuel consumption must be included in EU emissions trading (cp. [CEP Analysis of Climate Protection Policies in the EU](#), in German), instead of trying in parallel to reduce CO₂ emissions in the automotive sector through threshold values, energy taxation and in exceptional cases only (e.g. when using electricity) through EU emissions trading. **Therefore, the Commission's strategy is inconsistent and generates unnecessary costs.**

Which technology will prevail on the market and when is at present unknown. Currently, green vehicles are relatively expensive. Electric vehicles have a significantly smaller mobility range than vehicles with internal combustion engines. The basic principle is: Neither the EU nor Member States should set financial incentives for the purchase of green vehicles, since that would distort consumer decisions and thus constrain efficient solutions instead of encouraging them. But in order to avoid that Member States establish conflicting incentive schemes aimed at supporting domestic industry and which impede the single market, the proposal calling for guidelines regulating such incentive schemes are to be welcomed.

The standardised charging interface between the electricity supply point and the charger of vehicles, as proposed by the Commission, are of major relevance for the usability of electric vehicles. Standardisation

prevents expensive parallel developments and restrictions in the usability (interoperability) of vehicle components and infrastructure.

In order to ensure a proper invoicing of the charging at different supply points, vehicles must be able to communicate with the electricity grid when charging to make sure they are properly identified.

In the long run, electric vehicles – as inspired by the Commission – **will be integrated into a "smart grid"**. This is necessary in order to distribute peak loads better. Moreover, charging phases could be adjusted to the fluctuating electricity supply from renewable energies. This would reduce the use of reserve capacities which are based on fossil energy sources.

The emission measuring test cycle set out by the UNECE does not adequately take into account the actual driving behaviour and the according energy consumption in road transport. Therefore the Commission's proposed revision of the test cycle is to be welcomed.

Impact on Growth and Employment

The standardisation planned by the Commission will have a positive impact on growth and employment, as common standards would help avoid expensive parallel structures.

Impact on Europe as a Business Location

Building know-how in the field of new technologies strengthens the quality of Europe as a Business location.

Legal Assessment

Legislative Competence

"Green vehicles" are supposed to emit less CO₂, air pollution and noise. Related EU action can be based on Art. 192 TFEU (Environment).

Subsidiarity

In order to avoid any distortion of competition through standards or any other requirements on vehicles, an EU-wide common approach is necessary.

Proportionality

Unproblematic.

Compatibility with EU Law

Unproblematic.

Compatibility with German Law

Currently not foreseeable.

Alternative Policy Options

The EU should consistently include the transport sector into EU emissions trading and cease regulatory measures at the same time.

Possible Future EU Action

See content above.

Conclusion

As it is not to the task of politics to decide which technologies are appropriate, it is to be welcomed that the Commission does not expressly favour the promotion of certain technologies. The standardisation of charging interfaces between electricity sources and the charger of vehicles is economically viable. As proposed by the Commission, electric vehicles should be integrated into a "smart grid" in the long run in order to distribute peak loads better and to adjust charging activities to the fluctuating supply from renewable energies. It is to be criticised that the Commission does not intend to include the automotive sector into EU emissions trading.