SUSTAINABLE MOBILITY

cep**PolicyBrief** No. 2021-9

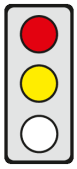
Centrum für Europäische Politik
FREIBURG | BERLIN

KEY ISSUES

Context: The EU wants to reduce CO_2 emissions by 55% by 2030, as compared with 1990 levels, and to net zero by 2050 ("climate neutrality"). To this end, the transport sector should also make an increased contribution.

Objective of the Communication: The Commission is announcing numerous measures for the coming years aimed at achieving zero-emission transport ("sustainable mobility").

Affected parties: All road users, transport companies, vehicle manufacturers, fuel producers.



Pro: EU climate targets can be most effectively and efficiently achieved by means of an emissions trading system (ETS). In principle, this also applies to the transport sector.

Contra: (1) Stricter CO_2 limits for cars, vans and lorries are significantly less effective than an ETS and are unnecessarily expensive and no longer technology neutral.

(2) In the case of shipping, the EU should not take unilateral climate protection measures but push for a global market-based system for CO_2 reduction in the negotiations at the International Maritime Organisation (IMO).

Alternative Approach: (1) A temporarily separate ETS for road transport will protect industries at risk of relocating against further increases in allowance prices and also strengthen the price signal in the transport sector.

(2) Keeping the CO_2 limits as they are leaves room for more cost-efficient increases in the efficiency of combustion engines that, in the medium term, can use alternative fuels.

The most important passages in the text are indicated by a line in the margin.

CONTENT

Title

Communication COM(2020) 789 of 9 December 2020: **Sustainable and Smart Mobility Strategy**

Brief Summary

- **Context and objectives**
  - Transport causes damage due to greenhouse gases such as CO_2, air pollutants, ecosystem degradation, accidents, noise and congestion, the cost of which is borne not by the polluters but by others ("external costs"). The external costs of transport resulting from environmental damage from CO_2 emissions, air pollutants, ecosystem degradation and noise are estimated to be € 388 billion per year [p. 12].
  - The EU wants [Communication COM(2019) 640, The European Green Deal, p. 4 et seq. and 14 et seq.; see cep**Adhoc**]
    - to reduce CO_2 emissions by 55% by 2030, as compared with 1990 levels, and to net zero by 2050 ("climate neutrality");
    - to reduce air, water and soil pollution emissions to zero ("zero-pollution ambition").
  - In order to achieve zero-emission transport ("sustainable mobility"), the Commission wants [p. 2 et seq.]
    - a 90% reduction in CO_2 emissions from transport by 2050 as compared with 1990 levels,
    - transport-related air pollution emissions to achieve the "zero-pollution ambition".
  - To achieve "sustainable mobility" in relation to the various modes of transport – road, rail, air, water –
    - the Commission has listed quantified "milestones" for 2030, 2035 and 2050;
    - the Commission has announced numerous measures for the coming years.

- **Economic incentives for sustainable mobility choices**
  - In order to provide those responsible for transport-related damage, i.e. the users of all modes of transport, with an economic incentive to make "sustainable" mobility choices, the Commission wants [p. 11 et seq.]
    - to ensure that users bear the external costs "without delay" ("polluter pays" and "user pays" principles; "internalising external costs");
    - to abolish fossil-fuel subsidies, make the taxation of the energy content of various fuels more closely aligned to their CO_2 emissions and provide more incentives for introducing alternative fuels in the transport sector;
    - to achieve CO_2 pricing by coordinating the EU Emissions Trading System (EU ETS), infrastructure and road charges as well as energy and vehicle taxes;

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- the EU Parliament and the Council to quickly pass the amendment to the Eurovignette Directive on road-use charges [Commission Proposal COM(2020) 275; see cep**Input** 02/2017 and cep**PolicyBrief** 2017-24].

– In 2021, in order to create incentives for reducing CO_2 emissions, the Commission wants to [p. 12]
  - examine, by way of an impact assessment, whether the EU Emissions Trading System (EU ETS; see cep**Input** 03/2018) should be extended to include transport [p. 12; see cep**Input** 18/2020];
  - modify the EU ETS for aviation in such a way
    - as to reduce the number of emissions rights ("allowances") that are allocated for free;
    - as to implement the "Carbon Offsetting and Reduction Scheme for International Civil Aviation (CORSIA) passed by the International Civil Aviation Authority (ICAO; see cep**PolicyBrief** 05/2014);
  - extend the EU ETS to include shipping [see cep**Input** 24/2020];
  - at the International Maritime Organisation (IMO), push to advance discussions on market-based instruments to reduce CO_2 emissions in the shipping sector and submit a proposal on this at the IMO 2022 [p. 12 and Annex p. 2; see cep**Input** 8/2021].

– As its "milestones" for internalising the external costs of transport, the Commission envisages that [p. 13]
  - by 2030, "intermodal transport", which uses different modes of transport for one journey, will be able to compete on an equal footing with road-only transport in the EU;
  - by 2050, all external costs of transport within the EU will be borne by transport users.

► **Zero-emission vehicles and alternative fuels**

– In order to reduce emissions of CO_2 and air pollutants in road transport, the Commission wants to [p. 3 et seq.]
  - take measures, while restricting the principle of technology-neutrality, to shift away from technologies, such as the internal combustion engine, that are based on fossil fuels;
  - tighten significantly the air pollutant emission standards for cars and vans ["Euro 7"; Regulation (EC) No. 715/2007] so that "only future-proof low-emission vehicles come to the market";
  - tighten significantly the CO_2 limits for cars and vans [Regulation 2019/631/EU; see cep**PolicyBrief** 2018-02] and for lorries [Regulation (EU) 2019/1242; see cep**PolicyBrief** 2018-29];
  - ensure, by revising the Directive on Alternative Fuels Infrastructure [2014/94/EU; see cep**PolicyBrief** 2013-18], that half of the 1000 hydrogen stations and one million of the 3 million public charging points for electric vehicles needed by 2030, are built by 2025.

– In order to reduce emissions of CO_2 and air pollutants in aviation and shipping, the Commission wants to support renewable and low-carbon ("alternative") liquid and gaseous fuels by way of [p. 5 et seq.]
  - a "Renewable and Low-Carbon Fuels Value Chain Alliance";
  - the "ReFuelEU Aviation" and "FuelEU Maritime" initiatives for sustainable aviation and maritime fuels.

– As part of the revision of the Renewable Energy Directive [(EU) 2018/2001; see cep**Input** 01/2019], the Commission is considering imposing minimum shares or quotas for alternative fuels [p. 4].

– As its milestones, the Commission envisages that [p. 7]
  - by 2030, there will be at least 30 million zero-emission cars and 80,000 zero-emission lorries registered in the EU and that by 2050, nearly all cars, vans, buses and new lorries will be zero-emission;
  - Zero-emission ocean-going vessels will be available by 2030 and large zero-emission aircrafts by 2035.

► **Sustainable passenger transport**

– In order to boost "multimodal" passenger transport involving various modes of transport [p. 8],
  - the Trans-European Transport Network (TEN-T) will be completed;
  - a "high quality" transport network with high-speed rail services on short-haul routes and low-emission aviation services on long-haul routes will be built;
  - long-distance and cross-border passenger rail services will be promoted.

– As its milestones, the Commission envisages that [p. 11]
  - scheduled passenger rail and air transport under 500 km will be carbon-neutral by 2030 [p. 11];
  - traffic on high-speed rail will increase 100% by 2030 as compared with 2015.

► **Sustainable freight transport**

– In order to support "intermodal" freight transport – particularly by rail or ship, with first leg and/or last leg transport by road ("combined transport" – CT) – the Commission wants to [p. 12]
  - revise the CT Directive *[92/106/EEC; see cep**PolicyBrief** 2018-05];*
  - consider economic incentives for multimodal terminals and improved transhipment technologies.

– With the aim of shifting more freight onto the railways, the Commission wants to revise the Regulations on Rail Freight Corridors [(EU) No. 913/2010; see cep**PolicyBrief**] and the TEN-T network [(EU) No. 1315/2013; see cep**PolicyBrief**] in order to boost rail freight by
  - increasing capacity and deploying new technologies such as digital coupling and automation [p. 10 et seq.];
  - completing missing links in order to make the TEN-T core network "fully freight capable" [p. 11].

– As its "milestones", the Commission envisages that [p. 11]

- rail freight traffic will increase by 50% by 2030 and by 100% by 2050, as compared with 2015;
- transport by inland waterways and short sea shipping will increase by 25% by 2030 and by 50% by 2050, as compared with 2015.

Policy Context

In 2011, in its "Transport White Paper" [COM(2011) 144, see cep**PolicyBrief** and cep**Input** 19/2015], the Commission set out its vision of a "competitive and resource efficient transport system up to 2050". In 2015, in the Paris UN Climate Agreement, the EU committed to comply with the 2-degree climate target (see cep**PolicyBrief** 2016-13). This gave rise to the target of EU climate neutrality by 2050 which is to be achieved in the coming years by way of numerous EU measures as part of the "European Green Deal".

Options for Influencing the Political Process

Directorates General: DG Transport (leading), DG Climate, DG Energy

ASSESSMENT

Economic Impact Assessment

Reducing CO_2 and air pollutants from transport, as well as the associated external costs, by applying, where possible, the polluter/user-pays principle, is appropriate for meeting the EU climate targets – by 55% by 2030, as compared with 1990 levels, to net zero by 2050 – and for controlling air pollution. However, the reduction in CO_2 emissions envisaged by the Commission for the transport sector of 90% by 2050 is highly ambitious and may give rise to a significant cost burden if close attention is not given to the cost efficiency of the measures.

The quantified milestones set out by the Commission in this respect amount to a dirigiste pretence of knowledge because ultimately it is the market forces of supply and demand that will determine whether or not the desired results are achieved.

The EU climate targets represent a major economic and social challenge. They **can be most effectively and efficiently achieved by means of an emissions trading system (ETS)** for all sectors [see cep**PolicyBrief** 2020-03; cep**Study** Effective Carbon Pricing (2019)]: By limiting and reducing the number of allowances ("cap"), the envisaged CO_2 reduction will be reliably achieved and, as a result of emissions trading ("trade"), the market will find the most cost-effective reduction measures available**. In principle, this also applies to the transport sector.**

Aligning existing energy taxes more closely to CO_2 content is an additional method of making fossil fuels more expensive than alternative fuels or propulsion systems, and provides an incentive to save on CO_2. Overall, in comparison to other climate policy instruments, carbon pricing by means of an ETS, and energy taxes based on CO_2 content, create incentives for cost-efficient savings in CO_2, for the entire vehicles fleet in use. Since increasing allowance prices will reduce the amortisation period of low-emission and zero-emission vehicles, there is no need to subsidise their acquisition. This also increases the pressure on vehicle manufacturers to offer lighter and more fuel-efficient vehicles. **The inclusion of road traffic in an ETS,** currently being – only very vaguely – considered by the Commission, **should therefore become the main instrument for CO_2 reduction in road traffic** rather than a simple addition.

In derogation from its plans for road transport, the Commission should stick to the principle of technology neutrality and refrain from excluding technologies that are based transitionally on fossil fuels because even a combustion engine which only partly uses alternative fuel can make a cost-efficient contribution to CO_2 reduction. The planned Euro-7 emission standards for cars and vans must therefore be kept in proportion and must not be misused as an indirect means to force a rapid end to the combustion engine.

Stricter CO_2 limits for cars, vans and lorries are significantly less well targeted than an ETS as they do not take account of the annual mileage. In addition, they are **unnecessarily expensive and no longer technology neutral** because they can only be achieved with a high proportion of plug-in hybrids and electric vehicles. Improvements in combustion engines come up against technical limitations in this regard and give rise to high CO_2 avoidance costs. With plug-in-hybrid vehicles, however, the expected savings in CO_2 emissions are often only on paper because they depend on the way people actually drive and particularly on the extent to which people drive electrically. In addition, it is likely that the trend towards heavy, powerful vehicles will continue, even in the case of plug-in-hybrids. It is also likely that savings in travel costs due to increases in efficiency or using the electric mode will lead to people clock up more mileage ("rebound effect"). **Keeping CO_2 limits as they are,** in combination with carbon pricing by way of an ETS, however, still **leaves room for more cost-efficient increases in the efficiency of combustion engines that, in the medium term, could use alternative fuels.**

With the Commission's plans to build hydrogen stations and electric charging points there is considerable potential for the misallocation of funds because, currently, no-one knows how many hydrogen or electric vehicles will be in use in the EU in 2025 or 2030 or how many hydrogen stations and charging points will be needed where. The economic

operators should decide on investments once they have taken account of the expected costs and likely revenue. In order for the most efficient use of alternative fuels to prevail in the market, the planned "Renewable and Low-Carbon Fuels Value Chain Alliance" should not exclude road and rail transport.

The planned modifications to the EU ETS for aviation, aimed at implementing the international scheme for offsetting CO_2 emissions, (CORSIA), should avoid the risk of double burdens for EU airlines. **Reducing the number of free allowances allocated to airlines will not increase the incentivising effect of the allowance price in the EU ETS but** amounts to an additional tax on flights in the European Economic Area (EEA). This **will lead to competitive disadvantages for airlines with hubs in the EEA** as compared to those with hubs in neighbouring countries such as the United Kingdom or Turkey because only feeder flights to EEA hubs have to hold allowances. Instead, the EU should therefore push for an international agreement to tax kerosene.

In the case of international **shipping, the EU should refrain from unilateral climate protection measures**, and in particular refrain from including it in the EU ETS because, even where the obligations to hold allowances is limited to journeys between EU ports, it will result in inefficient avoidance measures and distortions of competition [see cep**Input** 2021-XX]. **Instead it should push for a global market-based system for CO_2 reduction in the negotiations at the International Maritime Organisation (IMO).**

It is unclear why, when it comes to internalising external effects, intermodal transport has to wait until 2030 to be able to compete on a level playing field with road transport in the EU. In order for it to gain a significant increase in its share of overall freight transport, better competition conditions for intermodal transport – particularly CT – are required. When revising the CT Directive, adequate attention should be paid to the fact that only the development and modernisation of multimodal terminals and improved transhipment technologies – such as horizontal transhipment [see cep**PolicyBrief** 2018-05] – can increase the efficiency of intermodal transport so that it can compete with road haulage.

Legal Assessment

Legislative Competency

Unproblematic. The EU is empowered to issue environmental measures to protect the climate and control air pollution (Art. 192 TFEU). In addition, EU-wide standard rules on vehicle emissions and fuel consumption ensure the functioning of the internal market (Art. 114 TFEU).

Subsidiarity

EU-wide standard rules on vehicle emissions can only be adopted at EU level. A further assessment of the Commission's plans is not possible until concrete proposals have been submitted.

Alternative Approach

A temporarily separate ETS – just **for road transport** or for that and buildings – would mean that the relative price rigidity in the demand for allowances in these sectors would have no influence on the allowance price in the existing EU ETS. This **will protect industries,** that are covered by the EU ETS and **at risk of relocating** their production to third countries with lower standards for CO_2 reduction ("carbon leakage"), **against further increases in allowance prices in the EU ETS and** in addition **it will strengthen the price signal in the transport sector** due to the probably higher allowance prices in the separate ETS. At the same time, Member States could - and should - redistribute a considerable part of ETS revenues among the population in order to avoid social upheaval.

Conclusion

EU climate targets can be most effectively and efficiently achieved by means of an emissions trading system (ETS). In principle, this also applies to the transport sector. The inclusion of road traffic should therefore become the main instrument for CO_2 reduction in road transport. A temporarily separate ETS for road transport will protect industries at risk of relocating against further increases in allowance prices and also strengthen the price signal in the transport sector. Stricter CO_2 limits for cars, vans and lorries are significantly less effective than an ETS, unnecessarily expensive and no longer technology neutral. Keeping the CO_2 limits as they are leaves room for more cost-efficient increases in the efficiency of combustion engines that, in the medium term, can use alternative fuels. Reducing the number of free allowances allocated to airlines will not increase the incentivising effect in the EU ETS but, will lead to competitive disadvantages for airlines with hubs in the EEA. In the case of shipping, the EU should not take unilateral climate protection measures but push for a global market-based system for CO_2 reduction in the negotiations at the IMO.