



## **Input Paper**

Brussels, 13 December 2021

# **Making transport fit for 55**

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## **Making transport fit for 55**

### **Summary**

With this position paper, the Community of European Railway and Infrastructure Companies (CER) would like to contribute to the legislative discussion on the Fit for 55 package with concrete policy suggestions that recognise the role of **rail as the most energy-efficient transport mode and the existing solution that reconciles economic growth and job creation with the necessity to effectively decarbonise transport through modal shift in Europe.**

CER strongly welcomes the Commission proposals on putting a price on carbon and using the revenues from emissions trading to contribute to a rapid reduction of greenhouse gas (GHG) in the transport sector, while protecting the most vulnerable households. EU's energy taxation rules are finally being reformed to reward cleaner mobility and a regulation for deploying alternative fuels is proposed, which offers potential for decarbonisation of the remaining diesel traction in the EU.

The key proposals explained in this paper are:

- **At least 25% of the expected revenues from the new Emission Trading System (ETS) and the Social Climate Fund (SCF) should be allocated to the further development of the railway system and local public transport,** in accordance with the objectives of the EU Sustainable and Smart Mobility Strategy. Electric rail is fully paying for its carbon emissions under the ETS and revenues would contribute to a low-emission multimodal infrastructure and fleet for passenger and freight. As a result, a better transport offer will be provided to vulnerable households. The use of revenues will not only deliver climate change mitigation but also major energy savings in the long run and further reduction of costs of transport to the society when taking rail's leading performance also in the non-CO<sub>2</sub> external costs such as accidents, noise, air pollution and congestion compared to electrified road vehicles.
- **Railways are leaders when it comes to e-mobility, as four out of five trains already run on electricity. Hence, the Regulation on Alternative Fuels Infrastructure should address decarbonisation of transport as a whole,** promoting zero-emissions door-to-door mobility with railway stations as multimodal hubs. Rather than introducing targets and subsidies for individual modes and private mobility, the right balance should be struck between the huge investment needs for the completion of the TEN-T network and the support offered to private e-mobility.
- **The update of the Energy Taxation Directive should allow Member States to set tax exemptions to rail freight** as long as cargo-only flights are exempted from energy taxation.
- **An ambitious Effort Sharing Regulation (ESR) target at EU level must be complemented by interim GHG targets for 2030 and 2040,** which in turn should be reflected in the National Energy and Climate Plans. Both the ETS and ESR are needed to decarbonise transport in the medium-term and deliver a 90% reduction in transport emissions by 2050.

## Introduction

**The Intergovernmental Panel on Climate Change (IPCC) in its [report of August 2021](#) warned that limiting global warming to 1.5 degrees or even 2 degrees requires immediate climate action.** The EU's contribution to the Paris Agreement goals to limit the global temperature as set by the EU Climate Law will be delivered by the Fit for 55 package, which in turn will have a significant impact on the transport sector in the next decade.

**The European railways welcome the timely adoption of the Fit for 55 package, which provide a comprehensive framework for implementing EU-wide carbon pricing for transport** and promote other policies aimed at improving vehicle efficiency and the switch to low-carbon fuels. The package should implement the EU Sustainable and Smart Mobility Strategy objectives that count on railways to decarbonise transport in the EU.

**Rail is the most energy-efficient transport mode and the most effective way to decarbonise transport in large parts of the Union's territory**, as also highlighted in the recent [Council Conclusions](#) - Rail at the forefront of smart and sustainable mobility - adopted by EU Transport Ministers in June 2021. Representing 27% of the EU's greenhouse gas (GHG) emissions, transport emissions continued to grow while rail's emissions have fallen by 32% in 30 years. The European Commission [study](#) 'Sustainable Transport Infrastructure Charging and Internalisation of Transport Externalities' shows that rail internalises its external costs already much more than any other motorised mode of transport, a situation that demonstrates the necessity of better rules on the internalisation of external costs and of fairer intermodal competitive conditions.

**Rail is already Green Deal compliant and fit for 55% GHG reduction by 2030 compared to 1990 levels.** Rail continues to improve its carbon intensity and – according to the [European Environment Agency \(EEA\)](#) it remains closer than any other mode of transport to zero emissions.

**Furthermore, as a major consumer of electricity rail pays around €500 million/year into the EU Emissions Trading System** and fully complies with the carbon price in line with the user-pays and polluter-pays principles.

**At the same time, already four out of five trains in Europe run on electricity, one third of which is harvested from renewable sources.** According to the [International Energy Agency \(IEA\)](#), oil consumption in railways will fall to almost zero in 2050. It will be replaced mainly by electricity (for 90% of the rail traction needs) and by hydrogen (for 10% of rail traction needs). More traffic on the European railways will mean a substantial drop in transport GHG emissions.

**Rail technology and services are the mobility solutions that reconcile economic growth and job creation with environmental and societal benefits.** CER members rank among the top investors and largest employers in all European countries and the sector is committed to a wide range of further initiatives, including high-speed links between European major cities, accessible and digitalised services for passengers, automated rail freight solutions as well as a vast deployment of state-of-the-art technology for rail infrastructure management. The support given to rail projects by the extraordinary COVID19-related financial measures, such as the Recovery and Resilience Facility, has been so far sizeable. However, such projects must receive continued support in the coming years and the Fit for 55 package provides a major opportunity to drive change with rail as the backbone of affordable and convenient mobility solutions, particularly for vulnerable citizens and business in the context of increasing carbon prices.

## 1) CER proposals on the EU ETS Directive

The revised EU Emissions Trading System (ETS), a cornerstone of EU climate policy, is set to become a catalyst to decarbonising the European economy. **CER strongly welcomes the Commission's proposal that puts a carbon price on transport emissions.** Railways, already running 80% of European rail traffic on electrified lines, pay their fair share within ETS, with the carbon price of electric traction passed on by power suppliers to railway undertakings. **This is why ETS extension to maritime transport, the transition to full auctioning for aviation under ETS and a separate ETS for road fuels are positive developments to put a uniform carbon price on transport emissions.** Especially the creation of a separate ETS for road transport fuels is essential to internalise externalities in the transition to e-mobility and to incentivise passengers and logistic companies to invest into and use climate friendly transport modes. In addition to the electrification of the road sector, ETS will offer the possibility to apply the principles of user-pays and polluter-pays in transport both for freight (complementing the current weak Eurovignette provisions) as well for private car usage. CER already published a [fact sheet](#) on carbon pricing to reiterate the importance of smart pricing in delivering the Fit for 55 package.

**Putting a price on carbon and using the ETS revenues to support rail and public transport is the most cost-effective way to ensure rapid GHG emissions reduction in the transport sector, while enabling access to low and zero-emission collective mobility services for the most vulnerable households.** This will support the achievement of the EU modal shift objectives and have rail performing as the backbone of a carbon neutral mobility system.

It is foreseeable that the strengthening of ETS will also lead to a rise in electricity prices thus also increasing the operating cost of e-mobility – in particular rail electric traction. Nevertheless, CER fully supports ETS reform. **As a major consumer of electricity rail pays around €500 million/year into the EU Emissions Trading System** and fully complies with the carbon price in line with the user-pays and polluter-pays principles. At the same time, lowering taxes and charges for electric traction would help rail to ensure that exactly those transport modes which are dependent on electricity (and which are the most environmentally friendly) are not disadvantaged.

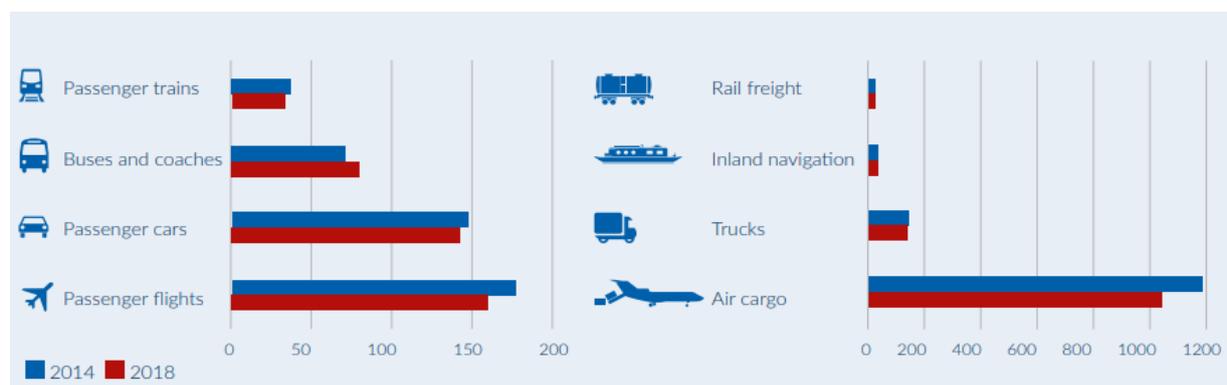
Wider application of carbon pricing will raise revenues. In 2019, Member States generated €14 billion from auctioning ETS allowances. ETS expansion to road transport could bring in €50 billion a year at the current prices. Until now, less than 5% of the revenue generated by ETS and fuel excise duties are allocated for such purposes. ETS reform should be consistent with the targets of the EU Sustainable and Smart Mobility Strategy, which requires scheduled collective travel under 500 km to be carbon-neutral by 2030 within the EU. This objective requires mobilisation of funds, including ETS revenues.

CER suggests that at least 25% of the expected revenues from the new ETS should be allocated to further develop the railway system and local public transport, in accordance with the objectives of the EU Sustainable and Smart Mobility Strategy. ETS revenues can contribute decisively to the completion of the TEN-T core network for rail, which is estimated at €350 billion by 2030 and €680 billion by 2050 for the comprehensive network. The revenues should contribute to robust physical investments in bridging missing links and removing bottlenecks on the railway infrastructure network in Europe as well as optimising the use of digital infrastructure thus increasing the competitiveness and market share of the European rail system.

The energy efficiency first principle must guide Member States in determining the use of revenues generated from the auctioning of allowances in the new ETS for road transport. Measures both at the infrastructure and vehicle-level should positively contribute to the

internalisation of external costs, including reducing congestion levels. According to the [European Environment Agency](#) rail continues to lead in terms of GHG intensity (per passenger and tonne km) and remains closest to zero emission mobility. A modal shift to rail will not only deliver climate change mitigation but also major energy savings in the long run. Transport by rail is 7 times more energy efficient compared to road transport.

**Figure 1: GHG intensity (gCO<sub>2</sub>e per passenger and tonne km)**

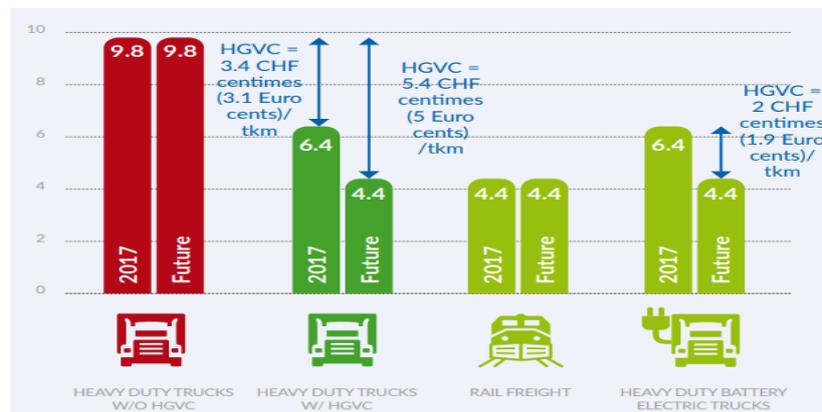


Source: [European Environment Agency, 2021](#)

Vulnerable households are particularly dependent on a good public transport service. It is therefore particularly important to invest the revenues from the ETS in developing public transport and providing a more affordable and attractive offer to users in order to minimise the external costs of transport to society.

Tackling only the external costs of climate change effects is not enough since remaining non-CO<sub>2</sub> external costs of road transport (such as noise, air pollution, congestion, accidents, etc) correspond to the two thirds of the total external costs. Rail, according to the Commission study<sup>1</sup>, internalises its external costs already much more than any other motorised mode of transport. ETH SBB study<sup>2</sup> estimated that a switch to electric trucks from those using fossil fuels will result in a reduction of about 35% of the total externalities associated with conventional trucks. However the externalities of electric trucks (5.9 € cents/tkm) are still almost 50% higher compared to electric trains (4€ cents/tkm).

**Figure 2: External costs (CHF centimes per tonne km)**



Source: [ETH SBB study](#)

<sup>1</sup> EC Study 'Sustainable Transport Infrastructure Charging and Internalisation of Transport Externalities' [https://ec.europa.eu/transport/themes/sustainable/internalisation-transport-external-costs\\_en](https://ec.europa.eu/transport/themes/sustainable/internalisation-transport-external-costs_en)

<sup>2</sup> The Swiss experience to support modal shift [http://cer.be/sites/default/files/CER%20Essay\\_SBB\\_FINAL.pdf](http://cer.be/sites/default/files/CER%20Essay_SBB_FINAL.pdf)

In their COVID19 recovery scenario, the [International Transport Forum](#) predicts a 22 % increase in freight demand by 2030 compared to 2015. Representing 65% of all freight transport emissions, road freight will continue to dominate surface transport. Considering the prospected growth of freight transport this will require, in addition to the more than 4.2 million trucks currently on Europe's roads another million trucks during the next decade which all cause externalities (including congestion). In order to achieve the climate targets that have been set, it is therefore important to also take far-reaching measures in the freight transport sector.

## 2) CER proposals on the Social Climate Fund Regulation

The transition to the climate neutrality of the EU Green Deal will only be successful in delivering rapid emission reductions if accepted by the general public and if it leaves no one behind. The Fit for 55 package is introducing a framework for a wider application of the carbon price, which is supposed to speed up the implementation of low carbon infrastructure and technologies but also trigger behavioural changes. Anticipating the cost implications of carbon pricing on the most vulnerable members of the society, the Commission correctly proposed a new Regulation on the Social Climate Fund to prevent energy and transport poverty. **CER welcomes the Commission proposal, which should contribute to the further development of low-carbon mobility and protect low-income transport users from energy poverty.**

Vulnerable households are particularly dependent on a good public transport service. It is therefore particularly important to invest the Fund in developing public transport and providing a more affordable and attractive offer to users in order to minimise the external costs of transport to society.

The Social Climate Fund constitutes a new financial resource for the development of a low-emission multimodal railway infrastructure and fleet for passenger and freight, both a precondition for delivering the EU modal shift objectives. This will not only deliver climate change mitigation but also major energy savings in the long run.

## 3) CER proposals on the Alternative Fuels Infrastructure Regulation

**CER welcomes the proposal on the new Regulation on Alternative Fuels Infrastructure (AFIR), which highlights the need for a broad alternative fuels infrastructure across Europe. However, the proposal falls short of addressing decarbonisation of transport as a whole but rather introduces targets for individual modes.** Rail's decarbonisation strategy focuses on direct electrification. Therefore, the railway sector has high [expectations](#) for the forthcoming revision of the TEN-T Regulation, to complete the TEN-T Core and Comprehensive Networks by 2030 and 2050 and thus achieve homogenous electrification of rail transport in line with the objectives of the EU Sustainable and Smart Mobility Strategy. Railways are already delivering zero-emission transport and are leaders when it comes to e-mobility, as **four out of five trains already run on electricity (80% of the traffic)**. This makes the sector frontrunner when it comes to energy efficient and environmentally friendly transport services across the continent.

When it comes to other green propulsion systems – such as hydrogen fuels-cells and battery powered trains – railways are also working to exploit the potential of alternative fuels and power trains, with diesel accounting for only 20% of the EU rail traction today and fleet renewals driving the replacement with better-performing engines.

All in all, electrification remains the main tool to drive rail transport towards net-zero emissions, while the deployment of alternative fuels infrastructures for rail must be linked to very specific conditions based on which the infrastructure at stake cannot be / is not feasible to be electrified. Battery powered trains and alternative fuels such as hydrogen are an option for non-electrified parts of the network, whereas the production, storage and distribution of hydrogen are more convenient compared to other systems, considering also the operation of rail services and geographic allocations that are difficult to electrify.

**In this context, it is important that AFIR ensures compatibility with the EU Directive “A single railway network for Europe” (2012/34/EU) in order to avoid contradictions regarding the application of alternative fuels in railway by the Member States and avoid any piecemeal approach across the EU.**

**Additionally, any solutions that hamper railway interoperability should be avoided.** Rail should be addressed in the “Technical Specification” of Annex II of the new Regulation as it is the case for road and maritime transport. Infrastructure standards shall be developed in accordance with the existing and ongoing development of railways related standards.

**CER would also like to see more guidance in the AFIR to promote zero emission door-to-door mobility.** Railway stations have a strategic role to play as multimodal hubs where passengers are not only connected to public transport or taxis but can also rent or park bikes, cars, scooters etc. In order to be in line with the EU Green Deal’s ambition of climate neutrality, railway infrastructure (including railway stations) need to get priority attention for the deployment of alternative fuels infrastructure with the condition of an economically viable business case.

#### **4) CER proposals on the Energy Taxation Directive**

**CER welcomes the Commission proposal to align taxation of energy products,** which will trigger relatively higher minimum levels of tax rates for carbon-intensive transport fuels. The proposal is also in the right direction to finally end fossil-fuel subsidies in transport.

**Electric mobility such as rail should no longer be penalised. This requires a carbon price for all transport modes.** For years, the aviation sector has had competitive advantage over rail since kerosene is completely exempt from mineral oil tax in commercial aviation. According to EU law, it has been possible to tax kerosene nationally since 2005, but only a European-wide solution will achieve the desired effect. According to a [study](#) by the European Commission, a European-wide tax on kerosene would reduce carbon dioxide emissions from aviation by 11%. Currently, European competition in the transport sector between modalities is distorted by the tax exemption on kerosene, as airlines enjoy a competitive advantage that contradicts the EU climate targets. The introduction of an EU-wide uniform kerosene tax is necessary to eliminate the current imbalance between rail and aviation and establish a level-playing field between different modes of transport. The current proposal, which grants a fiscal exemption to air cargo (handling 25.6 % of EU export turnover and 21.1 % of EU import) maintains a clear competitive disadvantage for rail freight.

**CER suggests that until kerosene is fully taxed at the EU level, optional exemptions for rail should be granted.** The Commission proposal also provides a transitional period of ten years during which a minimum zero tax rate may apply to sustainable alternative fuels and electricity supplied to aircrafts and maritime vessels. CER believes that transitional zero tax rates should equally apply to energy efficient railways

to encourage the decarbonisation efforts of the sector in accordance with the EU Green Deal and the objectives of the EU Sustainable and Smart Mobility Strategy.

## 5) CER proposals on the Effort Sharing Regulation

The EU Sustainable and Smart Mobility Strategy proposed a roadmap to deliver a 90% reduction in the transport sector's emissions by 2050, but the strategy omits any interim targets and falls short of monitoring the current GHG emissions gap in transport. With the Fit for 55 package, the Commission correctly addresses GHG emissions from transport with a basket of measures, including the Effort Sharing Regulation (ESR) and the EU Emissions Trading System (ETS). In the long run, due to the electrification of transport, emissions will gradually move towards falling under the scope of ETS but having both tools in place is the right way to decarbonise transport in the medium-term.

Targets included in the ESR have several merits: they are already operational and under the National Energy and Climate Plans various measures such as modal shift are already in place to address GHG emissions in transport. Non-compliance to the overall ESR targets will lead to infringement procedures for the Member States. However, additional effort is needed for transport decarbonisation. **This is why an ambitious ESR target at the EU level must be complemented by interim GHG targets for 2030 and 2040.** The transport GHG reduction target should ideally be reflected in the National Energy and Climate Plans. Regular reporting of greenhouse gas emissions in transport in relation to the target should be introduced. The European Environment Agency should be tasked to work on an indicator both at the EU level as well as the national level.

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### About CER

The Community of European Railway and Infrastructure Companies (CER) brings together railway undertakings, their national associations as well as infrastructure managers and vehicle leasing companies. The membership is made up of long-established bodies, new entrants and both private and public enterprises, representing 73% of the rail network length, 76% of the rail freight business and about 92% of rail passenger operations in EU, EFTA and EU accession countries. CER represents the interests of its members towards EU policy makers and transport stakeholders, advocating rail as the backbone of a competitive and sustainable transport system in Europe. For more information, visit [www.cer.be](http://www.cer.be) or follow us on Twitter [@CER\\_railways](https://twitter.com/CER_railways) or [LinkedIn](https://www.linkedin.com/company/cer).

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