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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

EUROPE ON THE MOVE

Sustainable Mobility for Europe: safe, connected, and clean

1. INTRODUCTION

In his State of the European Union address of September 2017, President Juncker set out a goal for the EU and its industries to become a world leader in innovation, digitisation and decarbonisation. The Commission has adopted a comprehensive approach to ensure that the EU's mobility policies reflect these political priorities. Following the Low-Emission Mobility Strategy¹, the Commission adopted two 'Mobility Packages' respectively in May and November 2017.² These set out a positive agenda and included legislative proposals and initiatives delivering on the low-emission mobility strategy and ensuring a smooth transition towards clean, competitive and connected mobility for all. The European Parliament and Council should ensure the rapid adoption of these proposals.

This third and last "Europe on the Move" package delivers on the new industrial policy strategy of September 2017, and is designed to complete the process of enabling Europe to reap the full benefits of the modernisation of mobility.³ To do so, it is essential that tomorrow's mobility system is safe, clean and efficient for all EU citizens. We must take advantage of the possibilities of new technology to pursue several goals at the same time – to make European mobility safer and more accessible, European industry more competitive, European jobs more secure, and to be cleaner and better adapted to the imperative of tackling climate change. This will require the full commitment of the EU, Member States and stakeholders.

Technological change is touching all parts of society and the economy and transforming the lives of EU citizens. Transport is no exception to this trend. New technologies are radically changing the mobility landscape. They are disrupting conventional transport business models and industries, bringing new opportunities in the form of new mobility services and new players, but also challenges. The labour market and the required skills are quickly evolving, and the EU must remain competitive in the face of intense global competition. With the automotive and transport value chain accounting for 12 million jobs and an efficient transport system key to EU competitiveness, adapting to change is of critical importance for EU mobility policy.

The very concept of transport is being transformed and the traditional frontiers between vehicle, infrastructure and user are becoming increasingly blurred. No longer is the means of transport the focus; today, thanks largely to increased connectivity and automation, the user is more and more at the centre of a far more flexible and integrated mobility system.

The arrival on the market of increasingly automated and connected vehicles is the next frontier in transport and will revolutionise how citizens enjoy mobility in the future. This revolution has already begun and Europe must be prepared. Digital technologies are forcing change, but they can also help us to address many of the challenges facing today's mobility system. Provided a robust regulatory framework is in place, automated vehicles and advanced connectivity systems will make vehicles safer, easier to share and more accessible for all citizens, including those who may be cut-off from mobility services today, such as the elderly and disabled. They can help reduce traffic congestion, thus increasing energy efficiency and improving air quality in addition to contributing to the fight against climate change. EU policies must be designed to harness these co-benefits and be properly coordinated.

¹ COM(2016) 501.

² COM(2017) 283, COM(2017) 675.

³ COM(2017) 479.

Europe must be a leader in this transformation of the mobility system and the EU must take action where it can make a real difference. The EU is best placed to ensure that these developments address the needs of the circular economy; that full account is taken of societal benefits such as safety and quality of life; to boost innovation, jobs, and competitiveness; and to maximise the benefits for citizens' mobility on a European scale.

2. SAFE MOBILITY: Putting safety first

Safety is fundamental to any transport system; it must always be the top priority. As mobility continues to grow and is radically transformed by digitisation, decarbonisation and innovation, the opportunities to further improve safety performance must be seized.

The safety record on the EU's roads is very good and compares favourably to other parts of the world. However, with a high number of fatalities and serious injuries still occurring on a daily basis, the EU and its Member States cannot afford to be complacent and must continue to strive for fewer casualties. In the Valletta Declaration on road safety of March 2017, the national governments of the EU Member States committed to further reductions in road fatalities and serious injuries and requested the Commission to coordinate action at EU level. They called upon the Commission to "prepare a new road safety policy framework for the decade after 2020, including an assessment of road safety performance taking into account the targets and objectives set out in this declaration". They undertook to set a target of halving the number of serious injuries in the EU by 2030 from the 2020 baseline.⁴

Road safety in the EU has greatly improved in recent decades, thanks to action at EU, national, regional and local levels. Between 2001 and 2010, the number of road fatalities in the EU decreased by 43 per cent, and between 2010 and 2017 by another 20 per cent. Nonetheless, 25,300 people still lost their lives on EU roads in 2017, equivalent to some 70 lives lost per day, and about 135,000 people were seriously injured, including a large percentage of pedestrians, cyclists and motorcyclists. These figures represent an unacceptable humanitarian and social cost. In monetary terms, the annual cost of road fatalities and serious injuries has been estimated to be more than EUR 120 billion, equivalent to approximately 1 per cent of GDP.

In spite of some Member States still making considerable progress in reducing road fatality rates, progress in the EU as a whole has stagnated in recent years. Although there was a decrease in fatalities by around 2 per cent in 2016 and 2017, some Member States have even reported increases. Reaching the EU objective of halving the number of road fatalities between 2010 and 2020 will be a major challenge.⁵

Significant contributing factors to road accidents are speed, driving under the influence of alcohol or drugs, and the failure to wear seatbelts or helmets. In addition to these and alongside a growing phenomenon of distraction by mobile devices, new trends are emerging in a complex environment, calling for a flexible and dynamic approach. Special attention should be given to vulnerable road users, especially cyclists and pedestrians, because of the notable increase of their share in the number of deaths and serious injuries. The expected

⁴ Council conclusions on road safety, 8 June 2017, <http://data.consilium.europa.eu/doc/document/ST-9994-2017-INIT/en/pdf>

⁵ "Towards a European road safety area: policy orientations on road safety 2011-2020", COM(2010) 389 final. White Paper - Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, COM(2011) 144.

growth in these forms of sustainable mobility such as cycling underlines the urgency of specific measures to improve protection for these road users.

Technological advances, first and foremost in connectivity and automation, create new opportunities to eliminate or compensate for human error and a shift to driverless vehicles should bring more safety for citizens in the long run. However, new risks are emerging in the transition phase, some related to the functioning of highly automated vehicles in mixed traffic and the complex interaction between the driver and the vehicle (Human-Machine Interface), as well as cybersecurity issues. Other challenges will result from demographic change and different approaches to personal mobility.

Synergies between safety and sustainability measures should also be exploited better. For example, encouraging the use of zero-emission modes of transport must go hand-in-hand with making the environment for pedestrians and cyclists safer. New and safer forms of mobility may also go hand-in-hand with improved access to mobility for all members of society, in particular for the disabled and the growing share of elderly people.

This demonstrates that a reinforced approach to the implementation of EU road and vehicle safety policy is needed, with a strong focus on impact and results, being flexible enough for constant adaptation to changing circumstances and being inclusive.

The EU's long-term goal will remain moving as close as possible to zero fatalities in road transport by 2050 ("Vision Zero"). The same should be achieved for serious injuries. The EU will also pursue new interim targets to reduce the number of road deaths by 50 per cent between 2020 and 2030 as well as to reduce the number of serious injuries by 50 per cent in the same period (using the new common definition of serious injury agreed with all Member States).⁶

To help achieve these goals, the Commission is proposing a common framework for road safety over the 2021-2030 period, accompanied by an Action Plan (Annex 1), to be elaborated in more detail in cooperation with Member States by mid-2019. This common road safety framework should be implemented by applying a "Safe System" approach, recommended globally by the World Health Organisation and adopted increasingly in EU Member States, regions and municipalities. Its overriding objective is to address the causes of accidents in an integrated way, building layers of protection that ensure that, if one element fails, another will compensate.

According to the "Safe System" approach, death and serious injury in road collisions are not an inevitable price to be paid for mobility. While collisions will continue to occur, death and serious injury are largely preventable. The "Safe System" accepts that people make mistakes and aims to ensure that such mistakes do not give rise to fatalities or serious injuries.

For example, better vehicle construction, improved road infrastructure, and lower speeds can all contribute to reducing the impact of accidents. The responsibility for the "Safe System" is shared in a coordinated manner across public and private sectors and its application is closely monitored to assess results and, if necessary, adapt measures taking into account experience, new data and new technologies.

Concrete results can be achieved through better coordination between Member States and the adoption of a 'management by objectives' approach. Effective action to address the known

⁶ Council conclusions on road safety, 8 June 2017, <http://data.consilium.europa.eu/doc/document/ST-9994-2017-INIT/en/pdf>

causes of accidents should combine different instruments and measures. Legislation may thus be supported by applying explicit road safety-related eligibility criteria to EU and national funding, as well as through improved transfer of 'lessons learnt' and best practices, and campaigns to raise awareness. This will ensure that actions that have high impact for safety are supported more directly by EU funding. The Commission is also calling for voluntary commitments from all stakeholders to match the ambitious "Vision Zero" goal (see Action Plan in annex 1).

The Commission will support this approach by putting forward key performance indicators in close cooperation with Member States that are directly linked to reducing fatalities and serious injuries. They will be defined in consultation with experts from Member State authorities as well as with a broad range of stakeholders, and should involve a common measurement methodology and agreed baseline and (to the extent possible) be linked to outcome targets. The Commission will consider ways to support Member States in the joint work on the methodology and measurements.

Legislation, including at EU level, will continue to play a key role within an integrated "safe system" approach. Since March 2018, the 'eCall' legislation came into force.⁷ 'eCall' automatically informs emergency services in the event of a serious accident and communicates the vehicle location. It is mandatory for passenger cars and light duty vehicles and a first series of vehicles equipped with the 'eCall' system are expected to be on EU roads by mid-2018. It can speed up emergency response times by up to 40 per cent in urban areas and 50 per cent in the countryside. Its extension to other vehicle categories is under consideration by the Commission.

As part of this 'Third Mobility Package', the Commission is adopting two proposals to further the goal of road safety. One aims to transform EU vehicle safety standards to include, for example, the latest safety features, and the other to improve safety management of road infrastructure.

The EU's automotive industry has been at the forefront of developing technologies enabling the introduction of increasingly affordable vehicle safety systems. Although these will all help to prevent accidents, more action is needed. Improved active and passive vehicle safety features to protect vehicle occupants, as well as pedestrians, cyclists and other vulnerable road users, are indispensable. That is why the Commission is proposing a comprehensive package of new mandatory vehicle safety measures that bundles the new accident avoidance systems with updated active and passive safety measures to improve the overall road casualty situation on EU roads. The new vehicle safety features are cost effective, feasible and show high potential for significantly reducing the number of fatalities and serious injuries for road users, both inside and outside the vehicle. They also pave the way for a broader roll-out of automated vehicles.

Refined test protocols will require manufacturers to equip cars with more advanced restraint systems to better protect an ageing population. The ever-increasing number of pedestrians and cyclists that have to share the road with vehicles will also be better protected, with new collision detection capabilities and improved direct vision by truck drivers. Societal issues such as speeding or using smartphones behind the steering wheel will also be addressed

⁷ Regulation (EU) 2015/758 and Decision No 585/2014/EU.

through the new proposed measures. All in all, these new vehicle safety measures are a crucial contribution to improved road safety.

The Commission's second legislative proposal aims to improve road infrastructure safety management, to reduce both the number of accidents and their severity. It improves the transparency and follow-up of road safety procedures (impact assessments, audits, inspections) and introduces a new procedure to map the risks of accidents across the entire network. This will make it possible to compare safety levels of roads across Europe and inform investment decisions, including for EU funding. In addition, the scope of legislation should be extended beyond the Trans-European Transport network to primary roads relevant to cross-EU transport, where a large percentage of severe accidents occur. This serves the interests of all EU citizens and businesses as they use the integrated road network and confirms the practice of a large number of Member States that have already extended the application of the EU legislation to include major roads outside the Trans-European Transport Network.

For the foreseeable future, advanced vehicle technology will have to rely on the current physical infrastructure. Therefore, the proposal will allow the future setting of infrastructure performance requirements (e.g. clear road markings and road signs) necessary for the introduction of new technological features such as lane departure avoidance systems. This will be a first example of the important contribution that infrastructure can make to the safe roll-out of connected and automated mobility systems.

The Commission will continue to play a leadership role at a global level on road safety matters, working closely with international organisations, in particular the United Nations, sharing technical know-how and good practice and exploring possible ways to participate in international funding initiatives. A special dedicated cooperation will continue in particular with the EU's neighbours, specifically the countries of the Western Balkans and Turkey, the Eastern Partnership, as well as the Mediterranean region.

Through the Action Plan and with the close cooperation of Member States and stakeholders, the Commission aims to ensure that as the mobility system is transformed over the coming years, safety continues to be put first. By implementing a "Safe System" approach, the measures put forward in this road safety framework should have a genuine impact and bring further significant and necessary improvements to the safety performance on the EU's roads and, most importantly, save lives.

3. CONNECTED AND AUTOMATED MOBILITY: Building the road to the next frontier

3.1 A strategy for the roll-out of connected and automated vehicles in Europe

Driverless vehicles and advanced connectivity systems should make vehicles safer and easier to share, and open up access to mobility services for more users. These technologies can also help to address many of the major challenges facing today's road transport system, such as road safety, traffic congestion, energy efficiency and air quality. They will significantly change mobility patterns and transform public transport and urban planning. Vehicles increasingly allowing the driver, at least in some driving conditions, to perform other tasks than driving should be available as commercial market products by 2020. These developments

could change the entire automotive ecosystem.⁸ Driverless mobility will also have far-reaching impacts on the EU economy as a whole, affecting its competitiveness and technological leadership, its growth potential (productivity and spill-over effects for other sectors including telecommunications or electronic commerce) and labour markets (redundancies but also new jobs and demand for new skills).

For Europe to remain in the global avant-garde of vehicle automation and connectivity and keep jobs in the EU, it is essential that key technologies are developed in Europe, that automated and autonomous driving is safe, and that the legal framework is modern and offers the right environment for technological progress.

European industry is well-positioned to compete globally. The EU car industry is one of the most competitive in the world, thanks to its technological innovations. The EU is a global leader in automation. Galileo satellite navigation services are also a clear asset offering better precision for positioning. Of course, as with every disruptive technology, the rollout of driverless vehicles will create risks as well as opportunities. Nevertheless, first estimates point to an overall encouraging economic effects, provided the EU seizes the opportunities and attracts related jobs on its territory.⁹

According to research, over ninety per cent of accidents are caused by human error.¹⁰ By removing the need for a driver, autonomous vehicles should significantly improve road safety. For example, driverless vehicles will better respect traffic rules and will react quicker than humans. Connected and automated vehicles can also help to reduce congestion, since they will make it easier to share vehicles and will foster new and improved business models (i.e. mobility as a service), making car ownership in cities less attractive.

The EU has already begun to prepare the ground, for example with the adoption of strategies on cooperative intelligent transport systems¹¹, as well as on future 5G communications technology.¹² Unlike other parts of the world, much of the necessary legal framework is already in place in the EU. For example, the European vehicle type-approval framework was overhauled in 2018 introducing market surveillance rules, which ensure that a genuine EU internal market is in place for vehicles, including for driverless vehicles. This EU framework serves as a benchmark for international harmonisation with international partners in the United Nations Economic Commission for Europe. The EU is also well-advanced on data protection rules that will frame the future of the digital single market.

However, more needs to be done. The EU needs a clear, forward-looking and determined agenda to maintain leadership in this highly competitive sector. Technology is moving fast and there is a strong need for a coordinated approach and priority setting for funding research, demonstration and deployment activities at European and national levels in order to make the most of the ongoing and future programmes, to maximise the concerted effort of public and private investment, and to fully exploit synergies between connectivity and automation. First

⁸ Automation impacts all transport modes (waterborne, air, rail and road), passengers and freight, public and individual transport, but arguably, for the general public, the automation of road transport will have the biggest impact.

⁹ Commission study (2018): <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/analysis-possible-socio-economic-effects-connected-cooperative-and-automated-mobility-CCAM-Europe>

¹⁰ Commission's report on Saving Lives: Boosting Car Safety in the EU, COM(2016) 787.

¹¹ <http://eur-lex.europa.eu/legal-content/EN/AUTO/?uri=CELEX:52016DC0766>

¹² <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52016DC0588>

steps have already been taking place on driverless vehicles at national level in the Member States (e.g. the United Kingdom, Germany, France, Sweden, Netherlands), especially when it comes to demonstrations and large-scale testing. Large-scale tests play an important role for developing and deploying the relevant technologies and fostering cooperation between the relevant actors, and the Commission supports cross-border coordination and large-scale cross-border trials of driverless vehicles with dedicated calls¹³.

Further enabling measures to guide the sector and the Member States are necessary to develop driverless vehicles and their interaction with future connectivity networks and other vehicles. They will include accelerating the deployment of services for cooperative intelligent transport systems. The Amsterdam Declaration called for clear EU guidance to avoid market fragmentation and make the right investment.¹⁴ Some Member States have already adopted their own strategies and are starting to adopt national legislation. At EU level, an internal market approach is necessary to ensure minimum levels of harmonisation and interoperability, as well as legal certainty.

In response to these multifaceted challenges and to reap the full benefit of the new opportunities offered by these technological developments, the Commission is proposing an EU approach built on three interrelated strategic objectives:

- developing key technologies and infrastructure to strengthen EU's competitiveness;
- ensuring safe and secure deployment of connected and automated driving;
- addressing the socio-economic impacts of driverless mobility.

EU action can help by setting out a common vision for the future development of the sector and ensuring that the EU legal and policy framework on key issues (e.g. road safety and cybersecurity) is ready for the market deployment of new products and services. It can also offer supporting actions for development and cross-border deployment of key technologies, services and infrastructure, including the establishment of a partnership under the next EU Multiannual Financial Framework, empowering and benefiting both European citizens and European industry. And most importantly, the EU can also help address and forge common European solutions to the related societal issues, which are likely to be decisive for social acceptance of those new technologies; in particular the protection of personal data, underlying ethical choices linked with development of autonomous systems, clear allocation of liability in case of accidents, and the impacts on jobs and skills.¹⁵

Specific and complementary actions to allow reaching those three overarching objectives are set out in the accompanying Communication on an EU strategy for connected and automated mobility.¹⁶

3.2. Establishing a digital environment for information exchange in transport

In addition to initiatives contributing to the EU strategy for connected and automated mobility, this Third Mobility Package also includes two proposals aimed at establishing a fully digital and harmonised environment for information exchanges between transport operators and authorities. The proposed Regulations on a European Maritime Single Window

¹³ <http://ec.europa.eu/research/index.cfm?pg=newsalert&year=2017&na=na-030417>.

¹⁴ <https://www.regjeringen.no/contentassets/ba7ab6e2a0e14e39baa77f5b76f59d14/2016-04-08-declaration-of-amsterdam---final1400661.pdf>

¹⁵ See also Communication on Artificial Intelligence for Europe (COM(2018) 237) and Staff Working Document on liability for emerging digital technologies (SWD(2018) 137).

¹⁶ COM(2018) 283.

Environment and on Electronic Freight Transport Information complement each other and will allow electronic and simplified exchanges between businesses and authorities along the transport routes from the point of entry in the ports of the EU to the goods' final destination.¹⁷ These two proposals will cut red tape and facilitate digital information flows for logistic operations, better connecting the different transport modes, thus contributing to multimodal solutions.

4. CLEAN MOBILITY: Meeting the climate challenge whilst keeping EU industry competitive

4.1 Creating a competitive batteries 'ecosystem' in Europe – A strategic action plan

Batteries production and development is a strategic imperative for Europe in the context of the clean energy transition and a key component of the competitiveness of its automotive sector. As such, it is also an integral part of the Commission's goal set out in the New Industrial Policy Strategy to make the EU the world leader in innovation, digitisation and decarbonisation.¹⁸

The immediate challenge to create a competitive and sustainable battery manufacturing industry in Europe is immense, and Europe has to move fast in the global race, to prevent major technology dependence on our competitors, but also to exploit the huge jobs, growth and investment potential of batteries. According to some forecasts, from 2025 onwards Europe could capture a batteries market of up to EUR 250 billion a year, served by at least 10 to 20 Gigafactories (battery cells mass production facilities), to cover EU demand alone.¹⁹

Given the scale and speed of investment needed, this industrial challenge cannot be dealt with in a fragmented manner.

In October 2017, the Commission launched a '**European Battery Alliance**'²⁰ with key industrial stakeholders, active Member States and the European Investment Bank. This cooperative platform aims to facilitate the emergence of well-integrated and industry-led battery cell manufacturing projects bringing together EU strengths and supporting cooperation among the various players along the value chain, unlocking synergies and gaining in competitiveness and economies of scale. Since the launch of the 'European Battery Alliance', there have already been tangible developments with the announcements of industrial consortia or partnerships aiming at development of battery cell manufacturing and related ecosystems.

It is necessary to build on this momentum.

As part of the 'Europe on the Move' package, and following the consultation of and close cooperation with industry stakeholders (more than 120 actors)²¹ under the 'European Battery Alliance', the Commission is putting forward a comprehensive **Strategic Action Plan for**

¹⁷ COM(2018) 278 and COM(2018) 279.

¹⁸ They have also been identified as one of the priority intervention areas in the GEAR 2030 High-Level Group Report on the future of the automotive industry. <https://ec.europa.eu/docsroom/documents/26081/attachments/1/translations/en/renditions/native>

¹⁹ Source: European Institute of Innovation and Technology Inno-energy <http://www.innoenergy.com/>

²⁰ https://ec.europa.eu/growth/industry/policy/european-battery-alliance_en

²¹ More than 120 industrial and innovation actors have participated in this exercise and collectively endorsed recommendations for priority actions, which are being implemented. <http://www.innoenergy.com/eit-innoenergys-role-within-the-european-battery-alliance/>

batteries (Annex 2), setting out a set of concrete measures that will contribute to creating this innovative, sustainable and competitive battery "ecosystem" in Europe.

Through this action plan, the Commission is not only promoting a cross-border and integrated European approach but also putting a major focus on sustainable batteries manufacturing throughout the value chain, starting with the extraction and processing of (primary and secondary) raw materials, the design and manufacturing phase of battery cells and battery packs, and their use, second use, recycling and disposal in a circular economy context. Such an approach will promote the production and use of high performing batteries and set sustainability benchmarks throughout the EU value chain.

The action plan combines targeted measures at EU level including in raw materials, research and innovation, financing/investment, standardisation / regulatory, trade and skills development, in order to make Europe the global leader in sustainable battery production and use, in the context of the circular economy.

More specifically its aims to:

- **secure access to raw materials** from resource-rich countries outside the EU, facilitate access to European sources of raw materials, as well as accessing **secondary raw materials** through recycling in a circular economy of batteries;
- **support European battery cells manufacturing at scale and a full competitive value chain in Europe:** bringing key industry players and national authorities together; working in partnership with Member States and the European Investment Bank to support innovative and integrated manufacturing projects at scale, with an important cross-border and sustainability dimension;
- **strengthen industrial leadership through stepped-up EU research and innovation** support to advanced (e.g. Lithium-ion) and disruptive (e.g. solid state) technologies;
- **develop and strengthen a highly skilled workforce in all parts of the battery value chain** in order to close the skills gap through actions at EU and Member State level providing adequate training, re-skilling and upskilling, and making Europe an attractive location for world class experts in batteries development and production;
- **support the sustainability of EU battery cell manufacturing industry** with the **lowest environmental footprint possible**. This objective should be notably implemented through setting out requirements for safe and sustainable batteries production in Europe;
- **ensure consistency with the EU broader regulatory and enabling framework** (Clean Energy Strategy and Mobility Packages, trade policy, etc.).

The identified actions have the potential to generate a short-to-medium term impact in particular on EU cells manufacturing as well as help to bring about longer term structural change that will contribute to the creation of a battery ecosystem in the EU covering the entire battery value chain and preparing the ground for the next generation of batteries technologies.

This collaboration will need to be further reinforced for the successful implementation of the different actions and the Commission counts on the commitment and engagement of all stakeholders in meeting the European battery challenge. To this end, the Commission will continue to liaise closely with Member States and industry in the framework of the European

Battery Alliance to keep up the momentum and ensure that the commitment and actions taken are rapidly translated into tangible results.

With this action plan, the Commission wants to put Europe on a firm path towards leadership in a key industry for the future, supporting jobs and growth in a circular economy, whilst ensuring clean mobility and an improved environment and quality of life for EU citizens.

4.2 Completing the EU legislative framework on CO₂ road transport emissions

In the European Strategy for Low-Emission Mobility, the Commission made a political commitment to propose the first-ever EU legislation on the CO₂ emissions from heavy duty vehicles. Under this third mobility package, the Commission is delivering on this commitment.²² The proposal for CO₂ emissions standards for lorries, buses and coaches is an important addition to the legislative framework to address greenhouse gas emissions from road transport. It follows on from the proposal for post-2020 CO₂ emissions standards for cars and vans adopted in November 2017 as part of the Second Mobility Package.

This legislative proposal is necessary to help meet the EU commitments under the Paris Agreement and implement the 2030 climate and energy framework. In fact, CO₂ emissions from the heavy-duty vehicle sector represent around one quarter of road transport emissions and these are set to increase further by 2030. Cost-effective achievement of EU's greenhouse gas emission reduction targets will not be possible without a contribution from the heavy-duty vehicle sector.

Transport operators, most of which are small and medium-sized enterprises, can miss out on fuel savings. Although it would be in their long-term interest to reduce their exposure to fuel costs through purchasing the most efficient vehicles, market and regulatory barriers mean that cost-effective and innovative technologies are not widely spread in the market. The Commission now proposes to lift some of these barriers, together with other instruments such as the Eurovignette Directive, the Clean Vehicles Directive, and the Action Plan on Alternative Fuel Infrastructure, recently proposed by the Commission under the previous two Mobility Packages.

EU manufacturers and component suppliers are at risk of losing their current leadership position on innovative technologies. Significant markets such as the United States, Canada, Japan, China and India have in recent years implemented fuel consumption and/or emission standards in order to stimulate innovation and rapidly improve vehicle efficiency. The Commission's proposal provides a concrete push for EU-led innovation and investments in low carbon technologies in this sector.

The Commission considers it most appropriate to regulate CO₂ emissions from heavy duty vehicles following a step-by-step approach with an early review clause. The legislation should aim at reaping the first available benefits, ensuring that the most cost-effective and already available technologies rapidly penetrate the market of new largest new lorries. The four main groups of the largest lorries are the first types of vehicles for which the EU will have reliable and certified emission data, from 2019 onwards. They represent about 65 to 70 per cent of total greenhouse gas emissions of heavy-duty vehicles.

Following a review in 2022 on the basis of three years of official certification data, the effects of more advanced technologies should be progressively introduced. Furthermore, other types

²² COM(2016) 501.

of vehicles, which are not yet covered by the necessary certification legislation, could be subject to CO₂ emissions targets. This concerns buses and coaches, smaller lorries and trailers.

Buses, for which low- and zero-emission powertrains are most widely available, are not subject to the emissions reduction targets set in this first proposal as legislation to collect and certify their greenhouse gas emission data needs to be developed. However, the revised Clean Vehicle Directive and the Action Plan on Alternative Fuels Infrastructure will directly support the deployment of low- and zero-emission buses in cities through public procurement already now. This is complemented by support measures aimed at accelerating the roll-out of alternative fuels infrastructure, as identified in the Action Plan adopted as part of the second Mobility Package. Furthermore, the Clean Bus Deployment Initiative launched by the Commission and supported by the Committee of the Regions offers a platform to accelerate the roll-out of clean buses.²³

The Commission calls on the European Parliament and the Council to adopt this legislation without delay to avoid widening the emission gap between the heavy-duty vehicle sector and the rest of road transport, to allow transport companies to benefit from lower fuel costs and to secure long-term competitiveness of the EU manufacturers and component suppliers.

4.3 A new fuel price comparison methodology for consumers

With the rapid expansion of electro-mobility and vehicles using a range of different alternative fuels, the Commission is putting forward a methodology that will allow users to make a straightforward comparison of the pricing of these different fuels.²⁴ This will help to increase consumer awareness – including when making new vehicle purchases – and fuel price transparency and should contribute to a diversification of energy sources in transport and to a reduction of CO₂ and other pollutant emissions in this area.

4.4 Improved tyre labelling

The EU Regulation on the labelling of tyres promotes fuel efficient and safe tyres with low external rolling noise to ensure fuel savings, as well as safety of road transport.²⁵ It also aims to provide greater information to consumers, through a standard label, to influence purchasing decisions. As tyres can make a 20-30 per cent difference in a vehicle's fuel consumption, their performance has a significant impact on the fuel efficiency and emissions of vehicles.

The Commission's proposal aims to strengthen the Regulation and make it more effective.²⁶ In particular, it is meant to ensure clear visibility of the label to consumers when they buy a tyre. This also means for potential buyers to recognise the label or understand the performance markers, in terms of accuracy and reliability for instance. In addition, the Regulation aims to broaden the range of performance parameters on the label to include new elements, and eventually take more account of other EU policy priorities like the circular economy agenda. Finally, the Regulation strengthens the enforcement of market surveillance.

4.5 Design requirements for lorries to reduce CO₂ emissions and improve safety

²³ https://ec.europa.eu/transport/themes/urban/cleanbus_en

²⁴ Under Article 7(3) of Directive 2014/94/EU, Commission Implementing Regulation on a common methodology for alternative fuels unit price comparison in accordance with Directive 2014/94/EU of the European Parliament and of the Council, C(2018)2751.

²⁵ Regulation 1222/2009.

²⁶ COM(2018) 296.

The aerodynamic performance of vehicles has a direct impact on CO₂ emissions. The Commission is therefore proposing to revise legislation on weights and dimensions of certain road vehicles to bring forward the date allowing manufacturers to put new heavy goods vehicles with more rounded and aerodynamic cabins on the market by three years to 2019.²⁷ Together with the Commission's proposal to introduce CO₂ standards for heavy goods vehicles, the proposal is intended to contribute to the reduction of CO₂ emissions from transport and benefit the environment. Another objective is to improve the safety of other road users and the visibility and comfort of drivers, while continuously facilitating intermodal transport.

4.6 Revising the framework for energy taxation to promote electro-mobility

Although there will be no comprehensive overhaul of the Energy Taxation Directive as part of this package, the Commission will continue to explore options to promote electro-mobility in the context of a future revision of the Directive. Moreover, approach based on setting only minimum rates of taxation at EU level allows Member States already now, even without a need to change EU legislation, to adapt their rates to support low-emission mobility. In particular Member States should review existing preferential treatment for diesel fuel.

4.7 Streamlining the implementation of the Trans-European Transport core network to achieve low-emission mobility

Infrastructure is an indispensable tool for the deployment of clean, safe, digital and connected solutions in the transport system. The Trans-European Transport network is Europe's transport infrastructure backbone. The Commission's goal is to ensure that it is efficient, smart, safe and sustainable. It has a strong influence on the mobility patterns for freight and passengers by setting common requirements, generating quality infrastructure projects and triggering innovation. To this end, this 'Third Mobility Package' includes a proposal for a Regulation aiming at facilitating the implementation of the Trans-European Transport core network and promoting multi-modality. The proposed measures aim at simplifying permit-granting, public procurement and other administrative procedures to deliver a more efficient process, more transparency and greater public acceptance. This proposal will thus serve as a catalyst for cleaner, safer and more connected mobility by giving priority treatment for the authorisation of the related projects on the Trans-European Transport core network.²⁸

In addition, the package will be supported by a call for proposals under the Connecting Europe Facility. EU grants worth EUR 450 million will be available for investments in projects directly contributing to road safety, digitisation and multi-modality in the transport sector.

5. CONCLUSIONS

With this third 'Europe on the Move' Package, the Commission is completing its broad range of legislative proposals and enabling measures, which form a comprehensive, integrated, and forward-looking approach to achieving clean, connected and competitive mobility for EU citizens. Digitisation, decarbonisation and innovation mean that mobility is at a turning point. The EU must seize upon the new opportunities they bring whilst being properly prepared to adjust to the multiple challenges during the transition. Mobility is the cornerstone of freedom of movement of people and goods, which is fundamental to the smooth functioning of the European Union. It is therefore essential that we get it right and that the EU, and in particular

²⁷ Directive (EU) 2015/719. COM(2018) 275.

²⁸ COM(2018) 277.

its important mobility industries, is able to maintain its leadership in this vital sector for the economy and society, remain competitive into the future, and ensure that mobility services are safe, clean and sustainable. The Commission therefore calls on the co-legislators to swiftly adopt the legislative proposals under this Parliament and thereby ensure that 'Europe is on the Move'.