



EUROPEAN  
COMMISSION

Brussels, XXX  
[...] (2016) XXX draft

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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**

**A European Strategy for Low-Emission Mobility**

## 1. INTRODUCTION

Europe is in the midst of a fundamental transition towards a sustainable, low-carbon economy and society. While the European Union managed to decouple its economic growth from growth in emissions, this still needs to happen for mobility.

Mobility is therefore an essential component of this transition. Transport represents around one third of Europe's greenhouse gas emissions, is the main cause of air pollution in cities and mobility needs of people and goods are on the rise. Europe's answer to these challenges is an irreversible shift to low-emission mobility in terms of carbon and air pollutants. *The ambition is clear: by mid-century, greenhouse gas emissions from transport will need to be firmly on the path towards zero and the emissions of air pollutants that harm our health, such as nitrogen oxides, drastically reduced.* Future mobility in Europe will need to be low-emission in terms of carbon and air pollutants.

The shift towards low-emission mobility offers major opportunities. It is an opportunity for European car manufacturers to modernise and regain the trust of consumers. It is an opportunity for our marine industry and aircraft manufacturers to drive global standards and for the rail manufacturing industry to export its products. It is also an opportunity for innovative energy companies and service providers, as well as for investors to contribute to sustainable growth and provide new jobs. Through new technologies and business models, Europe will keep its competitive advantage and remain a front-runner.

This shift has already started, building on existing EU policies. Now, its pace should be accelerated. This will require a wide range of actions, including actions to be taken by this Commission, as reflected in the Action Plan. These actions cover both horizontal enablers such as research and innovation, industrial and investment policy, and the digital and skills agendas, as well as key levers to tilt the transport sector in the right direction: (1) low-emission alternative energy sources, (2) low- and zero emission vehicles, and (3) higher efficiency of the transport system. Since road transport is responsible for over 70% of transport greenhouse gas emissions and most of the air pollution, action will focus on this area, while stepping up efforts to control emissions from aviation and maritime transport globally.

Through its initiatives, the EU will create enabling conditions and provide strong incentives for low-emission mobility. At the same time, many other stakeholders, including Member States, will have to do their part. Europe's researchers and manufacturing and service industries should continue to innovate and make business choices with a mid-century goal in mind. They will need the right kind of investments at the right time in order to bring their innovations to the market in Europe and globally. Regions and cities too will be major actors in delivering low-emission mobility solutions, close to where the problems are felt most, and ultimately, behavioural choices made by conscious mobility users will determine how successful we will be.

It is only through sustained action by all that Europe will enter the era of future-proof low-emission mobility.

## 2. REGULATORY FRAMEWORK FOR LOW-EMISSION MOBILITY

To facilitate the transition to low-emission mobility and provide certainty for investors, the EU regulatory framework needs to change and needs to be supported by decisive action by Member States, regions and cities. The three levers for action (1) efficiency of the transport system, (2) low-emission alternative energy sources, and (3) low- and zero-emission vehicles, support and reinforce each other. Many advances in the past have been offset by growing transport demand, so a transport system that is more efficient needs to be the starting point. Low-emission alternative energy sources represent an opportunity for innovation and job creation and allow reducing Europe's dependency on imported oil. Low- and zero-emission vehicles are the next stage in the global shift to higher vehicle efficiency and innovative technologies in transport.

### 2.1 OPTIMISING THE TRANSPORT SYSTEM AND IMPROVING ITS EFFICIENCY

The way mobility is organised is changing thanks to new technologies and digitalisation. Mobility is increasingly seen as a service, one component of the sharing economy. This offers big potential for higher efficiency of the transport system. Digital technologies can make transport safer, more efficient and inclusive, as can already be noticed in many advanced European cities. Digital technologies also have the potential of making freight transport more efficient. Integration of information and communication systems across different transport modes will foster seamless door-to-door mobility, integrated logistics and value added services through the value chain.

#### *Digital mobility*

The deployment of Intelligent Transport Systems for all transport modes has become an integral part of Trans-European Transport Network development<sup>1</sup>.

In road transport considerable efforts are now being made to stimulate the development and deployment of (co-operative) Intelligent Transport Systems. The Commission is now working on a Master Plan for the swift and coordinated deployment of these systems across the EU.

#### *Fair and efficient pricing in road transport*

Providing the correct price signals and taking account of externalities is one of the most economically rational ways of incentivising more efficient driving, low-emission energy sources and faster renewal of the fleet. Digitalisation allows making such systems far more efficient. While charging has been used at EU level for lorries and rail, there is scope for action at Member States and municipal level to address passenger transport.

Across the EU, charging should move towards distance-based road charging systems based on actual kilometres driven, to reflect best the polluter-pays and user-pays principles. To that end, the Commission is working on standards for inter-operable for electronic tolling systems in the EU, to facilitate access to markets for new tolling service providers and to reduce

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<sup>1</sup> This includes European Railway Traffic Management System for railways, the Single European Sky Air Traffic Management Research in the air and River Information Services in the inland waterways sector.

overall system costs<sup>2</sup>. Moreover, the Commission will revise the Directive on the charging for lorries to enable charging also on the basis of carbon dioxide differentiation, and extend some of its principles to passenger cars<sup>3</sup>.

### *Promoting multi-modality*

Measures to support multimodal integration have an important role in achieving low emissions mobility by incentivising a shift towards lower emission transport modes. The revised regulatory framework for the railway sector for instance<sup>4</sup>, now nearing final adoption by the EU, is designed to make rail more competitive and attractive for both passengers and freight.

To further promote inter-modality, the Commission will strengthen economic incentives for intermodal transport<sup>5</sup> and propose measures to enhance capacity and efficiency of use of corridors for rail freight<sup>6</sup>. The Commission is also preparing the second generation of work plans for Trans-European Transport network corridors to support roll-out of the multimodal core network corridors<sup>7</sup>.

## **2.2 SCALING UP THE USE OF LOW-EMISSION ALTERNATIVE ENERGY SOURCES**

Transport in the EU still depends on oil for about 94% of its energy needs, which is much higher than in any other sector and makes transport dependent on imports. While the transition to low-emission alternative energy sources already begun, it will need to accelerate in the next decade. It is an opportunity for Europe to develop leadership in new products, such as advanced biofuels. Current low oil price is an occasion to use spare financial resources for such investments.

### *Effective framework for low emission alternative energy sources*

As part of the revision of the current legislation related to fuels and bioenergy, the Commission is looking into how to provide a strong incentive to innovate in energy sources. The list of possible measures includes setting targets for different technologies to give guidance to investors. This can be done either as an obligation for fuel suppliers to provide a certain share of alternative energy sources, i.a. advanced biofuels, renewable electricity and synthetic fuels, including their blending possibilities, or to reduce the greenhouse gas impact of the energy sources supplied.

The Commission already indicated that food-based biofuels have a limited role in decarbonising the transport sector and should not receive public support after 2020<sup>8</sup>. In the

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<sup>2</sup> Revision of the European Electronic Tolling Service (EETS) Directive 2004/52/EC and Commission Decision on the definition of the European Electronic Tolling Service and its technical elements (Commission Decision 2009/750/EC).

<sup>3</sup> Revision of the Eurovignette Directive (1999/62/EC).

<sup>4</sup> Add reference

<sup>5</sup> A recent evaluation of the Combined Transport Directive revealed that it needs to be simplified and the economic incentives for intermodal transport reviewed.

<sup>6</sup> Revision of Regulation 913/2010 concerning a European rail network for competitive freight.

<sup>7</sup> Proposal for a Regulation on streamlining measures for swifter implementation of the projects of common interest on the Trans European Transport Network.

<sup>8</sup> COM (2014) 15 *A policy framework for climate and energy in the period from 2020 to 2030*.

context of the ongoing analytical work to support the revision of the current legislation on fuels and bioenergy, the Commission is focusing on their possible gradual phase out and replacement by more advanced biofuels. The impacts will be assessed carefully including the investment needs for advanced biofuels and the fact that without support they will not be able to compete with fossil fuels or food-based biofuels.

The prospects for low-emissions alternative energy sources differ among transport modes. The widest range of options is currently available for passenger cars and buses, solutions are rather straightforward for rail. In the medium-term, advanced biofuels will be particularly important for aviation, as well as for lorries. Natural Gas (liquefied or not) is expected to be increasingly be used as an alternative for marine fuels in shipping and for diesel in lorries. Its potential can be increased significantly with the use of bio-methane and synthetic methane (power-to-gas technologies).

#### *Roll-out of infrastructure for alternative energy sources*

Large part of alternative fuels requires specific infrastructures outside the current refuelling system. The Alternative Fuels Infrastructure Directive<sup>9</sup> addresses the provision of common standards on the internal market, the appropriate availability of infrastructure and consumer information on the compatibility of fuels and vehicles. A methodology for price comparison of alternative energy sources will be developed for next year.

Based on this Directive, by November 2016, Member States will design policy frameworks for rolling-out publicly available electric recharging points and natural gas filling stations, and optionally hydrogen filling stations. In order to achieve mass acceptance and deployment of electric vehicles, charging and maintenance infrastructure needs to become widely available throughout Europe. The ultimate objective is to allow a car journey across Europe, making electric vehicle charging as easy as filling the tank.

The EU is supporting this deployment financially. Ongoing funded projects develop the business case and test feasibility through real-life trials, bringing together more than EUR 1 billion of private and public investment and almost EUR 600 million of EU financial support for nearly 100 projects. In the context of its work on energy efficiency and energy market design, the Commission is looking into options how to promote the installation of electric charging points in public buildings.

#### *Interoperability and standardisation for electro-mobility*

Standardisation and interoperability are crucial to make the most of the scale of the internal market, especially for electro-mobility and barriers to charging of electric vehicles across need to be eliminated. Further effort should be made to foster the creation of an electro-mobility services market, such as the cross-border interoperability of payments and the provision of real-time information on charging points.

In co-operation with Member States and the European Standardisation Organisations EU-wide standards are being developed and common plug standard already exists for cars. Standards for induction charging, batteries, and charging plugs for electric buses and

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<sup>9</sup> Directive 2014/94/EU.

motorbikes are next. The Commission has also inaugurated a dedicated laboratory to ensure that the next generation of electric cars and smart grids are fully interoperable, based on harmonised standards, technology validation and testing methods. EU is intensifying co-operation with the United States in setting up joint interoperability centres, to support global harmonisation for vehicle interoperability, standardisation and verification. The EU also participates in international efforts in this area under the United Nation's Economic Commission for Europe.

### 2.3 MOVING TOWARDS ZERO-EMISSION VEHICLES

Efficiencies in the transport system and shift to low-emission alternative energy sources need to be complemented by policies to support efficiency and innovation in vehicles and demand for such products. Domestic policies concentrate on road transport, internationally efficiency measures were agreed for aircraft and ships<sup>10</sup>.

In road transport, further improvements in the combustion engine will be needed in the medium term, the transformational change towards low- and zero-emission vehicles will need to be supported by a wide range of measures at all levels of policy-making to engage both manufacturers and users. Compared to the past, policies will need to pay more attention also to lorries.

#### *Improvements in vehicle testing to regain trust of consumers*

Over the last year, the Commission has proposed fundamental changes on how vehicle emissions are measured and verified. They now need to be adopted by Council and Parliament and implemented swiftly so that standards have an impact on the ground and consumers can trust them again. A new type-approval framework will strengthen independent testing, market surveillance and enforcement in Europe. To measure pollutant emissions, a "real driving" emissions test has been proposed.

For carbon dioxide emissions, a new global test procedure, the World Harmonised Light Vehicle Test Procedure (WLTP), will be implemented to deliver more realistic and accurate carbon dioxide and fuel consumption values. The setting of post-2020 standards for cars and vans will already be based on this new test Procedure and in defining the new standards the higher stringency of the new test will need to be taken into account. Complementary measures may be necessary to fully reflect real world data<sup>11</sup>.

#### *Post-2020 strategy for cars and vans*

EU fuel efficiency standards for cars and vans have proven a strong driver for innovation and efficiency in automotive technology<sup>12</sup>. Thanks to the secondary market, their benefits spread gradually across the entire vehicle fleet. Emissions from conventional combustion engines will need to further reduce after 2020, while zero- and low-emission vehicles will need to be deployed and gain significant market share by 2030. To support the transition, incentive on

<sup>10</sup> The carbon dioxide standard for new aircraft adopted by the International Civil Aviation Organisation (ICAO) and the Energy Efficiency Design Index for international shipping agreed by the International Maritime Organisation (IMO).

<sup>11</sup> The independent Scientific Advice Mechanism is working on options for the Commission.

<sup>12</sup> Evaluation of Regulation 443/2009 and Regulation 510/2011 setting emission reduction standards for cars and vans.

both supply and demand side will be needed through measures at EU level, as well as at Member States' or local level.

The Commission is working on post-2020 standards for cars and vans, assessing the costs and benefits, competitiveness impacts and developments across the EU and globally. It will also analyse the impact of different ways to incentivise low- and zero-emission vehicles, such as setting specific targets for them. The definition of such vehicles will be reviewed<sup>13</sup>, as well as the possibility to distinguish over time between low-emission and zero-emission vehicles. The overall timetable for the post-2020 framework, in particular the setting of an intermediate target before 2030 will also be assessed. The fleet renewal times would call for action earlier rather than later. The Commission is launching public consultation on these options together with this Strategy.

These measures will need to be supported by development of domestic production base of new generation of electric battery cells.

As regards consumer up-take, more needs to be done to create markets for low- and zero-emission vehicles. That is why the Commission is working on improving consumer information through car labelling<sup>14</sup> and on support through public procurement rules. Member States, local and municipal authorities as well as producers themselves can provide much needed incentives.

Customer awareness is a particular problem for electric vehicles. Thanks to improvements in battery technology, range is increasing, purchase costs decreasing and refuelling and maintenance costs are significantly lower compared to conventional fuels. Potential users need to be made more aware of these benefits.

Public procurement is a powerful instrument to create markets for innovative products and it should be used to support take up of low- or zero-emission vehicles. Since 70% of public procurement is undertaken by municipal and local authorities, there is particular potential for non-fossil fuel public transport vehicles or taxi fleets. To make such public procurement even more effective, the Commission is currently working on the revision of the Clean Vehicles Directive<sup>15</sup>, which introduced sustainability obligations into public procurement in the EU. The options that are currently being assessed include broadening of the scope, more robust compliance requirements and procurement targets.

Tax instruments are very effective to incentivise consumer behaviour. Member States still apply a wide range of contradictory tax incentives that discourage low-emission mobility. These include fossil fuel subsidies in fuel taxes, car registration taxes and in tax schemes for company cars. These schemes, in the hands of the Member States, need to be phased out. They should be shifted to more positive incentives for low-emission vehicles and energy sources. For company cars, a well-designed framework could make a big difference for the

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<sup>13</sup> The current EU definition of low-emission vehicles for the purpose of super-credits under Regulations 443/2009 and 510/2011 covers in a technology-neutral way vehicles having tailpipe emissions below 50g/km (this would include some plug-in hybrids, full electric cars and fuel cell (i.e. hydrogen-powered) vehicles.

<sup>14</sup> Following an evaluation which results are adopted together with this Strategy, the Commission will revise the Car Labelling Directive (Directive 1999/94/EC) to improve the existing EU-wide scheme and possibly extend it to air pollutant emissions.

<sup>15</sup> 2009/33/EC.

introduction of low- and zero-emissions vehicles, as these are fast renewing and sizeable fleets.

#### *Post-2020 strategy for lorries*

Emissions from heavy-duty vehicles currently represent around a quarter of road transport emissions and are set to increase by up to 10% more by 2030. While heavy duty vehicles have been subject to the same air pollution standards as cars and vans and were required to meet them in real driving conditions, the EU does not have fuel efficiency standards for lorries<sup>16</sup>.

As a first step, the Commission is working on two legislative proposals: one on the certification of carbon dioxide emissions and fuel consumption of new heavy duty vehicles and one on the monitoring and reporting of such certified data. These measures will increase transparency and will also facilitate differentiation in road user charging.

The EU will need to introduce measures to actively curb emissions from heavy duty vehicles. Other parts of the world, such as in the US, China, Japan and Canada, have already introduced standards, and some European manufacturers participate in these schemes. Europe cannot stay behind. Lower running costs for transport of goods, more fuel efficient lorries will benefit the entire economy and ultimately, the customers. The secondary market will spread the benefits to small and medium-sized hauliers.

The Commission will, therefore, speed up analytical work on design options for standards for heavy duty vehicles and will launch a public consultation to prepare the ground for a legislative proposal. Given their average lifetime of about 11 years, lorries sold in 2020 will still be on European road in 2030. In order to be able to make swift progress a step-wise approach would seem most appropriate, starting with fuel efficiency targets only for engines. Over time this will be expanded subsequently to all categories based on the full monitoring data.

### **3. ENABLING ENVIRONMENT FOR LOW-EMISSION MOBILITY**

A number of horizontal initiatives and actions will support the transition to low-emission mobility, while preserving technology neutrality.

#### *Energy Union: linking the transport and energy systems*

Low-emission mobility will affect energy supply, by creating additional demand for some energy sources and reducing demand for others. Suppliers of fossil fuels will need to embrace new opportunities related to low-emission alternative energy sources. Low emission mobility will create more demand for electricity and additional pressure on the power sector to decarbonise under the EU Emission Trading System.

While the existing electricity infrastructure generally has the capacity to accommodate widespread use of electricity in transport, challenges may occur at the distribution level at

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<sup>16</sup> COM(2014) 285.



peak times. To address this, under Energy Union Strategy<sup>17</sup> the Commission is working on the Electricity Market Design proposal. It will facilitate the integration of electro-mobility, by encouraging charging at times of cheap electricity when demand is low or supply high). The proposal will also reduce barriers to the self-generation and consumption of renewable electricity. This will facilitate consumers' ability to use electricity generated from their own solar panels for charging vehicles.

In the long-run vehicle batteries could also become an integral part of the electricity system and provide energy to the grid when needed. Similarly, hydrogen, bio-methane and synthetic fuels could be produced from electricity at times of low prices, providing a form of energy storage.

#### *Research, innovation and competitiveness*

Research and innovation efforts to support the long-term transition towards zero-emission mobility need to intensify and need to be followed up by effective deployment. Later this year, the Commission will present an Integrated Research, Innovation and Competitiveness Strategy for the Energy Union, which will bring together three interconnected strands: energy technologies, transport and industry.

From now on resources should be concentrated on disruptive low-emissions options. It is important to set clear priorities and maximize synergies, e.g. between the transport and energy systems, for example by developing energy storage solutions that meet transport demands and enable Europe to develop a manufacturing base for the mass production of such solutions. As far as energy sources are concerned, traditional markets for fossil based energy sources will shrink and new opportunities to supply low-emission alternatives will open up. Research activities should therefore also focus on advanced biofuels, relevant for the decarbonisation of the existing road transport fleet, as well as for future needs of liquid fuels in sectors like aviation.

#### *Industrial policy*

Europe has traditionally enjoyed a strong position in transport-related manufacturing. This position must be maintained. While in the field of road transport, Europe still leads on patents for the improvement of internal combustion engines, the rest of the world benefits from a higher number of patents on alternative energy sources and markets for low-emission vehicles are growing faster outside the EU. The EU simply cannot afford innovation and the development of new technologies to take place – along with the jobs created – predominantly outside of the Union. Europe has to continue leading global standard-setting. We have to avoid losing leadership because of loss of confidence in real-world compliance with EU standards.

Low-emission mobility and innovation will need to be an integral part of industrial policies of all Member States. The question of competitiveness does not only concern major vehicle producers, be it of cars, heavy duty vehicles, planes or vessels. Component manufacturers, often small and medium-sized enterprises, are a vital part of European manufacturing.

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<sup>17</sup> COM (2015) 85 *A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy*.

## *Digital Agenda*

Digital technologies offer great potential for optimising the transport system. They also offer new opportunities for manufacturing and services. Digital technologies also support the integration of transport with other systems, such as the energy system.

But to reap the full benefits of digitalisation, it is necessary to create the regulatory frameworks and set standards to ensure interoperability, including across borders, and enable data exchange while at the same time addressing privacy and cyber-security issues. In its Digitising European Industry Communication<sup>18</sup>, the Commission presented measures in support of the new collaborative economy models.

## *Skills*

Transport is a key sector of the EU economy, employing more than 10 million people, accounting for 4.5% of total employment in the EU. New skills will be required to accompany the technological transition towards low-emission mobility. The Commission's New Skills Agenda for Europe<sup>19</sup> aims at addressing this challenge. The automotive and maritime technology sectors will be two of the first areas for the initiative "Blueprint for Sectoral Cooperation on Skills".

## *Investment*

This Strategy aims at providing the necessary certainty to investors. The transition to low-emission mobility will require additional investments in the order of EUR 3 billion per year until 2030, on top of the expected ten times higher needs of the energy sector<sup>20</sup>. EU investment instruments will be geared towards supporting higher efficiency of the transport system, low-emission alternative energy sources and low- and zero-emissions vehicles.

The Investment Plan for Europe is pivotal to support these policy objectives. Significant progress has been made in implementing the transport pipeline of the European Fund for Strategic Investment. The focus has been on absorbing risk and uncertainties of projects that face difficulties in accessing long-term finance<sup>21</sup>. This can also include platforms and other related activities to help cities pool and leverage finance.

In addition, a number of specific EU funds are available. The transport-related envelope under the European Structural and Investment Funds totals EUR 39 billion and includes EUR 12 billion for developing low-carbon, sustainable multi-modal urban mobility. A significant portion of Horizon 2020's transport research and innovation programme amounting to EUR 6.4 billion is focused on low-carbon mobility.

## *Action by cities*

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<sup>18</sup> COM(2016) 180.

<sup>19</sup> COM (2016) 381.

<sup>20</sup> Check figure, add public source.

<sup>21</sup> Examples include on-going work on designing financing infrastructures to unlock investments in low-emission bus fleets or to improve environmental performance of shipping vessels.

Urban transport is responsible for up to 25% of EU's greenhouse gas emissions and for some 70 % of all other harmful emissions from transport. The delivery of this Strategy will very much depend on cities and local authorities and cities are already at the forefront in the shift to low-emission mobility. They are implementing incentives for low-emission alternative energy sources and vehicles. As part of an integrated approach through sustainable urban mobility planning they encourage modal shift to active travel (cycling and walking), public transport and/or shared mobility schemes, i.e. bike- and car-sharing and car-pooling, to reduce congestion and pollution in cities.

The exchange of best-practices at the local level should be further facilitated through initiatives like the Covenant of Mayors or the Smart Cities and Communities/European Innovation Partnership.

#### *Global action on international transport*

A wide range of actions are being taken within the aviation sector. At this year's Assembly of the International Civil Aviation Organisation, the EU is fully committed to reaching agreement on a Global Market-Based Mechanism to address international aviation emissions and achieve carbon neutral growth from 2020. This Global Market-Based Measure and other measures, such as the recently agreed carbon dioxide standard for new aircraft are intended to ensure the carbon neutral growth of international aviation from 2020. The EU will review its own domestic measure (EU Emission Trading System for aviation) in the light of the Assembly's outcome.

Building on the introduction of an "Energy Efficiency Design Index" for international shipping, the EU is also fully committed to securing a robust and mandatory global agreement for the collection and reporting of greenhouse gas emissions from international shipping in the International Maritime Organisation later this year. This first step will lay the foundations for reaching an international agreement on an emission reduction objective for the shipping sector, which could possibly be followed by measures to mitigate emissions in the international maritime sector. The EU already has in place legislation that will, as from 2018, require ships that use EU ports to monitor, report and verify emissions. The EU may adapt this legislation in the event of an international agreement on a global system.

The EU remains committed not only to contribute to emissions reductions but also to financially and technically contribute to capacity-building across the globe. The EU is already engaged in capacity-building projects with many developing countries, working with both the International Civil Aviation Organization and the International Maritime Organization in ensuring genuinely global capabilities are developed to meet future challenges, including across the African continent and with some of the Least Developed Countries and Small Island States.

#### **4. CONCLUSIONS**

## ANNEX: ACTION PLAN FOR LOW-EMISSION MOBILITY

<p><b>Horizontal enablers to support low emissions mobility</b></p> <ul style="list-style-type: none"> <li>• EU Research, Innovation and Competitiveness Strategy for the Energy Union and adapting the EU's Research Framework Programme (Horizon 2020) accordingly</li> <li>• Implementing the Digital Single Market</li> <li>• Implementing the New Skills Agenda</li> <li>• Maximising the impact of available finance and financial instruments</li> <li>• Global action on international transport</li> </ul>
<p><b>Optimising the transport system and improving its efficiency</b></p> <ul style="list-style-type: none"> <li>• Digital mobility: <ul style="list-style-type: none"> <li>○ Master Plan for the deployment of Interoperable Cooperative Intelligent Transport Systems</li> </ul> </li> <li>• Fair and efficient pricing in road transport: <ul style="list-style-type: none"> <li>○ Revision of the Eurovignette Directive (1999/62/EC)</li> <li>○ Revision of the European Electronic Tolling Service (EETS) Directive 2004/52/EC and Commission Decision on the definition of the European Electronic Tolling Service and its technical elements (Commission Decision 2009/750/EC)</li> </ul> </li> <li>• Promoting multi-modality: <ul style="list-style-type: none"> <li>○ Proposal for a Regulation of the EP and Council on streamlining measures for swifter implementation of the projects of common interest on the Trans European Transport Network</li> <li>○ Revision of Regulation 913/2010 concerning a European rail network for competitive freight</li> <li>○ Proposal for the amendment of the Council Directive 92/106/EEC on the establishment of common rules for certain types of combined transport of goods between Member States</li> </ul> </li> </ul>
<p><b>Scaling up the use of low-emission alternative energy sources</b></p> <ul style="list-style-type: none"> <li>• Effective framework for low-emission alternative energy sources: <ul style="list-style-type: none"> <li>○ Legislative package on Renewable energy sources</li> <li>○ Legislative proposal on methodology for price comparison of alternative energy sources for consumer information purposes</li> </ul> </li> <li>• Synergies between the energy and transport systems <ul style="list-style-type: none"> <li>○ Market design initiative on regional cooperation in the electricity market and coordination of capacities for ensuring security of supply, boosting cross-border trade and facilitating the integration of renewables</li> </ul> </li> <li>• Standardisation and inter-operability for electro-mobility in the context of the European Standardisation Organisations</li> </ul>
<p><b>Moving towards zero-emission vehicles</b></p> <ul style="list-style-type: none"> <li>• Post-2020 strategy on vehicle efficiency for cars and vans: <ul style="list-style-type: none"> <li>○ Revision of Regulation (EU) No 443/2009 and Regulation (EU) No 510/2011 setting emission performance standards for cars and vans</li> <li>○ Review of Directive 1999/94/EC relating to the availability of consumer information on fuel economy and carbon dioxide emissions in respect of the marketing of new passenger cars</li> <li>○ Review of Directive 2009/33 on the Promotion of Clean and Energy Efficient</li> </ul> </li> </ul>

#### Road Transport Vehicles

- Action on heavy duty vehicles:
  - Legislative proposal for certification procedure of carbon dioxide emissions from heavy-duty vehicles (based on VECTO simulation tool)
  - Legislative proposal for monitoring and reporting system for heavy duty vehicles (lorries and buses)
  - Legislative proposal to set fuel efficiency standards for heavy duty vehicles

