THE TRANSPORT UNION

Achievements under Commissioner Bulc

2014 – 2019

@Bulc_EU

Dear friends,

Together we have been on an incredible journey these past five years. Serving as European Commissioner for transport, I have been privileged to lead an inspiring group of professionals within the European Commission, in particular from the Directorate-General for Mobility and Transport, their regulatory agencies and joint-undertakings.

The transport ecosystem we have built within the European Transport Union framework, has reached administrations on a local, regional and global level with the industry, NGOs, interested public, professional associations, many times way beyond the transport portfolio itself.

Yet, all of these very tangible results would not be possible without a very close and constructive inter-institutional collaboration with the European Parliament, especially the Committee on Transport and Tourism under the leadership of Michael Cramer and Karima Delli, and the Transport Council under the leadership of the rotating EU Presidencies.

The Commission's Energy Union project team under the leadership of Vice-President Šefčovič was another very instrumental part of our ecosystem, ensuring a system view and a horizontal alignment of our actions.

In that context, I have made a special effort together with my Cabinet to publish our key achievements throughout my mandate (2014-2019) along with some possible ways forward. It is in the form of the document that is now in front of you. It was a challenging task but I feel that it is important to acknowledge the contributions and to indicate some possible ways forward, which might be of use for the incoming Commission.

The report is organised around the model of the Transport Union. First it addresses the concept of the Transport Union as a whole, followed by its key goals (connectivity, efficiency, externalities), key strategies (decarbonisation/pollution, digitalisation, global leadership, people focus, innovation and investments), and each of the modes (road, rail, aviation, maritime, inland waterways, cycling, multimodality).

It was impossible to write about all the points that led to the results, but let me just say, they were numerous and equally important, often instrumental for the big steps. Together we put transport back on the political agenda. We showed its impact on sustainable development; we proved its role in regional and global cooperation, as well as its great importance for facilitation of peace and curation of hope.

Let us all continue to strive for Vision Zero, for safe, secure, green, smart and inclusive mobility, which serves people's needs and co-creates added value, no matter where we are. Once part of European Transport, always part of European Transport!

Warm regards,

Violeta Bulc
European Commissioner for transport

TABLE OF CONTENTS*

*The information in this booklet is accurate at the time of writing (September 2019).

Transport Union

@Bulc_EU

(EUROPEAN) TRANSPORT UNION (ETU)

**THE TRANSPORT UNION IS PART OF THE FOUNDATIONS OF THE EU.
IF TRANSPORT STOPS, EVERYTHING STOPS. THE TRANSPORT UNION:**

- connects EU Member States so that they can take full advantage of the single market;

- fosters peace and active relationships on personal, political and business levels;

- delivers standardisation and aligns regulations and legislation to increase efficiency in public transport services and logistics networks;

- drives consistent streamlining of investment, ensuring the best value for every euro invested;

- drives down the negative externalities of transport in a responsible and sustainable manner, using system approach;

- integrates modern technologies and solutions to serve the needs of the Union;

- yet, above all, the Transport Union puts people at the heart of all transport operations and makes sure that mobility services and transport infrastructure are fit for purpose: clean, efficient, safe, secure and inclusive; it ensures that workers' social rights and passenger rights are respected, that there are equal gender opportunities, and that young people are welcomed to the sector.

SUMMARY OF ACTIVITIES AND ACHIEVEMENTS

1. INVESTMENT

Funding stream	EU funding awarded	Approximate investment mobilised (if appropriate)	Projects funded
Connecting Europe Facility	€23.7 billion	€26.2 billion	760
EFSI		€28 billion	70
European Investment Bank	€48 billion (loans)	€120 billion	
Horizon 2020	€4.5 billion	Figure not available	1 300+
Cohesion Fund	€35 billion	€40 billion	
European Regional Development Fund	€35 billion	€70 billion	

The transport sector represents 9% of EU Gross Value Added and employs around 11 million people.

2. KEY DOCUMENTS PUBLISHED

- A Clean Planet for All – strategic long-term vision for a competitive and climate-neutral economy by 2050

- Report on the implementation of the 2011 White Paper on Transport

- European Strategy on low-emission mobility

- Study: Sustainable Transport Infrastructure Charging & Internalisation of Transport Externalities

- On the road to automated mobility: an EU strategy for mobility of the future

- Valletta Declaration on Road Safety

- Valletta Declaration on Maritime Policy

- Aviation Strategy

- Strategic Action Plan on Road Safety

- Action Plan on Military Mobility

3. KEY GLOBAL AGREEMENTS

- Aviation safety agreement with China (and agreement with Japan ready to sign)

- Comprehensive aviation agreements with the US, Canada, Switzerland, Israel, Jordan, Georgia, Morocco and Moldova

- ICAO – global agreement on reducing aviation emissions

- IMO – global agreement on reducing maritime emissions by 50% by 2050 compared to 2008 levels, and air pollution from 2020

- Extension of the TEN-T network to the Western Balkans and Eastern Partnership Countries

- Transport Community Treaty with the Western Balkans

- EU-China Connectivity Platform

4. THE LEGISLATIVE PROCESS

- Files passed: 34

- Pending files: 16

5. KEY LEGISLATION ADOPTED

- Fourth Railway Package (6 files)

- Revision of EASA Basic Regulation

- Regulation of safeguarding competition in air transport (868)

- Directive on a European Electronic Tolling System

- Maximum weight and dimensions of road vehicles

- Clean Vehicles Directive

- Initial qualification and training period of road drivers (CPC)

- Directive on Road Infrastructure Safety Management

- Multimodal Travel Information Delegated Regulation

- Market access to port services and financial transparency

- Revision of EMSA basic regulation

- Maritime safety package (3 files)

- Regulation on a European Maritime Single Window

- Port Reception Facility Directive

- Directive on the Training of Seafarers

- Directive on recognition of professional qualification in IWW

- Technical requirements for IWW vessels

- Brexit contingency measures in transport (6 files)

- E-Call and roadworthiness package

6. OTHER LEGISLATION ADOPTED

- Revision of regulation 1008/2008 in operation of air services

- Repeal of obsolete transport legislation

- Cross-border enforcement of road safety traffic offence (change of legal basis)

- ITS decision on periods for adopting delegated acts

- Time limit for the implementation of special rules for truck cabs

7. PENDING LEGISLATION

- Regulation for CEF II 2021-2027

- Regulation on Streamlining the Implementation of TEN-T

- Regulation on Electronic Freight Transport Information

- Combined Transport Directive

- Revised Directive on Charging for Heavy Duty Vehicles (Eurovignettte) – 2 files

- Use of hired vehicles for road freight transport

- Posting of drivers in road transport

- Driving and rest time in road transport

- Access to the international road haulage market

- Access to the bus and coach services market

- Regulation on Rail Passenger Rights

- Directive on Discontinuing Seasonal Time Changes

8. INNOVATION INTRODUCED (IN ETU & TO OTHER PORTFOLIOS)

- U-space

- Military Mobility

- Smart villages

- DiscoverEU

- EASA – new product certification process ensuring even higher quality & faster time-to-market

- Five-layer model for the digitalisation of transport

- New aviation architecture

- Safer Transport Investment Platform

- Green Shipping Facility

9. EVENTS

- The Commissioner participated in conferences and workshops around the EU and beyond, including during 298 international visits

- 30 Citizens' Dialogues in 18 countries

- Launch of the *Women in Transport – Platform for Change*

- Five editions of the European Mobility Week – setting new records for participation

- Major events to reach out to stakeholders at the TEN-T Days (Rotterdam, Tallinn, Ljubljana), Digital Transport Days (Tallinn, Helsinki).

- Delivering thematic conferences on multimodality (Sofia & Brussels) and micromobility (Ljubljana) among other topics.

10. NEXT STEPS

- Expansion of the TEN-T network towards the Mediterranean and Africa.

- Expansion of comprehensive bilateral agreements in aviation (Asia, Africa, Latin America); test options for comprehensive agreements in maritime and railway.

- Continue to drive negative externalities towards Vision 0: pollution and emissions, road fatalities and serious injuries, administrative burden.

- Continue to digitalise the ETU for increased efficiency, to support mobility as a service (MAAS) and integrated services, and to curate new mobility solutions (like drones and autonomous mobility).

- Drive the changes necessary for a pollution- and emissions-neutral ETU, bringing on board clean energy/fuels, deploying the necessary infrastructure, fostering a move from private ownership of vehicles to using mobility services, from static to mobility-on-demand models.

- Keep the streamlining of investment at the top of the agenda, focusing on common rules and the ongoing development of innovative tools to address market weaknesses and ensure the EU reaches its strategic goals. Continue to encourage synergy projects, bringing transport, energy and telecommunications portfolios together to minimise costs, optimise investment and curate the conditions for innovation to flourish.

- Focus investments on innovation in key areas: energy storage, dual-stream-batteries, clean fuels/energies, smart grids, new propulsion systems, new social and business models, safety and security, and foster innovation in behaviour, etc.

- Keep energising the ETU ecosystems with participatory models, citizen's dialogues and open office policy to keep information circulating, ideas flourishing, and commitments evolving.

- Ensure a continued and strong global presence based on equal-footing partnerships, rule-based agreements and global standards.

- Keep the Directorate-General and agencies very closely informed of your goals and priorities, encouraging them to engage horizontally. Rely on your team; stimulate it so that it grows, along with the portfolio and the EU as a whole.

- Continue to prioritise gender balance, and invite each expert group to recruit at least one member from the social sciences or humanities.

- Put forward a strategy on micro-mobility.

- Create an integrated single transport window for the EU and its neighbourhood.

TRANSPORT
Connectivity

@Bulc_EU

KEY RESULTS

TRANSPORT COMMUNITY TREATY IN THE WESTERN BALKANS.

EXTENSION OF TEN-T NETWORK TO THE WESTERN BALKANS AND EASTERN PARTNERSHIP COUNTRIES.

AVIATION AGREEMENTS:
Armenia, Tunisia & Qatar, ASEAN (waiting for signature).

AVIATION AGREEMENTS WITH CHINA
horizontal, BASA.

TWO AVIATION PARTNERSHIP PROJECTS IN LATIN AMERICA
(Costa Rica) & South Asia (Sri Lanka).

TRANSPORT HIGH-LEVEL DIALOGUES
launched with ASEAN, Ukraine, Israel, Georgia, Azerbaijan, relaunched with Turkey, Japan.

TRANSPORT TASK FORCE WITH AFRICA
including policy recommendations & proposals.

€230 BILLION OF EU INVESTMENT
in transport.

INTEGRATED TRANSPORT INTO EXTERNAL ACTION
leading to connectivity strategies for Asia, Africa, as well as bilateral dialogues with individual countries and regions.

CONNECTIVITY INDEX FOR AVIATION & HIGH-SPEED RAIL
new tool to measure air connectivity published online.

1. WHY IS TRANSPORT CONNECTIVITY IMPORTANT?

Without a transport network to keep people and goods moving around the internal market, there would be no European Union, no global trade or cooperation.

At an economic level, transport services provide business for 1.2 million private and public companies in the EU, employing around 11 million people between them, and providing goods and services to the citizens and businesses in Europe and elsewhere. For example, total inland freight transport in the EU was estimated at just over 2 400 billion tonne-kilometres in 2016. Around three quarters of this was transported by road. Meanwhile 70% of all goods exported from the EU to the rest of the world, or travelling in the other direction, is shipped.

2. EU INFRASTRUCTURE

The European transport network is the **backbone of the EU's single market**. European Commission policy is directed towards the implementation and development of a Europe-wide network of roads, railway lines, inland waterways, maritime shipping routes, ports, airports and railroad terminals. The ultimate objective is to close gaps, remove bottlenecks and eliminate technical barriers that exist between the transport networks of EU Member States, strengthening the social, economic and territorial cohesion of the Union, and contributing to the creation of a single European transport area.
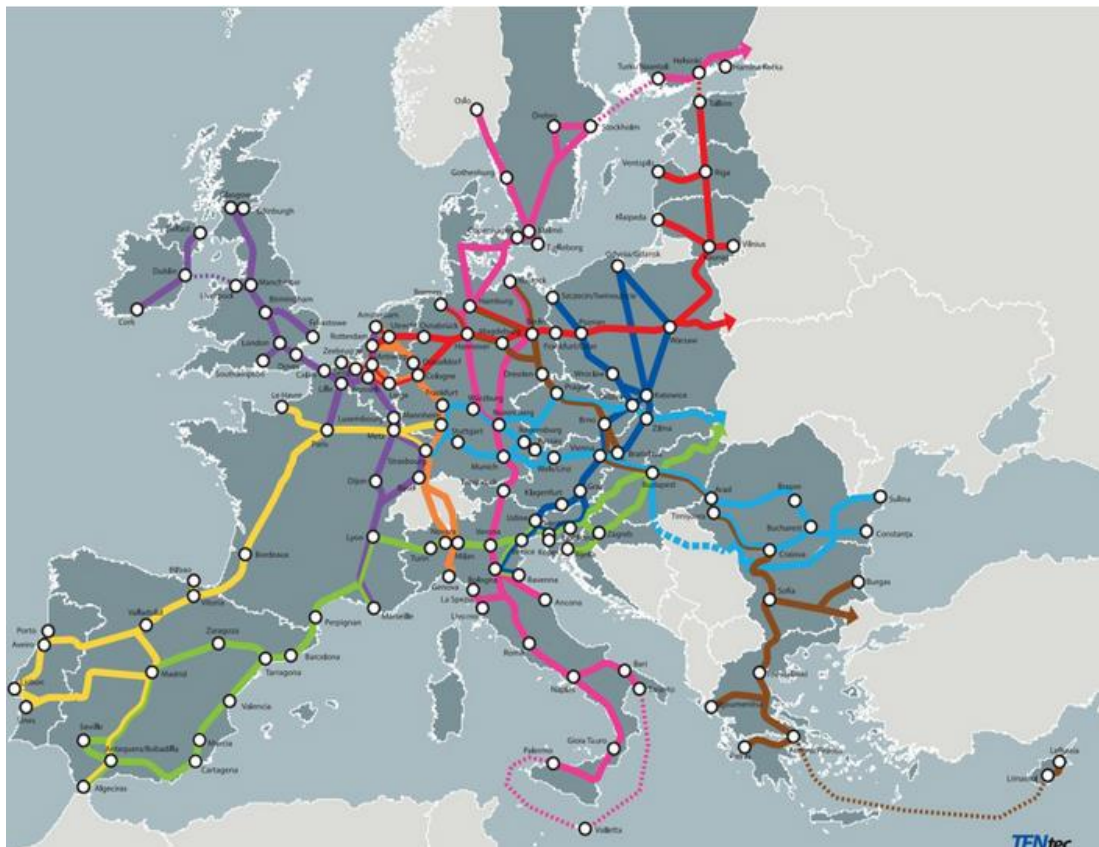
Standardisation in rail – optimisation (figure), new cross-border connections.

3. INTERNATIONAL COOPERATION

3.1. HOW DO WE INTERACT?
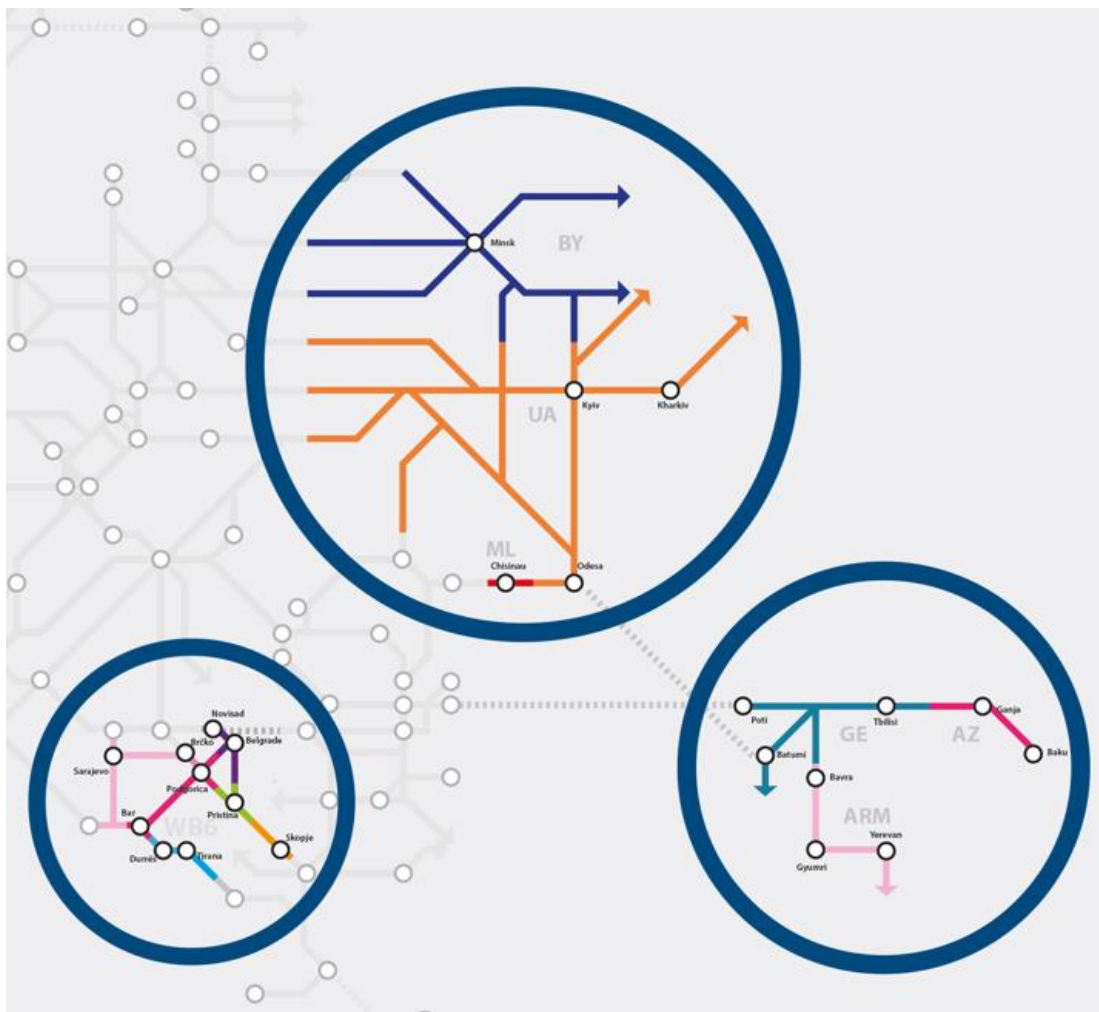
The inherently cross-border dimension of transport is reflected in the international reach of EU policy. A wide range of activities covers all transport modes and activities, varying according to the country or region concerned. The **focus of the EU international transport cooperation is on extending internal market rules**, notably through work in international organisations, and on **promoting European safety, security and environmental standards**. In this context, opening up **third-country markets in transport services, products and investment to free and undistorted** competition and environmentally sustainable solutions, continues to be a priority. Another key objective is to extend the EU´s transport and infrastructure policy to the Union's neighbours. The Commission aims to adopt flexible strategies to ensure the EU's role as a standard-setter in the transport sector and to curate conditions for cross-border services within EU and beyond.

3.2. NEIGHBOURHOOD COOPERATION

A. Enhanced connectivity within the Western Balkans and between the Western Balkans and the EU represents a strategic interest. Connectivity requires strong political cooperation in the region – this has already been an important driver of regional cooperation, as illustrated by the **launch of the Transport Community Treaty**. In September 2019, its Secretariat's office was opened in Belgrade, Serbia. The Community will facilitate better integration of the Western Balkans into the European transport network by fostering alignment with EU rules and standards, cross-border cooperation, and coordination of projects of regional character to improve connectivity in the wider South East European region. The Commission has also **invested €700 million** to date that will trigger €2.4 billion for road and rail connections, as well as electricity networks. Well-developed and connected transport and energy infrastructure is crucial for regional cooperation, economic growth and attracting new investment to the Western Balkans.

B. Closer relations with the EU's neighbours to the east, south and north promote prosperity, security and stability. EU transport policy for neighbouring countries, notably at regional level, identifies infrastructure connections and promotes regulatory convergence. The EU is taking forward transport cooperation with its neighbours to the east (**Eastern Partnership**) and the south (Euro-Mediterranean Partnership under the auspices of the **Union for the Mediterranean**). An agreement has already been reached to extend TEN-T to the Western Balkans and the Eastern Partnership countries.

3.3. BILATERAL AGREEMENTS WITH MAJOR TRADING PARTNERS

The EU promotes aviation safety worldwide to the benefit of European and international passengers. A key tool is the '**EU Air Safety List**' – a list of air carriers from non-EU countries that do not meet necessary international safety standards. The carriers on the list are banned from operating to, in and from the EU. Carriers that do not operate to the EU can also be added to the ASL, in order to warn the public travelling outside of the EU about their unsafe status. The EU Air Safety List is also seen as a strong preventive tool, because countries are under scrutiny tend to improve their safety oversight to avoid seeing their air carriers on the list.

Furthermore, **Bilateral Aviation Safety Agreements (BASAs)** enhance cooperation on aviation safety between EASA and the aviation authorities of third countries and remove the duplication of oversight activities. The agreements contribute to the global competitiveness of the European aviation industry by cutting red -tape and facilitating exports through the reciprocal acceptance of certificates. So far, the EU has concluded a BASA with the US, Canada, China and Brazil. Negotiations are underway with Japan. To strengthen cooperation with local authorities and industry, facilitate exchange of information and implementation of the agreements, **EASA** has opened international offices in Washington (USA), Beijing (China), Montréal (Canada), Singapore, and San Jose (Costa Rica). The **EU-South Asia Aviation Partnership Project** was also launched in 2016.

3.4. EU-CHINA CONNECTIVITY PLATFORM

Transport and infrastructure are the lifeblood of EU-Asia connections, carrying both people and goods between the continents. The EU-China Connectivity Platform is a tool for exchanges with China, which does not have any regulatory or legal impact on EU transport policy. The agreement to launch the Platform was reached by the leaders of the European Union and China in June 2015 during the 17th EU-China Summit. The EU established the Connectivity Platform to explore opportunities for further cooperation in areas such as infrastructure, equipment, technologies and standards, with a view to enhancing **synergies between China's Belt and Road initiative and Trans-European Transport Network policy.** We have agreed to work on the basis of market-based principles and international standards, and to promote openness, transparency and a level playing field in infrastructure connectivity. An EU-China study will look into railway corridors between the EU and China, and will involve transit countries.

3.5. CONNECTIVITY WITH AFRICA

The new **Alliance for Sustainable Investment and Jobs** between Europe and Africa seeks to deepen cooperation between the EU and Africa. The Transport Task Force will present policy proposals and recommendations on improving transport cooperation with Africa in key areas, and in particular for aviation safety, road safety, infrastructure and connectivity issues.

3.6. BILATERAL COOPERATION

Bilateral work can vary from preparing the ground for a comprehensive and strategic transport partnership based on cooperation in several modes, to conducting specific sectoral dialogues on transport modes, or providing the relevant input to major trade and investment negotiations. The EU is open to dialogue at global level, and today has regular dialogues with China, Japan, Turkey, the USA, Brazil, and regions (such as ASEAN/South East Asia).

4. BREXIT CONTINGENCY

In preparation for the UK's departure from the European Union, we took action to ensure minimal disruption and continued connectivity. For transport, this included:

● amending the TEN-T Regulation to strengthen connectivity between the Republic of Ireland and the rest of the EU;

● a regulation to ensure certain air services could continue between the UK and the EU temporarily (12 months) in the case of no deal;

● a regulation to extend temporarily (for 9 months) the validity of certain aviation safety licences;

● a regulation to allow UK operators to temporarily (9 months) carry goods into the UK (providing the UK confers equivalent rights to EU road haulage operators).

5. CONNECTIVITY INDEX

In 2017 we published a unique tool to measure connectivity within Europe by air. The tool indicates how reachable the population is, according to location, and how well served these populations are. The index can be used to identify any connectivity shortcomings, so that these may be addressed.

6. NEXT STEPS

● Connectivity:

-   Signature of aviation agreements with the ASEAN region, Azerbaijan, Brazil and Japan;
-   Negotiations for a comprehensive aviation agreement with Africa (bloc-2-bloc);
-   Very-high speed rail, up to 600km/h, where passenger volumes apply;

● Completion of the TEN-T Core Network by 2030, and the Comprehensive Network by 2050.

● Further technical standardisation/alignment of regulations and legislation.

● Comprehensive bilateral agreements in maritime, plus a single global maritime window.

● Connectivity index: high-speed rail included.

TRANSPORT
Efficiency

KEY RESULTS

MARITIME SINGLE WINDOW ENVIRONMENT
savings of €725 million by 2030, 60% decrease in administrative burden.

MOBILITY PACKAGES 1 & 3
60% reduction in administrative burden for road transport (trilogue in progress).

EETS
savings of €20-27 billion by 2040.

C-ITS
first framework for trusted and harmonised C-ITS services.

ERTMS
one EU-wide standard for rail interoperability.

SINGLE RAIL AREA
replacing 14 000 national technical rules with 1 600 rules (1 200 national & 400 EU). This has been the biggest simplification of rail rules in history.

SESAR SOLUTIONS
the joint undertaking is implementing technologies that increase efficiency in ATM many times over.

MULTIMODALITY
new regulations on EU-wide multimodal travel information services and on access to certain data for intermodal terminals.

1. WHY DRIVE GREATER EFFICIENCY?

Time is money. So whether it is road freight, shipping, aviation, rail or public transport, every minute gained is a direct boost to competitiveness and the EU's economy, as well as quality of life. In transport, greater efficiency is also increases the competitiveness of logistics networks and services. With transport being a major contributor to global emissions, greater efficiency is also good news for the environment. Shorter journey times mean fewer emissions.

2. MARITIME SINGLE WINDOW

To guarantee competitiveness and efficiency within European maritime transport sector, we needed to reduce the administrative burden on ships and to facilitate the use of digital information. The European Maritime Single Window introduces a fully harmonised environment for ship reporting that will lead to **savings of €725 million** by 2030 and **cut reporting time in half**. This could be a **blueprint for standardisation work** at IMO level, and mark the start of single windows in other sectors.

EUROPEAN MARITIME SINGLE WINDOW ENVIRONMENT
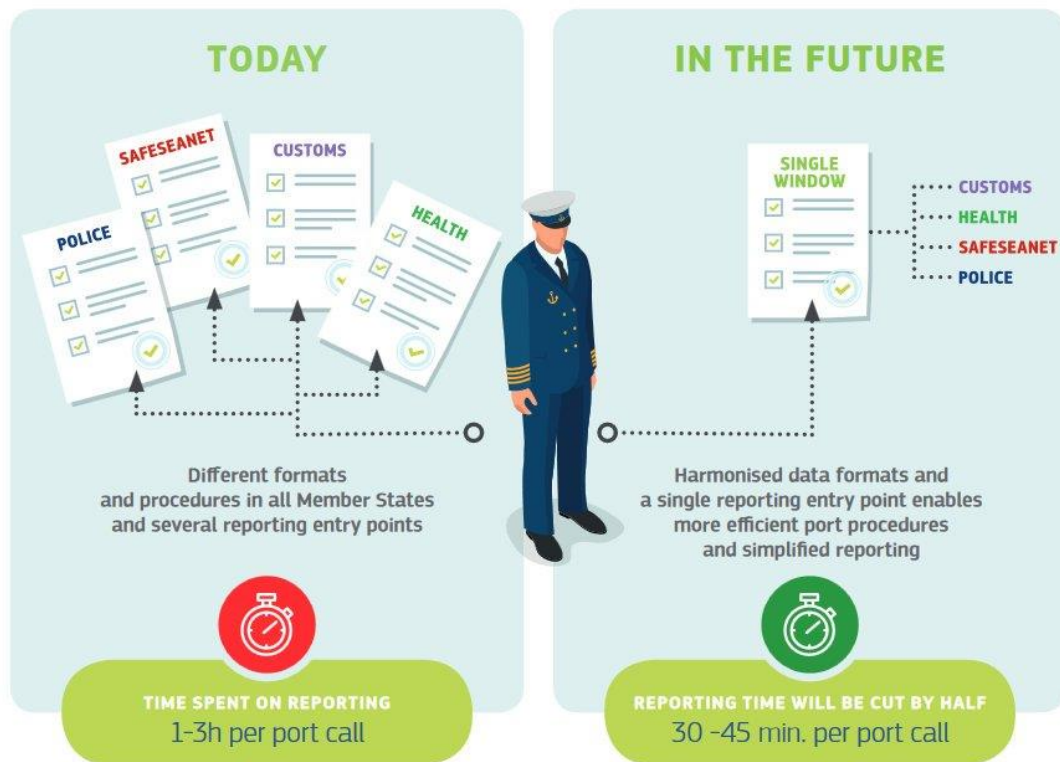
## 3. EUROPEAN ELECTRONIC TOLLING SERVICE (EETS)

The proposal for a directive on interoperability between electronic road toll systems will also facilitate cross-border exchange of information on the failure to pay road fees in the Union. The proposals on electronic freight documents (e-docs) will, in addition, enable companies to submit administrative documents electronically for all modes. This is expected to lead to **savings of €20-27 billion by 2040.**

4. C-ITS

After the Council's vote against the C-ITS Delegated Regulation, the Commission remains committed to the deployment of C-ITS , which will allow road users and traffic managers to share information and use it to coordinate their actions. The work on the Regulation, even though it was not voted into law, has fostered a common understanding of the standards and systems needed for safe implementation. We will therefore continue to work together with industry and Member States to support deployment this year. Remaining challenges include clear rules for access to in-vehicle data, and on liability as mobility becomes increasingly automated.

5. 4TH RAILWAY PACKAGE /ERTMS

The 4th Railway package introduces much-needed simplification, creating a single EU standard that will facilitate interoperability and will encourage a modal shift towards rail. The package is also replacing more than 14 000 obsolete national, technical rules with around 1 600 common rules (1 200 national rules and 400 EU rules). Rules for vehicles have already reduced by 90%, significantly simplifying the approvals process.
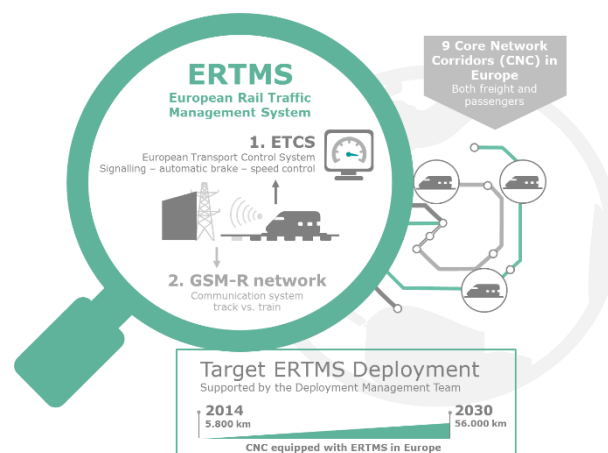
6. MOBILITY PACKAGE I

Mobility Package I was designed with efficiency in mind. A reduced administrative burden, notably due to simpler rules on posting and the use of electronic transport documents, will mean cost savings for businesses. Administrative requirements for posting will be harmonised and simplified compared to what individual Member States require today. For example, neither a representative in the host Member State nor a posting declaration for each operation will be required. It is estimated that administrative costs will drop by 58% due to these measures (from €1 352 to €567 million per year). The use of electronic transport documents will also lead to cost savings of between €3 and €5 billion for the EU-28 in the period 2020-2035. The increased use of digital tools for enforcement (smart tachograph) and more targeted controls based on the risk rating of operators will also lead to cost savings for public authorities.

7. AVIATION: SINGLE EUROPEAN SKY AND SESAR

As demand to fly increases, so Europe's skies and airports are increasingly congested. The objective of the Single European Sky (SES) is to reform the architecture of air traffic control in the EU. This should be achieved through improving overall performance of air traffic management (ATM) and air navigation services, and will increase airspace capacity threefold. The SESAR Joint Undertaking is already producing exciting innovations to make ATM more efficient, such as the sharing of trajectory data to improve predictability and therefore efficiency.

8. MULTIMODALITY

If the transport sector functions as a fully integrated system, it is able to make better use of existing capacities in all transport modes, and improve efficiency within logistics chains. For these reasons, we have prioritised multimodality, making 2018 the Year of Multimodality. One of our key achievements has been the adoption of the Delegated Regulation on EU-wide multimodal travel information services, which sets out what is needed to ensure accessibility, exchange and update of standardised travel and traffic data, as well as distributed journey planning.

We also adopted an Implementing Regulation that requires railway undertakings to give multimodal terminals and other service providers access to certain dynamic data, such as service information and expected time of arrival. The Regulation will apply as of June this year.

9. NEXT STEPS

- Full implementation of ERTMS for corridors by 2030, the single maritime window, and ATM/SES.

- Creation of a single logistics window for the EU.

- Implementation of C-ITS.

- Further development of connected, cooperative, automated and autonomous mobility.

- Improved governance model to better measure efficiency.

Reducing negative externalities

@Bulc_EU

KEY RESULTS

VISION 0
on track for no paper in transport networks and services by 2050.

FULL-SCALE REPORT ON COSTS AND EXTERNALITIES IN TRANSPORT
€1 000 billion annually for transport – close to 7% of EU GDP.

REDUCTION OF EMISSIONS
Strategy, Action Plan; investments: total of €18 billion in 381 projects linked to decarbonisation via CEF, innovative financial tool to support electric buses and green shipping.

REDUCING ROAD TRAFFIC ACCIDENTS
adoption of a 'systems approach', Valletta Declaration (containing commitments and targets on road safety), new EU rules on safer vehicles and infrastructure, strategic action plan on road safety.

1. WHY PRIORITISE NEGATIVE EXTERNALITIES?

One of the key objectives of the Transport Union is to deliver Vision 0 for negative externalities from transport by 2050.

This means:

• Vision 0 for emissions and pollution;

• Vision 0 for accidents (fatalities and serious injuries);

• Vision 0 for congestion (improved standard of living).

A comprehensive study was completed in June 2019, identifying levels of negative externalities from transport, as well as the infrastructure costs, across all EU Member States and all Transport modes. The results are compared with the taxes and charges paid by users.

2. WHAT ARE THE EXTERNALITIES OF TRANSPORT?

For the EU28, the total **external costs of transport** are estimated at almost €1 000 billion annually, close to 7% of EU28 GDP. These external costs relate to accidents, environment (air pollution, climate change, the costs related to energy production, i.e. the well-to-tank emissions, noise, habitat damage) and, only for road, congestion costs of more than €250 billion[1]. These external costs are a quantification in monetary terms of non-market items, merely expressed as a percentage of GDP to provide an idea of size.

Road users generate the overwhelming majority of such costs. The high share of road transport activity compared to other modes certainly contributes to this outcome but, in general, road modes also show the highest average external costs (in €/passenger-km or €/tonne-km).

---

[1] A significant part of the total external cost of congestion is already internalised by the willingness of the users to travel in congestion.
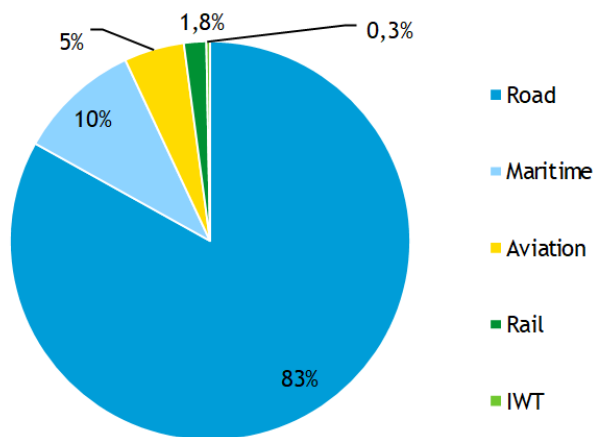
Figure 1 – Share of the different transport modes' total external costs in 2016 for the EU28 (incl. road congestion)

Environmental costs account for almost half of the costs mentioned above. Congestion and accident costs are also very significant, at around €270 and €280 billion respectively.
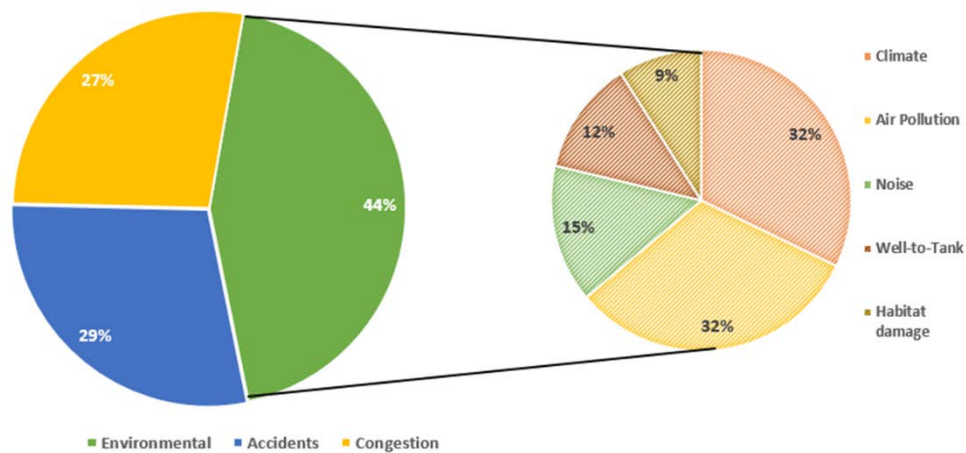
Figure 2 – Share of the different cost categories of total external costs in 2016 for the EU28

The extent of external costs is significantly higher than previously quantified for most categories. This is driven by an increase in activity that has not been accompanied technological development to reduce costs. It also reflects a different, updated methodology. New research results have been taken into account, and other developments such as the real-life emissions can now be factored in.

For road, rail and inland waterway transport, the total **infrastructure costs** in the EU amounted to almost €270 billion for 2016. Such costs include both fixed and variable costs. Passenger cars and heavy goods vehicles cause the lion's share of these costs. Alongside road transport, rail also has substantial infrastructure costs. Almost three quarters of such costs are created by passenger transport[2].
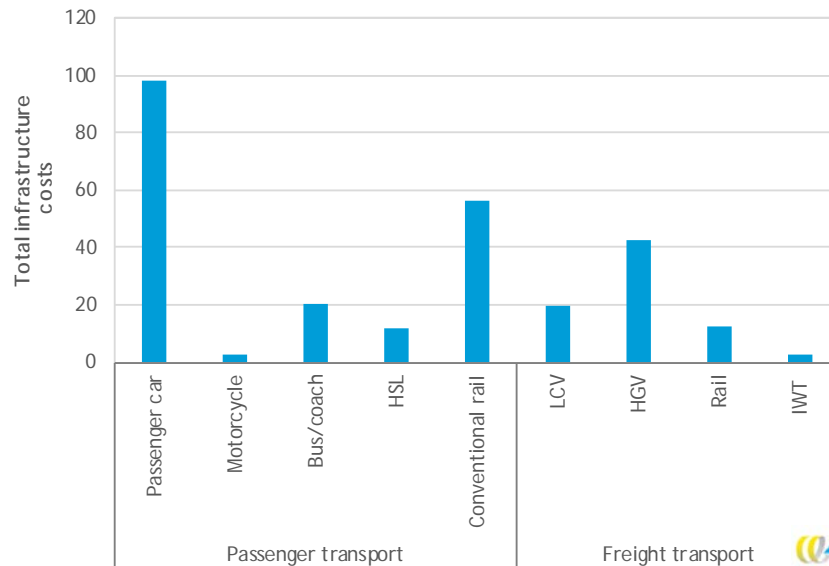

Figure 3 – Total infrastructure costs in 2016 for road, rail and inland waterway transport in the EU28 (billion €, PPS adjusted)

3. DO USERS PAY FOR THESE COSTS?

Comparing these results with the level of **taxes and charges** paid by transport users shows that they do not cover the total costs generated by transport: the total revenues from land modes amount to €370 billion. The revenues for aviation and maritime transport are about one order of magnitude smaller, and even though total costs are also lower than for land modes, the revenues for the selected (air)ports roughly cover infrastructure costs, but not external costs.

The figure below exemplifies this: the road sector pays back the most – taxes and charges cover 44% of total external and infrastructure costs. But road is, at the same time, the mode passing on the highest bill to society. Rail users pay back 20% of the total costs they generate, while aviation covers almost 30%. Waterborne modes pay back around 5% of their total costs[3].

---

[2] As for aviation and maritime transport, infrastructure costs are estimated for a selection of (air)ports, no total infrastructure costs figures for the EU28 level are available.

[3] There are however greater uncertainties for maritime and inland waterway transport than for other modes
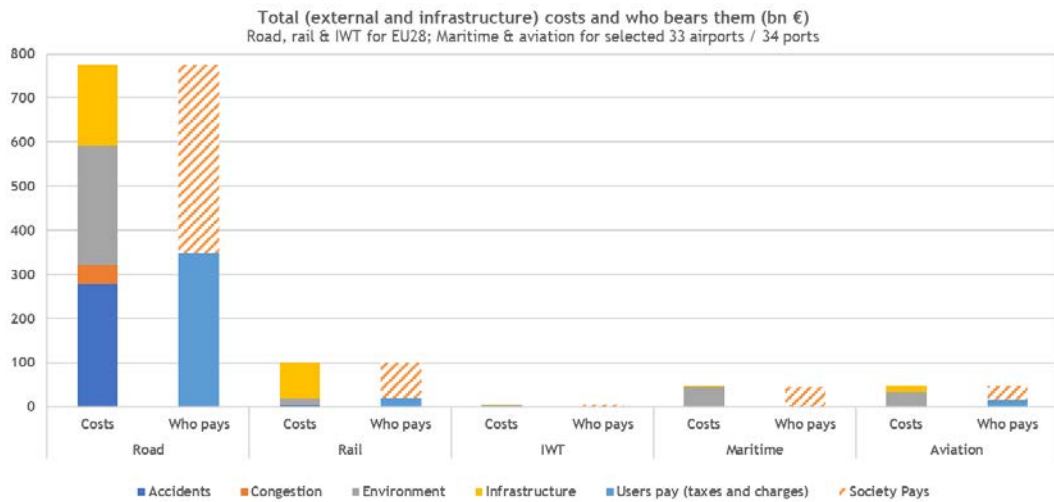
Figure 4 – Total external and infrastructure costs vs. total taxes and charges

These findings should be put in context. First, there are methodological caveats and necessary approximations. Second, there are good reasons for which users should only pay for a part of infrastructure costs, i.e. the ones for which they are directly responsible (wear and tear costs). The following figure illustrates that, excluding fixed costs, rail users pay the highest share of the costs for which they are responsible, i.e. almost 70%. This can be explained by the very high fixed costs necessary to build the railway network, compared to other modes. Road users pay around 55% of their total external and variable infrastructure costs, while for aviation this cost-coverage ratio is around 36%. Waterborne modes still pay the least.
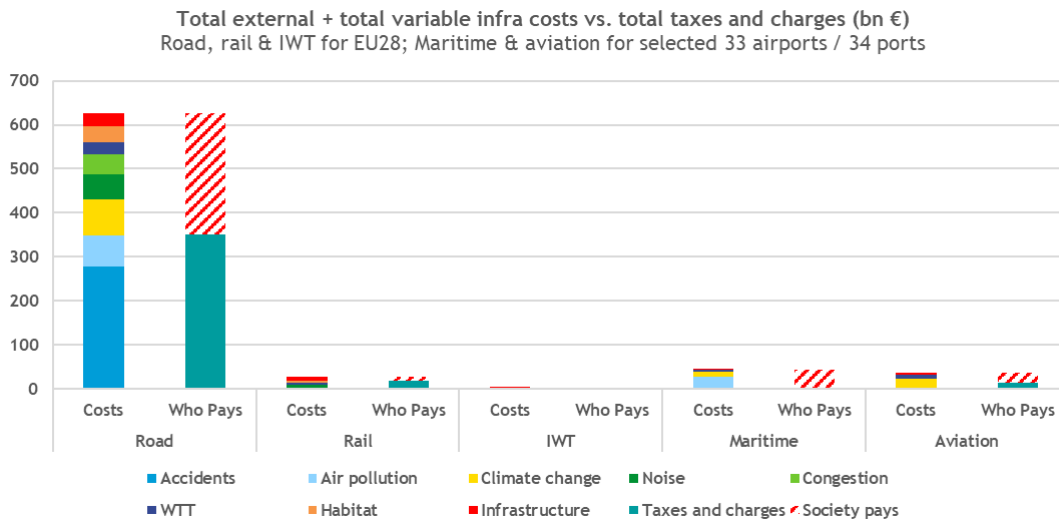

Figure 5 – Total external and variable infrastructure costs vs. total taxes and charges

4. WHAT HAVE WE DONE TO REDUCE THE NEGATIVE IMPACTS OF TRANSPORT?

The Treaty on the Functioning of the European Union sets out that the **polluter should pay.** European transport policy has been formulated with this in mind for many years, and the proposal to introduce a harmonised European Electronic Tolling System (EETS) follows this approach.

Costs that are not internalised must be borne by someone, and it is society that pays. Social fairness implies that those responsible for the costs should also bear the burden, although we need to take care of socially disadvantaged groups who will need help if far-reaching internalisation measures are implemented. Moreover, to ensure social acceptability, it is important to emphasise that internalisation does not have to lead to an overall higher tax burden, it can be implemented rather by shifting existing taxation towards internalisation measures.

While internalisation is not a silver bullet for the negative impacts of transport, it could be complementary to non-pricing measures targeting a reduction in negative externalities, e.g. through regulation (such as safety).

5. NEXT STEPS

- Further progress towards Vision 0 (no paper by 2050).

- Act based on the report into the internalisation of external costs.

- Development of a full lifecycle approach to investment.

- Improve governance model that connects negative externalities with the cost of medical services, rehabilitation, premature deaths and emotional devastation of families

Decarbonisation and vision on sustainability

@Bulc_EU

KEY RESULTS

VISION 0

zero pollution and emissions from transport by 2050.

A CLEAN PLANET FOR ALL

strategy for a climate-neutral economy by 2050, with a strong focus on transport.

LOW-EMISSION MOBILITY STRATEGY

strategy for clean road transport, including efficiency in transport systems, deployment of low-emission energy alternatives for transport, zero-emission vehicles.

GREEN TRANSPORT INVESTMENTS

CEF invested a total of €18 billion in 381 projects linked to decarbonisation (€15.7bn in 236 railway projects), €1.6bn in 48 inland waterway projects, €0.3bn in 62 multimodal projects and €0.4bn in 35 decarbonisation projects).

HISTORICAL INTERNATIONAL AGREEMENTS

global emissions reductions for aviation and maritime transport.

KEY LEGISLATION

Clean Vehicles Directive, CO2 reduction targets, Fourth Railway Package, Single Maritime Window, Port Reception Facility Directive, C-ITS Delegated Regulation, Multimodal Travel Information Delegated Regulation.

PENDING LEGISLATION

Combined Transport, Charging for heavey duty vehicles (Eurovignette).

1. WHY SUSTAINABILITY?

Transport is the second largest polluter in the EU – 24% of all emissions come from transport, of which over 60% comes from road transport. EU transport still relies heavily on oil (93%) and private car ownership. We are determined to take every step needed to deliver on Vision 0 by 2050, pursuing the following key strategies:

- increasing the **efficiency of transport systems** through digitalisation, smart pricing, plus integrated logistics and ticketing.

- **increasing co-investment** in public transport, cross-border connectivity, missing links, as well as, sharing and collaborative economy models, multimodal nodes and transhipment centres.

- speeding up the **deployment of infrastructure for low-emission alternative fuels and energy.**

- ensuring access to **clean energy and clean fuels.**

- encouraging the manufacture of low and **zero-emission vehicles.**

Three Mobility Packages (2017-2018) put forward important initiatives in each area, many of which have now been voted into law (see 'Vision Zero', below).

2. VISION 0

In 'A Clean Planet for All' (28 November 2018), the Commission set out a strategic long-term vision for a competitive and climate-neutral economy by 2050 – Vision 0.

We have set out the path to Vision 0 with:

- **Our low-emission mobility strategy of 2016,** which sets clear and fair guiding principles to Member States to prepare for the future.

- **CO2 reduction targets** for new cars, vans and lorries (37.5%, 31% & 30% respectively by 2030).

- **Targets for clean cars, vans, buses and lorries procured by public authorities,** differing depending on the vehicle category and the Member State's GDP.

- **Promotion of rail transport:** implementation of the Fourth Railway package, and around 70% of CEF transport funds invested in rail in the period 2014-2020.

- **Alternative fuels infrastructure:** the Commission is currently evaluating whether the Alternative Infrastructure Directive needs to be strengthened, for instance by introducing binding targets for infrastructure roll-out at Member State level.

- **Financial support:** €800 million in fresh money in November 2017; in April 2019, the Commission created the CEF Transport Blending Facility with an initial budget of €200 million, focused on alternative fuels.

- **Innovative financial tools** for green shipping and electric buses.

- **More connected and cooperative, and ultimate automated and autonomous mobility.** The next step is the entry into force of the **C-ITS delegated Regulation** (framework for trusted and harmonised deployment of C-ITS services across the European Union, including the communications technology to be used (ITS-G5)), and the expected roll-out this year.

- **Better organisation of the entire mobility system through digitalisation and access to data.** The EU has mandated **access to certain travel data** to enable EU-wide multimodal travel information services, and to certain **rail freight data** to promote innovative service by multimodal terminals and other service providers. The European Maritime Single Window introduces a truly European and fully harmonised interface for reporting at ports. The future regulation for electronic freight transport information will guarantee that authorities accept the documents accompanying intra-EU freight electronically.

- **Clean Sky:** CleanSky 2 set itself the ambitious goal of developing technologies to reduce: CO2 emissions by 75% per passenger kilometre; Nitrogen oxide emissions by 90%, and perceived noise by 65%. All reductions are in comparison to those for a typical new aircraft in 2000.

- **Regulation on Port Reception Facilities:** we set clear rules requiring ports to have the facilities to collect all types of waste from ships, and providing incentives for ships to deliver their waste to ports, rather than discharge it at sea.

- **Electric general aviation:** electric drones and RPAS.

3. GLOBAL COMMITMENTS

Climate change is a global challenge, and the role of global modes of transport must be tackled at global level. The EU is a global player, and has pushed for international agreements to reduce transport emissions.

- For **aviation**, ICAO's new Carbon Offsetting and Reduction Scheme (CORSIA) is the best way to secure global climate action. Once all CORSIA instruments have been adopted by ICAO, they need to be combined with the EU's Emissions Trading Scheme – ETS – in a way that is consistent with EU commitments under the Paris Agreement, but not jeopardising ICAO's efforts for a global solution.

- In **maritime transport**, the IMO has committed to reducing CO2 emissions from international shipping by at least 50% by 2050 compared to 2008 levels, and air pollution levels from 2020 (all vessels will be using cleaner fuels from January 2020). The Commission is working closely with Member States and international partners on concrete emission reduction measures, some of which will be able to deliver emission reductions by 2023.

4. NEXT MFF / CEF

For the next MFF, the Commission has proposed a reinforced CEF with a total budget of €42.3 billion, of which **60% will be channelled into projects supporting the EU's climate objectives. Synergies with CEF Energy and CEF Digital** will be promoted, for example through the option to apply the highest co-funding rate of the sectors concerned and the opportunity for a 10% top-up.

5. NEXT STEPS

- Continue on the path to ensure Vision 0 by 2050:

  - investment in innovative solutions, including dual-stream recyclable batteries, energy storage;
  - further development of financial tools to support a green transition;
  - promotion and support for the move from ownership to the use of mobility (MaaS);
  - continued promotion and support for investment in clean modes (rail, inland-water-ways, motorways-of-the-sea) as investment priorities.

- Assess options to ensure climate justice and fairness.

- Extend simulations beyond climate change to pollution (particles, how health is affected).

TRANSPORT
Digitalisation

@Bulc_EU

KEY RESULTS

VISION 0

no manual involvement in logistics networks and passenger services by 2050.

IMPACT OF DIGITALISATION

less pollution and congestion, new business models, more road safety and inclusion, competitive logistics networks and improved efficiency.

DECOUPLING & VERTICAL INTEGRATION, WITHOUT MONOPOLIES

we mandated access to certain key data, made progress on standardisation and interoperability (European Maritime Single Window, e-documents, DTLF, smart digital tachographs, new aviation architecture, U-Space for drones and flying cars), and created the first legal framework for cooperative ITS services, preparing the ground for connected, cooperative, automated and autonomous mobility (CCAM).

DIGITAL TRANSPORT INVESTMENTS

CEF invested a total of €3.8 billion in 248 projects linked to digitalisation (ERMTS, ITS, other telematics application systems, RIS, SESAR). This leveraged total investment of €8.1 billion.

NEW MFF

we reinforced CEF (€42.3 billion) and tripled CEF-Digital funding (€3 billion). We also created synergies between CEF-Transport and Digital through higher co-financing and top-ups.

KEY LEGISLATION

European Maritime Single Window, European Electronic Tolling System, Regulation on use of smart tachographs.

PENDING LEGISLATION

C-ITS Delegated Regulation, Electronic Freight Transport Information.

1. WHY DIGITALISE TRANSPORT?

The fourth industrial revolution, together with artificial intelligence, block-chain, big data, MaaS, and cooperative/connected/automated/autonomous mobility, has created the conditions for new business and social models, services, jobs and value drivers (accompanied by regulatory challenges). Digitalisation makes mobility systems in all modes and multimodal networks **more efficient, integrated, clean, safe, secure, and inclusive**. It is an opportunity for a new wave of public (passenger and business) services in remote areas, the expansion of micro-mobility in urban areas, new types of partnerships, plus better use of infrastructure and public space. However, digitalisation also causes concern over the easy creation of vertical and/or horizontal monopolies, misuse of public data and closed ecosystems, which will require particular attention in the future.

2. DIGITALISATION IN TRANSPORT – ACHIEVEMENTS AND REMAINING CHALLENGES

Digitalised mobility involves **five layers** – infrastructure, data, application, service and network layer. Our policy involves allowing **vertical integration** via open data applications, interfaces and regulated interoperability, whilst **avoiding monopolies**.

The EU has mandated **access to certain data:** EU-wide multimodal travel information (timetables, access nodes, bike- and car-sharing, vehicles facilities, standard fares for all modes….); rail freight information (e.g. expected time of arrival). The European Maritime Single Window (EMSW) makes arrival and departure times of ships publicly available. The passenger side/integrated ticketing remains a challenge: a code of conduct is needed for more data-sharing and cooperation.

It is essential to keep all layers decoupled and open for competition via public product/service/application interfaces, as well as to set clear rules for private, industry and public data. This is crucial for the development of competitive markets and industry, and also for anonymity (when required).

2.1. STANDARDS AND INTEROPERABILITY – WHAT HAVE WE DONE?

- **The European Maritime Single Window** introduces a fully harmonised environment for ship reporting: savings of €725 million by 2030 and reporting time cut in half; this could be a blueprint for standardisation work at IMO level as well.

- Our proposal on **electronic freight documents (e-docs)** will enable companies to submit administrative documents in all modes electronically: savings of €20-27 billion expected by 2040.

- Digitalisation of the road transport sector is a key objective of the first mobility package. Proposals cover the deployment of **smart tachographs** in all vehicles, the more systematic use of **e-consignment notes**, the introduction of a new common system of **e-notification for posting declarations**, and an enhanced **ERRU database for information exchange between national administrations** (trilogues in Autumn 2019), and revision of the Directive on a European Electronic Tolling Service.

- The **Digital Inland Waterway Area (DINA)** interconnects information on infrastructure, people, operations, fleet and cargo in the inland waterway transport sector and with other transport modes.

- **Aviation** is very much part of this intelligent transport system and relies on technological advances to transform its services and enable seamless travel and transport. The EU has put forward a **new architecture for European airspace**, embracing a new era of innovation and digital technologies. We are moving from several thousand conventional aircraft in the sky every day to potentially hundreds of thousands of highly connected and automated air vehicles (drones, air taxis), offering advanced data-driven services and operating in all areas, including cities. We have created the **U-space concept,** referring to the low-altitude system that connects all flying vehicles and keeps their operations safe and secure. A first wave of R&D projects in support of the U-space has been completed through the SESAR 2020 programme. Funding included €10 million for 6 demonstrator projects, and €500 000 for geo-fencing.

2.2. PLATFORMS – WHAT HAVE WE DONE?

- **Digital Transport and Logistics Forum (DTLF):** companies from all modes create an interoperable data layer for freight multimodality and TEN-T Corridor Information Systems.

- **C-Roads** and **C-ITS Platform** for initial reflection on C-ITS.

- This year, a new **single platform for connected, cooperative, automated and autonomous mobility** will start paving the way for a new **Joint Undertaking.**
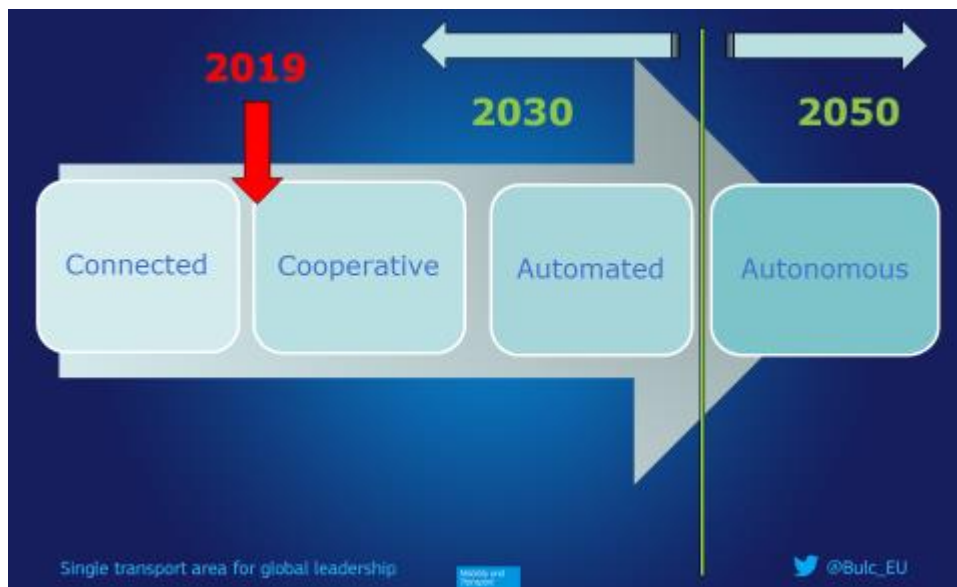
- After the Council's vote against the C-ITS Delegated Regulation, the Commission remains committed to the deployment of C-ITS , which will allow road users and traffic managers to share information and use it to coordinate their actions. The work on the Regulation, even though it was not voted into law, has fostered a common understanding of the standards

and systems needed for safe implementation. We will therefore continue to work together with industry and Member States to support deployment this year. Remaining challenges include clear rules for access to in-vehicle data, and on liability as mobility becomes increasingly automated.

3. CURRENT FINANCING AND NEXT MFF / CEF

- Under the **current CEF,** funding for digitalisation priorities (i.e. ERMTS, ITS, other telematics application systems, River Information System (RIS) and SESAR) amounts to €3.5 billion to date (**total investment of €7.1 billion**). In addition, the 2018 MAP call and 7 other co-financed actions address digitalisation priorities (€309 million for total investment of €1 060 million), such as data/ICT projects in safe and secure infrastructure and rail interoperability.

- For the **next MFF**, the Commission has proposed a reinforced CEF with a **total budget of €42.3 billion**, the budget for CEF Digital would be tripled (to €3 billion).

- **Synergies between CEF Transport and CEF Digital (as well as CEF Energy) will be promoted,** for example through the option to apply the highest co-funding rate of the sectors concerned, plus the introduction of eligibility for a 10% top-up.

4. NEXT STEPS

- Automated mobility by 2030, autonomous mobility by 2050.

- Full digital integration of all transport modes: integrated ticketing (for passengers), integrated logistics (for business).

- Single logistics multimodal window.

- Agreement on open data and open interfaces.

- New ATM and SES II for aviation.

TRANSPORT

Global leadership

@Bulc_EU

KEY RESULTS

TRANSPORT IS INCLUDED IN ALL TRADE AGREEMENTS
for example with Japan, Vietnam and the Mercosur region.

ROAD SAFETY
Vision 0 promoted by the EU (in cooperation with the UN and global financial institutions) around the world; Vision 0 declarations signed with the Western Balkans and the Eastern Partnership countries.

HIGHLY AMBITIOUS NEGOTIATIONS
led by the EU resulted in historic global **agreements to decrease pollution and emissions** in both aviation (ICAO) and maritime transport (IMO).

TEN-T EXTENSION AGREEMENTS
signed with the countries of the Western Balkans and the Eastern Partnership.

EASA & ERA & EMSA
now **global authorities for safety standards** (aviation, rail & maritime).

CERTIFICATION
of the first commercial Chinese aeroplane by EASA (in progress).

NEW EU AVIATION OFFICE
in Costa Rica.

THE G7
now has a transport dimension focusing on autonomous mobility.

KEY LEGISLATION
aviation safety agreement signed with China, and ready to sign with Japan; comprehensive aviation agreements with the US, Canada, Switzerland, Israel, Jordan, Georgia, Morocco and Moldova.

PENDING FILES
comprehensive aviation agreements ready to sign with Qatar, Tunisia, Armenia and Ukraine. Negotiations are ongoing with the ASEAN region, Japan, Turkey, Azerbaijan and Oman.

1. WHY STRIVE FOR GLOBAL LEADERSHIP?

Global leadership refers not only to the economy and competitiveness, where leadership ensures the best possible standard of living for our citizens. It also refers to the platform that leadership gives us to promote EU values, from protecting the environment to the highest safety standards across all transport modes.

2. GLOBAL LEADERSHIP THROUGH MULTILATERALISM

In aviation, we were able to push and achieve, within ICAO, a historic agreement on aviation emissions. We also have EASA offices in four countries outside of Europe, giving the EU additional opportunities to shape the future of aviation worldwide. **Maritime transport** is an equally globalised business and likewise requires global regulations. The Commission has been working with EU Member States within the **IMO** to set global standards regulating safety, environmental and decarbonisation aspects of shipping. We have also contributed to capacity-building through EMSA global services.

Working closely with the UN Special Envoy for Road Safety, the EU has also supported the creation of a UN Trust Fund for Road Safety, and contributed financially.

3. DECARBONISATION & VISION 0 – ZERO EMISSIONS FROM TRANSPORT BY 2050

The EU is leading the way in decarbonising transport with ambitious targets. In **'A clean planet for all'** (28 November 2018), the Commission set out a strategic long-term vision for a competitive and carbon-neutral economy by 2050 – Vision 0.

3.1. WHAT HAVE WE DONE?

- **CO2 reduction targets** for new cars, vans and lorries (37.5%, 31% & 30% respectively by 2030).

- **Targets for clean cars, vans, buses & lorries procured by public authorities.** They differ depending on category (higher for buses, lower for trucks) & the Member State (GDP-related).

- **Alternative fuels infrastructure.** The Commission is currently evaluating whether the Alternative Infrastructure Directive needs to be strengthened, for instance through binding targets for infrastructure rollout at Member State level. In April 2019, the Commission created the CEF Transport Blending Facility with an initial budget of €200 million, focused on alternative fuels.

- The IMO has committed to reducing **CO2 emissions from international shipping** by at least 50% by 2050 compared to 2008 levels, and air pollution from 2020.

- As of January 2020, shipping will use **less polluting fuel (lower SOx content).** This was first an EU measure and later adopted by the IMO.

4. DIGITALISATION

Digitalised mobility involves **five layers** – infrastructure, data, application, service and network layer. Our policy involves allowing **vertical integration** via open data applications, interfaces and regulated interoperability, whilst **avoiding monopolies**.

4.1. WHAT HAVE WE DONE?

- The **C-ITS delegated Regulation** is the first **framework for trusted and harmonised deployment of C-ITS services** across the EU, including communications technology to be used (hybrid approach). Entry into force hopefully in July.

- The EU has mandated access to certain travel and rail freight data to enable EU-wide multimodal travel information services and multimodal terminals. The European Maritime Single Window introduces a truly European and fully harmonised interface for reporting. The future regulation for electronic freight transport information will guarantee that authorities accept the documents accompanying intra-EU freight electronically.

5. SAFETY

The EU has the **safest roads and skies in the world**, but safety remains a top priority. With **Vision 0**, we aim to reduce the number of fatalities and serious injuries from road traffic accidents to zero by 2050. The path to Vision 0 involves a safe system approach – addressing vehicles, infrastructure and behaviour.

In **aviation**, the EU promotes aviation safety worldwide. A key tool is the **'EU Air Safety List'** – a list of air carriers from non-EU countries which do not meet international safety standards. The carriers on the list are banned from operating to, in and from the EU. The list is also a strong preventive tool, as countries under scrutiny tend to improve their safety oversight to avoid seeing their air carriers on the list.

Furthermore, **Bilateral Aviation Safety Agreements (BASAs)** strengthen cooperation on aviation safety between EASA and aviation authorities in third countries. They also avoid duplication of oversight activities. So far, the EU has concluded BASAs with three countries, while others are approaching conclusion.

5.1.   WHAT HAVE WE DONE?

- The **Strategic Action Plan on Road Safety**, part of the third Mobility Package, sets out a wide range of actions, touching upon governance, funding, infrastructure, vehicles, behaviour, emergency response and emerging challenges like automation and connectivity.

- We supported the creation a **UN Global Fund for Road Safety** that is managed by UNECE. This will allow the financing of concrete projects in regions that need to address road safety.

- We have encouraged **voluntary commitments** from all stakeholders: manufacturers, suppliers, insurance companies, cities, car sharing operators etc. A number of them have already come forward with great ideas.

- We appointed the first ever **European Coordinator for Road Safety** to ensure safety remains at the top of everyone's agenda.

- We have **shared our expertise in road safety** with countries around the world, particularly its neighbours in Western Balkans, Eastern Partnership Countries and the Mediterranean, and in Turkey. Under the Commission's leadership, these countries have adopted concrete strategies and measures that mirror the EU's Vision Zero and safe system approach.

- In aviation, we have **revised the Basic Regulation**, strengthening the role of the European Union Aviation Safety Agency (EASA). The revision also introduces risk- and performance-based rules, closes some safety gaps and interlinks safety more closely with other domains, such as security and the environment.

- We have **opened a new EASA office in Singapore**, and launched partnership projects with Latin America and South Asia.

- **A Bilateral Aviation Safety Agreement** is being signed with China and Japan.

6. CONNECTIVITY

The EU's transport network is the backbone of the European Union and its single market. Without this connectivity, there would be no EU. But the EU is also driving connectivity with the rest of the world, extending the TEN-T and negotiating aviation agreements with third countries.

6.1. WHAT HAVE WE DONE?

- To complete the TEN-T Core Network Corridors by 2030, €750 billion in investment will be required.

- Bilateral Aviation Safety Agreements avoid duplication of oversight activities and support the global competitiveness of Europe's aviation industry by cutting red tape and facilitating experts. Agreements have been concluded with the US, Canada and Brazil, and we are in the process of signing with China, while negotiations are underway with Japan.

- High-level transport dialogues: launched with ASEAN, Ukraine, Israel, Georgia, Azerbaijan, relaunched with Japan and Turkey, continued with Singapore and China.

7. NEXT STEPS

- Signature of historic bloc-to-bloc aviation agreement with ASEAN countries.

- Solution to the Gibraltar obstacle blocking the reform of the Single European Sky.

- Next phase of multilateral rule-based/global agreements for aviation and maritime transport.

- More cooperation within global organisations, such as ICAO, IMO, the UN and the G7/G8 and G20 to address topics such as safety, security, the climate, drones, a single window for logistics, and autonomous mobility.

- Expansion of the TEN-T network to Mediterranean and Africa.

- Joint EU-China analysis of new land connectivity between Europe and Asia.

- Global standards and a regulation for autonomous mobility.

- Connecting Earth-based transport and space travel.

- Closer cooperation with India (aviation, rail, maritime, road safety, autonomous mobility).

- Expansion of EU safety list to ports and airports.

- Expansion of European Rail Area to the EU's neighbourhood and beyond.

TRANSPORT
People

@Bulc_EU

KEY RESULTS

VISION 0
zero deaths and serious injuries on EU roads by 2050 through a new 'system' approach, the Valletta Declaration and funding. The interim target is to halve the number of fatalities by 2030.

VISION 0
zero emissions from transport by 2050 by removing transport form the list of factors causing premature death.

SOCIAL EUROPE – MOBILITY PACKAGE I
new initiatives to ensure solid social conditions for drivers on the roads, and the identification of concrete actions to maintain high **social standards in aviation.**

SAFETY AND PASSENGER RIGHTS

A GENDER-BALANCED SECTOR
Women in Transport – EU Platform for change launched.

MOBILITY WEEK
and launch of **project EDWARD** (European Day without a Road Death).

INVESTING IN YOUTH:
DiscoverEU – initiated the idea and pilot project Move2Learn Learn2Move.

THE FUTURE OF WORK/SKILLS
pilot project for maritime 'Blueprint for Cooperation on Skills'.

CITIZENS' DIALOGUES
the Commissioner took part in 30 Citizens' Dialogues, in 18 countries.

KEY LEGISLATION
Mobility Package I (working conditions for drivers), revision of EASA Basic Regulation (aviation safety), directive on the training of seafarers, introduction of the eCall safety system, regulation on vehicle safety.

PENDING FILES
Rail passenger rights, seasonal time changes, road infrastructure safety management.

1. WHY PEOPLE?

Everything that we do in the European Commission, we do for people. Not for planes, ports, cars or roads, but for PEOPLE. This includes passengers, employees, employers, citizens, unions and other stakeholders. A human-centric approach to mobility has been our guiding principle. As humans are also part of the nature, this has also meant a nature-centric approach.

2. VISION ZERO
ZERO DEATHS AND SERIOUS INJURIES ON ROADS BY 2050

Cutting deaths and serious injuries from road traffic accidents has been a top priority and we have approached the challenge from various angles:

- a package of measures introducing tougher technical inspections for vehicles and reinforcing roadside checks to make sure that the vehicles on our roads our fit to be driven,

- modernisation of rules for the training of professional drivers (of buses, lorries) to guarantee that they are proficient in road safety;

- new rules on infrastructure safety to make sure that European roads offer the best safety standards for road users and protect them against accidents and their impacts;

- new vehicle safety rules mean that all new vehicles, regardless of their model or price, will be equipped with 15 new safety features that will protect those inside and outside of the vehicle.

2.1. POLICY FRAMEWORK FOR 2021-2030
AND STRATEGIC ACTION PLAN ON ROAD SAFETY

Published in May 2018 as part of the 'Europe on the Move' package, the policy framework and action plan confirm the EU's long-term goal of moving close to zero fatalities and serious injuries in road transport by 2050. New interim targets seek to cut the number of road deaths by 50% between 2020 and 2030, and to halve the number of serious injuries in the same period.

2.2. GLOBAL COOPERATION

Working closely with the UN Special Envoy for Road Safety, the EU supported the creation of the UN Trust Fund for Road Safety and contributed financially. The Western Balkans, Eastern Partnership countries and Turkey have also joined our Vision Zero.

VEHICLE SAFETY

The Commission proposes to make the following safety and driver assistance features mandatory:

- INTELLIGENT SPEED ASSISTANCE
- REVERSING DETECTION AND REVERSING CAMERA
- DRIVER DISTRACTION AND DROWSINESS RECOGNITION
- LANE KEEPING ASSISTANCE
- ADVANCED EMERGENCY BRAKING
- DIRECT VISION REQUIREMENTS
- PEDESTRIAN/CYCLISTS DETECTION

INFRASTRUCTURE SAFETY

The Commission proposes to **update the European rules on infrastructure safety management**:

- SCOPE EXTENDED BEYOND MOTORWAYS
Only 8% of fatalities occur on motorways, while 39% happen on primary/main roads.
- NETWORK-WIDE RISK MAPPING
- REINFORCED PROVISIONS FOR VULNERABLE ROAD USERS

EXPECTED IMPACT (2020-2030):

| 7,300 lives saved | 38,900 serious injuries avoided | 3,200 lives saved | 20,700 serious injuries avoided |

3. VISION ZERO – ZERO POLLUTION (NOISE OR AIR) FROM TRANSPORT BY 2050

Some 400 000 people in Europe die prematurely every year due to poor air quality, to which transport is a major contributor. To address this and other environmental challenges, the Commission set out (in November 2018) a strategic long-term vision for a competitive and carbon-neutral economy by 2050: **'A Clean Planet for All'.** This will support Europe's path towards Vision 0.

The path to Vision 0 involves:

- **CO2 reduction targets** for new cars, vans & lorries (37.5%, 31% and 30% respectively by 2030).

- Targets for clean cars, vans, buses and lorries procured by public authorities, differing depending on vehicle category and Member State GDP.

- **Alternative fuels infrastructure.** The Commission is currently evaluating whether the Alternative Infrastructure Directive should be strengthened, for instance through binding targets for infrastructure rollout at Member State level.

- **Continuous financial support**: €800 million fresh money was made available in November 2017; in April 2019, the Commission created the CEF Transport Blending Facility with an initial budget of €200 million for alternative fuel projects.

- **Better organisation of the entire mobility system through digitalisation and access to data** to improve efficiency and support decarbonisation. The EU has mandated access to certain travel data to enable EU-wide multimodal travel information services, and to certain rail freight data to promote innovative services. The European Maritime Single Window introduces a truly European and fully harmonised interface for reporting. The future regulation for electronic freight transport information will see authorities accepting the documents accompanying intra-EU freight electronically. The shift to Mobility as a Service plus collaborative, cooperative, automated and autonomous mobility will also reduce congestion.

ENCOURAGING CLEAN AND SUSTAINABLE MOBILITY

Accelerating the shift to clean and sustainable mobility is essential to improve the quality of life and health of our citizens and contribute to the EU's climate objectives. This transition also offers major opportunities for the European economy. To succeed, the Commission proposes to make use of improved emission standards, smart road charging as well as scale up the use of low-emission alternative energy for transport, such as renewable electricity, advanced biofuels, or hydrogen.

Transport in Europe is 94% dependent on oil, 84 % of it is imported

The EU crude oil import bill is estimated at **around €187 billion a year**

Road transport alone is responsible for **almost a fifth of EU emissions**.

4. SOCIAL EUROPE

For road transport, our Europe on the Move proposals address the social dimension of the Single European Market. Mobility Package I contains initiatives to guarantee drivers enjoy the social conditions they deserve, as well as legal certainty for all engaged in cross-border transport.

In aviation, we set put forward measures to improve legal certainty for aircrews by clarifying how they are protected under EU law.

Maritime Stakeholders signed a **Blueprint for Cooperation** to upgrade skills for seafarers, matching them with demands arising from the digital transformation, and preparing them for future jobs.

5. SAFETY AND PASSENGER RIGHTS

In aviation, we revised the EASA Basic Regulation, making sure that safety rules and processes are fit for the future, including when it comes to new vehicles, such as drones, or new concepts, such as the U-Space.

In maritime, we revamped **passenger ship safety legislation** rules on training for seafarers and certification of marine equipment. At IMO level, we have sponsored numerous advances, notably on passenger ship safety. We also developed guidelines on places of refuge for ships in distress.

In road transport, all new vehicles have been equipped with a 112-eCall safety system in all Member States from 2018. The system helps save lives by shortening the crash emergency response time by 40- 50%.

6. GENDER EQUALITY
WOMEN IN TRANSPORT – EU PLATFORM FOR CHANGE

With only **women accounting for only 22% of transport workers, the** sector is not gender balanced. The objective of the Women in Transport – EU Platform for change is to strengthen women's employment and create equal opportunities for women and men in the transport sector through actions implemented by its members. It also serves as a forum to discuss and exchange good practices. **Early champions:** Swiss Railways have set up a Diversity & Inclusion Council, which will identify invisible barriers affecting women in terms of career and potential development within the company; EasyJet launched the Amy Johnson Flying Initiative: 20% of new entrant cadet pilots should be women by 2020.
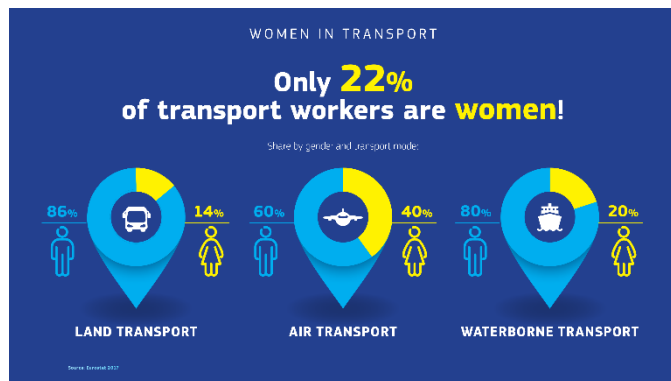
7. BOOSTING YOUTH MOBILITY IN EUROPE MOVE2LEARN LEARN2MOVE (A PILOT PROJECT FOR DISCOVEREU)

DiscoverEU, based on the pilot project Move2Learn Learn2Move, is a new EU initiative that gives 18 year-olds the opportunity to discover Europe by rail for free, learn about its cultural heritage and diversity, make new friends and experience what it feels like to be European. During the first two rounds, around 30 000 participants were able to explore Europe, and more opportunities will follow in 2019. The Commission has proposed including DiscoverEU in the next Erasmus programme, to be launched after 2020.
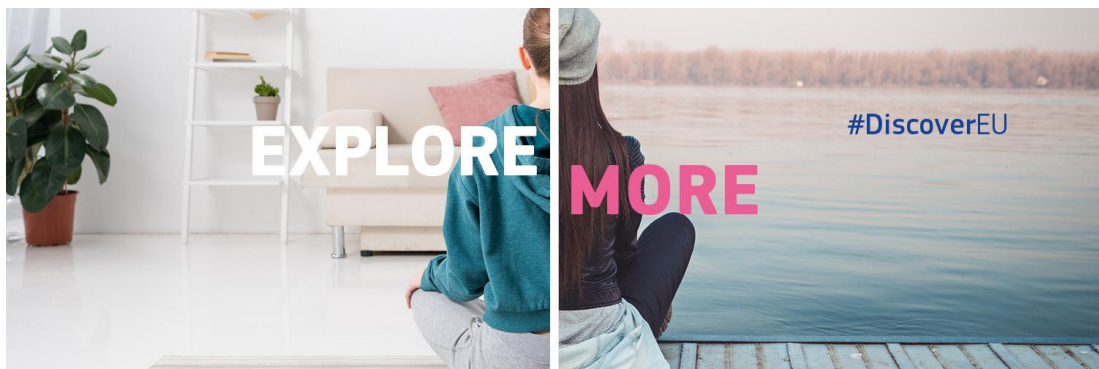
8. PLATFORMS AND EVENTS FOR CITIZEN AND COMMUNITY ENGAGEMENT

- **European Week of Mobility** – a week of activities, including the well-known car-free day, around Europe and elsewhere. The week culminates in the European Mobility Week Awards.

- **Edward – European Day Without a Road Death** – launched in 2016, the project is supported by drivers, the public and private sector partners.

- **CIVITAS** – the CIVITAS awards highlight some of the most ambitious, innovative and successful sustainable urban mobility work. The awards include that for Bold Measure, for Legacy, for Take-up and for Transformations.

- **European Road Safety Charter** – a civil society platform led by the European Commission. The entities form a community, in which members can share expertise. Also includes the Excellence in Road Safety Awards.

9. CITIZENS' DIALOGUES

These events are an opportunity for all EU Commissioners to be politically active in the Member States. Taking part in dialogues with citizens, Commissioners are able to present and communicate the EU agenda, listen to ideas, and engage with stakeholders. Commissioner Bulc took part in 30 Citizens' Dialogues, in 18 EU Member States, on themes ranging from transport policy to the future of Europe, the environment, investment, and jobs.

KEY STATISTICS

Reduction of road deaths: In 2018, there were around 25 100 fatalities from road accidents in the EU28. This is a decrease of 21% compared to 2010, and 1% compared to 2017.

European Day without a Road Death (EDWARD, 21. September): 31 countries (28 EU + Switzerland, Serbia, Norway) from across Europe participated in 2018. On the day, 50 people sadly lost their lives, compared to an average of 70 fatalities per day. 17 countries had 0 fatalities on this specific day.

External transport costs are estimated at around 1 000 billion per year (7% of EU GDP). The main contributors to this are the environment (carbon, noise and pollution), accidents and congestion. Road is the largest contributor, **accounting for 75% of total external costs in absolute terms**. Road is also the mode with the highest proportion of external costs that go unpaid. For all transport modes, the total costs (external and infrastructure) are substantially higher than what the user pays.

In 2018 European Mobility Week broke all records with almost **2 800 cities participating in 54 countries**. 27 EU + 27non-EU countries.

Transport is responsible for **20 million direct jobs** – 9% of total EU employment.

2.1 million companies are involved in transport.

The number of passengers in the EU increased by 3.2% between 2015 and 2016, **reaching 423 million rail, 973 million air, and 397 million maritime passengers.**

EUROPEAN**MOBILITY**WEEK
16-22 SEPTEMBER 2018

Mix and Move!

10.   NEXT STEPS

- User pays/polluter pays principles, charging legislation/regulation and new taxation models.

- Equal pay for equal work, and inclusiveness.

- Gender-balanced EU transport ecosystem.

- Social agenda framework for new jobs and skills for all modes.

- Passengers' rights for multimodal/integrated ticketing.

- Next steps towards all three Vision 0 domains.

- Governance model showing correlation between negative externalities and national budgets, as well as citizens' well-being.

- Expansion of people-centric transport policies in the EU neighbourhood and globally.

TRANSPORT

Innovation

@Bulc_EU

KEY RESULTS

AUTONOMOUS MOBILITY

we have prepared the way for a move from connected to cooperative, automated and eventually autonomous mobility.

DRONES

Legal framework in place to keep drone flights safe, secure and green. Funding for tests: €10 million for demonstrator projects, €500 000 for geo-fencing.

R&I TRANSPORT INVESTMENTS

€6.3 billion from Horizon 2020, €1.6 billion from InnovFin. ELENA-transport gives technical assistance for innovative **investments**: six transport projects received €12.4m but leveraged €511m.

DISSEMINATION

knowledge-sharing, replication and scaling up through Lighthouse Projects (€1 billion in EU money, €4.5 billion total investment) and European Innovation Partnership (Urban mobility cluster).

A NEW JOINT UNDERTAKING

Shift2Rail for innovation in rail.

NEW MFF

27% increase for Horizon Europe (€97.6 billion); €15 billion for cluster 'Climate, energy, mobility'. Mission-based approach and new European Innovation Council to promote breakthrough innovation and scale-up innovative start-ups.

NEW POST

creation of a new post within the United Nations Economic Commission for Europe (UNECE) for a European Commission official working on autonomous mobility.

KEY LEGISLATION

new rules on operating drones, Horizon Europe.

PENDING LEGISLATION

industry cooperation on autonomous mobility, Combined Transport.

1. WHY INNOVATION?

Innovation is driving the transformation **of the Transport Union** towards **efficient, clean, smart, safe, secure, and people-centric mobility.** It creates opportunities for new investment, jobs and sustainable behaviour. Digitalisation has dramatically expanded innovation opportunities, from technology-based innovation to service and social innovation, plus innovation in relation to behaviour, and modelling. The steady move towards open data and open competition is increasing the attractiveness of transport not only for established businesses, but also for SMEs and start-ups, and those involved in R&D and R&I. As infrastructure gets better and better, innovation is also curating a move away from ownership-based mobility towards use-based mobility, allowing collaborative and sharing services to gain in popularity.

Technology neutrality is paramount: regulators set goals but allow research and industry to find the best way to achieve them. Exceptions are made only to ensure interoperability / road safety and fair competition.

2. R&I FUNDING UNDER THE CURRENT MFF

2.1. HORIZON 2020 R&I FUNDING

Total **Horizon 2020 R&I funding** for 2014-2019 is €77.1 billion, of which €6.2 billion is earmarked for transport. Some 68% has already been allocated, 32% (€2 billion) remains for 2019-2020. Successful projects include

- work on smart mobility (multimodal info and ticketing service, electric urban 2/3/4 wheelers…);

- maritime digitalisation (maritime cloud services in the Baltic Sea).

2.2. TRANSPORT JOINT UNDERTAKINGS

Joint Undertakings are effective platforms for driving R&I. During this mandate, we set up a new Joint Undertaking (JU) for rail – **Shift2Rail** – to support a move away from road and towards rail – both for passengers and freight. The JU is helping to cut the life-cycle cost of railway transport, double capacity and improve both reliability and punctuality.

Clean Sky 2 continues to work towards its ambitious targets of cutting CO_2 emissions by 75% per passenger kilometre, nitrogen oxide emissions by 90%, and perceived noise by 65%. Clean Sky 2 has also set itself an additional target: to develop and demonstrate technology that reduces emissions by a further 20-30% compared to those for aircraft entering into service in 2014. The JU is developing than 30 main demonstrators of different sizes, some in a technical sequence, at a very high technological maturity level.

The **SESAR JU**, with its focus on air traffic management, has now become a genuine partnership that has changed the mind-set of stakeholders, who now synchronise investments. SESAR has in particular made good progress on safety, fuel consumption, pollution and costs. Innovation within SESAR has also given drones a real boost.

Projects funded under the fuel cells and hydrogen (FCH) 2 JU are reducing product costs and demonstrating on a large scale the market-readiness of technologies for cars, buses and refuelling infrastructure, as well as hydrogen production and distribution, energy storage and stationary power generation.

Over this mandate, we also developed the concept of U-space for the low-altitude system that connects all flying vehicles and keeps their operations safe and secure. To make this concept a reality, a first wave of R&I projects in support of the U-space has been completed through the SESAR 2020 programme. This includes €10 million for demonstrator projects, and €500 000 for geo-fencing.

2.3. INNOVFIN-BACKED EIB FINANCING

To date, InnovFin-backed EIB financing has supported 12 projects within the 'Smart, Green and Integrated Transport' objective, with about €1.6 billion, both debt and equity. This includes a loan complementing CEF funds to finance the expansion of Greenway's electric charging network in Central and Eastern Europe.

2.4. ELENA-EIB

helps set up innovative investments through 90% grants for technical assistance. ELENA-transport is a big success: 6 transport projects are currently benefitting from €12.4 million from the ELENA facility, expected to generate a total investment of €511 million.

3. DISSEMINATION OF R&I

Innovation needs to be disseminated, deployed and available on the mass market in order to achieve societal goals. We have programmes in place to ensure this happens.

- **Horizon 2020 – Lighthouse Projects:** 3 lighthouse cities are leading the way, with at least 3 following. By 2020, the goal is to have 20 Lighthouse Projects, with 60 lighthouse and 60 follower cities. A €1 billion EU contribution translates into €4-5 billion total investment. Examples from CIVITAS include 'Portis' (cooperation between cities and ports, urban freight transport); 'Destinations' (helps island cities cope with tourism); and 'Eccentric' (sustainable mobility in suburbia).

- **The European Innovation Partnership (EIP)** is a dynamic city and industry-driven network with 5 270 member organisations. The cluster 'Urban mobility' runs 5 initiatives: E-vehicles for Smart Cities and Communities; New Mobility Services (Smart Mobility); Intelligent Mobility for Energy Transition; Urban Air Mobility (U-Space); Alternative Fuels Special Vehicles.

4. FUNDING & ORGANISATION UNDER THE NEW MFF (2021-2027)

The Commission has proposed increasing the Horizon Europe budget to €97.6 billion (27% increase). Other R&I funding includes the Innovation Window InvestEU Fund, the Euratom Research and Training Programme, the International Thermonuclear Experimental Reactor (ITER) and Digital Europe. Together, these programmes make available €114.8 billion in funding in total.

Clusters will be key to a new cross-cutting approach. **Transport is part of the cluster 'Climate, energy and mobility', and has a €15 billion budget.** A new mission-oriented policy approach will see budget allocated to very concrete, more short-term missions.

All current transport JUs will be extended, with a **new one created for connected, cooperative, automated and autonomous mobility.**

The new **European Innovation Council** is a one-stop shop to promote **breakthrough innovation**, bringing the most promising ideas from the lab to real world application and supporting the most **innovative start-ups** and companies wishing to scale up their ideas.

5. INNOVATIVE IDEAS LAUNCHED

Over five years, we launched many additional innovative ideas that have either enriched transport, or were taken forward by other Commissioners and their DGs. Legislative proposals include:

- The U-space: recognised airspace for drones, covering altitudes of up to 150 metres. The u-space will pave the way for the development of a strong and dynamic EU drone services market.

- Military mobility: investment in the dual use of infrastructure.

- Smart villages: connectivity and digitalisation for rural areas.

- DiscoverEU: funding for 18-year-olds to travel around the EU, mainly by rail.

- EASA: new product certification process ensuring even higher quality & faster time-to-market.

- Transport Union model with key goals and strategic drivers.

- Five-layer model for the digitalisation of transport, new aviation architecture.

6. NEXT STEPS

- A new partnership for autonomous mobility.

- Further standardisation and interoperability towards integrated multimodal services (ticketing, logistics).

- Definition of open product/service/application interfaces for fair competition.

- Single mobility services open window.

- Single window for inland waterways.

- New air traffic management (ATM) arrangement and Single European Sky II (SES II).

- Transport energy grids as network-based means for energy storage.

- Dual-stream, fully recyclable batteries.

- New propulsion systems for aviation and maritime.

- New charging models (standardised, interoperable) for energy use.

- New systems/regulation for automated and autonomous mobility.

- New financial tools to stimulate innovation.
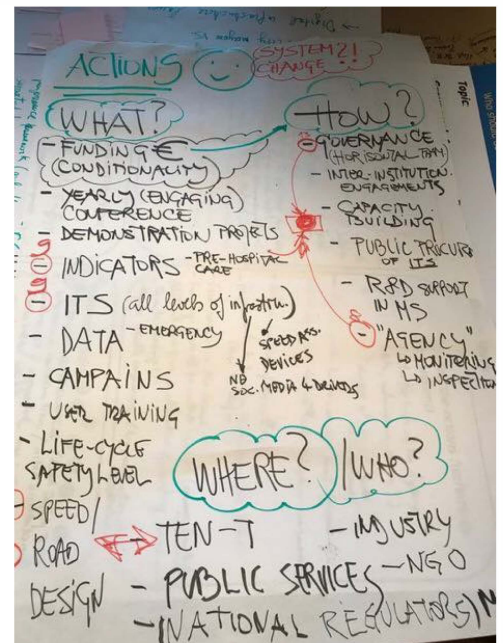
TRANSPORT
Investment

KEY RESULTS

TRANSPORT
represents **9% of EU Gross Value Added** and of employment.

TRANSPORT INVESTMENTS OF €230 BILLION
value have been supported by EU financing.

GREEN TRANSPORT INVESTMENT
CEF invested €18 billion in 381 projects linked to decarbonisation.

NEW, INNOVATIVE FUNDING TOOLS INTRODUCED
CEF blending, cleaner transport facility, safer transport platform, green shipping

REMOVED BARRIERS
for investments

MILITARY MOBILITY
proposal for dual use of infrastructure.

KEY LEGISLATION
reinforced CEF proposed for 2020-2027, with €30.6 billion for transport, review of TEN-T Regulation.

PENDING LEGISLATION
TEN-T streamlining

1. WHY PRIORITISE INVESTMENT?

Transport has been in the past been a victim of under-investment in Europe. It was not a political priority. We inherited a very ambitious and legally sound policy framework from the previous Commission, which we used to deploy transport investment during this mandate. But 5 years is not long enough to make up for more than 30 years of shortage, and the focus on transport investment must be further intensified. Studies also show that a 1% increase in public investment in transport infrastructure can create a 2.4% increase in GDP within 4 years. This illustrates the impact that infrastructure has on the economies of the EU Member States and the Union as a whole. An increased focus on climate change mitigation and digitalisation has made transport even more attractive for institutional and private investments. These conditions will continue, as we are only at the beginning of the process.

2. EU INFRASTRUCTURE AND INVESTMENT

The Trans-European Transport Network (TEN-T) is the backbone of the EU's single market. This European Commission policy supports the implementation and development of a Europe-wide network of roads, railway lines, inland waterways, maritime shipping routes, ports, airports and railroad terminals. The ultimate objective is to close gaps, remove bottlenecks and eliminate technical barriers between the transport networks of EU Member States, strengthening the social, economic and territorial cohesion of the Union and contributing to the creation of a single European transport area.

An estimated €500 billion of financial investment is required for the projects necessary to implement the TEN-T in the period 2021-27. In addition, we estimate €1 000 billion in investment is needed for the TEN-T comprehensive network, decarbonisation, digitalisation, safety and transport infrastructure maintenance. The Member States will fund the largest percentage of these costs. EU grants will form another significant contribution. Further EU funds will be assigned via innovative financial instruments such as loans, guarantees and other risk-bearing mechanisms. These instruments are specifically designed to draw private investment into commercially viable TEN-T projects by lowering project risk profiles and engendering confidence among private investors.

3. EU FINANCIAL SUPPORT FOR TRANSPORT INVESTMENTS (2014-2020)

To date, the **Connecting Europe Facility** has supported 757 projects with €23.7 billion, attracting additional investment that takes the total up to €49.6 billion. As we approach the end of the programme, we are as focused on project implementation. Many projects have already been completed, but others are not fully on track. In such cases, we will apply the 'use-it-or-lose-it' principle. Reflow funds will be re-injected into the programme for new calls later in 2019 and in 2020.

Several other EU funding instruments make available financial support to projects implementing the TEN-T:

1. Connecting Europe Facility
2. European Fund for Strategic Investment (EFSI)
3. Horizon 2020
4. European Structural and Investment Funds, including notably:
   - Cohesion Fund
   - European Regional Development Fund

To simplify access to EU grants and financial instruments, we have promoted **blending**. We have also made available an additional €12bn per year in **loans** from the EIB for sustainable infrastructure, including loans backed by Union Budget guarantees. We have promoted a

streamlined investment approach. We have also **transferred the Cohesion Fund** and military mobility funds to CEF.

Certain CEF calls required the combination of grants with financing from EFSI, the European Investment Bank, National Promotional Banks or private sector investors. In order to receive Connecting Europe Facility support, applicants were asked to show evidence of their project's financial readiness to obtain complementary funding from public or private financing institutions.

Total investment in transport thanks to EU funding between 2014 and today:

- The Connecting Europe Facility: €49.6 billion investment mobilised with €23.7 billion in EU funds for 757 projects;

- European Fund for Strategic Investment: €28 billion investment for 69 projects;

- European Investment Bank: approx. €150 billion in total investment (approx. €30-35 billion investment mobilised via €12-15 billion per year in loans);

Total EU investment: approx. €230 billion

In addition: European Structural and Investment Funds programmed for 2014-20:

- Cohesion Fund: €35 billion estimated to mobilise about € 40 billion

- European Regional Development Fund: €35 billion estimated to mobilise about €70 billion.

- Horizon 2020: grants for mobility-related research and innovation – €4.5 billion (over €6 billion by 2020).

Central European Ultra Charging

Enabling long-distance journeys with electric vehicles through 118 charging stations in seven EU Member States.

Creating a seamless, Europe-wide railway system

ERTMS will replace the more than 20 different train systems currently used, improving cross-border interoperability, increased capacity and safety.

4. REMOVING BARRIERS TO INVESTMENT

The Investment Plan for Europe, launched by European Commission President Juncker in 2014, aims to remove barriers to investment through complementary actions at EU and national level. Its objective is to promote investment by providing greater regulatory predictability, removing bottlenecks to investment and further deepening the single market.

To this aim, the Commission adopted a **Single Market Strategy** in 2015 to further remove regulatory barriers that hamper cross-border trade and investment. It also adopted the **Capital Markets Union** (CMU) in 2015 in order to remove obstacles to the free flow of capital across EU borders and help build a single market for capital.

As part of the CMU mid-term review, the Commission in 2017 adopted an **amendment to the Solvency 2** (the EU's prudential rules for the insurance sector) delegated act that reduces capital charges on insurers' investments in infrastructure corporates.

In November 2016, the Commission presented proposals for changes to the **capital requirement regulation**/directive (which transpose Basel 3 rules), proposing to lower capital charges for banks' exposures to certain infrastructure investments. In February 2019, the Council and Parliament approved the measures, as part of a wider banking package.

The Commission has also simplified **State aid rules** to facilitate public investment. It published **detailed guidance** on **Applying state aid rules on public funding of infrastructure** to help public authorities and companies identify when public support measures can be granted without needing approval under EU state aid rules.

Eurostat and the EIB also published a guide on the **Statistical treatment of public and private partnerships** to help national authorities better understand the impact that the features of PPP contracts have on government balance sheets.

To ensure the timely delivery of the core Trans-European Transport Network by 2030, the Commission in 2018 put forward a **proposal to simplify permit granting and public procurement** to ease the administrative burden on investors.

To help Member States improve business environments at national and regional level, the Commission in 2015 introduced a clear focus on investment in the European Semester. This new approach based on a 'virtuous triangle' of structural reforms, investment and fiscal responsibility has delivered, with two-thirds of all recommendations showing at least 'some progress', but a stronger push for implementing structural reforms is needed in some Member States.

5. MILITARY MOBILITY

In November 2017, the Commission put forward a proposal to improve military mobility in the EU. Sharing infrastructure will reduce costs and make it easier to move military personnel and equipment around Europe if necessary. The proposal mapped barriers to military mobility and outlined possible actions to maximise civil-military synergies. The Military Requirements have been drafted, and the Gap Analysis between military and civilian requirements performed. Funding for civilian-military dual-use of transport infrastructure will come through a proposed €6.5 billion envelope as part of the Connecting Europe Facility (CEF) in the next EU long-term budget. The 50% co-funding rate is expected to translate into at least €13 billion for dual-use projects.

6. TEN-T REVIEW

The 2013 TEN-T Regulation has helped focus attention on key missing links. But times are changing, and we should make sure we ask all the right questions: Which innovations could benefit TEN-T infrastructure? How can TEN-T best contribute to a safe, smart, sustainable and de-carbonised transport system? Does the core network need adjusting? What impact will Brexit on the one hand, and further EU enlargement on the other, have on the TEN-T? With these questions in mind, we decided to launch the review of our TEN-T policy. Depending on the results, the next Commission may propose to revise the Regulation.

7. STATISTICS ON TRANSPORT IN THE EU ECONOMY – 2018 STATISTICS, REFERRING TO 2016

- Transport represents 9% of EU Gross Value Added

- It is responsible for 20 million direct jobs – 9% of total EU employment

- 2.1 million companies are involved in transport

- The EU exported motor vehicles, rail rolling stock, planes and ships worth a total of €305 billion. This represents 16% of the EU's total goods exports in 2018. The EU exported transport services worth €164 billion, which represents 18% of the EU's total service exports.

- The number of passengers in the EU increased by 3.2% (2016 vs 2015), reaching 423 million passengers travelling by rail, 1000 million by air, and 397 million by sea (figure for 2016).

- Freight transport increased by 4.5% (2016 vs 2015) reaching 3 661 billion tkm.

8. NEXT STEPS

- For the next MFF, the Commission has proposed four instruments for transport funding:

1. **Connecting Europe Facility** (€30.6 billion for transport). This is part of a reinforced CEF with a total budget of €42.3 billion, of which 70% will be channelled into projects supporting the EU's climate objectives. € 30.6 billion of funds will go to transport investments, of which € 6.5 billion will target military mobility.
   Synergies with CEF Energy and CEF Digital will be promoted, for example through the option to apply the highest co-funding rate of the sectors concerned, or apply for a 10% top-up.
2. **InvestEU** (€11.5 billion guarantee for sustainable infrastructure aiming to leverage €185 billion in investment). This combines all financial instruments with the aim of mobilising €650 billion in the period 2021-27.
3. **Cohesion policy** funds (€35.3 billion for transport and environment in the Cohesion Fund, €226 billion for climate, energy, mobility, social and RDI in ERDF).
4. **Horizon Europe** (€15 billion for mobility, energy, climate), plus a new funding tool addressing the needs of disruptive innovation in areas linked to the EU's key objectives.

Common understandings were reached between the Council and European Parliament in March 2019 on CEF, InvestEU and Horizon Europe.

- New financial tools will also be needed to address financing gaps as they emerge.

TRANSPORT
Land

@Bulc_EU

KEY RESULTS

VISION 0
zero pollution and emissions from transport by 2050.

R&I TRANSPORT INVESTMENTS
€6.3 billion from Horizon 2020, €1.6 billion from InnovFin. ELENA-transport gives technical assistance for innovative **investments**: six transport projects received €12.4m but leveraged €511m.

DISSEMINATION
knowledge-sharing, replication and scaling up through Lighthouse Projects (€1 billion in EU money, €4.5 billion total investment) and European Innovation Partnership (Urban mobility cluster).

NEW MFF
27% increase for Horizon Europe (€97.6 billion); €15 billion for cluster 'Climate, energy, mobility'. Mission-based approach and new European Innovation Council to promote breakthrough innovation and scale-up innovative start-ups.

NEW POST
creation of a new post within the United Nations Economic Commission for Europe (UNECE) for a European Commission official working on autonomous mobility.

GREEN TRANSPORT INVESTMENTS
CEF invested a total of €18 billion in 381 projects linked to decarbonisation: €15.7bn in 236 railway projects, €0.3bn in 62 multimodal projects and €0.4bn in 35 decarbonisation projects.

LOW-EMISSION MOBILITY STRATEGY
guiding principles for Member States on increasing efficiency, accelerating the deployment of alternative energy for transport, and moving towards zero-emission vehicles.

A GENDER-BALANCED SECTOR
Women in Transport – EU Platform for change launched.

RAILWAYS:

FOURTH RAILWAY PACKAGE

to complete the opening of the passenger services market by December 2019, and the competitive tendering of PSO contracts by 2023. Both will improve service quality and value for money from public investments.

TRANSFORMATION OF THE EUROPEAN RAILWAY AGENCY INTO AN EU RAIL SYSTEM AUTHORITY

to improve rail safety & ensure interoperability (14 000 national rules replaced by 1 600 rules).

SINGLE RAIL AREA

replacing 14 000 national technical rules with 1 600 rules (1 200 national & 400 EU). This has been the biggest simplification of rail rules in history.

FURTHER DEPLOYMENT OF EU RAIL TRAFFIC MANAGEMENT SYSTEM (ERTMS)

to ensure the EU TEN-T core network is equipped by 2030.

INVESTING IN YOUTH

DiscoverEU – initiated the idea and pilot project Move2Learn Learn2Move.

KEY LEGISLATION

4th Railway Package

ROAD TRANSPORT:

MOBILITY PACKAGE I

containing eight legislative initiatives to improve the functioning of the road haulage market and workers' social and employment conditions by stepping up enforcement, fighting illicit employment practices, cutting the administrative burden for companies and bringing more clarity to existing rules.

MOBILITY PACKAGE II

proposals establishing ambitious, realistic and enforceable rules to help secure a level playing field between industry actors in Europe. The package put Europe on track to achieve the EU's commitments under the Paris Agreement, and will stimulate both innovation in new technologies and business models, and more efficient use of all modes for the transport of goods.

MOBILITY PACKAGE III

focusing on road safety, and in particular equipping new vehicles with **advanced safety features**, such as advanced emergency braking and lane-keeping assist system for cars, or pedestrian and cyclist detection systems for lorries. The proposals also asked Member States to systematically identify dangerous road sections and to better target investment.

VALLETTA DECLARATION ON ROAD SAFETY
political affirmation of road traffic safety measures from a technical and infrastructure-related standpoint and of further increasing driver education.

NEW SET OF ROAD SAFETY MEASURES
including a new roadworthiness package, professional driving licences and intelligent transport systems, supporting our objectives of halving the number of casualties between 2020 and 2030, and achieving Vision Zero by 2050.

AUTONOMOUS MOBILITY
we have prepared the way for a move from connected to cooperative, automated and eventually autonomous mobility.

NEW POST
creation of a new post within the United Nations Economic Commission for Europe (UNECE) for a European Commission official working on autonomous mobility.

DECOUPLING AND VERTICAL INTEGRATION, WITHOUT MONOPOLIES
we mandated access to certain key data, made progress on standardisation and interoperability (e-documents, smart digital tachographs), and created the first legal framework for cooperative ITS services, preparing the ground for connected, cooperative, automated and autonomous mobility (CCAM).

EETS
savings of €20-27 billion by 2040.

C-ITS
first framework for trusted and harmonised C-ITS services.

MOBILITY WEEK
and launch of **project EDWARD** (European Day without a Road Death).

KEY LEGISLATION
Mobility Packages I, II and III.

A WELL-FUNCTIONING INTERNAL MARKET	FAIR COMPETITION AND WORKERS' RIGHTS	DECARBONISATION	DIGITAL TECHNOLOGIES

1. WHY EU SUPPORT FOR LAND TRANSPORT?

The vast majority of both passengers and freight are transported by land in Europe, making land transport key for the competitiveness of the EU economy as a whole. At the same time, road transport is responsible for the largest share of transport externalities (congestion, accidents, noise, air pollution). While road safety in the EU has improved greatly in recent decades (and EU roads are the safest in the world), the number of deaths and injuries also remains far too high.

2. WHAT HAVE WE DONE?

Over the last five years, we have completed the legal framework for a single European Railway Area, adopting the 4th Railway Package. This removes market access barriers so that European rail undertakings can operate across the EU. The ERA will facilitate private investment and improve the attractiveness of a sector that is key to the decarbonisation of transport.

We have also tackled the core challenges facing the road transport sector, with proposals for modernisation. The first Mobility Package was designed to improve the functioning of the road freight transport market, reducing the administrative burden on operators and improving working conditions for drivers. The package included new measures to accelerate the use of digital tools (smart tachographs, e-documents and e-notification systems, etc.). We have also promoted a user/polluter pays approach with a complete reform of road charging rules to encourage use of electronic tolling systems. These provide smart incentives to decarbonise transport.

The second Mobility Package supports the implementation of our Low Emission Mobility Strategy, adopted in 2016. Proposed new measures improve efficiency, in particular in public transport bus and coach services, and through combined transport for freight. We also introduced more stringent CO_2 standards for light vehicles, new public procurement rules to accelerate the deployment of low and zero-emissions vehicles, and new standards for the design of heavy goods vehicles.

With the third Mobility Package came additional measures to accelerate the digitalisation of transport and improve road safety. Proposals ranged from the roadworthiness package to the EU Strategic Action Plan on Road Safety. This 'systems approach' is intended to halve the number of casualties between 2020 and 2030 and make Vision Zero a reality for the EU by 2050.

We have tackled urban mobility through CIVITAS and SUMP, and we have further increased the popularity of European Mobility Week, with almost 4 000 towns and cities taking part in 2019.

We have introduced smart mobility within the new EU-level project on smart villages.

Strengthening the EU's connectivity with its neighbours, we also signed a Transport Community Treaty with the six Western Balkan countries, exporting EU transport acquis on rail, cross-border mobility and road safety to the Western Balkan Region.

Road safety has been a key priority throughout the mandate. We have supported the European Day Without A Road Death, in which 31 countries participated in 2018. Sadly 50 people lost their lives on European roads on this day, but this is lower than the average of 70.

3. NEXT STEPS

- Adoption of pending proposals from the 1st, 2nd and 3rd mobility packages.

- New investment in rail infrastructure and in the digitalisation and decarbonisation of road transport through CEF 2.

- Deployment of ERTMS on the TEN-T core network by 2030.

- Introduction of seamless integrated services (integrated logistics, integrated ticketing) and MaaS.

- Recommendations for (urban) micromobility.

TRANSPORT
Air

@Bulc_EU

KEY RESULTS

AVIATION STRATEGY FOR EUROPE
milestone initiative to generate growth for European business, foster innovation and let passengers profit from safer, cleaner and cheaper flights, while offering more connections.

VISION 0
zero pollution and emissions from transport by 2050.

LANDMARK INTERNATIONAL AGREEMENT
global emissions reductions for aviation agreed within ICAO.

SAFETY AND PASSENGER RIGHTS

A GENDER-BALANCED SECTOR
Women in Transport – EU Platform for change launched.

DECOUPLING & VERTICAL INTEGRATION, WITHOUT MONOPOLIES
we mandated access to certain key data, made progress on standardisation and interoperability (new aviation architecture, U-Space for drones and flying cars).

DRONES
Legal framework in place to keep drone flights safe, secure and green. Funding for tests: €10 million for demonstrator projects, €500 000 for geo-fencing.

R&I TRANSPORT INVESTMENTS
€6.3 billion from Horizon 2020, €1.6 billion from InnovFin. ELENA-transport gives technical assistance for innovative **investments**: six transport projects received €12.4m but leveraged €511m.

NEW MFF
27% increase for Horizon Europe (€97.6 billion); €15 billion for cluster 'Climate, energy, mobility'. Mission-based approach and new European Innovation Council to promote breakthrough innovation and scale-up innovative start-ups.

KEY LEGISLATION
New EASA Basic Regulation, new regulation to safeguard competition in air transport, two new regulations on the safe use of small drones, implementing rules for drones.

1. WHY EU SUPPORT FOR AVIATION?

Air connections provide a physical connection between Europe and the rest of the world. Connectivity promotes mutual understanding, which leads to closer cooperation. Aviation also plays a key role in the EU's trade with the rest of the world.

Since the Aviation Strategy was designed, air traffic has risen by 20%, making capacity a key focus of EU action on aviation, alongside environmental concerns and connectivity. But the industry is experiencing a historic high, with collective net profits amounting to €606 billion in 2018, and similar results expected for 2019.

2. AVIATION AGREEMENTS – WHAT HAVE WE DONE?

- Concluded negotiations with Tunisia, Armenia and Qatar for EU-level Comprehensive Aviation Agreements

- Signed Bilateral Air Safety Agreement with China

- Concluded negotiations for an Bilateral Air Safety Agreement with Japan

3. GUIDANCE DOCUMENTS – WHAT HAVE WE DONE?

- Guidelines on air passenger rights

- Guidelines on ownership and control

- Guidelines on Public Service Obligations

- Best practices for minimum service levels in airspace management

- U-space blueprint

- New airspace architecture

4. NEXT STEPS

- Global single sky.

- U-Space implementation.

- New propulsion systems in aviation.

- Integrated ticketing; open APIs for digital aviation services.

TRANSPORT
Water

@Bulc_EU

KEY RESULTS

VISION 0
zero pollution and emissions from transport by 2050.

A GENDER-BALANCED SECTOR
Women in Transport – EU Platform for change launched.

THE FUTURE OF WORK/SKILLS
pilot project for maritime 'Blueprint for Cooperation on Skills'.

R&I TRANSPORT INVESTMENTS
€6.3 billion from Horizon 2020, €1.6 billion from InnovFin. ELENA-transport gives technical assistance for innovative **investments**: six transport projects received €12.4m but leveraged €511m.

NEW MFF
27% increase for Horizon Europe (€97.6 billion); €15 billion for cluster 'Climate, energy, mobility'. Mission-based approach and new European Innovation Council to promote breakthrough innovation and scale-up innovative start-ups.

MARITIME:

MARITIME SINGLE WINDOW ENVIRONMENT
savings of €725 million by 2030, 60% decrease in administrative burden.

VALLETTA DECLARATION

IMO APPROVAL OF THE GREENHOUSE GAS REDUCTION STRATEGY
50% reduction in CO_2 emissions from shipping globally by 2050.

SUPPORT FOR THE IMPLEMENTATION OF THE 2020 GLOBAL SULPHUR REQUIREMENTS
as of January 2020, ships will burn less polluting fuel, with a lower sulphur content.

AN ECOSYSTEM APPROACH TO SUSTAINABILITY IN SHIPPING
discussions take place within the European Sustainable Shipping Forum, hosted by the European Commission.

GREEN SHIPPING GUARANTEE PROGRAMME
up to €750m in guarantees expected to generate €3bn in investment.

PORT SERVICES REGULATION
increased transparency of investment in ports.

DECOUPLING & VERTICAL INTEGRATION, WITHOUT MONOPOLIES
we mandated access to certain key data, made progress on standardisation and interoperability (European Maritime Single Window, e-documents, DTLF).

KEY LEGISLATION
Port Reception Facilities Regulation, European Maritime Single Window environment, regulations on qualifications for seafarers and recognition thereof, Passenger Ship Safety Package.

INLAND WATERWAYS:

FUNDING OF ALMOST €1.8 MILLION
55 inland navigation projects funded, making this mode the second largest recipient after rail.

UPDATE OF THE RIVER INFORMATION SERVICES TECHNICAL STANDARDS

KEY LEGISLATION
Directive on technical requirements for vessels, Directive on the recognition of professional qualifications in inland navigation.

1. WHY EU SUPPORT FOR WATERBORNE TRANSPORT?

Goods have been transported by water for hundreds of years. Today, 75% of the EU's external trade is still seaborne, alongside 36% of internal trade. For some EU Member States, inland waterways play a key role – 13 EU countries have interconnected waterway networks. Inland waterways also have huge potential to address the congestion, sustainability and noise challenges linked to other transport modes.

Importance of the maritime cluster for the EU economy

75% of EU external trade is seaborne (and 36% of EU internal trade)

ca. **€59bn** of gross value added*

400m passengers embark or disembark annually at EU ports

Overall volumes handled in EU ports are expected to increase by **50% until 2030**

32% of the wold's fleet is controlled by EU companies

764 000 people directly employed in the maritime cluster*

* Figures taken from DG MARE's 2018 Blue Economy report. However, employment figures greatly vary among the sources. The Commission communication considered that EU Ports employ more than 3 million people (directly and indirectly). ECSA estimated the shipping industry's total employment contribution rises to 2.1 million people.

2. WHAT HAVE WE DONE?

The EU's maritime cluster makes an incredible contribution to the EU's core priorities: jobs and growth, digitalisation, migration/security, decarbonisation, strengthening the internal market, shoring up the EU's role as a global actor, plus external trade and more.

Legislation adopted since 2014 will further strengthen the hand of the maritime sector in contributing to these priorities:

- The Port Reception Facilities legislation will support the European Circular Economy and Plastics Strategy.

- The upgraded rules on training and qualifications will help the single market to function smoothly.

- The European Maritime Single Window environment will increase efficiency within the sector through digitalisation.

For inland waterways, the Commission has delivered on most of the commitments set out in the Naides II Communication, 'Toward Quality Inland Waterways Transport', including through the directives on technical requirements and professional qualifications.

The European Commission also adopted a Decision on the use of a reserve fund for promoting innovation, and established a European Committee for Standardisation in Inland Navigation, both of which will help to increase the modal share of inland waterway transport.

A Commission staff working document on digital inland navigation has also helped frame the discussion on the digitalisation of the sector, preparing the ground for synergies and improved interoperability in logistics and fright transport.

3. NEXT STEPS

- Greening of the maritime fleet

- NAIADES III

- Single Maritime Area for the EU

- Comprehensive agreements for maritime

- Integrated logistics models with open APIs and de-coupling of infrastructure from services

TRANSPORT
Cycling

@Bulc_EU

KEY RESULTS

VISION 0
zero pollution and emissions from transport by 2050.

GUIDANCE FOR CYCLING PROJECTS STUDY
includes minimum quality standards for infrastructure.

STUDY ON URBAN LOGISTICS

VALLETTA DECLARATION
calls for cycling and walking to be taken into account in mobility plans, safety policies and measures, and calls for the inclusion of dedicated infrastructure where feasible.

BIKES ON TRAINS
revised passenger rights regulation strengthened the right of passengers to take bikes on trains.

THIRD MOBILITY PACKAGE
improved visibility of road markings and signs.

GREEN PUBLIC PROCUREMENT
promoted the use of cargo bikes by public authorities.

KEY LEGISLATION
Directive for Infrastructure for Spatial Information in Europe

1. WHY EU SUPPORT FOR CYCLING?

Cycling is the cleanest mobility solution on wheels, and is an effective and straightforward way to bring sustainable mobility to the EU's towns and cities. Alongside its green credentials, cycling is good for users' health, saves time and money, and reduces congestion for all.

Cycling in all 28 EU Member States is also estimated to create economic benefits of €513 billion/year. That is more than €1 000 per inhabitant.

2. THE BENEFITS OF CYCLING IN NUMERICAL TERMS[1]

CATEGORY	DESCRIPTION / ELEMENTS	ESTIMATED BENEFITS FOR THE EU/YEAR
Health	Longer lives due to physical activity:	€95.5bn + prevention of almost 29 000 premature deaths.
	Healthier lives (morbidity benefits):	€38.6bn
	Improved mental health:	€30bn
	Improved health of children versus sedentary life styles:	€20bn
Growths and jobs	In 2013, the European bicycle industry accounted for 90 000 jobs, including over 800 SMEs. Across all economic sectors, over 650 000 jobs are associated with cycling (mainly in tourism); 400 000 additional jobs could be created in the EU if current cycling levels double.	Over €12bn worth of industrial output. Around 13.7m bikes and e-bikes produced in the EU (2016).
	Better health of employees:	1.3 fewer sickness days for people who cycle; gain of €260 per employee/year.
	Reduced work absenteeism:	€4.5bn
	Shopping by bike:	€111bn
Climate	CO2 savings:	11-24m tonnes of CO2 (equivalent) saved (2011 figures).
	Aspirational target: if by 2020 the whole EU cycled as much as Denmark did in 2000:	55-120m tonnes of CO2 would be saved annually.
	Direct reduced CO2 emissions benefits:	€2.2bn
	Related benefits of reduced CO2 emissions:	€10bn
Congestion	Congestion-easing:	€6.6bn
	Percentage of goods moved in cities that can be shifted to cargo bikes:	Up to 68%[2]
Road safety	Reduced fatalities and injuries:	€0.77bn
	Reduced material damage:	€3.2bn
Energy	Fuel savings:	€2.8bn

---

[1] Figures taken from the ECF's EU Cycling Strategy; Recommendations for Delivering Green Growth and Effective Mobility in 2030, the EU cycling economy report and the biking industry.

[2] http://road.cc/content/news/170204-bicycles-could-replace-vans-and-lorries-two-thirds-logistic-trips-video

3. WHAT HAVE WE DONE?

- Sustainable Urban Mobility Planning (SUMP_ to help cities better integrate cycling.

- CIVITAS initiative to help create networks, share best practices and create cycling demonstration projects.

- European Mobility Week: car-free days to promote cycling in cities.

- Urban mobility indicators to feature cycling as a key benchmarking tool.

- Green public procurement to encourage the use of cargo bikes, corporate bike services & more.

- Horizon 2020 to make innovative bikes eligible for funding as green vehicles.

- Standards for quality and safety of bikes.

- Review of rail passenger rights rules to allow cyclists to take their bikes onto trains.

4. NEXT STEPS

- Closer links between European Mobility Week and the European Week of Sport.

- Further support for cycling infrastructure projects.

- Include cycling in the future micro-mobility strategy.

- Co-financing for bicycle lanes.

- Support for cross-border cycling routes.

- New safety features for lorries that will help keep cyclists safe.
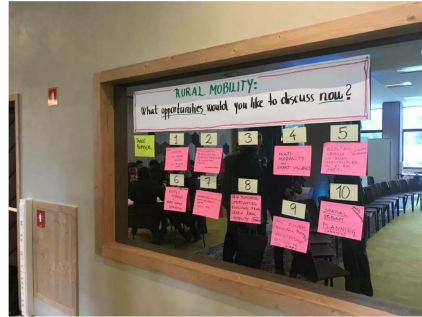
TRANSPORT
Multimodality

@Bulc_EU

KEY RESULTS

VERTICAL INTEGRATION, WITHOUT MONOPOLIES
mandated access to certain key data, made progress on standardisation and interoperability (European Maritime Single Window, e-documents, DTLF, DINA).

LEVEL-PLAYING FIELD
ground-breaking study on internalisation of external costs revealed the polluter-pays principle is not in place for any mode. The study provides the facts on which to base decisions on the extent and ways in which to internalise external costs in the future.

VISION 0
zero pollution and emissions from transport by 2050.

GREEN TRANSPORT INVESTMENTS
CEF invested a total of €18 billion in 381 projects linked to decarbonisation (€15.7bn in 236 railway projects), €1.6bn in 48 inland waterway projects, €0.3bn in 62 multimodal projects and €0.4bn in 35 decarbonisation projects).

INNOVATION IN MULTIMODALITY
R&I (Horizon 2020) funding for multimodal projects, e.g. a MaaS research projects under Shift2Rail and iMOVE (collection of real-time data on user needs and preferences to enable seamless interoperability between multiple MaaS schemes).

NEW MFF
Reinforced CEF (€42.3 billion) and threefold increase for CEF-Digital funding (€3 billion).

KEY LEGISLATION
European Maritime Single Window, European Electronic Tolling System, Regulation on use of smart tachographs.

EUROPEAN**MOBILITY**WEEK
16-22 SEPTEMBER 2018

Mix and Move!

#**mobility**week

1. WHY EU SUPPORT FOR MULTIMODALITY?

With the total external costs of transport reaching €1000 billion per year, multimodality matters more now than ever before: it can make the movement of cargo and passengers more sustainable, more efficient and often faster by combining different modes of transport as appropriate.

Multimodality is also closely linked to the four cornerstones of the **Transport Union**: a smart mix and a modal shift to less polluting modes helps to **decarbonise** transport and reduce other negative externalities, such as air pollution and congestion. **Digitalisation** allows the generation and exchange of big and smart data – a prerequisite for a seamless mobility experience across modes, and for integrated planning, ticketing and payment services. **Innovation** is at the forefront of new applications, business and social models that are needed to make multimodality a reality. Mobility as a Service (MaaS) is but one example. Finally, multimodality needs **investment**: in transport infrastructure, to connect modes in a smart way, and in digital infrastructure, which underpins the delivery of multimodal services.

2. MULTIMODALITY – ACHIEVEMENTS & REMAINING CHALLENGES

Multimodal mobility involves **five layers** – infrastructure, data, application, service and network. Our approach has involved allowing **vertical integration** via open data applications, interfaces and regulated interoperability, whilst **avoiding monopolies**.
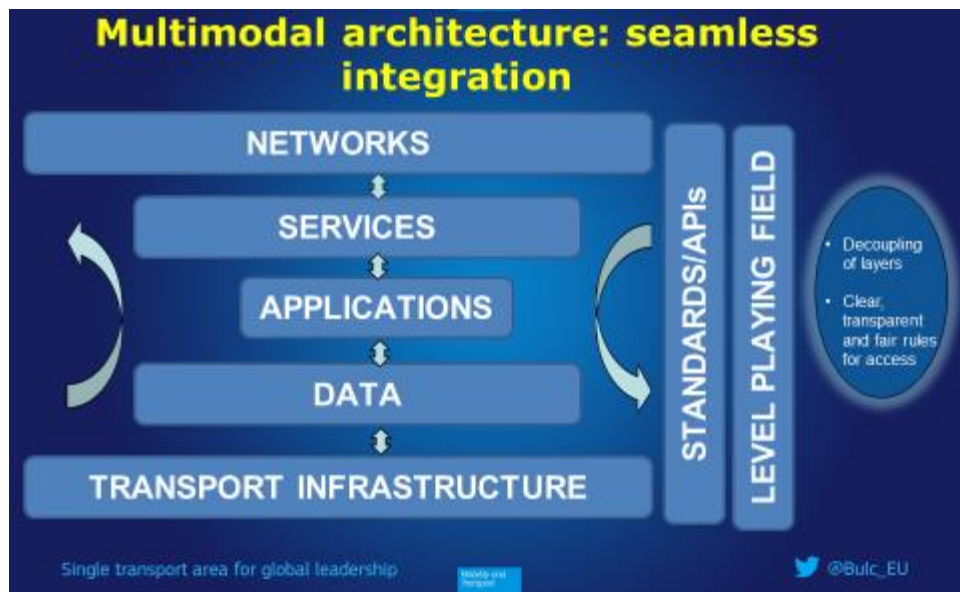
2.1. ACCESS TO THE DATA LAYER – WHAT HAVE WE DONE?

It is essential to keep all layers decoupled and open for competition via public product/service/application interfaces, as well as to set clear rules for private, industry and public data. This is crucial for the development of competitive markets and industry.

The EU has therefore mandated **access to certain data**: EU-wide multimodal travel information (timetables, access nodes, bike- and car-sharing, vehicles facilities, standard fares for all modes….); rail freight information (e.g. expected time of arrival). The European Maritime Single Window (EMSW) makes arrival and departure times of ships publicly available. The passenger side/integrated ticketing remains a challenge.

2.2. STANDARDS, INTERFACES AND INTEROPERABILITY – WHAT HAVE WE DONE?

- **The European Maritime Single Window** introduces a fully harmonised environment for ship reporting: savings of €725 million by 2030 and reporting time cut in half; this could be a blueprint for standardisation work at IMO level as well.

- Our proposal on **electronic freight documents (e-docs)** will enable companies to submit administrative documents in all modes electronically: savings of €20-27 billion expected by 2040.

- The **Digital Inland Waterway Area (DINA)** interconnects information on infrastructure, people, operations, fleet and cargo in the inland waterway transport sector and with other transport modes.

- Within the **Digital Transport and Logistics Forum (DTLF)**, companies from all modes build a common and interoperable data layer for freight multimodality. In 2018, the DTLF began creating a common digital language across modes. Since January 2019, it is engaged in defining technical and governance rules on accessing multimodal traffic data, on the positioning of goods, and on the availability of vehicle capacity and transport equipment.

2.3. LEVEL PLAYING FIELD – WHAT HAVE WE DONE?

- Ground-breaking **study on the internalisation of external costs**: we have a 'society and environment pays' principle in place rather than 'user pays' or 'polluter pays; users and polluters never pay for their costs in total, in any of the modes. We now have all the necessary information at our disposal to decide to what extent, and how, we should internalise external costs.

- The existing **Combined Transport Directive** is the only legal instrument entirely dedicated to levelling the playing field and supporting a modal shift away from long-distance road transport. Our proposal to revise this Directive sought to clarify the definition of 'combined transport' and eligibility for support, to simplify compliance and enforcement, and further promote investments in transhipment terminals.

3. CURRENT FINANCING AND NEXT MFF / CEF

- Under the **current CEF**, funding requests for multimodal freight platforms or for access to such terminals were very high, with over 35 project proposals requesting close to €190 million in 2018. An additional 23 project proposals were submitted for multimodal innovation and passenger projects, requesting more than €120 million in funding.

- **R&I funding** is also used to promote multimodality. For example, a number of 'Mobility as a Service' research projects have been funded through Shift2Rail and under Horizon 2020. The IMOVE project is developing tools to collect real-time data on mobility user needs and preferences and to enable the exchange of information and seamless interoperability between multiple MaaS schemes.

- For the **next MFF**, the Commission has proposed a reinforced CEF with a **total budget of €42.3 billion**, and the budget for CEF Digital would be tripled (to €3 billion).

4. NEXT STEPS

- Political debate on the internalisation of external costs, taking into account social consequences.
- Single logistics multimodal window.
- Agreement on open data and open interfaces, including a code of conduct for data-sharing.
- Further rules on open data.
- Integrated logistics and ticketing.

COMMISSIONER:
Violeta Bulc

HEAD OF CABINET:
Matej Zakonjšek

DEPUTY HEAD OF CABINET:
Jocelyn Fajardo

CABINET MEMBERS:
Alessandro Carano
Martina Hakl (Policy Assistant)
Silke Obst
Blaž Pongračič
Joshua Salsby
Alisa Tiganj

TEAM MEMBERS:
Stéphanie Clouet
Styliani Contoudis
Giordano Criscito
Nicola Davenport
Robert Kano
Helena Kolaj
Filippo Positano
Eleftheria Voliotou
Laurence Vu
Charlotta Wennerlund