



Questions and Answers: Sustainable and Smart Mobility Strategy

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What are the key elements of this strategy?

The [Sustainable and Smart Mobility Strategy](#) is structured around three key objectives: making the European transport system sustainable, smart and resilient.

A clear path is needed to achieve a 90% reduction in transport-related greenhouse gas emissions by 2050. This is the effort required from transport to ensure the EU becomes the first climate-neutral continent by 2050, as outlined in the [European Green Deal](#). Digitalisation will become an indispensable driver for the modernisation of the entire system, making it seamless and more efficient, while further reducing emissions. In addition, the coronavirus pandemic has shed light on the vulnerabilities of the single market and the need to strengthen its resilience.

The transition to a greener, smarter and more resilient mobility system should leave nobody behind. Mobility must be available and affordable for all, rural and remote regions must remain connected, and European transport must offer good social conditions to its workers and provide attractive jobs.

The strategy sets out an action plan of concrete policy measures, structured around 10 key areas for action ("flagships") areas that will guide the Commission's work in the years to come. It also sets out milestones that show where we want to be in 10 and 30 years from now.

Why is this strategy necessary?

While mobility offers its users many benefits, it is not without costs for our society. Negative effects such as greenhouse gas emissions, air and water pollution, but also accidents and road crashes, congestion, noise, and biodiversity loss affect our health and wellbeing. Past efforts have not yet addressed these costs sufficiently.

Today, transport accounts for a quarter of the EU's total greenhouse gas emissions and emissions have increased over recent years. Our goal of being the first climate-neutral continent by 2050 and our -55% greenhouse gas emissions reduction target by 2030 requires more ambition in transport.

Europe also needs to use digitalisation and automation to further increase levels of safety, security, efficiency, reliability, and comfort, thereby maintaining the EU's leadership in transport equipment manufacturing and services, and improving our global competitiveness.

Transport was among the sectors hit hardest by the coronavirus pandemic and the crisis has caused healthy companies to lose jobs and revenue. The strategy sets out much-needed reforms, policies and actions to support the sector in its recovery.

What milestones does the strategy set for 2030, 2035 and 2050?

Various milestones show the path to achieving our objectives of sustainable, smart and resilient mobility, such as:

By 2030:

- at least 30 million zero-emission cars will be in operation on European roads
- 100 European cities will be climate neutral.
- high-speed rail traffic will double across Europe
- scheduled collective travel for journeys under 500 km should be carbon neutral
- automated mobility will be deployed at large scale

- zero-emission marine vessels will be ready for market

By 2035:

- zero-emission large aircraft will be ready for market

By 2050:

- nearly all cars, vans, buses as well as new heavy-duty vehicles will be zero-emission.
- rail freight traffic will double.
- a fully operational, multimodal Trans-European Transport Network (TEN-T) for sustainable and smart transport with high speed connectivity.

KEY ELEMENTS PER MODE

ROAD: What is your vision on decarbonising road transport?

- **By 2030, there will be at least 30 million zero-emission cars and 80 000 zero-emission lorries in operation.**
- **By 2050, nearly all cars, vans, buses as well as new heavy-duty vehicles will be zero-emission.**
- **The 'polluter pays' and 'user pays' principles need to be implemented without delay in all transport modes.**

The Commission will propose a revision of the CO2 standards for cars and vans by June 2021, and will also review the CO2 standards for heavy-duty vehicles by 2022.

The upcoming proposal for more stringent air pollutant emissions standards for combustion engine vehicles (Euro 7) will ensure that only future-proof, low-emission vehicles enter the market.

Measures such as carbon-pricing (in the form of possible inclusion in the EU Emission Trading System), taxation, road charging, and the revision of rules on the weights and dimensions of heavy-duty vehicles will contribute to increasing demand for low- and zero-emission vehicles. For alternative fuels, the strategy calls for large-scale deployment of sustainable renewable and low-carbon fuels without delay.

We also plan to adjust our roadworthiness legislative framework to ensure the lifetime compliance of vehicles with emission and safety standards. A single faulty vehicle can pollute our air more than several thousand clean ones.

RAIL: What are the main aspects regarding rail transport?

- **Traffic on high-speed rail will double by 2030**
- **Rail freight traffic will increase by 50% by 2030 and double by 2050.**
- **By 2030, rail and waterborne-based intermodal transport will be able to compete on equal footing with road-only transport in the EU.**

Completing the [TEN-T network](#), including the high-speed lines, will provide better connections along Europe's main corridors. Simplifying the use and purchase of cross-border tickets and improving passengers' awareness of their rights will make rail more attractive for customers.

The implementation of the [Fourth Railway Package](#) and opening rail markets to competition, will make railway operators more responsive to customer needs, and improve the quality of their services and their cost-effectiveness.

In 2021, the Commission will propose an action plan to boost long-distance and cross-border passenger rail services. To further reduce emissions, rail transport will need to be further electrified and, wherever this is not viable, the use of hydrogen should be increased.

For freight, a substantial part of the 75% of inland freight carried today by road should shift to rail and inland waterways. Increased capacity, strengthened cross-border coordination and cooperation between rail infrastructure managers, better overall management of the rail network, and the deployment of new technologies such as digital coupling and automation will enable this.

The [European Year of Rail of 2021](#) is an excellent opportunity for Member States, the Commission and the rail sector to put these issues in the spotlight.

WATERBORNE: What does the strategy foresee for decarbonising waterborne transport?

- **Zero-emission ocean-going vessels will become market-ready by 2030**

A 'basket of measures' is needed to decarbonise maritime transport, where global actions remain critical for achieving significant reductions.*

Similar to aviation, waterborne transport has greater decarbonisation challenges in the next decades, due to current lack of market-ready zero-emission technologies, long development and life cycles of vessels, the required significant investments in refuelling equipment and infrastructure, and international competition in the sector.

EU legislation on ship recycling will be reviewed and the Commission will also propose to extend the EU Emission Trading System (EU ETS) to the maritime transport sector in June 2021.

The upcoming FuelEU Maritime initiative will boost the production and uptake of sustainable maritime fuels, and the Commission will consider to establish a Renewable and Low-Carbon Fuels Value Chain Alliance.

Establishing clean ports as well as 'Emission Control Areas' in all EU waters is another priority, aiming at zero pollution to air and water from shipping for the benefit of sea basins, coastal areas and ports. For inland navigation, we will put forward the NAIADES III programme to tackle key challenges such as the need to complete links with the rail network, ensure climate resilient infrastructure, renew barge fleets and improve access to financing.

AVIATION: What are the main aspects with regard to decarbonising aviation?

- **large zero-emission aircraft will be market ready by 2035**

A 'basket of measures' is needed to decarbonise aviation where global actions remain critical for achieving significant reductions. Aviation is facing similar decarbonisation challenges to those of waterborne transport.

In particular, carbon pricing is key to internalising the cost of CO2 emissions. For aviation, the Commission will present a proposal to reduce ETS allowances allocated for free to airlines. The Commission will also propose to implement the ICAO Carbon Offsetting and Reduction Scheme for International Civil Aviation (CORSIA) through the revision of the ETS Directive in 2021.

The upcoming ReFuelEU Aviation initiative will boost the production and uptake of sustainable aviation fuels, and the Commission will consider to establish a Renewable and Low-Carbon Fuels Value Chain Alliance.

More efficient traffic management through the [Single European Sky](#) can bring about further environmental gains. The Commission will propose measures to make our airports clean, by feeding stationed vessels and aircraft with renewable power instead of fossil energy for example.

SUSTAINABLE MOBILITY

What is key to achieving the sustainability objective?

Under the European Green Deal greenhouse gas emissions from transport need to reduce by 90% to become climate neutral by 2050, and work towards our zero-pollution ambition. To achieve the systemic change we need to:

- (1) make all transport modes more sustainable,**
- (2) make sustainable alternatives widely available in a multimodal transport system and**
- (3) put in place the right incentives to drive the transition.**

Measures will include boosting the production, distribution and use of renewable and low-carbon fuels in transport, as well as supporting the replacement of existing fleets with low- and zero-emission vehicles. We also need to increase the number of passengers travelling by rail and commuting by public transport and active modes, as well as shifting a substantial amount of

freight onto more sustainable transport modes, such as rail and inland waterways.

Lastly, we need to implement the 'polluter pays' and 'user pays' principles without delay in all transport modes, in particular through carbon pricing and infrastructure charging mechanisms.

How will the Commission ensure that the infrastructure needed for alternative fuels is in place?

The increased use of renewable and low-carbon fuels across modes must go hand-in-hand with the creation of a comprehensive network of recharging and refuelling infrastructure. Our ultimate goal is a dense, widespread network to ensure easy access for all private and business customers, regardless of the mode they operate in.

We will address this issue when revising the Directive on Alternative Fuels Infrastructure, the Trans-European Transport Network (TEN-T) Regulation and other policy instruments such as the recast Renewable Energy Directive and the Energy Performance of Buildings Directive.

In addition, the 'Recharge and Refuel' European flagship under the Recovery and Resilience Facility seeks to build half of the 1 000 hydrogen stations by 2025 and one million out of 3 million public recharging points needed by 2030.

The Commission will also publish a strategic rollout plan outlining supplementary actions to support the rapid deployment of alternative fuels infrastructure across all modes.

What does the strategy foresee for mobility in cities?

Citizens expect progress with regard to air quality, traffic noise, congestion and road safety in their towns and cities.

In many cities mobility is shifting towards shared and collaborative services (shared cars, bikes, ride-hailing, and other forms of micromobility) facilitated by the emergence of intermediary platforms, thereby enabling the reduction of the number of vehicles in daily traffic.

Cities are and should therefore remain at the forefront of the transition towards greater sustainability in transport.

The strategy includes actions to make inter-urban and urban mobility more sustainable and healthy, by means of a revision of the Urban Mobility Package of 2013 for example.

The Commission will also engage with cities and Member States to ensure that all large and medium-sized cities that are urban nodes on the TEN-T network put in place their own sustainable urban mobility plans by 2030.

SMART MOBILITY

What role does digitalisation play in modernising the transport system?

In the near future, we can expect the emergence and wider use of game-changing new mobility technologies, such as drones (unmanned aircraft) for commercial applications, autonomous vehicles, hyperloop, hydrogen powered aircraft and electric waterborne transport.

The European Commission will develop the framework to facilitate the development and deployment of digital tools and systems. We will work towards facilitating testing and making the regulatory environment fit for innovation, notably with regard to Artificial Intelligence.

We need to deploy new technologies to make the whole transport system more efficient, and our multimodal mobility seamless. The Commission is investing heavily in research and pre-deployment testing through funding instruments such as Horizon Europe, and Connecting Europe Facility.

Digitalisation and automation have also an important potential for further improvements when it comes to safety, security, reliability, and comfort, as well as maintaining the EU's leadership in transport equipment manufacturing and services, and improving our global competitiveness through efficient and resilient logistic chains.

European values, ethical standards, equality, data protection and privacy rules will be at the heart of these efforts, and cybersecurity will be treated with high priority.

What is the Commission proposing with regard to ticketing?

Planning multimodal journeys and purchasing the necessary tickets is often cumbersome, as a framework for EU-wide, integrated, multimodal travel information, ticketing and payment services is currently lacking.

By 2030, seamless multimodal passenger transport will be facilitated by integrated electronic ticketing.

To make this a reality, we need to overcome issues related to the availability and accessibility of data, sub-optimal cooperation between suppliers and vendors and an overall lack of interoperability, for example.

We will therefore examine whether data-sharing and selling arrangements are fit for purpose. For example, subject to compliance with competition law, airlines could sell more tickets for trains, coaches and other sustainable modes of transport, for subsequent legs of a journey. Starting in 2021, the Commission will propose regulatory measures to enable innovative and flexible tickets that combine various transport modes and give passengers true options for door-to-door travel.

How do you prevent digitalisation from putting jobs at risk?

The sustainable and smart transition will have an impact on jobs, training and the skills required in the future.

Some jobs may be at risk due to automation. At the same time, the ongoing digital transformation brings new opportunities, such as an improved working environment as well as completely new jobs that are more attractive for women and young people.

The Commission will issue recommendations for the transition to automation and digitalisation, and on means to mitigate any negative impact on the transport workforce. We need a credible path to ensure that the transition to the mobility system of the future is a just one.

RESILIENT MOBILITY

How will transport become more resilient? What exactly does this mean?

Under resilience we highlight several important elements, such as:

- **to target the necessary recovery investments in infrastructure and fleets to modernise and green the sector.**
- **to strengthen our European Single Market**
- **the need for a just transition for both users and workers.**
- **the need for transport and mobility to remain safe and secure.**

The Coronavirus pandemic has shown how important and vulnerable our Single Market is, and the social, health and economic costs when free movement of people and goods is severely constrained or even curtailed altogether. The preservation of supply chains and a coordinated European approach to connectivity and transport activity are essential to overcome any crisis and strengthen the EU's strategic autonomy and resilience.

For More Information

[Press Release – A fundamental transport transformation: Commission presents its plan for green, smart and affordable mobility](#)

[Factsheet - The Transport and Mobility Sector](#)

[Sustainable and Smart Mobility Strategy](#)

[Staff Working Document](#)

[Legislative Action Plan](#)

[Video](#)

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