

Sustainable and smart urban transport

Recent trends and developments indicate a **growing user-centric approach** to mobility, prioritising individual needs and users' interests. Disruptive emerging technologies and shared mobility solutions bring new stakeholders to the urban ecosystem. COVID-19 has changed behaviours, with walking, cycling and private car use increasing. E-commerce demand has increased significantly, and contactless solutions are still preferred.

B2C vehicle short term rentals. Micromobility solutions include e-mopeds, e-bikes and e-scooters.



See the full study

The study

This study is an overview on the state of play of sustainable and smart transport. It also considers some recent developments related to the impact of COVID-19.

Main observations

Urban mobility accounts for 40% of all CO₂ emissions of road transport and up to 70% of other pollutants from transport. Air and noise pollution cause physical and mental health issues. Besides generating traffic, private cars occupy a large part of the urban space.

Freight movement is expected to grow significantly and change its configuration, also because of the changing purchasing habits caused by the COVID-19 pandemic.

The transport network, primarily the road network, suffers from congestion during peak hours. New technologies can address challenges of inter-operability and coordination of traffic management systems via integrated and inter-connected services.

As for governance, different decision-making bodies and institutions are involved from international to the local level, and different authorities manage functions at the same time. Their coordination is a key challenge.

Innovative solutions for last mile deliveries vary from urban consolidation centres to parcel deliveries. The trans-European network (TEN-T) and urban nodes are vulnerable and need further connectivity. Infrastructure improvements and cybersecurity protocols can make the system more resilient and prevent cyber attacks.

As far as **New Mobility Solutions** are concerned, public transport operators have started integrating and offering new mobility solutions, based on the Mobility-as-a-Service (MaaS) approach such as on-demand ride-sharing services, peer-to-peer vehicle rental, taxi services, ride-sharing, and



As for access regulation and space design/management, car-free city centres are increasing. Restrictive measures imposed during the Covid-19 lockdown have shown that more space can be made available for walking and cycling.

Several cities are implementing low-emissions and zero-emissions zones, to accelerate the perspective demand for electric vehicles and charging infrastructure.

Automation and drones are still being experimented with but are not common practice yet. Innovative solutions for the last mile delivery vary from urban consolidation centres to parcel lockers.

Enhanced cooperation between metropolitan areas and stakeholders along the TEN-T network can align and better integrate planning activities, as well as generate new concepts and benefits for the integration of urban nodes along the TEN-T network. Data collection, management and sharing principles are fundamental for evidence-based policymaking. This requires cooperation between different data providers and data-sharing protocols and principles agreed between city planners, transport operators, new mobility solutions providers, etc.

Conclusions and policy recommendations

EU policy action in this domain should promote and be based upon:

- Enhanced integrated planning of urban transport with extra-urban areas, and participatory policy planning approach steering behaviour change.



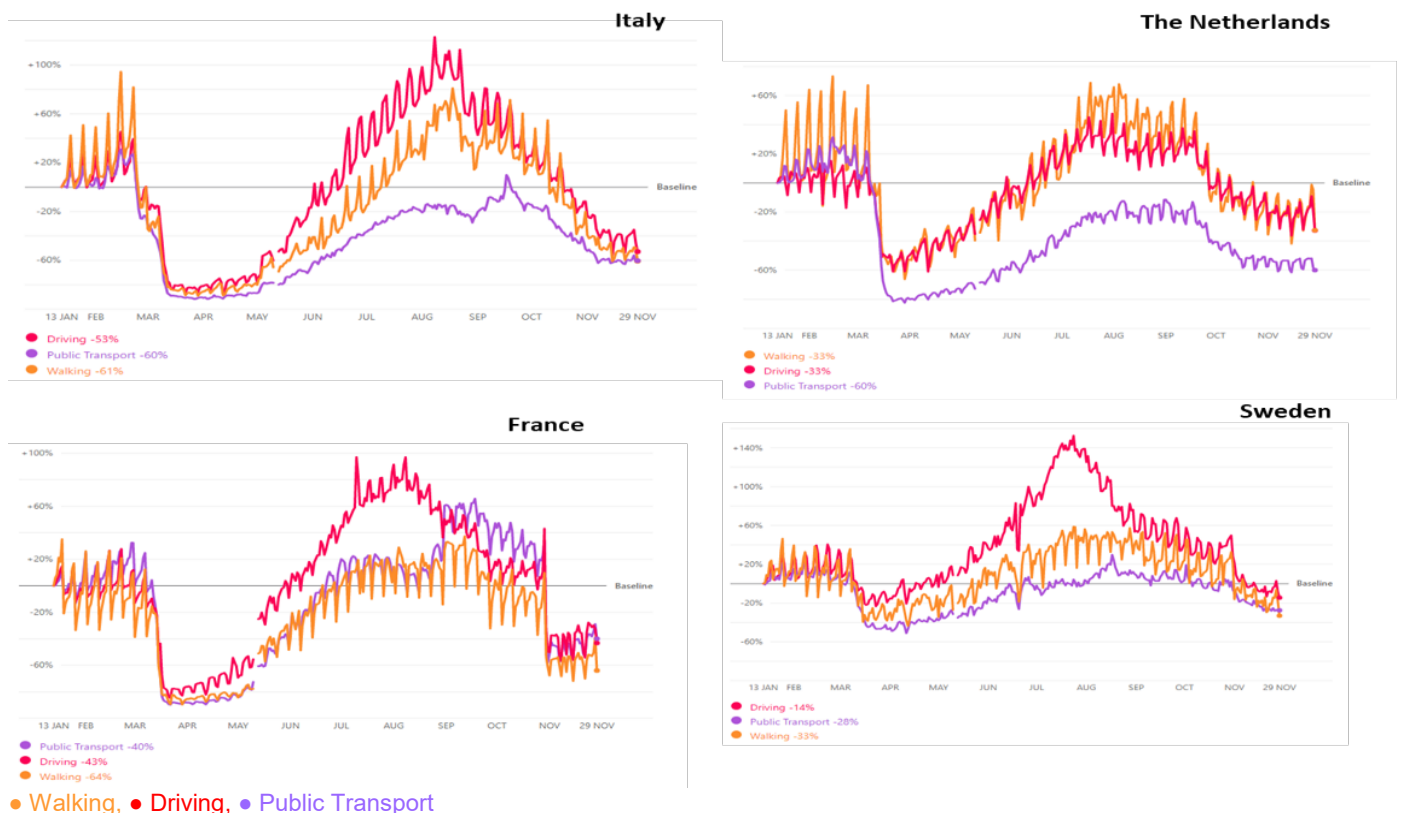
Access this note

- Improved (multi-level) governance cooperation mechanisms to facilitate a continuous dialogue and policy coordination among EU, national and local levels.
- Appropriate cost-benefit analyses accompanying the introduction of any new transport measure, and integrating other sectors such as health, social inclusion, economic development, land-use planning and energy.
- Better use and blending of funds, including the complementary use of different funding lines, for example by requiring that applicants for funds for a specific programme clarify how these would be strategically integrated with previously used or allocated funds.
- Striking the appropriate balance between environmental, economic feasibility, and social equity criteria for new transport solutions.
- Introducing innovative tools and schemes (technological and non-technological) to integrate passenger and freight, encourage the definition of data-sharing principles and the use of common EU standards and specifications.
- Promoting and funding the implementation of the most effective transport-related measures positively impacting the health of the citizen.

Key areas for EU action

1. Enhanced integrated planning of urban transport.
2. Improved (multi-level) governance cooperation mechanisms.
3. Appropriate cost-benefit analyses accompanying the introduction of any new transport measure.
4. Better use of EU Funds.
5. Striking the appropriate balance between environmental, economic feasibility, and social equity.
6. Introducing innovative tools.
7. Promoting the most effective measures positively impacting the health of the citizen.

Mobility trends - Change in routing requests since January 13, 2020



Source : <https://covid19.apple.com/mobility>, accessed 30.11.2020

Disclaimer. The content of this At a glance note is the sole responsibility of its authors and any opinions expressed therein do not necessarily represent the official position of the European Parliament. © European Union, 2021.

The present note is based on the study Sustainable and smart urban transport, authored by: [Università degli Studi Roma Tre]: Edoardo MARUCCI, Giacomo LOZZI, Valerio GATTA & [Panteia B.V]: Maria RODRIGUES, Tharsis TEOH, Carolina RAMOS, Eline JONKERS.

Publication: January 2021. © Image on page 1 used under the licence from Adobe Stock

Contact: Poldep-cohesion@ep.europa.eu; Further information: www.research4committees.blog/tran. Follow us: @PolicyTRAN

This document is available at: www.europarl.europa.eu/supporting-analyses