

RECOVERY INVESTMENTS AND THE GREEN MOBILITY TRANSITION

A Green Recovery Tracker deep dive

The Green Recovery Tracker project analysed recovery plans and measures in 17 EU countries, covering 88% of the total grants available through the EU Recovery and Resilience Facility. This briefing provides an in-depth analysis on the relation between the assessed recovery spending and the energy transition. Our analysis shows that 16% of all recovery spending is directly relevant to the mobility sector's transition.

CONTEXT: COVID-19 CRISIS AND THE MOBILITY SECTOR

Mobility and transport account for a quarter of greenhouse gas emissions in the EU, and transport is the only sector where emissions have increased since 1990. Approximately 70% of transport-related greenhouse gas emissions are caused by road traffic.* Moreover, energy supply for the transport sector is dominated by fossil fuels. The EU's Climate Target Plan (COM(2020) 562 final) envisages increasing the share of renewable energies to 24%, from 6% in 2019.

A strong contribution of the transport and mobility sector is crucial to achieving the European 55% target by 2030. With its 'Sustainable and Smart Mobility Strategy', the European Commission is setting concrete milestones to ensure a smart, sustainable and resilient return from the COVID 19 crisis. For example, the installation of 3 million public charging stations by 2030 is intended to promote the spread of zero-emission cars on European roads. Doubling high-speed rail and expanding cycling infrastructure over the next decade will also make mobility between cities and towns healthier and more sustainable.†

To counter the drastic socioeconomic consequences of the COVID 19 pandemic, EU leaders agreed on a recovery package last year, the Next Generation EU, and a billion-euro EU budget for 2021 to 2027. The Recovery and Resilience Facility (RRF) was established as the central instrument of the Next Generation EU, supporting investments and reforms in member states. However, national plans for the spending of RRF funds must meet binding climate and digital targets in order to achieve the 2050 climate neutrality goal. In numerical terms, this means achieving a benchmark of 37% for climate investment and reform, which many recovery plans

* https://ec.europa.eu/clima/eu-action/transport-emissions_en

† https://transport.ec.europa.eu/transport-themes/mobility-strategy_en

have so far threatened to miss.[‡] The Green Recovery Tracker assesses the contribution of 17 EU member states' recovery plans to the green transition.

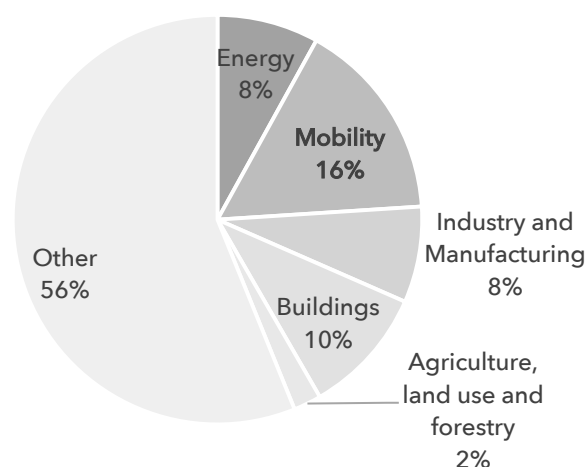
This briefing provides an in-depth analysis of assessed national recovery spending in the mobility sector with the aim of examining their impact on the envisaged green mobility transition.

About our data

This briefing is based on data gathered through the Green Recovery Tracker, a joint project between Wuppertal Institute and E3G, in collaboration with national experts. The data used was last updated on 16 July 2021 and is available on the website www.greenrecoverytracker.org. A full list of all countries covered, and the status of the documents on which this analysis is based for those countries, can be found in Annex 1. Individual recovery measures have been assigned to the specific sectors based on the question what sector's emissions will be most affected by the respective measures.

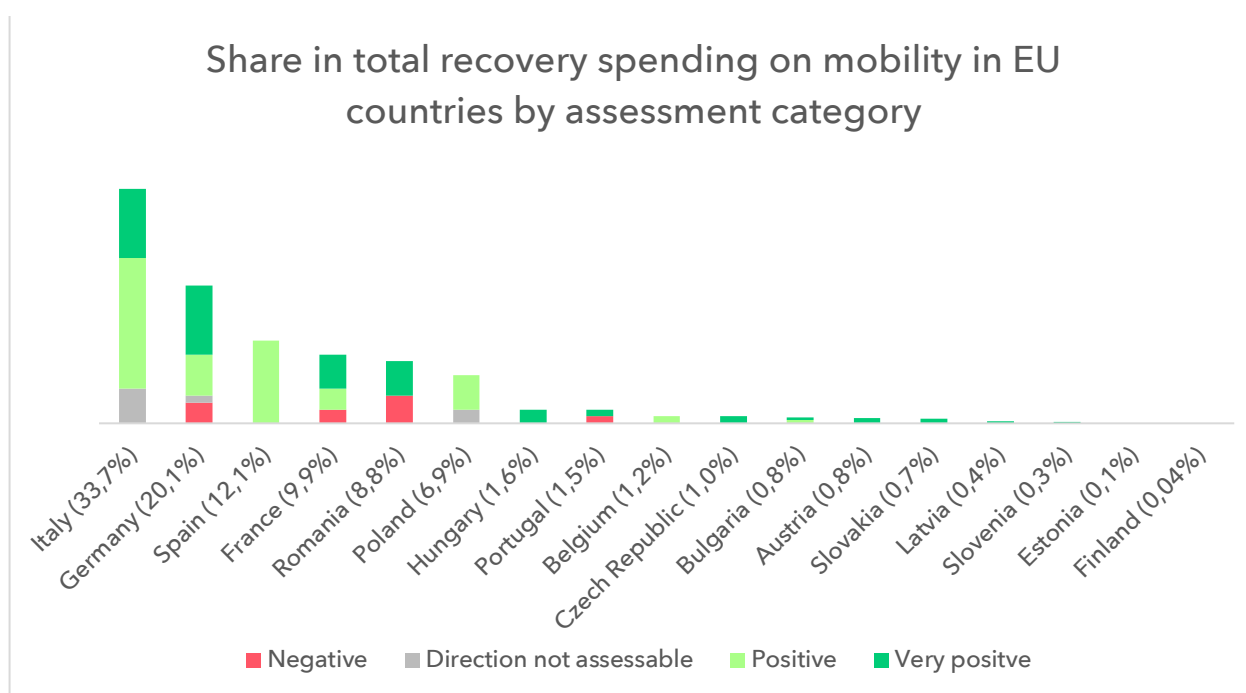
The assessment of recovery programmes in 17 EU member states shows that 16% of the total recovery investments (€109bn out of €685bn) are spent in the mobility sector. Compared to the energy, buildings, agriculture and industry sectors, the mobility sector accounts for the largest share of recovery investments in the EU, followed by the buildings sector (10%) and the energy sector (8%).

EU Recovery Investments by sector



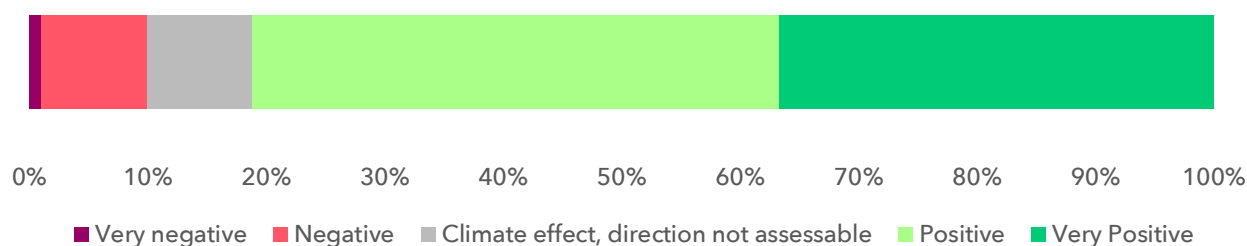
[‡] https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2397

Member states show a wide variety of shares allocated to the transport sector: with about 37 billion euros (34%), Italy has by far the highest share of mobility-related spending, followed by Germany, which spends 20% of the total investment (€109bn), and Spain with a share of 12%. Other EU countries invest less than 1% of their programmes into mobility measures.



ARE RECOVERY INVESTMENTS IN THE EU MOBILITY SECTOR ALIGNED WITH THE GREEN MOBILITY TRANSITION?

Distribution of mobility recovery spending in EU, by climate assessment category (total = €109bn)



82% (€89.2bn) of the mobility recovery spending in the EU is considered to make a positive or very positive contribution to the green transition.

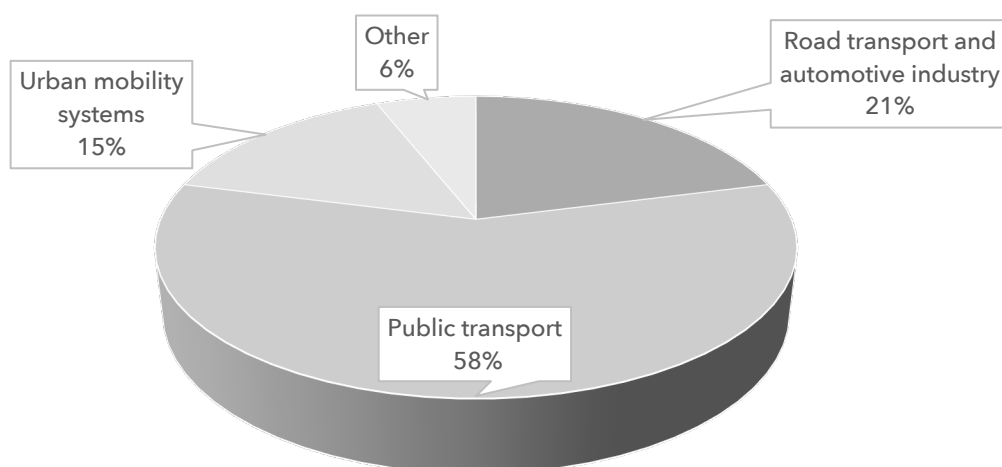
Typical measures that are rated "positive" or "very positive" are investments into the expansion and optimization of railway networks; investments into upgrading of urban transport systems and active mobility; investments into the renewal of public transport vehicle fleets and rolling stocks; or support programmes for the purchase of e-vehicles and charging infrastructure, targeted both at individuals and enterprises. On the other hand, 9% (€10.3bn) of the measures that were considered problematic comprise the extension of road networks; support programmes that also cover combustion vehicles; or support measures for the aviation sector. The impact of 9% (€9.6bn) of the total recovery investments still needs to be assessed and depends on the individual implementation of the recovery plans.

Of the total investment in mobility-related measures approximately 76% is earmarked for infrastructure plans, mostly for rail and urban transport, but also for new road construction. Some of the investments envisaged in the national recovery plans are rather nonspecific and labelled as "sustainable and safe transport" or "clean mobility", which makes a more accurate assessment impossible.

WHAT PARTS OF THE MOBILITY SECTOR WILL BENEFIT MOST FROM RECOVERY INVESTMENTS?

Recovery measures are allocated to the following areas as follows:

Percentage share by transport mode and field of action of total EU recovery investments in the mobility sector



For the following analysis, we divided the measures by mobility mode and transport means into the following categories:

- road transport, including road infrastructure investments, support programmes for purchasing road vehicles, and direct financial support for the automotive industry
- long-distance public transport, including nation-wide railway networks
- urban transport, including urban public transport and active mobility.
- other, including aviation, water transport and alternative fuels production.

SUPPORT MEASURES FOR ROAD TRANSPORT AND AUTOMOTIVE INDUSTRIES

As shown in the diagram above, recovery investments for road transport and automotive industries constitute about 21% (€23.1 bn) of total EU recovery investments (€109.3 bn).

This area includes some of the measures considered to be particularly detrimental to the greening of the transport sector. Specifically, road infrastructure investments often tend to cement the status quo of mobility systems. For example, according to the GRT report on Portugal, the country proposed to invest €0.6 bn into extending cross-border motorways to Spain while neglecting the underdeveloped cross-border passenger rail links; or into the improvement of the regional road network in the islands of the Azores by setting up road terminals or car parks outside the urban centres. Another example in this respect is the €4.5 billion investment planned in Romania to improve its basic road and motorway infrastructure. Although the proposed package mentions smart traffic management systems and charging stations for electric vehicles, the GRT country report still rates the overall package as "negative", since no clear sustainable targets are set and there is still a strong orientation towards a fossil fuel-based automotive economy.

On the other hand, infrastructure programmes with an explicit focus on e-vehicle charging are rated positive or very positive (see the box "Support for individual motorised mobility" below). One example is the planned contribution of €20 million for private charging infrastructures for housing companies in the Finnish plan. The programme maintains the existing support for the development of private charging infrastructures and extends it to workplaces, making electric mobility more attractive and convenient.

Support for the road transport sector can also take the form of support programmes for the purchase of vehicles or direct support for the automotive industry. For the most part, this includes positive rated measures such as the promotion of zero-emission road vehicles through financial support for private and public vehicle procurement. Still, some member states also promote combustion vehicles or hybrids. Germany, with its strong automotive industry, combines all shades of support programmes for vehicle purchase: Roughly 15% of German recovery investments are targeted at the mobility sector. Those include support measures, premiums and tax exemptions for pure e-vehicles (overall: €2.2bn) but also more ambivalent programmes that allow plug-in electric vehicles (such as the innovation premium for new car,

worth € 0.7bn); and even negative measures that promote new diesel fuelled trucks (National truck fleet renewal programmes, overall: €1bn).

Support for individual motorised mobility

It needs to be mentioned that there are good reasons to exclude all investments that support motorised individual mobility from the “positive” and “very positive” list.

Support for individual motorised mobility, including private e-vehicles, may not be regarded as ‘green’, since they perpetuate the existing, crisis-shaken mobility system and its negative impacts, including the consumption (and privatisation) of scarce urban space, air and noise pollution, accidents, or social inequities.

On the other hand, a deep transition of the mobility system towards active mobility and a renewed public transport system will take time - that is lacking from the climate perspective. In order to meet their short- to mid-term climate objectives, countries and cities will have to rely on electrifying vehicle fleets (Publication - Towards a Climate-Neutral Germany by 2045) while simultaneously restructuring their mobility system. From this perspective, investments into the electrification of vehicle fleets are urgently needed. This is the reason why support programmes for BEVs are rated “very positive”.

Still, it is also crucial that subsidies for private e-vehicles and related infrastructure will be phased out in the mid-term, and are accompanied with (higher) investments into public transport and active mobility. A cross-country comparison shows that in all EU countries, the share of investments in public transport and active mobility accounts for half or more of each country's total mobility-related expenditure, which at least proves that all countries are moving in the right direction. Countries with a share of more than 80% in the above-mentioned segments are Slovenia, Slovakia, Austria, Bulgaria, the Czech Republic, Hungary, Belgium, Poland and Italy. However, the picture is distorted if one considers that in some of the poorer EU countries modernisation pent-up demand is generally high.

SUPPORT MEASURES FOR PUBLIC TRANSPORT

Regarding investments into long-distance public transport, we found it important to distinguish between short term compensations for lost profits from reduced passenger volumes during the Covid crisis (e.g. the German €2.5bn) on the one hand, and investments into the extension and modernisation of networks and rolling stock, or increasing service levels on the other hand.

With its Transport Connectivity Programme, Bulgaria, for instance, is placing a strong focus on the extension and modernization of rail infrastructure, which has been largely neglected in the past. Investments support the automated control of train movements and operation, or the acquisition of electric express trains to improve competitiveness with other modes of transport. However, the GRT country assessment on Bulgaria found that the funds allocated to public transport are still too low in view of the current state of the railroad infrastructure and also need to be concentrated more on the less well-connected northern part of Bulgaria.

Even though Italy has the highest share of mobility-related expenditure, one third of the planned investment measures are only likely to bring about a gradual shift to a climate-neutral economy. As an example, the renewal of the public transport vehicle fleet in Italy may not be fully compliant with zero emission guidelines and may also include regular trains. In addition, it has been identified that there is a significant imbalance in the allocation of funds: The RIP dedicates a large part of the total budget to mobility measures, especially to the expansion of (high-speed) rail connections, while only a small portion (less than 1%) is earmarked for the promotion of electric mobility and the greening of public transport. The uneven distribution and neglect of relevant future domains will consequently do little to reduce greenhouse gases in the transport sector or improve air quality. According to the government's own assessment, the substantial investment in high-speed rail infrastructure will only lead to an emission reduction of 2.3 Mt CO₂e out of 174 Mt CO₂e needed to reach the decarbonisation target by 2030.

SUPPORT MEASURES FOR URBAN MOBILITY SYSTEMS

In order to create more liveable cities and communities where the focus is on people rather than cars, sustainable mobility solutions are required, especially in the area of urban transport. Here, investments mostly concern the expansion and optimization of the light rail or bicycle network. According to the EU Commission's analysis[§], component 15 of Portugal's Recovery Plan addresses several transport infrastructure challenges to reduce emissions and improve public transport by making it more accessible and promoting better traffic management and planning capabilities. Towards this end, the component, worth around €1 billion, includes reforms and investments to foster sustainable public transport through the expansion of metros in Lisbon and Porto, the construction of a light rail system in Lisbon, a rapid bus system in Porto, and the purchase of zero-emission buses for public transport. In the field of active mobility, Belgium sets an example with its Velo-Plus program, which builds on the development of new high-quality and safe cycling infrastructure in Brussels and to/from Brussels, enabling both medium- and long-distance trips in and to the region. It consists of bike lanes along major roads, structural bike paths, and facilities along urban barriers such as rail, canal or highway.

CONCLUSION AND OUTLOOK

The main take-aways from the above analysis are as follows:

- An important finding is that 80% of the measures invested in the mobility sector, which with 16% (€109bn) has the largest share of total recovery spending (€685bn), make a positive contribution to the green transition.

[§] <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021SC0146&from=EN>

- The measures can be divided into four key areas that have benefited most from these investments: Road transport, long-distance transport, urban transport and other forms of transport.
- One area of concern is that one-fifth of mobility-related recovery spending still goes to road transport infrastructure and in the form of subsidies to the automotive industry, which in the long run complicates the transition to a truly sustainable mobility ecosystem that prioritises public transport and active mobility over the use of private vehicles.
- Given the ambitious target set by the European Union, the overall spending is unlikely to be sufficient, especially in view of the urgent need to cut emissions, improve air quality and health conditions in urban areas.

This analysis was written by Stefan Werland and Luisa Fahrenkrog (both Wuppertal Institute).

ANNEX 1: COUNTRIES AND MEASURES INCLUDED IN THE QUANTITATIVE ANALYSIS

Country	Recovery plans and/or measures analyzed
Austria	Recovery and Resilience Plan (April 2021)
Belgium	Recovery and Resilience Plan (April 2021)
Bulgaria	Draft Recovery and Resilience Plan (February 2021)
Czech Republic	Recovery and Resilience Plan (May 2021)
Estonia	Programming for Recovery and Resilience Facility (May 2021)
Finland	Recovery and Resilience Plan (May 2021)
France	Domestic recovery package ("France Relance", September 2020) and Recovery and Resilience Plan (April 2021)
Germany	Domestic recovery package (June 2020) and Recovery and Resilience Plan (April 2021)
Hungary	Recovery and Resilience Plan (May 2021)
Italy	Recovery and Resilience Plan (April 2021)
Latvia	Draft Recovery and Resilience Plan (January 2021)
Poland	Recovery and Resilience Plan (April 2021)
Portugal	Recovery and Resilience Plan (April 2021)
Romania	Draft Recovery and Resilience Plan (March 2021)
Slovakia	Draft Recovery and Resilience Plan (March 2021)
Slovenia	Recovery and Resilience Plan (April 2021)
Spain	Recovery and Resilience Plan (April 2021)