European Environment Agency

8th Environment Action Programme

Share of buses and trains in inland passenger transport

8TH EAP HEADLINE INDICATOR, 2023

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Published 10 Oct 2023

Promoting sustainable transport modes such as public transport can reduce greenhouse gas emissions and other environmental pressures such as air pollution and noise. The EU Sustainable and Smart Mobility Strategy calls for decisive action to shift towards more public passenger transport like buses and trains. However, the share of buses and trains in total passenger transport has changed very little since 2005, albeit with fluctuation and rebound in 2020 and 2021 due to the COVID-19 pandemic. Without decisive action, it is unlikely but uncertain that a modal shift towards public transport will occur in the near future.

Figure 1. Share of bus and trains in total inland passenger transport activity in the EU-27

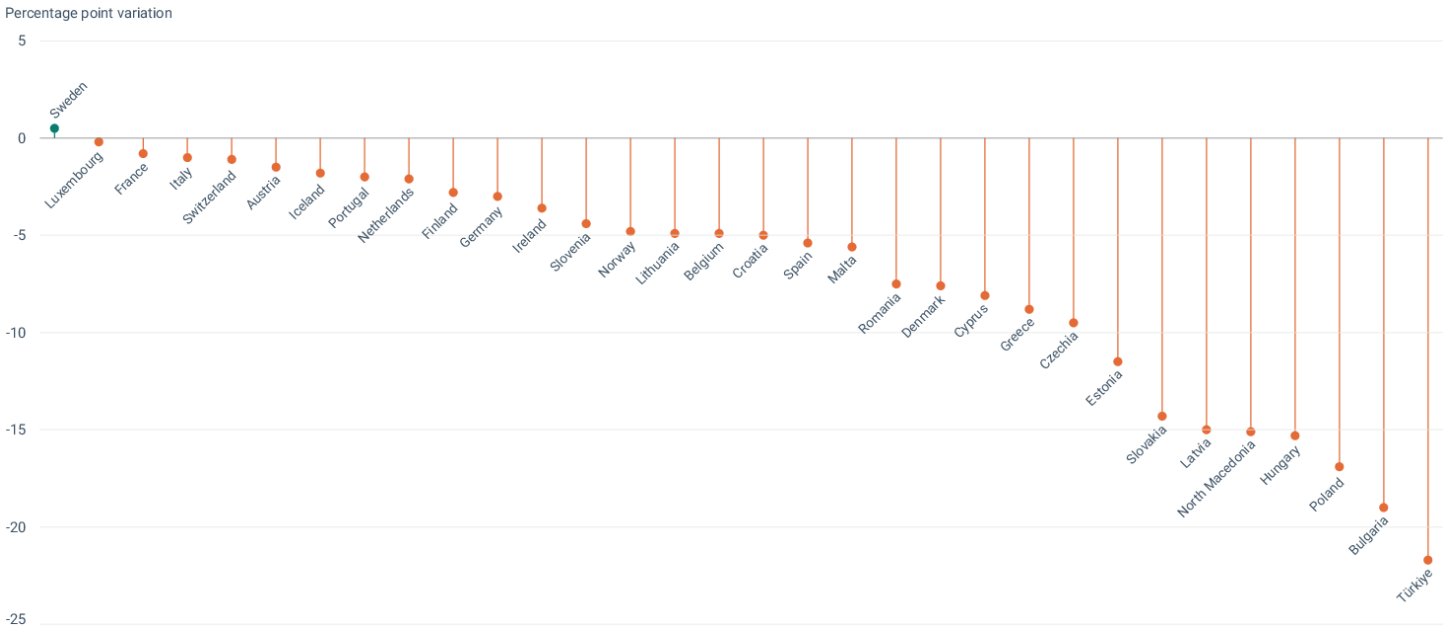
Source: Eurostat.

Changes to the EU's mobility system will be vital if the EU is to realise its green and digital transformation ambitions and become more resilient to future crises. In 2020, under the umbrella of the European Green Deal, the European Commission adopted, a Sustainable and Smart Mobility strategy aimed at promoting, inter alia, the use of more sustainable transport modes. One of the objectives of the strategy is to increase the number of passengers travelling by rail and commuting by public transport, instead of with a personal car. Achieving this objective could reduce greenhouse gas and air pollutant emissions and other environmental pressures [1].

In the period 2005-2019, the share in the EU of total passenger transport demand met by buses and trains remained relatively constant, at around 18%. It fell sharply to 13% in 2020 as a result of COVID-19 pandemic-driven travel restrictions and changed mobility habits, then recovered slightly in 2021 [2]. However, at 14%, the 2021 share may reflect continued mobility restrictions associated with the pandemic. At the same time, total inland passenger transport activity increased by 11% between 2005 and 2019, indicating an increase in the use of both private cars and public transportation in absolute terms. These trends suggest that it may be unlikely that the share of passenger transport demand met by buses and trains will increase significantly in the coming years compared to the 2005-2019 period, beyond the continued pandemic recovery.

Significant efforts to encourage the use of public transport would be needed to achieve this objective and would require changes in the way Europeans commute and travel and in the way European cities are planned. On the supply side, the European Commission launched important initiatives, such as the TEN-T revision, rail capacity regulation, which are aimed to increase the availability of public transport modes. National policies that reduce public transport ticket prices could further contribute to a higher uptake of public transport. Digitalisation can also provide practical tools to internalise the external costs of transport and raise awareness of the pressures exerted by our mobility needs and preferences [3]. For example, the European Commission is working on frameworks supporting modal shifts and multimodal trips, as also discussed in the last TERM report from EEA [3]. In this context, investments and funding are also needed to finance safe, clean and modern infrastructure to ensure access to public transport for all.

Figure 2. Percentage point variation in the share of bus and trains (collective modes) in total inland passenger transport activity by country



Source: Eurostat.

There are large country differences in the use of shared modes in passenger transport activity, both in terms of share values and time evolution. In all EU countries except for Sweden (+0.5%), the share of collective modes in total inland passenger transport decreased between 2005 and 2021, with the decline exceeding 3% in 19 countries and exceeding 5% in 14 countries. For all other European Environment Agency member and for cooperating countries for which data are available, the share is decreasing, with figures varying from -1.1% to -21.7%. Note that for Serbia and Montenegro passenger transport data are available only from year 2010[4].

Importantly, to fully realise a transition to a more sustainable mobility system, a combination of approaches will be needed including, but not limited to, a more efficient and attractive public transport system. For example, active modes such as walking and biking are important in reducing the impacts of mobility in cities. However, as data are not currently available for these modes, they are not presented as part of this indicator for the time being.

Supporting information

Definition

Share of collective modes in total inland passenger transport. Collective modes refer to passenger transport via buses, coaches, and trains. Total inland passenger transport performance includes transport by passenger cars, buses and coaches, and trains. All data are based on movements within national territories, regardless of the vehicle's nationality.

Methodology

Figure 1: raw data for the EU-27 share (in %) of collective modes in total inland passenger transport performance were retrieved from Eurostat. Raw data for the increase in total inland

passenger transport demand were retrieved from the 2023 version of the EU transport in figures statistical pocketbook published by DG MOVE. EU-27 aggregate data were used. No additional gap filling was applied to the data. Information on data set uncertainties can be found directly in the metadata and explanatory notes provided by Eurostat. Only official Eurostat data sets have been used.

Figure 2: raw data by country of variation (2005-2021) in the share of collective modes in total inland passenger transport performance were retrieved from Eurostat. Data are displayed at country level and are expressed in percentage points. To provide the broadest possible picture of European countries, geographical coverage was extended to the 32 EEA member countries and the Western Balkan cooperating countries when data were available. No additional gap filling was applied to the data. Information on data set uncertainties can be found directly in the metadata and explanatory notes provided by Eurostat. Only official Eurostat data sets have been used.

Additional information on the methodology used for data collection can be found here: Share of buses and trains in inland passenger transport (sdg_09_50) (europa.eu)

Policy/environmental relevance

The indicator is part of the indicator set tracking EU Sustainable Development Goals (SDG) and their related 169 targets, which are at the heart of the UN's 2030 Agenda for Sustainable Development. It is used to monitor trends on modal shift to environment-friendly transport modes and the progress towards building resilient infrastructure (SDG 9), promoting inclusive and sustainable industrialisation and fostering innovation and towards on making cities and human settlements inclusive, safe, resilient and sustainable (SDG 11). These targets are embedded in the European Commission's Priorities under the 'European Green Deal', 'A Europe fit for a digital age' and 'An economy that works for people'. The indicator is relevant also in the framework of the Commission 'Sustainable and Smart Mobility strategy' adopted in 2020. This strategy lays the foundation for how the EU transport system can achieve its green and digital transformation and become more resilient to future crises.

The share of buses and trains in inland passenger transport is a headline indicator for monitoring progress towards the 8th Environment Action Programme (8th EAP). It contributes mainly to monitoring mobility aspects of the 8th EAP priority objective Article 2.(2)(f) that shall be met by 2030: *'promoting environmental aspects of sustainability and significantly reducing key environmental and climate pressures related to the Union's production and consumption, in particular in the areas of energy, industry, buildings and infrastructure, mobility, tourism, international trade and the food system.'* For the purposes of the 8th EAP monitoring framework this indicator assesses specifically whether the EU will increase the share of buses and trains in inland passenger transport expressed in passenger-kilometres.

Accuracy and uncertainties

The accuracy of the is currently limited due to the voluntary collection of road passenger data. As a result, the transport performance data are based on a large variety of statistical sources and

some data gaps are filled with estimates. Additional information can be found here: Share of buses and trains in inland passenger transport (sdg_09_50) (europa.eu)

Data sources and providers

- Share of buses and trains in inland passenger transport (SDG_09_50), Statistical Office of the European Union (Eurostat)
- Statistical pocketbook 2023, Directorate General for Mobility and Transport (DG MOVE)

Metadata

DPSIR

Pressure

Topics

 # Transport and mobility **# Urban sustainability**

Tags

 # mobility **# Buses** **# modal shift** **# 8th EAP** **# TERM046** **# Passenger transport** **# Trains** **# Transport**

Temporal coverage

2005-2021

Geographic coverage

Austria
Belgium
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
North Macedonia
Norway
Poland
Portugal
Republic of Turkey
Romania
Slovakia

Slovenia
Spain
Sweden
Switzerland

Typology

Descriptive indicator (Type A - What is happening to the environment and to humans?)

UN SDGs

Industry, innovation and infrastructure, ,Sustainable cities and communities

Unit of measure

Percentage, billion passenger km and percentage points

Frequency of dissemination

Once a year

Contact

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References and footnotes

1. EEA, 2021, *Transport and environment report 2020 — Train or plane?*, EEA Report, 19/2020, European Environment Agency, Copenhagen.
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2. Lozzi, G. and et al., 2022, *Relaunching transport and tourism in the EU after COVID-19 — Part VI: Public transport*, European Parliament, Directorate-General for Internal Policies of the Union.
↲
3. EEA, 2022, *Digitalisation in the mobility system: challenges and opportunities. TERM 2022: Transport and Environment Reporting Mechanism (TERM) report*, EEA Report, 07/2022, European Environment Agency.
a b
4. For additional details on the methodology, see the supporting information. In particular, the limited accuracy of passenger data could impact data comparability between countries and the reported trends.
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