This article presents the main trends in rail passenger transport in the European Union (EU), and the EFTA countries Norway and Switzerland as well as the candidate countries Montenegro, North Macedonia and Turkey. It covers quarterly and annual data for total railway transport. This article, together with the article Railway freight transport statistics presents a complete overview of railway transport in Europe.

In 2020, rail passenger transport almost halved in the EU compared to 2019

Between 2015 and 2019, the demand for passenger transport steadily increased, leading to an overall 10.7 % increase between 2015 and 2019, when a peak of 416 billion passenger-kilometres (pkm) was registered (see Figure 1). This upward trend was abruptly reversed in 2020 with the spread of the COVID-19 pandemic. As the result of strict precautionary measures and a reduced number of trains in operation since March 2020, rail passenger transport reduced significantly in all EU Member States. Compared to the previous year, rail passenger transport performance almost halved in the EU (-46.3 %) reaching 223 billion pkm. Particularly significant were the drops in the second and the fourth quarters of 2020 (-74.1 % and -54.2 %) in comparison to the same period of 2019. Also, the first and third quarter registered substantial falls by 18.7 % and 37.9 %, respectively.
In 2020, all EU Member States registered a substantial fall of rail passenger transport performance

In pkm, all EU Member States recorded substantial decreases between 2019 and 2020 (see Figure 2). The highest decrease among the EU Member States, for which data is available, was observed in Ireland (-65.2 %), followed by Italy (-60.7 %). Among the remaining EU Member States, 11 recorded a decline by more than 40 % over the same period. A similar trend can be observed in Norway, Montenegro, North Macedonia and Turkey. For seven EU Member States and Switzerland the drop was between 30 % and 40 %. Among all reporting countries, Bulgaria registered the lowest decline, albeit still substantial, with -26.4 %.
Figure 2: Rail passenger transport for main undertakings, 2015, 2019 and 2020 (billion passenger-kilometres) Source: Eurostat (rail_pa_typepas) and (rail_pa_quartal)

In 2020, Germany and France were the largest contributors to the rail passenger transport performance in the EU, with 57.5 billion pkm (or 26 % of the EU) and 56.5 billion pkm (or 25 %). At the other end of the scale, eight EU Member States recorded less than 1 billion pkm in 2020.

Focusing on the share between national and international transport, national transport is always predominant, representing more than 90 % of the total rail passenger transport performance for all EU Member States in 2020, with the exception of Luxembourg, where national transport represented only 70 % (see Figure 3).
The effects of the COVID-19 pandemic were also evident when measuring rail transport in the number of passengers (see Figure 4). All EU Member States reported substantial decreases in the number of passengers transported by rail between 2019 and 2020, and recorded an overall fall of 41.5% in national transport at EU level. In 2020, national transport registered 4.8 billion passengers in the EU while there were 8.2 billion passengers in 2019 and 7.5 billion passengers in 2015. Just as for pkm, the largest decreases were recorded in Ireland, with -64.2%, and Italy, with -56.7%. Among the remaining EU Member States, seven fell by more than 40% over the same period, and this was also the case in Norway, Montenegro and North Macedonia. In nine EU Member States, Switzerland and Turkey, a drop between 30% and 40% was recorded. Within the EU, Estonia, Romania and Bulgaria registered the lowest decreases with -28.5%, -27.7% and -21.2%, respectively.
In the number of passengers transported by rail, Germany was by far the largest contributor in the EU, with 1.8 billion passengers in 2020. France, Italy and Spain followed with 0.7, 0.4 and 0.3 billion passengers, respectively. At the other end of the scale, Slovenia, Estonia and Lithuania registered less than 10 million passengers in 2020. In the candidate countries Montenegro and North Macedonia, less than half a million passengers were recorded in 2020. Figure 5 presents the number of passengers transported in relation to the population of the EU and the reporting countries. At EU level, national transport represented on average 10.8 passengers per capita in 2020, dropping by 7.6 passengers per capita compared to 2019. Luxembourg and Denmark had the highest number of passengers transported as a share of the total population in 2020, with 23.0 passengers per capita. It has to be noted that Switzerland registered the highest ratio among all reporting countries, with 37.4 passengers per capita. Germany was the other EU Member State with more than 20 passengers per capita (21.7). For five EU Member States, the share stands between 20 and 10 passengers per capita, five others between 10 and 5 passengers per capita and seven had between 5 and 1 passengers per capita. Greece registered the lowest ratio with 1.0 passenger per capita in 2020. North Macedonia and Montenegro recorded less than 1 passenger transported by rail per capita in 2020.
Figure 5: Rail passenger transport for main undertakings, 2015, 2019 and 2020 (passengers per capita)

Source: Eurostat (rail_pa_typepas) and (rail_pa_quartal)

Source data for tables and graphs

- Rail passenger transport statistics: tables and figures

Data sources

The figures presented in this article have been extracted from the Eurostat rail transport database. They include data on national, international and transit transport of the Member States, EFTA and candidate countries, collected according to the Regulation (EU) No 2018/643 recast of Regulation (EU) No 2016/2032. The transport of passengers by metro, tram and/or light rail is excluded. The data presented are included in Eurostat’s dissemination database (reference tables are provided under each table and graph). There are no railways in Cyprus and Malta. The various elements present data collected under the detailed reporting system, meaning that data include only main undertakings which are defined as follows:

- Until 2015: undertakings with a total transport performance greater than 500 million tonne-km or 200 million passenger-km.
- From 2016: undertakings with a total volume of goods transport of at least 200 million tonne-km or at least 500,000 tonnes or total volume of passengers transport of at least 100 million passenger-km.

Railway undertakings which are below the thresholds may however be included for some countries. Basic results and derived indicators (such as growth rates and shares in % of total) in the tables are rounded. However, the figures are based on the non-rounded original data. As a result, the sum of shares in % of total, as shown in the tables, is not necessarily equal to 100 %.

Due to confidentiality, the EU aggregate for passenger transport by rail cannot be disclosed for years before 2015. That is why the data series presented in this article start in 2015 and not in 2010 as in the article Railway freight transport statistics.

Explanatory notes for countries are available in the metadata on the Eurostat website.
Symbols

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Context

The content of this statistical article is based on data collected within the framework of Regulation (EU) No 2018/643 recast of Regulation (EU) No 2016/2032.

Other articles

- Freight transport statistics - modal split
- Railway freight transport statistics

Tables

- Transport, see:

  Railway transport (t_rail)
  - Rail transport of passengers (ttr00015)

Database

- Transport, see:

  Railway transport (rail)
  - Railway transport measurement - passengers (rail_pa)

Dedicated section

- Transport

Publications

Methodology

- Railway transport measurement (ESMS metadata file — rail_pa_esms)

Legislation

- Summaries of EU legislation: EU rail transport statistics