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**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND  
THE COUNCIL**

**Ninth monitoring report on the development of the rail market under Article 15(4) of  
Directive 2012/34/EU of the European Parliament and of the Council**

{SWD(2025) 239 final}

# REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

## Ninth monitoring report on the development of the rail market under Article 15(4) of Directive 2012/34/EU of the European Parliament and of the Council

### 1 MAIN FINDINGS

Reliable monitoring of the rail market is fundamental to understanding market developments and taking informed policy decisions.

This report covers data up to 2022 and refers to later developments in the sector where available.

There are several main findings for 2018-2022:

- **Passenger traffic:** the COVID-19 pandemic led to a sharp drop of 46% in passenger traffic in 2020 compared to 2019. This was followed by a strong recovery, with total EU-27 rail passenger traffic reaching 395.5 billion passenger-kilometres in 2022, standing only slightly below the 411.8 billion recorded in 2019.
- **Freight traffic:** for rail freight, measured in tonne-kilometres, the decline in 2020 was milder (-8% compared to 2019) as freight services continued to provide critical services to the economy during the pandemic. By 2022, total freight traffic nearly reached pre-pandemic levels, with 416 billion tonne-kilometres.
- **Modal share of rail passengers:** rail's modal share within EU-27 land transport increased slightly from 7.8% in 2018 to 8.1% in 2022, despite a sharp decrease of 2.4 percentage points suffered in 2020 due to the pandemic.
- **High-speed rail:** the EU-27 high-speed network expanded by almost 1 100 km between 2018 and 2022, reaching 12 015 km. This growth demonstrates a long-term commitment to advancing the high-speed rail sector, which has shown its ability to compete effectively with other modes of transport.
- **Employment in rail:** in 2022, approximately 900 000 people were employed in the EU-27 railway sector, marking a slight fall compared to 2018.
- **Market share of new entrants:** by 2022, new entrants held a 49% market share in the rail freight sector (up from 39% in 2018) and a 21% share in public service obligation (PSO) passenger services (+8 percentage points compared to 2018). Commercial passenger services also saw increased competition, with new entrants capturing 12.6% of the market (+6.6 percentage points).
- **Rail expenditure:** in 2022, the total cost of railways (infrastructure expenditure + PSO compensation) was EUR 178.31 per EU-27 inhabitant, representing a 29% nominal

increase from 2018. However, a large proportion of the increase appears to have been driven by inflation.

## 2 METHODOLOGY

This is the ninth edition of the rail market monitoring report that the Commission submits every two years to the European Parliament and the Council under Article 15(4) of Directive 2012/34/EU<sup>1</sup>. Its purpose is to provide an overview of the main developments in rail markets in the context of EU rail market policy<sup>2</sup>. The main focus of the ninth report is on developments between 2018 and 2022, with references to trends and policy developments extending beyond the reporting period up until the preparation date of this report.

In addition to rail market monitoring (RMMS) data submitted by the Member States and Norway, this report also draws on contributions from the statistical pocketbook *EU transport in figures*<sup>3</sup>, reports from the European Union Agency for Railways<sup>4</sup>, Eurostat<sup>5</sup>, statistics collected by various sectoral organisations, presentations and studies. Where the RMMS Regulation is the only source, the report assesses developments for 2018-2022 to ensure that data are comparable. When using other sources, the report also presents developments over a longer period.

Aggregated data and averages refer to EU-27 (current number of EU Member States)<sup>6</sup>.

## 3 RAIL AND SUSTAINABILITY

Rail has cut its direct greenhouse gas emissions almost continuously since 1990, while carrying about 16.6% of freight and 8.1% of passengers across all modes in intra-EU transport in 2022. The transport sector (including international aviation and maritime) accounts for one quarter of the total GHG emissions in the EU-27. Within the transport sector, rail represented only 0.3% of GHG emissions from all transport modes in the EU-27. The transport sector accounted for 31.0% of the total final energy consumption in the EU-27 in 2022. Within the transport sector, rail accounted for only 0.6% of the final energy consumption. To meet the objectives of the European Green Deal, rail will have to take up a bigger share of passenger and freight transport.

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<sup>1</sup> Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway area, OJ L 343, 14.12.2012, p. 32.

<sup>2</sup> In addition to the rail market report, the European Union Agency for Railways publishes annual reports on safety and interoperability of railways.

<sup>3</sup> [https://transport.ec.europa.eu/facts-funding/studies-data/eu-transport-figures-statistical-pocketbook/statistical-pocketbook-2024\\_en](https://transport.ec.europa.eu/facts-funding/studies-data/eu-transport-figures-statistical-pocketbook/statistical-pocketbook-2024_en)

<sup>4</sup> <https://www.era.europa.eu/library/documents-regulations/corporate-publications>

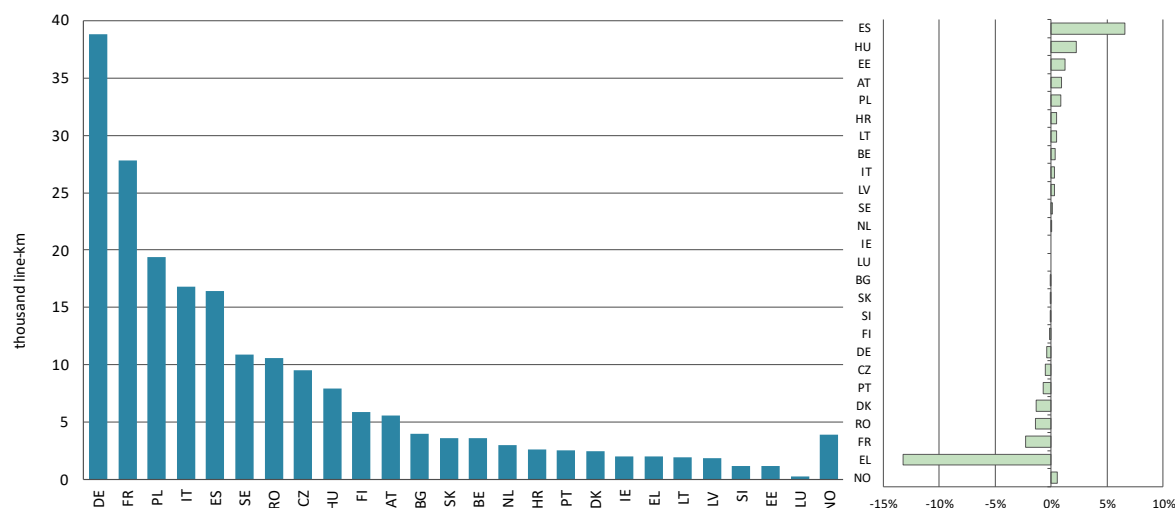
<sup>5</sup> <https://ec.europa.eu/eurostat/web/transport/database>

<sup>6</sup> Norway participates in the RMMS, but data for Norway are not included in EU totals and averages.

## 4 EU RAIL NETWORK

The total length of the EU-27 rail network in 2022 was around 202 131 line-kilometres, a slight increase of 0.1% compared to 2018. Around 57% of the network has been electrified, an increase of 1.4% since 2018.

Figure 1: Length of national networks per country (thousand line-km, 2022) and relative change (2018-2022)



Source: Eurostat, 2024

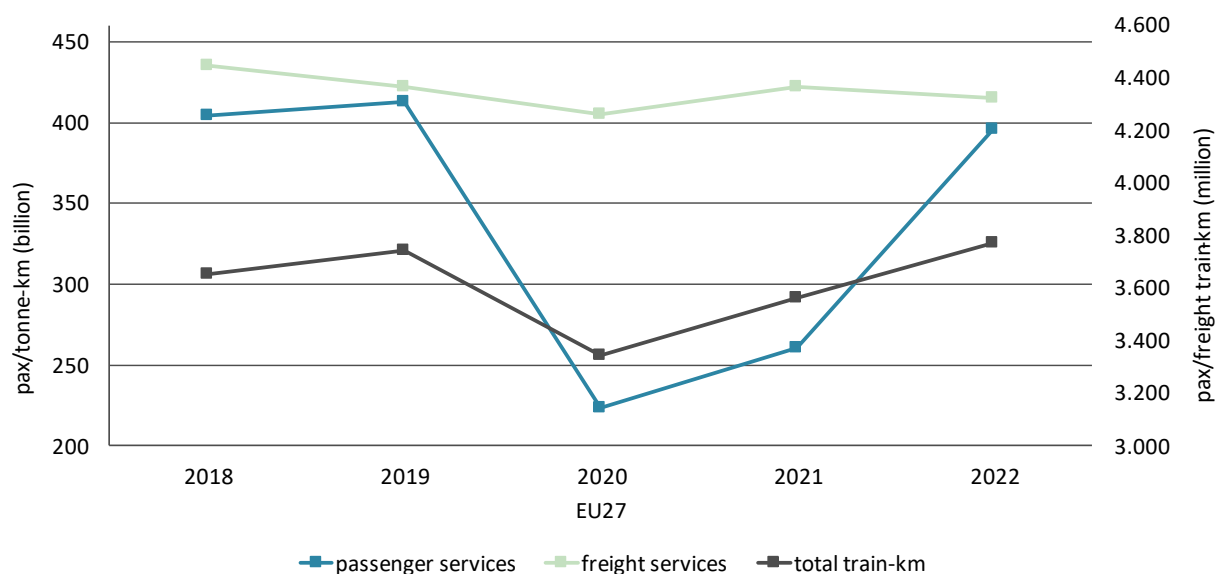
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The EU's high-speed rail network stretched to 12 015 kilometres by the end of 2022, an increase of 10.4% since 2018. The Sustainable and Smart Mobility Strategy has set ambitious targets for high-speed rail traffic, which should double traffic volumes by 2030 and triple them by 2050 compared to the 2015 baseline.

## 5 EVOLUTION OF RAIL SERVICES

After a decade of moderate growth, EU train-kilometres (both passenger and freight) were severely impacted by the COVID-19 pandemic. In 2020, freight services declined by 8% in train-kilometres compared to 2019, while passenger services saw a sharper drop of 46%. However, by 2021, freight volumes had fully recovered, matching their 2019 levels before experiencing a slight decline in 2022. As for passenger services, in 2022 these rebounded to 96% of pre-pandemic levels, reaching 395 billion passenger-kilometres.

Figure 2: Passenger and freight volumes (pax-km, tonne-km, and train-km, 2018-2022)

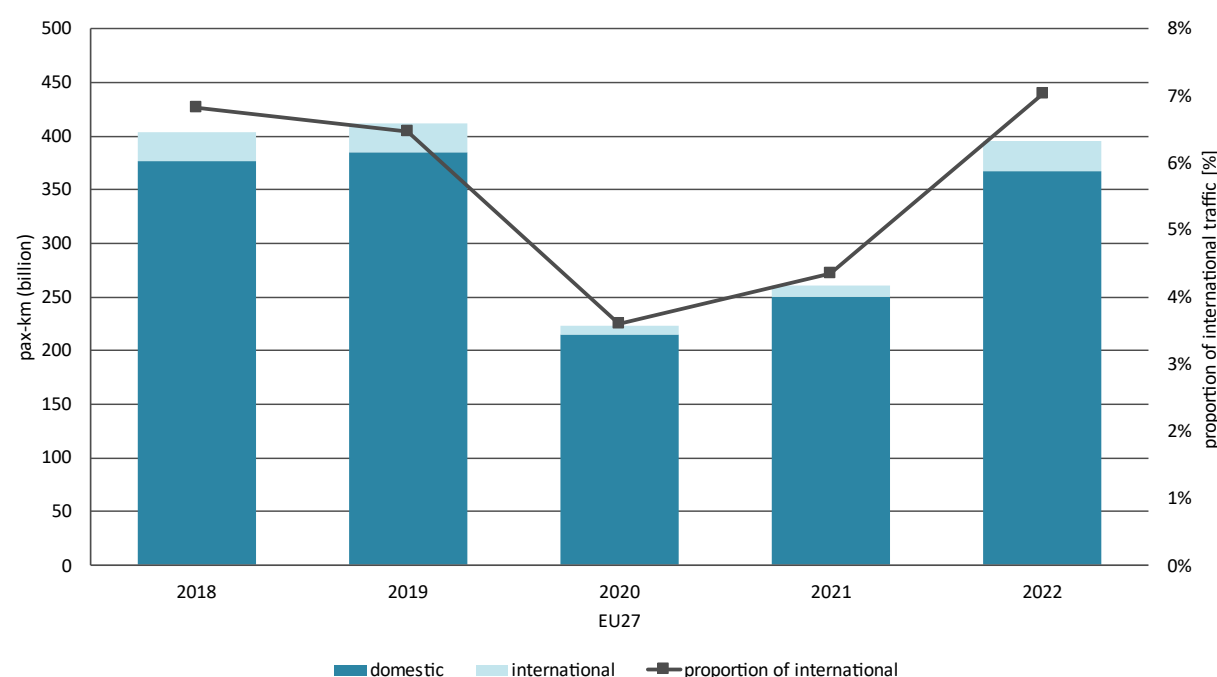


Source: RMMS, 2022

In 2022, rail transported approximately 1.5 billion tonnes of freight and 6.6 billion passengers, reflecting a recovery from the sharp decline observed during the COVID-19 pandemic.

Domestic passenger services continued to dominate, representing over 93% of all passenger-kilometres in the EU-27. The pandemic further reinforced the predominantly domestic nature of passenger rail traffic. Before the crisis, international passenger services accounted for around 7% of total rail traffic, but this share dropped to less than 4% in 2020 due to travel restrictions. By 2022, the proportion of international rail passenger services had recovered to 7%.

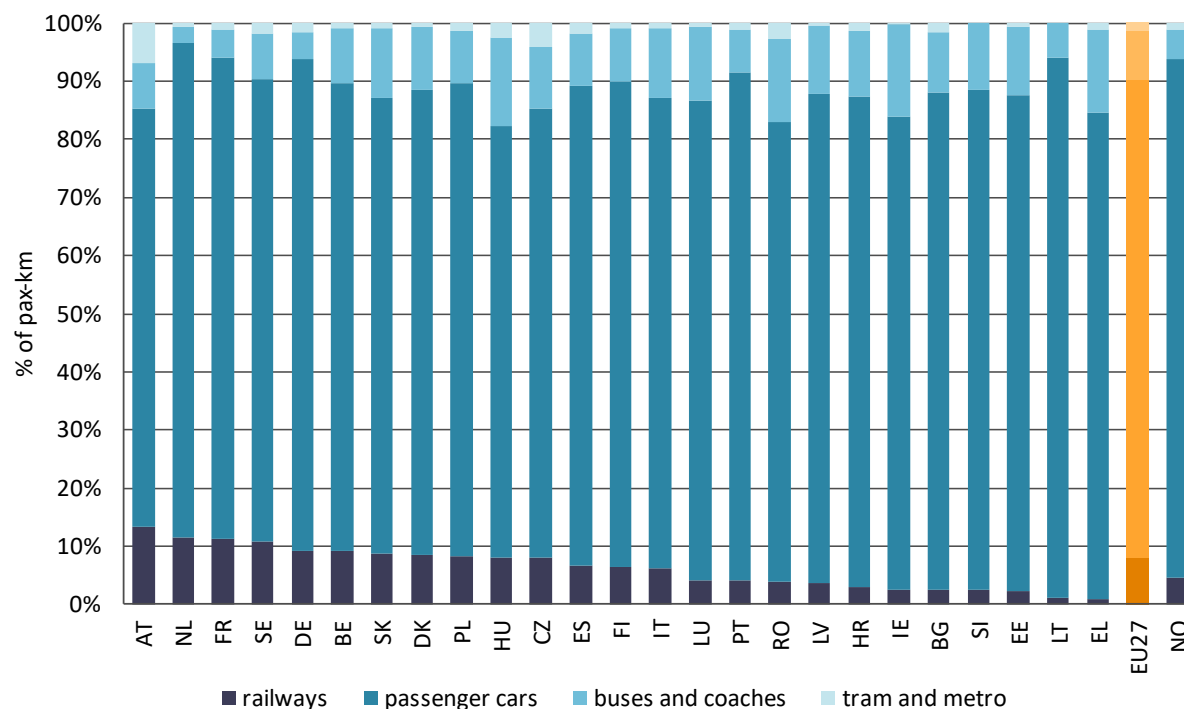
Figure 3: Evolution of rail passenger traffic volumes (domestic, international and proportion of international in total traffic) (billion pax-km, 2018-2022)



Source: RMMS, 2022

In 2020, the average propensity of Europeans to travel by rail dropped sharply to 500 passenger-kilometres per inhabitant per year, down from 934 km in 2019. By 2022, this figure had partially recovered to 888 km per inhabitant. The modal share of rail, which stood at 7.8% in 2019, declined by 2.4 percentage points in 2020 as more people turned to private cars. However, by 2022, it rebounded to 8.1%, exceeding pre-pandemic levels, while cars remained the dominant mode at 82.4%.

Figure 4: Passenger land transport modal split by country (% in 2022)



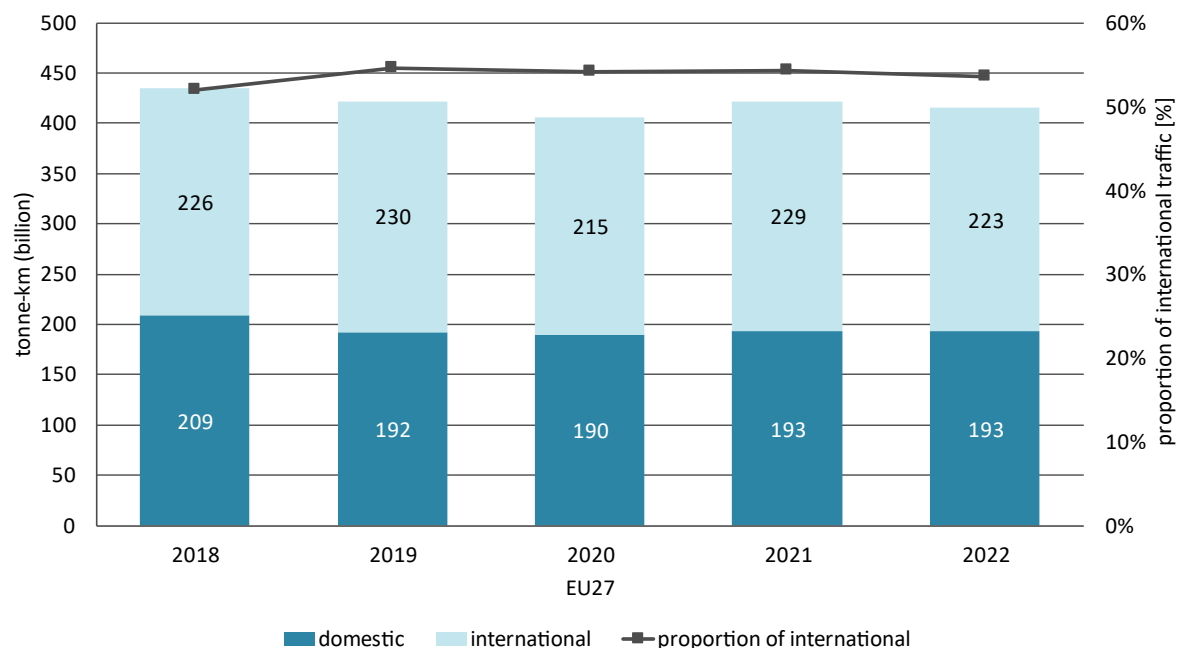
Source: Eurostat, 2024

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Total rail freight traffic in the EU-27 declined from 422 billion tonne-kilometres in 2019 to 405 billion in 2020 due to the pandemic. By 2022, it had almost rebounded to 416 billion tonne-kilometres, nearing pre-pandemic levels.

The proportion of international rail freight services remained consistently above 50% throughout the period, peaking at 55% in 2019 and stabilising at 54% in 2022. This stability contrasts with the more pronounced impact of the pandemic on international rail passenger traffic.

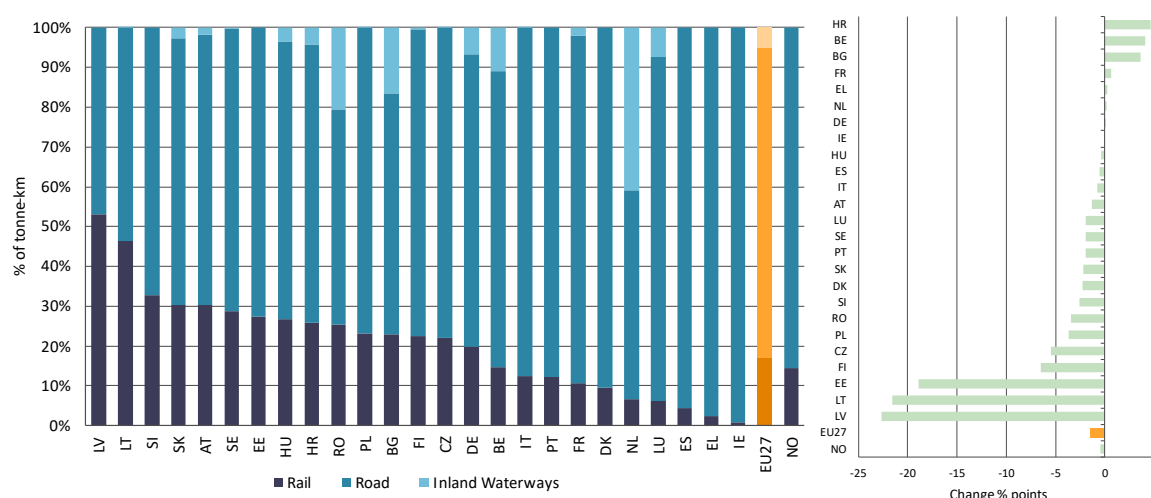
Figure 5: Evolution of rail freight traffic volumes (domestic, international and proportion of international in total traffic) (billion tonne-km, 2018-2022)



Source: RMMS, 2022

Between 2018 and 2022, road transport remained the dominant mode of freight transport within the EU-27, consistently exceeding 75% of the total freight land transport share in tonne-kilometres and peaking at 77.7% in 2022. During the same period, the modal share of rail transport declined from 18.7% to 17.2%, indicating a continued shift towards road transport, although intermodal rail transport performed relatively better than bulk materials and single wagonload transport. The overall decline was particularly pronounced in Latvia, Estonia, and Lithuania, where freight volumes dropped significantly due to reduced exchanges with Russia.

Figure 6: Freight land transport modal split by country (% in 2022) and change in percentage points for rail (2018-2022)



Source: Eurostat, 2024

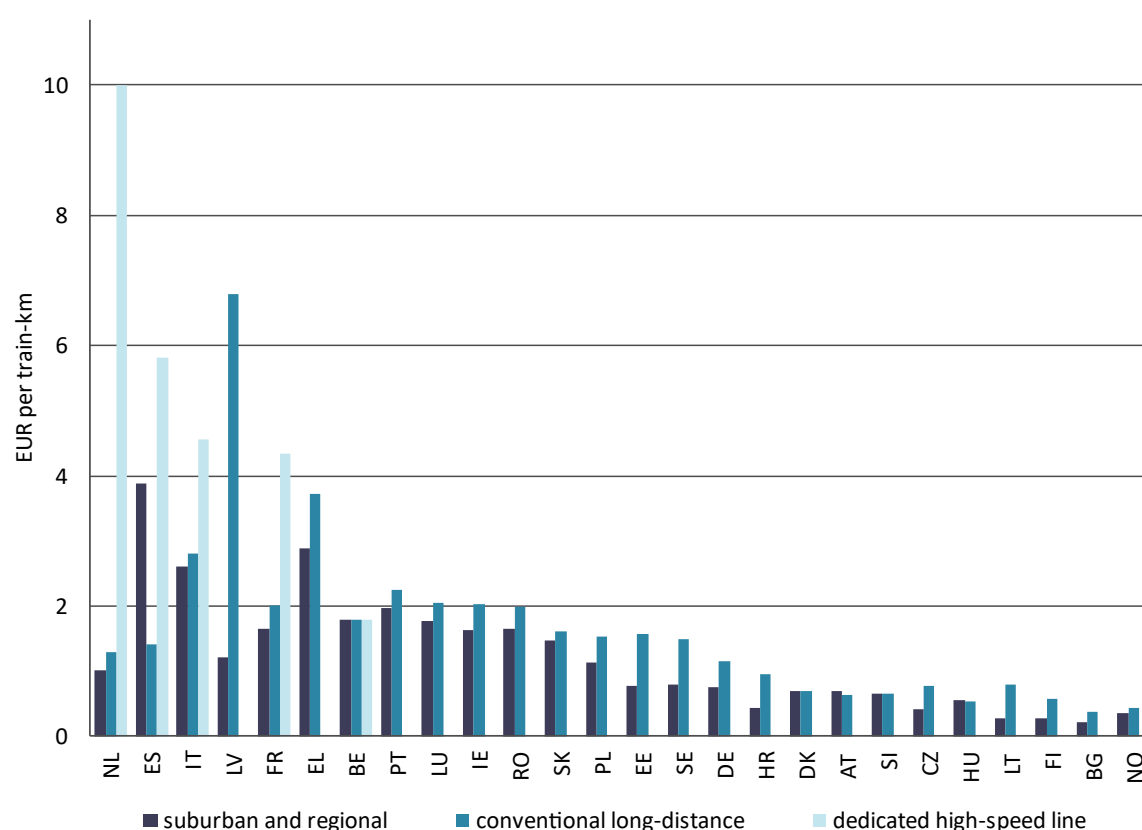
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## 6 EVOLUTION OF FRAMEWORK CONDITIONS IN THE RAIL SECTOR

### 6.1 Infrastructure charging

In 2022, track access charges for high-speed rail (excluding markups) remained higher than those for other passenger services in all countries where such charges applied. However, access charges for high-speed rail were generally lower in 2022 than in 2018 in Member States with high-speed networks.

Figure 7: Access charges (excluding markups) for different categories of passenger trains, by country (EUR per train-km, 2022)

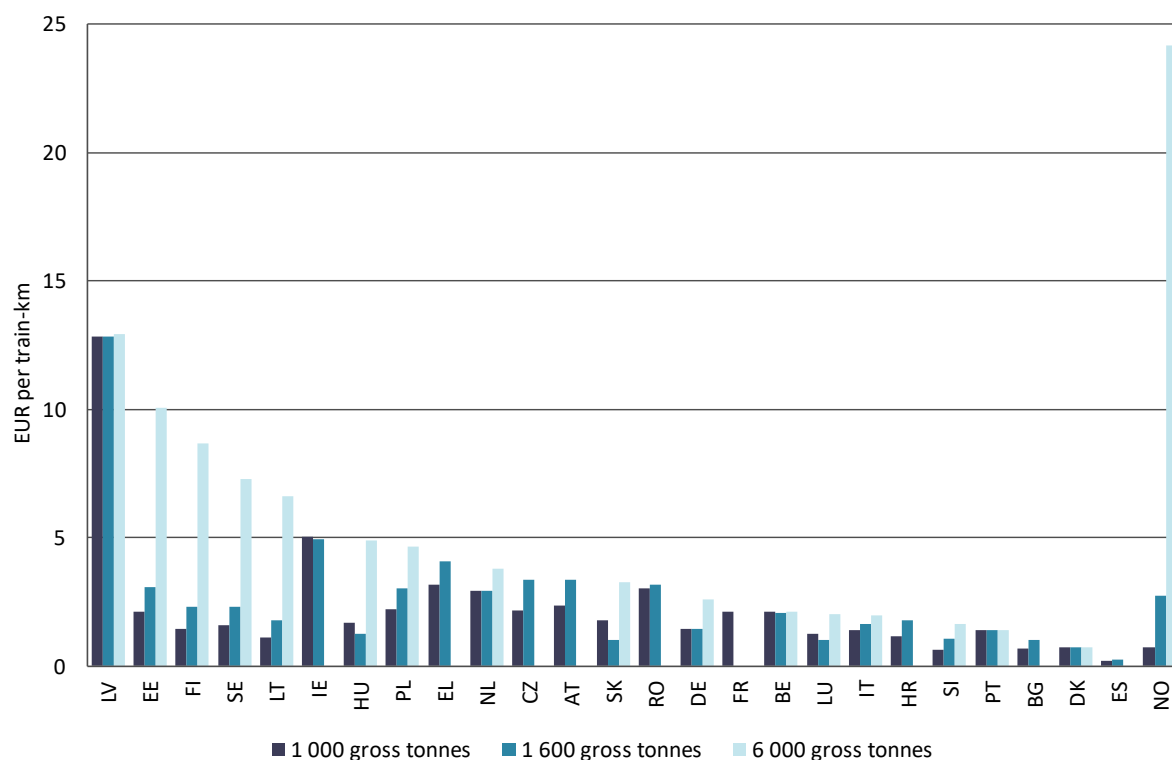


Source: RMMS, 2022

Freight charges (excluding markups) are monitored for three different maximum gross tonnages (1 000, 1 600 and 6 000). In most Member States, access charges increase with train size, although not necessarily proportionally to tonnage.



Figure 8: Access charges (excluding markups) for different categories of freight trains, by country (EUR per train-km, 2022)



Source: RMMS, 2022

To mitigate the economic impact of the COVID-19 pandemic, Regulation (EU) 2020/1429, adopted in October 2020, allowed Member States to temporarily waive, reduce, or defer track access charges<sup>7</sup>. This measure provided essential financial relief to railway undertakings, particularly those in passenger transport, as traffic volumes declined. The Regulation, initially set for a limited duration, was extended four times, ultimately expiring on 31 December 2022. It played a crucial role in sustaining rail operations during the pandemic, supporting the sector's recovery as passenger traffic rebounded.

## 6.2 Capacity allocation and infrastructure limitations

In 2022, the EU-27 rail network had a combined intensity of use (freight and passenger trains) of 18.7 thousand train-kilometres per line kilometre, slightly higher than pre-pandemic levels (18.1 in 2018). Passenger trains accounted for 79% of this usage.

The total length of track declared congested in the EU-27 rose sharply between 2018 and 2020 but fell slightly in 2022 to 6 711 kilometres, including 3 523 kilometres of rail freight corridors. The sharp rise from 2018 levels was largely due to a change in Italy's criteria for declaring congestion.

<sup>7</sup> Regulation (EU) 2020/1429 of the European Parliament and of the Council of 7 October 2020 establishing measures for a sustainable rail market in view of the COVID-19 outbreak (OJ L 333, 12.10.2020, p. 1).

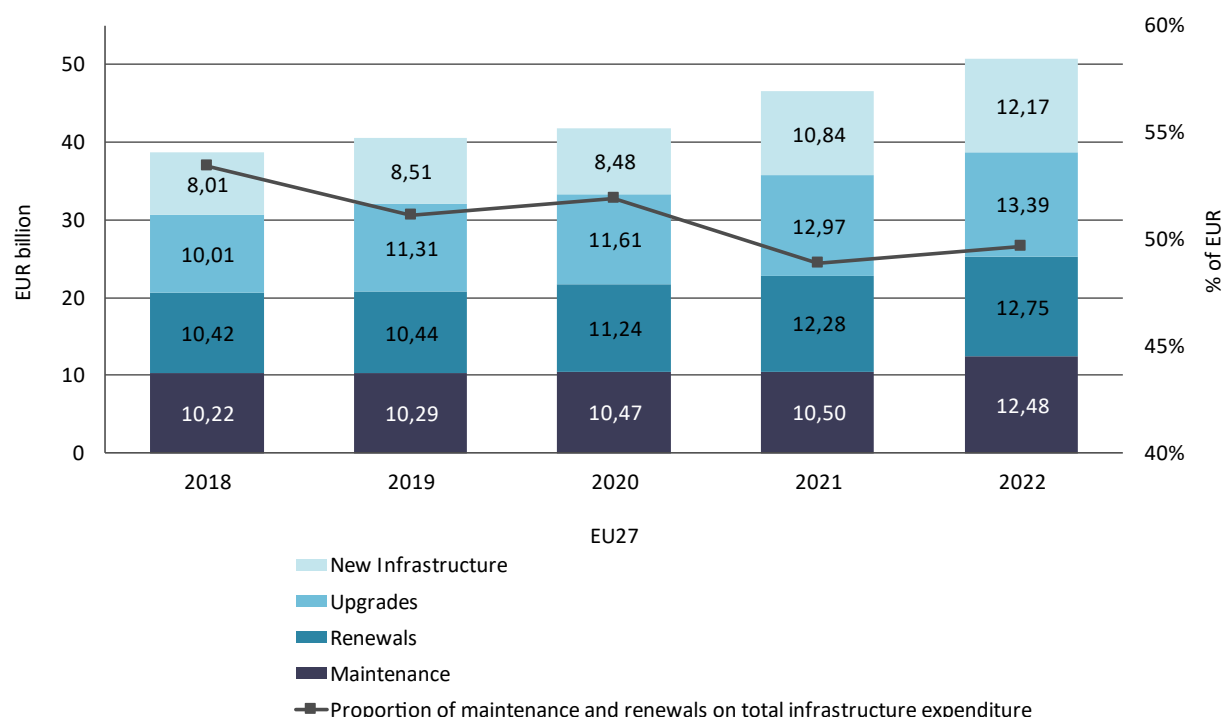
In cases of congestion, the services most commonly prioritised by Member States are those provided under a PSO, followed by international passenger services, while freight traffic is rarely given top priority<sup>8</sup>.

To promote a more efficient use of the network and address incompatibility between national legacy train control systems, the European Railway Traffic Management System (ERTMS) is being introduced as a common European signalling system. At the time of publishing this report, about 14% of the core network has been equipped with ERTMS, and contracts are in place for a further 19%. Although progress has been made, deployment is still lagging behind initial targets, so increased efforts are needed to speed up implementation.

### 6.3 Infrastructure spending and funding

Total EU-27 nominal infrastructure expenditure rose from EUR 38.7 billion in 2018 to EUR 50.8 billion in 2022. In 2022, spending was distributed relatively evenly across categories: 25% for maintenance, 25% for renewals, 26% for upgrades, and 24% for new infrastructure investments. Despite notable nominal growth, high inflation during this period tempered real-term increases. When adjusted to 2018 price levels, the actual growth was more moderate, amounting to approximately 5% in real terms.

Figure 9: Expenditure on infrastructure and proportion of maintenance and renewals (EUR billion, 2018-2022)



Source: RMMS, 2022

In 2022, total maintenance and renewal expenditure in the EU-27 amounted to EUR 25.2 billion, representing 50% of total infrastructure spending, with significant variations among

<sup>8</sup> In total, 14 Countries reported giving priority to PSO traffic in the event of congestion. In practice, however, deviations may occur at certain times or depending on local circumstances.

countries. National budgets remained the primary funding source, contributing 70% of total rail infrastructure expenditure. EU co-financing accounted for 8% while the remaining 22% came from other sources such as loans, equity financing and charges.

## **6.4 Quality of rail transport services**

Safety remains a top priority for the single European railway area, with the European Union Agency for Railways (ERA) continuing to monitor progress on safety and interoperability. The 2024 ERA report<sup>9</sup> reaffirms that European railways remain among the safest modes of transport, with the fatality risk of car travel nearly 84 times higher than that of rail travel, and bus travel being 7.3 times riskier than rail.

The average punctuality of regional and local passenger services<sup>10</sup> in the EU-27 stood at 90% in 2022, down from 94% in 2020 but still higher than pre-pandemic levels. The punctuality of long-distance and high-speed passenger services dropped to 87% in 2022, compared to 93% in 2020.

In terms of reliability<sup>11</sup>, the share of cancelled regional and local services increased from 1.9% in 2018 to 4.4% in 2022. For long-distance and high-speed services, cancellations rose from 1.3% in 2018 to 4.9% in 2022. Challenges affecting reliability include staff shortages, ageing infrastructure, and maintenance backlogs.

In rail freight, the average punctuality<sup>12</sup> of domestic services in the EU-27 was 56% in 2022 while international freight services stood at 42%. The share of cancelled domestic freight services reached 8.1% in 2022 while 14.5% of international services were cancelled.

## **6.5 Public service contracts**

In 2022, PSO passenger services accounted for an average of 58.7% of total passenger-kilometres in the EU-27, down from 66% in 2020. This decline reflects a gradual shift towards a more competitive rail market. Nearly all passenger traffic was covered by a PSO in Denmark, Estonia, Ireland, Latvia, Luxembourg, Netherlands and Romania. PSOs are predominantly domestic, representing 99.1% of PSO passenger-kilometres in 2022 with a prevalence of regional over long-distance services.

The share of commercial operators in the market increased between 2018 and 2022. In commercial passenger services, competitors held a 12.6% market share in 2022, up from 6% in 2018. In the PSO market, competitors' share rose to 21% in 2022, an increase of 8 percentage points since 2018.

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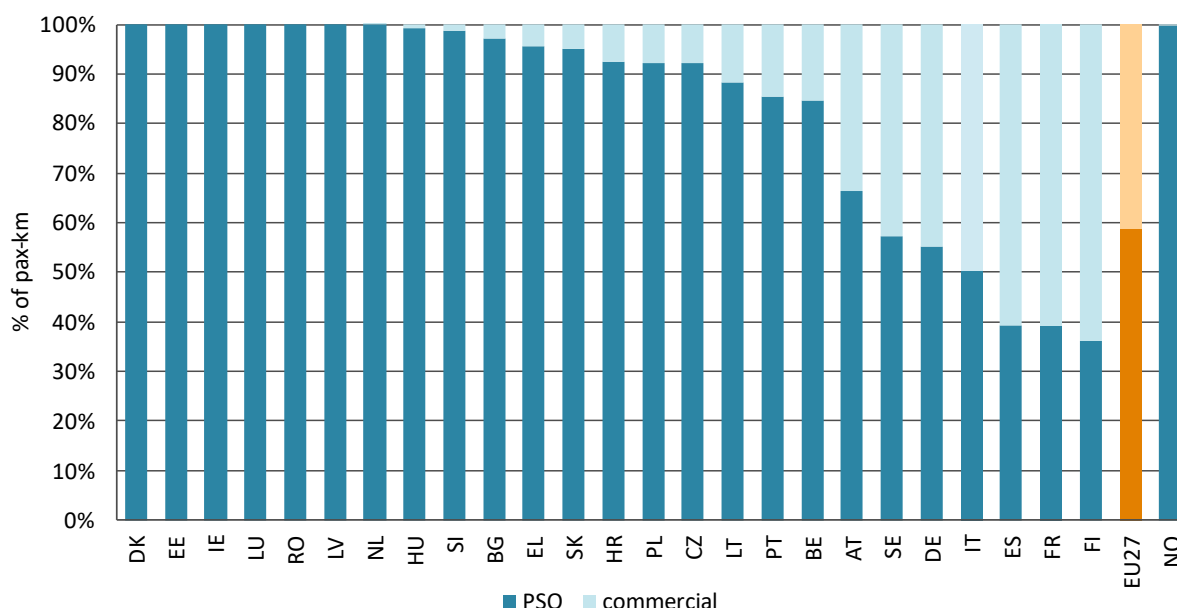
<sup>9</sup> Report on Railway Safety and Interoperability in the EU 2024 (<https://www.era.europa.eu/content/report-railway-safety-and-interoperability-eu-2024>).

<sup>10</sup> RMMS considers a passenger train to be punctual if it is not delayed by more than five minutes.

<sup>11</sup> Defined in terms of the share of cancelled services.

<sup>12</sup> RMMS considers a freight train to be punctual if it is delayed by more than 15 minutes.

Figure 10: Share of passenger traffic offered respectively under a PSO and commercial rail services per country (% of pax-km, 2022)



Source: RMMS, 2022

In 2022, 29% of the 231 billion PSO passenger-kilometres in the EU-27 were on services awarded through competitive tendering. Similar to previous years, the most competitively tendered passenger volume was concentrated in two early-liberalising countries: Germany (81%) and Sweden (13%). PSO compensation remains a significant source of revenue for railway undertakings across most EU Member States.

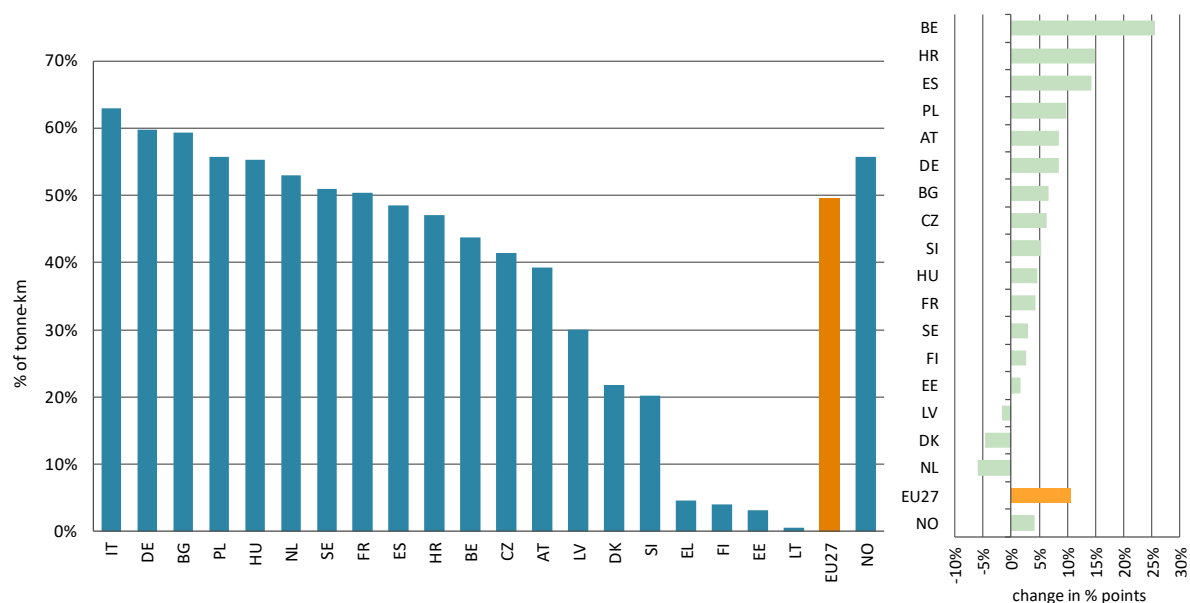
## 6.6 Licensing

In 2022, a total of 1 202 active railway licences were reported in the EU-27, an increase from 1 192 in 2020. Germany continued to have the highest number of active licences, with 490 licensed railway undertakings, followed by Poland with 126 and Czechia with 109.

## 6.7 Degree of market opening and utilisation of access rights

In 2022, the market share of new entrants in the EU-27 rail freight sector reached 49%, continuing an upward trend from 39% in 2018.

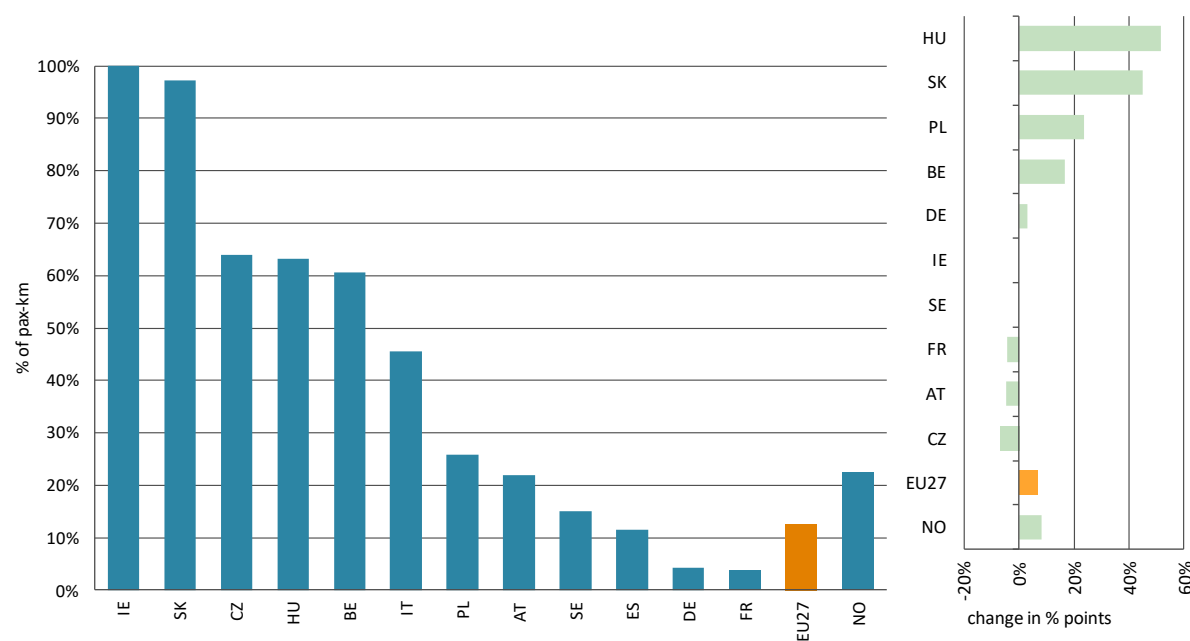
Figure 11: Competitors' market share in the rail freight market per country (% in 2022) and change in percentage points (2018-2022)



Source: RMMS, 2022

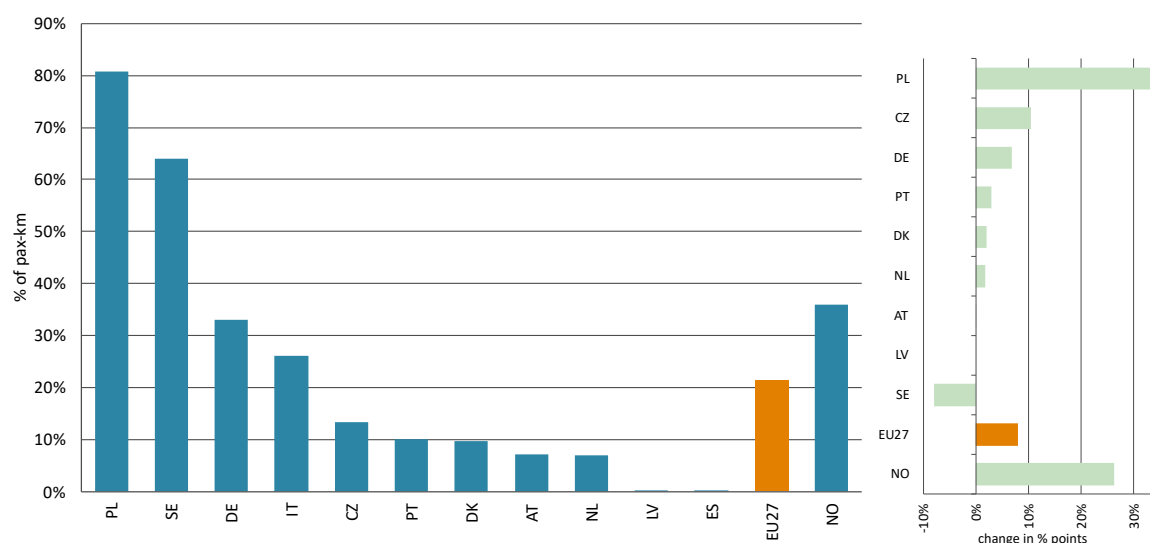
In commercial passenger rail, new entrants had a 12.6% market share in 2022, nearly double the 6.6% recorded in 2020. In the national PSO passenger market, competitors held a 21% market share in 2022, marking a significant increase from 18.5% in 2020.

Figure 12: Competitors' market share in the commercial passenger market per country (% in 2022) and change in percentage points (2018-2022)



Source: RMMS, 2022

Figure 13: Competitors' market share in the PSO passenger market per country (% in 2022) and change in percentage points (2018-2022)



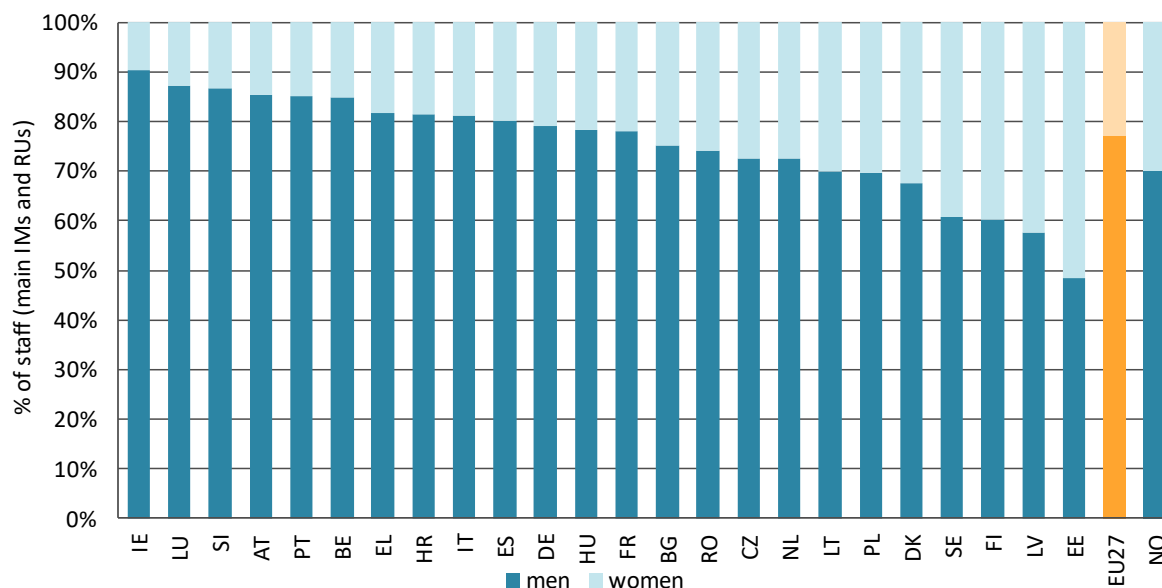
Source: RMMS, 2022

## 6.8 Employment and social conditions

By the end of 2022, the railway sector in the EU-27 employed approximately 900 000 people, with 511 000 working for railway undertakings and 389 000 for infrastructure managers. This reflects a slight decline from the 2020 figures.

The railway workforce remains predominantly male, with women making up only 23% of employees in 2022, up one percentage point since 2020.

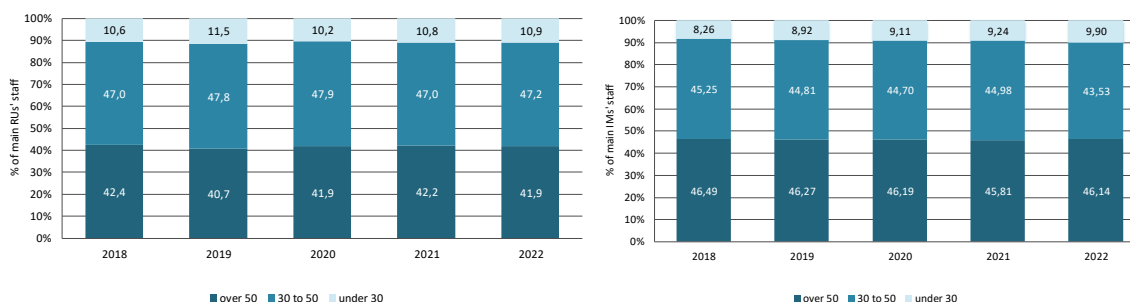
Figure 14: Total employees (main infrastructure managers plus railway undertakings) by gender structure, (% in 2022)



Source: RMMS, 2022

The ageing workforce remains a concern, although there was a slight improvement. In 2022, 41.9% of railway undertaking staff were over 50 years old, a slight decrease from 42.4% in 2018. The proportion of younger employees under 30 increased modestly from 10.6% in 2018 to 10.9% in 2022.

Figure 15: Employees by age group, main railway undertakings and infrastructure managers (% , 2018-2022)



Source: RMMS, 2022

Full-time employment remains the most common status for railway workers for both infrastructure managers and railway undertakings.

## 7 Conclusions

The European rail sector has demonstrated significant resilience in the aftermath of the COVID-19 pandemic. Passenger traffic, which saw a sharp drop of 46% in 2020 compared to 2019, rebounded to 96% of pre-pandemic levels in 2022, with total passenger-kilometres reaching 395 billion. Freight services experienced a more modest impact, with a recovery already achieved by 2021, when volumes went back up to 2019 levels. However, 2022 saw a small contraction in volumes in the rail freight market.

The rail sector's recovery has been boosted by targeted EU interventions, including Regulation (EU) 2020/1429, which allowed Member States to waive access charges to mitigate financial strain on railway undertakings. These measures provided immediate relief and enabled the sector to sustain operations at the peak of the pandemic. As Member States continue to implement national recovery and resilience plans under the EU Recovery and Resilience Facility, rail investments are poised to play a central role in driving economic and mobility-related growth.

Rail transport remains a critical component of the EU's strategy to achieve its climate goals. With only 0.3% of total transport-related greenhouse gas emissions, rail is the most environmentally friendly mode of motorised transport. The electrification of 57% of the EU rail network and the continued retrofitting of freight wagons with quieter and greener technologies underscore the sector's commitment to reducing its environmental footprint. Rail investments under the Green Deal and the Sustainable and Smart Mobility Strategy aim to double rail freight and triple high-speed passenger traffic by 2050 compared to the 2015 baseline, marking a significant shift towards sustainable transport.

Noise pollution remains a concern, with 22 million people in Europe exposed to harmful railway noise. EU initiatives such as retrofitting freight wagons with silent brake blocks and revising noise technical specifications are addressing this challenge. Continued financial and regulatory support is critical to meeting ambitious sustainability targets.

Market liberalisation has stimulated competition in the European rail sector, with new entrants gaining a significant market share, particularly in freight transport. In this segment, the competitors' average market share in the EU-27 increased from 39% to 49% between 2018 and 2022. In the passenger market, the increase in the competitors' market share was also remarkable, both for commercial services (12.6% market share, with a 6.6% increase between 2018 and 2022) and for PSO (21% market share, or +8% compared to 2018). However, challenges persist, including disparities in access charges and the need for a more even implementation of existing regulations across Member States. With the Fourth Railway Package rules now fully in application<sup>13</sup>, further market opening is expected, which should boost innovation and increase service quality for both passengers and freight.

The Commission will continue to closely monitor if the Fourth Railway Package<sup>14</sup> is being correctly turned into national law and implemented to ensure it achieves its full potential.

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<sup>13</sup> The transition period provided for in Regulation (EC) No 1370/2007 to allow Member States to gradually open the rail market and tender rail public service contracts expired in December 2023.

<sup>14</sup> In particular that the principle of mandatory tendering for public service contracts in passenger rail is respected.



In 2022, PSOs accounted for a significant portion of rail passenger operations. On average, PSO passenger services accounted for 58.7% of total passenger-kilometres in the EU-27, down from 66% in 2020. This suggests a progressive move towards a more competitive rail market. The competitive tendering of PSOs has increased and is expected to continue to increase in the years to come, improving service quality and cost efficiency. However, challenges remain in balancing market liberalisation with ensuring fair access, particularly in less populated regions. The EU is encouraging greater transparency and competition to optimise the social and economic impact.

High-speed rail represents a cornerstone of Europe's transport modernisation efforts. The network has expanded to 12 015 kilometres in 2022, with plans for an additional 1 600 kilometres by 2035. Spain, France, and Italy continue to lead in high-speed investments, contributing to enhanced connectivity and reduced travel times across the continent.

Infrastructure investment remains critical, with the EU allocating significant funding through mechanisms like the Connecting Europe Facility and the Cohesion Fund. These investments prioritise projects that address bottlenecks, improve multimodal connectivity, and upgrade existing infrastructure. The emphasis on digitalisation, including the deployment of the ERTMS, further strengthens rail's capacity to meet future mobility needs.

Digital technologies are set to bring significant improvements to the rail sector, raising operational efficiency and passenger experience. The rollout of ERTMS, a key component of the EU's digital transition strategy, is set to improve interoperability and safety across Europe's rail networks, although to date only around 33% of the core network is either equipped with ERTMS or has secured contracts for its installation. In addition, investments in smart ticketing systems and real-time data platforms will help in making rail more accessible and user-friendly for passengers.

Innovation through the Europe's Rail Joint Undertaking is advancing areas such as automated train operations, digital freight management, and sustainable asset management. These initiatives align with broader EU goals to position rail as the backbone of a multimodal, sustainable transport system.

As Europe transitions towards a greener, more connected future, rail will play a pivotal role in reducing emissions, enhancing mobility and boosting economic growth. Continued investments in infrastructure, market opening and technological innovation are essential to achieving the EU's vision of a sustainable transport system by 2050. The full implementation of the Fourth Railway Package, strengthening cross-border connectivity, addressing capacity constraints, and ensuring fairer access to rail services will be key priorities in the years ahead.

By integrating these strategic elements, the European rail sector has a chance to lead the transformation of the continent's transport landscape, delivering on its promise of sustainable, efficient, and inclusive mobility.