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REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

Seventh 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

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1. MAIN FINDINGS

Reliable monitoring of the rail market is fundamental to understanding market developments and taking informed policy decisions. The Commission funds sectoral initiatives such as the PRIME KPIs benchmarking activities and works with Member States to improve monitoring.

This report covers data up to 2018 and therefore does not provide any evidence on the impact of the COVID-19 pandemic on the sector. While rail, and especially freight, services continued to run throughout 2020, the number of international passengers declined significantly during the various lockdowns and overall demand decreased due to uncertainty and the economic downturn.

The main findings and trends for 2015-2018 in EU27 (with the exception of the length of the high-speed network, for which the comparison is with 2019) are that:

- rail traffic increased annually by 2.5% for passengers and by 4.1% for freight;
- rail's 'modal share' of land transport modes increased from 7.6% to 7.8% for passengers and decreased from 18.8% to 18.7% for freight;
- in 2018, rail accounted for only 0.4% of both greenhouse gas (GHG) and CO_2 transport emissions and for 2% of transport energy consumption;
- the length of the high-speed network increased by 17% between 2015 and 2019;
- the total length of tracks that were declared to be congested more than doubled;
- railway undertakings had 1 082 active licences overall in 2018;
- the average market share of competitors to national incumbents in 2018 was:
    - 42% of rail freight markets (an increase of 8 percentage points);
    - 10% of commercial passenger markets (an increase of 2 percentage points);
    - 16.2% of public service obligation (PSO) passenger markets (a decrease of 0.5 percentage points);
- rail remains one of the safest modes of transport, travelling by car being almost 50 times riskier than travelling by train; and,
- at the end of 2018, just over 916 000 people were employed in the rail sector, about 527 000 of them by railway undertakings (both main and alternative operators) and 389 000 by infrastructure managers.

2. METHODOLOGY

This is the seventh edition of the rail market monitoring report that the Commission submits every 2 years to the European Parliament and the Council under Article 15(4) of Directive 2012/34/EU[1]. Its purpose is to provide an overview of the main developments in rail markets in the context of EU rail market policy[2]. The report covers a broad range of topics, including: the evolution of the single market for rail services; the infrastructure and services available to railway undertakings; the framework conditions for the rail market (including charges[3]); the state of the network; utilisation of access rights; and barriers to more effective rail services. The accompanying staff working document contains a detailed analysis of these topics.

This is the second report to draw on the reporting questionnaire set out in Commission Implementing Regulation (EU) 2015/1100 on rail market monitoring[4] ('the RMMS Regulation'), and the first one to be produced after the end of the transitional period for its implementation, in 2018.

In addition to RMMS data submitted by the Member States, the United Kingdom and Norway, this report also draws on contributions from the statistical pocketbook *EU transport in figures*[5], reports from the European Union Agency for Railways[6], Eurostat[7], statistics collected by various sectoral organisations, presentations and studies. Where the RMMS Regulation is the only source, the report assesses trends for 2015-2018 to ensure data comparability. When using other sources, the report may present trends over a longer period.

Aggregated data and averages refer to EU27 (i.e. to the current EU Member States[8]). Since the United Kingdom was a Member State until 31 January 2020, the report also provides totals and averages for EU28, either in the text or in the Excel file published on DG MOVE's website together with the report[9].

3. RAIL AND SUSTAINABILITY

Rail is the only transport mode to have reduced GHG and CO_2 emissions almost continously since 1990, while carrying about 13% of freight and 7% of passengers on all modes (EU27, 2018). As such, rail is comparatively less polluting and more energy-efficient than other motorised means of transport. In 2018, rail accounted only for 0.4% of both transport GHG and CO_2 emissions and for 2% of transport energy consumption in EU27[10]. 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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1 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.

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

3 Comprehensive monitoring of rail prices for customers is not possible due to the wide variety of services offered.

4 Commission Implementing Regulation (EU) 2015/1100 of 7 July 2015 on the reporting obligations of the Member States in the framework of rail market monitoring, OJ L 181, 9.7.2015, p. 1.

5 https://ec.europa.eu/transport/facts-fundings/statistics/pocketbook-2020_en

6 https://www.era.europa.eu/library/corporate-publications_en

7 http://ec.europa.eu/eurostat/web/transport/data/database

8 Norway participates in the RMMS, but data for Norway are not included in EU totals and averages.

9 https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en

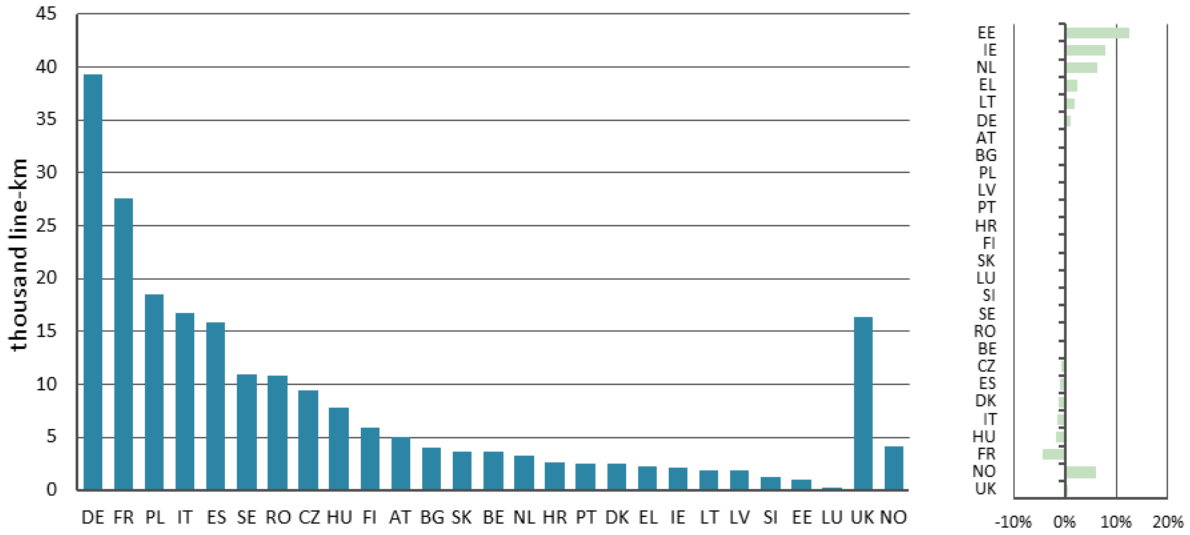
10 EU28: 0.5%, 0.5% and 2% respectively.

4. EU RAIL NETWORK

The total length of the EU27 rail network in 2018 was around 201 000 line kilometres (0.4% less than in 2015). Around 56% of the network was electrified, an increase of 855 kilometres since 2015 (+1.2%).

The EU's high-speed rail network stretched to over 9 100 kilometres by the end of 2019, an increase of 17% since 2015[11].

Figure 1: Length of national networks per country (thousand line-km, 2018) and relative change (2015-2018)



Source: Statistical pocketbook, 2020. Infill data from various other sources.

5. EVOLUTION OF RAIL SERVICES

The total number of EU train kilometres (both passenger and freight train movements) has remained substantially stable over the past 10 years. Passenger and freight services recovered at different paces after the financial crisis of 2008 (with fluctuations for freight). Between 2015 and 2018, rail traffic[12] in EU27 increased annually by 2.5% for passengers and by 4.1% for freight[13].

11 EU28: 217 000 line kilometres, of which 54% were electrified, and over 9 200 kilometres of high-speed lines.

12 Data on volumes reported in the yearly RMMS questionnaire may differ from those reported by Eurostat, due to the different scope, potential double counting of transit volumes and adjustments (estimates and integration of data from other sources).

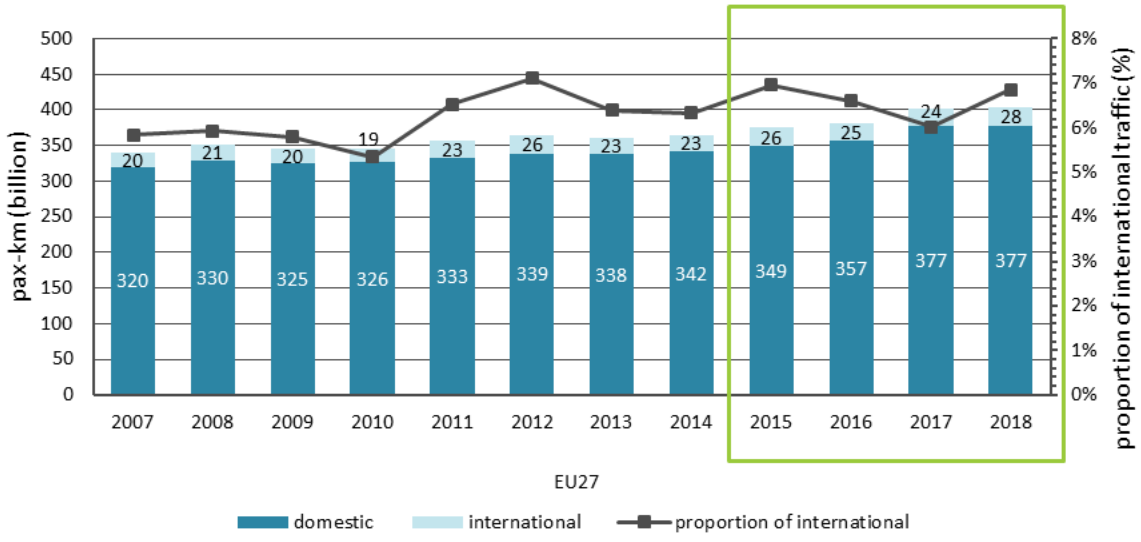
13 EU28: 2.4% for passengers and 3.8% for freight.

Figure 2: Passenger and freight volumes (pax-km, tonne-km and train-km, 2005-2018)

Source: RMMS, 2020. Infill data from various other sources and estimates. The 2015 and 2016 data for RO are estimates; the data also include adjustments to the 2018 pax-km value for BE, the 2015 and 2016 tonne-km values for ES, NL and LU, and the 2015 and 2016 train-km values for IE.

By 2018, EU27 rail passenger traffic volumes accounted for 404 billion passenger kilometres out of around 5 trillion passenger kilometres for land transport overall[14]. Rail passenger traffic is still mostly domestic, with only 7% of it crossing borders in 2018.

Figure 3: Evolution of rail passenger traffic volumes (domestic, international and proportion of international in total traffic) (billion pax-km, 2007-2018)



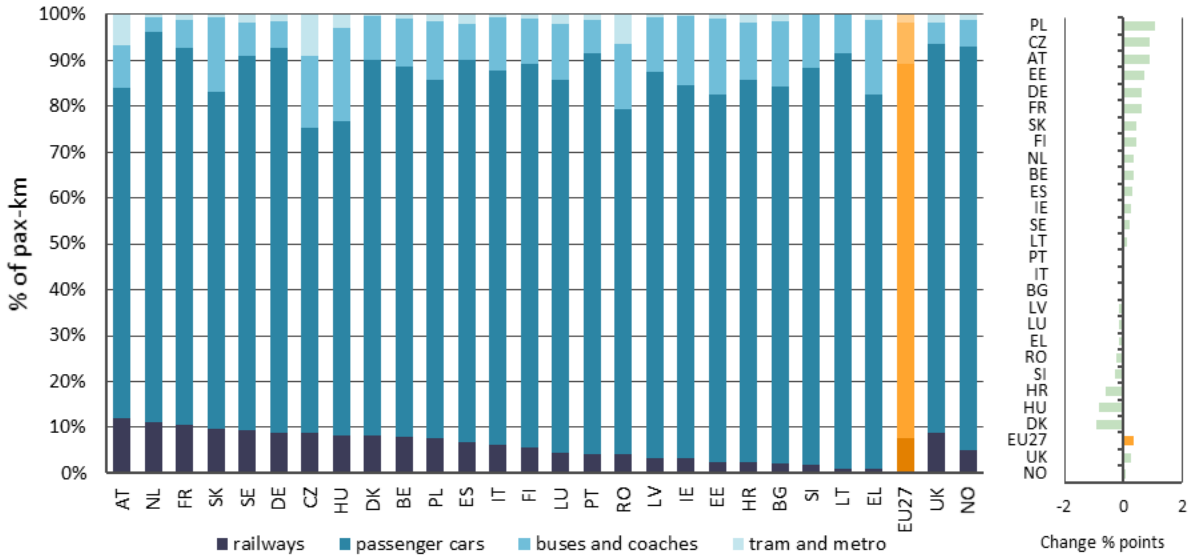
Source: RMMS, 2020. Infill data from various other sources and estimates. The 2015 data for BE, EE, EL, LU and RO are estimates.

[14] EU28: 473 billion passenger kilometres, out of around 6 trillion passenger kilometres on land transport overall.

Each citizen of the EU27 travelled 909 passenger kilometres on average in 2018 (+2.4% per year since 2015[15]).

Between 2015 and 2018, the modal share of passenger cars in EU27 land passenger transport increased from 81% to 81.4%, whereas rail increased from 7.6% to 7.8%, with significant differences between countries.

Figure 4: Passenger land transport modal split by country (% in 2018) and change in percentage points for rail (2015-2018)



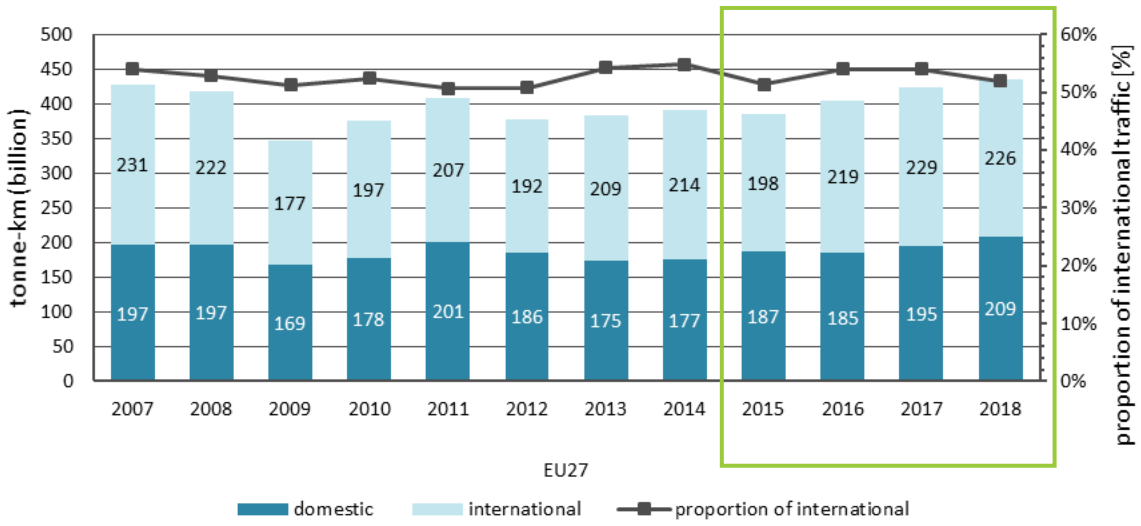
Source: Statistical pocketbook, 2020; excluding CY and MT.

In 2018, EU27 rail freight traffic volumes accounted for 435 billion tonne kilometres out of 2.3 trillion tonne kilometres of land transport overall[16]. More than half of total rail freight is across borders, making the competitiveness of rail freight very sensitive to interoperability and operational difficulties between national rail networks.

15 EU28: 926 passenger kilometres and +2.2% respectively.

16 Excluding pipelines. For EU28: 452 billion tonne kilometres out of 2.4 trillion tonne kilometres of land transport overall.

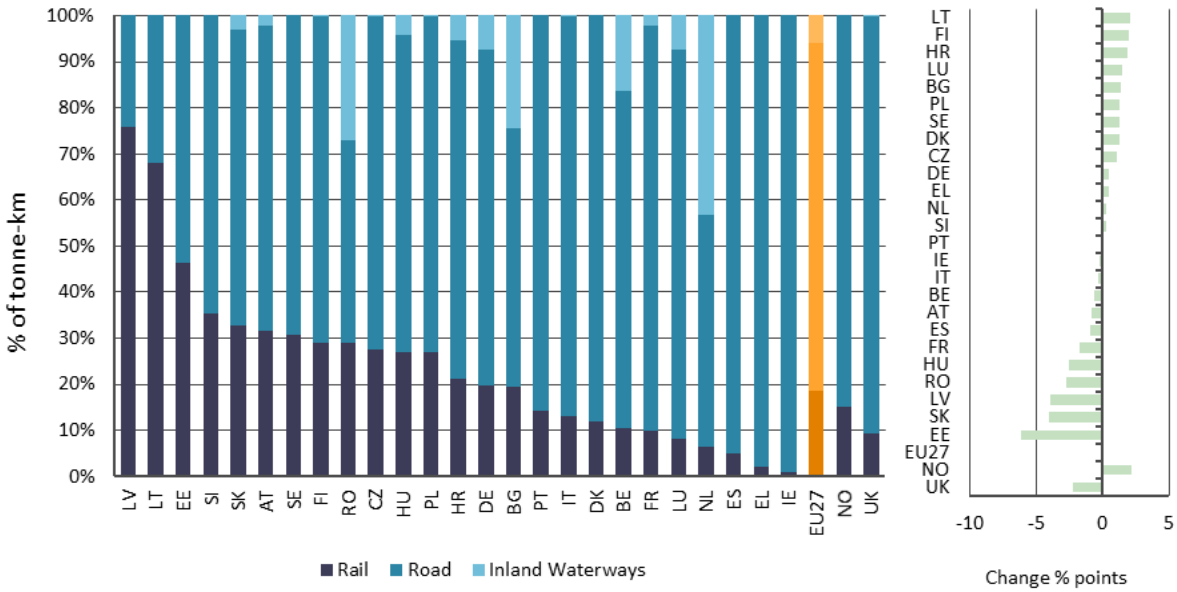
Figure 5: Evolution of rail freight traffic volumes (domestic, international and proportion of international in total traffic) (billion tonne-km, 2007-2018)



Source: RMMS, 2020. Infill data from various other sources and estimates. For 2016, there is a revision of some RMMS inputs and estimates compared with the sixth RMMS report.

Between 2015 and 2018, the modal share of road in EU27 land freight transport increased from 74.2% to 75.4%, whereas rail decreased from 18.8% to 18.7%, with significant differences between countries.

Figure 6: Modal split of freight land transport by country (% in 2018) and change in percentage points for rail (2015-2018)



Source: Statistical pocketbook, 2020.

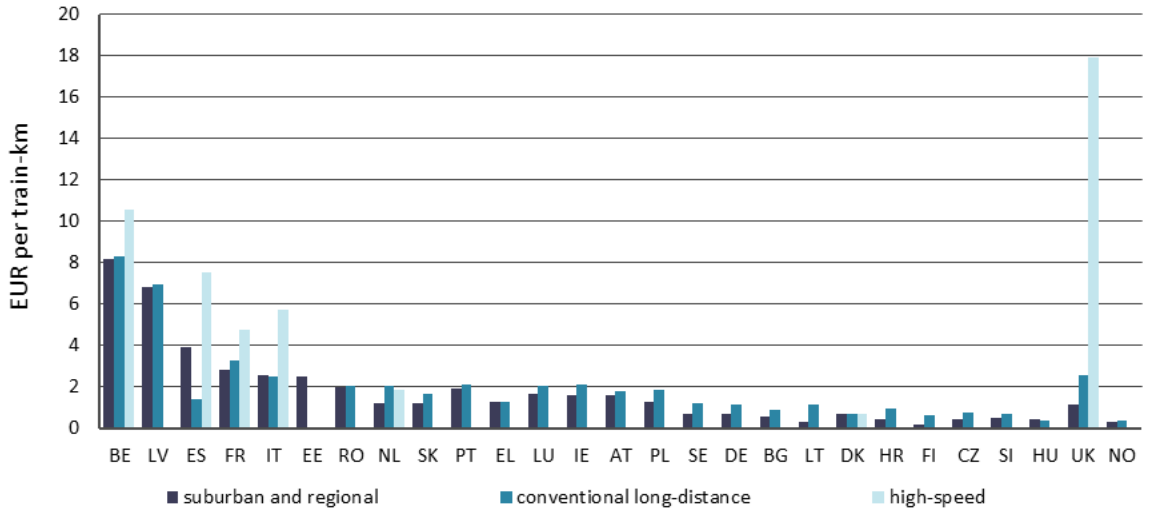
6. EVOLUTION OF FRAMEWORK CONDITIONS IN THE RAIL SECTOR

6.1. Infrastructure charging

Track access charges represented more than 80% of infrastructure managers' revenues from charges in EU27 in 2018 (84% from freight trains and 88% from passenger trains[17]).

Track access charges for high-speed rail (excluding markups) were higher than other passenger charges, with the highest charges in 2018 occurring in the United Kingdom (EUR 18 per train kilometre) and Belgium (EUR 10.6 per train kilometre).

Figure 7: Access charges (excluding markups) for different categories of passenger trains, by country (EUR per train-km, 2018)

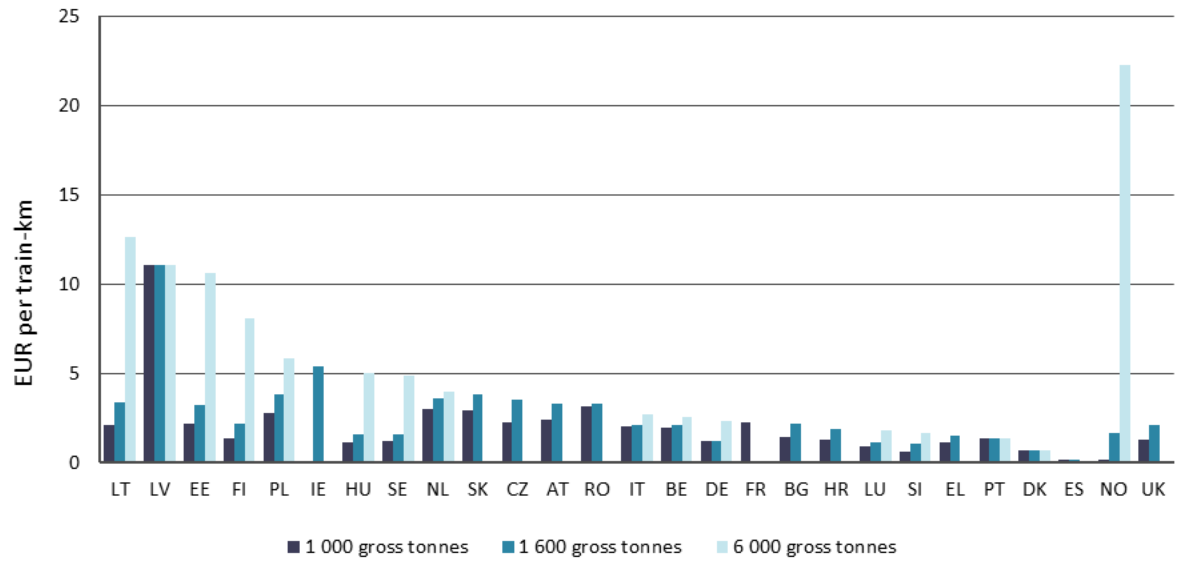


Source: RMMS, 2020.

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 pro rata with tonnage.

[17] EU28: 84% and 89% respectively.

Figure 8: Access charges (excluding markups) for different categories of freight trains, by country (EUR per train-km, 2018)



Source: RMMS, 2020

There was no clear upward or downward trend for passenger or freight trains in reported charging[18] levels between 2015 and 2018, except for high-speed trains (for which track access charges decreased everywhere but the United Kingdom).

The platform of rail infrastructure managers in Europe (PRIME) will carry out an extensive study of infrastructure managers' charging and funding mechanisms, which will be completed in 2021. The study will include an overview of track access charging and its various components.

In order to mitigate the economic impact of the COVID-19 pandemic, Regulation 2020/1429, adopted in October 2020, makes it possible to reduce the financial burden on the rail sector by temporarily easing rules on charges[19].

6.2. Capacity allocation and infrastructure limitations

In 2018, the EU27 network had an intensity of use of 18.2 thousand train kilometres per line kilometre (19.5 for EU28). The most intensively used networks in 2018 were those in western Europe, particularly the Netherlands, which has an intensity of use of 50.6 thousand train kilometres per line kilometre. Greece appears to have the lowest intensity of use, with only 4.8 thousand train kilometres per line kilometre. Although these broad national averages say nothing about the emptiest parts of the network, they can provide some indications about which networks are, on average, busier than others and could therefore have limited capacity for further traffic.

The total length of track that was declared to be congested in EU27 has risen constantly since

[18] Track access charges excluding markups.

[19] 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).

2015 and had almost doubled by 2018. This affected 2 261 kilometres of track (3 432 kilometres in EU28), including 1 339 kilometres along rail freight corridors.

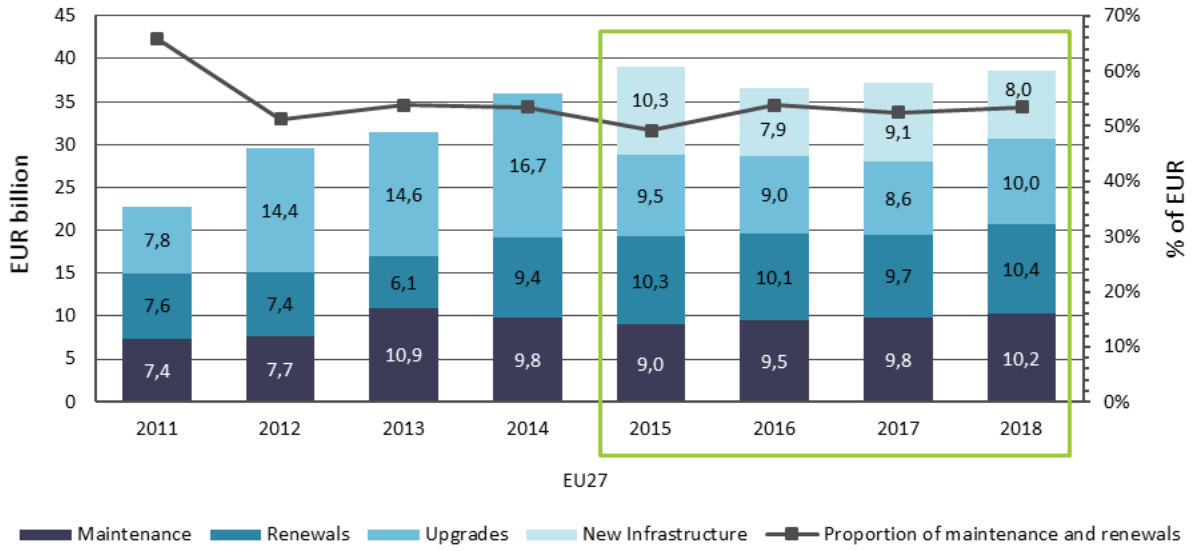
In cases of congestion, the services most commonly prioritised by Member States are those provided under a PSO, which is the first priority in 13 countries, followed by international passenger services (7 countries). Freight traffic (both domestic and international) is seldom given first priority.

To overcome operational infrastructure limitations and incompatibility between national legacy train control systems, which are significant barriers to smooth interoperability, the EU introduced a common European signalling system, the European Railway Traffic Management System (ERTMS). Under the ERTMS European deployment plan[20], this signalling system should be deployed on 15 682 kilometres of track by 2023; so far, the system has been installed on 5 906 kilometres of the planned track length (or 38%), which represents 78% of the target planned for the end of 2019.

6.3. Infrastructure expenditure and funding

Total EU27 rail infrastructure expenditure was EUR 38.7 billion in 2018 after a peak of EUR 39.1 billion in 2015[21].

Figure 9: Expenditure on infrastructure and proportion of maintenance and renewals (EUR billion, 2011-2018)



Source: RMMS, 2020

In 2018:

- total maintenance and renewal expenditure reported for EU27 was EUR 20.6 billion, i.e. 53% of the total expenditure (EUR 25.8 billion and 54% for EU28), with significant variations between countries; and

[20] Commission Implementing Regulation (EU) 2017/6 of 5 January 2017 on the European Rail Traffic Management System European deployment plan, OJ L 3, 6.1.2017, p. 6-28.

[21] EU28: from EUR 49.5 billion in 2015 to EUR 47.5 billion in 2018.

- in EU27, national budgets accounted for 72.3% of total expenditure and investment for infrastructure, EU co-financing accounted for 8.3% and 19.4% came from other sources, including loans, equity financing and charges[22].

6.4. Quality of rail transport services

Rail remains one of the safest modes of transport. Travelling by car is almost 50 times riskier than travelling by train. Railway safety continued to improve between 2015 and 2018 in EU27, despite a slight increase in the number of fatalities and serious injuries in 2016[23].

Based on the definition used[24], the average punctuality of regional and local passenger services in EU27 decreased slightly from 93% in 2015 to 90% in 2018[25]. The average punctuality of long-distance and high-speed passenger services decreased from 85% in 2015 to 79% in 2018[26]. The average reliability of local and regional passenger services decreased between 2015 and 2018, with the share of cancelled services rising from 1.4% to 1.9%[27]. The average reliability of long-distance and high-speed passenger services increased between 2015 and 2018, with the share of cancelled services decreasing from 1.5% to 1.3%[28].

The average punctuality[29] in 2018 for rail freight in EU27 was 60.0% for domestic and 53.2% for international services: 7.3% of domestic and 11.0% of international services were cancelled[30].

6.5. Public service contracts

In 2018, EU27 PSO passenger services represented, on average, 60% of the total rail passenger kilometres (from 53% in 2015[31]), around 98% of which cover domestic services. Within domestic services, PSO covered more regional than long-distance services.

22 EU28: 68.8%, 6.6% and 24.5% respectively.

23 Source: European Union Agency for Railways' *Report on Railway Safety and Interoperability in the EU 2020*.

24 RMMS considers a passenger train to be punctual if it is delayed by 5 minutes or less.

25 EU28: broadly the same figures.

26 EU28: from 84% to 77%

27 EU28: from 1.6% to 2.2%.

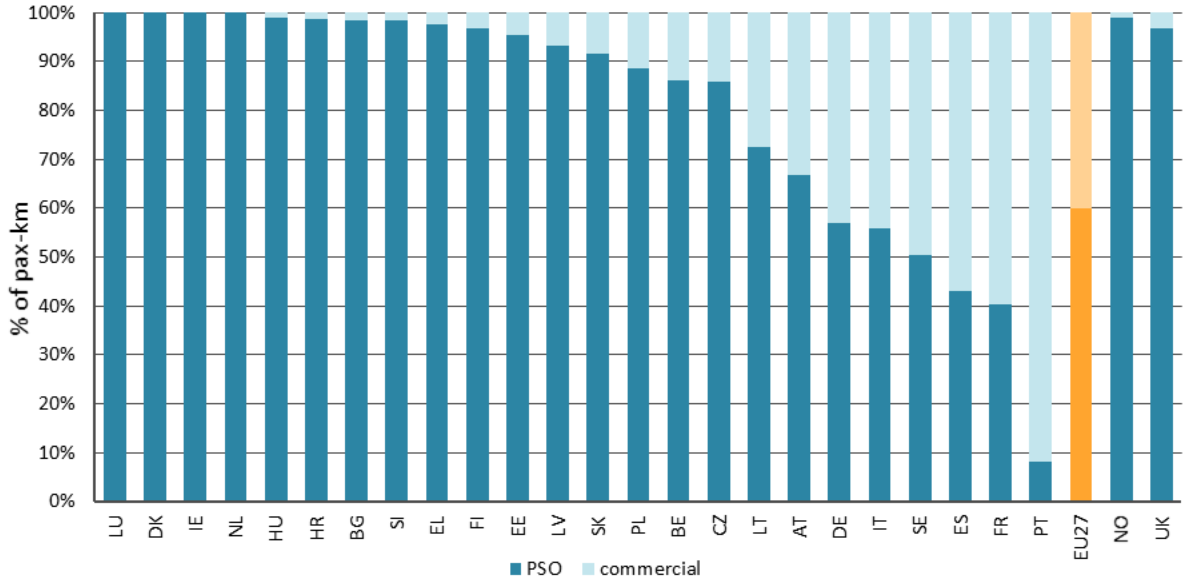
28 EU28: increasing from 1.7% to 1.8%.

29 RMMS considers a freight train to be punctual if it is delayed by 15 minutes or less.

30 EU28: average punctuality was 63.0% for domestic and 53.2% for international services; 6.8% of domestic and 11.0% of international services were cancelled.

31 EU28: 66%, up from 60% in 2015.

Figure 10: Share of passenger traffic offered respectively under PSO and commercial rail services per country (% of pax-km, 2018)



Source: RMMS, 2020. The data for BE, PT, EL and FR are estimates. RO not available.

Competitive tendering was used for only 26% of all PSO services active in 2018 in EU27 (43% in EU28), almost exclusively in Member States that had liberalised their services earlier (Germany, Sweden and the United Kingdom).

PSO compensation remains a significant source of revenue for railway undertakings in a majority of Member States, although levels of PSO compensation per train kilometre differ widely between countries. In 2018, the average PSO compensation in EU27 was EUR 10.51 per train kilometre (EUR 8.57 in EU28).

6.6. Licensing

Overall, 1 082 active licences for railway undertakings were reported in EU27 in 2018 (1 126 in EU28). Germany reported the highest number (434), Ireland and Luxembourg the lowest (2).

The average fees required to obtain a licence in 2018 (if any) varied from EUR 37 500 in Portugal to EUR 5 in Croatia.

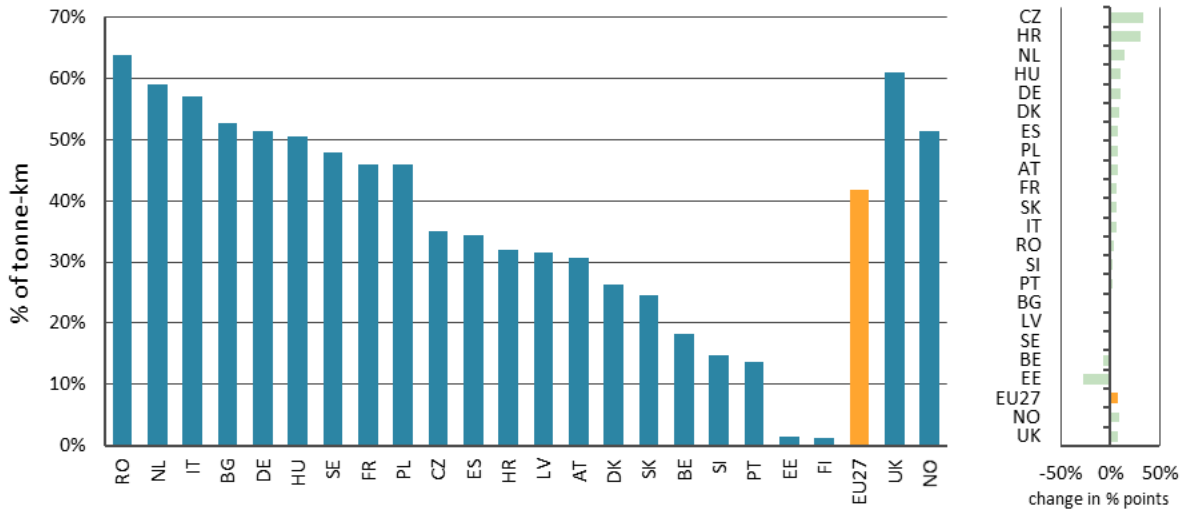
Spain, Poland and the United Kingdom reported the longest average time to obtain a licence (more than 100 days).

6.7. Degree of market opening and utilisation of access rights

The average market share of competitors in the EU27 rail freight market increased from 34% to 42% between 2015 and 2018[32]. In 2018, there were new operators competing with national incumbents in all countries except Greece, Ireland, Lithuania and Luxembourg, and in more than half of them the market share of competitors was over 30%.

[32] EU28: from 35% to 43%.

Figure 11: Competitors' market share in the rail freight market per country (% in 2018) and change in percentage points (2015-2018)



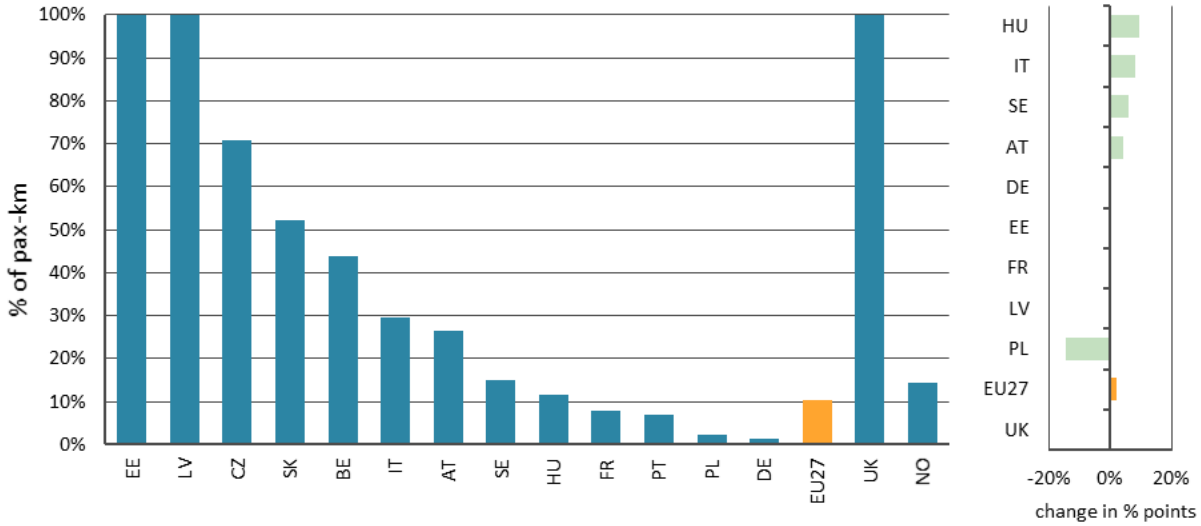
Source: RMMS, 2020. There is one operator with a 100% market share in EL, IE, LT and LU.

Open access and mandatory competitive tendering for public service contracts in the domestic passenger market were introduced at EU level only with the Fourth Railway Package. It is too early to see its effects on countries that had not opened their markets beforehand.

On average, competitors had a 10% market share in national commercial passenger markets in EU27 in 2018, an increase of 2 percentage points compared to 2015[33], and a 16.2% market share in national PSO passenger markets, a level almost constant compared to 2015 (a decrease of 0.5 percentage points[34]).

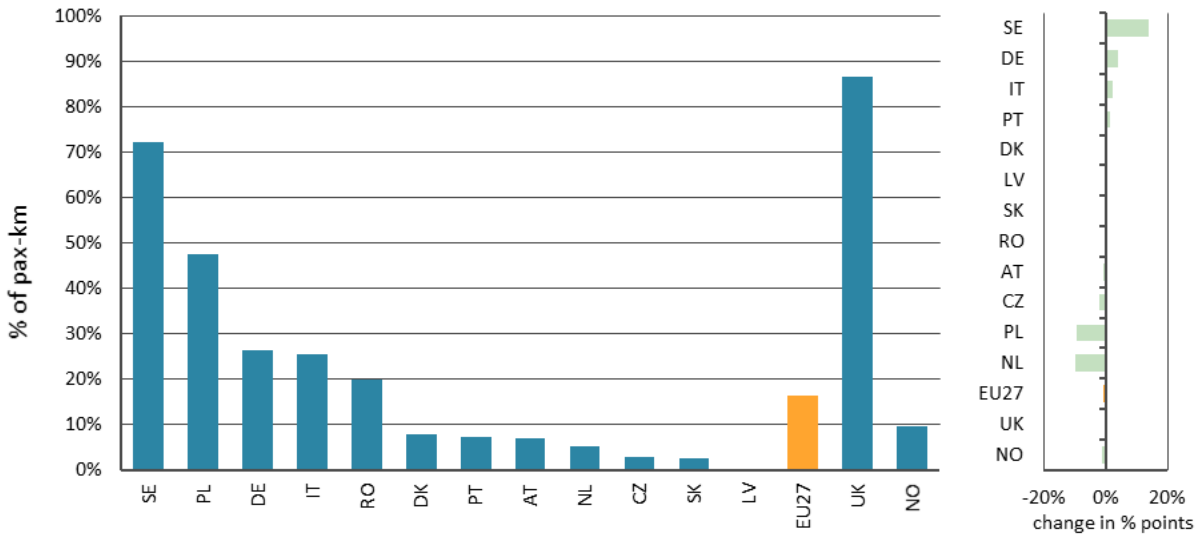
[33] EU28: 12%, +2 percentage points compared to 2015.
[34] EU28: 32%, -2 percentage points compared to 2015.

Figure 12: Competitors' market share in the commercial passenger market per country (% in 2018) and change in percentage points (2015-2018)



Source: RMMS, 2020. BG, DK, HR, FI, EL, LT, LU, SI, ES reported no competitors in commercial services with a market share of 1% or more for 2018. There were no commercial passenger market services in IE. No data were available for NL and RO.

Figure 13: Competitors' market share in the PSO passenger market per country (% in 2018) and change in percentage points (2015-2018)



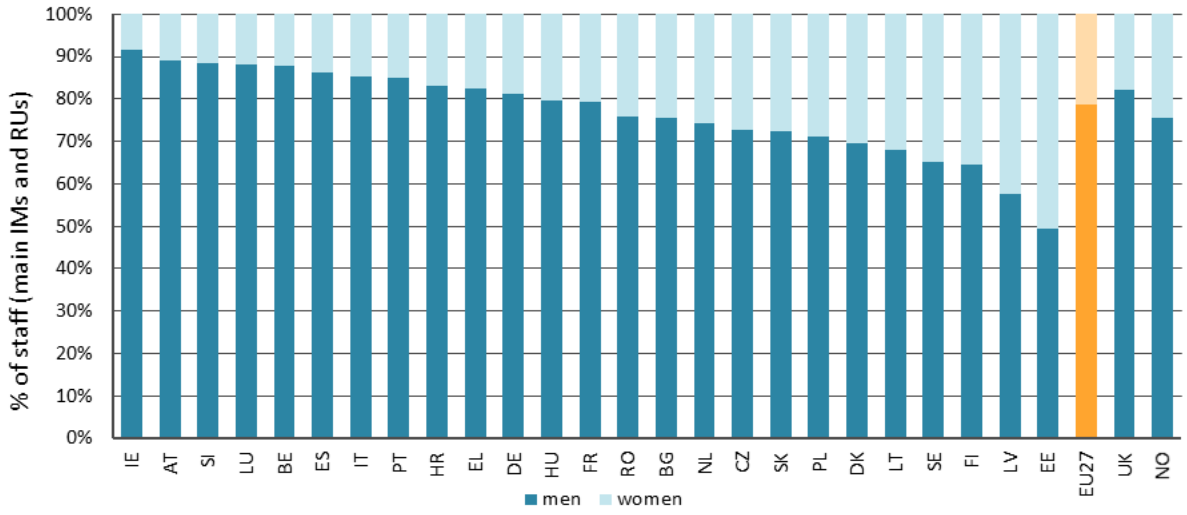
Source: RMMS, 2020. The data for PT in 2015 represent an estimate. No competitors in the PSO passenger market were reported by BE, BG, HR, EE, FI, FR, EL, HU, IE, LT, LU, SI and ES.

6.8. Employment and social conditions

At the end of 2018, just over 916 000 people were employed in the EU27 railway sector, about 527 000 of them by railway undertakings (both main and alternative operators) and 389 000 by infrastructure managers[35].

The rail workforce is predominantly male; on average only 21% of employees are women. The proportion of female staff varies between 51% in Estonia and 9% in Ireland.

Figure 14: Total employees (main infrastructure managers plus railway undertakings) by gender structure, (% in 2018)



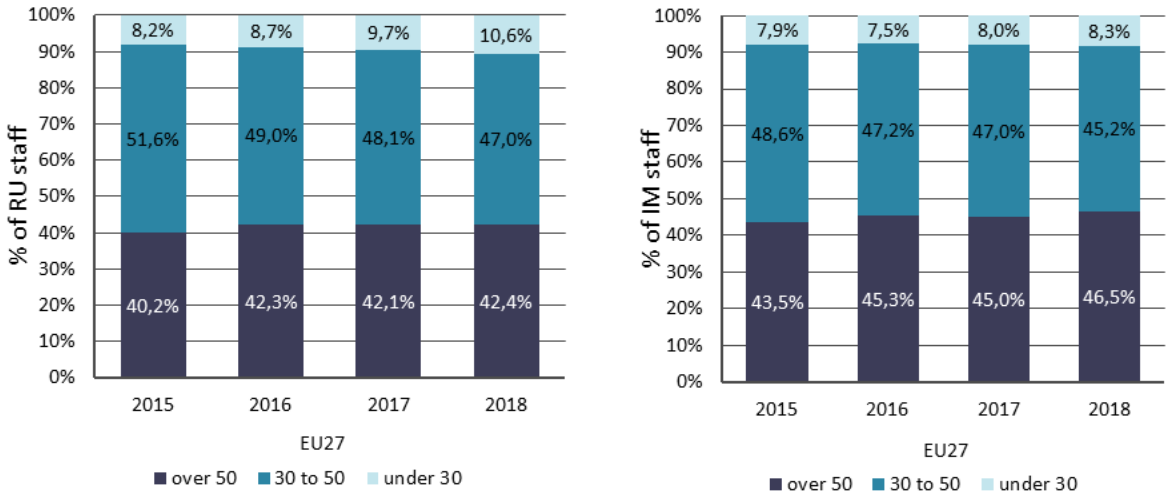
Source: RMMS, 2020.

The share of younger employees (below 30 years old) working for railway undertakings has increased in EU27, from 8.2% in 2015 to 10.6% in 2018[36]. An ageing workforce continues to be a concern, especially in Spain, Romania, Greece, Bulgaria and Lithuania, where over 50% of the workforce was over 50 years old in 2018. Infrastructure managers tend to have an older workforce than railway undertakings, but the share of younger employees also increased between 2015 and 2018 from 7.9% to 8.3%.

[35] For EU28: just over 1 034 000 were employed, about 600 000 by railway undertakings and 434 000 by infrastructure managers.

[36] EU28: 8.4% and 10.6% respectively.

Figure 15: Employees by age group, (% in 2015-2018)



Source: RMMS, 2020. Data for 2015 were not available for RUs in LV, LU, ES and SE. Data for 2015 were not available for IMs in ES, LU and LV.

Full-time employment is the most common status for employees of both infrastructure managers and railway undertakings. All employees of infrastructure managers appear to have permanent contracts in Belgium, Denmark and Luxembourg, whereas in Ireland only 89% of them do. Only Sweden, Italy, Poland, the Netherlands, Germany and Norway reported a proportion of employees in railway undertakings with permanent contracts lower than 95%. The lowest share of full-time contracts for infrastructure managers' staff can be found in the Netherlands (83%) and Belgium (88%). In the main railway undertakings, the lowest share of full-time contracts can be found in Belgium (86%).

Only a few Member States reported the use of apprenticeship and traineeship programmes, which are most common in Austria and Germany for both railway undertakings and infrastructure managers.

7. CONCLUSIONS

The rail sector makes a substantial contribution to EU27 economic and social cohesion, directly employing more than 900 000 people and moving some 1.6 billion tonnes of freight[37] and 7.1 billion passengers[38] each year.

Greater use of rail is critical to satisfy the demand for more sustainable transport and would have substantial positive effects on pollution and energy consumption, helping to achieve the ambitious emission cuts set out in the European Green Deal.

While rail passenger volumes have increased consistently over the past few years, rail freight volumes have increased more unevenly. Train movements, both for passengers and freight, have remained stable, while demand for sustainable forms of transport has increased together with public awareness about climate change.

Despite these positive developments, rail is not yet achieving its full potential. Rail transport

[37] Eurostat, EU27 except BE, which labelled data confidential.
[38] Eurostat, EU27 except BE, HU, NL and PL, which labelled data confidential.

needs to become more punctual and reliable compared to other modes by increasing its customer orientation and making better use of innovation. It must also become more efficient and affordable.

To help the sector face its main market challenges, EU action is focusing on four objectives:

1. A competitive market

   Fair access to the market for all operators will allow for the introduction of new, multimodal offers and increased choice for passengers and businesses.

   To this end, the market pillar of the Fourth Railway Package introduced competitive tendering as the standard procedure for attributing public service contracts, with a transition period until December 2023. It also opened access to commercial provision of rail domestic passenger services, starting with the 2021 timetable. The Commission will be particularly vigilant in monitoring the correct transposition and application of the Fourth Railway Package, to ensure it achieves its full potential in the medium term.

   Fair competition between transport modes should also be promoted, by ensuring each mode pays for its external costs.

2. Improved cross-border rail services

   Crossing internal EU borders must become a smoother process in order to increase rail's modal share. Removal of interoperability barriers, deployment of the ERTMS, availability of appropriate rolling stock and availability of train drivers are fundamental to this goal.

   At the request of the European Parliament, the Commission launched a study on cross-border, long-distance connections, with a special focus on night train services; a report is expected by mid-2021.

3. Better rail infrastructure performance

   Ensuring the efficient provision of rail transport services requires a well-developed infrastructure free of bottlenecks and missing links. The EU will continue its infrastructure development policy through the Trans-European Transport Network (TEN-T), with significant financial support being provided to rail under the Connecting Europe Facility. A more extensive high-performance and high-speed network will become available by the end of 2030 with the completion of major TEN-T projects.

   The rail sector absorbs a significant amount of public funding. A growing green bond market could allow a switch towards private financing of sustainable investments. The Taxonomy Regulation[39] and its delegated acts establish the necessary framework and criteria for a clear classification system to identify sustainable activities.

   Increasing levels of congestion are creating bottlenecks, particularly along the main rail corridors, and major maintenance works are preventing the efficient use of the network.

[39] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, 22.6.2020, p. 13-43.

The Commission supports the sector's new approaches to capacity allocation and management based on interconnected digital platforms/tools and their prompt implementation.

4. More customer orientation

Rail services must meet customers' needs. Improved punctuality and reliability and better access to services in rail facilities are a priority for both passenger and freight services.

Passengers' rights to information, assistance, journey continuation and compensation must be guaranteed to boost the use of rail. The proposal of the Commission to recast Regulation (EC) 1371/2007[40], on which an agreement was reached in October 2020 with the European Parliament and the Council, should improve the rights of passengers with disabilities or reduced mobility, clarify rules on enforcement and complaint-handling and ensure better passenger protection in cases of travel disruption.

The rail freight corridors remain the key element of the Commission's policy to boost rail freight. The evaluation of the legal framework for Regulation 913/2010[41] is preparing the ground for additional legislative measures.

The Commission fully supports initiatives to improve the efficiency and flexibility of the timetabling process, the process for dealing with contingency situations and the coordination of temporary capacity restrictions.

Promoting digitalisation is fundamental for making rail more attractive to businesses. The new Regulation on electronic freight transport information (eFTI[42]) will enable digital business-to-authority exchanges of information. The Commission is also planning to put forward a proposal for a European Partnership on Rail Research and Innovation, building upon the current Shift2Rail Joint Undertaking. The future partnership will focus on accelerating research and development of innovative technologies and operational solutions, facilitated by digitalisation and automation.

The European Year of Rail 2021 will further support efforts to increase the share of passengers and freight moving by rail, sharing knowledge and best practices.

[40] Regulation (EC) No 1371/2007 of the European Parliament and of the Council of 23 October 2007 on rail passengers' rights and obligations, OJ L 315, 3.12.2007, p. 14-41.

[41] Regulation (EU) No 913/2010 of the European Parliament and of the Council of 22 September 2010 concerning a European rail network for competitive freight, OJ L 276, 20.10.2010, p. 22-32.

[42] Regulation (EU) 2020/1056 of the European Parliament and of the Council of 15 July 2020 on electronic freight transport information, OJ L 249, 31.7.2020, p. 33-48.