EXECUTIVE SUMMARY

European Parliament

Research for TRAN Committee – Perspectives for the rolling stock supply in the EU

KEY FINDINGS

- The global rolling stock market is set to increase until 2030, with rates of growth differing by region. The European Union market, which is larger and more developed than many others, is projected to grow annually by 2-3%.
- 20 companies make up 80% of yearly sales in the global rolling stock supply industry. In the EU, manufacturers have maintained a positive balance of exports over imports in the past decade. These manufacturers are primarily situated in countries with large domestic markets and compete for contracts worldwide.
- Rolling stock demand is anticipated to fluctuate across transport segments, influenced by factors such as technological advancements, the retirement of old fleets, changes in transported goods, network electrification and the expansion of infrastructure, especially high-speed rail.
- The EU's policy framework significantly impacts factors like decarbonisation and interoperability, affecting both the supply industry and manufacturers' location choices. The harmonisation and interoperability of the single European railway area improves competitiveness and attracts foreign competition.
- The European Commission and European Investment Bank offer numerous financing tools and mechanisms that are taken up in both rolling stock purchases and technology research and development. The rail industry itself and other specialised international financial institutions (e.g. EUROFIMA, EBRD) provide alternative financing models for rolling stock purchases.

The present document is the executive summary of the study on Perspectives for the rolling stock supply in the EU. The full study, which is available in English can be downloaded at: http://bit.ly/3NyHj4i

Policy Department for Structural and Cohesion Policies
Directorate-General for Internal Policies
Author: Hugh GARDNER, Marco BRAMBILLA, David MATHEUS (Ecorys)
PE 747.263 - July 2023

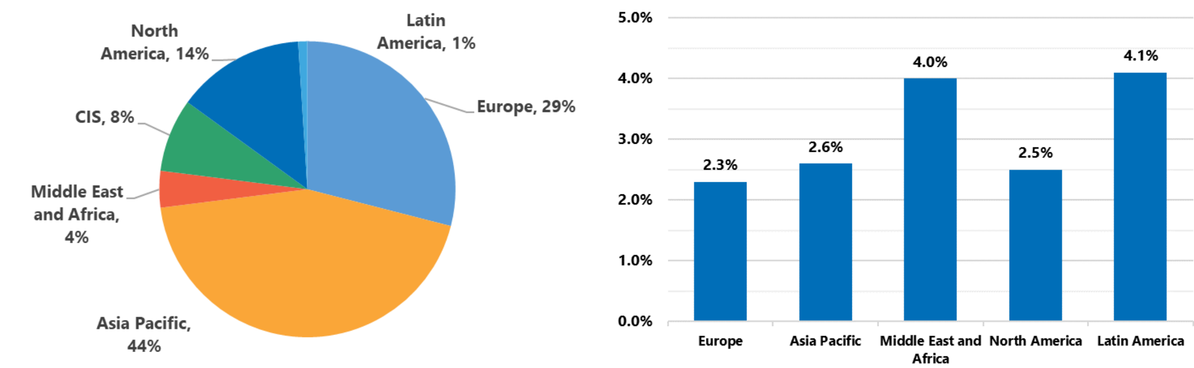
EN

Rolling stock supply industry and perspectives for the demand of rolling stock

The global rolling stock market is expected to see substantial growth during the period to 2030 due to factors such as urbanisation, expansion of rail networks, technological advancements and greater focus on sustainable transport. Estimates suggested a Compound Annual Growth Rate (CAGR) in the range of 3% to 5% for 2021-2023 and 4% to 6% for 2023-2030.

The small markets of Latin America and Africa/Middle East are expected to experience the highest growth rates. More mature markets in Europe, Asia Pacific and North America will also grow and contribute to the largest share of overall growth. The yearly growth rates for the regions with mature markets are estimated at 2% to 3%. According to projections by the European Commission, the rolling stock fleet operated in the EU will grow by 2.1% between 2020 and 2030.

Figure ES.1: Global demand for rolling stock (2017-2019) and CAGR estimates (2021-2023)



Source: elaboration based on (OECD, 2023), (Minella & Meldebek, 2021) and other market research.

The global rail supply industry is dominated by 20 companies, accounting for 50% of the total rail supply market and 80% of the rolling stock market. The demand for locomotives, Multiple Units (MUs) and specialised freight waggons is projected to increase, resulting in lucrative opportunities for manufacturers and parts suppliers in the EU. The balance between exports and imports of manufacturers located in the EU has been positive over the period 2012-2021 and has fluctuated around EUR 4.5 billion on an annual basis.

The global demand for locomotives is more predictable than that of freight waggons. A shift towards biofuels, gas and electrification is predicted to reduce greenhouse gas (GHG) emissions from locomotives and align with decarbonisation policies. The global locomotive market is anticipated to expand in line with advancements in these technologies.

In conventional passenger transport, the demand for MUs is projected to grow at a Compound Annual Growth Rate (CAGR) of 4.5% until 2024. The ongoing phasing out of ageing fleets and the electrification of rail networks are the key drivers behind this growth. Decarbonisation policies favour electric and alternative fuel vehicles over diesel traction, indicating a shift towards cleaner transport modes. Market research specific to Germany forecasts growth in the segment of conventional push-and-pull trains until 2030, driven by the demand for intercity services, cross-border services and the revival of night trains.

High-speed (HS) rail services have experienced high growth. The global HS network is expected to expand further, with significant developments in the Asia-Pacific region and the EU. The planned expansion of the HS rail network in Europe indicates potential growth in the demand for rolling stock in this segment.

The freight waggon segment has witnessed a trend towards more specialised waggons for refrigerated and perishable goods, as well as tank waggons for hazardous materials. Forecasts for future freight wagon production in the EU suggest a continuation of the observed trend, driven by the changing mix of commodities. Rail freight is expected to benefit from the modal shift driven by decarbonisation policies, leading to demand for modern and efficient freight waggons.

EU policy framework and instruments to fund and finance rolling stock

In the EU, the implementation of decarbonisation and railway interoperability policies significantly influences the rail supply industry and the location decisions of manufacturers. Harmonisation and interoperability of the internal market not only enhance internal EU competitiveness but also attract foreign competitors. The EU's focus on sustainable transport has led to a new generation of rolling stock powered by hydrogen, batteries and advanced technologies. Lightweight materials are being used to enhance fuel efficiency and reduce costs. The deployment of the European Rail Traffic Management System (ERTMS) necessitates equipping rolling stock with the necessary systems, creating opportunities for retrofitting and upgrading fleets.

EU financial instruments play a crucial role in financing rolling stock investments. The European Investment Bank (EIB) provides loans, advisory services and supports the issuance of bonds. European Company for the Financing of Railroad Rolling Stock (EUROFIMA) and the European Bank for Reconstruction and Development (EBRD) also offer loans and leasing options for rolling stock projects. The EU provides grants and subsidies through programmes such as the Connecting Europe Facility (CEF) and the European Regional Development Fund (ERDF) to support rolling stock investments. The EU's financing mechanisms have been instrumental in funding various rolling stock initiatives.

For example, the CEF has approved EUR 402 million in grants for retrofitting existing rolling stock to meet interoperability standards and reduce noise. The ERDF and Cohesion Fund have disbursed EUR 541 million in grants for the purchase of rolling stock for regional development and for promoting a modal shift. Horizon Europe has provided EUR 55 million for research and innovation projects. The EIB has approved EUR 16.7 billion in loans for purchases. EUROFIMA has provided EUR 2 billion in loans for rolling stock renewal projects across several countries. The Recovery and Resilience Facility has allocated other resources for loans and grants for rolling stock investments in some Member States.

The demand for locomotives, MUs and specialised freight waggons is expected to increase, presenting opportunities for manufacturers. EU financial instruments, including grants, loans and leasing options, play a crucial role in financing rolling stock investments. The involvement of the EIB and other financing organisations (e.g. EUROFIMA and the EBRD) further supports the development and purchase of rolling stock.

Policy recommendations

Most rolling stock manufacturers, typically based in countries with significant domestic markets, bid for contracts globally. Most rolling stock manufacturers bid for contracts globally. For both EU and non-EU suppliers, the difference between export and import shows a positive balance. EU suppliers have maintained a more favourable balance compared to non-EU suppliers. We therefore suggest that addressing the following issues will be important for policymakers:

- Fostering a favourable business environment
- Continued investment in research and development
- Emphasising the production of high-quality and reliable rolling stock that meets stringent safety standards
- Maintaining a reputation for delivering products that offer superior performance, durability, and passenger comfort
- Promoting skill development and workforce training
- Strengthening supply chain resilience
- Strengthening intellectual property protection mechanisms to safeguard innovative technologies and prevent unauthorised use or imitation by competitors
- Enhancing the international competitiveness of EU rolling stock manufacturers by supporting their access to international markets.
- Facilitating sustainable financing and investment.

Further information

This executive summary is available in the following languages: English, French, German, Italian and Spanish. The study, which is available in English, and the summaries can be downloaded at: http://bit.ly/3NyHj4i

More information on Policy Department research for TRAN: https://research4committees.blog/tran/

Follow @PolicyTRAN

Research administrator: Davide PERNICE, Kelly SCHWARZ (Trainee) Editorial assistant: Mariana VÁCLAVOVÁ
Contact: Poldep-cohesion@ep.europa.eu
This document is available on the Internet at: www.europarl.europa.eu/supporting-analyses