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ROLLING STOCK MAINTENANCE – GLOBAL MARKET TRENDS

Markets – Trends – Players

2025



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ROLLING STOCK MAINTENANCE – GLOBAL MARKET TRENDS 2025

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Andreas Wolf (Project Lead)

Anka Solbrig
Nils Fischer
Tristan Mittelhaus
Nemanja Nedeljkovic
Maxence Cardot

Supervision, Editorial & Layout

Alexander Borchers
Antorlina Mandal
Nicole Heinrichs

Copy for:

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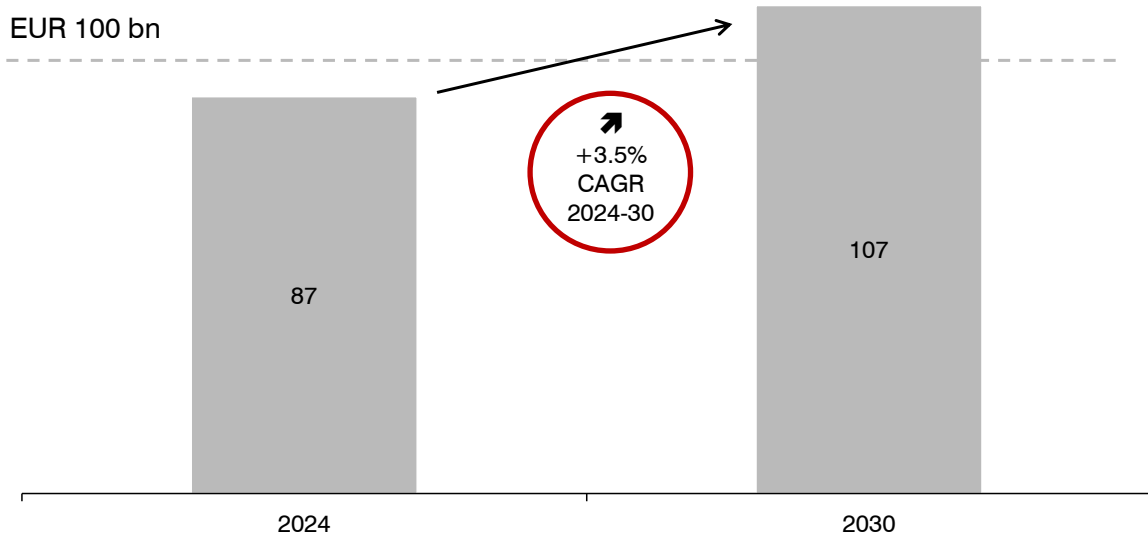
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Executive Summary

The global rolling stock market for after-sales will break the EUR 100 billion mark by 2030 with an average market growth of 3.5% until 2030.

Market volume global rolling stock after-sales market (EUR bn)



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Figure ...: Global market growth after-sales market 2024 – 2030

Market volume is growing most strongly in the passenger mainline and passenger urban segments. The segments clearly demonstrate the presence of distinct developments.

Main segment	Average market volume 2024 (EUR million)	Average market volume 2030 (EUR million)	CAGR 2024-2030 (%)	Trend ¹
Passenger mainline rolling stock				↗
Passenger urban rolling stock				↗
Freight wagons				↗
Locomotives				→
Total	87,040	107,040	+3.5%	↗

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¹ 5-year trend: ↑ = strongly increasing (> +5% p.a.) | ↗ = increasing (+2 to +5% p.a.) | → = constant (0 to +2% p.a.) | ↘ = decreasing (-2 to 0% p.a.) | ↓ = strongly decreasing (< -2% p.a.)

▶ **Passenger mainline rolling stock**

The global market for passenger mainline rolling stock continues to demonstrate solid momentum, led by strong growth in HST and EMU fleets and sustained investment in new rolling stock and digital maintenance capabilities. High-speed systems expand globally, translating into rising full-service and performance-based maintenance volumes and an increasingly technology-driven service landscape. EMUs benefit from widespread electrification and the replacement of ageing diesel fleets. Conversely, DMU demand weakens as operators accelerate the transition toward electric and alternative-drive multiple units, while in Europe the PC segment remains stable, supported by renewed interest in cross-border and night-train services. In Asia, the passenger coach segment continues to grow, particularly in India, while it is declining in China. Overall, the segment's positive trajectory is underpinned by rising passenger demand, large renewal programmes, and the global shift toward predictive, condition-based maintenance models.

▶ **Passenger urban rolling stock**

Urban rail maintains its role as the fastest-growing maintenance segment worldwide. Metro fleets generate substantial after-sales demand as large 2000s–2010s cohorts enter mid-life, requiring comprehensive heavy overhauls, CBTC upgrades, and energy-efficiency improvements. LRV fleets show steady maintenance growth driven by refurbishment cycles, network extensions, and accessibility upgrades, while fleet growth remains moderate. Across both subsegments, operators increasingly adopt digital fleet-management platforms and condition-based maintenance regimes, supported by OEM-led service hubs. Full-service contracting gains traction - especially in Metro systems - driven by availability requirements, long concession cycles, and the need for integrated depot solutions. The urban segment's resilience reflects sustained public investment, rising ridership, and the strategic importance of reliable high-capacity mobility in major metropolitan regions.

▶ **Freight Wagons**

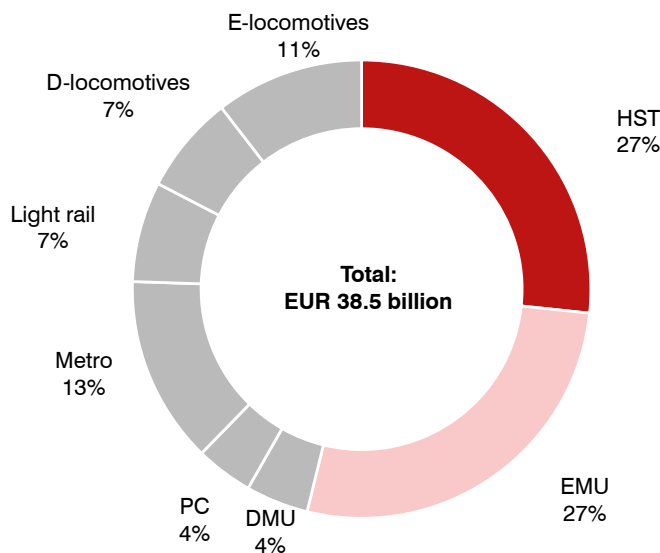
The global freight wagon maintenance market shows moderate but structurally constrained growth, shaped by an ageing fleet, subdued transport performance, and ongoing restructuring among major operators in Europe. Intermodal wagons remain the primary growth engine, supporting stable light and heavy maintenance despite short-term market fluctuations. Especially in Europe, standard/bulk fleets continue to contract, driven by dismantling of outdated assets and weak demand in traditional cargo groups. Leasing companies strengthen their position as key owners and maintenance customers, accelerating outsourcing and mobile maintenance strategies. Digitalisation projects—such as condition monitoring and telemetry - are advancing steadily, although transformative impacts (e.g., DAC rollout in Europe) are not expected before 2030.

Volume of full-service contracts concluded has increased significantly by 30%

Between 2020 and 2024, full-service contracts worth EUR 38.5 billion were concluded worldwide for mainline and passenger urban transport vehicles and locomotives. This represents an increase in contracted volume of 30% compared to 2015-2019. From SCI Verkehr's perspective, the importance of full-service contracts will continue to grow in the future because of the following drivers:

The most significant segments are high-speed trains (HST) and electric multiple units (EMU), which account for over 50% of the total contracted volume.

Full-service contracts awarded worldwide over the period 2020-2024, in EUR billion* (by rolling stock segment)



* By date of publication of the contract conclusion
Source: SCI database

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Figure ...: Contracted full-service volume 2020-2024 by rolling stock segment

From the perspective of the train operator or responsible authorities, full-service contracts increase operational reliability while reducing financial and technical risks.

- Focus on life cycle costs: [REDACTED]
- Risk transfer: [REDACTED]
- More competitive tenders: [REDACTED]

- Highly complex train technology: [REDACTED]
- Access to spare parts and efficient maintenance: [REDACTED]

From the perspective of the full-service provider (e.g. manufacturer/lessor)

- Long-term attractive contracts with stable income: [REDACTED]
- Manufacturers can integrate [REDACTED]
- If full-service providers consistently work on [REDACTED]
- [REDACTED] By taking over rolling stock maintenance, leasing companies have a greater influence on [REDACTED]

(...)

Alstom has been particularly successful in full-service contracts over the last five years and is well ahead of Siemens in second place in terms of contract volume. Stadler, in particular, has significantly expanded its business with full-service contracts in recent years.

2. Rolling stock maintenance in Europe

2.1 Passenger mainline rolling stock

2.1.1 Market development, trends and drivers

The total market for after-sales services for passenger mainline rolling stock (HST, EMU, DMU, PC) in Europe amounts to around **EUR █████ billion** in 2024. The market is projected to reach EUR █████ billion by 2030, corresponding to a CAGR of █████%.

High-speed trains (HST)

Rolling stock segment	After-sales segment	Average market volume 2024 (EUR million)	Average market volume 2030 (EUR million)	CAGR 2024-2030 (%)	Trend ²
HST	Light	████	████	████	↑
	Heavy	████	████	████	↗
	Modernisation	████	████	████	↓
Total after-sales		6,050	7,730	+4.2	↗

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The market for after-sales services for HST Europe is driven by the following trends.

Drivers	Relevance	Trend
Transport demand		
– Europe’s high-speed rail market is expanding rapidly, with transport performance projected to grow from 190 (2024) to 250 billion passenger-kilometres by 2035, driven by network expansion, liberalisation, and strong political and environmental momentum.	●	↗
– Open-access competition is reshaping national markets, with Spain and Italy leading liberalisation, while major cross-border projects such as Rail Baltica and the Brenner Base Tunnel are deepening European network integration.	●	↗
– ...		
Installed base		
– As the fleet exceeds 21,000 cars, demand for maintenance, and mid-life overhauls (14years fleet average age) will be demanded, driving the after-sales market.	●	↗
– Extensive renewal programmes, including TGV M, ICE 4 and ICE 3neo, have been implemented to stabilise the age of the fleet and to introduce advanced technologies. These modernisations require specialised maintenance and life-cycle support across diverse train generations and speed classes.	●	↗
– ...		
Market structure and maintenance providers		
– The market structure remains dominated by incumbents and OEM’s full-service depots, with limited participation from independent maintenance providers.	●	↗
– National examples, like DB Fahrzeugstandhaltung (Germany), SNCF Technicentres (France), and Renfe’s joint ventures (Spain), illustrate vertically integrated maintenance networks, while OEM-led facilities (e.g., Alstom’s Pendolino depot in Poland ...	●	↗
– ...		
Projects		
– European HST maintenance growth is also driven by large-scale modernisation and full-service projects led by OEMs (e.g., Alstom, Talgo, Stadler, Siemens).	●	→
– ...		

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² 5-year trend: ↑ = strongly increasing (> +5% p.a.) | ↗ = increasing (+2 to +5% p.a.) | → = constant (0 to +2% p.a.) | ↘ = decreasing (-2 to 0% p.a.) | ↓ = strongly decreasing (< -2% p.a.)

4. Rolling stock maintenance in South and Central America

4.2 Passenger urban rolling stock

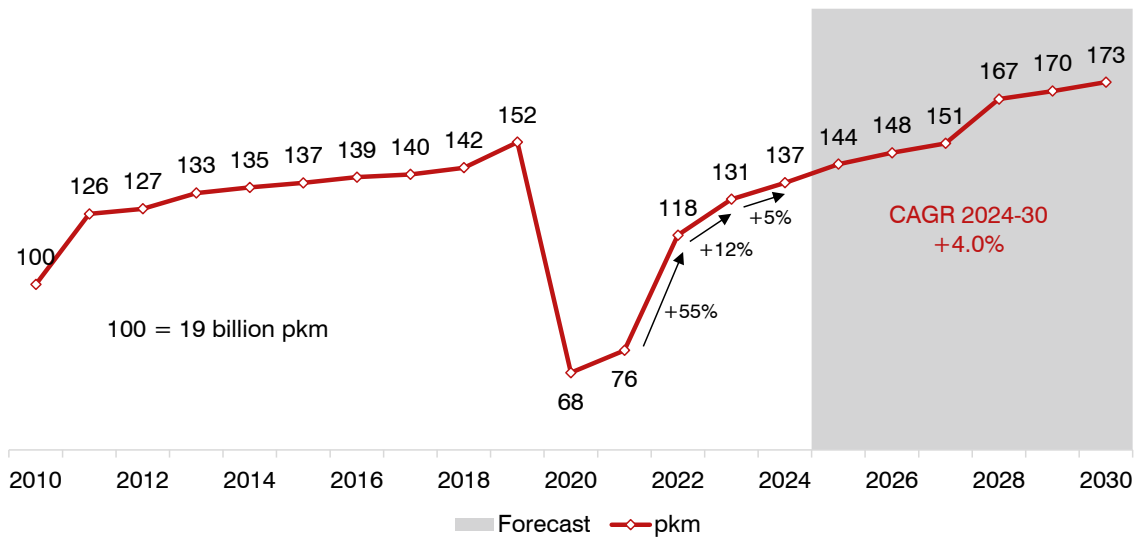
4.4.4 Transport market

In 2024, urban rail systems in South and Central America carried around 30 billion pkm, still below the pre-pandemic peak. After the Covid-19 lows in 2020 and 2021, ridership rebounded strongly with year-on-year growth rates of about +55 %, +11 % and +5 % in the following years. The recovery was led by Brazil and Chile, which together account for nearly 80 % of total regional performance, while smaller markets such as Colombia, Panama and Ecuador advanced first-generation urban rail systems through PPP models and external financing. Nevertheless, informal transport, underinvestment and political volatility continue to slow overall sector recovery.

Country	Transport performance as of 2024 (bn pkm)	Share of total region performance	CAGR 2024-2030
Brazil	█	█	█
Chile	6	21%	6.3%
Others	█	█	█
Total	█	█	█

Towards 2030, urban rail performance in South and Central America is expected to expand steadily, driven by major metro projects in Santiago, São Paulo, Bogotá and Lima. Continued urbanisation, environmental priorities and growing institutional support will strengthen long-term demand, although financing constraints and operational inefficiencies are likely to limit the pace of network expansion.

Development of urban performance in South and Central America
(pkm; Index 2010 = 100)



Source: National statistical agencies, UIC

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Figure ...: South and Central America – Urban rail performance development

8. Rolling stock maintenance in Australia and Pacific

8.4 Locomotives

8.4.4 Market structure and maintenance providers

Regulatory background

(...)

Ecosystem and maintenance landscape

The locomotive maintenance market in **Australia** combines in-house operator facilities with large OEM-linked service providers and several independent maintenance suppliers. Major operators such as Pacific National and Aurizon perform light maintenance internally but outsource heavy maintenance to external partners. Aurizon (which inherited extensive workshops from the former government-owned Queensland Rail) still performs a good amount of in-house maintenance, especially for its heavy-haul coal locomotives, but it has been consolidating facilities in recent years. **UGL** and **Progress Rail** dominate the third-party market, each operating nationwide networks and long-term fleet support agreements. UGL not only manufactures locomotives domestically but also provides full end-to-end asset management and maintenance services. Progress Rail, a subsidiary of Caterpillar, entered the Australian market by acquiring Downer EDI's freight rail maintenance business in 2018. Through this move, Progress Rail inherited 14 maintenance facilities across Australia and a workforce experienced in EMD locomotives.

Independent maintenance suppliers such as Gemco Rail and Southern Shorthaul Railroad (SSR) focus on niche customers, while leasing companies like Rail First Asset Management offer leasing, refurbishment, and maintenance services from facilities such as the Islington or Goulburn site.

The geography of locomotive maintenance is shaped by Australia's vast distances. Light maintenance is carried out at operator depots across all major freight hubs for inspections, refuelling and minor repairs. Heavy overhauls are concentrated in larger facilities operated by OEMs or the private operators.

In **New Zealand**, the ecosystem is simpler and centred on KiwiRail's integrated structure. **KiwiRail** maintains its fleet internally through a network of depots and several main workshop. The overhaul and rebuild work have traditionally been concentrated at the Hutt Workshops (Woburn) near Wellington.

Competition and recent developments

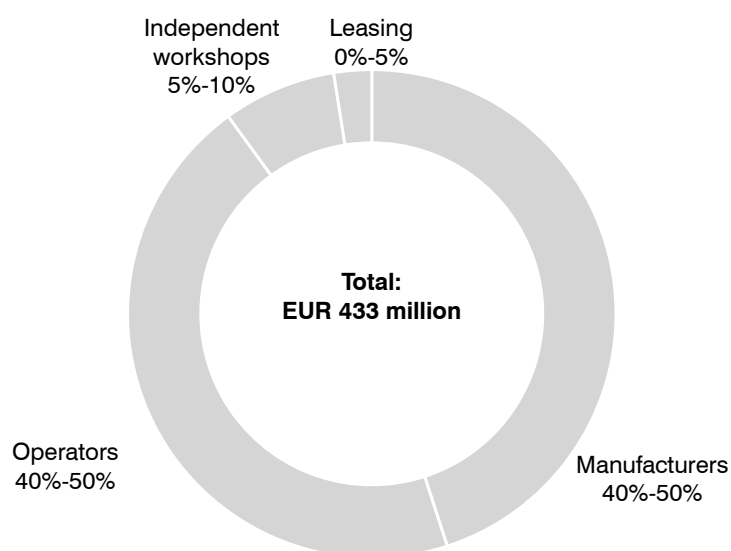
The locomotive maintenance sector in Australia is moderately concentrated. UGL and Progress Rail are the leading OEM service providers, supported by networks of accredited facilities across the country. Their portfolios combine locomotive supply with long-term maintenance contracts. Some momentum may enter the market as the parent company ACS, through its subsidiary CIMIC Group, is preparing to divest UGL. Among the potential bidders are service provider Service Stream and infrastructure contractor Ventia, with additional interest expected from private equity investors.

Independent maintenance suppliers such as SSR and Gemco Rail hold smaller but stable market shares, focusing on refurbishment, component overhaul and regional support.

Pacific National and Aurizon today own the majority of mainline freight locomotives in Australia, and their decisions (to keep work in-house or outsource) strongly influence the maintenance market.

In **New Zealand**, KiwiRail remains the primary operator and maintenance organisation. The company is implementing a comprehensive modernisation of its mechanical division supported by government funding under the *NZ Rail Plan*. New facilities at Waltham and Hillside complement the long-established Hutt Workshops, improving regional coverage and workshop capacity.

(...)

Locomotive after-sales market in Australia and Pacific by company type

Source: SCI estimation

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Figure 1: Locomotive after-sales market in Australia and Pacific by company type

8.4.4 Project highlights

Rolling stock segment	Country	Project	Contract type	Provider	Award year	Completion year	No. (units)	Contract volume (EURm)
D-Locomotives	Australia	Pacific national loco full service contract	Full service contract	Downer EDI Limited	2015	2025	300	679
D-Locomotives	New Zealand	Refurbishment of EF Class locomotives	Overhaul / Modernisation / Refurbishment	KiwiRail Limited	2019	2025	15	20
E-Locomotives	Australia	2050 /2000 class Tasrail locomotives	Overhaul / Modernisation / Refurbishment	Tasrail	2023	2027	8	9
D-Locomotives	Australia	NR Class maintenance for Pacific National	Full service contract	UGL Rail	2016	2026	122	n/a
E-Locomotives	Australia	Class 71 maintenance for Pacific National	Full service contract	UGL Rail	2016	2026	71	n/a
D-Locomotives	Australia	UGL type C44ACi maintenance for Pacific National	Full service contract	UGL Rail	2016	2026	26	n/a
D-Locomotives	Australia	UGL type PH37AC-mai & C44ACi maintenance for Pacific National	Full service contract	UGL Rail	2016	2026	6	n/a

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Andreas Wolf
SCI Verkehr GmbH

Vor den Siebenburgen 2
50676 Cologne
Germany
Tel +49 221 931 78 0
m.vetter@sci.de
www.sci.de