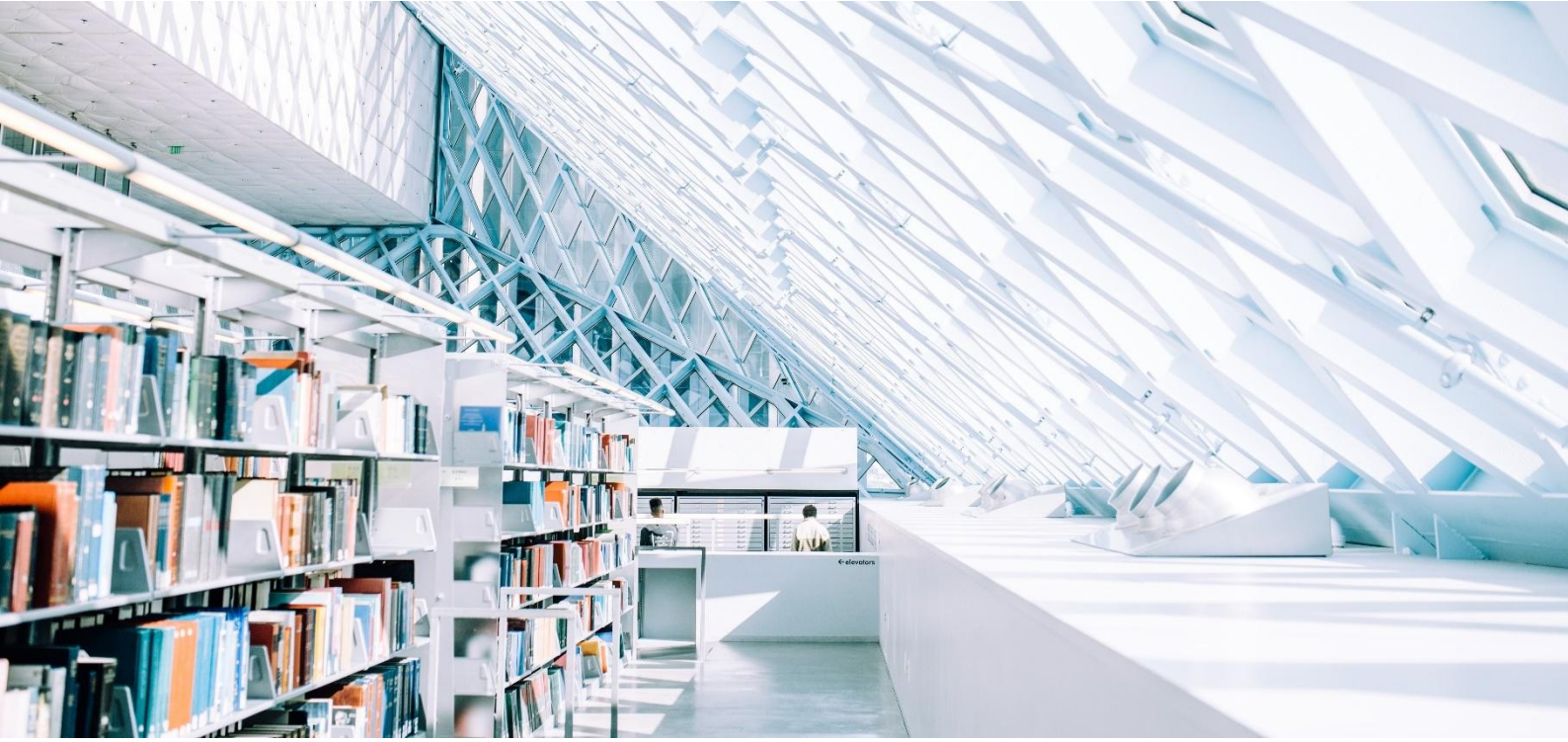
SCI/Verkehr

METRO VEHICLES – GLOBAL MARKET TRENDS

Forecast, Installed Base, Manufacturers, Infrastructure and Rolling Stock Projects

2026



SCI Shop

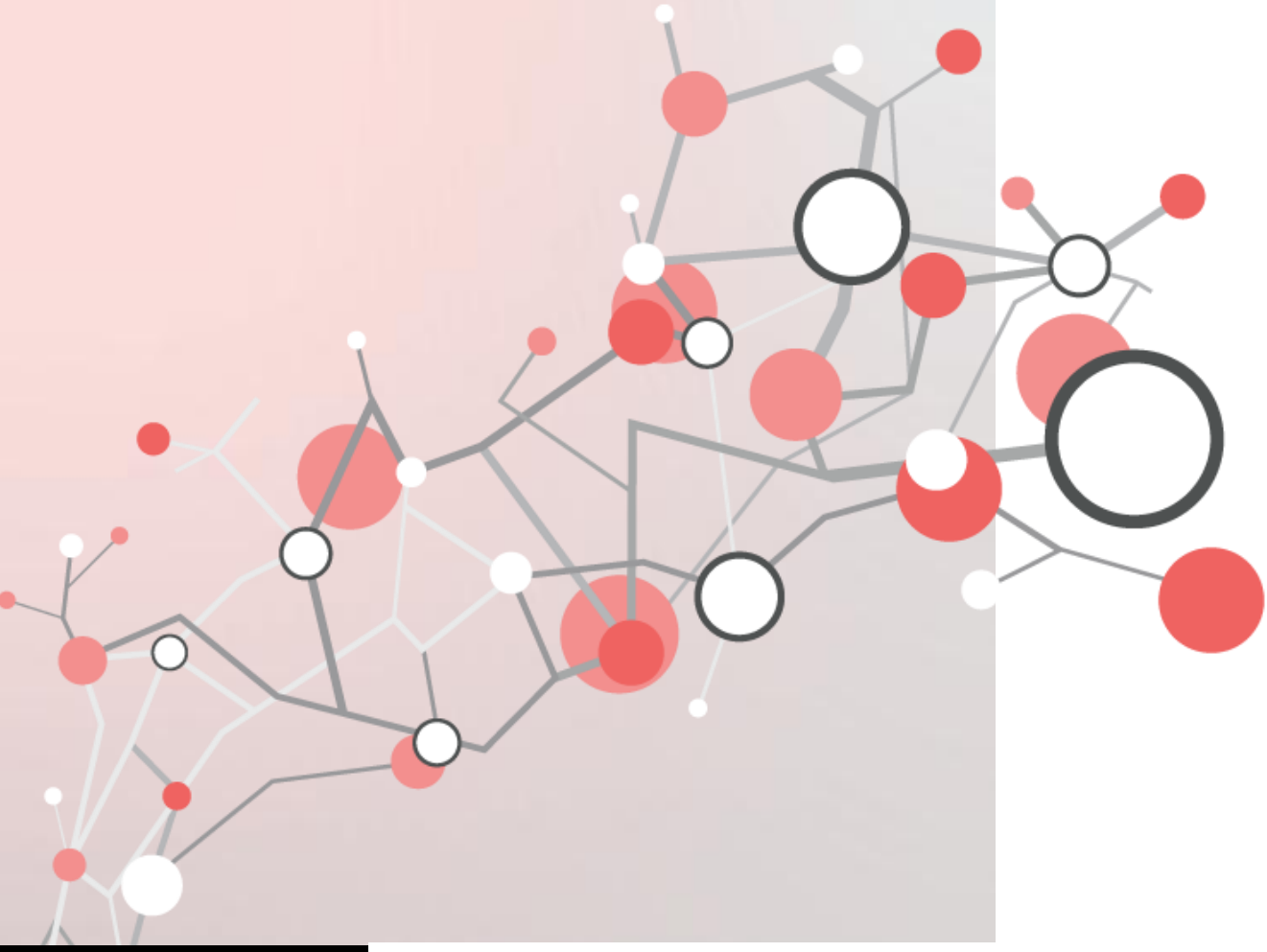
Create your individual analyses with our comprehensive range of studies, statistics and analyses on the international railway industry: www.sci.de/shop

Our MultiClient Studies 2025/2026

Digital Solutions in the Railway Sector 2026: Market Potential and Outlook
Control Command & Signalling – Worldwide Market Trends 2026
European Intermodal Rail Freight Market 2025 - Market drivers – Players – Main corridors
Diesel and Alternative Drive Locomotives – Global Market Trends 2025
Rolling Stock Maintenance – Global Market Trends 2025
Yellow Fleet – Global Market & Trends 2025
The European Rail Freight Transport Market 2025 – Developments/Volumes/Players
Worldwide Rolling Stock Manufacturers 2025 – Developments/Volumes/Players
Railway Track Systems – Global Market Trends 2025
Monorail and Automated People Mover – Global Market Trends 2025
High-Speed Rail Transport – Global Market Trends 2025

More information at www.sci.de/shop

CONTENT



1 Executive Summary

Executive Summary

Global metro growth is intact, but OEM and after-sales follow different demand logic

The global metro vehicle market remains on a growth path, increasing from **EUR 17.6 billion in 2025** to **EUR 22.9 billion in 2030**, based on three-year averages and equivalent to a **5.4% CAGR**[1]. This growth should not be interpreted as a uniform expansion cycle. OEM demand is driven by the conversion of infrastructure projects, fleet replacement programmes and systems-led modernisation into vehicle orders. After-sales demand follows a different logic: it is anchored in installed fleet size, fleet age, utilisation intensity and technical system complexity (which adds further metro-vehicles on existing infrastructure).

Market region	Average market volume **2025** (EUR million)	Average market volume **2030** (EUR million)	CAGR 2025-2030 (%)	Trend
Asia				
Europe				
North America				
Africa and Middle East				
South and Central America				
CIS				
World				

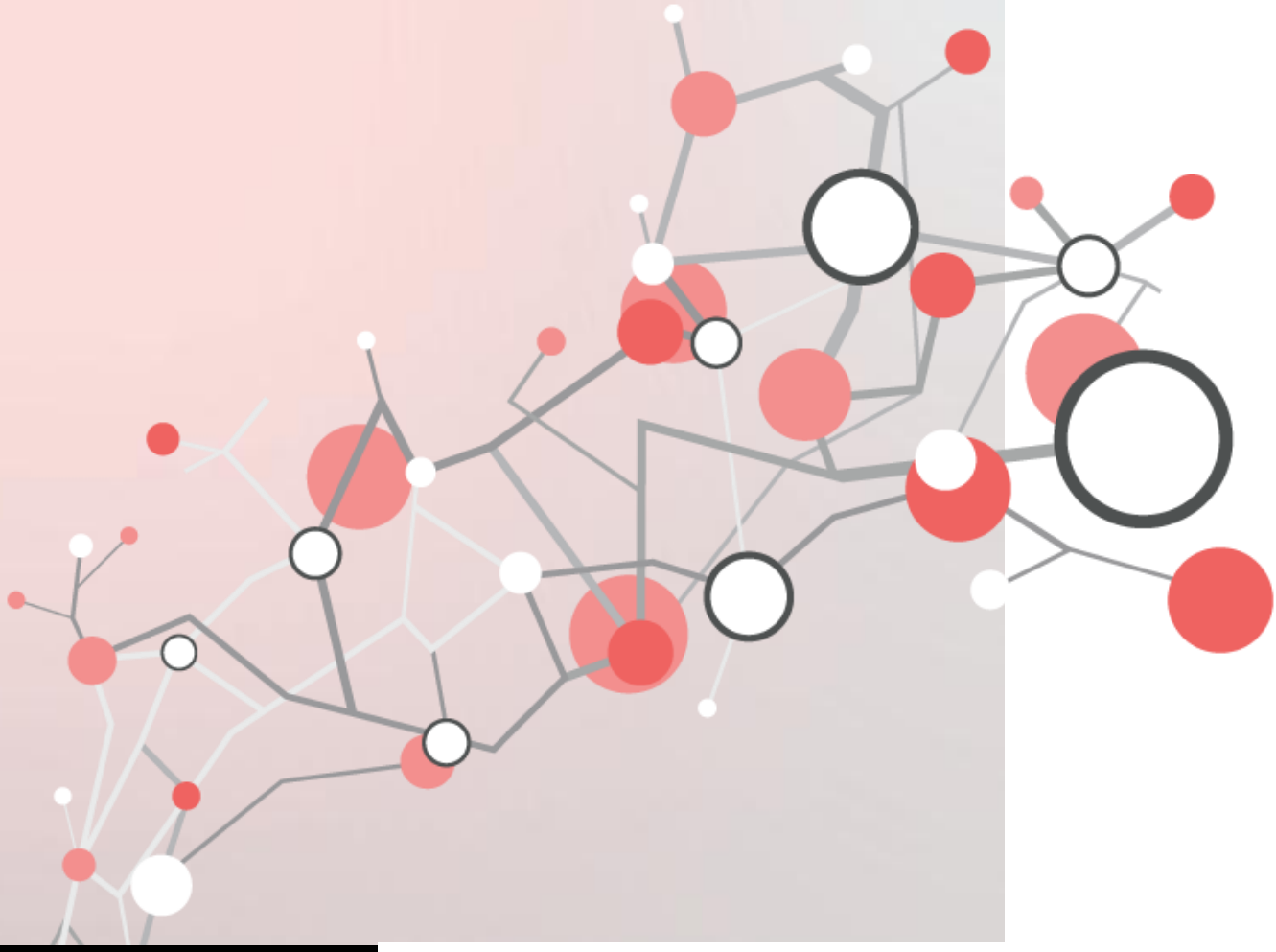
© SCI Verkehr

Urbanisation remains an important structural driver behind both views, but its effect differs by region. Cities with more than one million inhabitants are particularly predisposed to metro development where road congestion, land scarcity and high passenger volumes make lower-capacity modes insufficient. India is the most relevant example: many large urban areas either have no metro system yet or operate only one or a limited number of lines, creating a broad base for future network expansion. In more mature markets like Europe, the number of cities of this scale is more limited, and many already have established urban rail systems. Nevertheless, metro demand still emerges because public funding capacity, climate policy, urban densification and replacement needs support investment.

Global **OEM** volume remains more volatile than after-sales because it depends on project phasing, funding decisions, civil-works progress and tender timing. The largest OEM opportunities are therefore not necessarily found in the markets with the highest growth rates, but in countries where absolute procurement volumes are large and where demand is supported by either broad expansion pipelines or sizeable renewal programmes.

…

[1] The impact of the Iran war has not yet been fully reflected in project probabilities and delivery assumptions, as its direct effects on Iran and indirect implications for the wider Middle East as well as parts of South and South-East Asia remain uncertain. The conflict is therefore treated as a downside risk to implementation timing and market accessibility (see further detail in Chapter 9.3).



2 The Market for Metro Vehicles in Asia

2 Asia

2.1 Total Market

2.1.1 Market Overview

Asia

Market definition
- Largest and most heterogeneous metro market globally.
  - China: maturing, slowing expansion, shift to optimisation
  - India / Southeast Asia: rapid network build-out phase
  - Japan / Korea: mature, renewal-driven

Demand levers
- Continued urbanisation and congestion in India, Indonesia, Vietnam, Philippines.
- Strong role of central government funding and policy-driven metro programmes (e.g. India's standardisation).
- Increasing adoption of fully automated systems (GoA4) in new-build systems.

Key uncertainties
- China slowdown: fiscal constraints on local governments affecting pipeline visibility.
- Execution capability in emerging markets (project delays, cost overruns).
- Currency and financing risks in Southeast Asia.

Metro network (km)
Amount of metro systems

Fleet

	Cars	Units	Age (years)	CAGR (2025-30)
↗				

Market volume (EUR million)

		2025	2030	CAGR (2025-30)
OEM	→			
After-Sales	↑			

© SCI Verkehr

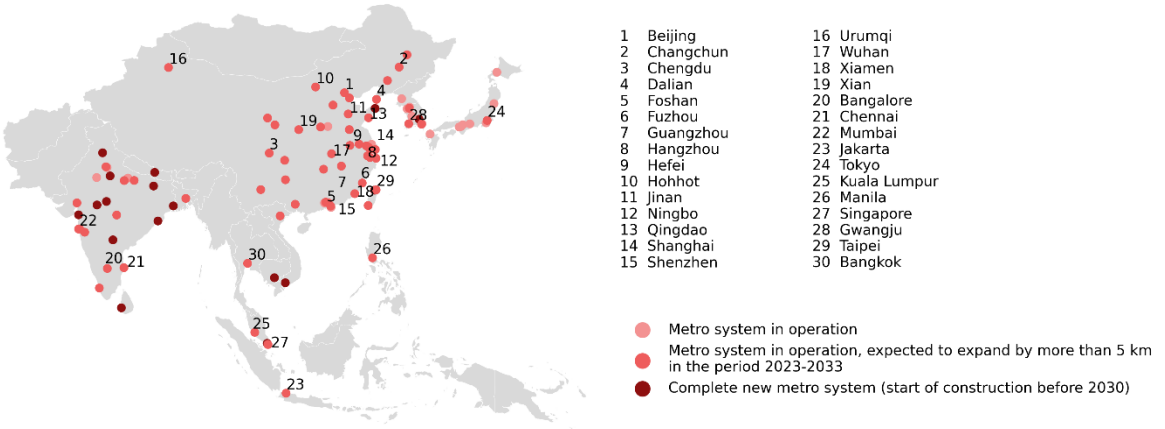
Figure 1: Asia: Metro market overview

Asia is the largest metro region globally by installed network and fleet size. The region comprises 83 metro systems, 13,780 km of network and an installed fleet of around 101,690 cars. Its scale is primarily the result of two decades of intensive metro construction, particularly in China, but the market is now becoming more differentiated. Asia is no longer defined only by new network build-out; it increasingly combines continued expansion, early lifecycle demand and renewal requirements in mature networks.

The market profile reflects this transition. OEM demand remains substantial at EUR 4.0 billion in 2025 and is expected to increase moderately by 2030. This moderate CAGR of 2.8% should not be interpreted as a weak demand signal. It mainly reflects the normalisation of procurement after the exceptional Chinese expansion phase. By contrast, after-sales grows more strongly from EUR 4.9 billion in 2025 to EUR 6.7 billion in 2030, supported by the rapid maturation of the installed base, increasing automation levels and the growing technical complexity of Asian metro systems.

Asia consists of several structurally different internal sub-markets:
- **Large Chinese systems** remain the main source of regional scale. Shanghai, Beijing, Shenzhen, Guangzhou, Chengdu, Hangzhou and Wuhan are all very high-volume systems. These markets still combine network extensions, fleet additions and the beginning of systematic lifecycle demand.
- **Mature Northeast Asian systems** in Japan and South Korea are more renewal-oriented. Seoul and Tokyo remain among the largest systems in the region, but their demand is shaped increasingly by phased fleet replacement, signalling renewal and automation-related upgrades.
- **High-capability Southeast Asian systems** such as Singapore, Bangkok and Kuala Lumpur combine continued network densification with technically complex systems procurement. Singapore is characterised by continuous automated network expansion and fleet replacement on core corridors. Bangkok and Kuala Lumpur remain expansion-led.

– **Emerging South and Southeast Asian systems** in Bangladesh, Vietnam, Indonesia and the Philippines are moving from isolated first-line projects towards early network formation. Their demand potential is significant, but implementation risk remains higher due to funding structures, land acquisition, institutional capacity and delivery delays.
– **Speculative or early-planning markets** such as Mongolia, Cambodia, parts of Pakistan and selected secondary cities remain relevant for long-term pipeline monitoring, but they do not yet represent stable near-term demand. These projects are generally dependent on external financing, political prioritisation and the creation of robust delivery institutions.



© SCI Verkehr

Figure 2: Asia: Metro systems overview

The regional volume profile is highly concentrated. China accounts for most of the largest systems in Asia and remains the dominant installed-base market. Shanghai, Beijing, Shenzhen, Guangzhou, Chengdu, Hangzhou and Wuhan alone represent a fleet base that exceeds the scale of many global regions. Seoul, Singapore and Tokyo form the most important non-Chinese systems in the top tier. This concentration has two implications: first, China still determines the headline scale of the Asian market; second, incremental regional growth increasingly depends on a wider set of countries, because Chinese procurement is becoming more selective than during the previous expansion phase.

Rank	Country	City	Cars	Units	Av. age	Route length	Operator
1	China	Shanghai					Shanghai Metro Operation Co. Ltd. Shanghai Modern Rail Transit Co. Ltd.
2	China	Beijing					Beijing Subway
3	South Korea	Seoul					Seoul Metropolitan Rapid Transit Corp Seoul Metropolitan Subway Corp Seoul Line 9 consortium Sinbundang Railway Co
4	China	Shenzhen					Shenzhen Metro Corp.
5	China	Guangzhou					Guangzhou Metro Corporation
6	China	Chengdu					Chengdu Metro Limited
7	Singapore	Singapore					Land Transport Authority
8	China	Hangzhou					Hangzhou Metro Group
9	Japan	Tokyo					Tokyo Metro Co., Ltd. Tokyo-to Kotsu Kyoku Tokyo Rinkai Kosoku Tetsudo
10	China	Wuhan					Wuhan Rail Transit Co., Ltd.

© SCI Verkehr

The demand profile is therefore not uniform across Asia:
- **Expansion-led demand** remains strongest in China, India and selected Southeast Asian markets. China continues to add capacity, although at a more moderated pace. India remains structurally expansion-led. Indonesia, Thailand, the Philippines, Bangladesh and Vietnam generate demand through new corridors, new systems and network formation.
- **Renewal and lifecycle demand** is concentrated in Japan, South Korea, Singapore and the oldest Chinese networks. Seoul's average unit age of 25 years and Tokyo's average age of 20 years indicate a more mature procurement logic. In these systems, demand is increasingly linked to replacement, reliability, signalling renewal and operational performance rather than route-km expansion alone.
- **Funding-contingent demand** is significant in emerging markets. Dhaka, Manila, Hanoi, Ho Chi Minh City and Jakarta all have substantial project pipelines, but delivery certainty differs by corridor and financing model. Multilateral loans, ODA structures, PPP models and state-backed programmes strongly influence whether announced projects convert into realised procurement.

Asia's OEM logic differs materially from both Europe and North America. The region still contains the world's largest new-build and fleet expansion opportunities, but OEM demand is increasingly spread across several procurement types. In China, rolling stock demand remains large but less exceptional than during the peak expansion period. In India and Southeast Asia, new fleets are tied to line openings and new network phases. In Japan, South Korea and Singapore, OEM demand is more often related to fleet replacement, capacity reinforcement and automation-compatible rolling stock.

After-sales is becoming the more structurally important growth pool. Asia's average fleet age is still comparatively low at around 12 years, but the scale of vehicles delivered since the mid-2000s is now creating substantial maintenance, overhaul and systems support requirements. New automated lines also expand demand for signalling support, control systems, platform systems, depot technology, cybersecurity, software maintenance and lifecycle performance management.

Competitive dynamics in Asia are shaped by national procurement models rather than by a single regional supplier logic. CRRC dominates regional delivery volumes because of the scale of the Chinese domestic market, but this does not imply equal competitive strength across all Asian countries. China remains largely domestic-led. Japan and South Korea are also shaped by national supplier ecosystems. India increasingly favours suppliers with local manufacturing capability. Southeast Asia is the most open and contestable part of the region, but procurement is often influenced by financing structures, technology partnerships and long-term operations models.

In practical terms, competition varies by market type:
- **China**: scale-driven and domestic-led, with CRRC structurally advantaged by the size and organisation of the home market.
- **India**: localisation-driven, favouring suppliers with local production, technology transfer capability and alignment with public procurement requirements.
- **Japan and South Korea**: largely domestic ecosystems, where established supplier relationships and operator-specific requirements limit broad international contestability.
- **Southeast Asia**: more open to international competition, but often shaped by ODA, PPP structures, bundled systems packages and financing-linked procurement.
- **Emerging first-system markets**: accessible in principle, but high-risk due to uncertain funding, evolving technical standards and limited implementation track records.

Overall, Asia remains the most important metro growth region, but its market structure is becoming more layered. The largest Chinese systems continue to define scale, while India and selected Southeast Asian countries provide the main expansion impulse outside China. At the same time, Japan, South Korea, Singapore and the oldest Chinese networks are strengthening the region's renewal and lifecycle demand. For suppliers, Asia is therefore not one regional market, but a set of distinct procurement environments. The most relevant opportunities will depend on the ability to match local industrial policy, financing structures, automation requirements and lifecycle service expectations.

2.1.2 Infrastructure

New metro construction activity in Asia continues to be structurally dominated by China, South Korea, Japan and India, where large-scale programmes are either ongoing or institutionally embedded. These markets define the regional supply chain, technical standards and procurement models. However, for new-build demand outside these anchor markets, activity is increasingly driven by a second tier of countries in Southeast and South Asia, where metro systems are either being established for the first time or expanded selectively. This results in a fragmented but dynamically evolving project landscape with varying levels of maturity and delivery certainty.

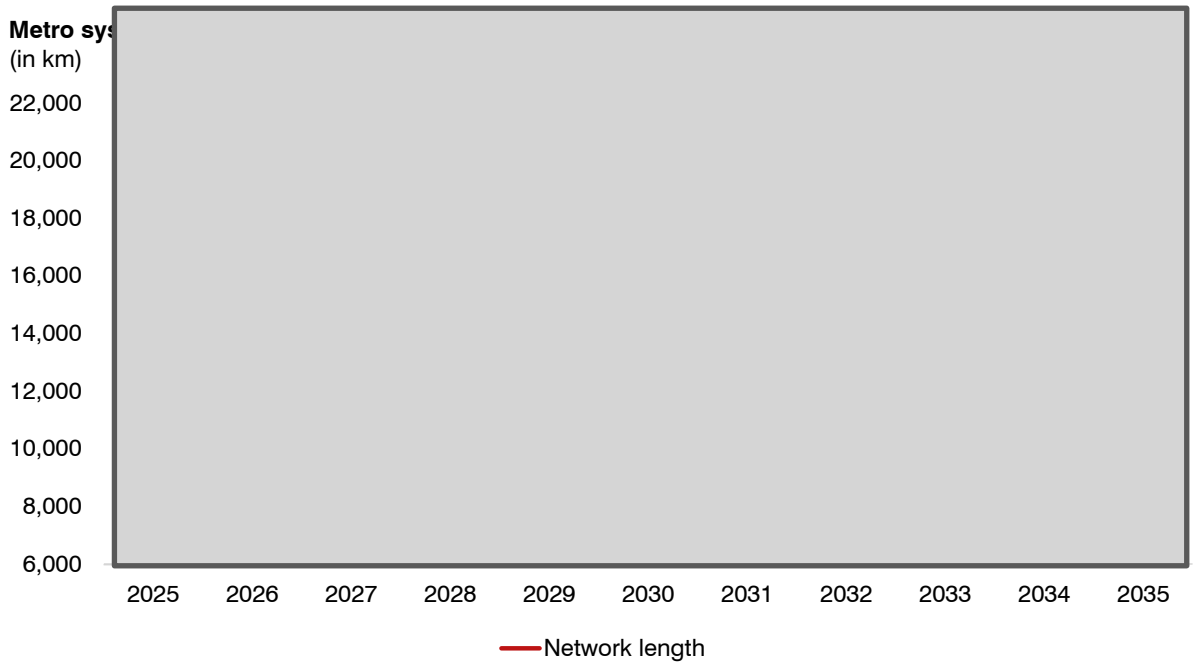


Figure 3: Asia: Metro system infrastructure development

A significant share of new-build activity is concentrated in cities developing their first metro systems, often as part of broader urban modernisation strategies. Projects such as Ulaanbaatar Line 1, Phnom Penh's initial metro concept and Chattogram's proposed system illustrate this pattern. These projects typically remain in early planning or proposal stages, with long timelines and limited funding visibility. For suppliers and investors, these markets offer long-term potential but are characterised by high project risk, driven by institutional capacity constraints, evolving governance frameworks and dependence on external financing.

More advanced new-build pipelines are visible in countries such as Bangladesh, Vietnam and the Philippines, where metro development is increasingly supported by structured financing from multilateral institutions.

- **Dhaka** represents a notable case, with multiple lines (Line 1 and Line 5 sections) under construction or in advanced planning, backed primarily by JICA and ADB financing.
- In Vietnam, **Hanoi** and **Ho Chi Minh City** are transitioning from pilot lines to broader network development, supported by bundled investment programmes and increasing use of PPP structures.
- **Manila** shows a mixed profile, combining large-scale flagship projects such as the fully underground Metro Manila Subway with additional corridor developments (e.g. MRT-4).
- These markets demonstrate a shift from isolated projects to early network formation. However, delivery timelines remain extended and subject to delays, reflecting complex land acquisition processes and evolving project governance.

Indonesia represents one of the most structurally significant emerging metro markets, driven by the expansion of Jakarta's network and the introduction of entirely new systems.

– **Jakarta** is progressing with multiple corridors, including the North–South extension and the large-scale East–West line, which introduces system complexity approaching mature metro markets.
– In parallel, **Bali** is developing a new multi-phase metro system, marking a transition from tourism-driven transport demand to rail-based urban infrastructure.
– The Indonesian market is characterised by strong involvement of Japanese financing and technology, resulting in tied procurement structures and reduced accessibility for non-aligned suppliers.

In more mature Southeast Asian markets such as Thailand, Malaysia and Singapore, new-build activity is primarily focused on network densification rather than system creation.

– **Bangkok** continues to expand its network through major corridor projects (e.g. Orange and Purple Lines), often under PPP models with integrated operations and maintenance scopes.
– **Kuala Lumpur's** MRT3 Circle Line introduces an orbital network structure, increasing system connectivity and capacity.
– **Singapore** maintains a continuous pipeline of smaller but technically complex extensions, with a strong focus on automation and system integration.

These markets offer higher delivery certainty and clearer procurement frameworks but limited volume growth compared to emerging systems.

Additional projects in countries such as Pakistan (**Lahore** Blue Line), Malaysia (**Johor Bahru** MRT concept) and the Philippines (**Manila** MRT-8) indicate continued interest in metro development across the region. However, many of these projects remain in early planning stages with unclear funding structures. This results in a pipeline that converts into realised demand only selectively.

Across Asia, new-build metro projects are strongly shaped by financing models:

– Multilateral loans (JICA, ADB) dominate in emerging markets, often linked to technology and supplier ecosystems from the financing country.
– PPP models are increasingly used in more mature markets, particularly for integrated system delivery and long-term operation.
– Government-led funding remains central in high-capacity markets, ensuring continuity of large-scale programmes.

Country	City	Project title	Distance in km	Expected completion	Project status
Bangladesh	Dhaka	Line 1 Hazrat Shahjalal International Airport - Kamalapur Railway Station			
		Line 5 Hemayetpur - Bhatara (Northern section)			
		Line 5 Gabtoli - Dasherkandi (Southern section)			
	Chattogram	First Line			
Indonesia	Jakarta	North-South corridor (Bundaran HI - Kampung Bedan)			
		East-West corridor Cikarang - Balaraja			
	Bali	Line 2 I Gusti Ngurah Rai Airport - Nusa Dua			
		Line 1 I Gusti Ngurah Rai Airport – Cemagi			
Malaysia	Singapore	RTS Link (Johur Bahru - Singapore)			
	Kuala Lumpur	Line MRT3 Circle Line			
	Johor Bahru	City Centre - Iskandar Puteri			
		City Centre - Skudai			
		City Centre - Tebrau			

Country	City	Project title	Distance in km	Expected completion	Project status
Mongolia	Ulaanbaatar	Line 1 Sonsgolon – Amgalan			
Pakistan	Lahore	Purple Line			
		Blue Line Valencia Town - Babu Sabo Chowk			
Philippines	Manila	Line MRT 7 Quezon City - San Jose del Monte			
		Mega Manila Subway Project phase 1			
		Line MRT 9 Valenzuela City - Bicutan - Ninoy Aquino International Airport (NAIA) (Metro Manila Subway)			
		Line MRT 8 phase 1			
		Line MRT 4 Quezon City - Taytay			
Singapore	Singapore	RTS Link (Johur Bahru - Singapore)			
		Thomson-East Coast MRT Line			
		Jurong Region Line (JRL)			
		East-West Line ext. Tuas Link - Tuas South			
Taiwan	Taipei	Sanying Line Dingpu - Yingge			
		Line 7 / Light Green Line			
		Wanda - Zhonghe - Shulin Line (Line 7)			
		Sike - Toudong Line			
		Section 2 of Taipei County Orbital Medium-Capacity Transit Line (circular VAL line stage 2)			
		Section 3 of Taipei County Orbital Medium-Capacity Transit Line (circular VAL line)			
		Minsheng-Xizhi Line			
		Xizhi - Donghu			
	Kaohsiung	Red Line ext.			
		Yellow Line			
	Tainan	Blue Line 1st Phase			
	Taichung	Blue Line (Port of Taichung - Shalu - Xitun - City Centre)			
Thailand	Bangkok	Orange Line Eastern section Bang Kapi - Bang Bamru			
		Orange Line Western section Cultural Centre - Phan Fa			
		Purple Line ext. Tao Poon - Rat Burana			
		Blue Line ext. Bang Khae - Phutthamonthon Sai			
Vietnam	Ho Chi Minh City	Line 1 Ben Thanh Market - Suoi Tien Park, District 9			
		Line 2 Ben Thanh Market - Tham Luong, District 12			
		Line 2 Phase 2 Tham Luong - Thu Thiem			
		Line 5 Phase 1			
		Line 3a			
		Line 5 Phase 1			
	Hanoi	Line 3 Central Station (Hoan Kiem district) - Nhon			
		Line 2 and line 5			
	Phu Quoc	Line 1			

© SCI Verkehr

Recent completions are concentrated in a limited number of markets and primarily reflect either network maturation or first-system delivery. Kuala Lumpur's MRT2 confirms continued capability to deliver large-scale, fully automated metro systems, while Singapore's extensions illustrate a steady, modular expansion model. In contrast, Ho Chi Minh City's first metro line marks a delayed but critical transition from planning to implementation, establishing the basis for further network rollout. Smaller extensions, such as Dhaka Line 6 to Kamalapur, indicate early-stage network densification in rapidly growing cities rather than large-scale expansion.

Upgrade activity is increasingly structured around signalling modernisation, capacity enhancement and asset renewal. Projects such as the CBTC upgrade of Kuala Lumpur's Kelana Jaya Line and Singapore's network-wide re-signalling programmes reflect a shift towards higher automation levels and operational optimisation. In parallel, rehabilitation programmes such as Manila MRT-3 highlight the need to restore system reliability in networks affected by deferred maintenance, often supported by international financing and evolving towards PPP-based operating models.

The market is characterised by a clear split between systems still building initial network capacity and those focusing on performance optimisation. Newly delivered lines in emerging markets remain execution-intensive and institutionally complex, while upgrade programmes in mature systems offer more predictable demand linked to automation and lifecycle management. This divergence shapes both risk profiles and procurement structures across the region.

2.1.3 Fleet

Asia's metro fleet is dominated by four very large markets, but the regional structure is broader than China, South Korea, Japan and India alone suggest. China accounts for by far the largest installed base, while Japan, South Korea and India form the next major fleet blocks. Beyond these focus markets, a second layer of mid-sized national markets adds substantial depth: Singapore, Taiwan and Malaysia each operate more than 400 metro vehicles, while North Korea, Thailand, the Philippines, Vietnam, Pakistan and Bangladesh represent smaller but structurally distinct fleet markets.

What defines the region is the coexistence of three different demand logics:
– very large young-to-mid-life fleets still shaped by ongoing network build-out;
– mature systems where replacement and capacity enhancement now overlap;
– and newly emerging markets where procurement remains tied almost entirely to first-line roll-out rather than replacement.

Fleet per market area in Asia 2025
(units)

© SCI Verkehr

Figure 4: Asia: Metro fleet per country 2025

The regional volume profile is still driven overwhelmingly by the four largest markets, but they do not generate demand in the same way. China remains the clearest expansion-and-modernisation market at scale, with selective early replacement only beginning to emerge in the oldest first-tier systems. India is still expansion-led, though Delhi is already moving into a more mature installed-base position. Japan and South Korea are more stable renewal markets, with demand increasingly shaped by phased replacement on established networks rather than by major network infancy. This means that the largest markets still anchor regional volume, but they no longer define the full procurement logic of Asia. The next layer of markets is more varied, and in several cases more transparent in its fleet direction than the largest systems.

Age distribution in Asia 2025
(in %, based on procurement year)

Figure 5: Asia: Metro fleet age distribution per country 2025

The regional age structure points to a market in which recent procurement still dominates. The 2016–2025 band is by far the largest, and even the 2006–2015 cohort remains heavily expansion-related. Broad age-driven replacement pressure is therefore still limited at regional level. Secured demand remains concentrated in active programmes in the largest markets: in China, continuing line openings and fleet additions still dominate, with cities such as Shenzhen adding further extensions in 2025 and new autonomous standard-metro applications entering service; in South Korea, the most visible demand remains phased renewal on mature systems, especially in Seoul and Busan; in Japan, Tokyo continues its rolling renewal of core fleets while Osaka is advancing its 400 series introduction and automation-related upgrading; and in India, major active programmes include Delhi Phase IV rolling stock and Chennai Phase II, where Alstom was awarded a 96-car driverless fleet contract in 2025.

Beyond the four largest markets, the same pattern is now visible in parts of the second tier. Singapore continues to add trains for network completion and capacity reinforcement: the Thomson-East Coast Line is being equipped with 91 fully automated four-car trains, and Circle Line Stage 6 adds 23 more trains, lifting the fleet from 64 to 87. Malaysia remains in a different position: its current MRT fleet base in Kuala Lumpur is already sizeable, but the next major demand wave is linked to the newly approved MRT3 Circle Line, with construction set to begin in 2026 and operations targeted for 2032. Thailand also remains expansion-led, with Bangkok's Orange Line now contractually anchored through the 2024 PPP agreement.

The country comparison outside the four focus markets shows how uneven this second tier already is.

– **Singapore, Taiwan, Malaysia** and **Thailand** sit in a relatively young-to-mid-life position, with average fleet ages broadly in the low-to-high teens. These are not imminent replacement markets in the European sense. Demand there comes primarily from new lines, staged capacity additions and selective fleet renewal on existing networks.
– By contrast, **North Korea** is a clear ageing outlier, with a legacy fleet structure concentrated in the oldest cohort and little visible evidence of a modern rolling-stock cycle.
– The **Philippines, Vietnam, Pakistan** and **Bangladesh** are younger still, but for the opposite reason: they are not mature renewal markets, but very early-stage metro markets whose installed base has only recently been created. In these countries, near-term fleet demand is inseparable from initial network rollout rather than from replacement.

Age structure in Asia 2025 by China and others
(based on procurement year; ~18,330 units)

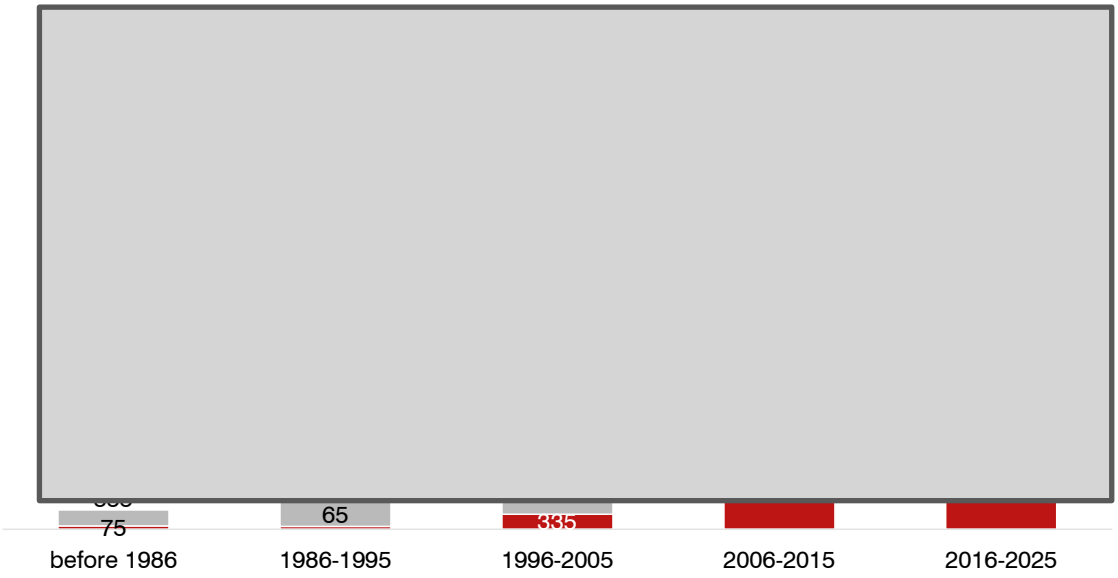


Figure 6: Asia: Metro fleet age structure 2025

This second tier is also where some of the clearest strategic shifts in fleet logic are visible.

- **Singapore** is no longer simply a mature city-state metro market with incremental renewal. The current fleet cycle is tightly linked to network completion, automation and systems integration, with both TEL and the final Circle Line stage adding new fully automated capacity to an already dense network.
- **Malaysia** remains one of the clearest medium-term procurement markets in Southeast Asia because the installed base in Kuala Lumpur is already substantial and MRT3 now provides a new large expansion platform.
- **Taiwan** is more balanced: its fleet is older than Singapore's but still largely mid-life, and future demand is tied less to broad replacement pressure than to continued build-out of the Wanda-Zhonghe-Shulin line, the Circular Line north and south sections, and other approved Taipei projects.
- **Thailand** remains closer to the build-out end of the spectrum, with Bangkok still generating demand through network expansion rather than through a broad replacement cycle.
- Further down the scale, the procurement logic becomes even more project-specific.
- The **Philippines** remains a likely growth market rather than a secured near-term fleet market at large scale, because Manila's installed base is still modest and the future fleet step depends on delivery of the Metro Manila Subway and related corridor programmes.
- **Vietnam** has now moved from projected to operational metro fleets: Ho Chi Minh City's first metro line entered service in December 2024, while Hanoi continues to operate Line 3.
- **Bangladesh** has already shifted into a clearer secured-demand category, since Dhaka's MRT Line 6 is in operation with 24 trainsets and further metro lines remain part of the wider Dhaka network build-out.
- **Pakistan** remains a very small market in metro terms, with Lahore still defining the installed base;
- **Indonesia** is similarly still at the first-wave stage through Jakarta.
- In all these markets, fleet demand is not yet cyclical but rises with the pace of infrastructure delivery.

The consequence is that Asia's regional fleet market is more layered than the headline focus on the four largest countries suggests. The largest markets still determine scale, but the second tier increasingly determines where the next distinct procurement cases emerge. Overall, Asia remains above all a growth-and-modernisation fleet market, but one in which a widening group of mid-sized countries is beginning to matter for the regional procurement picture.

2.1.4 Manufacturers

CRRC dominated metro rolling-stock deliveries in Asia in the 2021–25 period, but this result is primarily driven by China's domestic delivery volume rather than by uniform regional penetration. The Chinese market alone accounts for the vast majority of CRRC's deliveries, supplemented by smaller export or localised deliveries in India, Malaysia and Singapore.

Outside China, the regional picture becomes substantially more diversified, with **Alstom, Hyundai Rotem, BEML, Hitachi Rail, Woojin** and several Japanese manufacturers each holding relevant positions in specific national markets.

However, the future manufacturer landscape in Asia should not be interpreted as a simple continuation of CRRC's numerical dominance. China will remain effectively domestic-led, while India is increasingly shaped by localisation requirements and the build-up of domestic manufacturing capacity. Japan and South Korea continue to operate as largely closed domestic supplier ecosystems, whereas Southeast Asia remains more open and project-driven, with Alstom, CRRC, Hyundai Rotem, Hitachi Rail and Japanese suppliers competing through individual metro line packages. Future market shares will therefore depend heavily on where demand materialises: continued Chinese expansion favours CRRC, Indian growth favours suppliers with local manufacturing, and Southeast Asian projects remain the main arena for international competition.

Market shares per manufacturer in Asia from 2021-2025
(in % of units)

Figure 7: Asia: Market shares of manufacturer from 2021-25

Manufacturer	Activity (Brief description)	Units delivered
CRRC	By far the largest supplier in the period, with deliveries dominated by China and additional units supplied to India, Malaysia and Singapore. The Chinese volume includes several group entities and legacy CRRC-related companies.	
Alstom	Deliveries to India, Singapore, Taiwan, Malaysia and Vietnam, including metro trains for Indian systems and automated or high-capacity metro fleets in Southeast Asian markets.	
Hyundai Rotem	Deliveries to South Korea, Malaysia, Singapore, Taiwan and Southeast Asia, reflecting both its domestic base and selective export presence.	
Japanese manufacturers	Kinki Sharyo, Nippon Sharyo, Kawasaki, Mitsubishi, Sogo Sharyo and Japanese consortia delivered mainly within Japan, with Kawasaki also appearing in South Asia.	
Beijing Subway Rolling Stock	Operator-linked manufacturing and supply for the Beijing metro network, reflecting a vertically integrated domestic production model rather than a regional export role.	
Bharat Earth Movers Ltd.	Domestic Indian supplier with deliveries for Indian metro systems, benefiting from localisation requirements and public-sector procurement structures.	
Hitachi Rail	Deliveries in Japan and Taiwan, reflecting its role in established urban rail systems and selective Asian export activity.	
Woojin Industrial Systems	Domestic South Korean supplier with deliveries mainly linked to Korean metro systems and specific operator procurement packages.	
Titagarh	Deliveries in India, reflecting its growing position in the domestic metro rolling-stock market under local manufacturing frameworks.	
Integral Coach Factory	Indian public-sector production linked to domestic metro train delivery, but with a smaller role than BEML or Titagarh in the period.	
© SCI Verkehr		

The Asian supplier landscape is shaped by four distinct manufacturer clusters. **CRRC** represents the scale-driven Chinese industrial model: its delivery base is anchored in very large domestic volumes, while international access is selective and increasingly dependent on political acceptability, localisation and financing conditions. Its regional position is therefore numerically dominant but not equally strong across all Asian markets.

Alstom and **Hyundai Rotem** form the main international supplier group with a broader cross-border footprint. Alstom's position is built around India, Singapore, Taiwan, Malaysia and Vietnam, combining local production in India with selective export platforms. Hyundai Rotem links its Korean domestic base with export deliveries to Malaysia, Singapore, Taiwan and other Southeast Asian projects, often where operators require proven high-capacity metro platforms but do not rely solely on Chinese suppliers.

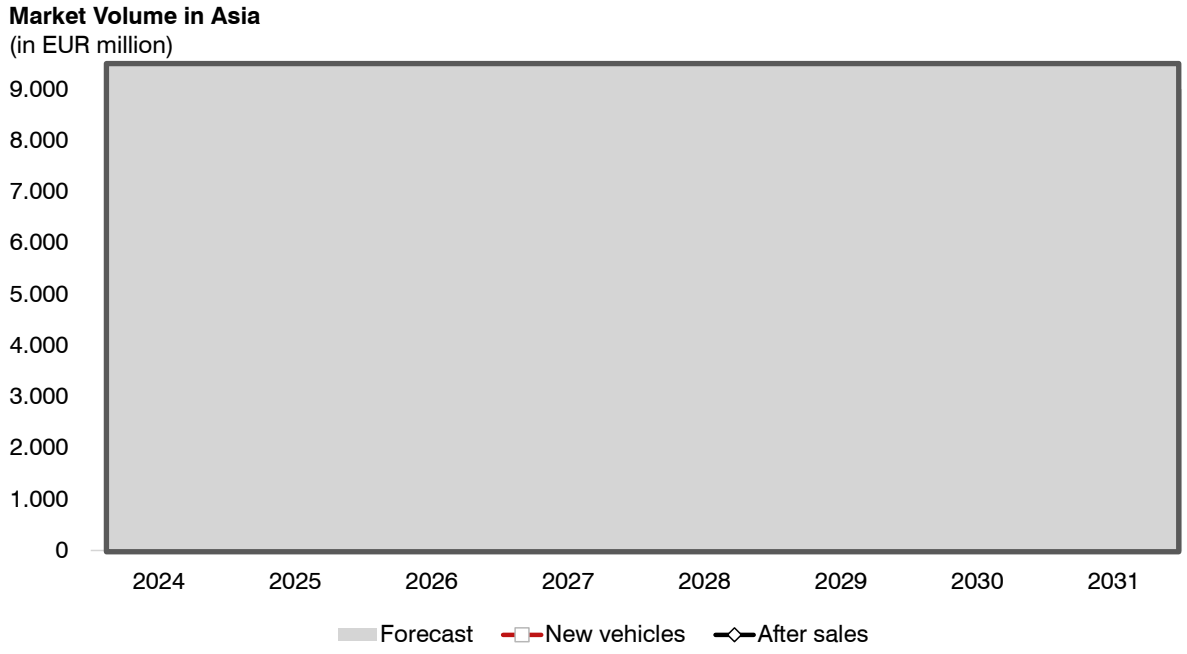
A third cluster consists of domestic Asian manufacturers operating within protected or semi-protected national ecosystems.

- **BEML, Titagarh and Integral Coach Factory** are primarily relevant in India, where procurement increasingly favours local manufacturing capability.
- **Woojin** plays a similar role in South Korea as a second supplier alongside Hyundai Rotem.
- In Japan, **Hitachi Rail, Kinki Sharyo, Nippon Sharyo, Kawasaki, Mitsubishi** and **Sogo Sharyo** operate in a fragmented but stable domestic framework, where supplier relationships are shaped by operator continuity and incremental fleet replacement rather than open international tendering.
- The fourth cluster comprises operator-linked or consortium-based supply structures, most clearly visible in China and Japan.

Overall, Asia is not a single manufacturer market despite CRRC's overwhelming numerical share. China creates the scale, India creates the localisation-driven growth opportunity, Japan and South Korea remain largely domestic supplier ecosystems, and Southeast Asia provides the most open contestable demand. For suppliers, future positioning will depend less on broad regional presence than on the ability to fit each market's procurement model: domestic industrial policy in India, national supplier preference in Northeast Asia, and project-specific international competition in Southeast Asia.

2.1.5 Market Volume & Development

Asia is by far the largest regional metro market, accounting for around **EUR 51 billion** of the global EUR 103 billion market volume in **2026–2030,** equivalent to almost **50% of the worldwide market.** Its development profile is nevertheless changing. After-sales grows at 6.3% p.a., while OEM grows at 2.8% p.a. between 2025 and 2030. The moderate OEM growth rate does not indicate weak demand; it mainly reflects the normalisation of Chinese procurement after an exceptional expansion phase. At the same time, the installed base created over the last two decades is becoming a major source of service, renewal and systems support demand.



CAGR calculated on a 3-year average each

Figure 8: Asia: Market volume

OEM demand remains substantial, but it is no longer defined only by rapid network build-out in China. India is becoming the most important growth counterweight, with new systems, network extensions and large multi-city procurement programmes creating a broader and more continuous demand base. Singapore, Taiwan, Indonesia, Thailand and the Philippines add further demand through extensions, new corridors and new metro systems, while Japan and South Korea contribute replacement-led demand in mature networks. The regional OEM market is therefore more diversified than in the past: China remains the largest volume base, but incremental growth increasingly comes from a wider set of national markets and project types.

After-sales is gaining weight because new fleets, automated lines and more complex signalling environments are entering regular operation across the region. CBTC, automation and integrated train control systems increase the interface intensity between vehicles, signalling, platform systems, depots and operational control centres. This raises demand for software updates, system integration support, obsolescence management, onboard equipment renewal and reliability-related modifications over the fleet lifecycle. China's large networks are moving into systematic maintenance and mid-life renewal cycles, while India's rapidly expanding systems are building a sizeable future service base. In mature Asian markets, reliability requirements and technology renewal remain the main drivers. The region is therefore shifting from a primarily construction-led market towards a dual market in which network expansion and lifecycle complexity reinforce each other.

Drivers	Brief description	Relevance	Trend
Infrastructure development	–		
Mobility demand	–		
Fleet structure	–		
Financial resources	–		
Environment and sustainability	–		

Relevance for procurement: ▂▄▆▉ = very high, ▂▄▆▯ = high, ▂▄▯▯ = medium, ▂▯▯▯ = low, ▁▯▯▯ = none

5-year trend: ↑ = strongly increasing, ↗ = increasing, → = constant, ↘ = decreasing ↓ = strongly decreasing

Outside China, India, Japan and South Korea, the regional vehicle delivery pipeline is mainly driven by Singapore, Taiwan, Thailand, Indonesia and the Philippines, with Vietnam representing a longer-term but less certain project opportunity.

Country	City	Units	Cars	Type/ Line	Delivery	Status	Remarks
Indonesia	Jakarta						
Philippines	Manila						
Singapore	Singapore						
Taiwan	Kaohsiung						
	Taichung						
	Taipei						
Thailand	Bangkok						
Vietnam	Ho Chi Minh City						