

MARKET INTELLIGENCE STUDY

# Global Public Transport Industry: Technology Trends & 10-Year Outlook (2026–2035)

---

Electrification, Autonomy, MaaS, Smart Ticketing, Data & Regulatory Landscape

An Independent Market Analysis by KhahanA Insights | March 2026

*Intelligence Amplified. Business Transformed.*

## 1. Executive Summary

The global public transportation market was valued at approximately USD 248 to 277 billion in 2024/2025 and is projected to reach USD 409 to 502 billion by 2033/2034, growing at a CAGR of 5.7% to 7.3% (Straits Research, 2025; SkyQuest, 2025; Global Growth Insights, 2026; Precedence Research, 2025). The market supports approximately 4.6 billion users globally in 2025, projected to reach 4.99 billion by 2030 (Statista, 2025). Revenue is projected at USD 294 billion in 2025, growing to USD 343 billion by 2030 (Statista, 2025).

The Mass Rapid Transit (MRT) segment specifically, encompassing metro, light rail, monorail, BRT, and commuter rail, was valued at USD 208 billion in 2026 and is projected to reach USD 384 billion by 2035 at a CAGR of 7.04% (Morgan Reed Insights, 2026). The electric bus market alone reached USD 54.1 billion in 2025 and is projected to grow to USD 255.1 billion by 2035 at a CAGR of 16.5% (Global Market Insights, 2025). The smart public transportation market (digital platforms, traffic management, cloud services) is projected to grow from USD 131 billion (2025) to USD 494 billion by 2035 at a CAGR of 14.2% (Market.us, 2026).

Public transport is at the intersection of six converging megatrends: fleet electrification (buses, trams, ferries), Mobility as a Service (MaaS) platform integration, autonomous and driverless operations, smart ticketing and contactless payments, data driven operations and AI, and regulatory mandates for zero emission fleets. The International Association of Public Transport (UITP) reports that 83% of operators expect ridership growth, while the sector is simultaneously transforming how services are planned, delivered, paid for, and experienced.

**Key finding:** Zero emission buses reached 60% of the EU city bus market in 2025, with battery electric registrations up 48% year on year to 11,607 units in Europe alone. China has achieved near 100% electrification of city buses. The transition from diesel to electric is no longer a question of "if" but "how fast" for the rest of the world. Simultaneously, MaaS platforms (USD 329 to 533 billion market in 2025) are transforming public transport from a standalone service into an integrated multimodal mobility ecosystem.

## 2. Global Market Overview

Market Segment	2025 Value	2033–2035 Projection	CAGR	Source
Total Public Transport	USD 262–294 billion	USD 409–502 billion	5.7–7.3%	Straits / SkyQuest / Statista
Mass Rapid Transit (MRT)	USD 208 billion (2026)	USD 384 billion (2035)	7.0%	Morgan Reed Insights
Electric Bus Market	USD 54.1 billion	USD 255 billion (2035)	16.5%	Global Market Insights
Smart Public Transport	USD 131 billion	USD 494 billion (2035)	14.2%	Market.us
MaaS (Mobility as a Service)	USD 302–533 billion	USD 716–2,479 billion	13.9–18.8%	Mordor / Fortune BI / Precedence
BRT Vehicle Market	USD 27.7 billion	USD 48.1 billion (2034)	6.3%	MRFR
Autonomous Bus/Shuttle	USD 1.73 billion (2024)	Growing at 20%+ CAGR	20%+	Fortune BI / GMI
Global PT Users	4.6 billion (2025)	4.99 billion (2030)	1.6%	Statista

Sources: Straits Research (2025), SkyQuest (2025), Global Growth Insights (2026), Statista (2025), Morgan Reed Insights (2026), Global Market Insights (2025), Market.us (2026), Mordor Intelligence (2026), Fortune Business Insights (2025), Precedence Research (2025), MRFR (2025)

### 2.1 Market Structure by Mode

- Road segment (buses, BRT, taxis): approximately 57% of market by revenue (Precedence Research, 2025)
- Rail segment (metro, light rail, commuter rail, tram): fastest growing, driven by new metro builds in Asia, Middle East, and Africa
- Buses remain the backbone of urban public transport globally, with approximately 64% of urban commuters relying on bus, metro, tram, or rail services daily (Global Growth Insights, 2026)
- Approximately 48% of global commuters depend on rail based systems (metro, tram, light rail), while 52% rely on road based systems (Global Growth Insights, 2026)

### 2.2 Regional Market Share

- Asia Pacific: 34–47% of global market (largest), driven by China, India, Japan, and Southeast Asia urbanisation
- Europe: 28%, extensive rail networks, aggressive zero emission mandates
- North America: 26%, metropolitan transit systems, federal investment under Bipartisan Infrastructure Law
- Middle East & Africa: 12%, emerging infrastructure expansion, new metro and BRT systems
- Latin America: growing rapidly, led by BRT systems and Chinese electric bus imports

## 3. Seven Technology Pillars Reshaping Public Transport (2026–2035)

### 3.1 Fleet Electrification: Buses

The electric bus market (USD 54.1 billion in 2025) is the single largest technology transformation in public transport. Battery electric registrations in Europe reached 11,607 units in 2025, up 48% on 2024 (Sustainable Bus/DVV Media, March 2026). Zero emission buses (BEV + hydrogen) reached 60% of the EU city bus market in 2025, while capturing one quarter of the total European bus and coach market. In the United States, 1,334 zero emission buses were registered in 2024 (~7% of new registrations), with ZEBs exceeding 10% in Q1 2024. China has achieved near 100% electrification of city bus fleets and produces approximately 65% of global electric bus output.

#### Key OEM Landscape

- BYD (China): global leader, 2,606 electric buses in Latin America (43% share), expanding Komarom Hungary plant to 1,000+ vehicles/year, framework for 2,000 buses in Tashkent
- Yutong (China): 46,918 buses sold globally in 2024 (+28.5%), 14,000 export units (+37.7%), revenue RMB 37.2 billion, ~70% of electric bus market in Mexico, new IC12E launched at UITP Summit 2025 Hamburg (610 km range under SORT2)
- Daimler Buses: eCitaro production in Ligny-en-Barrois France, acquired 49% stake in SINOS charging management software (March 2025), NMC4 battery partnership with BMZ Poland
- Volvo Buses: 106 electric bus order from Svealandstrafiken Sweden (2024), first UK order from Go Ahead London (25 BZL Electric)
- Solaris Bus & Coach: leading European electric bus OEM, new generation Urbino 12 electric (March 2024)
- Proterra, New Flyer (NFI Group): leading North American electric bus suppliers

#### Hydrogen Buses

Fuel cell electric buses are a smaller but rapidly growing segment. In Europe, 378 hydrogen buses were registered in 2024 (+82% on 2023), and 279 in H1 2025 alone (+426% on H1 2024), indicating rapid acceleration (Sustainable Bus, 2025). Asia Pacific held over 90% of global fuel cell bus market value in 2023. Key players include Weichai, Foton, Yutong, and Higer (China), Hyundai (South Korea), and Wrightbus (UK). Aberdeen, Scotland ended its hydrogen bus joint venture with BP, parking 25 Wrightbus hydrogen double deckers after operational challenges.

#### EU Regulatory Mandate

The EU mandates that 90% of new city bus sales must be zero emission by 2030, rising to 100% by 2035. This creates an absolute regulatory backstop that is accelerating OEM investment and operator procurement across Europe. By 2030, Europe's roads could host as many as 108,000 zero emission buses and coaches (European Commission Market Readiness Analysis, early 2025).

**10 year outlook:** By 2035, electric buses will be the default technology for urban public transport globally. Europe and China will be near 100% electric for city buses. North America will reach 40–50% electric. Latin America, led by Chile and Colombia, will reach 30–40%. India will be the fastest growing market driven by PM E-Drive and PM e-Bus Sewa programmes. The remaining markets (Africa, Southeast Asia) will be transitioning, with Chinese OEM exports filling the supply gap.

## 3.2 Rail Electrification & Metro Expansion

New metro systems are being commissioned across Asia (India, China, Southeast Asia), the Middle East (Riyadh, Doha, Bahrain, Muscat), and Africa (Cairo, Lagos, Addis Ababa). Mature markets in Europe and North America are focused on fleet modernisation, capacity expansion, and digital signalling (CBTC) overhauls. Communications Based Train Control (CBTC) adoption and driverless metro operations (GoA4) are becoming standard for all new builds.

- India: PM Gatishakti Initiative plans metro expansion to 50+ cities; National Infrastructure Pipeline USD 6.93 billion investment in urban transport
- Saudi Arabia: Riyadh Metro (USD 22.5 billion, 6 lines, 176 km, driverless); AlUla Train Project (22.4 km, 17 stations, Alstom)
- US: Bipartisan Infrastructure Law allocating USD 39 billion for transit modernisation
- Norway: Nkr 435 billion (USD 40.13 billion) for 12 year National Transport Plan 2025–2036 including significant rail investment
- Driverless metro (GoA4) operational in Lille, Dubai, Singapore, Brescia, Copenhagen, Paris, Shanghai and multiple Chinese cities; standard for all new metro builds

## 3.3 Mobility as a Service (MaaS)

MaaS integrates multiple transport modes (public transit, ride hailing, bike sharing, scooter sharing, car sharing) into a single platform with unified journey planning, booking, and payment. The MaaS market is valued at USD 302 to 533 billion in 2025, projected to reach USD 716 billion to USD 2.48 trillion by 2031–2034, depending on scope of measurement (Mordor Intelligence, Fortune Business Insights, Precedence Research).

- Pay as you go dominates with 67.25% share in 2025; subscription bundles growing at 23.88% CAGR (Mordor Intelligence, 2026)
- Ride hailing holds 45.85% of MaaS market share; micro mobility (scooter/bike) is the fastest growing segment at 19.12% CAGR (Mordor Intelligence, 2026)
- Multimodal transport now accounts for 10–12% of urban trips, up from 7–8% in 2024 (MaaS Alliance/OECD/ITF)
- UITP: transit agencies that position as MaaS backbone can increase ridership by up to 25% (APTA study of European implementations)
- Helsinki and Vienna pioneering MaaS integration; integration of micro mobility with public transit increases ridership by up to 35% in urban corridors (ITF)

**10 year outlook:** By 2035, MaaS will be the default interface for public transport access in major cities across Europe, Asia Pacific, and North America. Subscription based mobility bundles will replace traditional single mode ticketing for urban commuters. Public transport agencies that fail to integrate into MaaS ecosystems risk becoming invisible to the next generation of riders.

## 3.4 Smart Ticketing & Contactless Payments

Account Based Ticketing (ABT) has shifted from an emerging concept to a widely adopted modernisation strategy. Open loop contactless payments using EMV bank cards, phones, or wearables are proving their value: Visa's Reimagining Ridership research found early adopters see ridership increases of 6%, with mature deployments reaching up to 10%. Among agencies without open loop systems, 83% plan to implement them, with 70% intending to do so within two years (Visa, 2025).

- Transport for London: Oyster card and contactless bank card payments as global benchmark
- MTR Corporation (Hong Kong): new smart ticketing system launched October 2025 using contactless technology
- Ajman Transport Authority (UAE): launched open loop and contactless payment system in partnership with BPC
- UITP AFC Transition Report: ABT simplifies fare structures and reduces cost of issuing physical cards
- Digital ticketing: approximately 41% of commuters prefer digital ticketing solutions globally (Global Growth Insights, 2026); online sales projected to contribute 27% of total PT revenue by 2030 (Statista)

### 3.5 Autonomous & Driverless Public Transport

Autonomous public transport operates across a spectrum from driver assistance (SAE Level 2) to full autonomy (SAE Level 4/5). Driverless metro systems (GoA4) are already operational in 15+ cities globally. Autonomous buses and shuttles are in the pilot and early commercial deployment phase, with SAE Level 4 systems holding over 35% of the autonomous bus market by deployment type (Global Growth Insights, 2025). Electric autonomous buses account for over 65% of the autonomous bus market.

- Scania/Nobina: autonomous electric bus pilot in Barkarby, Stockholm connecting residential area to metro station
- EasyMile: delivering Level 4 driverless shuttle fleets for commercial service in tourist and urban environments
- Baidu Apollo (China): expanding autonomous bus deployment across Chinese cities as part of Apollo autonomous driving platform
- CharterUP/Holon: partnership to integrate Level 4 autonomous shuttles into North American group transport networks
- Japan: planned full scale autonomous bus services for 2025 Osaka Expo; METI national roadmap for scaling autonomous last mile delivery
- US DOT: USD 60 million investment in autonomous public transit pilot programmes
- Navya (France): filed for cessation of payments January 2025, highlighting the financial fragility of autonomous shuttle startups

**10 year outlook:** By 2035, driverless metro (GoA4) will be the standard specification for all new metro builds globally. Autonomous buses will be in regular commercial service in BRT corridors, campus environments, and defined urban geofences. However, fully driverless buses on open urban roads will remain limited to specific routes and conditions. The practical near term benefit is not eliminating drivers but delivering smoother service, better on-time performance, and alleviating the operator shortage that affects transit agencies worldwide.

### 3.6 Data, AI & Predictive Operations

Approximately 58% of transport agencies are integrating smart mobility systems, 49% of commuters use multimodal transit, and 44% adopt real time passenger information technologies (Global Growth Insights, 2026). AI and data analytics are transforming every aspect of public transport operations.

- Real time passenger information systems (RTPI): displayed at stops, in apps, and on vehicles, enabling passengers to make informed travel decisions

- Predictive maintenance: Deutsche Bahn announced partnership with a leading tech firm to develop AI driven predictive maintenance for trains (August 2025)
- Demand responsive transport (DRT): AI optimised on demand routing replacing fixed low frequency services in suburban and rural areas
- Fleet management and energy optimisation: critical for electric bus fleets, managing battery state of health, charging schedules, and route energy consumption
- Digital twin technology: virtual replicas of transit networks enabling real time simulation, scenario planning, and infrastructure optimisation
- IoT sensor networks: deployed across vehicles, stations, and infrastructure for condition monitoring, crowd management, and safety

**10 year outlook:** By 2035, AI driven operations will be standard across all major transit networks. Predictive maintenance will reduce unplanned downtime by 30–50%. Real time demand responsive routing will be the norm for suburban and peri urban services. Digital twins will be used for infrastructure planning and crisis management. Data monetisation and privacy governance will become significant policy challenges.

### 3.7 Bus Rapid Transit (BRT) Expansion

The BRT vehicle market was valued at USD 27.66 billion in 2025 and is projected to reach USD 48.07 billion by 2034 at a CAGR of 6.33% (MRFR, 2025). BRT offers metro like capacity and speed at a fraction of the cost of rail infrastructure, making it the preferred mass transit solution for cities in developing economies. Electrification of BRT fleets is accelerating, with BYD, Volvo, Scania, and Solaris offering electric BRT platforms.

- Bogota TransMilenio (Colombia): one of the world's largest BRT systems, transitioning to electric with BYD supplying 379 electric buses
- Santiago Red Movilidad (Chile): 4,406 electric buses expected by end 2025 (largest fleet outside China), 68% zero emission target for fleet
- Jakarta TransJakarta (Indonesia): world's longest BRT network by route length, piloting electric buses
- Autonomous BRT: platooning in BRT lanes (reducing headways without extra drivers) being piloted as first use case for autonomous public transport

## 4. Regulatory & Institutional Landscape

### 4.1 European Union

- EU CO2 Standards for HDVs: 90% of new city bus sales must be zero emission by 2030, 100% by 2035
- Euro 7 emissions regulation applying to buses and coaches
- Clean Vehicles Directive (CVD): mandating minimum shares of clean vehicles in public procurement
- European Commission Market Readiness Analysis (2025): up to 108,000 zero emission buses and coaches possible by 2030
- TEN-T regulation: core rail corridor completion by 2030, extended network by 2050

### 4.2 United States

- Bipartisan Infrastructure Law: USD 39 billion for public transit modernisation
- Clean School Bus Programme: USD 5 billion allocated, ~8,100 electric school buses funded as of mid 2025
- FRA: USD 368 million in CRISI grants for rail projects across 32 states
- Target: 70,000 zero emission buses by 2040
- USD 60 million DOT investment in autonomous public transit pilots

### 4.3 China

- Near 100% electrification of city bus fleets already achieved in major cities
- 65% of global electric bus production; BYD and Yutong dominant globally
- Belt and Road Initiative driving electric bus exports (400 Yutong buses to Pakistan, October 2025)
- 100 new intercity railways planned for completion by 2035 (Ministry of Transport, May 2023)

### 4.4 India

- PM e-Bus Sewa and PM E-Drive programmes driving large scale electric bus deployment
- Government sanctioned USD 10 billion for 50,000 electric buses by 2030 under CESL
- PM Gatishakti Initiative: metro expansion to 50+ cities
- National Infrastructure Pipeline: USD 6.93 billion for urban transport
- India's electric bus stock grew from under 3,000 to over 11,500 by end of 2024 (IEA, 2025)

### 4.5 Middle East

- Saudi Arabia: Riyadh Metro (USD 22.5 billion, operational); Qiddiya HSR; AIUla Train; Dream of the Desert luxury rail
- UAE: Dubai Metro expansion; Etihad Rail; autonomous logistics pilots
- Qatar: Doha Metro operational; 785 km HSR link to Riyadh signed December 2025
- Bahrain: Bahrain Metro first phase under development with Delhi Metro Rail Corporation

- Oman: Muscat mass transit network planned under Greater Muscat Masterplan

## 4.6 UITP & International Standards

- UITP (International Association of Public Transport): global industry body representing operators, authorities, and industry partners in 100+ countries. UITP Summit 2025 held in Hamburg, Germany.
- UITP Global Economic Outlook: 83% of operators expect ridership growth; provision of service (reliability, frequency, quality) identified as biggest ridership driver
- UITP AFC Transition Report: promoting account based ticketing and open loop payment adoption
- ISO 22163: railway quality management system standard
- IEC standards for railway signalling, safety, and interoperability
- European Union Agency for Railways (ERA): regulatory authority for rail safety and interoperability
- Federal Transit Administration (FTA, US): federal oversight and funding for public transit

## 5. Regional Deep Dives

### 5.1 Europe

Europe accounts for approximately 28% of the global public transport market and leads in zero emission regulation. Battery electric bus registrations reached 11,607 units in 2025 (+48% on 2024). Zero emission buses reached 60% of the EU city bus market. Hydrogen bus registrations grew 426% in H1 2025 vs H1 2024.

- Top e-bus OEMs in Europe (H1 2025): Yutong (852 registrations, 16% share), MAN (708 units), Daimler Buses, Iveco Bus, VDL, Solaris, Wrightbus
- Netherlands: target all new bus sales zero emission by 2025 (set in 2016), entire fleet by 2030; double digit e-bus shares in circulating fleet
- Italy: over 1,200 BEV buses registered in 2025 (30% of market, 65% of urban registrations)
- Transport for London: fully electric fleet target by 2030; Go-Ahead London ordering Volvo BZL Electric
- Germany: autonomous bus testing under L4 law; electric road system catenary pilots for buses
- Norway: Nkr 435 billion 12 year national transport plan with major rail and transit investment

### 5.2 Asia Pacific

Asia Pacific holds 34–47% of the global public transport market and is the fastest growing region. China dominates with near 100% electric city bus fleets and the world's most extensive metro network. India is the fastest growing market.

- China: ~65% of global electric bus production; major metro, HSR, and BRT expansion continuing; 100 new intercity railways by 2035
- India: 11,500+ electric buses by end 2024 (IEA); PM Gatishakti metro expansion to 50+ cities; Delhi Transport Corporation adding 8,000 e-buses; Switch Mobility (Ashok Leyland) and Olectra Greentech leading domestic production
- Japan: highly advanced integrated transit (Shinkansen, metro, bus); Maglev Chuo Shinkansen under construction; autonomous bus pilots for Osaka Expo 2025
- Southeast Asia: Jakarta BRT (world's longest), Bangkok and Manila light rail expansion, Kuala Lumpur MRT expansion; BYD licensing in Thailand
- South Korea: advanced metro systems; Hyundai hydrogen bus development
- Singapore: driverless metro standard; Yutong U12DD electric double decker launching; autonomous shuttle pilots

### 5.3 North America

North America accounts for approximately 26% of the global public transport market. The US leads with USD 39 billion Bipartisan Infrastructure Law investment. New York City Subway serves ~5.6 million daily riders. Public transit investment is focused on fleet electrification, accessibility, and system modernisation.

- US zero emission bus target: 70,000 by 2040; ~1,334 ZEBs registered in 2024 (~7% of market)

- Clean School Bus Programme: ~8,100 electric school buses funded from USD 5 billion allocation
- Oakland, California: first school district with fully electric fleet (2024)
- New York City: legally binding target to fully electrify 10,000 bus fleet by 2035 (under 50 deployed as of 2024)
- Canada: ZEB fleet grew 54% between mid 2024 and mid 2025; British Columbia investing in 115 electric buses
- Autonomous transit: USD 60 million DOT investment; autonomous shuttle pilots in multiple cities

## 5.4 Middle East & Africa

Middle East and Africa accounts for approximately 12% of the global public transport market but is the fastest growing region for MaaS (14.05% CAGR, Mordor Intelligence). The GCC is building entirely new metro and rail systems with latest technology.

- Saudi Arabia: Riyadh Metro (176 km, 6 lines, driverless); AlUla Train; Dream of the Desert; Qiddiya Q-Express HSR
- UAE: Dubai Metro expansion; Abu Dhabi autonomous logistics pilots; Ajman open loop contactless payments
- Qatar: Doha Metro; 785 km HSR to Riyadh (signed December 2025)
- Egypt: Cairo Monorail; HSR Ain Sokhna to El Alamein
- Africa: Addis Ababa light rail (first in Africa); Lagos rail mass transit; Nairobi to Mombasa SGR; Dar es Salaam BRT; South Africa Gautrain
- Yutong delivered 110 premium coaches to Aramco (Saudi Arabia, July 2025) and established KD factory in Qatar

## 5.5 Latin America

Latin America is a global leader in BRT deployment and is rapidly becoming the largest export market for Chinese electric buses.

- Santiago, Chile: 4,406 electric buses expected by end 2025, largest e-bus fleet outside China; target 100% electrification by 2035; BYD, Foton, and Yutong as primary suppliers
- Bogota, Colombia: TransMilenio BRT transitioning to electric; BYD 379 bus order (2019)
- ~5,900 electric buses operating across 41 cities in 12 Latin American countries (July 2024); BYD 43% share, Foton 24%, Yutong 14%
- Mexico: Yutong holds ~70% of electric bus market; world's first 26 metre pure electric double articulated bus launched for Mexico (Yutong, January 2025)
- Brazil: Marcopolo recorded R\$9.06 billion (USD 1.81 billion) consolidated net revenue in 2025, fourth consecutive record year

## 6. Competitive Landscape

Player	HQ	Category	Key Developments (2024–2026)
BYD	China	Electric bus OEM	Global leader; Komarom Hungary plant; 2,606 buses in LATAM; Tashkent 2,000 bus framework
Yutong	China	Electric bus OEM	46,918 buses sold 2024; IC12E at UITP 2025; 16 global factories; 70% Mexico share
Daimler Buses	Germany	Bus OEM	eCitaro France; SINOS stake; NMC4 battery; eIntouro intercity
Volvo Buses	Sweden	Bus OEM	106 e-bus order Sweden; Go Ahead London; BZL Electric
Solaris	Poland	Electric bus OEM	New gen Urbino 12 electric; leading European OEM
Alstom	France	Rail OEM	Chennai Metro GoA4 (1,538 Cr order); hydrogen trains; AIUla railway
Siemens Mobility	Germany	Rail/signalling	CBTC deployment; driverless regional train target 2026 with DB
CRRC	China	Rail OEM	GoA4 metro for Xiamen; global rolling stock leader
Uber / Moovit (Intel)	US / Israel	MaaS platform	MaaS market leaders; Uber partnering May Mobility for autonomous
Via	US	DRT / MaaS	Acquired Downtowner (Dec 2025); on demand transit platform
Keolis / Transdev	France	Operator	Major global PT operators; autonomous shuttle pilots

Source: KhahanaA Insights compilation from company announcements, Sustainable Bus, MarketsandMarkets, Morgan Reed Insights, industry press (2024–2026)

## 7. Technology Adoption Timeline: 2026–2035

Technology	2026 Status	By 2028	By 2030	By 2035
Electric City Buses	60% EU city bus market; ~100% China	75%+ EU; 20–30% US	90%+ EU (mandate); 40% US; 50%+ India	100% EU; 60%+ US; near-total China/India
Hydrogen Buses	H1 2025: 279 in EU (+426%); niche	500+ annual EU registrations	Established niche (5–10% of ZEB sales)	10–15% of ZEB; key for intercity/coaches
Driverless Metro (GoA4)	15+ cities operational	20+ cities; standard for new builds	30+ cities globally	Standard for all new metro systems
Autonomous Buses	Pilots in campuses, BRT corridors	Defined urban geofences	Regular commercial BRT corridors	Widespread in controlled urban environments
MaaS Platforms	10–12% of urban trips multimodal	15–20% multimodal	25–30% multimodal	Default interface for urban mobility
Contactless/Open Loop Payments	83% of agencies plan to adopt	60%+ of major agencies deployed	Standard across developed markets	Universal; replacing all legacy fare systems
Account Based Ticketing	Widely adopted modernisation strategy	Standard for new/upgraded systems	Dominant fare collection model	Near-universal in regulated markets
Real Time Passenger Info (RTPI)	44% of agencies adopted	60% adoption	75%+ in developed markets	Universal; AI driven predictive information
Predictive Maintenance (AI/IoT)	Pilot/early adoption	25–30% of major operators	50%+ of developed market operators	Standard; 30–50% downtime reduction
BRT Systems	Growing globally; electrification accelerating	Electric BRT standard for new systems	Expanding in Asia, LATAM, Africa	Dominant mass transit mode in developing cities

Source: KhahanA Insights analysis based on Sustainable Bus (2026), Global Market Insights (2025), Mordor Intelligence (2026), UITP, European Commission, IEA (2025), industry announcements

## 8. Key Findings & Strategic Implications

- 1. The electric bus revolution has crossed the tipping point in Europe and China.** Zero emission buses reached 60% of EU city bus sales in 2025. With the EU mandate requiring 90% by 2030 and 100% by 2035, the question is no longer "if" but "how fast" for the rest of the world. Chinese OEMs (BYD, Yutong) are setting the pace globally, with aggressive export strategies and localised production.
- 2. MaaS is transforming public transport from a service to a platform.** The MaaS market (USD 302–533 billion in 2025) is growing at 14–19% CAGR. Transit agencies that integrate into MaaS ecosystems see up to 25% ridership increases. Those that don't risk irrelevance. Subscription based mobility bundles are the emerging business model.
- 3. Contactless payments are the gateway technology.** Open loop EMV payments increase ridership 6–10% and reduce fare collection costs. 83% of agencies plan adoption. Account Based Ticketing is replacing legacy closed loop systems globally. This is the lowest risk, highest return technology investment for any transit authority.
- 4. Driverless metro is already standard; autonomous buses are not yet.** GoA4 driverless metro operates in 15+ cities and will be the default for all new metro builds. Autonomous buses, however, remain in the pilot phase for open road environments. The practical near term application is BRT corridors, campuses, and defined geofences. Navya's bankruptcy (2025) highlights the financial fragility of autonomous shuttle startups.
- 5. Data and AI are becoming as important as the vehicles themselves.** Predictive maintenance, real time passenger information, demand responsive routing, fleet energy management, and digital twins are transforming operations. The agencies that invest in data infrastructure today will deliver superior service quality and cost efficiency by 2030.
- 6. The Middle East is building public transport systems from scratch with latest technology.** Riyadh Metro (driverless, USD 22.5 billion), Doha Metro, GCC Railway, and emerging systems in Bahrain, Oman, and Egypt represent greenfield deployments integrating the newest signalling, electrification, and passenger experience technologies from day one.
- 7. Latin America is a quiet revolution in electric public transport.** Santiago de Chile operates the largest electric bus fleet outside China (4,406 buses by end 2025). 5,900 electric buses across 41 cities in 12 countries. Chinese OEMs dominate supply. This region demonstrates that electric public transport transition is achievable without first world budgets, using innovative financing and operational models.

## 9. Sources & Methodology

### Market Data & Forecasts

- Straits Research: Public Transportation Market Size 2025–2033
- SkyQuest: Public Transportation Market Growth Analysis 2025–2033
- Global Growth Insights: Public Transport Market 2025–2035
- Precedence Research: Public Transportation Market Size 2025–2034
- Statista: Public Transportation Worldwide Market Forecast
- Morgan Reed Insights: Global Mass Rapid Transit (MRT) Market 2026–2035
- MRFR: Bus Rapid Transit Vehicle Market 2025–2034
- Global Market Insights: Electric Bus Market to 2035
- MarketsandMarkets: Electric Bus Market to 2032
- Market.us: Smart Public Transportation Market 2025–2035

### MaaS & Ticketing Sources

- Mordor Intelligence: Mobility as a Service Market 2025–2031
- Fortune Business Insights: MaaS Market Size 2025–2034
- Precedence Research: MaaS Market Size 2025–2035
- The Insight Partners: MaaS Market Trends & Forecast 2034
- O-CITY / BPC: Public Mobility 2026, Seamless Connected Data Driven Public Transport
- Visa: Reimagining Ridership (contactless payment impact study)
- UITP: AFC Transition Report; Global Economic Outlook 2024

### Electric Bus & Fleet Sources

- Sustainable Bus / DVV Media Group: European Electric Bus Market Data (March 2026, H1 2025, 2024)
- Sustainable Bus: Electric Bus, Main Fleets and Projects Around the World
- Tim Harper: Zero Emission Buses and Coaches in 2026 (February 2026)
- World Resources Institute: Countries Electrifying Bus Fleets Fastest
- IEA: Global EV Outlook 2025, Trends in Heavy Duty Electric Vehicles
- Electrive.com: Yutong Expands in Europe (October 2025)
- European Commission: Market Readiness Analysis for Alternative Fuel HDVs (early 2025)

### Autonomous Transport Sources

- Sustainable Bus: Autonomous Buses in Public Transport (2025)
- Fortune Business Insights: Self Driving Bus Market to 2032
- Global Market Insights: Autonomous/Driverless Shuttles Market to 2032
- Global Growth Insights: Autonomous Bus Market (2025)
- World Business Outlook: Future of Public Transportation (December 2025)
- MDPI/World Electric Vehicle Journal: Autonomous Public Transport (August 2025)

## Regional & Institutional Sources

- UITP: 5 Key Public Transport Trends, Global Economic Outlook 2024
- European Hydrogen Observatory: EU CO2 Standards for HDVs
- US FTA / Bipartisan Infrastructure Law: Transit Investment Data
- Government of India: PM Gatishakti, PM E-Drive, National Infrastructure Pipeline
- MEED: Middle East Rail Projects (2025)

*Methodology: All data sourced from published research reports, government publications, industry associations (UITP, APTA, ERA), verified news sources, and academic journals. No AI generated statistics. Source credibility tiered as T1 (official/government/UITP/IEA/standards bodies) or T2 (market research firms/trade publications/company announcements).*

## 10. Disclaimer

*This study is published by KhahanaA Insights as an independent market analysis. It does not endorse, recommend, or promote any specific company, product, or technology provider. Market projections are based on published third party forecasts and are subject to change. Readers should conduct their own due diligence before making investment or procurement decisions.*

---

KhahanaA Insights | [www.khahana.com](http://www.khahana.com) | Dubai, UAE  
*Intelligence Amplified. Business Transformed.*