

Evolving Mobility: Why the Nasdaq Global Future Mobility Index Added New Sub-Themes

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The mobility industry has changed dramatically since the Nasdaq Global Future Mobility™ Index (NYGCAR™) was launched in 2018. What began as a market primarily focused on vehicle electrification and autonomous driving has evolved into a broader ecosystem where connectivity, shared transportation models, and next-generation energy storage are playing an increasingly important role in driving innovation. Reflecting this evolution over the past seven years, the index methodology introduces two new sub-themes - **Mobility Connectivity** and **Shared Mobility** - while **Advanced Batteries** replaces and expands upon the previous Electric Batteries and Lithium Batteries categories. Together, these changes broaden the index's representation of the technologies shaping the future of transportation.

How the Mobility Theme Has Evolved

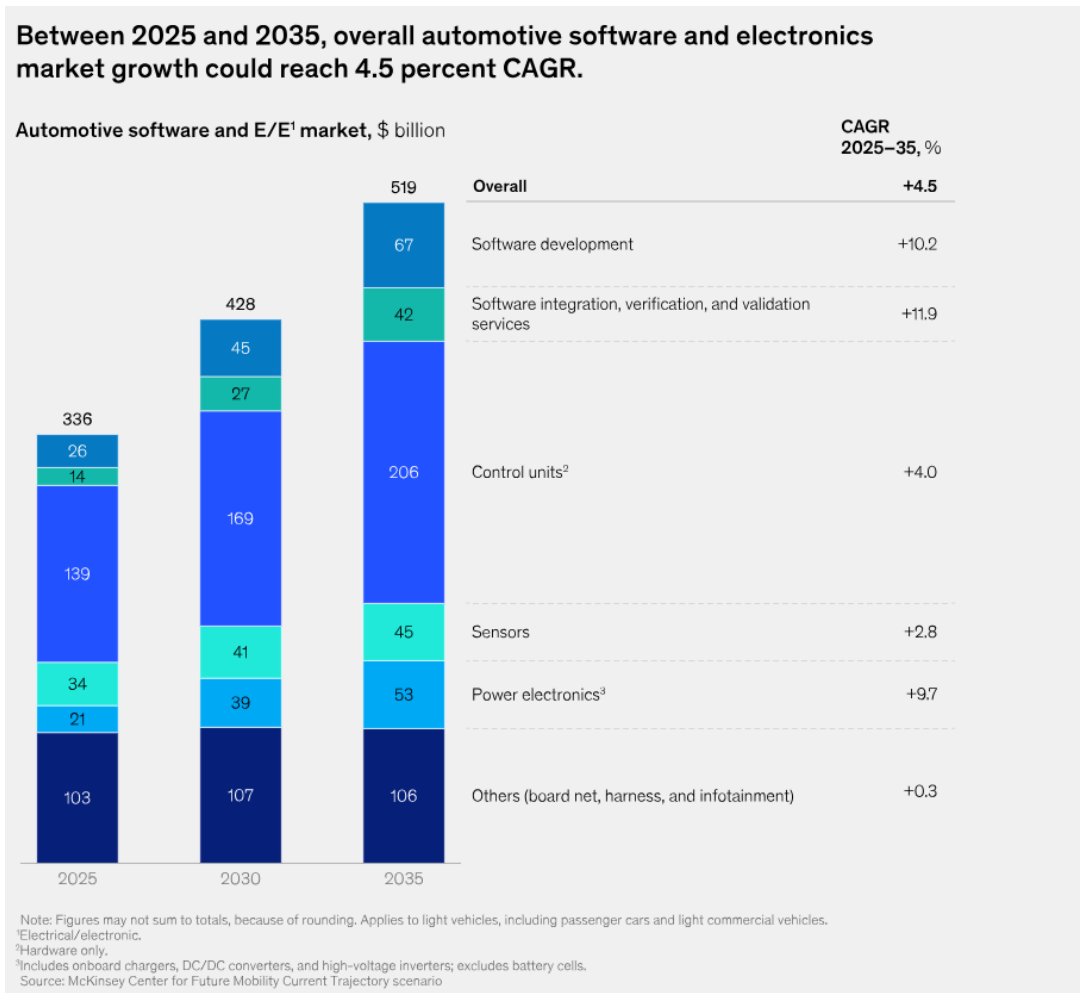
In 2019, the International Energy Agency (IEA) initially framed the mobility opportunity around what the authors called "three revolutions": electrification, shared mobility, and autonomous driving. At the time, EV adoption was still early (around 1% of the global car fleet), ride-hailing platforms such as Uber, Lyft and Didi were expanding rapidly, and many observers expected car sharing and mobility-as-a-service to chip away at private vehicle ownership. Rather than treating a combined "shared, autonomous and electric vehicle" (SAEV) future as a foregone conclusion, the IEA posed it as an open question - asking whether shared and/or autonomous fleets would in fact end up being electric.

The commentary also flagged the practical hurdles that were top of mind in 2019: building out EV charging infrastructure, limited battery range, long charge times, the economics of high-utilisation fleets, and the slow pace at which ride-hailing services were electrifying. Much of the discussion centred on how electrification and shared-usage models - together with smarter, grid-aware charging - could make transport cleaner and more efficient.¹

From a 2026 perspective, many of the original mobility themes remain relevant, but the industry's priorities have clearly shifted. Electrification has moved from an emerging trend to a mainstream market: global electric car sales exceeded 20 million in 2025, representing one in four new cars sold

¹ https://www.iea.org/commentaries/shared-automated-and-electric?_cf_chl_f_tk=B7nkkBeIA7SuDEPhR.EZz.iPaIVpuZgemTVenEVPloq-1782812776-1.0.1.1-2Zo49vNyHiYO87Xy_dysN8wcWouqT5iVaKv6quuGGvc

worldwide, with adoption particularly high in China, where EVs accounted for nearly 55% of new car sales.² At the same time, autonomous mobility has moved beyond pilot programmes in selected markets. Baidu's Apollo Go had delivered more than 20 million cumulative rides globally by early 2026.³ In the US, the partnership between Waymo and Uber illustrates how autonomous driving technology is beginning to integrate into mainstream transportation networks. Waymo's robotaxi service is available through the Uber app in cities including Austin and Atlanta, allowing passengers to book fully autonomous rides in the same way as conventional ride-hailing journeys. The service initially launched with 100 vehicles in Austin and is expected to scale to hundreds of autonomous vehicles, demonstrating growing confidence in the commercial viability of robotaxi services.⁴



Beyond electrification and autonomy, the next phase of innovation is increasingly centred on software-defined vehicles, AI-enabled computing, Advanced Driver Assistance Systems (ADAS) and

² https://www.iea.org/reports/global-ev-outlook-2026/executive-summary?_cf_chl_f_tk=AFZMym_FwHMKSF4Lk2TG2rqsTMICHbjF9FPu20mvJOA-1782815431-1.0.1.1-LfZbZYaXFHNdA4UB627lad9j5Y5mVQ_A5Hq69H3dPw4

³ <https://techcrunch.com/2026/03/27/waymo-skyrocketing-ridership-in-one-chart/>

<https://cnevpost.com/2026/02/27/baidu-apollo-go-robotaxi-300000-weekly-rides-expands-to-south-korea/>

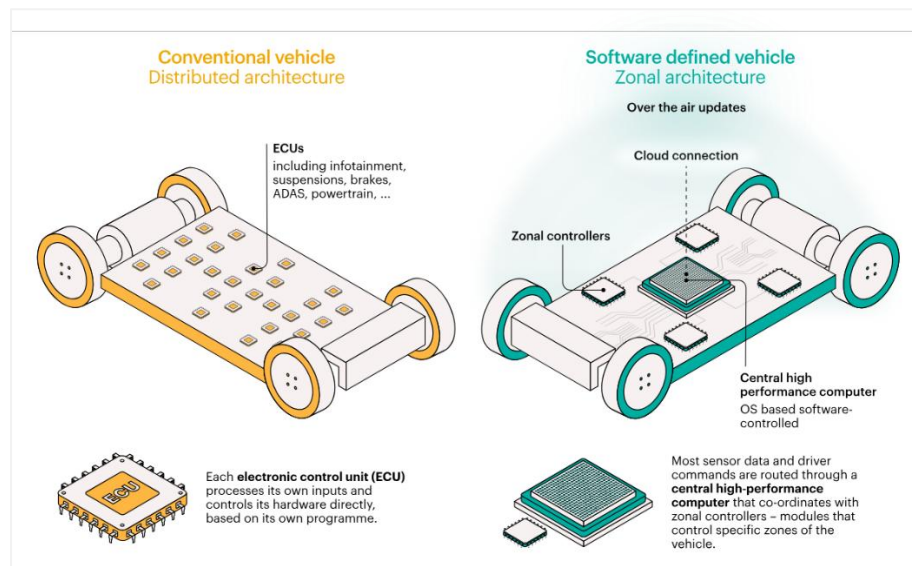
⁴ <https://www.reuters.com/business/autos-transportation/uber-waymo-launch-autonomous-ride-hailing-service-atlanta-2025-06-24/>

connected mobility ecosystems. McKinsey estimates that the automotive software and electronics market could reach \$519bn in annual sales by 2035.⁵

This suggests that the future mobility opportunity is no longer only about electric powertrains, but also about the digital, autonomous and connected infrastructure that increasingly defines the vehicle experience.

Mobility Connectivity: The Software-Defined Vehicle Era

Connectivity has become a critical enabler of next-generation mobility, transforming vehicles from standalone machines into connected, software-driven platforms. Advances in 5G, cloud computing, vehicle-to-everything (V2X) communication, and over-the-air software updates allow vehicles to continuously exchange data with other vehicles, infrastructure, and mobility networks. This enhances safety, improves traffic efficiency, supports autonomous driving systems, and enables new digital services throughout a vehicle's lifecycle. Underpinning this transformation is not only the rise of software, but also a fundamental redesign of vehicle electronic and electrical architectures over the past decade, pioneered by pure-play electric vehicle manufacturers. Together, these innovations are creating more intelligent, connected, and adaptable mobility ecosystems.⁶



Source: IEA

Connectivity also serves as a foundational technology for emerging mobility solutions such as autonomous driving, robotaxis, and Mobility-as-a-Service (MaaS). Real-time data exchange between vehicles, cloud platforms, and roadside infrastructure supports autonomous navigation, fleet management, remote monitoring, predictive maintenance, and traffic optimisation. As

⁵ <https://www.mckinsey.com/features/mckinsey-center-for-future-mobility/our-insights/mapping-the-automotive-software-and-electronics-landscape>

<https://www.marketsandmarkets.com/Market-Reports/driver-assistance-systems-market-1201.html>

⁶ <https://www.iea.org/reports/vehicle-software-and-software-defined-vehicles>

autonomous vehicle deployments expand, reliable high-speed connectivity will become increasingly important in enabling scalable and efficient mobility networks.⁷

Automakers are adopting centralized computing and zonal architectures that replace traditional hardware-centric vehicle designs with software-driven platforms capable of continuous improvement through over-the-air updates. These architectures support ADAS, AI-powered digital experiences, vehicle-to-everything (V2X) communications, and future autonomous capabilities. According to IDTechEx, the transition toward software-defined vehicles (SDVs) could generate approximately US\$755 billion in cumulative hardware revenue through 2029, as automakers adopt centralized computing platforms and zonal vehicle architectures. Zonal architectures can reduce vehicle wiring by more than 30%, helping lower vehicle weight and complexity. At the same time, software-enabled features and services are projected to grow at a 30%–34% annual rate through 2035, highlighting the industry's shift toward recurring, software-based revenue streams. Together, advances in connectivity, AI, semiconductors, and cloud-native software are transforming vehicles into intelligent computing platforms and enabling a more connected, automated, and data-driven mobility ecosystem.⁸

Shared Mobility: The Rise of Robotaxis and Mobility-as-a-Service

Shared mobility represents a fundamental shift away from private vehicle ownership toward on-demand, access-based transportation. Supported by digital platforms, mobile connectivity, and increasingly autonomous vehicles, many consumers – particularly in urban areas – are increasingly complementing traditional vehicle ownership with on-demand mobility services. This trend spans ride-hailing, car-sharing, micromobility, and emerging robotaxi networks, all of which are helping reshape urban transportation. Reflecting this shift, Mordor Intelligence estimates the global shared mobility market will grow from approximately \$407 billion in 2026 to more than \$900 billion by 2031, representing a compound annual growth rate (CAGR) of 17.3%. As these services continue to scale, shared mobility is becoming an increasingly important pillar of the future mobility ecosystem.⁹

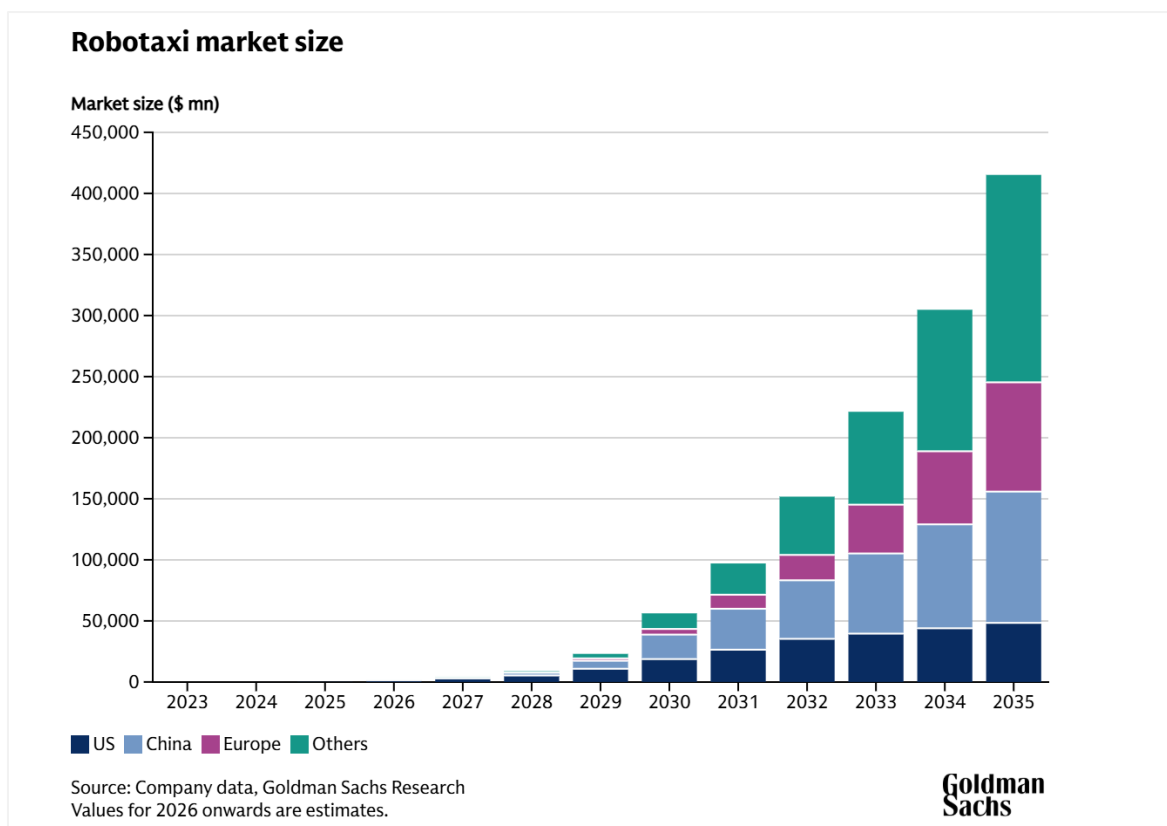
Robotaxis represent one of the most promising emerging segments within shared mobility, enabled by advances in autonomous driving, artificial intelligence, and vehicle connectivity. Goldman Sachs estimates the global robotaxi market could reach approximately \$415 billion by 2035, with the commercial robotaxi fleet expanding from around 7,000 vehicles in 2025 to 6 million by 2035. As the technology scales, economics are expected to improve significantly: vertically integrated operators that both manufacture and operate robotaxi fleets could achieve gross margins of 30%–50%, creating a global gross profit pool of roughly \$150 billion by 2035. Cumulative gross profits generated by robotaxis over the next decade could reach approximately \$440 billion, highlighting the growing commercial potential of autonomous mobility.¹⁰

⁷ https://www.itskrs.its.dot.gov/sites/default/files/2025-04/executive-briefing/Executive%20Briefing%202024_Vehicle-to-Everything%20%28V2X%29%20Technology_Edited%202025_FINAL508_04252025.pdf
<https://www.transportation.gov/briefing-room/usdot-releases-national-deployment-plan-vehicle-everything-v2x-technologies-reduce>

⁸ <https://www.idtechex.com/en/research-article/software-defined-vehicles-drive-next-gen-auto-architectures/33582>

⁹ <https://finance.yahoo.com/news/shared-mobility-market-growing-17-154500762.html>

¹⁰ <https://www.goldmansachs.com/insights/articles/robotaxis-to-become-a-400-billion-dollar-market-in-2035>



According to BCG, robotaxis could capture 55%–85% of trips currently served by taxis and ride-hailing services in developed cities, while operating costs could fall to around \$0.80 per kilometer in the US and \$0.40 per kilometer in China. While adoption is expected to be gradual due to regulatory, infrastructure, and consumer acceptance challenges¹¹, BCG views robotaxis as a long-term and increasingly important component of urban mobility.¹²

Looking further ahead, the growth of shared mobility and robotaxi networks is expected to accelerate the development of Mobility-as-a-Service (MaaS) platforms. Rather than relying on a single mode of transportation, MaaS integrates multiple mobility options - including public transit, ride-hailing, micromobility, car-sharing, and autonomous vehicles - into a seamless, on-demand service accessed through a single digital platform. As robotaxis become more widely available, they could serve as a key building block within MaaS ecosystems, providing flexible first- and last-mile connectivity while helping create more efficient, connected, and user-centric urban transportation networks. Reflecting this opportunity, MarketsandMarkets estimates the global MaaS market will grow from \$5.7 billion in 2023 to \$40.1 billion by 2030, highlighting the increasing convergence of shared mobility, autonomous driving, and connected transportation platforms.¹³

¹¹ Around 60% of Chinese consumers are willing to use robotaxis today, compared with only 30-35% in the US and Europe (according to BCG)

¹² <https://www.bcg.com/publications/2026/here-at-last-the-evolution-of-the-robotaxi>

¹³ <https://www.marketsandmarkets.com/PressReleases/mobility-as-a-service.asp>

Conclusion

The mobility industry has changed dramatically since the Nasdaq Global Future Mobility™ Index (NYGCAR™) was launched in November 2018. What began as a market largely centred on vehicle electrification and autonomous driving has evolved into a broader ecosystem shaped by advances in connectivity, automation, shared transportation, and energy storage. Over this period, the index has delivered a total return of 226.7%, equivalent to an annualized return of 16.8%, reflecting the significant growth opportunities created by these long-term trends.¹⁴ The latest methodology enhancements aim to ensure the index continues to capture the most relevant areas of innovation across the future mobility landscape.

¹⁴ Source Bloomberg. Data as of June 30, 2026

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