

Evolving Mobility: How the July 2026 Methodology Enhancement Reshaped NYGCAR™

Ilaria Sangalli, Head of Index Insights, EMEA

At a Glance:

- Future mobility is becoming broader and more connected. As innovation expands beyond vehicle electrification and autonomous driving, NYGCAR now captures emerging areas such as mobility connectivity and shared mobility, alongside more established transportation technologies.
- NYGCAR's patent-driven approach has continued to deliver competitive results. Over the historical periods presented below, NYGCAR's price performance compared favorably with that of the two identified competitor indexes.
- The July 2026 methodology enhancement expanded NYGCAR's opportunity set. Key changes included the introduction of Mobility Connectivity and Shared Mobility, the adoption of a two-year patent assessment window, the expansion of the eligible universe, and a new IPO inclusion policy.
- The enhanced framework introduced new constituents such as Hitachi, AT&T, Uber Technologies, ABB, and CATL, broadening NYGCAR's exposure to key future mobility technologies.

The future mobility landscape has evolved significantly since the Nasdaq Global Future Mobility™ Index (NYGCAR™) was launched in November 2018. What began as a theme largely centered on vehicle electrification and autonomous driving has expanded into a broader innovation ecosystem shaped by software-defined vehicles, mobility connectivity, shared transportation models, robotaxis and next-generation battery technologies.

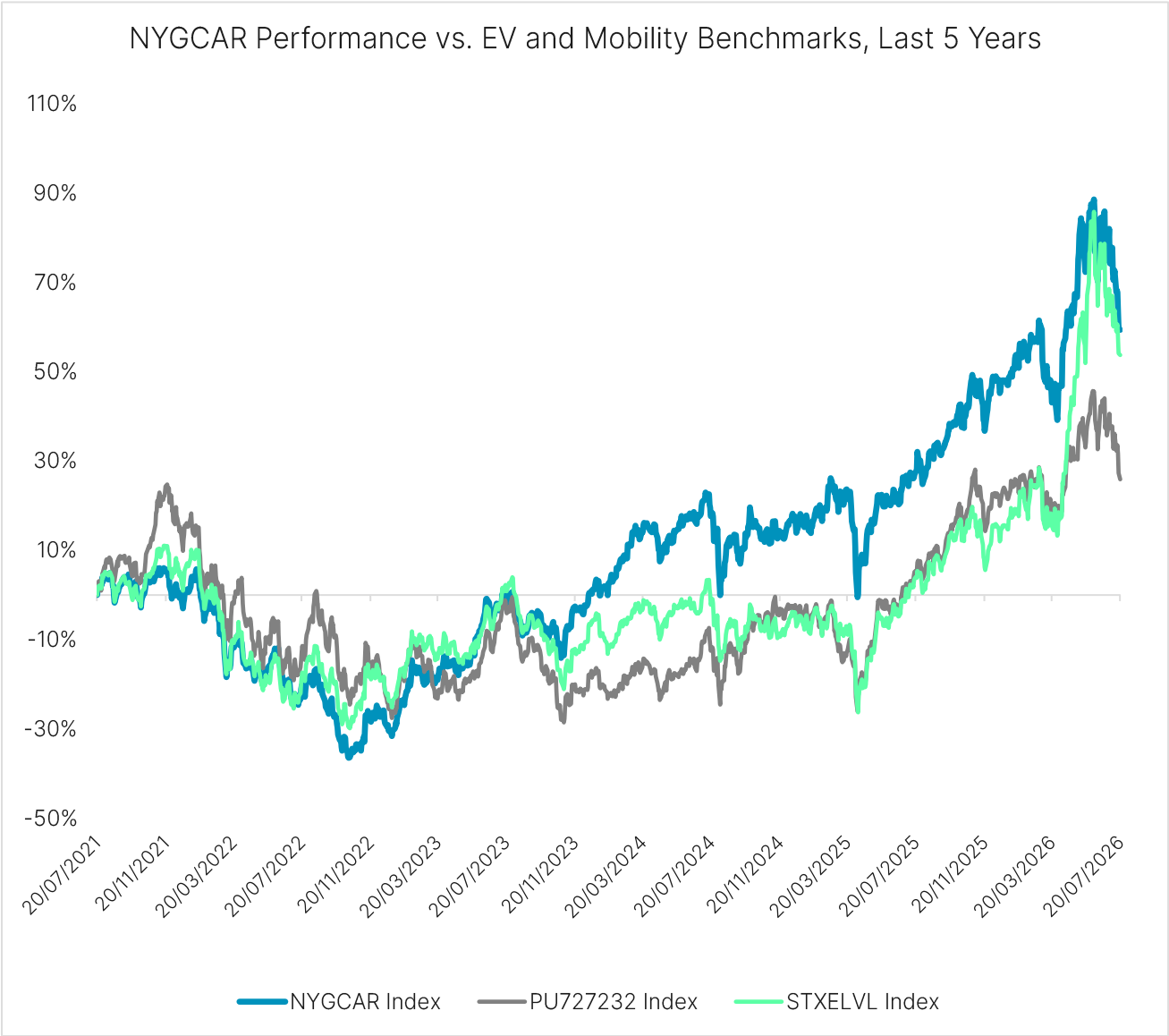
Reflecting this evolution, the July 2026 reconstitution introduced important methodology enhancements designed to broaden the index's representation of the technologies shaping the next phase of mobility innovation.

Strong Relative Performance Across the Future Mobility Landscape

Since its launch on November 12, 2018, NYGCAR has delivered a return of approximately 135.4% (11.8% on an annualized basis). While this highlights the index's strong long-term performance, NYGCAR has also compared favorably against its peer group over more recent periods.

During the five-year period ending July 20, 2026, NYGCAR delivered a cumulative price return of approximately 59.4% (9.8% on an annualized basis), outperforming both the MSCI ACWI IMI Future Mobility Filtered Index (+25.9%) and the STOXX Global Electric Vehicles & Driving Technology Index (+53.8%).

While all three indices experienced volatility during 2022 and early 2023, NYGCAR's performance accelerated from late 2023 onwards, leading to a widening performance gap relative to the peer group. The historical results provide an example of how a patent-driven approach can capture companies participating in multiple innovation trends across the mobility ecosystem.



Source: Bloomberg. Cumulative USD Price Performance. Data from July 20, 2021 to July 20, 2026

PU727232 Index = MSCI ACWI IMI Future Mobility Filtered Price USD, STXELVL Index = STOXX Global Electric Vehicles & Driving Technology Price USD Index

Key Methodology Enhancements

The July 2026 reconstitution introduced a number of methodology enhancements. Key changes are summarized below. For more information, please refer to the [index methodology document](#).

1. Strengthening the Measurement of Innovation: A Two-Year Patent Assessment Window

Beginning with the July 2026 reconstitution, NYGCAR now incorporates patent data from the most recent two-year period, instead of using a single-year lookback. This change is designed to reduce the impact of annual fluctuations in patent activity and better reflect the longer development cycles that often characterize technological innovation.

The enhanced framework may help identify companies that consistently generate intellectual property across NYGCAR's key innovation themes.¹

2. Broadening Security Eligibility

Eligible securities are now required to be constituents of the Nasdaq Global Disruptive Technology Benchmark 2™ Index (NYDTB2™), replacing the previous reference universe.²

In addition to screening all securities in the Nasdaq Global™ Index and any others listed on major U.S. exchanges, the NYDTB2 universe may now also incorporate eligible China A-Shares accessible through the Shanghai-Hong Kong and Shenzhen-Hong Kong Stock Connect programs. As a result, the updated framework broadens the universe from which constituents may be selected and enhances the index's ability to capture innovative companies across global technology markets.

3. Expanding the Future Mobility Opportunity Set

As transportation technologies continue to evolve, the July 2026 methodology update introduces Mobility Connectivity and Shared Mobility as new sub-themes within NYGCAR's innovation framework.

The changes reflect growing investment and innovation in connected transportation networks, vehicle-to-everything (V2X) communication, ride-sharing platforms, and digital mobility services, all of which are playing an increasingly important role in shaping the future of transportation. For additional discussion of these new sub-themes, please see our recent article '[Evolving Mobility](#)'.

In addition, the previous Electric Batteries and Lithium Batteries categories have been consolidated into a broader Advanced Batteries sub-theme. At the same time, Quantum Information & Optics has been removed from the thematic framework.

¹ Autonomous Vehicles, 3D Graphics, Electric Vehicles, Hybrid Vehicles, Advanced Batteries, Mobility Connectivity, and Shared Mobility.

² Nasdaq Global Disruptive Technology Benchmark™ Index (NYDTB™)

4. Enhancing Index Responsiveness: New IPO Addition Policy

To improve the index's ability to reflect developments across the innovation landscape, the methodology now allows qualifying initial public offerings (IPOs) to be added between semi-annual reconstitutions and rebalancing.³

Under the updated methodology, qualifying IPOs can be considered for inclusion through dedicated review windows in April and October, rather than waiting up to six months in between regularly scheduled semi-annual reconstitutions in January and July.⁴

This enhancement reduces the lag between a company's public listing and potential index inclusion, helping ensure that emerging innovators can be reflected in the index more quickly following their entry into public markets.

July 2026 Reconstitution Deep Dive

NYGCAR's patent-driven selection process now begins with the Nasdaq Global Disruptive Technology Benchmark2™ Index (NYDTB2™), a broad universe of companies with patent activity across 39 disruptive technology themes, including artificial intelligence, robotics, automotive innovation, healthcare innovation, new energy & environment, electrification, the Internet of Things, future mobility, and data computing & processing. As of the July 2026 reconstitution, the universe comprised 3,286 securities.

1. The Future Mobility Innovation Landscape

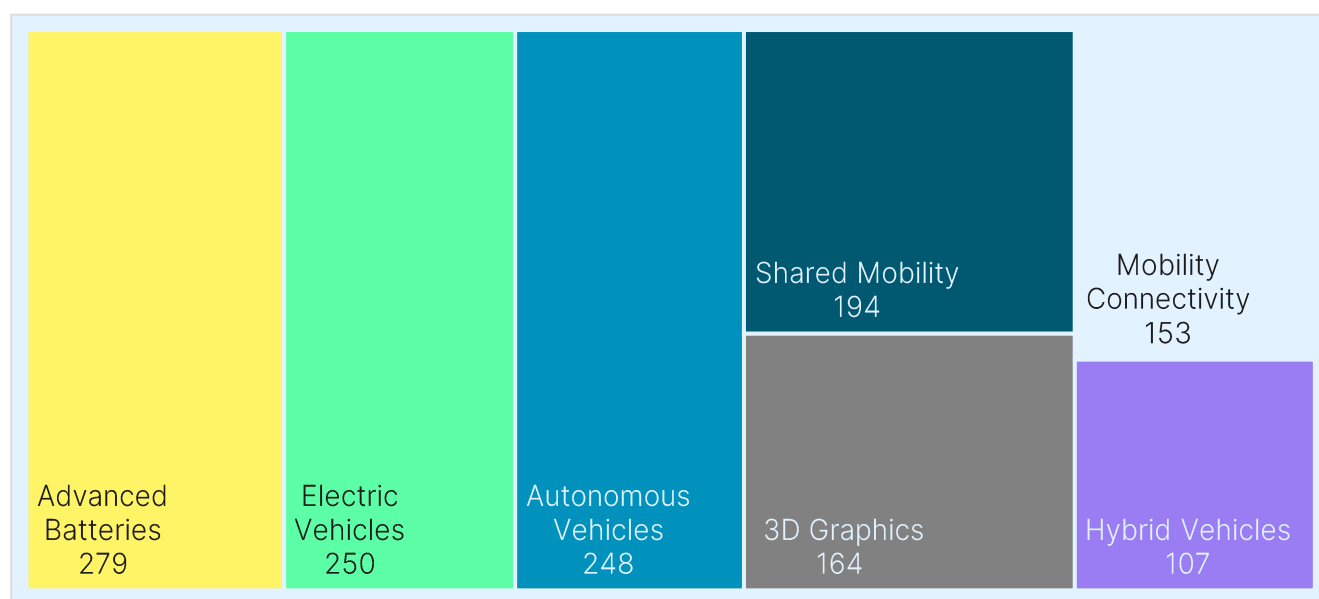
Within the broader NYDTB2 universe, 733 companies exhibited patent activity across one or more NYGCAR patent sub-themes.

The distribution of patent-active companies highlights the breadth of innovation occurring across the future mobility value chain. Advanced Batteries is the largest NYGCAR patent sub-theme, with 279 companies exhibiting relevant patent activity, reflecting continued innovation in energy storage technologies that support the adoption of electric and hybrid vehicles. Electric Vehicles (250 companies) and Autonomous Vehicles (248 companies) also represent significant areas of activity, underscoring the ongoing development of vehicle electrification and autonomous driving technologies.

³ NYGCAR is reconstituted and rebalanced on a semi-annual basis in January and July. During each review, all eligible securities are reassessed against the index's selection criteria. The constituent selection process is applied using data as of the end of November for the January review and the end of May for the July review.

⁴ To be eligible, a company must satisfy the index's security eligibility criteria as of the last trading day of February or August, be included in NYDTB2 effective at the market open on the first trading day following the third Friday of April or October, respectively, and have a float-adjusted market capitalization of at least \$25 billion. If selected, an IPO is added at the market open on the first trading day following the third Friday of April or October. Its initial weight is determined based on float-adjusted market capitalization, subject to a maximum weight of 4.5%, with existing constituent weights adjusted pro rata to accommodate the new addition.

NYGCAR Eligible Constituents: Count of Companies with Patent Activity per Sub-Theme



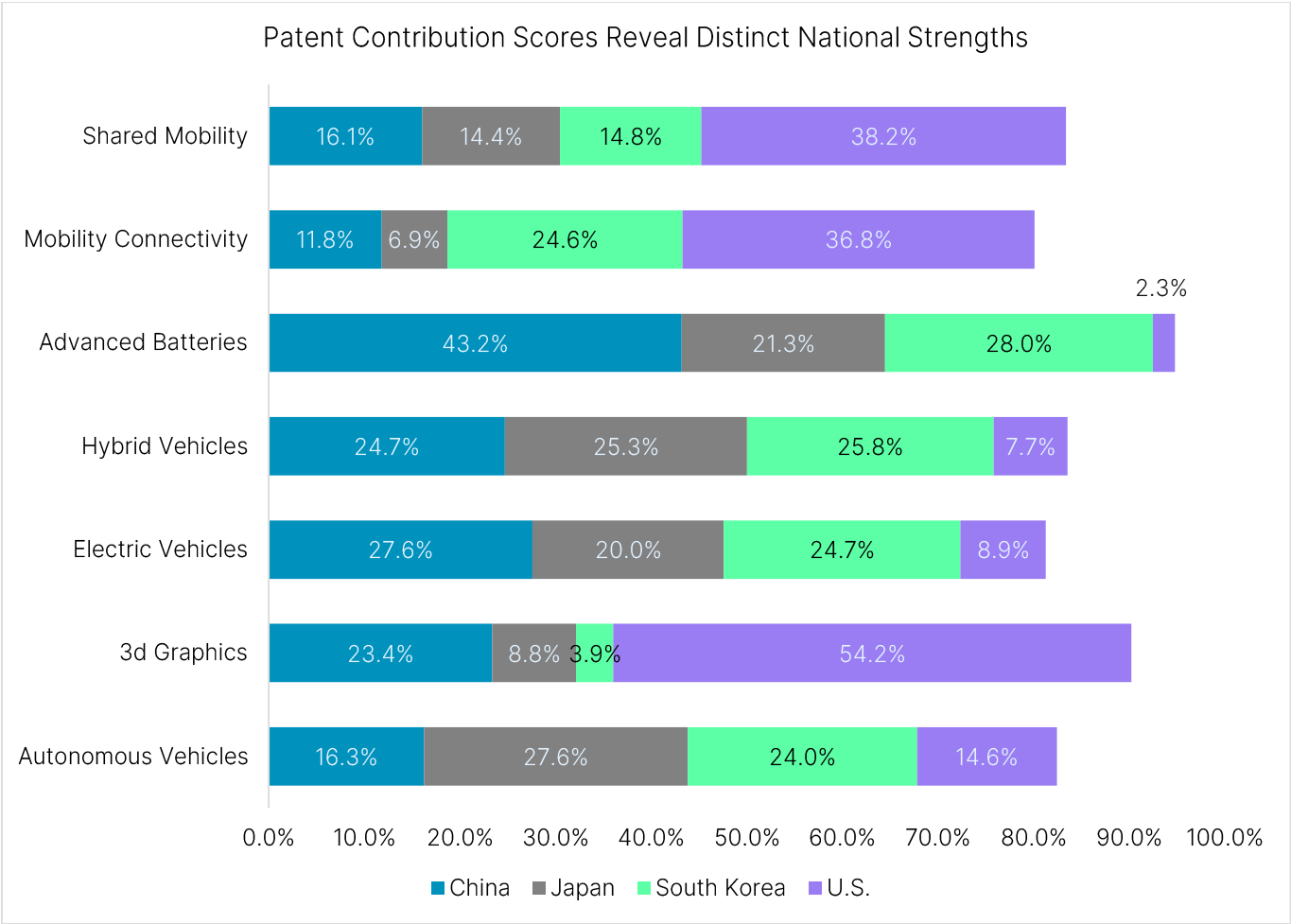
Source: Nasdaq. Patent data as of May 31, 2026. Note - the totals shown for each patent sub-theme are not mutually exclusive and therefore do not sum up to the total number of patent-active companies. A company may exhibit patent activity across multiple sub-themes and can therefore be counted more than once.

The country-level data highlights the geographic breadth of innovation across NYGCAR future mobility themes, while also revealing a high degree of concentration among a small number of countries

	# Patent-active companies	Autonomous Vehicles	3D Graphics	Electric Vehicles	Hybrid Vehicles	Advanced Batteries	Mobility Connectivity	Shared Mobility
China	233	66	48	84	35	97	33	45
U.S.	197	67	62	51	17	36	53	81
Japan	132	44	23	37	21	79	25	21
South Korea	39	16	5	13	8	22	8	9
<i>Total # companies</i>	601	193	138	185	81	234	119	156

Source: Nasdaq. Patent data as of May 31, 2026. Note - the totals shown for each patent sub-theme are not mutually exclusive and therefore do not sum to the total number of patent-active companies. A company may exhibit patent activity across multiple sub-themes and can therefore be counted more than once.

China, the U.S., Japan, and South Korea collectively account for approximately 80% of all patent-active companies identified across NYGCAR sub-themes. China has the largest number of patent-active companies, with 233 companies, followed by the U.S. (197), Japan (132), and South Korea (39). Patent activity is concentrated in different areas across these markets, with China, Japan, and South Korea most heavily represented in Advanced Batteries (97, 79, and 22 companies, respectively), while the U.S. shows its greatest concentration in Shared Mobility (81 companies).



Source: Nasdaq, IFI Claims. Patent data as of May 31, 2026

The patent contribution-score data provides additional insight into which countries account for the largest share of innovation within each sub-theme. Within the patent contribution-score dataset presented, China had the highest contribution score for Advanced Batteries (43.2%) and Electric Vehicles (27.6%). The U.S. leads in 3D Graphics (54.2%), Mobility Connectivity (36.8%), and Shared Mobility (38.2%), highlighting its strong position across digital, connected, and platform-based mobility technologies. Japan has the highest contribution score in Autonomous Vehicles (27.6%), while South Korea leads in Hybrid Vehicles (25.8%), narrowly ahead of Japan and China. Overall, the contribution-score data suggests that NYGCAR captures distinct regional strengths across the future mobility landscape. China is most prominent in battery and electric vehicle technologies, the U.S. leads across more digital and connectivity-oriented mobility themes, Japan

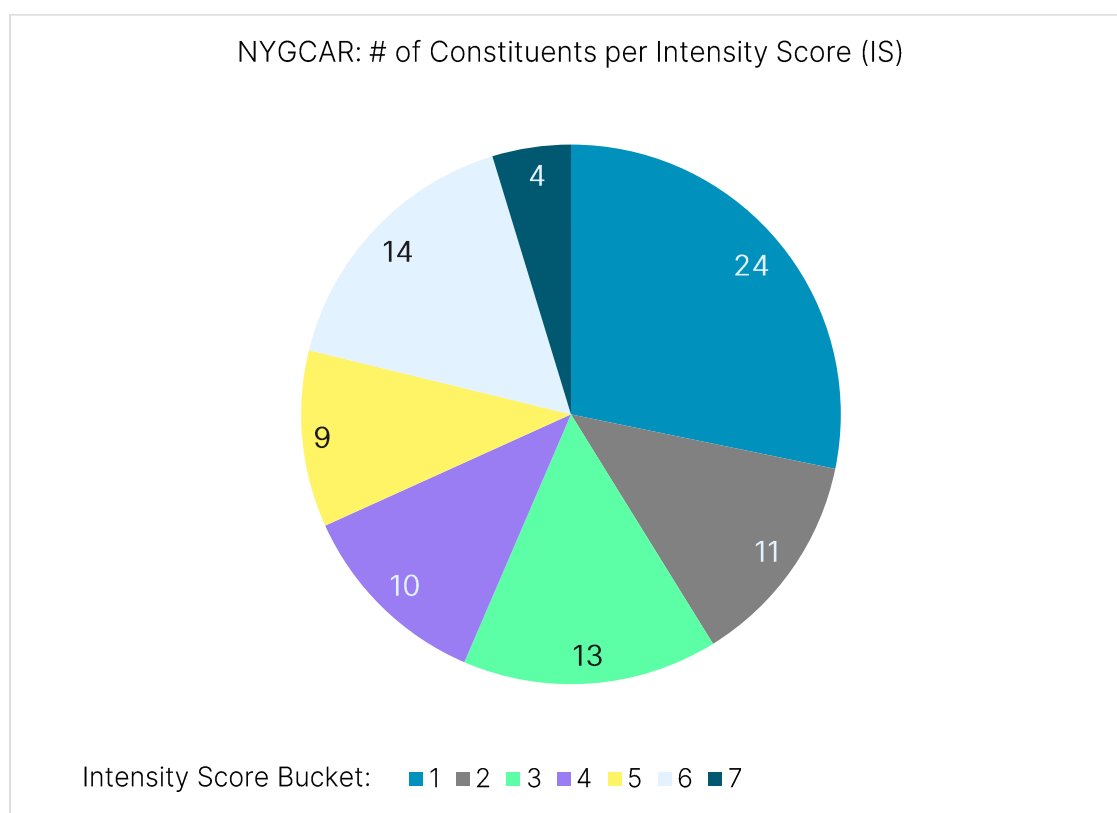
stands out in autonomous vehicle innovation, and South Korea shows strength in hybrid vehicle technologies.

2. Measuring Breadth of Innovation: Intensity Score

A useful way to deepen the patent discussion is to introduce the Intensity Score, which provides an additional lens for assessing the breadth of patent activity across NYGCAR constituents. The Intensity Score measures the number of sub-themes (i.e. relevant technologies with patent filings) with a minimum required level of involvement (max score = 7, min = 1).

Of the 85 index constituents, 50 have patent activity spanning at least three sub-themes. BYD, Denso, Toyota Motor, and Volkswagen achieved the maximum score of 7, indicating patent activity across all future mobility-related sub-themes.

These results suggest that the index is capturing companies at the intersection of several future mobility technologies, reflecting the increasingly connected nature of the transportation ecosystem.



Source: Nasdaq. Patent data as of May 31, 2026.

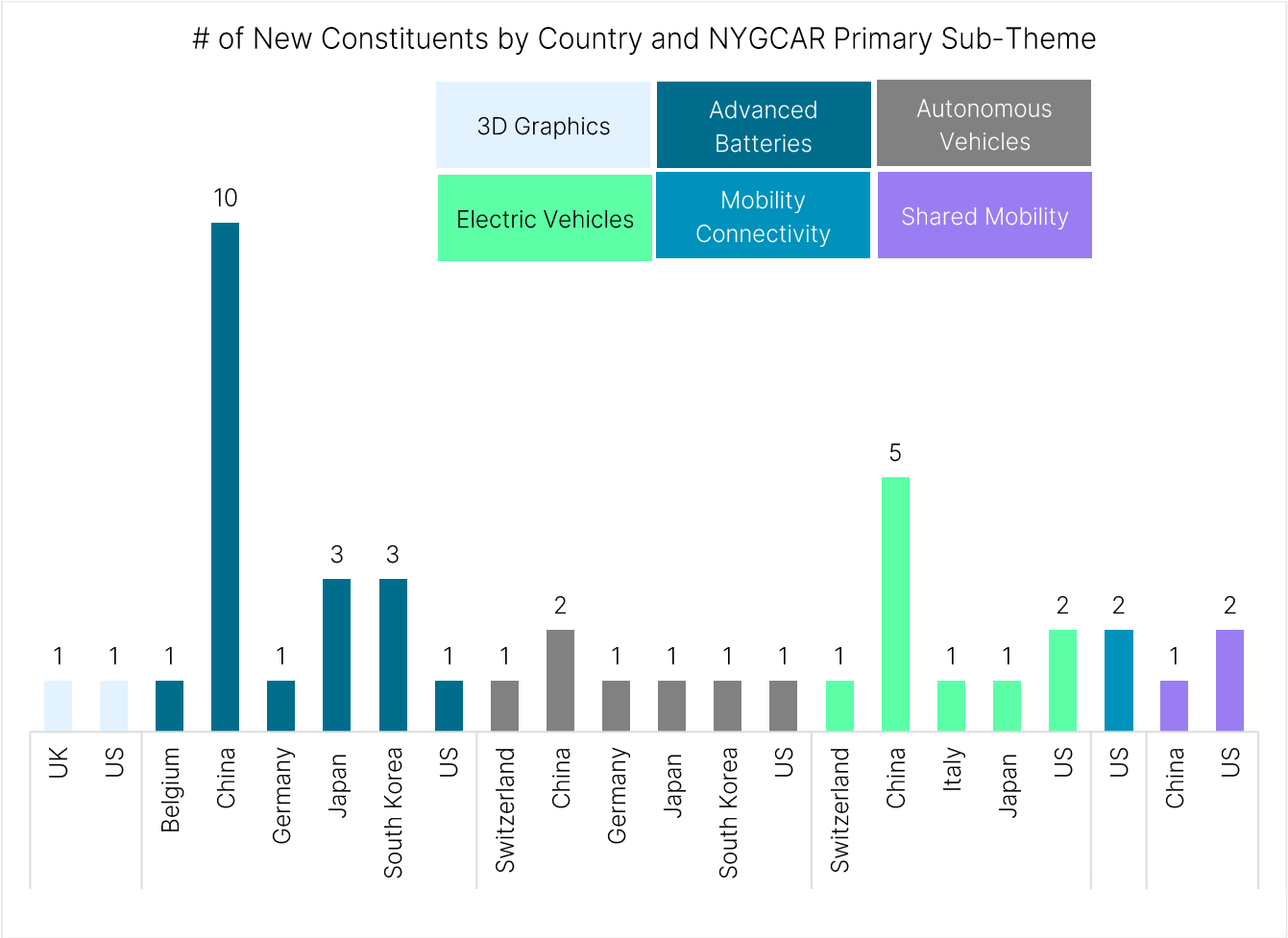
Note: The intensity score is based on the number of sub-themes in which a company demonstrates relevant patent activity across the initial universe. It does not reflect the number of sub-themes for which a company meets the minimum contribution and purity score thresholds used in the constituent selection process.

Having examined the innovation universe that underpins the index selection process, the next step is to evaluate how NYGCAR's patent-driven selection framework, including the July 2026 methodology enhancements, translated these insights into the final index portfolio.

3. Key Changes Following the July 2026 Reconstitution

The July 2026 reconstitution resulted in 43 additions and 17 deletions, reflecting the broader opportunity set introduced through the methodology enhancements and the updated NYDTB2 universe.

China accounted for the largest number of additions (18 companies), followed by the U.S. (9), Japan (5), and South Korea (4). From a weight perspective, however, U.S. additions represented the largest share of the index (16.6%), reflecting the inclusion of several higher-weight companies, while Japanese and Chinese additions contributed 8.5% and 6.1% of index weight, respectively.⁵



Source Nasdaq. Patent Data as of May 31, 2026

Across sub-themes, additions were concentrated in Advanced Batteries (19 companies), Electric Vehicles (10), and Autonomous Vehicles (7), which together represented 36 of the 43 additions, or 84% of the total. China was a major driver of this increase, accounting for 17 of the 36 additions

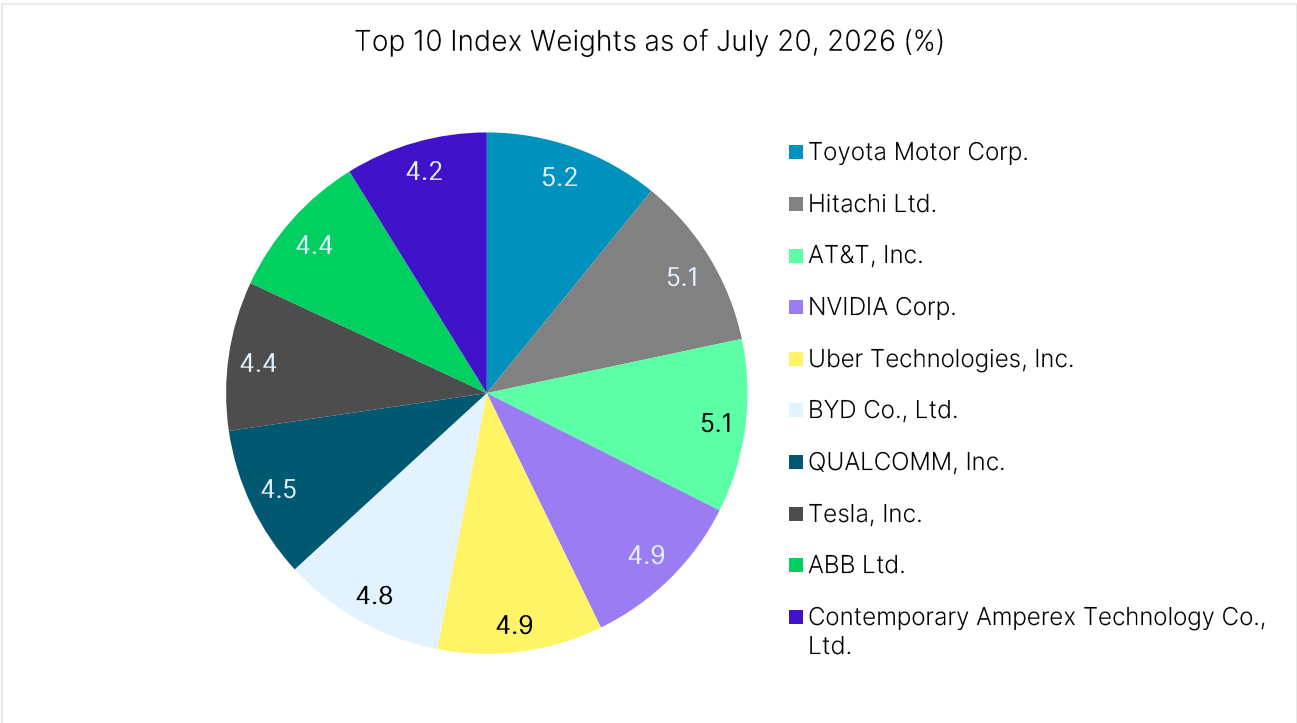
⁵ Weights as of SOD July 20, 2026

across these three sub-themes. Most of the Chinese additions were in Advanced Batteries, with 10 companies, followed by Electric Vehicles with 5 companies and Autonomous Vehicles with 2 companies. This suggests that the methodology enhancements increased NYGCAR's exposure to China's growing leadership across key future mobility technologies, particularly in electric vehicles and advanced batteries.

The introduction of Mobility Connectivity and Shared Mobility broadened NYGCAR's coverage of the future mobility ecosystem. New constituents including AT&T and Itron increased exposure to the connectivity technologies that support connected vehicles and transportation networks, while Uber, Lyft and Shenzhen Urban Transport Planning Center strengthened the index's representation of shared and on-demand mobility models.

Notably, Hitachi (primary sub-theme: Autonomous Vehicles), AT&T (Mobility Connectivity), Uber Technologies (Shared Mobility), ABB (Electric Vehicles), and Contemporary Amperex Technology (Advanced Batteries) entered the index directly among the top 10 holdings following the reconstitution.

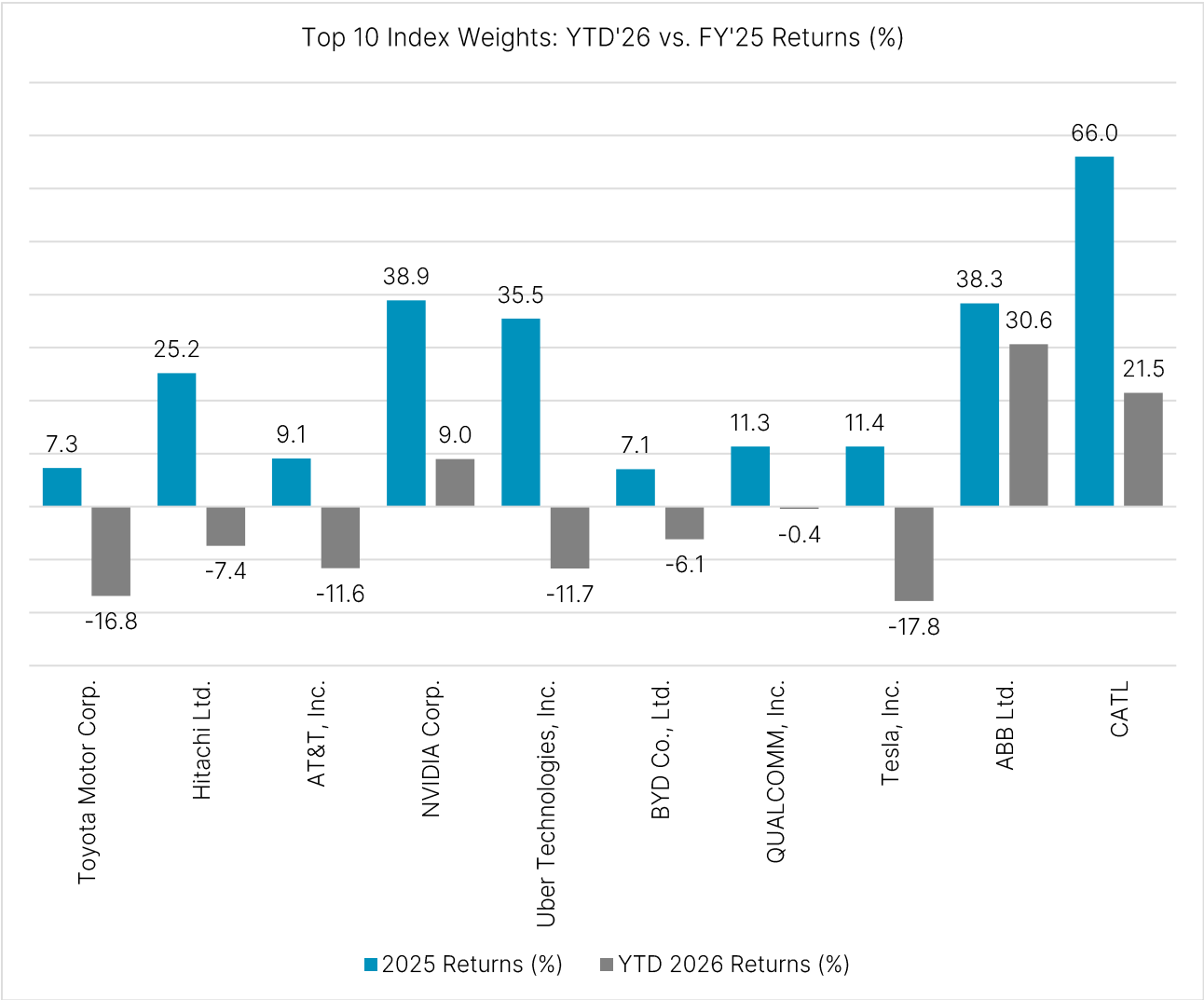
4. The Final Index Portfolio



Source: Nasdaq. Data as of July 20, 2026

The top 10 constituents comprise approximately 48% of the index weight and provide insight into the types of companies identified by NYGCAR's patent-driven framework. The largest positions included Toyota Motor, Hitachi, AT&T, Nvidia, Uber Technologies, BYD, Qualcomm, Tesla, ABB, and Contemporary Amperex Technology (CATL).

Vehicle manufacturers such as Toyota, BYD, and Tesla provide exposure to the electrification and automation of transport, while CATL represents the battery technologies underpinning the transition to electric mobility. Meanwhile, NVIDIA and Qualcomm contribute technologies that support autonomous driving, in-vehicle computing, and connected vehicle platforms. The inclusion of AT&T and Hitachi reflects the growing importance of digital connectivity and smart transportation infrastructure, while Uber highlights the role of shared mobility platforms in reshaping how transportation services are delivered.



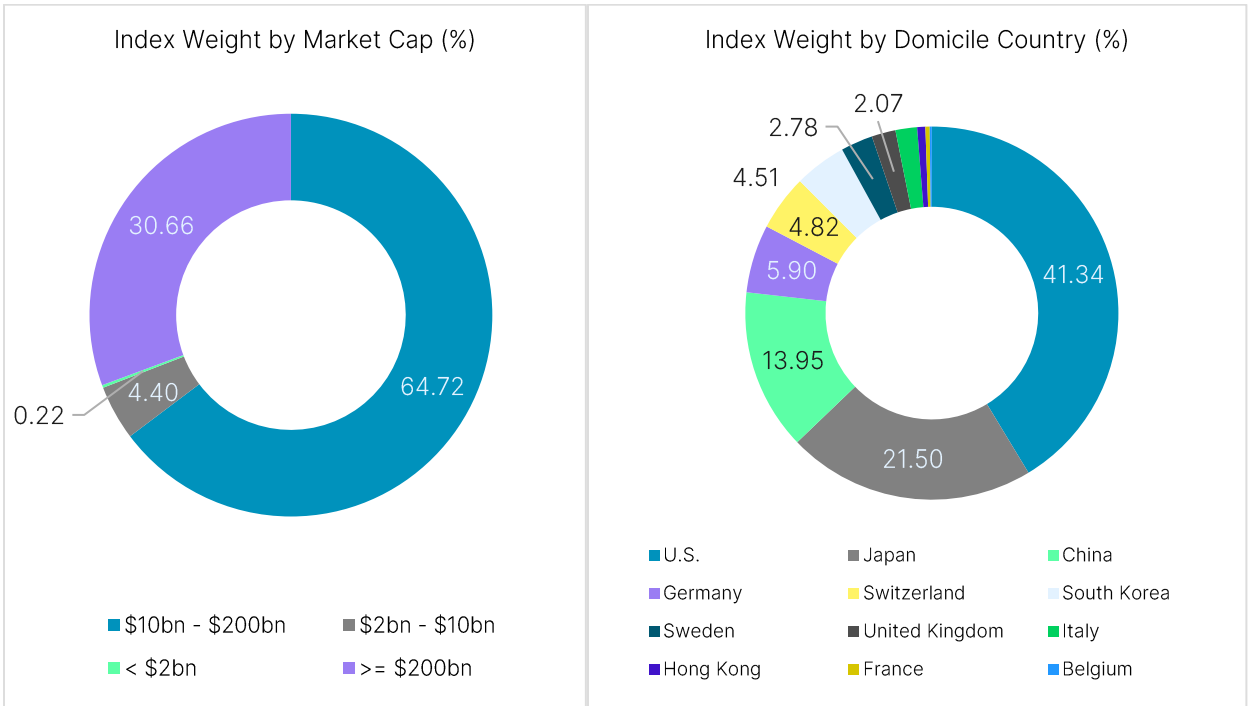
Source: Nasdaq, FactSet. Data as of July 20, 2026 – USD Price Performance

Performance among the top holdings varied considerably. CATL was the strongest performer in 2025, gaining approximately 66%⁶, followed by Nvidia (39%), ABB (38%), and Uber (35%). Momentum remained positive into 2026, with ABB advancing roughly 30% YTD, CATL approximately 21%, and Nvidia around 9%. By contrast, returns were more mixed among several transportation and

⁶ Note Performance as of May 20, 2025 as CATL was listed on the Hong Kong Stock Exchange on 20 May 2025.

mobility platform companies, including Toyota, Tesla, BYD, and Uber, illustrating the diverse drivers influencing performance across the future mobility value chain.⁷

Beyond the top holdings, the index's market-cap, geographic, and sector allocations further highlight how NYGCAR captures a diversified set of innovation across the future mobility ecosystem.

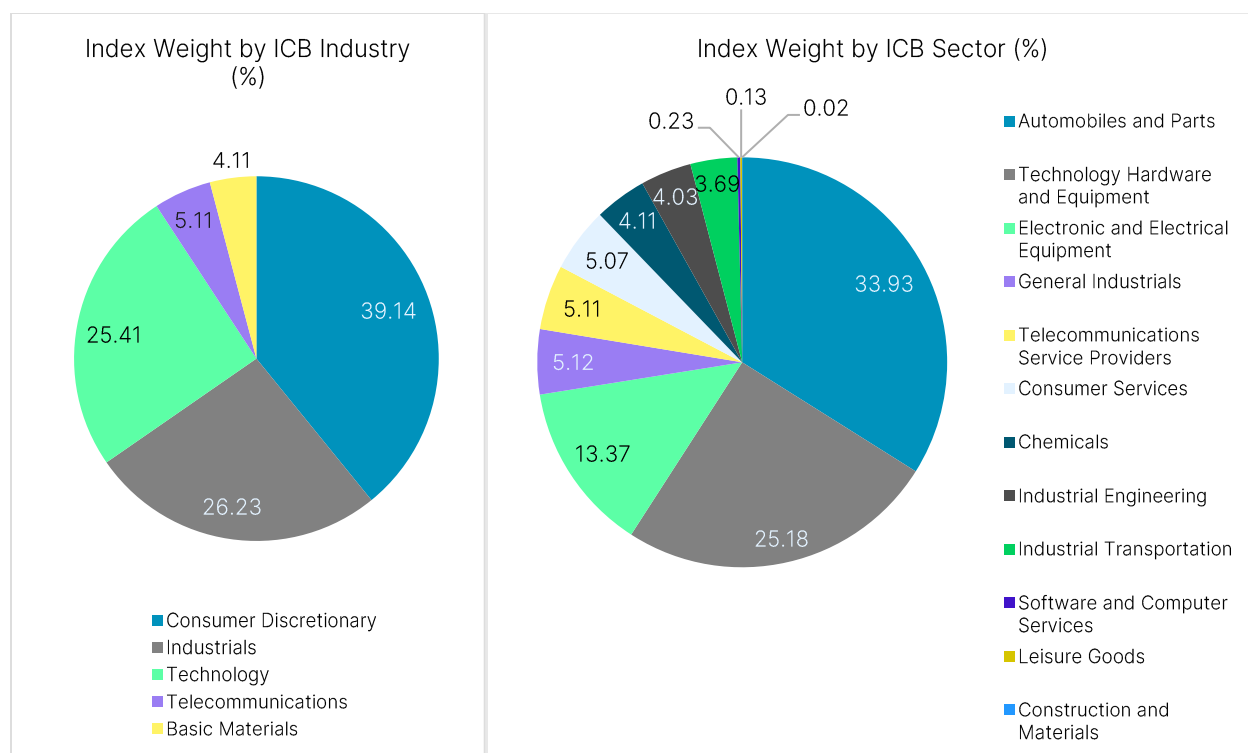


Source: Nasdaq. Data as of July 20, 2026. Market Cap data as of June 30, 2026

NYGCAR maintains a strong large-cap orientation, with companies valued at \$10 billion to \$200 billion accounting for approximately 65% of index weight and mega-cap companies above \$200 billion representing a further 31%. By contrast, mid-cap constituents between \$2 billion and \$10 billion account for around 4%, while companies below \$2 billion represent a negligible share of the portfolio.

Geographically, the index is globally diversified, with the U.S. representing the largest country allocation at approximately 41%, followed by Japan (22%) and China (14%). Collectively, European companies represent roughly 18% of the portfolio, reflecting the region's continued importance in industrial automation, transportation infrastructure, and mobility technologies. The remaining allocation is distributed across markets including South Korea and Hong Kong, resulting in a globally diversified portfolio that captures innovation across multiple regions of the future mobility value chain.

⁷ FactSet. Data as of July 20, 2026



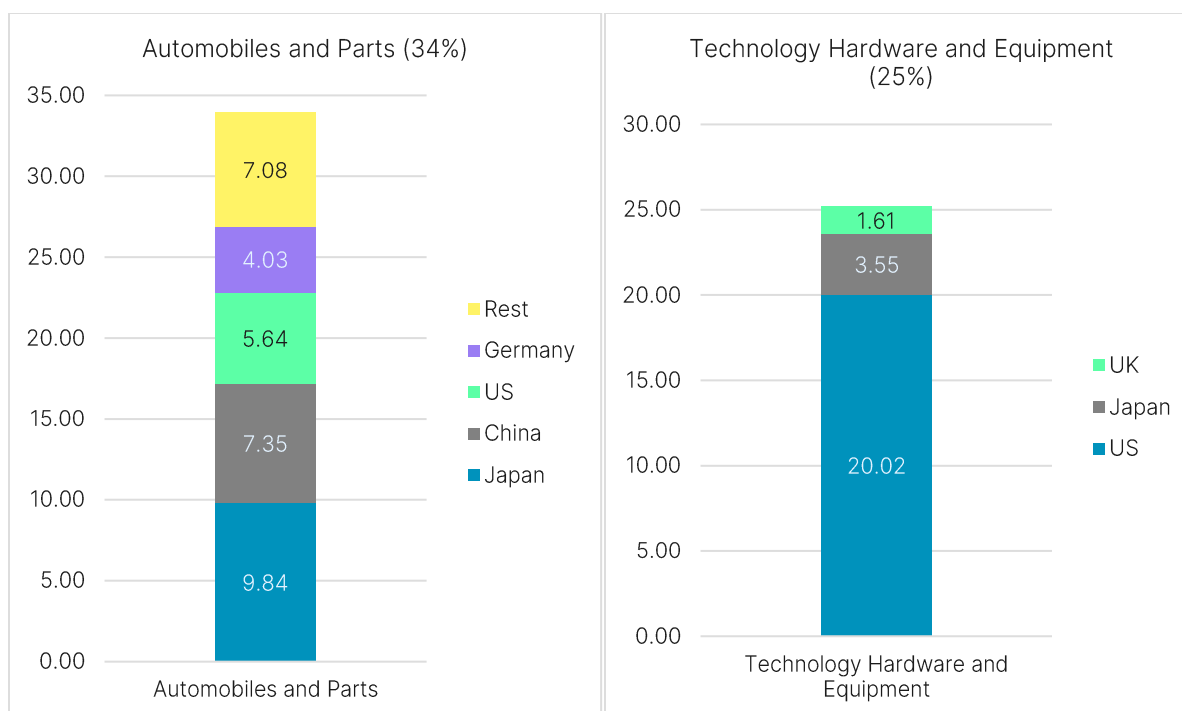
Source: Nasdaq. Data as of July 20, 2026.

The Consumer Discretionary industry comprises the ICB sectors Automobiles and Parts, Consumer Services, and Leisure Goods. The Industrials industry comprises the ICB sectors Electronic and Electrical Equipment, General Industrials, Industrial Engineering, Industrial Transportation, and Construction and Materials. The Technology industry comprises the ICB sectors Technology Hardware and Equipment and Software and Computer Services. The Telecommunications industry comprises the ICB sector Telecommunications Service Providers. The Basic Materials industry comprises the ICB sector Chemicals.

Sector allocations further illustrate the breadth of NYGCAR's exposure to the future mobility ecosystem. Automobiles and Parts represents the largest allocation at approximately 34%, driven primarily by companies from Japan, China, and the U.S., reflecting their leadership in vehicle manufacturing and electrification technologies.

The second-largest exposure, Technology Hardware and Equipment (25%), is heavily concentrated in the U.S., reflecting the importance of semiconductor companies and electronic component manufacturers. Meanwhile, Electronic and Electrical Equipment (13%) is more globally diversified across China, Switzerland, the U.S., Japan, and South Korea.

The remainder of the portfolio is distributed across sectors including General Industrials, Telecommunications Service Providers, Consumer Services, Chemicals, Industrial Engineering, and Industrial Transportation, illustrating that future mobility increasingly depends on a combination of automotive innovation, digital infrastructure, connectivity networks, shared mobility platforms, and supporting industrial technologies.



Source: Nasdaq. Data as of July 20, 2026

Company Spotlight

To demonstrate how the index captures innovation, the following company spotlights examine the patent activity of five recent additions: Hitachi, AT&T, Uber, ABB, and CATL.

1. Hitachi

Hitachi's inclusion in the index reflects its broad exposure to the future mobility ecosystem through both intelligent transportation infrastructure and advanced automotive technologies. Through its majority-owned joint venture Hitachi Astemo, the company develops advanced driver-assistance and autonomous driving systems, vehicle sensing technologies, connected vehicle capabilities, and electrified powertrain solutions. In parallel, Hitachi Rail contributes to the digitalization of transportation networks through signaling, train control, and traffic management systems, while the company's cross-industry Lumada platform supports data-driven mobility services and infrastructure. Together, these capabilities position Hitachi as an enabler of increasingly connected, autonomous, and efficient transportation systems.⁸

Hitachi achieved an Intensity Score of 6, indicating patent activity across six of the seven NYGCAR sub-themes examined. This breadth of innovation highlights the company's diversified exposure to future mobility technologies, spanning autonomous driving, vehicle electrification, mobility

⁸ <https://www.astemo.com/en/>
<https://www.hitachi-automotive.us/Products/oem/DCS/ADAS/index.htm>
<https://www.hitachirail.com/>
<https://www.hitachirail.com/products-and-solutions/digital-asset-management/>

connectivity, battery technologies, and shared mobility solutions. Autonomous Vehicles emerged as the strongest area of innovation, generating the highest Pure Ratio (0.87%) and Contribution Ratio (1.78%), reinforcing Hitachi's position as a significant developer of technologies supporting next-generation transportation systems.

Hitachi	Autonomous Vehicles	3D Graphics	Electric Vehicles	Hybrid Vehicles	Advanced Batteries	Mobility Connectivity	Shared Mobility
Pure Ratio ⁹	0.87%	-	0.38%	0.07%	0.05%	0.07%	0.08%
Contribution Ratio	1.78%	-	0.77%	0.40%	0.06%	0.40%	0.50%

Source: Nasdaq. Patent data as of May 31, 2026

An example of Hitachi's patent activity in autonomous driving is the patent titled 'Work vehicle with manual driving mode, manned automatic driving mode, and unmanned automatic driving mode'. The patent covers an autonomous vehicle control architecture for heavy-duty work vehicles that supports manual driving, manned autonomous driving, and fully unmanned autonomous driving. Its key innovation is the ability to interpret override inputs differently depending on the selected operating mode, enabling seamless human intervention when a driver is present while maintaining autonomous control when no operator is onboard. This provides a framework for coordinating mode transitions in autonomous fleet environments.¹⁰

2. AT&T

AT&T's presence in NYGCAR reflects the critical role of connectivity in the evolution of modern transportation. Through its nationwide wireless networks (4G LTE and 5G), IoT platforms, and connected-vehicle solutions, the company enables the seamless exchange of data between vehicles, infrastructure, and mobility services. As a long-standing provider of embedded cellular connectivity for major automakers, AT&T supplies the communications layer that underpins a wide range of next-generation mobility applications, from vehicle-to-everything (V2X) communication and fleet management to intelligent transportation systems and autonomous driving.¹¹

AT&T's strongest innovation exposure is to Mobility Connectivity, with a pure ratio of 4.06% and a contribution ratio of 3.63%. The company also exhibits exposure to Shared Mobility (1.35% pure ratio

⁹ The Pure Score measures how strongly a company's patent activity is concentrated in a particular AI & Big Data sub-theme relative to its overall patent portfolio. Higher Pure Scores indicate that a larger share of the company's patent activity is associated with a given technology area and therefore provide insight into its relative areas of innovation focus.

¹⁰ <https://patents.justia.com/patent/12179803>

¹¹ <https://about.att.com/story/2026/5g-connectivity-rivian-r2.html>

and 1.21% contribution ratio) and Autonomous Vehicles (1.24% pure ratio and 0.37% contribution ratio).

AT&T	Autonomous Vehicles	3D Graphics	Electric Vehicles	Hybrid Vehicles	Advanced Batteries	Mobility Connectivity	Shared Mobility
Pure Ratio	1.24%	-	-	-	-	4.06%	1.35%
Contribution Ratio	0.37%	-	-	-	-	3.63%	1.21%

Source: Nasdaq. Patent data as of May 31, 2026

The patent titled “Methods, Systems, and Devices for Maintaining Communication Device Connectivity to a Mobile Network Through a Vehicular Ad-Hoc Network”, describes a system that helps vehicles maintain cellular connectivity when direct access to a mobile network is unavailable, such as in tunnels, parking garages, or other obstructed environments. Instead of relying solely on cellular infrastructure, a disconnected vehicle can establish a connection with nearby vehicles using V2X communication technologies, creating a vehicular ad-hoc network (VANET). If a nearby vehicle has cellular coverage, it can relay communications to the network. If not, the system can dynamically connect through additional vehicles until a path to the cellular network is established.

This multi-hop approach enables vehicles to share connectivity and maintain access to services such as navigation, telematics, safety alerts, and other connected vehicle applications. The invention highlights AT&T's focus on strengthening the communications infrastructure that supports connected and autonomous mobility, using cooperative vehicle-to-vehicle networking to improve connectivity in areas where traditional cellular coverage may be limited.¹²

3. Uber Technologies

Uber Technologies operates a global mobility platform connecting riders, drivers, couriers, and merchants. While best known for ride-hailing and food delivery services, Uber has increasingly positioned itself at the center of the future mobility ecosystem, leveraging data, connectivity, and platform scale to transform how transportation services are accessed and delivered. The company is also expanding its role in autonomous mobility through partnerships with firms such as Waymo and Volkswagen, aiming to integrate self-driving vehicles into its ride-hailing network and accelerate the adoption of shared, on-demand transportation.

Uber's patent profile reflects a highly concentrated focus on Shared Mobility and Autonomous Vehicles. Together they account for ~46% of the company's total patent activity.

¹² <https://patents.justia.com/patent/20260025860>

Uber	Autonomous Vehicles	3D Graphics	Electric Vehicles	Hybrid Vehicles	Advanced Batteries	Mobility Connectivity	Shared Mobility
Pure Ratio	17.57%	-	-	-	-	-	28.38%
Contribution Ratio	0.87%	-	-	-	-	-	4.22%

Source: Nasdaq. Patent data as of May 31, 2026

One example of Uber's innovation activity is the patent titled "Optimizing group requests for a network-based service". This patent introduces a more efficient approach to shared mobility by enabling multiple users to coordinate transportation through a single service request. Rather than processing separate ride requests for each individual, the system collects information from all participants, including their pickup and destination locations, and evaluates them collectively. It then identifies the most efficient combination of vehicles, routes, and service providers by considering factors such as traffic conditions, vehicle availability, travel times, wait times, and estimated costs. This allows the platform to improve fleet utilization, reduce inefficiencies, and deliver a more seamless travel experience for groups traveling to or from a common location. The technology is applicable to both traditional ride-hailing services and future autonomous vehicle networks, highlighting Uber's continued focus on enhancing shared mobility through intelligent routing and coordinated transportation solutions.¹³

Additionally, the patent titled "Methods and systems for providing alerts to drivers", highlights advancements in vehicle perception and driver-assistance technologies by combining sensor data, AI-driven video analytics, and real-time alert systems to detect pedestrians and other safety-critical events around a vehicle. By enabling connected and autonomous vehicles to better understand their surroundings and communicate risks to occupants, the technology supports safer and more intelligent transportation systems.¹⁴

4. ABB

ABB is a global industrials company specializing in electrification, automation, and digital technologies. Within the future mobility ecosystem, the company plays an important role through its electric vehicle charging infrastructure, energy management solutions, and connected transportation technologies. ABB partners with vehicle manufacturers, charging networks, fleet operators, and utilities to support the deployment of electric mobility across passenger vehicles, commercial fleets, and public transportation systems.¹⁵

¹³ <https://patents.justia.com/patent/12255966>

¹⁴ <https://patents.justia.com/patent/12257950>

¹⁵ <https://e-mobility.abb.com/en>

ABB	Autonomous Vehicles	3D Graphics	Electric Vehicles	Hybrid Vehicles	Advanced Batteries	Mobility Connectivity	Shared Mobility
Pure Ratio	0.09%	-	0.78%	0.26%	-	0.17%	-
Contribution Ratio	0.03%	-	0.30%	0.30%	-	0.20%	-

Source: Nasdaq. Patent data as of May 31, 2026

Patent data highlights Electric Vehicles as ABB's most significant area of future mobility innovation. The theme recorded the company's highest Pure Ratio (0.78%) and was tied for the highest Contribution Ratio (0.30%), reflecting ABB's strong patent presence in technologies supporting transportation electrification.

More broadly, ABB achieved an Intensity Score of 4, indicating patent activity across four NYGCAR sub-themes: Electric Vehicles, Hybrid Vehicles, Mobility Connectivity, and Autonomous Vehicles.

A recently granted patent further illustrates ABB's commitment to transportation electrification. The patent, titled 'Electric Vehicle Charging Arrangement and Method for Charging an Electric Vehicle', covers an EV charging architecture designed to improve the safety and efficiency of high-power charging systems. ABB's invention manages the flow of electricity more effectively when a vehicle is first connected to a charger by incorporating dedicated pre-charge circuits on both the positive and negative sides of the DC charging system. This approach helps align voltages before charging begins, reducing electrical stress on both charging equipment and vehicle components. The innovation is particularly relevant as charging networks evolve toward higher power levels and faster charging speeds, where managing electrical surges becomes increasingly important. The patent also incorporates features that enhance system resilience and fault protection, supporting more reliable operation and helping maintain performance even if individual components fail.¹⁶

5. CATL

CATL develops electric-vehicle battery technology and energy-storage solutions. Through its advanced battery systems, fast-charging technologies, and battery-swapping infrastructure, the company plays a central role in the electrification of transportation. Its inclusion in NYGCAR reflects the importance of battery innovation and energy infrastructure in enabling the next generation of mobility.¹⁷

Advanced Batteries represents CATL's dominant future mobility sub-theme, with a Pure Ratio of 10.28% and a Contribution Ratio of 20.87%.

¹⁶ <https://patents.justia.com/patent/12654573>

¹⁷ <https://www.catl.com/en/index.html>

<https://theevreport.com/catl-unveils-six-product-battery-lineup-and-integrated-charge-swap-network>

CATL	Autonomous Vehicles	3D Graphics	Electric Vehicles	Hybrid Vehicles	Advanced Batteries	Mobility Connectivity	Shared Mobility
Pure Ratio	-	-	0.47%	0.09%	10.28%	-	-
Contribution Ratio	-	-	1.58%	0.91%	20.87%	-	-

Source: Nasdaq. Patent data as of May 31, 2026

An example of CATL's innovation in advanced battery technology is the patent titled "Supramolecular Ionic Liquid, Solid-State Electrolyte Membrane, Solid-State Lithium Metal Battery, and Apparatus". The patent addresses one of the key challenges in next-generation battery development. Traditional lithium-ion batteries rely on liquid electrolytes¹⁸ that can pose safety risks, while solid-state batteries offer the potential for higher energy density and improved safety but often suffer from low ionic conductivity. CATL's patented technology introduces a novel electrolyte material that enables lithium ions to move more efficiently within a solid-state battery, achieving conductivity levels closer to those of conventional liquid electrolytes.¹⁹

¹⁸ To transport charge. While effective, these liquids are flammable and pose inherent safety risks. Solid-state alternatives promise greater safety and energy density, but they have historically suffered from poor ionic conductivity at ambient temperatures - an obstacle that has slowed their path to commercialization.

¹⁹ <https://patents.justia.com/patent/12542301>

Disclaimer:

Nasdaq®, Nasdaq Global Future Mobility™, and NYGCAR™ are registered and unregistered trademarks of Nasdaq, Inc. The information contained above is provided for informational and educational purposes only, and nothing contained herein should be construed as investment advice, either on behalf of a particular security or an overall investment strategy. Neither Nasdaq, Inc. nor any of its affiliates makes any recommendation to buy or sell any security or any representation about the financial condition of any company. Statements regarding Nasdaq-listed companies or Nasdaq proprietary indexes are not guarantees of future performance. Actual results may differ materially from those expressed or implied. Past performance is not indicative of future results. Investors should undertake their own due diligence and carefully evaluate companies before investing. **ADVICE FROM A SECURITIES PROFESSIONAL IS STRONGLY ADVISED.**

© 2026. Nasdaq, Inc. All Rights Reserved.

Information set forth in this release/communication contains forward-looking statements that involve a number of risks and uncertainties. Nasdaq cautions readers that any forward-looking information is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking information. Forward-looking statements can be identified by words such as “will,” “believe” and other words and terms of similar meaning. Forward-looking statements involve a number of risks, uncertainties or other factors beyond Nasdaq’s control. These risks and uncertainties are detailed in Nasdaq’s filings with the U.S. Securities and Exchange Commission, including its annual reports on Form 10-K and quarterly reports on Form 10-Q which are available on Nasdaq’s investor relations website at <http://ir.nasdaq.com> and the SEC’s website at www.sec.gov. Nasdaq undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.