

Monthly Thematic Series

The Mobility Industry



SOFTWARE-DEFINED MOBILITY: FROM HARDWARE-CENTRIC ECUS TO AI-ENABLED, OTA-DRIVEN PLATFORMS

Executive Summary

We believe the automotive sector is undergoing a structural transition from distributed electronic control units (ECUs) toward software-defined vehicles (SDVs) built on centralized high-performance compute. The transition is being driven by three inter-locking forces: (1) the need to support increasingly complex driver-assist and autonomy functions that demand 30-1,000 Trillions of Operations Per Second (TOPS) of AI compute; (2) the economics of over-the-air (OTA) updates, which transform vehicles into living products and enable recurring-revenue streams; and (3) the emergence of open-source, safety-certified middleware (e.g., Eclipse S-CORE) that reduces development cost and accelerates time-to-market. The net effect is a rapidly expanding software and services revenue base – GM's software & services segment is financially strong and has a subscriber base exceeding 11 m with a parallel surge in capital allocation to AI, cloud, and OTA infrastructure across the industry.

Key Players

Company Name	Ticker	Share Price (\$)	Market Cap (\$B)	Revenue (\$B)	PE Ratio (TTM)	Latest P/S Multiple (x)
General Motors	GM	68.04	64.78	187.44	12.98	0.34

Source: Yahoo Finance Data as of 11/20/2025, Revenue (FY 2024)

Company Name	Description	Disclosed Total Funding (\$M)	Key Investors
Applied Intuition (Private)	Applied Intuition is a leading developer of simulation and software tools that accelerate safe deployment of autonomous vehicles and advanced driver-assistance systems (ADAS). The company provides a comprehensive platform that enables automakers, Tier-1 suppliers, and robotics teams to design, test, and validate perception, planning, and control systems in highly realistic virtual environments. By offering scalable simulation, scenario generation, and analytics, Applied Intuition reduces real-world testing costs and shortens development cycles.	1,200	Andreessen Horowitz, Franklin Templeton, Tribe Capital, General Catalyst, Bond

The SDV Imperative – Centralized Compute Replaces Electric Control Units (ECUS)

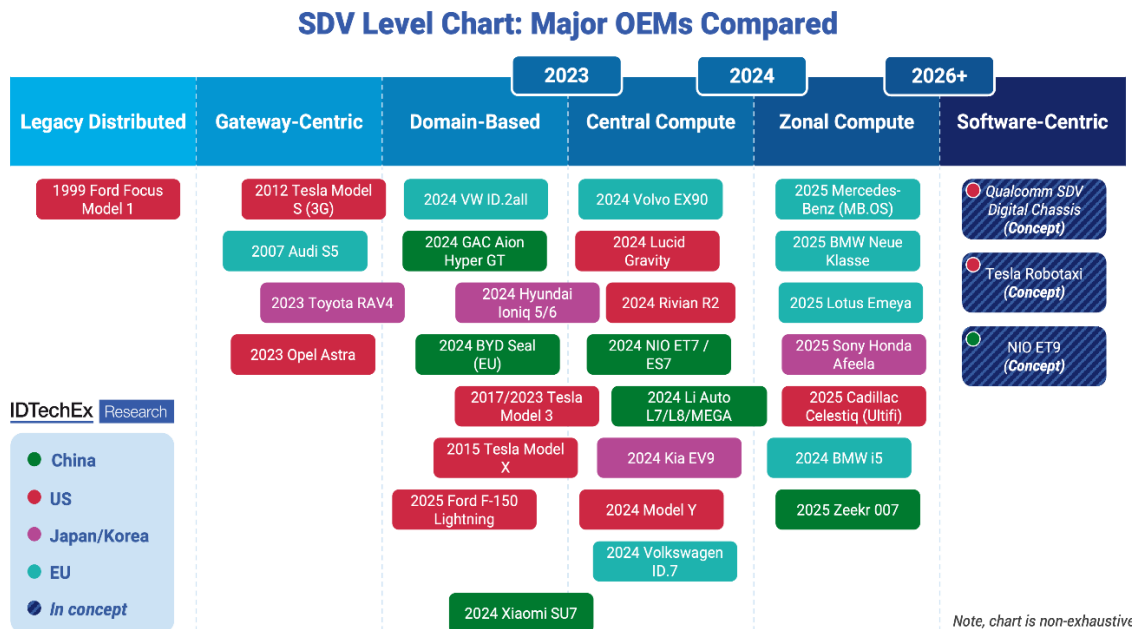
We note that the traditional architecture of 100+ distributed ECUs is being replaced by zone-based or fully centralized compute nodes that consolidate functionality for powertrain, chassis, body-control and cockpit. Centralized platforms such as GM's next-generation stack and Stellantis' STLA Brain, SmartCockpit and AutoDrive systems illustrate the industry-wide move toward a single high-integration compute unit. The benefits are quantifiable: wiring complexity falls by roughly 50 %, Bill of Material (BOM) cost is reduced by an estimated 15-20 %, and OTA update bandwidth expands by a factor of 1,000×, while AI performance gains of up to 35× are reported for autonomy-related workloads. The **2028 Cadillac Escalade IQ will be the first production vehicle to launch a unified, software-defined architecture on both EV and Internal Combustion Engine (ICE) platforms**, confirming that the hardware consolidation trend is now mainstream rather than experimental.

We believe that large language models (LLMs) are the next frontier for in-cockpit interaction. GM's partnership with Google to embed Gemini LLM into vehicle cockpits will enable natural-language dialogue, predictive maintenance alerts and personalized AI companions. This LLM integration is underpinned by a hybrid-cloud model that runs most telemetry workloads in Microsoft Azure and Databricks, while feeding vehicle data into Gemini-tuned models for route planning and user-specific feature recommendation. Parallel to this, **Wayve's AV 2.0** replaces the classic perception-mapping-planning stack with a single end-to-end neural network trained on petabyte-scale, multi-sensor data. The model's sensor-agnostic design (camera-only to mixed LiDAR-radar-camera) allows OEMs to reuse a common base across divergent vehicle architectures, reducing development cost by > 99 % relative to traditional pipelines. Wayve's generative world-model (GAIA) functions as an internal simulator, improving data efficiency and enabling emergent reasoning such as cautious nudging at occluded turns. Both GM's LLM strategy and Wayve's foundation-model approach illustrate the industry's shift from hand-coded logic to AI-driven vehicle intelligence.

We note that fragmented ECU architectures and vendor lock-in are being addressed through open-source, safety-certified middleware. The Safe Open Vehicle Core (S-CORE) provides a Portable Operating System Interface (POSIX)-compliant, ASIL-B-rated stack that delivers deterministic communication, mixed-criticality workload handling and secure OTA update mechanisms. Key capabilities – application isolation, health monitoring, policy-driven execution control and robust rollback – meet the ISO 26262 and UN-ECE 155 (cybersecurity) compliance requirements that OEMs must satisfy. ETAS, a software company and subsidiary of Robert Bosch GmbH, that develops and provides tools, middleware, and services for automotive software, is a core contributor to the Eclipse SDV initiative. The company is developing a production-grade distribution of S-CORE integrated with the Eclipse Vehicle Platform Suite, industry-standard tooling and CI/CD pipelines. The open-core model reduces duplicated effort, accelerates time-to-market and lowers total cost of ownership, creating a clear pathway to the \$200 bn automotive software market projected for 2030. Early adopters such as **Qorix, BMW Group** and **Mercedes-Benz Tech** Innovation have already signaled strong endorsement, suggesting that suppliers that embed S-CORE into their product portfolios will enjoy a competitive moat.

TRATON to capture a sizable share of the autonomous freight market, which is expected to exceed \$150 bn by 2035.

Chart 1: Global OEM Transition Pathways from Legacy Distributed to Software Centric SDV Architectures



Source: IDTechX

OEM Roadmaps – GM, HYUNDAI, STELLANTIS, LUCID, RV Tech And Traton

We believe the strategic trajectories of the major OEMs illustrate convergent themes: centralized compute, AI-driven services, and OTA monetization.

General Motors is embedding Google Gemini LLM, launching the SDV architecture on the 2028 Cadillac Escalade IQ, and targeting 10× OTA update capacity. Its hybrid-cloud strategy (Azure + Databricks) feeds Gemini-tuned models for predictive maintenance and route planning. GM also plans in-house hardware design to tighten control over the SDV stack, and is expanding robotics in its factories via the Autonomous Robotics Center (ARC) and > 100 cobot experts. The home-energy initiative – bi-directional EV-battery storage with solar integration and a 2026 leasing model – exemplifies the move to monetize battery assets beyond mobility.

Hyundai is scaling its Software-Defined Factory (SDF) from a 30 k-unit pilot in Singapore to a 500 k-unit “Metaplant” in Georgia. AI-driven vision QC, autonomous logistics robots, predictive-maintenance algorithms and private 5G connectivity enable a single line to switch among ten model variants within weeks. The “factory operating system” treats every asset as a software-updatable node, mirroring the OTA model used in Hyundai vehicles and delivering operating leverage in a policy-driven, low-tooling cost environment.

Stellantis has partnered with NVIDIA, Uber and Foxconn to develop a Level 4 driverless robotaxi fleet based on the NVIDIA DRIVE AGX Hyperion 10 stack and the AV-Ready STLA Small platform. The initial 5 k-vehicle rollout, slated for 2028, targets U.S. cities and will be operated by Uber, providing Stellantis with an estimated \$225 m upfront sales opportunity and \$300-\$500 m of recurring parts, software and maintenance revenue by 2030. The collaboration leverages NVIDIA’s three-computer stack (DGX training, Omniverse simulation, DRIVE AGX inference) to accelerate model development and validation.

Lucid will integrate NVIDIA DRIVE AGX Thor into its midsize EVs, aiming for consumer-owned Level 4 autonomy by 2027-2028. The partnership includes the use of NVIDIA Omniverse for digital-twin factory optimization, promising lower unit cost and faster scale-up. Lucid’s strategy aligns with its premium positioning; early L4 capability could command a price premium and open software licensing and data-services revenue streams.

RV Tech – the Rivian-Volkswagen joint venture – is building a zonal SDV architecture for the VW ID. The venture combines Rivian’s EV-software expertise with VW’s SSP platform, which is projected to support up to 30 m Group EVs. Early prototypes (Rivian R2) will showcase the joint stack, while the partnership is expected to deliver cost synergies for VW’s EV rollout and accelerate Rivian’s time-to-market.

TRATON (International, Scania, MAN) has teamed with Plus and Applied Intuition to scale SDVs for autonomous trucks. OTA updates enable predictive maintenance and performance optimization, with pilot deployments in Texas slated for H2 2025 and subsequent expansion across the Sun Belt. The focus on Level 4 highway hub-to-hub transport positions

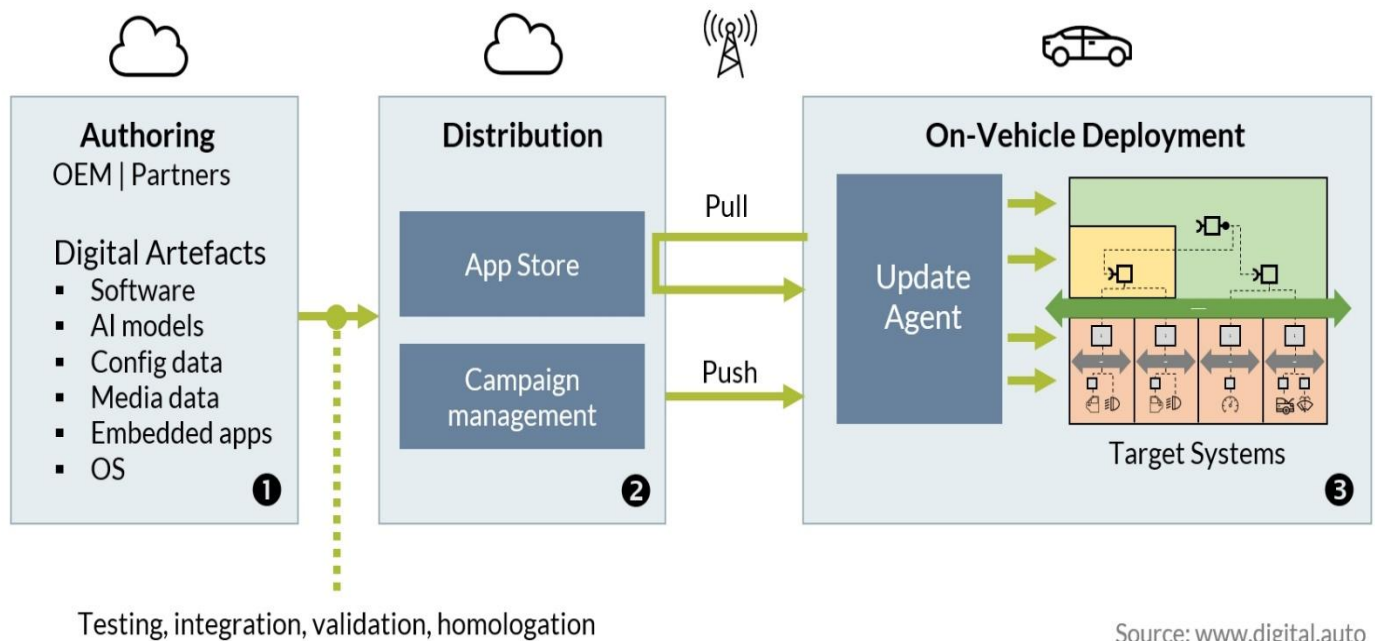
Over the Air (OTA) Infrastructure – From Feature Unlocks to Recurring Revenue

We believe OTA capability is the primary growth engine for software-defined vehicles. GM’s software & services revenue of ~ \$5 bn, with a subscriber base of 11 m (including > 500k Super Cruise users), demonstrates how OTA can be monetized through feature unlocks, subscriptions and data-driven services. Super Cruise has logged > 700 million miles and maps 600,000 mi of road, establishing a foundation for higher-level autonomy. The OTA ecosystem is expanding beyond infotainment to include ADAS upgrades, power-train calibration, battery-management algorithms and even in-cabin comfort features. Industry surveys indicate **OTA penetration will rise from 24 % in 2024 to 78 % by 2030**, effectively doubling the number of OTA-enabled units to ~ 400 m. Subscription-based services now account for roughly 10 % of OEM revenue in the United States, with pricing models averaging €120-€150 per year for premium functions such as adaptive suspension or advanced driver assistance. The shift from one-time hardware sales to recurring software fees is expected to lift gross margins by 3-5 percentage points for firms that master secure, high-frequency OTA pipelines.

We note that the expanding OTA surface dramatically increases cyber-risk exposure. In 2023, > 95 % of automotive attacks were remote, affecting more than 1 m vehicles; notable incidents include the Kia API breach (2024) and BMW infotainment vulnerabilities (2018). Regulatory frameworks such as ISO/SAE 21434, UNECE WP.29 and the

EU Cyber Resilience Act now mandate end-to-end encryption, dual-image bootloaders, signed payloads and continuous threat intelligence. Secure OTA stacks must support A/B partitioning, staged rollouts, delta compression ($\geq 80\%$ reduction in download size) and full audit trails to meet both safety (ISO 26262) and cybersecurity standards. Tier-1 providers such as T-Systems, BlackBerry QNX and emerging specialists like Karamba Security are positioning themselves as managed OTA security platforms, offering vSOC services and real-time anomaly detection. OEMs that fail to embed security-by-design risk multi-billion-dollar recall costs, brand erosion and potential exclusion from regulated markets.

Chart 2: OTA Updates: The Core Enabler of Dynamic, Software-Defined Vehicle Enhancement



Source: Digital.Auto, SDV Guide

Recent OEM-Level OTA and Subscription Deployments

We believe that OTA capability fundamentally alters the economics of vehicle recalls. In 2025, Ford recorded 94 recalls, the highest in a single year, highlighting the rising recall risk as software content per vehicle expands. Software-related recalls rose 35 % YoY to 13 million units in 2024, with per-vehicle remediation costs ranging from \$300 to \$2,000. **OTA can reduce these costs by 60-80 % by eliminating dealer labor and parts logistics, compressing deployment time from weeks to hours.** Early-stage OTA fixes enable proactive fleet-wide diagnostics, catching anomalies before they trigger regulatory action. OEMs lacking robust OTA pipelines face escalating exposure; each additional ECU in an SDV raises defect probability, and a single firmware bug can generate billion-dollar liabilities. Consequently, investors should prioritize exposure to OTA technology providers and OEMs with documented OTA roadmaps.

Supplier Competitive Landscape – Compute, Sensors and Perception Stacks

We note that the compute market is bifurcated between high-performance, premium solutions and cost-sensitive offerings. Nvidia leads with Drive Orin (254 TOPS) and the upcoming Thor ($\approx 2\,000$ TOPS) platform, bundling a full software stack (CUDA, Omniverse, perception libraries) but at a price point that limits mass-market penetration. Qualcomm's Snapdragon Ride (≈ 30 TOPS) targets L2/L3 deployments with a low-power envelope and integrated 5G/V2X, already present in BMW, GM and Stellantis models. Mobileye's EyeQ 6 (34 TOPS) and upcoming EyeQ Ultra (176 TOPS) provide a closed ecosystem with a massive data moat (> 100 m vehicles). Chinese AI chips such as Horizon Journey 5 (96 TOPS) are gaining domestic OEM share, potentially fragmenting the global supply chain. The

emergence of in-house silicon (Tesla FSD, Mercedes-Nvidia semi-custom) illustrates the incentive for OEMs to vertical-integrate compute to improve cost-performance ratios.

On the sensor side, 4D imaging radar and solid-state LiDAR are on a cost trajectory toward \$200-\$500 per unit by 2027-2030. Chinese LiDAR firms (Hesai, RoboSense, Livox, Seyond) already hold ~60 % of global market share through aggressive pricing and OEM tie-ups, challenging legacy Tier-1s. In-cabin monitoring systems (DMS/OMS) are projected to capture >30 % of new-car cabins by 2030, driven by EU General Safety Regulation and Chinese GB standards, creating an additional revenue stream for sensor and AI providers.

Regulatory And Safety Frameworks – Compliance as a Gatekeeper

We believe that regulatory mandates are accelerating the shift to SDVs. The EU UN-ECE 155 (cybersecurity) and ISO 26262 functional-safety standards, together with upcoming UNECE WP.29 OTA-security requirements, compel OEMs to embed secure update mechanisms from design through deployment. In North America, the DOT's AV 4.0 framework and NHTSA's crash-reporting mandates push for higher-level autonomy and data transparency. The UK Automated Vehicles Act 2024 separates producer and user liability, while Japan and China are moving toward Level 4 public-road approvals. These regulatory pressures create a cost premium for compliant middleware (e.g., S-CORE) and secure OTA pipelines, but also open a barrier-to-entry that favors suppliers with proven safety cases and certification expertise.

Global Maturity Framework – Phases of SDV Adoption

We note that **HERE Technologies** and **Omdia's SDV Maturity Framework** defines four sequential phases: Connected (Phase 1, mass adoption 2026-27), Augmented (Phase 2, 2027-30), Adaptive (Phase 3, 2030-35) and Agentic (Phase 4, 10+ years). A survey of 647 experts shows most OEMs are still in Phase 1, with only a minority reaching Phase 2. Regional divergence is evident: Chinese and broader APAC OEMs anticipate reaching Phase 3 by 2030-35, whereas European and North-American OEMs project Phase 4 timelines, indicating a slower transition to fully adaptive platforms. The implication for investors is clear: early movers in Phase 2-3 can capture higher margins through subscription-based services, while suppliers that enable modular, OTA-ready architectures will benefit from the shift toward open ecosystems, especially in APAC.

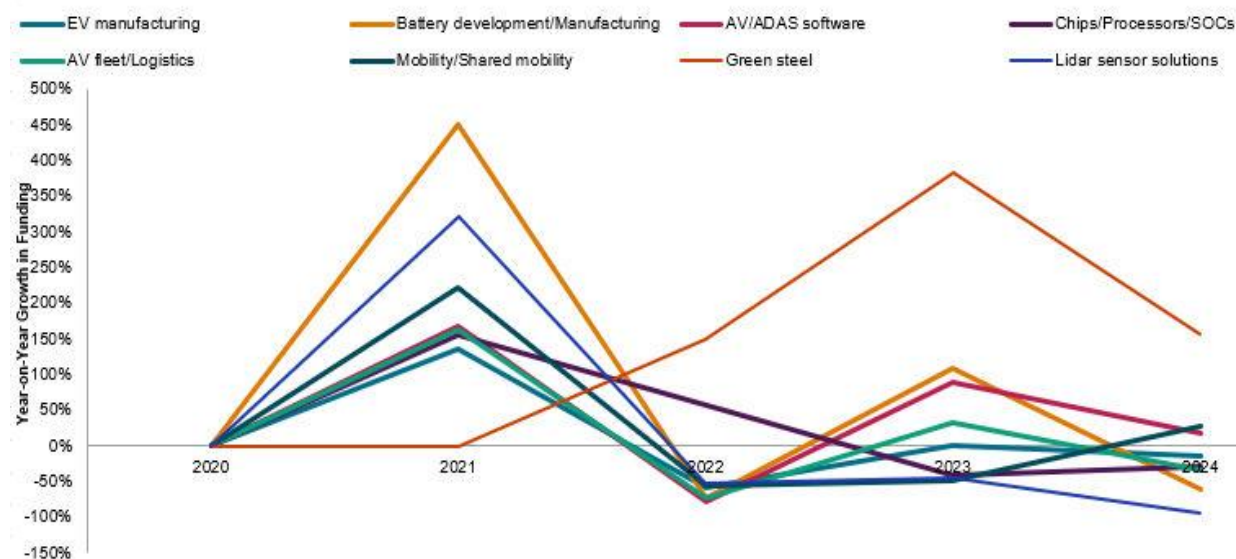
Recent Investments in Software-First Initiatives

As per a S&P Global Report, global mobility innovation is being reshaped by a new wave of automotive startups, with activity heavily concentrated in software-defined vehicles (SDVs), battery technologies, and autonomous driving. Patent filings from 2020–24 show that nearly 60% of startup R&D centers on SDV software, ADAS, cybersecurity, and advanced battery chemistries. Despite consolidation in mature domains like autonomy and batteries, early-stage momentum remains high, with two-thirds of startups founded since 2020 still in nascent stages. Strategic partnerships with OEMs and tech firms—particularly Nvidia, BMW, Toyota, and Hyundai—underscore that software, compute, and electrification capabilities will define competitive advantage, positioning SDV-focused startups as the most influential drivers of the future mobility landscape.

We note that OEMs are allocating multi-billion-dollar budgets to software. GM has earmarked \$35 bn through 2025 for EV and autonomous software; Mercedes-Benz has committed >€60 bn (2022-2026) to digitalization; Ford plans \$50 bn through 2026 for EVs and core software. Software now represents ≥25 % of OEM R&D spend and is the primary lever for brand differentiation. Joint ventures such as Volkswagen-Rivian (\$5.8 bn) and VW's acquisition of Navistar (\$3.7 bn) underscore the strategic importance of in-house software platforms. Suppliers that secure early participation in open, safety-oriented platforms (e.g., ETAS, Eclipse Foundation, QNX, Linux automotive vendors) are likely to capture outsized upside as the industry standardizes on open, secure middleware.

Chart 3: Strong Funding for Electrification & SDVs; Lighting and Thermal Management Trail

Recent funding growth trend across specializations (base year 2020)



Source: S&P Global : Automotive startups: Shaping the Future of Mobility

We note that the SDV shift is generating a new revenue frontier. **Global automotive software spend is projected to rise from \$41 bn in 2025 to \$59 bn by 2030, a CAGR of ~ 8 %. Software & electronics revenues are expected to triple to \$240 bn by 2030, driven by OTA-enabled feature upgrades and subscription services.** Centralized compute hardware (zone controllers, central CCUs) is projected to generate \$30-\$50 bn of annual recurring revenue by 2035, underpinned by OTA updates, service-oriented architectures and subscription models. The automotive-software market size of \$200-\$600 bn by 2030, as estimated by multiple sources, provides a sizable upside for firms that capture even modest market share.

We believe that regional dynamics will shape the pace of SDV adoption. In APAC, Chinese OEMs anticipate reaching Phase 3 (Adaptive) by 2030-35, leveraging domestic AI chips and aggressive cost-reduction in LiDAR. Europe's regulatory environment, with mandated ADAS features (AEB, DMS) by 2024-2025, drives higher safety-feature penetration, but the transition to Phase 4 (Agentic) is expected to lag behind APAC. North America shows a focus on highway-only Level 3/4 pilot deployments (e.g., GM Super Cruise, Stellantis-Uber robotaxi) and higher-margin subscription services. India's two-wheeler market is also moving toward OTA, with Hero MotoCorp's Excelfore partnership and Tata Technologies' SDV hub (in collaboration with Synopsys) positioning the country as a global software-validation center. Investors should monitor policy shifts, tariff volatility and supply-chain resilience, especially in regions where open-supplier ecosystems are emerging.

Investment Themes and Valuation Considerations

We believe three investment themes emerge from the analysis:

- Tier-1 Software and Semiconductor Enablers** – Firms delivering centralized compute (Nvidia, Qualcomm, AMD, JOYNEXT), safety-certified middleware (Eclipse S-CORE, ETAS), and perception stacks (STRADVISION-AMD) will benefit from OEM spend on SDV platforms. Valuation metrics should focus on software-related revenue growth, OTA update frequency, and the proportion of high-performance compute in the product mix.
- Cloud, Edge and OTA Infrastructure Providers** – Companies that supply secure OTA pipelines, cloud data-processing (Microsoft Azure, Databricks, AWS), and cybersecurity services (T-Systems, Karamba Security) are positioned to capture recurring-revenue contracts as OEMs outsource OTA and security operations. Revenue multiples are likely to compress as contracts become multi-year and scale with the projected 400 m OTA-enabled vehicles by 2030.

3. **Mobility-as-a-Service and Subscription Platforms** – OEMs and technology partners that monetize features via FaaS (e.g., GM's Super Cruise, BMW's adaptive suspension) and integrate usage-based insurance, in-vehicle commerce and data-services will see higher gross margins and improved cash conversion. Investors should track subscriber counts, average revenue per user (ARPU) and churn rates as leading indicators of long-term profitability.

Conclusion

We believe the convergence of centralized high-performance compute, open-source safety-certified middleware, and large-model AI is redefining the automotive value chain. OEMs that successfully execute SDV strategies will unlock recurring-revenue streams, improve gross margins and mitigate recall risk through OTA. Suppliers that embed S-CORE, provide secure OTA infrastructure, or deliver AI-optimized perception silicon are positioned to capture a disproportionate share of the \$200-\$600 bn software market projected for 2030. Conversely, firms that lag in OTA capability, cybersecurity investment or open-source integration risk higher recall costs, regulatory penalties and erosion of brand equity. **Our recommendation is to overweight exposure to OEMs with documented Phase 2-3 SDV milestones, Tier-1 software/compute providers with proven automotive safety certifications, and cloud/OTA security firms** that have secured multi-year contracts with leading manufacturers. The upside potential is significant, but it is contingent on disciplined execution, robust cybersecurity postures and the ability to monetize software at scale.

Company Spotlights



General Motors Company (NYSE: GM)

Accelerating Value Through AI-Driven Vehicles and Software Platforms

GM designs, builds and sells trucks, crossovers, cars and parts worldwide under the Buick, Cadillac, Chevrolet, GMC, Baojun and Wuling brands. It reaches retail, fleet and government customers through dealers, offers financing, after-sale services and software-enabled subscriptions, and operates the Cruise autonomous-vehicle unit.

- **AI-enhanced manufacturing:** The expanded partnership with NVIDIA brings Omniverse digital twins and AI-driven robotics to GM's factories. Expected outcomes include a 5-7 % reduction in cycle time and 3-4 % lower warranty/repair costs, which should improve operating margins on high-volume platforms.
- **Unified, OTA-updatable software stack:** A consolidated electrical architecture is being rolled out across the portfolio—from the Chevrolet Equinox to the GMC Sierra EV—enabling rapid feature deployment, personalization and recurring software revenue. Deferred software revenue grew 90 % YoY to \$5 bn, underscoring the monetization potential.
- **Premium ADAS expansion:** Super Cruise, GM's Level-2 hands-free system, is slated to cover 750,000 mi of North American roads by year-end, adding hands-free trailer assistance and automatic lane changes. The system's safety record (zero crashes attributed to Super Cruise) supports premium pricing and brand differentiation.
- **Roadmap to higher-level autonomy:** Integration of NVIDIA DRIVE AGX hardware, lidar-centric sensor suites and Cruise's autonomous stack positions GM for personal autonomous vehicles (PAVs) and the 2028 "eyes-off" hands-free driving on the **Cadillac Escalade IQ**. We believe successful execution could open new revenue streams from software subscriptions and data services.
- **Emerging software & energy services:** GM's software-enabled services generated \$2 bn in Q3 2024, up from \$1 bn in 2021, while the upcoming lease-based Energy Home System (2026) targets the residential market, creating a potential counter-balance to EV battery cost pressures.

We believe the convergence of AI-driven manufacturing efficiencies, a scalable OTA software platform and a differentiated ADAS/autonomy strategy provide GM with multiple levers to enhance margin expansion and generate recurring software revenue, while execution risk remains tied to integration complexity and regulatory approval of hands-off driving.



Applied Intuition (Private)

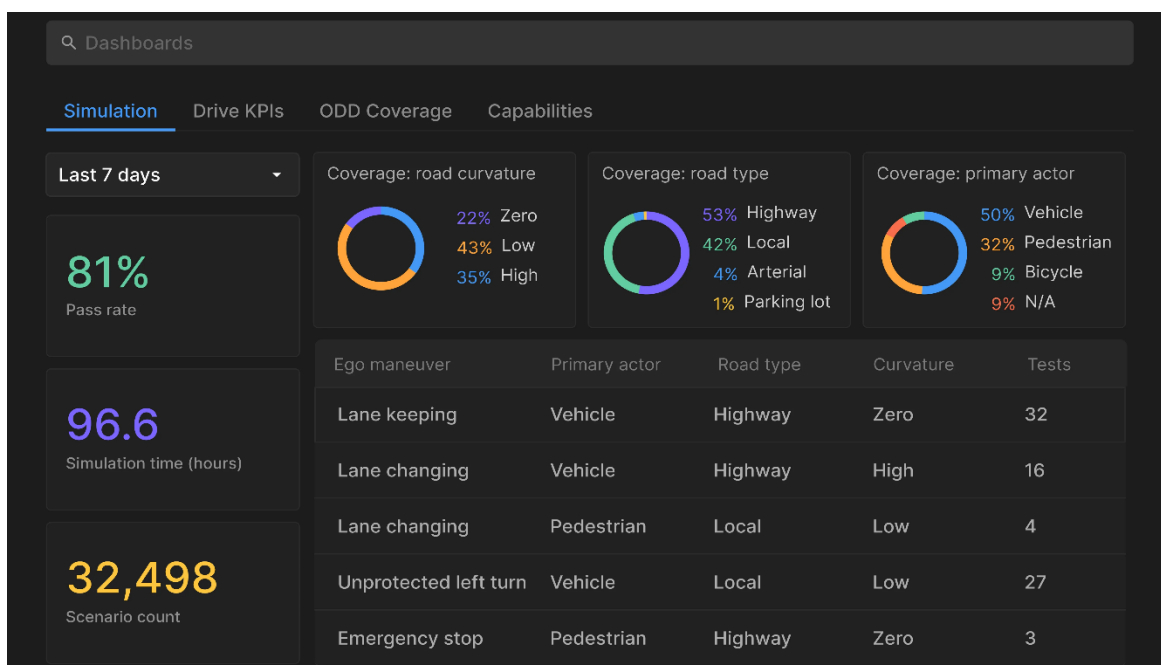
AI-Driven Vehicle-Intelligence Platform Gaining Multi-Sector Traction

Applied Intuition (AI) provides a modular software stack—including a Vehicle OS, autonomous-driving system, and high-fidelity simulation tools—that enables rapid development, validation, and deployment of ADAS and higher-level autonomy across automotive, defense, and industrial vehicle markets. The platform supports both legacy and new hardware through open APIs and a flexible licensing model.

Investment Highlights

- **Broad, high-value customer base** – The firm’s tools are deployed by 18 of the top 20 global automakers and multiple Department of Defense programs, creating significant switching costs and cross-sell opportunities.
- **End-to-end, white-box autonomy stack** – The newly launched Self-Driving System (SDS) offers transparent, sensor-agnostic architecture that can deliver L2++ today with a roadmap to L3/L4, differentiating it from opaque “black-box” competitors and appealing to OEMs seeking regulatory compliance.
- **Scalable simulation and data infrastructure** – Applied Intuition’s unified platform ingests hundreds of petabytes, generates synthetic scenarios, and provides virtual-testing coverage that reduces program timelines from ~4 years to 12 months, thereby lowering development costs and accelerating time-to-market.
- **Diversified revenue streams and recurring model** – Licensing, SaaS-style simulation-as-a-service, and integration services are positioned to generate recurring fees; early OEM pilots could add \$50-\$100 M of top-line revenue in FY 2026, with potential ARR of \$300-\$400 M by 2028 if L3/L4 modules mature.
- **Strategic partnerships expanding addressable markets** – Recent collaborations—including a cabin-intelligence infotainment platform with **Stellantis**, an LLM integration with OpenAI, and maritime simulation integration with Kraken—extend the company’s footprint into infotainment, large-language-model services, and autonomous maritime defense, broadening its market beyond passenger vehicle.

Chart 4: Applied Intuition Copilot: AI Chatbot



Source: Applied Intuition

APPENDIX

Alpha Picks



Tesla, Inc. (NasdaqGS: TSLA)

EV Sales Driving Growth

Tesla, Inc. presents a compelling investment opportunity, driven by its diversified business model, growth prospects in the electric vehicle and energy sectors, and advancements in autonomous technology. **We believe that Tesla's strategic direction, focus on innovation, and improving operational efficiency position the company for long-term success.** Tesla's business model spans two segments: Automotive, and Energy Generation and Storage. The Automotive segment offers electric vehicles, automotive regulatory credits, and related services, while the Energy Generation and Storage segment engages in the design, manufacture, and sale of solar energy generation and energy storage products. We note that the company's diversified revenue streams and focus on sustainable energy solutions contribute to its attractive value proposition.

Tesla's Q3 2025 results showed solid top-line momentum but continued margin pressure. Revenue climbed to about \$28 billion on strong delivery volumes—boosted by consumers rushing to claim expiring EV tax credits—while net income fell as higher costs and weaker regulatory credit sales compressed profitability. Energy storage remained a standout with strong double-digit growth, reinforcing Tesla's broader clean-energy positioning. Despite softer margins, the company reiterated its focus on autonomy, AI, and scaling its energy business, signalling a strategic shift toward software-driven and infrastructure-centric growth. Further, Tesla's advancements in autonomous technology, particularly its Full Self-Driving (FSD) software, are a key growth driver. **The company is developing two new versions of FSD software, one of which will be released soon and another that promises a significant leap in FSD's abilities.** We believe that Tesla's FSD technology has the potential to dominate the autonomous vehicle market.

We believe that Tesla's growth prospects are contingent upon its ability to execute on its strategic plans. Risks to Tesla's growth include execution risks, potential changes in operational focus or strategy, and fluctuations in revenue streams and profit margins. **The competitive dynamics in the electric vehicle and technology sectors may impact Tesla's market position and growth prospects.** Nevertheless, we believe that Tesla's focus on innovation, improving operational efficiency, and diversified business model positions the company for long-term success. **In a nutshell, we believe that Tesla's growth prospects, driven by its advancements in autonomous technology, energy business, and electric vehicle sales, make it an attractive investment opportunity.** The company's strategic direction, focus on innovation, and improving operational efficiency support a bullish outlook on its growth prospects.



Rivian Automotive, Inc. (NasdaqGS: RIVN)

Cheaper Models as the Growth Driver

Rivian Automotive, Inc. presents a compelling investment opportunity, driven by its growth prospects in the EV market, strategic partnerships, and expanding revenue streams. **We believe that the company's innovative approach to electric vehicle design, manufacturing, and software development positions it for long-term success.**

Rivian's Q3 2025 was a strong quarter on many fronts: revenues jumped ~78% YoY to US\$1.56 billion, driven by a 47% rise in automotive sales and a 324% surge in software & services. They delivered 13,201 vehicles, their highest in the year. Gross profit came in at US\$24 million, a big turnaround from a loss last year. However, the company still posted a substantial adjusted EBITDA loss of US\$602 million, per the earnings call. They ended the quarter with around US\$7.1 billion in cash and short-term investments. On the strategic front, Rivian reaffirmed its 2025 delivery guidance (41,500–43,500 vehicles) and said its mid-sized R2 SUV remains on track for the first half of 2026.

Rivian's partnership with Volkswagen (VW) is a significant development, with Rivian's R2 platform set to underpin VW's future EV products across multiple brands, including Audi, Porsche, and Lamborghini. This

partnership is a vote of confidence for Rivian, demonstrating its capability as a strategic technology partner and validating its technology stack. The partnership opens up a new revenue stream for Rivian beyond traditional EV sales, providing a more diversified business model. Rivian's technology stack could be a key growth driver, enabling the company to generate significant revenue from software and services, with revenue jumping to \$318 million from \$88 million year-over-year.

We believe that the company's improving earnings prospects and positive industry trends could lead to an upward movement in the stock price. Additionally, the success of the R2 platform and VW partnership could be a key catalyst for Rivian's stock, driving growth and increasing investor confidence. **In a nutshell, we believe that Rivian Automotive, Inc. presents an attractive investment opportunity, driven by its growth prospects, strategic partnerships, and expanding revenue streams.**



Ford Motor Company (NYSE: F)

Electrification and Strategic Pricing Drive Growth Prospects

Ford Motor Company's growth prospects are driven by its strategic investments in electrification, a competitive pricing strategy, and efforts to enhance operational efficiency. **We believe that the company's focus on electric vehicles and its partnerships with key players in the industry position it well for long-term growth. Ford Motor Company develops, delivers, and services Ford trucks, sport utility vehicles, commercial vans and cars, and Lincoln luxury vehicles worldwide.** The company operates through Ford Blue, Ford Model e, Ford Pro, and Ford Credit segments. Ford's recent announcements and strategic decisions indicate a strong commitment to electrification and market share gains.

The company's \$1.2 billion investment in EV transition, including the expansion of its Louisville Assembly Plant (LAP) in Kentucky, is a significant step towards its electrification goals. The LAP expansion will support the production of a new all-electric car, replacing the Ford Escape and Lincoln Corsair. This move aligns with the onshoring trend and potentially benefits from Trump-era tariffs. **We believe that Ford's focus on domestic production will help mitigate risks associated with global supply chains. Ford's employee pricing strategy, extended through July 6, has driven market share gains, with a 14.7% share of the U.S. market at the end of May, up 1.9 percentage points year-over-year.** The pricing strategy has resulted in substantial demand for Ford, with potential for a stronger quarter. However, investors are cautious about the impact on margins. **We believe that the success of employee pricing comes at a time of uncertainty in the U.S. market, with rising new vehicle prices and potential tariff impacts on vehicle prices.**

The company is also investing in partnerships to support its EV strategy. For instance, Ford has partnered with Vestas to incorporate over 300 Ford F-150 Lightnings into its service fleet. This move highlights Ford's efforts to reduce its carbon footprint and align with clean energy goals. Additionally, Ford is investing in Ford Pro Chargers to support the EV fleet and ensure efficient operations. However, Ford faces challenges, including supply chain disruptions due to a shortage of rare earth magnets from China, a critical component in car production. The shortage has already impacted production, with the company's Chicago factory idling for a week due to the materials shortage. **We believe that the reliance on China for critical components may lead to increased scrutiny and potential policy changes in the U.S. and other countries to mitigate such risks.**

Ford delivered a strong Q3 2025 with revenue rising to about \$50.5 billion and adjusted EBIT reaching \$2.6 billion despite tariff headwinds. Cash generation remained solid with \$4.3 billion in adjusted free cash flow and liquidity exceeding \$50 billion. Performance was led by Ford Pro's robust profitability and steady gains in Ford Blue, while Model e continued to post sizable losses even as EV revenues grew. The company trimmed its full-year EBIT outlook due to an aluminum-supply disruption, but overall execution and cash strength underscored stability across its core operations.

In conclusion, we believe Ford Motor Company's growth prospects are driven by its strategic investments in electrification, competitive pricing strategy, and efforts to enhance operational efficiency. While challenges exist, we believe that the company's focus on EVs and its partnerships position it well for long-term growth.



EVgo, Inc. (NasdaqGS: EVGO)

Accelerating Electric Vehicle Charging Infrastructure Growth Through Strategic Partnerships

EVgo, Inc. presents a compelling investment opportunity due to its strategic partnerships, expanding electric vehicle charging network, and growing demand for reliable charging infrastructure. **We believe that the company's efforts to enhance its fast-charging capabilities, increase accessibility, and foster range confidence for electric vehicle drivers position it for long-term growth.**

EVgo, Inc. has recently expanded its partnership with Midwest grocery retailer Meijer to deploy up to 480 new public fast charging stalls across six states. This partnership aims to bring fast charging infrastructure to as many as 60 Meijer properties in Michigan, Illinois, Wisconsin, Indiana, Ohio, and Kentucky. **The company has already opened 24 public fast charging stalls at six Meijer stores in Michigan and Ohio. EVgo plans to open up to 30 new stations at Meijer stores by the end of 2026 and 30 more stations by the end of 2027.** The company's partnership with General Motors has also yielded significant results, with over 2,000 public fast charging stalls established in the US, doubling their footprint in just over a year. The partnership aims to complete a total of 2,850 DC fast charging stalls nationwide, including 400 public fast charging stalls at flagship destinations. These stalls are being established in amenity-rich locations, such as grocery stores, retail centers, and city centers, to serve electric vehicle drivers who cannot charge at home or work. **In September 2025, Pilot Company, General Motors (NYSE: GM), and EVgo Inc. expanded their joint charging network to over 200 locations across nearly 40 states, deploying close to 850 new fast-charging stalls in just two years.** By rapidly filling key infrastructure gaps along major travel corridors, the partners are strengthening nationwide EV mobility with reliable, round-the-clock high-power charging and access to premium on-site amenities—supporting drivers' ability to travel freely and confidently.

EVgo has received a \$75 million drawdown from its \$1.25 billion guaranteed loan from the U.S. Department of Energy to support the deployment of public charging infrastructure nationwide. The loan will help EVgo more than triple its network size by 2029, building operational and financial scale and expanding its geographic footprint. EVgo plans to construct approximately 7,500 new public fast charging stalls across the country, bringing its total owned and operated network to at least 10,000 fast charging stalls by 2029. The growth of EVgo's network is critical to supporting the automotive industry's investments in electric vehicles, with over 30 new affordable EV models expected to be released by the end of 2025. Demand for reliable charging infrastructure continues to climb due to factors such as faster charge rates, standardized charging cables, and the rise of autonomous vehicles. EVgo prioritizes installations in amenity-rich locations offering retail, dining, shopping, and service options across the United States.

We believe that EVgo's comprehensive network plan aims to address the growing demand for public charging infrastructure by bringing fast charging solutions to more drivers. The DOE's low-cost financing enables EVgo to accelerate its buildout efforts and expand its network, bolstering range confidence for Americans considering electric vehicles. EVgo's growth is driven by partnerships with leading businesses across the U.S., including retailers, grocery stores, restaurants, and rideshare operators, to deploy localized and accessible charging infrastructure. The company's expansion of fast charging infrastructure is likely to enhance its competitive position in the growing electric vehicle charging market. As the demand for electric vehicles continues to rise, EVgo's strategic partnerships and investments in charging infrastructure position it to benefit from this trend. With a growing network and increasing demand for reliable charging infrastructure, EVgo presents a compelling investment opportunity for those looking to capitalize on the shift towards electric vehicles.



Ouster, Inc. (NasdaqGS: OUST)

Lidar Technology Gains Traction in Defense Sector

Ouster, Inc. presents an attractive investment opportunity due to its growing presence in the lidar technology market, particularly after the U.S. Department of Defense approved its OS1 digital lidar sensor for use in unmanned aerial systems. **We believe this approval not only validates Ouster's technology but also provides a competitive edge in the market, driving growth prospects.** The U.S. Department of Defense has approved Ouster's OS1 digital lidar sensor for use in unmanned aerial systems, marking a significant milestone for the company. This approval by the

Defense Innovation Unit adds Ouster's technology to an approved list of UAS components and software. The OS1 sensor offers high-resolution 3D lidar capabilities, outperforming previous 2D lidar solutions in weight, power efficiency, and reliability under rugged conditions. Prior to the announcement, Ouster's shares had gained attractively, indicating strong investor confidence. **The subsequent surge in premarket trading post-announcement suggests that investors expect the company to capitalize on its technology and expand its market share. We believe this approval could drive growth for Ouster, expanding its presence in the UAS market.**

The company's lidar technology is well-positioned to benefit from increasing demand for autonomous systems. The DoD approval provides a competitive edge, and the company's performance in the defense sector could lead to further government contracts and partnerships. Increased adoption of lidar technology in UAS could drive innovation and advancements in autonomous systems. The approval also highlights Ouster's potential for growth beyond its current market presence.

With its solid-state digital lidar sensors and software solutions, Ouster is poised to benefit from the increasing demand for high-resolution 3D lidar capabilities in various industries. Ouster delivered a solid Q3 2025 with revenue rising to about \$39.5 million, supported by record sensor shipments and improved product mix. Gross margins strengthened meaningfully, while net losses narrowed and adjusted EBITDA losses remained stable, reflecting tighter cost control. The company ended the quarter with a strong cash position and reiterated its focus on scaling software-linked revenues, advancing next-generation lidar platforms, and progressing toward breakeven profitability. As the company continues to navigate the competitive lidar market, its ability to secure government contracts and partnerships will be crucial in driving growth. We expect a clear growth trajectory for Ouster. **As the lidar market continues to evolve, Ouster's technology and recent DoD approval position it for potential expansion.**

Intro-Act's Latest Publications

Type	Publishing Date	Topic	Alpha Idea	Link
Newsletter	06-Nov-25	Aqua Metals (AQMS): Building America's Circular Battery Economy	AQMS	Read here
Thematic	23-Oct-25	Circular Edge: U.S. Battery Recycling Poised for Scale as EV Surge Drives Policy-Backed Growth	Clarios (Private), Ascend Elements (Private)	Read here
Newsletter	03-Oct-25	Grab's Re-Emergence: Leveraging Mobility-Demand Recovery and Fintech Expansion to Capture Southeast Asian Super-App Value	GRAB	Read here
Thematic	23-Sep-25	"Edge AI-Driven Mobility: A High-Growth, High-Margin Thesis for Investors	CRNC, SonatusAI (Private)	Read here
Newsletter	05-Sep-25	Lyft: Global Mobility Catalyst with Cash Discipline and Strategic Expansion – A Compelling Re-Rating Opportunity	LYFT	Read here
Thematic	21-Aug-25	Powering The Next-Generation EV Highway – Why Infrastructure Winners Will Outrun the Cars	TSLA, EVGO, CHPT	Read here
Newsletter	04-Aug-25	Urban Air Mobility Accelerates: Joby's Path from Prototype to Commercial Reality	JOBY	Read here
Thematic	23-Jul-25	Bidirectional Power, Unidirectional Growth: Why V2G Is Becoming Central to Energy and Mobility	DUK, GM, F, NVVE	Read here
Newsletter	7-Jul-25	Ouster's Lidar Advantage: Scaling Physical AI Across Defense and Smart Infrastructure	OUST	Read here
Thematic	19-Jun-25	Next-Gen Batteries: The Strategic Pivot in Mobility, Minerals, And Manufacturing	QS, ENVX, SLDP	Read here
Newsletter	4-Jun-25	Tesla's Q1 2025 Performance: A Strong Comeback in the Passenger OEM Segment	TSLA	Read here
Thematic	2-Jun-25	Smarter Sensors, Safer Streets: Mapping the Future of Autonomous Mobility	-	Read here
Newsletter	5-May-25	EVs, Energy Storage, And Grid Resilience	GM, TSLA	Read here

IMPORTANT DISCLOSURES

This third-party research report has been prepared by **Intro-act** and PartnerCap Securities LLC (henceforth "**PartnerCap**") has reviewed the said research report for compliance with the applicable provisions of the relevant regulations. Based on representations of the research provider, PartnerCap has a reasonable belief such research is objective and reliable and is not in possession of information that would prove otherwise. PartnerCap Securities, LLC and Intro-act have common ownership.

PartnerCap shall not be considered to have distributed a third-party research report where the research is an independent third-party research report and is made available (a) upon request; (b) through a member-maintained website; or (c) to a customer in connection with a solicited order in which the registered representative has informed the customer, during the solicitation, of the availability of independent research on the solicited equity security and the customer requests such independent research.

In addition, PartnerCap assumes no warranty, liability or guarantee for the current relevance, correctness or completeness of any information provided. Furthermore, PartnerCap assumes no liability for any direct or indirect loss or damage or, in particular, for lost profit, which you may incur as a result of the use and existence of the information, provided within the report. This electronic message and any attachments have been provided only to the person or entity to which it is addressed and has been provided for informational purposes only and should not be used or construed as an offer to sell, a solicitation, an offer to buy, or a recommendation for any security and is not purported to be tailored to any particular investor and may not be re distributed.

Other than disclosures relating to PartnerCap and its affiliates, the information herein is based on sources we believe to be reliable but has not been independently verified by us and does not purport to be a complete statement or summary of the available data. No representation is made that such information is accurate in all material respects, complete or up to date. PartnerCap is under no obligation to update, modify or amend the information and it does not accept any liability for any loss or damage, however caused, arising from any errors, omissions, or reliance on any information or views presented.

Information and securities mentioned may reflect a third party's independent opinions and are not recommendations of PartnerCap. The commentary is a general discussion based on short term market factors or current market trends, and may differ from, or be inconsistent with the views of other sales and trading personnel within the Firm or the long-term views of research analysts employed by PartnerCap.

The third-party research sourced information is the exclusive property of Intro-act; and without its permission, this information and any other intellectual property may not be reproduced, re-disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. The third-party research analyst, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information.

Neither PartnerCap or Intro-act beneficially own 1% or more of any class of common equity securities of the subject company covered in the said research report.

Intro-act Disclosures

Analyst Certification: I, Sakshi Mishra, certify that the views expressed in the research report accurately reflect my professional views about the subject securities or issues. Intro-act issued this report and may seek fees for the assistance with investor targeting, access, and further investor preparation services. Intro-act will not seek remuneration for any investment banking service or investment advice.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources who are believed to be reliable. However, the issuer and related parties, as well as Intro-act, do not guarantee the accuracy or completeness of this report, and have not sought for this information to be independently verified. Opinions contained in this report represent those of the Intro-act analysts at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, and estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties, and other factors that may cause the actual results, performance, or achievements of their subject matter to be materially different from current expectations.

AI-generated content: Content in this research report is AI-generated. Intro-act employs its proprietary AI research system for content-generation, based on a universe of credible and authentic source documents. The system functions under an overall manual supervision, and thus the creative control over the content generated by the system lies with its human authors. The AI content is not mere "mechanical reproduction" and instead is the result of the human author's "own original mental conception, to which [the author] gave visible form." The AI-generated content from the system is sufficiently modified so as to meet the standards for copyright protection. Intro-act thus claims that the work as a whole constitutes an original work of human authorship, and the content in this research report has sufficient human authorship to support a copyright claim, according to the Copyright Registration Guidance, published by the U.S. Copyright Office on 03/16/2023.

Exclusion of Liability: To the fullest extent allowed by law, Intro-act, Inc. shall not be liable for any direct, indirect, or consequential losses, loss of profits, damages, or costs or expenses incurred or suffered by you arising out of or in connection with the access to, use of, or reliance on any information contained in this note.

No personalized advice: The information that we provide should not be construed in any manner whatsoever as personalized advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Intro-act's solicitation to affect, or attempt to affect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Intro-act has a restrictive policy relating to personal dealing and conflicts of interest. Intro-act, Inc. does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees, and contractors of Intro-act may have a position in any or related securities mentioned in this report, subject to Intro-act's policies on personal dealing and conflicts of interest.

Copyright: © 2025 Intro-act, LLC.

Intro-act is not registered as an investment adviser with the Securities and Exchange Commission. Intro-act relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a) (11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Intro-act does not offer or provide personal advice, and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell, or hold that or any security, or that any particular security, portfolio of securities, transaction, or investment strategy is suitable for any specific person.