

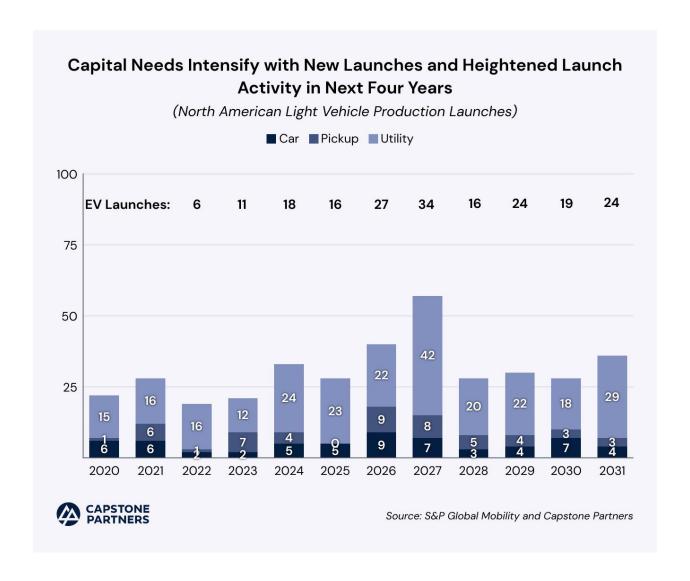
Automotive Industry Update for August 2024

Automotive Suppliers – Moving from Internal Combustion Engines to Electric Vehicles, Not an Easy Road

The migration from supplying internal combustion engine (ICE) components to electric vehicle (EV) parts has put a strain on many suppliers, making it harder for them to remain competitive. Additionally, suppliers have contended with increasingly limited resources as labor, raw materials, and energy get more expensive—higher costs that Tier 2 and Tier 3 suppliers are less able to pass onto customers compared to Tier 1 suppliers. As suppliers slow down production of ICE components and ramp up EV lines, balancing short–term cash demands and long-term competitiveness has proven difficult, especially when negotiating with automotive original equipment manufacturers (OEMs) over research and development (R&D) capital.

Where is the strain evident? First, the balance required to produce ICE and EV parts means it can take longer to bring new products to market and it is harder to guarantee their quality. In some cases, the delay in getting to market has been fueled by the additional intellectual capital required to engineer and produce EV parts. Suppliers have also found themselves losing business to OEMs as they vertically integrate and push their way into the Electric Powertrain market.

A good example are batteries, the "engine" of EVs. Suppliers must consider the fact that all major automakers make their own ICEs for the purposes of scale and quality. Since EVs are here to stay, OEMs will similarly want to be less reliant on outside suppliers for such a critical vehicle component. OEMs will want to capture the revenue and profit in-house as opposed to paying a supplier for such a critical part—and we have already witnessed this as many OEMs have become more involved in the upstream raw material supply chain for EV batteries via direct investments in mines and moving beyond direct offtake agreements with miners of lithium, nickel, cobalt, copper, manganese, and graphite, according to McCarthy Tétrault LLP research.¹ When battery production is ultimately performed by the OEMs, they may have difficulty finding enough skilled workers for the task—and the amount workers in battery production is significant.



What is the Solution for Suppliers?

Suppliers now have a window of opportunity to be successful serving the EV platforms that will hit the factories over the next one to five years. However, suppliers will need to change the ways they operate to capitalize on it. They will, in fact, need to act more like an OEM than a supplier—developing an overview of their supply chain and holistic strategies that provide them more control over all parts of production. EV platforms mean new and different engineering and manufacturing processes, which become a capital outlay as many suppliers are still making traditional ICEs. This change becomes quite costly and complex, but it is necessary given this is the biggest technological change in the Automotive industry since cars became mass produced.

This has been evidenced by certain suppliers who have proactively taken steps to ensure a balanced portfolio as EV production proliferates. Solero Technologies, a multi-tier supplier of solenoid and control products, is an example of a supplier taking such proactive steps as they seek to future-proof their product line.

Solero Technologies automotive product portfolio continues to be well-positioned for capitalizing on global automotive OEM trends that support the transformation to electrification and sustainability. Specifically, our company's controls expertise positions us to win business for battery electric vehicle (BEV) applications. These products allow us to deploy capital specifically to BEV or ICE platforms. *

Dr. Donald R. James - CEO, Solero Technologies Interview with Capstone Managing Director Sheldon Stone, July 2024

Shift to EV Poses Opportunity and Challenges for Suppliers

In the short-term, suppliers who can afford to navigate this new path will have a competitive advantage. However, this is not likely to be the case until a proper balance, thus predictability for suppliers is struck between the production of EV and

ICE components. This migration will be particularly complicated as automakers become more equally committed to both ICE and EV technologies.

Industry News

- Volkswagen (XTRA:VOW3) announced plans to invest up to \$5 billion into EV OEM Rivian as part of a joint venture to develop electrical architecture and software technology. – <u>Rivian.com</u>
- International automakers produced more light vehicles in the U.S. than the
 Detroit 3 for the first time in 2023, according to a report from Autos Drive
 America and the American International Automobile Dealers Association
 released July 9th. International automakers, including Toyota (TSE:7203),
 Hyundai (KOSE:AOO5380), and Volkswagen (VW), produced 4.9 million light
 vehicles in 2023. The Detroit 3, in contrast, produced 4.6 million light vehicles
 during the same period, according to the report. <u>Bloomberg News</u>
- Chinese OEM BYD (SEHK:1211), plans to build an EV plant in Mexico that will create approximately 10,000 new jobs. The EV OEM is in final negotiations for the location of the facility with an official announcement expected in the coming months. A plant of that size would employ more people than facilities for other carmakers in the country. VW's Puebla plant, the largest in Mexico, employs 6,100 assembly line workers and 5,000 supervisory employees, along with thousands of people that handle parts assembly. BYD is estimated to sell 50,000 units in Mexico this year, according to company's representatives. <u>Automotive News</u>
- The Department of Energy announced plans to invest \$1.7 billion to support
 the conversion of 11 shuttered, or at risk, automotive manufacturing and
 assembly plants to produce and supply EVs. The factories—including facilities
 owned by Stellantis, General Motors (NYSE:GM), and Volvo—are located in
 Michigan, Ohio, Pennsylvania, Georgia, Illinois, Indiana, Maryland, and Virginia.
 The projects are estimated to collectively create more than 2,900 new jobs
 and retain 15,000 union workers. Department of Energy
- Stellantis (BIT:STLAM) sued Canadian supplier Spectra Premium Mobility Solutions after the supplier threatened to stop shipping fuel tanks for the plug-in hybrid Chrysler Pacifica minivan, which would shut down production at Windsor Assembly Plant, according to the lawsuit filed in Oakland County Circuit Court. Stellantis stated its supplier demanded a 12.5% retroactive price increase to January 1st or it would withhold parts. An Oakland County judge denied the automaker's request for a temporary restraining order that would have forced the supplier to keep shipping parts at contract price. The lawsuit against Spectra marks the fourth known legal fight Stellantis has initiated against its suppliers this year. <u>Automotive News</u>

OEM and Supplier News

- North American revenue for Hyundai and its affiliate Kia (KOSE:AOOO270) has more than doubled in the last five years. - <u>Wall Street Journal</u>
- Stellantis reported net profits of 5.6 billion euros (\$6 billion) for the first half of 2024, down 48% from 11 billion euros for the same period last year. Revenues for the period dropped 14% to 85 billion euros. The company stated that declined performance was due to reduced volumes, temporary production gaps, and a decreasing market share in North America. Margins declined most significantly in North America, Stellantis' key region for profits, after shipments declined 18% amid an unfavorable model lineup and pressure on prices. Stellantis announced plans for \$200 million of headcount reduction savings by the end of 2024. The announcement comes as the industry shifts to mass production of EVs, which has sparked global cost cutting efforts at Stellantis. The company is shrinking its North American workforce, offshoring a portions of engineering work, and consolidating its vehicle lineup onto a small number of versatile platforms that can support multiple body styles and powertrains. Automotive News CNBC
- General Motors (GM) reported a 37% gain in its adjusted pretax income to \$4.4 billion for Q2 2024. The results were driven by strong sales of gasoline– powered pickups and SUVs, improving EV sales and stable pricing with low incentives. GM also announced a halt to production the Cruise Origin, a self– driving bus–like vehicle that had been assembled at Factory Zero in Detroit and Hamtramck until GM paused its production in November 2023. GM recorded a \$600 million charge in stopping production of the Origin. – <u>Detroit</u> Free Press
- Ford's (NYSE:F) Q2 2024 net income decreased to \$1.8 billion primarily driven by unexpected warranty costs and new vehicle launches. Ford reported adjusted operating earnings of \$2.8 billion in Q2 2024, down 27% from \$3.8 billion in the same period last year. Ford's revenue for the quarter was \$47.8 billion, up 6% from a year ago. The revenue increase was primarily due to strong commercial vehicle sales. The company's EV division, Model e, reported total losses of \$2.5 billion for the first half of the year and expects to lose between \$5 billion and \$5.5 billion for the full year. Ford has outlined plans to use a Canadian plant it had earmarked for a future EV to instead build larger, gasoline-powered versions of its flagship F-Series pickup truck. Detroit Free Press Reuters
- ZF North America announced a \$62 million expansion in Macomb County, Michigan, where the automotive supplier is building out its international R&D base for airbag, seat belt, and steering wheel systems. The expansion includes the construction of an 82,000-square-foot building on its 30-acre site in

Washington Township, which will house an eight meganewton Intron crash test sled—one of just a few in operation around the world. – <u>Crain's Detroit</u> <u>Business</u>

Electric Vehicle & Zero Emission Technology News

- The European Union (EU) and China will hold discussions to address the EU's previously announced plans to impose additional tariffs of up to 38% on imported Chinese EVs. The EU claims that Chinese imports receive excessive, unfair, and injurious subsidies. Beijing has repeatedly called on the EU to cancel its tariffs and expressed a willingness to negotiate. Reuters
- Audi will invest approximately \$1 billion in EV projects in the Mexican state of Puebla in pursuit to turn the state into a hub for EVs. The investment is estimated to add 500 jobs. Audi currently has one plant in Mexico that employs 5,000 workers in the Puebla town of San Jose Chiapa. – <u>Reuters</u>
- McKinsey's Mobility Consumer Pulse (June 2024) surveyed 30,000 consumers in 15 countries and found that 46% of U.S. EV owners would consider switching back to ICE-powered vehicles. The top reasons for switching back included a higher total costs of ownership and a lack of charging infrastructure for EVs. The survey also discovered that 33% of consumers would not purchase a vehicle that lacked smartphone integration.
 McKinsey & Company
- Lithium spot prices recently fell to the lowest level in three years. Prices have fallen primarily due to higher EV inventory levels as demand has slowed down. Spot prices of lithium carbonate in China have slid to the lowest since August 2021 and the most active futures on the Guangzhou exchange had lost ~12% in June. In top producer Albemarle Corp.'s latest auction on June 19th, the winning bid was down 6.9% from the previous sale on June 5th. <u>Bloomberg News</u>
- Entek, the only U.S.-owned and U.S.-based producer of 'wet-process' lithium-ion battery separator materials, received a \$1.2 billion Department of Energy conditional loan for its lithium-ion battery separator manufacturing facility in Terre Haute, Indiana that will support the production of roughly 1.9 million mid-size or 1.3 million full-size EVs, several hundred thousand more than its projections in March 2023. ENTEK Lithium Separators

Regulatory News

 A California lawmaker withdrew proposed legislation that could have allowed local municipalities within the state to regulate deployment of autonomous vehicles. Critics had pointed to the specter of a patchwork of local regulations making it impossible for robotaxis to operate easily across boundaries and effectively serve public needs, arguing that the bill would have prevented safety and accessibility opportunities for millions of California residents. – SiliconValley.com

- The Alliance for Automotive Innovation urged the National Highway Traffic Safety Administration (NHTSA) to reconsider a final rule that would require all passenger cars and light trucks to be equipped with automatic emergency braking (AEB) systems beginning in 2029. - <u>Wall Street Journal</u>
- Automotive dealers may need to direct more attention to the rising number of counterfeit airbags that could be installed during post-crash vehicle repairs. – <u>Wall Street Journal</u>
- A group of Energy and Agriculture industry associations, as well as several automotive dealerships, filed a lawsuit against the Environmental Protection Agency (EPA) over its final tailpipe emissions rule. The suit alleges the EPA exceeded its authority under the Clean Air Act. – Detroit News
- The NHTSA issued multiple recalls in June, including notices for more than 550,000 2014 model year Ford F-150 trucks as the transmission can suddenly downshift. Toyota also recalled 145,254 of its 2024 model year Grand Highlander and Lexus TX vehicles, citing driver side curtain airbags may not unroll as intended. Ford's total recalls in 2024 have reached 3.6 million vehicles. Ford CEO, Jim Farley, announced that the company will hold newly redesigned models for up to six weeks to perform extra quality checks that go beyond the extensive tests Ford undertakes in its factories. Ford has been the most recalled automaker in the U.S. since 2020. <u>Bloomberg News USA Today</u>

Board and Executive News

- Tesla (Nasdaq:TSLA) shareholders voted in favor of resolution to reinstate Elon Musk's \$56 billion pay package and a proposal to move the OEM's legal residence from Delaware to Texas. - <u>Reuters</u>
- Marc Whitten, former Amazon (Nasdaq:AMZN) and Microsoft (Nasdaq:MSFT)
 Xbox executive, was announced as GM's new CEO of Cruise—the company's
 robotaxi business unit. Whitten steps in for Kyle Vogt, who left the company
 after a vehicle struck a pedestrian. <u>CNBC</u>
- Berta Rodriguez-Hervas, Stellantis Vice President of Artificial Intelligence,
 Algorithms, and Machine Learning, has resigned. This is the latest in a series of recent departures for prominent executives at the automaker. <u>Detroit News</u>

- Robert Bollinger, CEO of EV OEM Bollinger Motors, stepped down as CEO of the company he originally founded to build off-road vehicles. Former GM executive, James Taylor, will take over the position. - <u>Detroit News</u>
- Piston Group, a Southfield, Michigan based supplier, has hired Mamadou Diallo as its new CEO. Diallo is a former Honda executive. He will also oversee financial controls and performance for the Piston Group companies: Piston Automotive, Piston Interiors, A Lava, and Detroit Thermal Systems. – <u>PR</u> Newswire

This page was updated August 12, 2024. To discuss this information in more depth, or to connect with one of our Automotive industry specialists for more detailed analysis of current trends and issues, please <u>contact us</u>.

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Endnotes

 McCarthy Tétrault, "Car and Battery Makers are Getting Closer to the Mining Business," https://www.mccarthy.ca/en/insights/articles/car-and-battery-makers-are-getting-closer-mining-business, accessed July 26, 2024.

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