This report helps automotive suppliers inform their legal and operational decisions to help address challenges and opportunities.

**Key Developments**

- The latest “Car Wars” report from BofA predicts automakers will launch **240 new models over the next four model years**, averaging 60 per year.

- **IHS Markit** estimates that lengthy delivery times for semiconductors caused **global output losses of $182 million between January and April 2021** for automobiles and parts.

- **U.S. fleet sales** totaled 830,950 units between January and May, representing a .9% decrease from January -May 2020, and a 39% decrease from the same period in 2019.

- The **average age of light vehicles in operation** reached 12.1 years,
which IHS Markit expects to be a temporary elevation resulting from the pandemic.

- A task force consisting of the UAW, Ford, GM and Stellantis announced mask requirements will continue at U.S. auto plants “out of an abundance of caution.”

- Bosch North America is evaluating options to potentially consolidate office space as it plans a two-phased return to the office that will involve a hybrid model for on-site work.

- The Senate passed bipartisan legislation that includes a $52 billion investment to bolster the semiconductor industry in the U.S. as part of a $250 billion package to strengthen the nation’s competitive position in science and technology.

- Volkswagen disclosed that a third-party vendor data breach impacted over 3 million customers in North America, after sales and marketing information was left in an unsecured electronic file.

- The U.S. Department of Transportation’s Spring Regulatory Agenda includes potential rules for new transportation technologies, such as autonomous vehicles, as well as strengthened vehicle and highway safety standards.

- Electric vehicles and low emissions technology:
  - The Biden administration announced a National Blueprint for Lithium Batteries as part of an initiative to “secure an end-to-end domestic supply chain for advanced batteries,” following a 100-day review of the nation’s critical supply chains.
  - GM announced its support for a “federal path to achieve the same CO2 reductions endorsed by California through the acceleration of electric vehicle adoption.”
  - Lordstown Motors announced the resignation of its CEO and CFO, effective immediately, and a board committee indicated that some of the company’s previous statements related to truck preorders were inaccurate.
  - According to LMC Automotive, the U.S. battery electric vehicle market has approximately 20 unique models, at price points ranging from below $25K to over $100K.

Market Trends and Regulatory

- The new edition of the annual “Cars Wars” report by BofA analyst John Murphy predicts Toyota and Honda will lead in replacement rates during the 2022 to 2025 model-year period, while GM’s replacement rate will be just above the industry average due to its focus on lower-volume EV launches. [Full report is not publicly available]
• According to IHS Markit, there were 279 million vehicles in operation (VIO) in the U.S. as of January 2021, down from nearly 281 million in 2020 and the first decrease in VIO since 2012. Electric vehicles in operation reached nearly 1 million units, at an average age of 3.9 years, compared to an average age of 12.1 years for light vehicles overall in the U.S.

• The White House released a report and fact sheet following a 100-day review of vulnerabilities in critical U.S. supply chains. Actions include the creation of a Supply Chain Disruptions Task Force “to provide a whole-of-government response to address near-term supply chain challenges,” as well as a “trade strike force” led by the U.S. Trade Representative to pursue enforcement actions against unfair foreign-trade practices. President Biden ordered the review in February for the purpose of reducing the country’s reliance on foreign suppliers and strengthening the nation’s competitive position in sectors that include semiconductors, large-scale batteries for EVs, rare earth minerals, and pharmaceuticals.

• President Biden and Senate Republicans failed to reach an agreement to create a bipartisan infrastructure package, resulting in the House and Senate continuing work on their own proposals. A bipartisan group of senators announced they have reached a deal for a $974 billion infrastructure proposal that will not include corporate tax increases, one of the points of contention in the president’s proposal, with further details forthcoming. House Democrats continue to negotiate over a proposal to spend $547 billion over the next five years on surface transportation.

• U.S. Trade Representative Katherine Tai asked the Mexican government to review allegations that workers’ rights were being denied at an auto parts facility operated by Tridonex in Matamoros. Utilizing USMCA’s rapid response enforcement mechanism, the AFL-CIO and other unions alleged that workers’ rights to collective bargaining and free association were denied. This marks the second labor compliant brought by the Biden administration against this facility under the trade deal.

• Highlights of the U.S. Department of Transportation’s Spring Regulatory Agenda include potential rulemaking requiring heavy and light vehicles to include automatic emergency braking, and establishing and requiring rigorous testing standards for autonomous vehicles, along with a national incident database for crashes involving automated vehicles.

OEMs/Suppliers

• Production impact of the semiconductor shortage – GM will build certain 2021 full-size pickups and SUVs without the fuel-saving start-stop feature that automatically idles a vehicle’s engine during stops in traffic. Affected models are the Chevrolet Tahoe and Suburban, GMC Yukon and Yukon XL, Cadillac Escalade and Escalade ESV, Chevrolet Silverado 1500 and GMC Sierra 1500; the automaker did not indicate the volume of impacted vehicles.

  • Stellantis confirmed its minivan plant in Windsor, Ontario, will be down the entire month of June, extending previously announced downtime by an
additional week. Windsor Assembly resumed limited output the week of May 31 after being shut down since the end of March.

- **Volkswagen** predicts the chip shortage will begin to ease in the third quarter, but supply constraints will persist since it may take **up to two years to reach adequate production capacity**.

- A COVID-19 outbreak at one of Taiwan’s **largest chip-testing companies**, King Yuan Electronics, could lead to supply chain disruptions. The facility has nearly 200 confirmed cases and an additional 2,000 workers in quarantine. *The Wall Street Journal* reported that slow rollouts of vaccine campaigns in Asia have led to **outbreaks in various parts of Asia that have the potential to disrupt shipping and chip supply chains**.

- The **UAW** and **Detroit’s Big Three automakers** jointly announced the **continuation of mask requirements for workers at U.S. auto plants**, with the plan to phase out temperature screening. **Volkswagen AG** will discontinue the requirement for masks at U.S. auto plants after June 21. Toyota, Honda and Nissan have thus far not announced changes to their U.S. employee COVID-19 requirements.

- **Toyota** moved up its goal to achieve **net-zero carbon emissions** among its factories to 2035, from a previous target of 2050. The automaker intends to use new technologies in coating and casting, increase its use of renewable energy, and purchase carbon credits from other companies.

### Connected/Autonomous Vehicles and Mobility Services

- **Waymo** and J.B. **Hunt** will partner in a **limited pilot program** involving Class 8 trucks driving autonomously on the interstate between facilities in Houston and Fort Worth. The trucks will have a commercially licensed driver and a software technician on board.

- **Hyundai** will increase its **development efforts** related to **urban air mobility vehicles**, and now intends to offer services as well as selling the vehicles. Air taxis or “**flying cars**” are intended to be a new category of aircraft, with an electric motor that can take off and land without a runway, along with being safer and less expensive than helicopters.

- **Apple** hired the former co-founder and CEO of EV startup **Canoo**, Ulrich Kranz, to assist with its **initiatives related to autonomous EVs**. Apple had recently **lost several managers** from its vehicle team, and **speculation continues** in regards to whether the company intends to develop a vehicle, or will instead **focus** on aspects of the hardware, software and services related to autonomous and electric vehicles.

- Beijing-headquartered ride-hailing company **Didi Chuxing Technology** filed IPO papers to begin publicly trading in the U.S.
Didi operates in 15 countries and has 493 million annual active users; its largest shareholders include Softbank, Uber and Tencent.

- Self-driving startup Argo AI intends to pursue an IPO “within the next year,” according to founder and CEO Bryan Salesky. Ford and Volkswagen are key investors in Pittsburgh-based Argo AI.

**Electric Vehicles and Low Emissions Technology**

- GM indicated it will support an agreement between the state of California and five automakers that commits to annual reductions of vehicle greenhouse gas emissions through the 2026 model year as a potential framework for a national standard, if part of the program includes a commitment to EV sales. GM had previously sided with the Trump administration in efforts to end the state’s ability to set stricter emissions standards than the federal government; the shift in position was communicated in a letter from CEO Mary Barra to EPA head Michael Regan.

- Novi, Michigan-based Shyft Group plans to begin production of its first all-electric chassis platform in mid-2023; the decision to develop the platform was motivated by growing demand from major parcel delivery customers.

- Tesla launched the Model S Plaid, a high-performance version of its Model S sedan to be produced in limited volumes that features faster charging, approximately 390 miles of range, and an improved entertainment system. CEO Elon Musk recently canceled a previously announced Model S Plaid+ that was intended to have 520 miles of range on a single charge.

- Ford has received 100,000 refundable preorders for its upcoming all-electric 2022 Ford F-150 Lightning pickup truck. A Ford spokesperson said the official order bank opens later this year.