



## Global Automotive Supplier Update

Local insights from the Triad Markets on  
trends and developments | Q1 2022



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# Introduction

As a leading professional services firm with over 345,000 employees, Deloitte is active in almost every country in the world. In addition to delivering game-changing cross-border projects, our network of knowledge and expertise literally spans the globe. We recently set up a dedicated Deloitte Automotive Supplier Practice to focus on the needs of our automotive supplier clients.

Thanks to ongoing discussions with our global experts, we understand that our supplier clients face very different challenges depending on their region as well as different market patterns and dynamics.

In this Point of View, we aim to analyze the kind of services clients are demanding in different regions, which will in turn allow us to better understand our clients' challenges. Look out for our regular Global Supplier Updates to gain the insight you need to master your day-to-day responsibilities.

# Recent market developments

## Chip shortage

The short-term chip shortage has had a major effect on the automotive industry, cutting production by roughly 7.7 million units and causing 210 bn USD in revenue loss in 2021.

## Drivers

The pandemic: When the pandemic hit in 2020, the initial slowdown or complete halt in demand culminated in a surge in demand for devices designed for remote work as well as online shopping and entertainment.

## Bullwhip effect

Muddled, indirect information within the supply chain resulted in inaccurate or exaggerated demand forecasts. And with only weak links between automakers and foundries, it became extremely difficult to react to changes in demand.

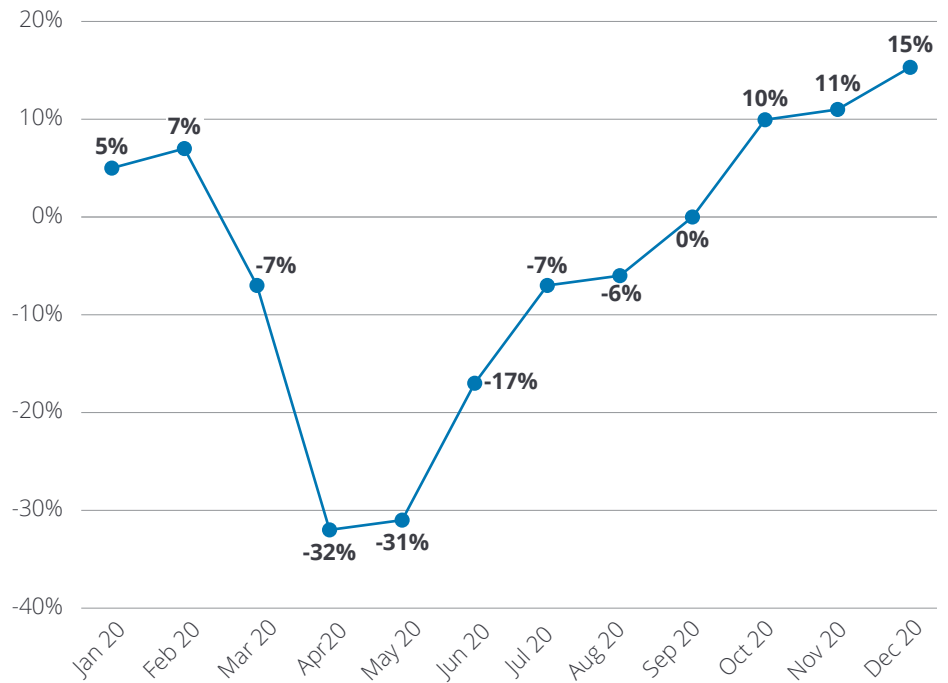
## Supply chain management

Automakers still rely largely on just-in-time sourcing strategies using short-term forecasts, which offer little to no buffer (despite 26-week lead times for semiconductors). Many components are also sourced from a single producer and subject to strict quality requirements. All these factors limit supply chain flexibility during a shortage.

## Effect on OEMs

OEMs allocated the scarce chip stock to premium and luxury vehicles with historically higher margins. As a result, production volumes of smaller vehicles (A and B segment) were impacted disproportionately. The chip shortage will put a significant strain on automotive suppliers,

**Fig. 1 - Demand for automotive semiconductors plunged by 30 percent in spring 2020**



Source: World Semiconductor Trade Statistics, Bluebook Sales Data.

especially for the volume segment, which were already hurting from lockdowns and pandemic-related closures.

## Importance of semiconductors

Semiconductors have become an integral part of the supply chain for more and more industries. Chips power everything from cars and smartphones to industrial equipment, and are also a key enabler for widespread adoption of emerging techno-

logies such as AI, quantum computing and advanced wireless networks like 5G.

This is one key reason why all six of the major end-use categories for semiconductors continue to grow, whether it is automotive, industrial, consumer, data processing, military/civil aerospace or communication. According to Gartner, the automotive segment is expected to see 15.6 percent CAGR in 2020–24f, the highest of all six categories.

**New capital**

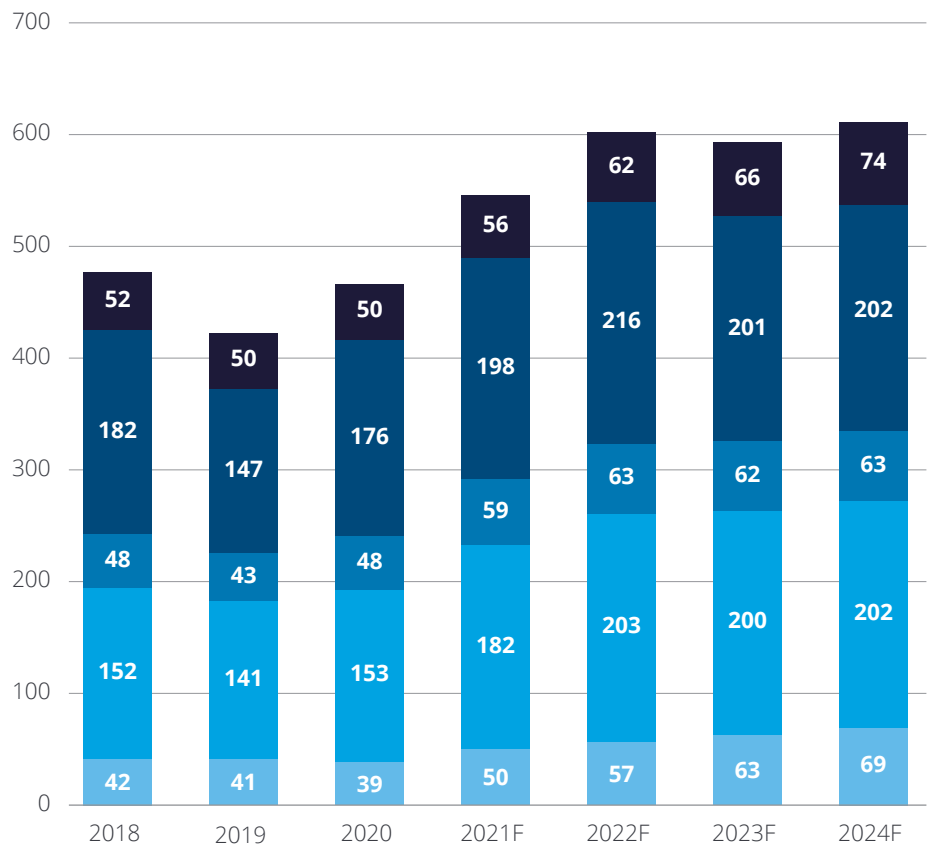
Owning factories is a costly investment, which is why so many semiconductor firms prefer to outsource production to major foundries overseas, particularly in Taiwan. Taiwanese contract manufacturers such as TSMC dominate the semiconductor manufacturing sector, accounting for over 60 percent of total global foundry revenue in 2020.

Chip manufacturers recently announced significant new investments:

- TSMC plans to spend 100 bn USD over the next three years to expand its chip production capacity.
- Intel dedicated a portion of the production at one of its largest non-US foundries for the automotive sector.<sup>1</sup>
- The Sony Group invested 500 m USD in a JV with TSMC to build a 7 bn USD chip plant in Japan.<sup>2</sup>
- Samsung is also planning 116 bn USD in investments over the next decade to compete with TSMC.

It will, however, take a few quarters to get production going, and many of these investments are targeted toward high-end chips, a future demand – even though it is low-end chips (40 nm and lower), especially those for the automotive sector, that are in short supply today. We expect the automotive chip shortage to continue until 2023.

**Fig. 2 – Semiconductor revenue by electronic segment (bn USD)**



Source: Gartner Semiconductor Forecast Database.

- Automotive electronics
- Communication electronics
- Consumer electronics
- Data processing electronics
- Industrial and military/civil aerospace

<sup>1</sup> <https://www.electronicdesign.com/markets/automotive/article/21174750/electronic-design-intel-to-commit-foundry-capacity-for-chipstarved-auto-industry>

<sup>2</sup> <https://auto.economictimes.indiatimes.com/news/auto-components/sony-to-invest-500-mln-in-tsmcs-new-japan-chip-plant-venture/87608386?redirect=1>

**CO<sub>2</sub> regulations**

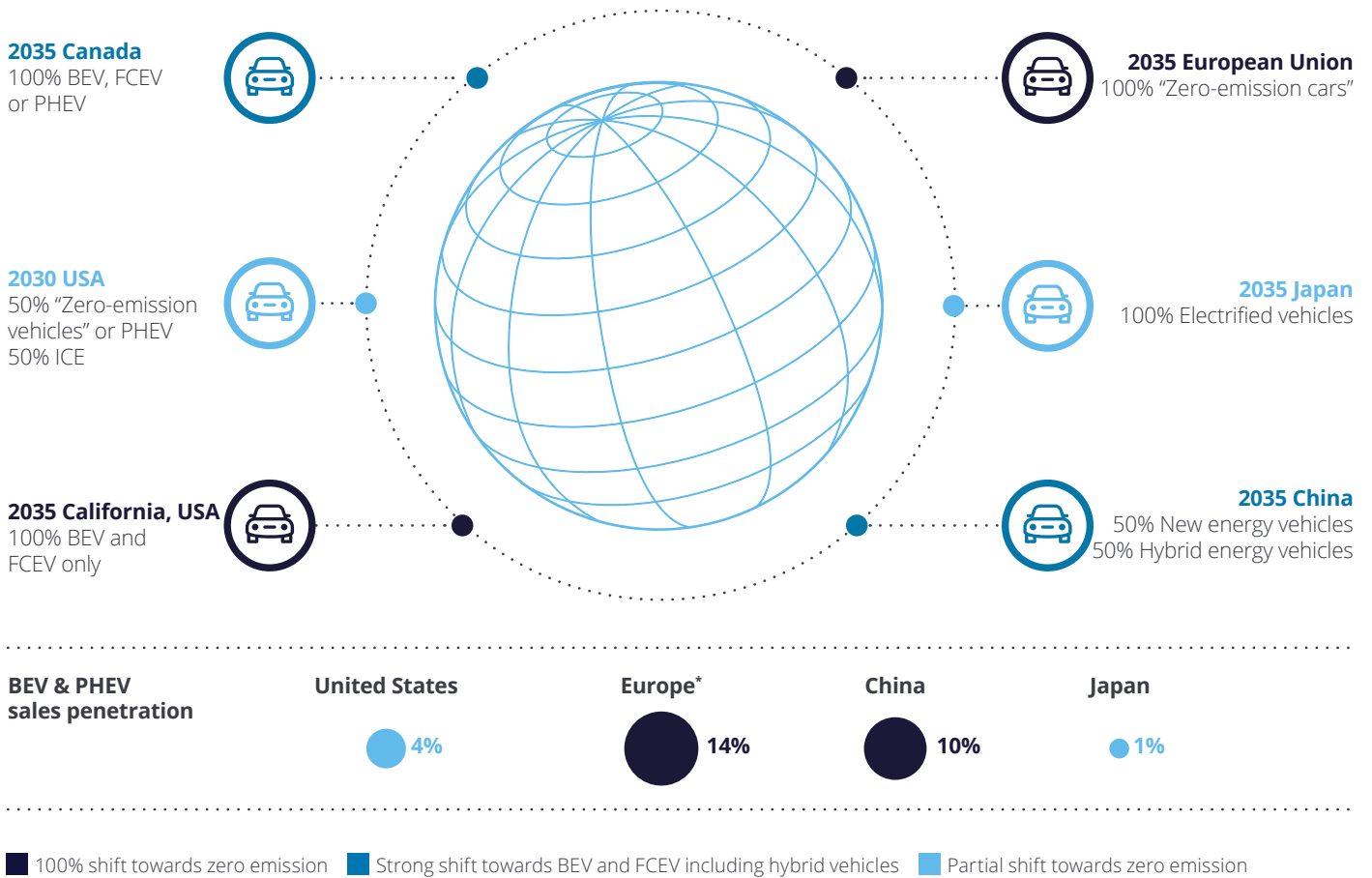
Climate change and tighter regulation of CO<sub>2</sub> emissions is a global development that will likely prevail for decades to come. It is the key driver of what is referred to as the "transformation of the industry".

The fact that leading OEMs use their key market regions as a differentiator is an additional factor. European OEMs tend to focus on Europe and China, while Japanese OEMs tend to prioritize the North American and Japanese markets.

North American OEMs primarily target their own home market, often with one additional region in the mix. Suppliers are facing very different challenges depending on the region they are active in and the OEMs they supply.

**Fig. 3 – Countries with official targets to phase out ICE light vehicles**

A clear trend can be noticed in the fact that almost only zero-emission vehicles or BEVs and FCEVs are planned to be registered in the world's largest automotive markets from 2035 at the latest



Source: Deloitte analysis.

\* Europe includes the European Union, the European Free Trade Association (EFTA) and the UK.



Fig. 4 -Vehicle sales distribution of selected OEMs

OEM		North America	Europe	China	Japan
Europe	VW				-
	BMW				-
US	GM		-		-
	Ford				-
Japan	Toyota				
	Honda		-		

Source: IHS.

Yet even though this trend is global, the pace of regulation on CO<sub>2</sub> emissions varies significantly depending on the region, which will strongly impact the world's suppliers.

### War in Ukraine

Russia's recent invasion of Ukraine will also have implications for the supply chain and production of the automotive industry.

The war puts additional strain on the automotive supply chain because Ukraine-sourced wire harnesses and other important components cannot be delivered anymore.

In addition to this, the war leads to a decrease in automotive demand from Ukraine due to the economic conditions as well as from Russia due to global sanctions against the economy.

It is expected that this will lead to a global decrease in production of around 2.6 million units in both 2022 and 2023. Due to the high downside risk, the worst-case scenario estimates a large production loss of 4 million units for each of the years. Until 2030, the global light vehicle production is expected to be nearly 25 million units lower than assumed pre-war.

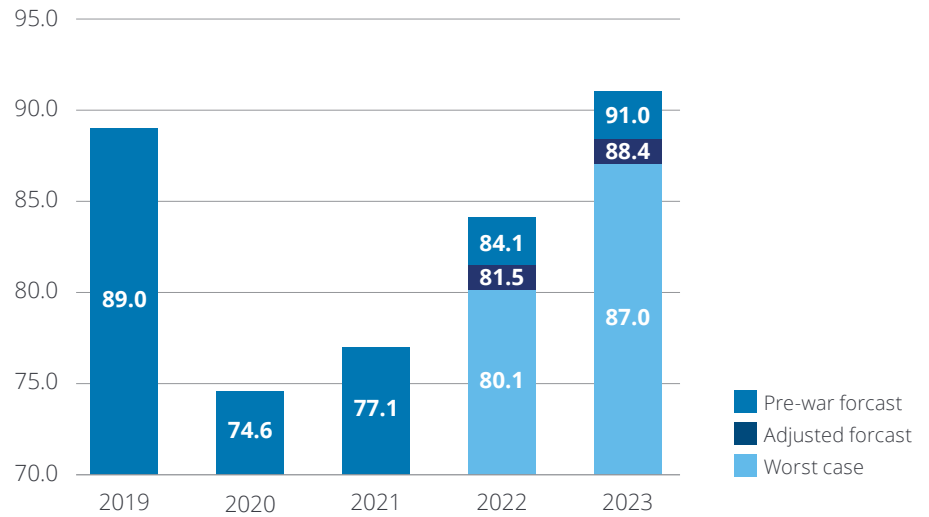
### Europe

The war in Ukraine has the strongest effect on the European light vehicle market. It is expected that the production in 2022 will be 1.7 million units lower than estimated prior to the invasion. This is a decrease of 9.1 percent from the pre-war production output.

One million of these units represent the lost demand from Ukraine and Russia, while the other 0.7 million units stem from worsening semiconductor supply and the loss of important Ukraine-produced components such as wire harnesses. At the end of February, it has already been reported that OEMs had to halt production due to supply chain issues related to the invasion.

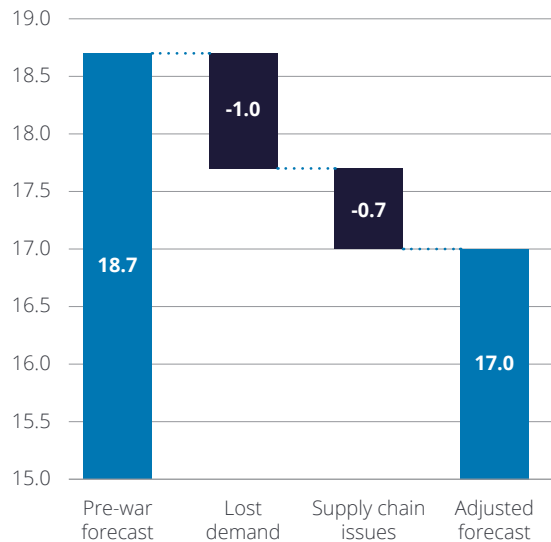
In addition to this, there is a risk that the total automotive demand from Russia will be lost due to sanctions against the country.

**Fig. 5 – Global light vehicle production forecast scenarios (in million units)**



Source: S&P Global Mobility, IHS Light Vehicle.

**Fig.6 – Effect of the war in Ukraine on the 2022 European light vehicle production forecast (in million units)**



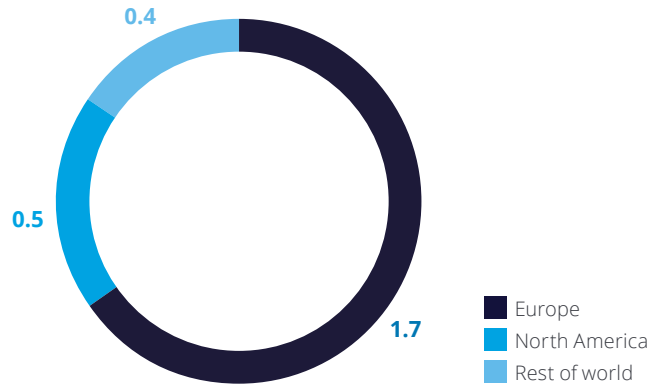
Source: S&P Global Mobility, IHS Light Vehicle.

**Other regions**

While the invasion has the most serious effects on the production levels of the European automotive market, it also impacts global markets to a lesser degree. This is due to looming sanctions and the potential additional strain that these will put on the semiconductor supply.

The North American output is expected to decrease by 480,000 units. However, this is relatively minor at only 3.2 percent of the continent’s production output in comparison to a 9.1 percent loss in Europe. For the rest of the world the production is only expected to decrease by 0.8 percent of its pre-war forecast.

**Fig. 7 - Change in the global light vehicle production forecast (in million units)**



Source: S&P Global Mobility, IHS Light Vehicle.



# Updates from the Triad Markets

## North America

### Corporate Transformation

Like other regions, suppliers in the North American market are revamping businesses for the future and focusing on key disruptors, such as electrification, connectivity, autonomy and more.

One of the main services we offer the supplier community on a consistent basis is working capital optimization. By evaluating a company's "new normal" against its current capabilities, we can find opportunities to optimize working capital, free up liquidity, and implement leading practices.

### Restructuring

Based on availability, lead times and pricing, many suppliers have to rethink where products are produced and sourced (tariffs, for example). This has enabled us at Deloitte to open a dialogue with suppliers regarding manufacturing and distribution footprints.

Mergers and acquisitions (M&A) activity remains very brisk in the North American supplier market, a prime example of which is the deal-making by US-based supplier Lear. In the back half of 2021, Lear signed an agreement for a joint venture with Hu Lane Associate Inc., expanding Lear's vertical integration capabilities to engineer and produce a range of connectivity systems designed for current and future vehicle architectures. Just one month later, Lear also announced a deal with Kongsberg Automotive. Under the terms of the deal, Lear will acquire the Norwegian supplier's Interior Comfort Systems division for an enterprise value of 175 m EUR.

### Digitalization

The ongoing transition to electric and autonomous vehicles combined with pandemic-driven supply chain issues has motivated suppliers to drive the end-to-end digitalization of their processes. Whether it is a smart factory or distribution center with automated product and picking lines, a shift to cloud-based systems to unlock business efficiencies or the move to online spare parts sales, the digital transformation is happening now.

For example, in late November, ZF announced the next phase of its transformation with a "holistic data and integration platform, the ZF Cloud, to digitalize all of ZF's industrial and operational production and business processes on the Microsoft Azure cloud platform." ZF says it plans to invest billions of Euros in the company's digital transformation over the next few years, a significant amount of which will go to the collaboration with Microsoft.

### ESG

A US-based study conducted in October found that the ESG reports of leading auto suppliers tend to focus more on environmental impact while neglecting governance. Among the 200 topics covered in these ESG reports from suppliers, approximately 1/3 are related to the environment with only three percent addressing corporate governance and compliance.

The North American auto supplier sector has not agreed on a single reporting standard, and many are even using multiple standards. This makes it difficult for investors to make meaningful comparisons

between companies. Adding more complexity, several top auto suppliers lack a common format or approach to these reports – running the gamut from sustainability reports to integrated reports with financial details and from corporate social responsibility (CSR) reports to combined reports.

As shown in Deloitte's most recent study, improving diversity, equity, and inclusion (DEI) in the automotive workforce remains a challenge. There is still a large gap in DEI efforts throughout the North American automotive supplier base.

It is not all bad news, however, as evident in Yanfeng's Diversity & Inclusion Group. In fact, two of the company's employees received an Impact Award from the Center for Automotive Diversity, Inclusion and Advancement (CADIA) in late 2021.

Suppliers still have significant opportunities to develop, implement and report their ESG strategies throughout the upcoming year.



## Asia Pacific

### Corporate Transformation

Suppliers remain focused on timely transformation, particularly when it comes to electrification, e.g., divestiture of ICE-related businesses, acquisitions and investments of EV-related businesses and technologies. Compared to their European counterparts, transformation is a lot slower among mega Tier 1 suppliers in the Asia Pacific (AP) region, primarily due to more relaxed CO<sub>2</sub>-related regulations and a slower roll-out.

### Restructuring

We have not seen as many restructuring or distressed deals as feared since the pandemic hit. A key reason for this is the fact that creditors are “prioritizing” borrowers in other sectors, e.g., food service, travel, etc., while offering automotive suppliers working capital loans to help them cope with pandemic-related production adjustments.

Restructuring aspirations around loss-making subsidiaries overseas remain active, even as business continuity issues draw keen attention from OEMs.

### Digitalization

In October, Toyota announced major production cuts due to the impact of COVID-19 in Asian countries, which affected its core semiconductor supply. This motivated suppliers and OEMs to revisit their Business Continuity Planning (BCP) strategies, with particular attention to improving supply chain visibility through digital transformation.

# The pandemic and other natural disasters in Asia (e.g., cyclones, flooding, earthquakes) have further disrupted the global supply chain.

Cyber is another topic of interest in the region. Toyota recently had to shut down production in 14 factories for 24 hours due to an attack on Kojima Industries, a plastic parts and electronic components supplier. While there has been significant interest from suppliers in cyber security predating this incident, this stoppage exposes another weak link in the supply chain, where small and medium sized companies become the target of attacks that can impact larger downstream entities.

### ESG

With 26th UN Conference of the Parties (COP26) in the rear-view mirror, we have seen a number of major announcements from Japanese OEMs previously reticent to clarify their EV strategies (Honda in October, Nissan in November, followed by Toyota in December).

Suppliers had been waiting for further direction from OEMs before aligning their own mid-to-long-term strategies. Now that

OEMs have committed to EV, suppliers can focus more on how fast consumer sentiment will shift from ICE to EV.

We have seen a huge rise in inquiries from both suppliers and OEMs related to ESG strategy and carbon footprint visibility since COP26 wrapped up.



## Europe

### Corporate Transformation

Suppliers in Europe face the strictest CO<sub>2</sub> regulations. We expect ICE vehicles to disappear from the European Union market by 2035. Suppliers with a strong focus on ICE-related products need to shift their business towards other products or face extinction. As a result, we are seeing a lot of companies look at carve-out or spin-off strategies for their ICE-related product groups. However, selling businesses with a high ICE exposure has increasingly become a challenge if not an impossible task.

At the same time, automotive businesses that are either unaffected by or benefit from the “transformation of the industry” are attracting a lot of M&A interest. It is very likely that the European supplier industry will look a lot different five years from now.

### Restructuring

At the beginning of the COVID-19 crisis the market expected a wave of insolvencies. This did not materialize. Yet several sizeable mid-market companies like IFA Group and BOS have been sold out of financial distress, often as in these cases to private equity investors. Typically, in this type of deal the existing banks would “roll” the debt, the new investor would provide “fresh money” and the existing shareholders would sell at low a price for the equity.

Deloitte has been asked by various automotive clients to support on turnaround and restructuring projects targeting working capital and operational improvement.

### Digitalization

As in other regions, the focus of automotive suppliers is very much on making value chains more flexible to be able to react more quickly to uncertainties, but also to drive forward the development of new products and services gaining additional profitability impact.

The increasing share of software in cars and the associated necessity to build up own software development capacities is

clearly in focus. Constantly high-cost pressure due to shortage of raw materials is slowing down investment opportunities.

However, refocusing the core business towards sustainable profit pools is critical.

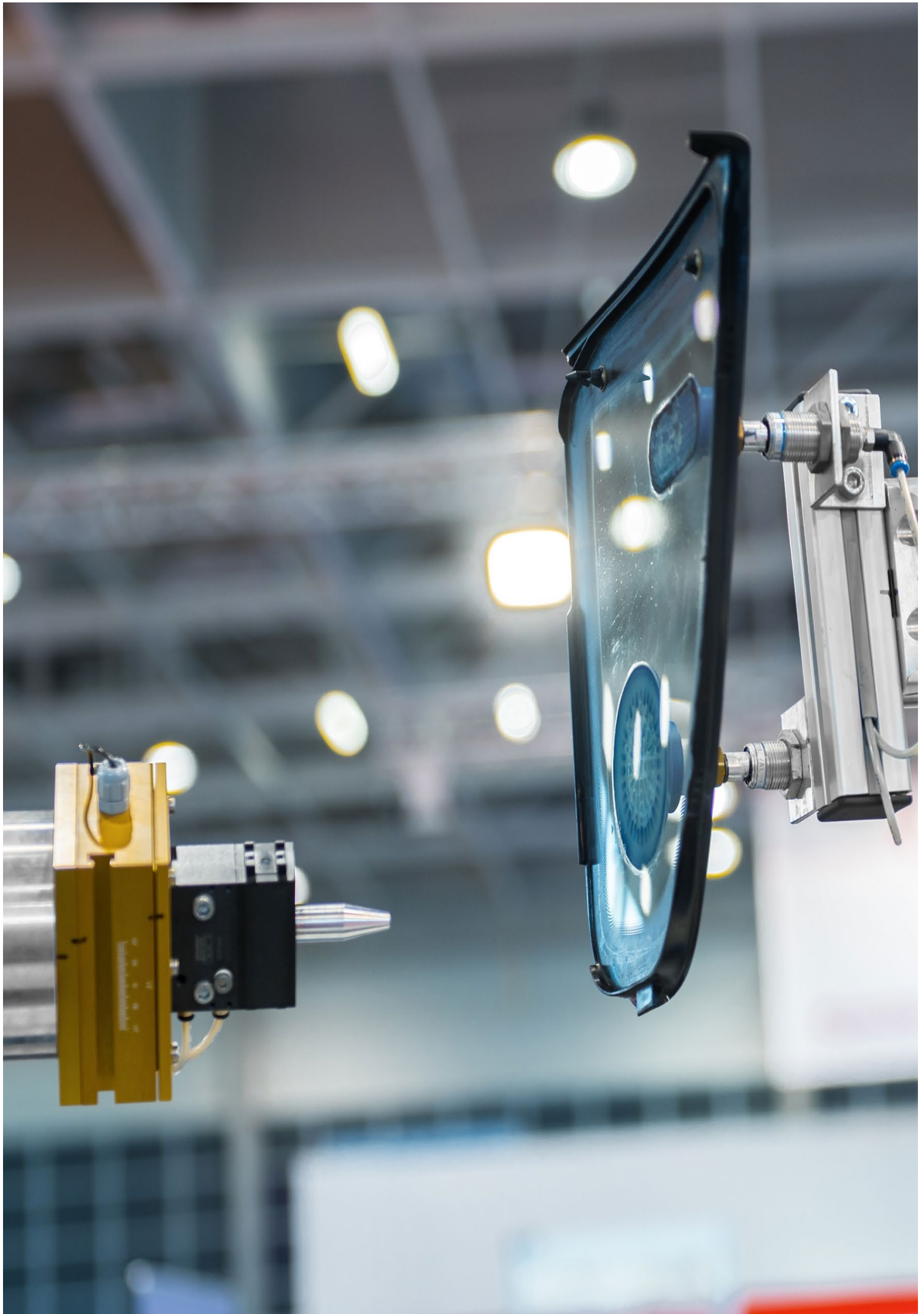
The same applies to cooperation with the so-called hyperscale’s. The entry into unlimited cooperation is rather hesitant, due to a partly unclear business case or the use of common governance models.

Overall, the challenges remain, even if successes are clearly beginning to emerge. The increasing complexity of supplier industry transformation is driven not only by digitization, but also by sustainability requirements and the need to build eco-systems – all with a massive impact on how to configure an automotive supplier value chain.

### ESG

A recent survey of the German Automotive Industry by Deloitte found out that most automotive suppliers consider sustainability as a core aspect in their business. However, only 40 percent take sustainability measures along the entire value chain, but ESG aspects become more and more important for the entire supply chain.

A trend that can be observed is that OEMs implement more sophisticated measures to ensure that suppliers comply with their ESG requirements, which demands that suppliers provide auditable information for each dimension of ESG. This induces the necessity for suppliers to be very transparent and to be able to collect the relevant data. An interesting transformation is ahead of suppliers.





# M&A activity

This section will take a critical look at recent M&A activity in the automotive supply sector and provide more context for key deals based on the regional factors outlined above.

## Consolidation

With virtually no growth in vehicle volume at the moment, consolidation is ongoing.

### October 2021: Kongsberg Automotive (Interior Comfort Systems)/Lear Corporation

Lear Corp, the US-based manufacturer and supplier of vehicle seating and electrical power distribution systems, announced its plans to acquire the Interior Comfort Systems division of Kongsberg Automotive ASA, a Norwegian manufacturer of automobile parts such as brakes, steering and wheel systems, transmissions and stabilizers. The price tag is 175 m EUR (203.64 m USD).

### July 2021: Benteler International AG (Goshen and Kalamazoo automotive plants)/Shiloh Industries Inc.

Shiloh Industries Inc. has agreed to acquire Benteler International AG's US-based plants in Goshen and Kalamazoo.

### February 2022: Meritor Inc./Cummins Inc.

Cummins has made a friendly public offer for Meritor, a major transaction in the commercial vehicle segment. With the acquisition Cummins complements its engine and transmissions products with Meritor's axles and brakes. The intention is to strengthen its product offering for an zero emission drivetrain.

## Portfolio adjustment

The value creation model in the automotive industry is changing significantly, due in part to advances in drivetrain technology but also to changing consumer preferences.

### August 2021: HELLA GmbH & Co. KGaA/Faurecia S.A.

Faurecia S.A., a France-based listed company that produces vehicle components, has agreed to acquire HELLA GmbH & Co. KGaA ("Hella"), a Germany-based listed company focused on R&D and production of vehicle lighting systems as well as other electronic components and systems.

## Restructuring

### February 2022: Tenneco Inc./Apollo Global Management

Apollo Global Management, the American alternative asset manager, has agreed to acquire Tenneco Inc., a listed leading manufacturer of automotive exhaust and suspension systems. The deal value is 5.6 bn EUR (6.3 bn USD). Tenneco had merged with Federal-Mogul in 2018 and aimed to split the company. This may now be part of the investment thesis of Apollo.

### March 2022: Marelli

KKR-backed Marelli has been negotiating with lenders and financial sponsors, intending to turn around the business under the Alternative Dispute Resolution (ADR) process. Marelli is not an exception amongst many Japanese suppliers that are hard hit by COVID-19 and chip shortage, while struggling to break out of the "keiretsu" comfort zone. It is noteworthy, however, that Marelli is only the third supplier who filed for the ADR since 2019 – following Akebono Brake and Sanden.

## AutoTech

### December 2021: Harley Davidson/AEA-Bridges Impact Corp.

AEA-Bridges Impact Corp., the US-based special purpose acquisition company (SPAC) with a sustainability focus, has agreed to acquire LiveWire, the electric motorcycle division of the listed motorcycle manufacturer Harley Davidson through a SPAC transaction. The consideration is 1.4 bn EUR (1.6 bn USD).

# Capital market perspective

As can be seen in the charts on the right hand side there is no general earnings multiple for automotive suppliers.

Companies active in the product segment of electric systems, microcontrollers and in the aftermarket have relatively high EV/EBITDA valuations while companies in the product segments of metal forming and NVH (noise vibration harshness) have relatively low valuations.

In addition valuations differ over time. The charts show a jump in valuations during the COVID-19 period reflecting a short-term decline in earnings and they show a recent decline in valuations due to the war in Ukraine.

In fact valuations differ strongly between different product segments reflecting the future earnings potential of the respective product segment.

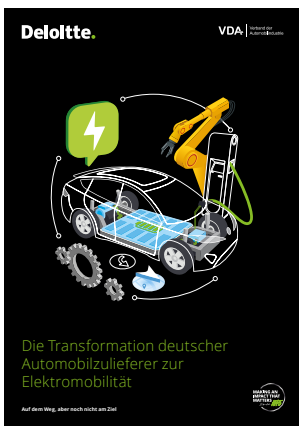


**Fig. 8 – Enterprise Value/EBITDA (NTM) last five years for different automotive product segments**



Source: CapitalIQ.

# Recent Deloitte publications



Accelerating the transformation toward alternative drivetrains in the automotive supplier industry – strategic positioning in times of great uncertainty.



In an era dominated by climate change, e-mobility and pandemic-related disruption in the global supply chain, transformation is inevitable for many players in the automotive supplier industry.



To say the global automotive industry has been through the wringer in the past 17 months is an understatement. From pandemic-provoked production shutdowns and an accelerated shift to virtual sales to crippling parts shortages and a planetary climate crisis, manufacturers and suppliers have been fighting one virtual (and literal) fire after another for more than one year.



The automotive industry is entering a period of once-in-a-century transformation. In response to the “CASE” and “MaaS” trends, this report summarizes the changes that automotive parts suppliers must make in this uncertain environment and examines the “defensive” and “offensive” measures they must take to overcome these difficulties.



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