



Revving up for localization

How automotive companies should
adapt to the new world order

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Introduction

For years, the automotive industry has enjoyed the benefits of global free markets, allowing companies the geographic flexibility to achieve the highest volumes at the lowest costs. But market trends are pointing to an end of globalization, which will force automotive companies to make a profound structural shift, exiting distant regions to focus on more local markets, operations, and supply chains.

Recent events have caused the governments in the industrialized world to move away from global free markets. These changes are more than just the temporary aftereffects of COVID-19 or geopolitical conflicts. Governments are adopting more protectionist policies, imposing new tariffs, reducing imports, and authorizing restrictive trade measures.



The current administration's tariffs on goods from Mexico, Canada, and China loom particularly large over the automotive industry. The introduction of these tariffs on traditionally key trading partners of the US not only compounds the strategic uncertainty but also accelerates the imperative for localization.

Consider the intricate dance of supply and demand, where the automotive industry has long thrived on the global stage by sourcing components from across borders to optimize costs and efficiency. These new tariffs introduce a formidable variable into this equation. The direct impact could be an immediate increase in the cost of imported components, pushing companies to seek local suppliers to offset potential financial strain. Indirectly, retaliatory tariffs are likely to constrict once-lucrative export markets, compelling US-based automakers to localize production not only for domestic consumption but also for international markets. This trend continues the shift from global markets, global vehicle platforms, and global production flexibility to more regionally focused offerings and manufacturing.

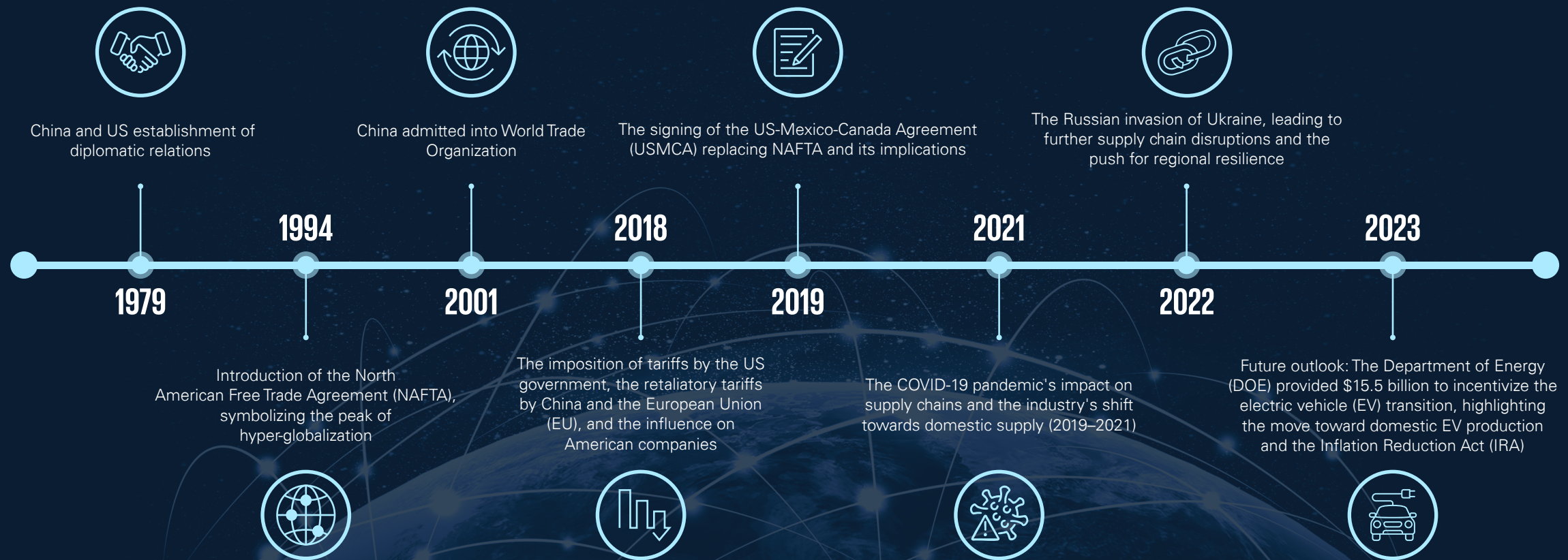
This potential shift is not merely reactive but strategic, urging us to reassess our operational footprints. The speed with which companies must now consider moving toward more localized models could redefine agility in the automotive sector. For instance, consider the strategic adjustments required to fortify local supply chains in anticipation and response to these tariffs. Companies might need to expedite partnerships, scale up domestic manufacturing capabilities, or even innovate new material substitutes more rapidly than previously planned.

Moreover, this tariff-induced pivot toward localization should not be viewed through a lens of constraint but as an opportunity for innovation and sustainability. The drive to localize operations and supply chains could spur advancements in automation and artificial intelligence (AI), reduce carbon footprints through shorter supply routes, and potentially foster stronger local economies.

The call of the hour is not just to navigate through the fog of policy uncertainty but to steer toward resilience and adaptability. This involves not just bracing for the impact of these tariffs but proactively reimagining supply chain architectures. It becomes imperative to engage in dynamic scenario planning, embracing a spectrum of possibilities from minimal impact to significant shifts in tariff policies. The goal is to ensure competitive and innovative leadership regardless of the trade winds that may blow, positioning your company to thrive in a future where flexibility and sustainability are paramount.

The evolution of automotive globalization

A visual representation of the evolution from hyper-globalization to regional resilience shows key moments and policies affecting the automotive industry highlighted with icons and brief descriptions.



¹ International Monetary Fund, Finance and Development, June 2023: Growing Threats to Global Trade, June 1, 2023.

The end of globalization in automotive manufacturing

For auto manufacturers and their suppliers, which have spent years looking out to the horizon, the change to a more regionalized worldview won't be easy. And it will take more than just a shift to "near shoring."

Moving away from a global model will require auto companies to undertake a deep strategic review of their business. The challenges and implications for the future include increased manufacturing costs and declines in sales volumes. Survival will require analysis of current market footprint and decisions around where to stay and where to exit.

Auto companies will need to embrace change, seek efficiencies, and potentially restructure their business models to align with the new realities of the market to ensure competitiveness, while resisting cost pressures. Specifically, they will need to develop locally focused operations, tailored to local tax, regulatory, data compliance, workforce, and commercial conditions.

Without rapid and strategic changes to global operating models and supply chains, automotive companies will increasingly struggle to meet production and volume goals without significant margin erosions.



Shifting gears toward protectionism and its impact

In the late 2010s, governments began to lean into protectionist policies to reduce dependence on imports. In March 2018, the US government imposed a 25 percent import tariff on steel and a 10 percent import tariff on aluminum to protect domestic producers. Three months later, in June, the government announced 25 percent tariffs on \$50 billion worth of Chinese imports (including cars). China retaliated by imposing tariffs on \$34 billion of exports from the US. The administration also threatened to impose 20 percent tariffs of European cars, while the EU imposed “rebalancing” charge in response to the US tariffs on European steel and aluminum.²

The effects of these protectionist policies on American companies was mixed. They helped shield US steel and aluminum manufacturers from foreign competition, leading to increased domestic production and job creation, and shares of US domestic steel and aluminum makers advanced. However, companies in other industries—from automakers to airplane makers—saw their stocks decline as investors worried about increased costs thanks to retaliatory tariffs and what effect the higher costs for these metals would have on these companies.³

Other economic indicators were more positive. Following the tariffs, industrial production and manufacturing output edged upward, powered by an increase in motor vehicles and parts. In August of that year, US producers assembled cars and trucks at an annual rate of 11.54 million units, the fastest pace since April.⁴ Mexico was the biggest beneficiary of the tariffs—automotive production increased by 5.6 percent in 2019 compared to 2018,⁵ with a large portion of the growth attributed to the USMCA’s regional value content requirements.

² Jon Stone, “Donald Trump threatens EU with 20% tariffs on European cars in major escalation of trade war,” The Independent, June 22, 2018

³ Nick Carey and Arunima Banerjee, “Automakers among sectors reeling over U.S. steel, aluminum tariffs,” Reuters, March 1, 2018

⁴ “U.S. Industrial Output Rises More than Expected,” Trading Economics, September 14, 2018

⁵ Noi Mahoney, “Record number of Mexican-made vehicles cross borders to be sold in North American, Asian markets,” Freight Waves, July 17, 2019

⁶ “DOE Announces \$59 Million and 43 projects to Accelerate Advanced Vehicle Technologies Research,” Energy.gov., August 16, 2019




⁷ Jesse Goldman, Matthew Kronby, Milos Barutciski, Jacob Mantle, “USMCA Automotive Rules of Origin,” Borden Ladner Gervais LLP, November 22, 2018

In addition to tariffs, the administration also set out policies to encourage a domestic economic resurgence. For example, in 2019, the DOE announced \$59 million for 43 projects for new and innovative advanced vehicle technologies research “...to strengthen national security, support American energy dominance, and enable future economic growth.”⁶





Meanwhile, in September 2018, the US, Mexico, and Canada announced a new trade agreement, the USMCA, to replace NAFTA. This trade pact had broad implications for automakers and what constituted a locally made car. According to the agreement, “a passenger vehicle and its producer will need to satisfy four different origin requirements for the vehicle to qualify for duty-free treatment: (i) the vehicle itself will need to satisfy a 75 percent regional value content requirement; (ii) certain “core” parts in the vehicle will need to qualify as “originating” in the USMCA region; (iii) the producer will need to source 70 per cent of its steel and aluminum in North America; and (iv) the producer will need to achieve “high-wage” labor value content requirements totaling 40 percent of (yet to be clearly defined) expenditures.”⁷

Then and now

Benefits of hyper-globalization

-  NAFTA
-  Mass production efficiency
-  Global market expansion

Protectionism to regional resilience

-  Tariffs (barriers)
-  COVID-19 impacts
-  Focus on domestic production, IRA, and CHIPS Act, and the move towards regional supply chains.
-  Push for localization



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Adapting strategies to boost domestic production

All of these government initiatives to increase domestic production led to an increase in foreign direct investment (FDI), as investors looked to take advantage of those initiatives and avoid import duties. In 2019, FDI in transportation and equipment manufacturing reached \$159.6 billion compared to \$128.4 billion in 2017, an increase of more than 24 percent.⁸

For example, in the fall of 2019, Toyota announced an investment of \$391 million in its San Antonio truck assembly plant to move its manufacturing lines closer to its customer base

and fulfill its commitment to invest \$13 billion in the US by 2021.⁹ And Hyundai Motor Group, in a joint venture with Aptiv, announced an investment of \$1.6 billion in Boston to develop self-driving vehicle technologies supporting its plans to commercialize autonomous vehicles by 2024.¹⁰

At the same time, motor vehicle imports into the US declined 2.5 percent from 8 billion units in 2017 to 7.8 billion units in 2019.¹¹

⁸ "Direct Investment by Country and Industry, 2019," Bureau of Economic Analysis, July 22, 2020

⁹ "Toyota Injects \$391 Million New Investment In Its San Antonio Assembly Plant," Toyota USA, September 17, 2019

¹⁰ "Aptiv and Hyundai Motor Group Complete Formation of Autonomous Driving Joint Venture. Hyundai new release, March 27, 2020

¹¹ Martin Placek, "Number of motor vehicles imported by the United States from 2017 to 2020," Statista, September 30, 2022

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Pandemic-induced supply chain rethink

Undoubtedly the black swan event of a generation, the COVID-19 pandemic spawned worldwide disruption in business and production owing to lockdowns and the collapse of supply chains.¹²

These disruptions were particularly palpable within the US automotive industry, which witnessed a slowdown in production and vehicle sales compared to the prepandemic era, due in part to supply chain constraints, semiconductor chip shortage, skyrocketing freight costs, and US port congestion.

From 2019 to 2021, US auto production slid 37 percent to 13.1 million units from 20.9 million units because of efforts to contain the pandemic. During the same period, annual new car sales fell 12 percent to 15 million units from 17 million.¹³

¹² Lazario Gamio, Peter S. Goodman, "How the Supply Chain Crisis Unfolded," The New York Times, December 5, 2021

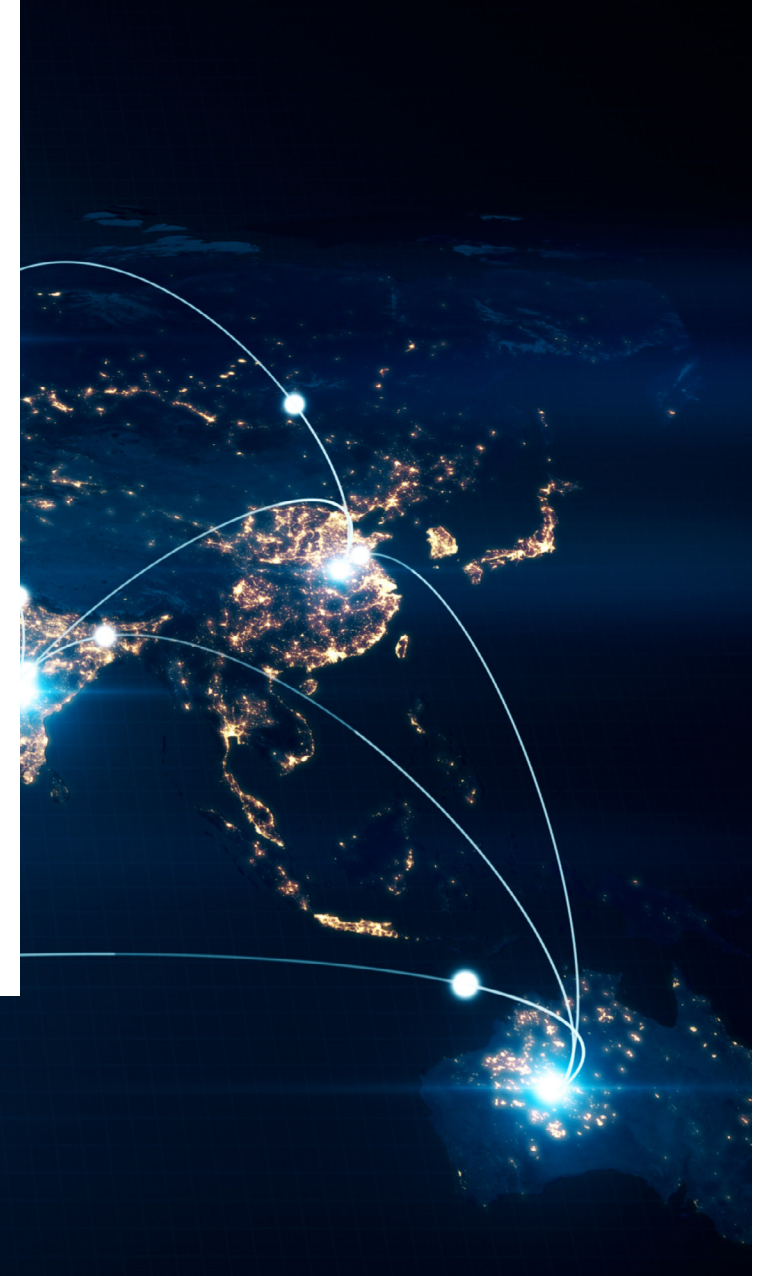
¹³ IBISWorld, March 2023

¹⁴ Finbar Bermingham, "US and EU strike metals pact to take on China's 'steel dumping,'" South China Morning, October 31, 2021

¹⁵ Asma Khalid, "Biden is keeping key parts of Trump's China trade policy. Here's why," NPR, October 4, 2021

In response to the inability to obtain materials, automakers began to shift focus to domestic supply. For example, in December 2021, GM announced plans to source rare earth minerals and alloys domestically for production of EVs as part of its continued focus on domestic supply chains.

At the same time, the pandemic forced governments to ease some of their protectionist policies, although keeping the pressure on China. The EU and US announced a new metals alliance that would "restrict access to our markets for dirty steel, from countries like China."¹⁴ Also, the Biden administration, which took office in January 2021, decided to broadly maintain tariffs on US imports of Chinese goods to uphold the previous administration's trade deal and pressure China for not meeting its promises made under that deal.¹⁵





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Further disruptions and the push for regional resilience

In February 2022, Russian forces invaded Ukraine. The attack was met with international condemnation and led to the imposition of various trade sanctions on Russia. These sanctions, as well as concerns about political tensions between Taiwan and China, caused supply chain disruptions. As Russia hosts 34 auto factories that produce both passenger and commercial vehicles, and is a major global supplier of auto parts and other key materials including nickel and palladium, the impact was widely felt.¹⁶

The supply chain disruptions led a number of global OEMs—including BMW, Volkswagen, Honda, Mazda, Nissan, Volvo, Toyota, Mercedes Benz, and Ford—to suspend vehicle manufacturing due to parts shortages, sanctions, and delivery challenges to Russia. The sanctions imposed on Russia also caused price spikes of many commodities, including crude oil, palladium, neon gas, nickel, and semiconductors.

By 2023, governments wanted to uphold national security considerations and domestic production by reducing their dependence on foreign powers for energy, industrial commodities, food, tech, money, and medicine. These concerns accelerated a shift to more regional trade and supply chains rather than fully bringing production onshore.¹⁷

Meanwhile, governments once again led initiatives to increase domestic production. In August 2023, the DOE announced \$15.5 billion in funding and loans available to incentivize the transition to EVs in the US.

¹⁶ Gary Silberg, "The impact of the Russia-Ukraine war on the auto industry," KPMG, February 24, 2022

¹⁷ "2023 Climate Report," J.P. Morgan Chase, 2023

New policies and the drive for domestic production

More recently, the US government has continued its policies of promoting domestic production. In August 2022, the IRA, included a provision that aimed to enhance EV sales by providing tax credits of up to \$7,500 on eligible North America-produced EVs (eligibility based on varying percentage criteria of EV material sourcing, parts production, and vehicle assembly in North America). The goal was to bolster domestic EV production and wean US EV production from reliance on Chinese supply chains.¹⁸

About the same time, the CHIPS and Science Act was signed into law, providing about \$54 billion to promote to domestic semiconductor production. The act was designed to reduce the dependency of automakers on other countries for semiconductor procurement, and to subsidize, promote, and scale up research and development in the field of semiconductor manufacturing in the US.

About a year later, the government announced another protectionist measure, particularly against China. The rule stated that parties seeking funding under the CHIPS and Science Act may not engage in any significant transaction involving the material expansion of semiconductor manufacturing capacity in China or any other foreign country of concern. Encouraged by the US sanctions, other governments pursued their own sanctions against Chinese semiconductor companies. The governments of Japan and the Netherlands announced their intention to issue licensing requirements for exports of advanced semiconductor manufacturing equipment. Without access to these, China would find it challenging to produce any of the leading-edge chips that are needed for the development of AI or 5G.¹⁹



¹⁸ Nik Popli, "The Inflation Reduction Act Will Soon Make it Cheaper to Buy EVs—If They Have North American Batteries," Time, August 16, 2022.

¹⁹ Yuka Hayashi, Vivian Salama "Japan, Netherlands Agree to Limit Exports of Chip-Making Equipment to China," The Wall Street Journal, January 28, 2023

The road to localization and its challenges

These trends toward deglobalization are having a significant impact on automakers' strategies and operations as they move toward a more localized business model.

Moving away from global markets puts pressure on auto companies, which rely on volume for profits, and raises questions about their cost structure. Automakers will also have to address the effects these protectionist policies will have on their major suppliers. For example, governments are forcing the localization of semiconductor chips, sensors, lithium for EV

batteries, and rare-earth metals for EV motors. And with the localization of software and data, automakers will have to grapple with issues around privacy and national security.

In response to these protectionist policies and tariffs, automakers and their suppliers are localizing their supply chains. This shift involves a multifaceted approach involving local investments, expanding supply networks, and implement new technologies. Here's how they are doing it:

Investing in local production facilities:

Companies are investing in manufacturing plants closer to their main markets. For instance, several European and American automotive manufacturers are increasing their production capabilities in Eastern Europe and Mexico, respectively, to serve their primary markets more efficiently.

Adapting to local regulations and incentives:

Automotive companies are taking advantage of local government incentives for manufacturing, such as tax breaks, subsidies, and simplified regulatory procedures. They are also adapting to stricter environmental regulations by incorporating more sustainable practices in their local operations.

Building stronger relationships with local suppliers:

Automakers are actively seeking and developing partnerships with suppliers that are geographically closer. This not only reduces transportation costs and carbon footprint but also helps in mitigating risks associated with international shipping and trade tensions.

Developing local talent and capabilities:

Investing in the local workforce's skills and capabilities is crucial for the success of localized supply chains. Automotive companies are partnering with local educational institutions and investing in training programs to ensure a skilled workforce.

Diversifying the supplier base:

By broadening their network of local suppliers, automotive companies can reduce dependence on a single source or region. This diversification strategy is crucial for managing supply chain disruptions more effectively.

Leveraging digital supply chain solutions:

To enhance visibility and coordination across the localized supply chain, companies are implementing digital tools and platforms. These technologies facilitate real-time tracking, demand forecasting, and inventory management, enabling more responsive and flexible supply chain operations.

Focusing on sustainability:

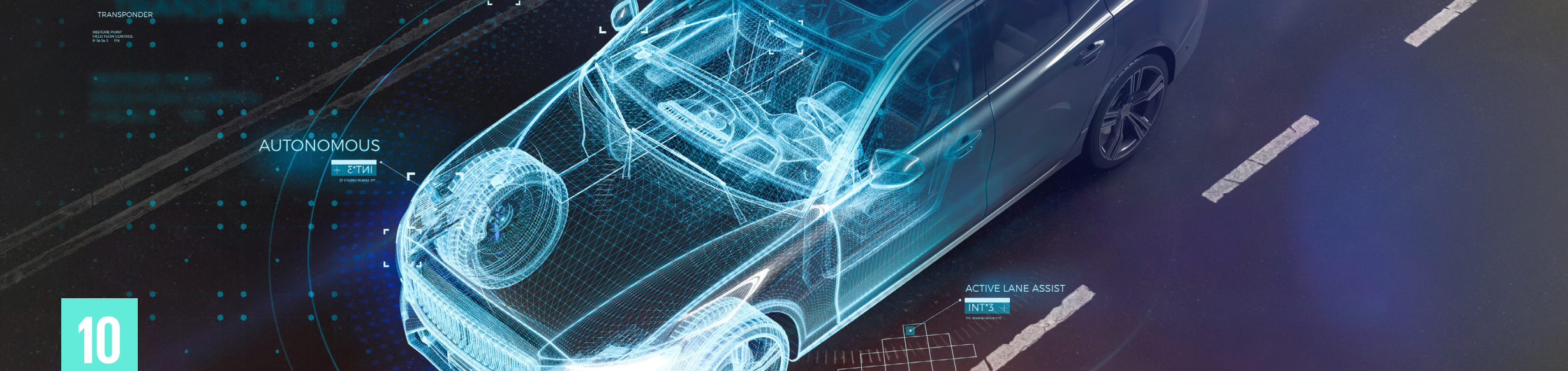
Localizing supply chains allows companies to reduce their carbon footprint by minimizing transportation distances. Additionally, collaborating with local suppliers who adhere to sustainable practices is becoming increasingly important to meet both regulatory requirements and consumer expectations.

Investing in technology and automation:

To offset the higher labor costs that might come with shifting production closer to home, companies are investing in advanced manufacturing technologies, such as robotics and AI. These technologies enhance efficiency and productivity in local plants.

Insourcing and reducing dependence on Tier 1s/2s:

Automotive OEMs are insourcing production and reducing reliance on Tier 1 and Tier 2 suppliers to enhance control over production, reduce supply chain risks, and improve responsiveness to market changes, boosting operational resilience and flexibility.



How to strategically plan for an evolving market landscape

With the move toward a more localized business model, automakers will need to focus on these key areas to adapt to new market realities:

Scenario planning is essential for adjusting to reduced volumes. How should your business model adapt when volumes decrease or split due to a shift from global to local? What are the break-even volumes required for sustainability with a regional presence? How can partnerships and collaborations help in mitigating risks and sharing responsibilities?

The role of analysis and strategic planning in navigating transitions is paramount. Should you maintain your current business model or consider changing it? Do you have a business case that remains accretive to your shareholders? Should you continue operating in your existing markets or shift focus to smaller ones?

Substantial investment and the development of local supply bases is essential. Should you invest in or establish your own suppliers, or should you incur higher costs by paying for the establishment of local supply chains?

Maintaining vehicle affordability is a challenge. Will consumers be willing to pay higher prices, or will they have no alternative? Achieving the same cost basis when transitioning from global sales to local regions presents another difficulty. Additionally, how can efficiencies be gained through the use of AI and automation?

Conclusion

The automotive industry is undergoing a significant transformation as it shifts from a globalized model to a more localized approach. This change is driven by recent geopolitical events, protectionist policies, and the need for greater supply chain resilience.

Auto manufacturers and suppliers must adapt by investing in local production facilities, building stronger relationships with local suppliers, and embracing advanced technologies to maintain competitiveness.

While this transition presents challenges, such as increased costs and the need for strategic planning, it also offers opportunities for innovation and sustainability. By focusing on localized operations and leveraging digital tools, the industry can navigate these changes and continue to thrive in a more regionalized market.

How KPMG can help

KPMG is a recognized leader in delineating critical trends in the automotive sector-mobility, autonomy, electrification, etc. We have helped top companies in the industry plan and execute plans to make the most of these trends. Our data-driven approach allows us to quantify the impacts of trends across the value chain on automakers, dealers, suppliers, and other players so they can identify and prioritize emerging opportunities. We then assist clients in defining technology investment and development roadmaps to pursue these opportunities. In addition, we support clients with operating-model and business transformations to prepare their organizations for building new types of products and doing business in impactful new ways. We offer the following services across finance, accounting, tax, technology, HR, commercial, and operational functions:

- Portfolio decoupling and cash repatriation planning and execution
- Conduct scenario planning exercises
- Data analytics to identify supply chain dependencies
- Strategies to mitigate impact of tax and tariff
- Assist in availing of government subsidies to reduce cost of localization
- Location selection to optimize economic benefit and reduce risk
- Evaluate potential M&A, investments in supply chain to reduce risk

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