

## Setting the Course for Automotive Recovery After COVID-19

by [Alan Martinovich](#), [Andreas Schlosser](#), [Florent Nansé](#), [Ninghua Song](#), and [Philipp Seidel](#), Senior Consultants, Cutter Consortium; and [Bill Reeves](#)

Economic lockdowns in the COVID-19 crisis have quickly and severely compromised the automotive supply chain and dealerships worldwide in unprecedented ways — car sales dropped by up to 80% in one month and production halted for weeks. The recession after the crisis will cut global car demand by multi-digit percentages in 2020, followed by a slow recovery that will lag GDP rebound by one or two years. By the time car sales reach pre-crisis levels again in two to three years, powertrain electrification and digitalization will have made additional advances, just as buyers are returning to the market. This confluence creates opportunities in the automotive crisis recovery for those in the industry who set themselves on the right course now.

### Dark Days Ahead for the Automotive Industry

Analysis of past economic crises and recessions in China, the US, and Europe shows that vehicle sales fluctuate in line with the overall economy: they decline as private and corporate customers postpone the purchase of expensive goods in times of financial distress, and economic recoveries are only later followed by stabilization of car sales. This pattern varied slightly across China, the US, and Europe, but generally the declines in car sales were more intense than the overall GDP contraction, and the recovery of car markets took longer. We have taken a closer look at the effects and patterns of recovery in each region to better understand how long it will take before car markets “return to normal” across the world, and what the automotive world could look like then.

We can compare the duration and slope of economic recovery to a V, U, W, or L shape (see Figure 1). A “V” recovery would be quick and immediate and without bigger long-term effects. A “U” recovery would imply

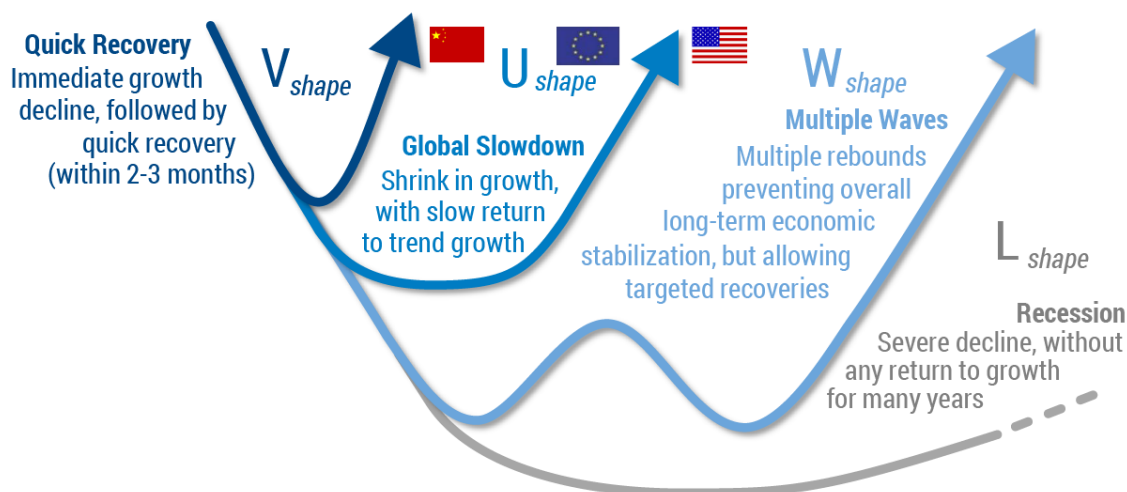


Figure 1 – Economic recovery scenarios. (Source: Arthur D. Little.)

lower short-term growth rates and thus more significant effects in the medium term. The “W” pattern would incorporate multiple waves of partial recoveries and setbacks, lengthening the time to final recovery overall. Finally, the “L” describes a severe recession with long-term effects on the whole economy, low GDP growth rates, and only a long-term return to pre-crisis conditions.

Economists agree that we cannot easily compare the current crisis to previous recessions. Considering that we cannot eliminate the root cause of the crisis until the development of a treatment or vaccine, and in observing the enormous economic implications, a U-shaped development is currently the consensus expectation for the European and US economies.

China, the US, and Europe will see different patterns of recovery, depending on how hard each has been hit by the pandemic itself, the regions’ containment or mitigation strategies, and their overall economic state and structure. Degrees of political interventions, as well as the direction of those interventions, will play an important role, and global interdependencies will influence recovery even more so than they did in the financial crisis of 2008. Severe turbulence in one part of the world will slow the rebound in other regions.

## Car Markets Lag Economies in Recovery

In the aftermath of the COVID-19 crisis, the impact and recovery of both GDP and car sales are expected to be even more profound than in previous crises. Not only does the economic downturn affect car demand negatively, but a significant supply-side shock is also added to the equation due to lockdowns and preventive closures of production facilities, transportation, car dealerships, and vehicle registration offices that have frozen the auto market for significant portions of the first two quarters of 2020.

The look into historic economic crises and recoveries indicates that auto sales generally take twice as long to recover in the US as the GDP rebound (see Figure 2). During the recessions of the 1980s and 1990s, the GDP

was back to growth within a year, whereas the car market took two years to get back into full swing. During the 2008 financial crisis, car markets required three years for the rebound, and the GDP reached pre-crisis levels after less than two years. European markets have historically returned to pre-crisis states in a similar time frame of three years with support of government interventions, such as purchase incentives and beneficial taxation (see Figure 3). Examples can be taken from the European Monetary System (EMS) crisis of the 1990s and the financial crisis in 2008, which was directly followed by the European debt crisis. Each time, car

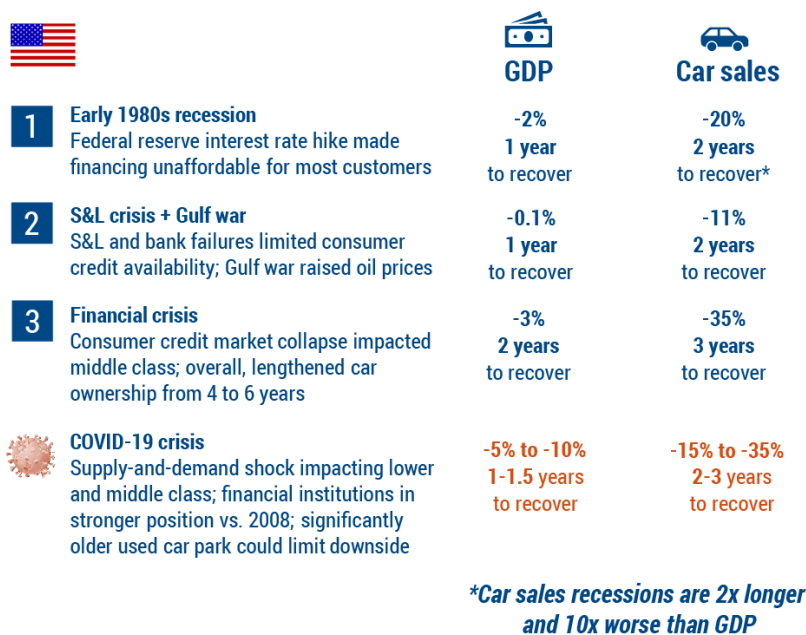


Figure 2 – Economic and car market crises in the US. (Source: Arthur D. Little.)

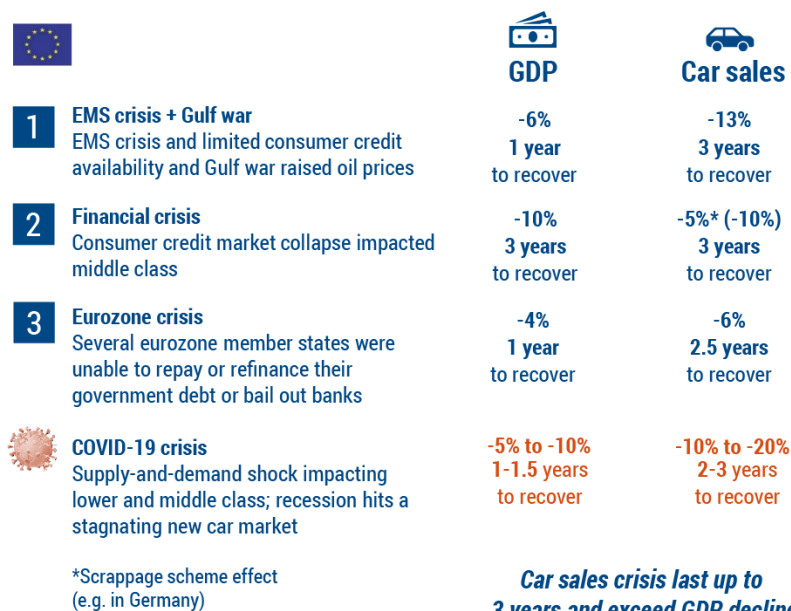


Figure 3 – Economic and car market crises in Europe. (Source: Arthur D. Little.)

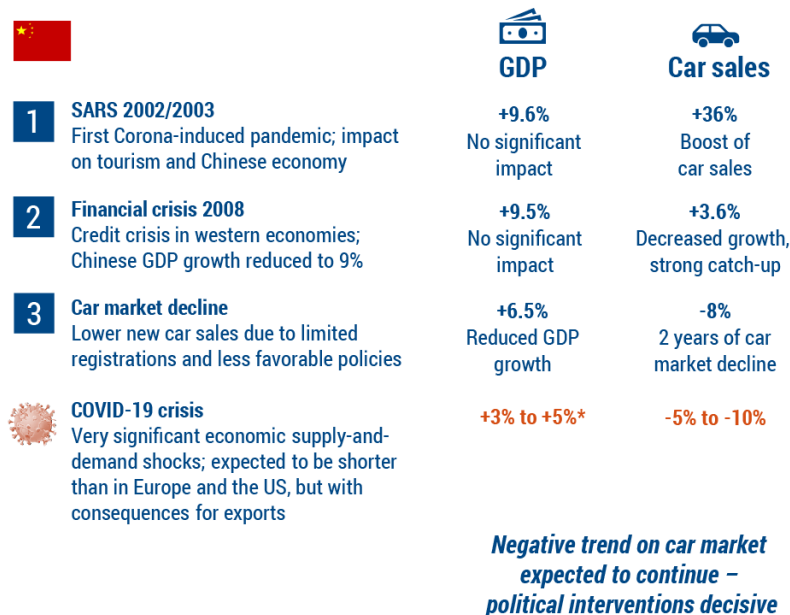


Figure 4 – Economic and car market crises in China. (Source: Arthur D. Little.)

sales suffered more severely than the broader economy. Southern European countries, which were more affected by the European debt crisis, have yet to recover fully from the last decade’s economic “double strike,” and never reached the same volume as before 2008. Unlike the US or Europe, the GDP and car sales in China have not faced recessions over the last 20 years, only some periods of reduced growth (e.g., during the global financial crisis of 2008) — see Figure 4. A significant slowdown in the car market in China came only in 2018, with an increasingly saturated market in large cities accompanied by stricter limitations on new car registrations and fewer financial subsidies.

## COVID-19 Expected Recoveries with Regional Specifics

In the US, COVID-19 will continue to have a devastating effect on service industries for the next 12–18 months, or until there is a vaccine or treatment (see Figure 5). This impact will disproportionately affect the middle class and will lead to large numbers of postponed or cancelled car purchases. Millennials (those who are approximately 22–38 years old) are especially vulnerable to the negative effects, as they will be hit by a second “once-in-a-generation” recession during their prime earning years while they are already struggling

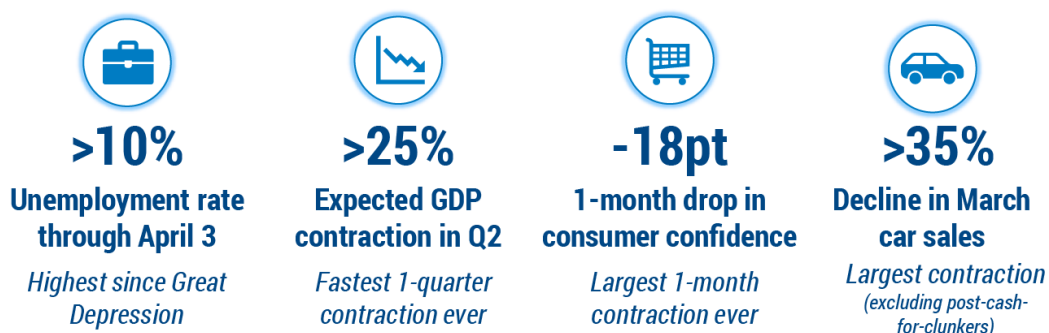


Figure 5 – Key COVID-19 crisis indicators in the US (2020). (Source: Arthur D. Little.)

to manage higher levels of household debt, which will make large expenditures for new cars unlikely. This weakness could lead to an unprecedented reduction of car sales over the next two to three years.

Individual European economies are being affected to different degrees by the crisis. Northern European car markets currently expect less devastating economic effects. In Germany, for example, GDP shrinkage is expected to stay within the single digits for 2020, and the unemployment rate is not expected to go beyond a moderate 6% at the peak of the crisis in the middle of 2020, from a historic low of 3% in early 2020 (versus an EU 27 average of 6.7%). Social welfare and healthcare systems and measures to prevent layoffs will generally stabilize the economies and will prevent large-scale economic hardship. Northern European economies especially have built up additional “resilience” from the learnings of the financial and European debt crises. Elsewhere, markets such as Italy and Spain still suffer from the long-term effects of those recessions. In those regions, the combination of harsh effects on public health and a weaker economic baseline will lead car demand to remain at low levels and not reach previous peaks for many years.

China’s car market is expected to react primarily to government interventions following the pattern of recent interventions: the market has been driven more by the cut of purchase incentives and imposition of stricter regulations limiting new car registrations in the prospering urban areas than by overall Chinese economic conditions. This phenomenon led to a shrinking market in 2018 and 2019, despite steady GDP growth. The current crisis appears to have caused an additional hit to the market and could lead to further sales declines of up to 10% for 2020, depending on the scale of post-crisis government intervention.

## Electric Light at the End of the Tunnel?

Although each economic crisis has its specific anatomy and the key markets will react differently to this crisis, indications suggest that, as with previous recessions, it will take 12–36 months for auto sales to return to pre-crisis levels globally. There is, however, a major difference to the recoveries of 2009, 2002, and earlier: unlike 10 or 20 years ago, the automotive industry is already experiencing multiple huge transformations across global markets:

- **Powertrain electrification.** Demand and supply were already shifting toward electric and electrified vehicles, driven by CO<sub>2</sub> regulation and technological progress (e.g., battery chemistry, high-performance charging).
- **Digitalization of automotive sales and services.** Consumer trends are changing the way we buy and drive cars and consume mobility (e.g., connected cars, assisted driving).
- **Shift in ownership.** A trend toward more flexible models of use, financing and subscriptions of cars, and mobility, also with effects on automotive after-sales.

The current crisis will not bring these disruptions to a halt. On the contrary, industry and technological innovation experts expect the crisis to become a catalyst for the transformation. This notion is driven by

the expectation that the next two or three years will be weak years for sales of still-prevalent internal combustion engine (ICE) vehicles on traditional technology platforms. In other words, demand for the current car lineup will be sluggish due to economic impairments and, at the point demand recovers, customers will return to a more favorable environment for xEVs (battery electric and plug-in hybrid) and demand 2023-2024 state-of-the-art technology.

Together, several factors suggest that ICE sales will never fully and sustainably recover to their pre-COVID-19 levels:

- By 2024, original equipment manufacturer (OEMs) will launch over 400 new xEV models and, in the meantime, cut back on traditional engine offerings.
- Advancing battery technology and ramped-up production volume will bring down costs, which will lead to more attractive prices and extended range for mass-market xEVs.
- Charging infrastructure development will continue and improve the practicability of xEVs for a wider group of users.
- Regulation will continue to push for low-emission vehicles and the scrapping of current ICE fleets, especially in China, Europe, and possibly some parts of the US (e.g., California).

Relative xEV sales shares could rise quicker under these conditions. At the same time, given that many dealerships were closed in the first months of 2020, potential buyers shifted even more aspects of their car purchase journeys to digital channels. The COVID-19 crisis will open the opportunity for a rapid rise in digital sales as both customers and dealers overcome their long-standing resistance and trial new technology.

Awaiting the recovery, the average age of the current vehicle fleet will increase with postponed purchases and financially weakened consumers. These delayed purchases will intensify an ongoing trend to an older vehicle fleet and create additional growth in demand for aftermarket parts and services. For dealers weakened by the loss of sales, the aftermarket will be a growth opportunity and lifeline during the first years of the downturn. Given that these are out-of-warranty vehicles with ages of five-plus years, OEMs will have to adapt their offerings to avoid losing this market to independent aftermarket players.

## Government Intervention Will Shape Market Recovery

The market rebound and automotive world after COVID-19 will be strongly shaped by regulation and government interventions and will differ across the US, Europe, and China. OEMs will need to act with adapted strategies. CO<sub>2</sub> and climate policy orientation will also play major roles in political decision making. Therefore, it is important to develop a strategic view with different scenarios comparing the extent of purchase incentives and the climate and environmental focus (see Figure 6).

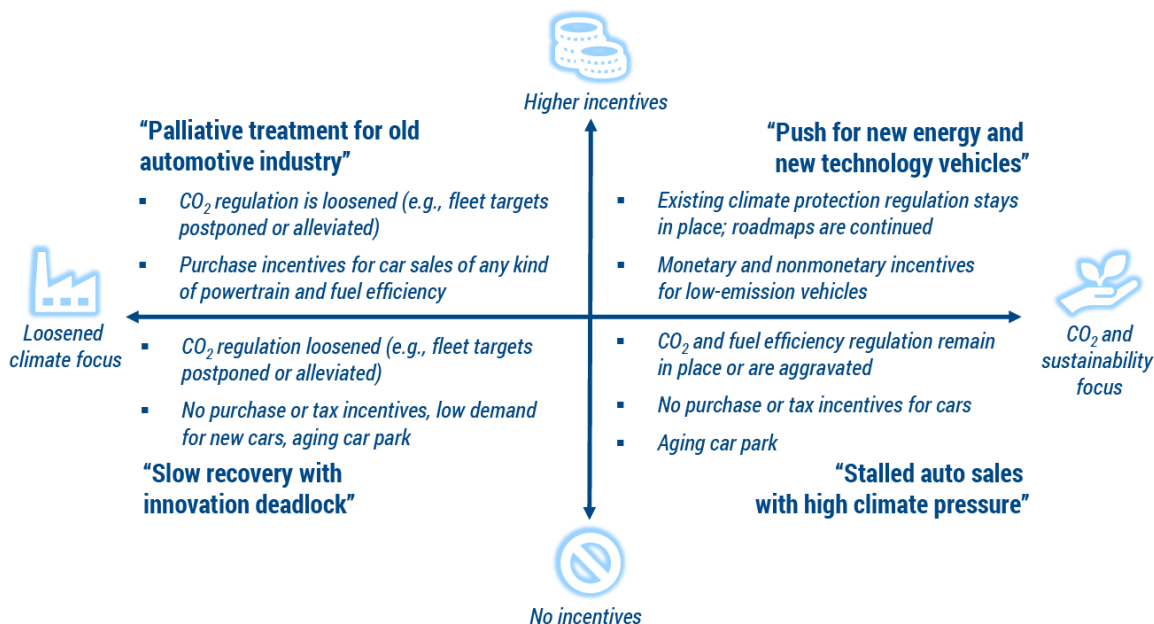


Figure 6 – Scenarios for regulatory conditions. (Source: Arthur D. Little.)

## Act Now for the “New Normal”

We know that most businesses today are focusing on immediate crisis response, but we have enough information now to understand that the automotive markets after the crisis will look far different than those of late 2019. Although securing cash positions and supply chains are both important steps to survive the crisis in the short term, to win in the post-pandemic era, carmakers must start taking action to set themselves up for the new normal by taking action in these areas:

- **Fully embrace a transformation mode.** Use the momentum of crisis-induced change to prepare organizations for the era of xEVs and digital sales “from head to toe” (i.e., from HQ to dealers).
- **Keep investing in future products while reducing ICE investment.** Investing in winning product lineups — with affordable xEVs and connected cars — will be key, even if this implies severe cuts to spending on ICE technology and sacrificing some recovery sales in the short term.
- **Monitor and support the change in the sales landscape.** Dealer networks will suffer heavily and might never reach the same density as in pre-crisis times. Use this time to reboot your sales organization to adopt new methods and be better prepared for digital sales.
- **Leverage new profit opportunities and generate higher shares of revenues from the aftermarket.** An aging vehicle fleet, declining new car sales, and new ownership models demand alternative revenue pools. OEMs need to tap into new aftermarket segments with new offerings for older cars and large fleets.

## About the Authors

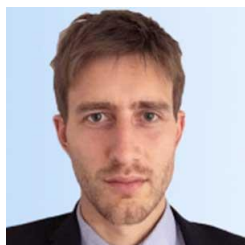


*Alan Martinovich is a Senior Consultant with Cutter Consortium's [Business Technology & Digital Transformation Strategies](#) practice; a Partner at Arthur D. Little (ADL), based in Boston; and heads ADL's North American Strategy & Organization practice. Mr. Martinovich has over 20 years' experience advising management on issues related to corporate competitiveness, business strategy, strategic marketing, and new product development. He has served both in an external advisory role and as an operating member of senior executive teams and has extensive experience in the industrial, healthcare, insurance, and telecommunications sectors. Mr. Martinovich's work has focused on helping clients, ranging from Fortune 50 companies to medium-sized firms, develop a disciplined approach to managing growth and shareholder value creation. He has also served as an advisor to investment groups, where he led engagements involving due diligence analysis, asset valuation, and management turnarounds. Previously, Mr. Martinovich was Managing Director and cofounder of Treacy & Company, a consultancy specializing in growth and innovation. Before that, he led the strategic marketing group at Level 3 Communications, a Fortune 500 telecommunications services company, where he played a leadership role in a number of successful corporate initiatives, including the development of Level 3's pricing strategy and related capabilities, the creation of its VoIP strategy, and the formation of a business unit focused on serving the needs of large enterprises. Mr. Martinovich earned an MBA from Columbia Business School at Columbia University. He holds a bachelor of commerce degree in economics and marketing from the University of Toronto, Canada. He can be reached at [consulting@cutter.com](mailto:consulting@cutter.com).*



*Andreas Schlosser is a Senior Consultant with Cutter Consortium; a Partner at Arthur D. Little (ADL), based in Munich, Germany; and a member of ADL's Automotive and Manufacturing practice with 25 years' experience in the automotive industry and top management consulting. Dr. Schlosser is an expert in sales and aftersales, with a special focus on future sales strategies, multichannel management, and customer experience. He also has vast expertise in e-mobility, having advised multiple clients in this area over the last 10 years. As an expert in future mobility, Dr. Schlosser's focus is on industry convergence topics, such as mobility-as-a-service solutions, in supporting clients from strategy through implementation. He has a long track record of delivering high-profile projects to automotive companies globally, many of them at the CxO level. Dr. Schlosser's key clients are leading vehicle manufacturers in Europe and China as well as selected automotive suppliers. He has also worked for renowned private equity firms in multiple due diligence assignments. Prior to ADL, Dr. Schlosser was Managing Director Central Europe and member of the Senior Leadership Team of a UK-based automotive strategy consulting firm. Before that, he led the Automotive, Manufacturing & High Tech industry sector of a global consulting company. Dr. Schlosser also brings nearly 10 years' industry experience with a German premium vehicle manufacturer, having worked in its corporate strategy and sales strategy department. He earned a PhD from the University of St.Gallen, Switzerland, and a diploma in business administration from Ludwig-Maximilian University, Germany, and the University of Michigan. He can be reached at [consulting@cutter.com](mailto:consulting@cutter.com).*





*Florent Nansé is a Senior Consultant with Cutter Consortium; a Principal at Arthur D. Little (ADL), based in Boston; and a member of ADL's Technology & Innovation Management and Industrial Goods & Services practices. He has broad experience in strategic consulting in terms of anticipation (strategic plans, business planning), innovation (technology roadmapping, R&D&T processes and organization), and transformation (operational excellence, change management, PMO). Mr. Nansé is primarily active in the energy, aerospace, and manufacturing industries, where he covers a broad range of topics involving strategy, technology, and innovation. He has also gained experience in consumer goods (beauty), transport (railways), and transaction support services (due diligence). Mr. Nansé holds an engineering degree from the École Nationale Supérieure d'Arts et Métiers and a master's degree in strategic management from HEC Paris. He can be reached at [consulting@cutter.com](mailto:consulting@cutter.com).*



*Ninghua Song is a Senior Consultant with Cutter Consortium; a Principal at Arthur D. Little (ADL), based in Shanghai, China; and leads ADL's Automotive and Manufacturing practice. Dr. Song has over 15 years' experience in top management consulting and industry with automotive OEMs and major global and local suppliers. She has a deep understanding of the Chinese market, plus her global experience covers Asia-Pacific more broadly, as well as Europe, North America, and the Middle East. Dr. Song primarily advises companies in the sectors of automotive, manufacturing, and energy. Her main fields of expertise include strategy development, marketing, sales and after-sales, operations improvement, and transformation. In the electric vehicle (EV) and EV battery areas, Dr. Song's project topics cover regulation and collaboration with the government, product strategy, battery technology, and recycling strategy. She also works on M&A and Chinese outward investment for Chinese organizations looking to create growth opportunities in Europe, North America, and beyond. Dr. Song earned a PhD in manufacturing management from the University of Cambridge, UK. She can be reached at [consulting@cutter.com](mailto:consulting@cutter.com).*



*Philipp Seidel is a Senior Consultant with Cutter Consortium and a Principal at Arthur D. Little (ADL), based in Munich, Germany. His expertise encompasses product, technology, and downstream strategies for automotive clients. A major part of Mr. Seidel's consulting work has been dedicated to supporting automotive OEMs and suppliers in meeting fleet CO2 targets and growing e-mobility with technology studies, market insight, and the development and implementation of new product, sales, and service strategies. Recently, the identification of innovative business models with mobility services for OEM and new market entrants has become an additional focus area. Mr. Seidel has also advised various manufacturers on successfully developing businesses with racetrack, vintage, and highly individualized vehicles. His consulting experience includes assignments in Germany and all of Central Europe, the UK, the US, Canada, China, Malaysia, and Singapore. Prior to ADL, Mr. Seidel held positions at Audi AG, Ricardo Strategic Consulting, and Catholic University of Eichstaett-Ingolstadt, Germany. He holds a diploma and doctoral degree in business administration from Catholic University of Eichstaett-Ingolstadt and a master's of laws degree from the University of Muenster, Germany. He can be reached at [consulting@cutter.com](mailto:consulting@cutter.com).*



*Bill Reeves is a Manager at Arthur D. Little (ADL), based in San Francisco, and a member of ADL's Automotive and Manufacturing practice. His focus areas include strategy, growth, and innovation in the automotive, mobility, heavy equipment, mining, building products, and financial services industries. Mr. Reeves's consulting work has involved projects in global sales and business development, corporate strategy, automation, smart technologies, electric vehicle strategy, and new product development strategy. He holds a bachelor of arts degree in government from Dartmouth College. He can be reached at [consulting@cutter.com](mailto:consulting@cutter.com).*