Navigating the Road Ahead ... Are You Ready?

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Current trends show that technological advances and changing consumer behavior will result in mass market adoption of electric and autonomous vehicles within 10 years. To enable this reality and provide certainty for businesses and localities, the infrastructure, regulatory framework, and trade deals need to be ready and in place. That was the theme of Foley’s 2019 Automotive Industry Conference, hosted by Foley & Lardner LLP partners Ann Marie Uetz and Mark Aiello and held on January 16, 2019, alongside the North American International Auto Show in Detroit.

Nearly 100 executives gathered to hear insights from three distinguished panels of speakers on how to design and develop new technologies in a localized context that take into account varying consumer use-cases, geographic environments, and regulatory frameworks. Here are the highlights from these discussions.

Solutions for Alternative Transportation and Mobility

Electric vehicles (EVs) and autonomous vehicles (AVs), which are projected to make up 30 percent of the market in seven to 10 years, are advancing forward at a breakneck pace. With this in mind, Laura Marcero, Managing Director and National Industrials Sector Lead of Huron Consulting Group asked the first panel whether we have the infrastructure and appetite to adopt EVs and AVs on an increasingly larger scale.

To assess the likelihood of adoption of such technologies, Aniela Kuzon, Global Lead, City of Tomorrow Challenge of Ford Motor Company emphasized the importance of understanding global behavioral and demographic trends during the design and development phase. Ford has conducted online interviews with thousands of people across 14 countries to identify the drivers of behavioral change and how demographic and technological trends influence key areas of our lives. Highlights from this survey, which are in Ford’s seventh annual Looking Further with Ford Trends Report, include:

- 71 percent of global respondents indicate they are “energized by change”
- 33 percent of global respondents are “scared of change”
- When making a purchase, 40 percent of U.S. respondents often consider its environmental cost, as compared to 74 percent and 78 percent of respondents in India and China, respectively
- In response to the prompt, “I’d love to see a city where biking, walking and public transportation are the only means of transportation,” half of U.S. respondents agreed, whereas 70 percent and 78 percent of respondents in China and India, respectively, agreed
- 67 percent of respondents would rather their children ride in a self-driving vehicle than ride with a stranger

These insights can be used to intentionally design an autonomous vehicle business and the supporting ecosystem in unison so that they work seamlessly together. For example, in addition to testing the technology in Detroit, Pittsburgh, and Palo Alto, Ford is developing and testing the business and technology in parallel in Miami and Washington, D.C. to create an autonomous vehicle ecosystem that will allow it to scale and deploy self-driving services for ride-hailing and package delivery beginning in 2021.

At Ford, there are ongoing projects in Connectivity, cellular vehicle-to-everything technology that will be the common language for cities so cars can talk to other similarly equipped cars to improve safety, and the
Transportation Mobility Cloud – an open cloud-based back-end platform that will enable new services and features that do not yet exist. The new services or features provided by this technology have the potential to fundamentally change the way we move and how we do business, and pave the way for self-driving cars. Such services and features range from integrating existing features to rethinking how to approach a mobility segment, and include providing fleet telematics via Ford’s Commercial Services, GoRide’s ride sharing for non-emergency health services, and autonomous grocery deliveries.

Before rolling out new features or services to consumers, they are piloted in hyper-localized real-life scenarios to identify nuanced technical or psychological barriers. For example, consumers may eagerly use EVs in geographic areas having a flat topography, but may hesitate to do so in geographic areas with hilly terrain that limits the EV’s range. All consumers want improved safety, convenience, and benefits, and Ford is investing heavily to identify and remove barriers preventing adoption of EVs and AVs. From Kuzon’s perspective, the focus is not on predicting when EVs and AVs will attain mass adoption, but whether Ford is ready to respond when it occurs.

Jim Saber, President and CEO of NextEnergy showcased projects they have worked on with innovators to accelerate smarter, cleaner, and more accessible solutions for communities and cities that improve the infrastructure for EVs, AVs, and other mobility services. Since the infrastructure is a necessary precondition for mass adoption of EVs, Saber focuses on the following two areas: 1) Smart Grid: accelerating smart, energy-efficient solutions for buildings and homes, and how they interact with the surrounding infrastructure; and 2) Smart Mobility: accelerating connected, automated, shared and electrified (CASE) mobility solutions and how they interact with the surrounding infrastructure and grid.

The following NextEnergy projects reveal valuable insights on how the technology interacts with the surrounding infrastructure and grid:

- **MDrive**: EV car share among college students to study benefits and challenges of EVs in a shared application. One takeaway from this pilot is based on what factors impact consumer behavior and adoption. For example, since heating the cabin in an EV detracts from the EV’s range, consumers implemented their own options to maximize the driving range in cold weather. New strategies may be needed to help consumers maximize the user experience with EVs in colder climates.
- **NextRide**: Before e-scooter shares become popular, NextEnergy was piloting an e-scooter share to identify and develop urban business models for scooter transportation. His pilot predicted high consumer enthusiasm for this model, which has turned out to be true as evidenced by the current $1 billion e-scooter share industry.
- **Extreme Fast Charging**: NextEnergy is currently working with partners to develop and test a DC fast charging system that can charge an EV in 10 minutes. While charging an EV at home is equivalent to turning on central A/C and has a negligible impact on the grid, fast charging at 350-400 kW is the equivalent of powering two commercial buildings and can have an impact on local electricity distribution infrastructure.

Based on these and other projects, Saber stated that the current utility grids are designed for peak conditions and have the capacity to support mass EV adoption. The pressing issue, however, is not the availability of the energy but how to optimize its delivery. According to Saber, with many manufacturers introducing multiple new EV models, EVs could make up 10 percent of new car sales in three to four years, and up to 25 percent by 2025. Understanding the use and ownership models (e.g., personal vehicles, shared vehicles, long-range EV travel, autonomous, fleets and mobility as a service) will allow for the appropriate investments and improvements in charging infrastructure to support the market adoption of EVs.

**The Regulatory Environment for Autonomous and Advanced Vehicle Technologies**

In conjunction with developing the technical infrastructure, it is imperative to establish the regulatory environment for autonomous and advanced vehicle technologies. The second panel, introduced by Chris Grigorian, Partner at Foley, touched on the current regulatory framework and policies and how they facilitate bringing new mobility technologies to market.

The last two AV-related bills introduced in Congress, the SELF DRIVE Act and the AV START Act, have been in limbo for a year. Now, with a new Congress, Rob Biskup, Managing Director, Risk & Financial Advisory of Deloitte asked the panelists for their insights and predictions on passing new legislation. Failing to pass these federal regulations was a missed opportunity, per Zach Dunlap, Counsel of Ford. The proposed legislation would have provided a clear delineation between federal and state rules. With the large amount of investments being made, this framework would have provided more certainty for states than NHTSA’s interim guidelines.

Despite this missed opportunity by the U.S. Congress, Matt Clark, Government Relations Director of Arizona’s Department of Transportation (“DoT”), believes that states have the opportunity to examine the traditional separation between federal and state roles in regulating automotive safety. AV pilots, which Arizona has been doing, allow for cooperation between all parties as the technology transitions from a human driver to a computer...
driving system. For example, the federal government focuses on making vehicles safe, whereas state governments ensure that driver requirements are safe.

Accordingly, Arizona has a team consisting of senior policy decisions makers from transportation, law enforcement, and the Governor’s office that maintain a collaborative approach with the public and private stakeholders to ensure that any testing on public roads meets the high standards set for public safety. By having open communication and setting expectations throughout the process, Arizona is able to react rapidly to situations as they arise. Indeed, instead of being met with apprehension, AV pilot testing in Arizona have becoming increasingly being sought by communities because of the expected convenience and societal benefits. For example, there’s a significant waitlist for a driverless ride sharing service and multiple cities have bid on a pilot for autonomous grocery deliveries and other projects. The policies established by the state of Arizona, combined with its favorable climate for AV testing and proximity to tech companies in California, has allowed Arizona to set the foundation for AV development and adoption.

The panelists are hopeful that the current trend continues and that AVs will be accepted by communities and bring about societal benefits. They fear, however, that one or two incidents may shut down or delay further growth.

New Developments in Conducting Business in Mexico

Although passing AV safety regulations has stalled in the federal government, and it is unclear when the new Congress will resume deliberations, the United States-Mexico-Canada Agreement (“USMCA”), a new trade deal impacting how and where automobile components are manufactured, was signed on November 30, 2018. Global automakers have invested $13.3 billion to manufacture in Mexico, making the country the primary exporter of automobiles to the United States and the 4th largest exporter of automobiles in the world, and that is predicted to grow to 4 million vehicles a year by 2020. To discuss new developments in conducting business in Mexico, Mark Aiello introduced Foley Partners, Alejandro Gómez-Strozzi and Marco Antonio Najera Martinez and Bernardo Altamirano Rodríguez, CEO of Mexico’s Better Business Bureau.

Alejandro Gómez-Strozzi began by raising the following contentious issues that lingered until the USMCA (aka NAFTA 2.0) was eventually signed:

- Sunset clause, that shifted from 5-year sudden death, to 16-year renewal periods.
- Seasonality of agricultural exports, which was dropped altogether as it would have put Mexico in a worse-off situation compared to other non-USMCA trading partners.
- Dispute resolution, investor-state, which remained with certain changes.
- Rules of origin (ROO) for motor vehicle and auto parts, which were discussed at length.

Regarding ROO, 70 percent of current production likely complies with the USMCA, and Mexico will receive greater investments as a result of production transferring from China and Korea to further comply with the USMCA. According to Gómez-Strozzi, a company in the short term needs to evaluate how the USMCA will impact its current activities, possibly as early as 2020 and take concrete actions based on same; in the medium term, be on the lookout for USMCA “renegotiation” by the U.S. Congress; and, in the long term, expect that Mexico’s export orientation and openness will remain unmodified.

Ultimately, the USMCA will require the supplier-to-OEM relationship to be much stronger and closer than in the original NAFTA 1.0, and likely will cause a survival-of-the-fittest situation amongst suppliers.

Bernardo Altamirano Rodríguez noted that there are three basic restraints to conducting business in Mexico:

1. Non-U.S. competitors that are conducting business in Mexico do not need to comply with the Foreign Corrupt Practices Act, which may put U.S. competitors at a disadvantage in Mexico
2. The USMCA’s new framework for government procurement
3. Political restrictions resulting from an ethical transformation away from corruption, which requires a company to now construct a public relations narrative with clear goals, objectives and societal benefits

In addition to the new trade deal, Mexico is revamping its product safety regulatory framework to bring aspects into conformance with the United States. Compliance with product safety requirements in Mexico used to be relatively relaxed, but is now more stringent; for example, it is now necessary to notify the regulatory agency when the company identifies the risk.

While each of the three sessions focused on different aspects of the automotive industry, the program made clear that manufacturers, governmental agencies, and consumers are enthusiastic about the potential for improved safety, societal benefits, and convenience brought by advances in EVs, AVs, and e-mobility platforms.