



Center for Automotive Research Management Briefings – Key Takeaways

In August, The Center for Automotive Research (CAR) organized and sponsored its annual Management Briefings in Traverse City, MI. The theme was “*Disruptors: The Good, The Bad, and The Opportunities*,” and once again, there was significant focus on the global business issues facing the automotive industry.

Keynote speakers included Michigan Gov. Rick Snyder; Julia Steyn, Vice President, Urban Mobility Programs, General Motors; Dr. James Kuffner, Chief Technology Officer, Toyota Research Institute and others. Key discussion themes included:

Economic and Financial Trends

Gov. Snyder suggested there is reason for optimism in Michigan, a key historic and future focus area for the auto industry. According to the Associated Press, Michigan's economy staged a faster comeback than the nation as a whole over the past five years. State unemployment is down, but regulations are still a challenge. Looking to the future, Michigan is now home to 375 automotive R&D centers, approximately 75 percent of the U.S. total.

Across the United States, the economy is growing at a gradual, if inconsistent, pace. Household balance sheets are stronger amid improving labor markets and gas prices—both of which bode well for vehicle sales. But Management Briefing Seminars speakers noted the importance of fiscal policy in continuing to drive recovery, and the recent signals from the Fed around interest rates may cause some concern in the industry. Globally, the BRIC countries and other emerging economies have slowed, and in Europe, the historic Brexit vote has added new risks and uncertainty.

Still, the U.S. auto industry has enjoyed stable performance, especially as Millennials buy more vehicles, citing changing family needs and new content as their primary motivators. There are also positive indicators for customer affordability and profits, particularly in the truck segment, where pent-up demand has outpaced capacity. Still, Steve Szakaly, Chief Economist for the National Automobile Dealers Association, reported that

the average lease length has risen from 48 months to 68 months, giving some cause for concern about sub-prime lending risk. Used car prices are expected to fall in Q4 2016 due mostly to lower lease residuals affecting trade-in values.

Technology Innovations

Automakers and tech companies are fast becoming peers and partners. Several companies shared their plans for autonomous cars, connected vehicles and increased investment in hybrids and electronic vehicles. Increased growth in R&D is fueling development: EVs and hybrids are expected to expand to 12 percent of the U.S. market by 2020, according to Citi Investment Research. Companies like GM, BMW and Toyota are setting their sights on 2020-2021 as a turning point for getting their driverless cars into the mainstream commercial fleet markets, with consumer versions to arrive by mid-next decade.

Major markets are likely to shape the demand and new reality of the autonomous network, with California, New York, Illinois and Florida deemed the most influential. Primary testing sites include Michigan, Arizona, California and Nevada.

In Michigan, a key autonomous car test site being rapidly brought online is the 335-acre former General Motors Willow Run plant, where Ford Motor once made bombers during World War II. The New York Times reports that the University of Michigan is partnering with OEMs to convert the location into an autonomous-vehicle test complex, to be called the American Center for Mobility.

Driving the innovation happening in the auto industry are several key factors. First, the influence of and proximity to Silicon Valley serves as a significant catalyst. Automakers



are increasingly connected to entrepreneurs, VC investors, talent and open source development culture that is fueling transformation. In addition, artificial intelligence promises to be a disruptive force in the auto industry, with the potential to enhance the content and connected experience and play a role in the advancement of driverless cars. Finally, the rise of ride sharing is prompting automakers to rethink their sales strategies and consider partnerships with companies like Uber and Lyft to engage consumers who may be less likely to purchase cars.

Cybersecurity Challenges

With technology and strategy advancement, however, comes unprecedented challenges and risks. Cybersecurity is a key area of concern and focus in the industry, and for good reason. C.J. Dietzman of Hewlett Packard Enterprise Security Services noted that security vulnerabilities have increased significantly, and the average span of time that hackers are present and undetected is a staggering 146 days.

The biggest attack targets are remote access points through Bluetooth, Wi-Fi, insurance dongles and long-range wireless including satellite radios, as well as the OBD-II port and CAN bus interface. Threats are constantly evolving and include malware, Trojans, ransomware and application attacks. Industry insiders expect regulation to increase given the potential dangers to human lives and critical infrastructure, but some caution that privacy and security may need to be decoupled for the purposes of regulation.

What's Next

Automakers face a critical challenge in navigating opportunities while mitigating emerging risks. Technology and innovation must be a part of a 2020-and-beyond business strategy to meet the evolving demands of customers. But careful planning is key. Cybersecurity must be built into products, with systems and controls set up to regularly access and monitor responses to new threats or vulnerabilities. Security is the new safety in the auto industry.