



## Big Data in the Automotive Industry

The automotive industry has adopted many new technologies at the center of the Big Data revolution. Connected cars gather data about driving habits through means such as electrical system sensors, radar technology, cameras, and monitoring of braking, acceleration and steering. They also track location, and even the music that drivers listen to. Big Data brings with it great promise, but also myriad challenges, including cybersecurity, privacy, contract issues, ambiguities about data ownership and intellectual property, and negative public relations from those concerned about such data collection.

### PRACTICE AT A GLANCE

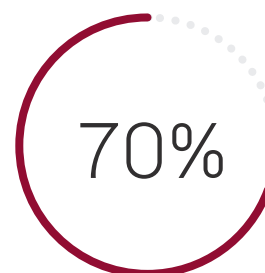
- WilmerHale has significant experience working with clients in all sectors and levels of the automotive industry, giving us a deep understanding of the complex relationships among suppliers, OEMs and auto manufacturers.
- We also understand the special Big Data challenges shared by automotive companies and the parties with which they partner in the collection, use and sharing of information from connected cars, such as insurance companies, in-car data service providers and GPS manufacturers.

### INDUSTRY-SPECIFIC ISSUES

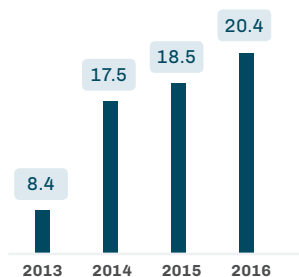
**Internet of Things:** Modern cars collect a wide variety of information, from driving habits to real-time location data. And the services and devices integrated with automobiles also collect information (e.g., GPS, in-dash browsers, sound systems, monitoring devices supplied by car insurance companies, etc.). A wide range of laws govern such Internet of Things data.

**Data ownership:** Many different players in the automotive industry have access to car-related data. Ownership and use of such data (and data derived from it) often is the subject of ambiguity and contention, both for companies that supply the data and those that analyze it. Appropriate terms in contracts and information-use agreements are therefore essential.

**Fairness:** The use of Big Data in decisions about which drivers to insure, and at what premium prices, raises a range of fairness issues.



Gartner forecasts that by 2020, 70% of all auto-related customer interactions will be digital.



### Growth in the US market with wireless connected vehicles

US Cellular OEM Telematics M2M Connections (in millions)

— 2014 Compass Intelligence

## INDUSTRY-SPECIFIC ISSUES *continued*

**Intellectual property:** The automotive industry faces intellectual property questions concerning the patentability of algorithms, methods of analyzing Big Data, and the devices and equipment used for collection and storage of Big Data. Companies also are seeking to use trade secrets protection to defend their Big Data, their analytical methods and their derived insights.

**Public relations and privacy:** Numerous privacy and consumer protection laws are implicated by the collection, use and sharing of car-related data. And the use of Big Data also faces public relations challenges because few consumers are eager to have their location tracked every minute of the day or their driving habits scrutinized by insurers and employers. The auto industry has embarked on an industry-wide privacy initiative, but the law and best practices are evolving rapidly.

**Vendor contracts:** Automotive companies often rely on service providers for data analyses. They also partner with other technology companies in the Big Data ecosystem (such as chipmakers and developers of integrated in-car apps). This makes contract terms particularly important to this industry.

**Security:** Hackers already have remotely accessed and controlled vehicles that are connected to the Internet. And the data aggregated from connected vehicles is vulnerable to interception and manipulation. Given the potential deadly consequences of a successful hack, data security is particularly important in the auto industry.

## EXPERIENCE

- Advised a major car manufacturer on how to improve an industry-wide self-regulatory regime developed to address Big Data issues in a comprehensive way that was palatable to the industry, regulators and consumer advocates.
- Developed firsthand technical knowledge of the complex microprocessor technology in today's automobiles, including the infotainment and navigation systems integral to connected cars.
- Helped create strategies for automotive industry clients with respect to the collection, use and sharing of data in a manner compliant with applicable laws and emerging best practices.
- Advised auto manufacturers on cutting-edge issues related to vehicle-to-vehicle communication, cybersecurity policy and response, and sensitive data security and privacy issues.
- Worked with semiconductor companies to ensure firewall security is in place to control the information flow among the car's devices.
- Represented an automotive company in a trade secrets matter involving collision avoidance and connected car technology.
- Represented multiple clients in patent infringement cases in the automotive sector.

## KEY POINTS

As the number of connected vehicles continues to grow, connected car solutions will include:

**Infotainment:** Voice communications, personalized music

**Navigation:** Traffic information, online route planning

**Safety:** Cameras and sensors, Smart SOS (eCall), roadside assistance

**Cost efficiency:** Insurance telematics, remote diagnostics, condition-based maintenance

**Payment:** Electronic toll collection, parking reservation and payment



**By 2018, one in five cars on the road will be self-aware and able to discern and share information on their mechanical health, global position and status of their surroundings.**

**“The average car now contains 60 micro-processors, and more than 10 million lines of software code—more than half the lines of code found in a Boeing Dreamliner airplane.”**

— Centre for Automotive Research

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