

Morgan Lewis

HOW TO MAKE USE OF DATA IN A CAR: CONNECTED CARS, PAYMENT TECH, ANALYTICS, AND OTHER OPPORTUNITIES

May 13, 2020

**Andrew Ray
David Monteiro
Tess Blair**

@MLGlobalTech

Morgan Lewis Automotive Hour Webinar Series

Series of automotive industry focused webinars led by members of the Morgan Lewis global automotive team. The 10-part 2020 program is designed to provide a comprehensive overview on a variety of topics related to clients in the automotive industry. Upcoming sessions:

JUNE 10 | Employee Benefits in the Automotive and Mobility Context

JULY 15 | Working with, or Operating, a Tech Startup in the Automotive and Mobility Sectors

AUGUST 5 | Electric Vehicles and Their Energy Impact

SEPTEMBER 23 | Autonomous Vehicles Regulation and State Developments

NOVEMBER 11 | Environmental Developments and Challenges in the Automotive Space

DECEMBER 9 | Capitalizing on Emerging Technology in the Automotive and Mobility Space

Table of Contents

Section 01 – Introductions

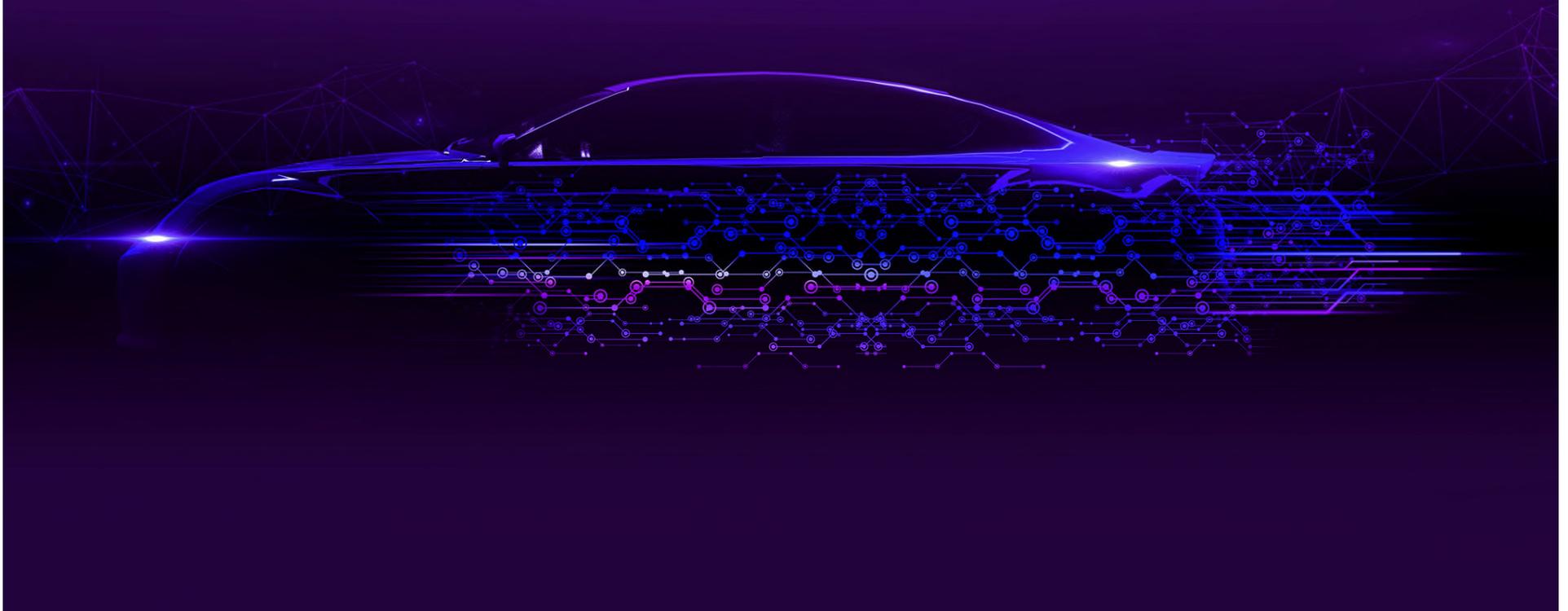
Section 02 – Market Overview

Section 03 – Data Acquisition and Use

Section 04 – Regulatory and Enforcement Risks

SECTION 01

INTRODUCTIONS



Today's Presenters



Andrew Ray

Washington, DC

Tel +1.202.373.6585

andrew.ray@morganlewis.com



David Monteiro

Dallas

Tel +1.214.466.4133

david.monteiro@morganlewis.com



Tess Blair

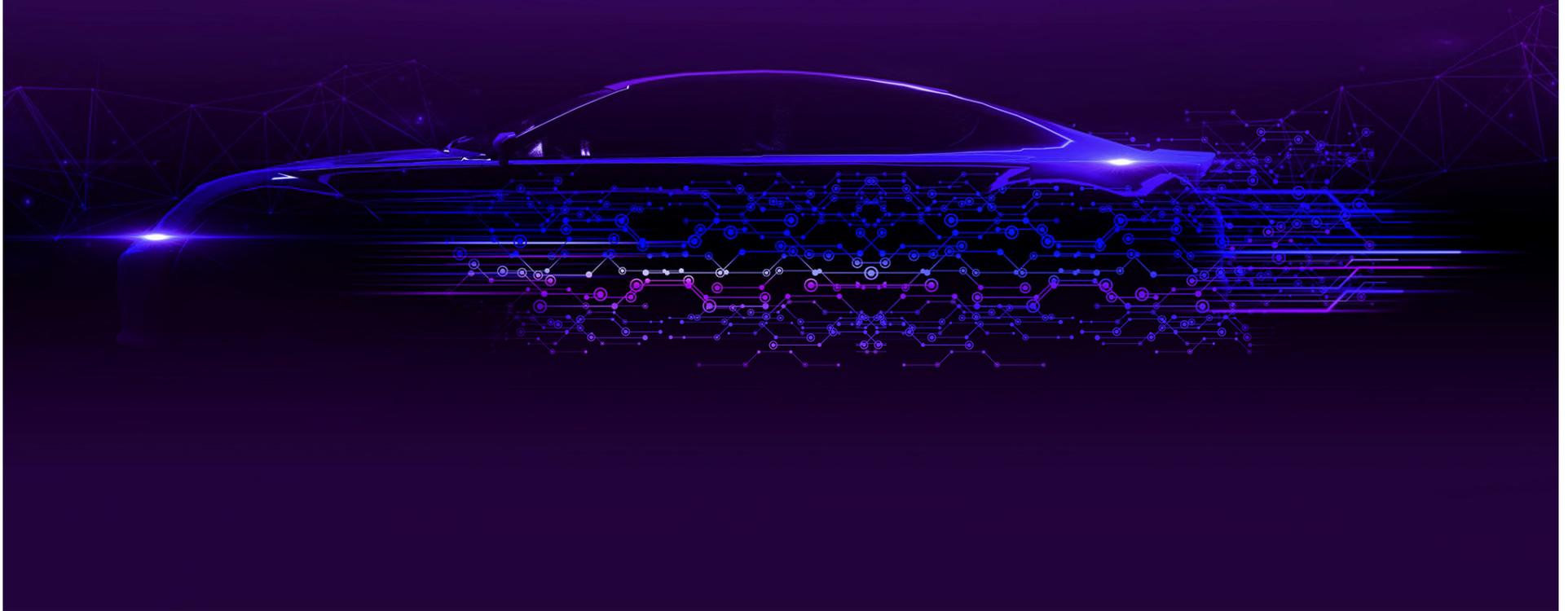
Philadelphia

Tel +1.215.963.5161

tess.blair@morganlewis.com

SECTION 02

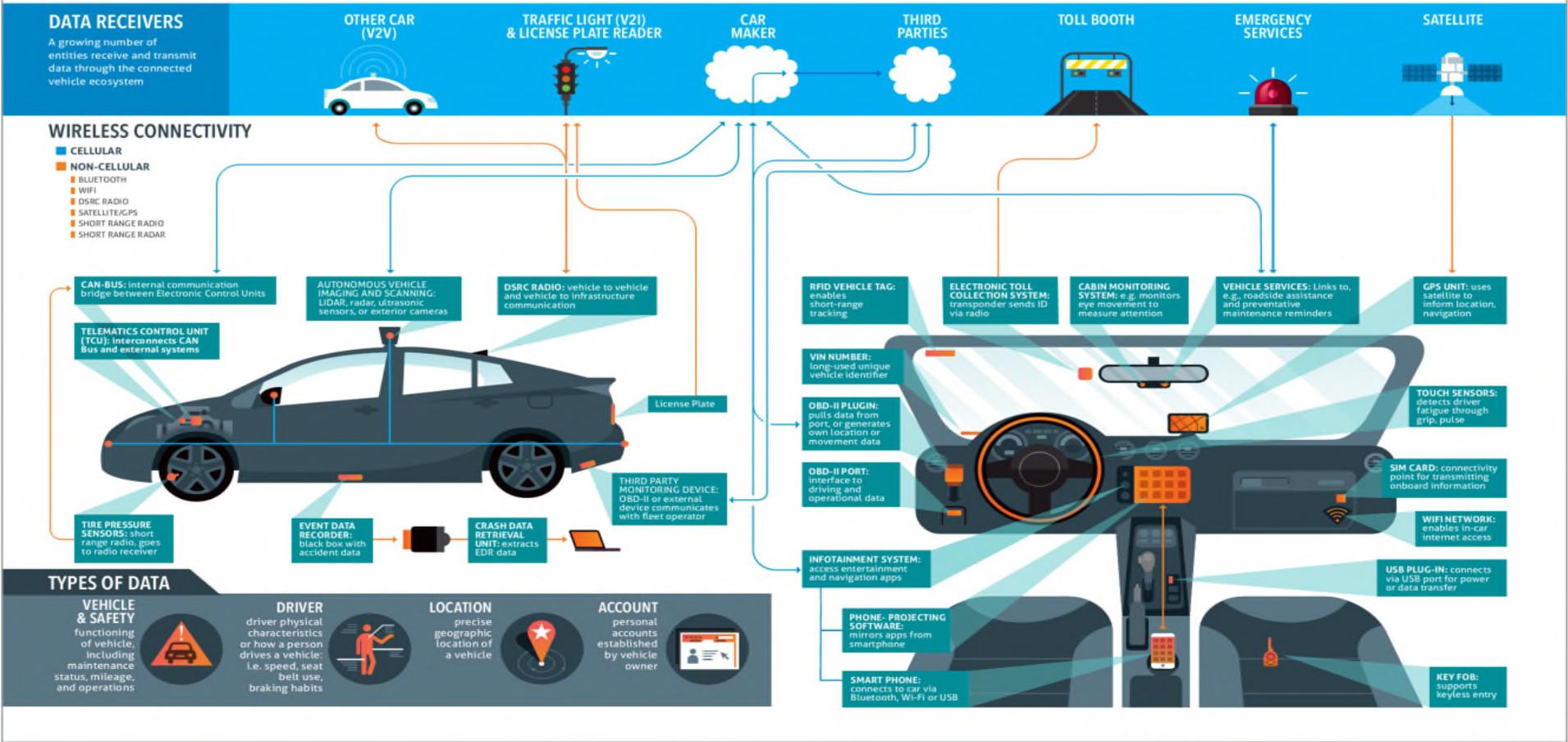
MARKET OVERVIEW



DATA and the CONNECTED CAR

Version 1.0

Today's connected technologies are making transportation safer and more convenient. Many new features are enabled by the collection and processing of data. Cars are becoming part of a trusted mobile ecosystem that ensures data flows between a network of carmakers, vendors and others to support individuals' safety, logistics, infotainment, and security needs. This visual represents devices that may be employed in today's connected cars; no single vehicle will have all of these features, but most new vehicles have some. Much connected car data is protected by technical controls, laws, self-regulatory commitments, privacy policies, and other emerging mechanisms or controls.



Market Overview

- **135 million** Americans spend **51 minutes** on average commuting to work five days a week.
- Connected commerce experience represents a **\$230 billion** market.
- Since 2010, investors have poured **\$20.8 billion** into connectivity and infotainment technologies.

Source: "2019 Digital Drive Report," P97 / PYMNTS.com; "[Start me up: Where mobility investments are going](#)," McKinsey & Company. April 2019

Market Overview - Industry Drivers

- Wasted productivity driving
- Safety
- Demand for better in-car information systems
- Need for systems to connect autonomous vehicles
- Demand for improved fleet efficiencies

Source: "PitchBook Emerging Tech Report: Mobility Tech," PitchBook. May 2020; "2019 Digital Drive Report," P97 / PYMNTS.com

Market Overview - Trends and Clusters

Trends



Electrified Vehicles



Autonomous Driving



Connected Cars ✓



Smart Mobility

Technology Clusters

- Autonomous-vehicle (AV) sensors and advanced driver-assistance systems (ADAS) components
 - AV software and mapping
 - **Back end/cybersecurity** ✓
 - Batteries
 - **Connectivity/infotainment** ✓
 - Electric vehicles and charging
 - E-hailing
 - **Human-machine interface and voice recognition** ✓
 - **Semiconductors** ✓
 - Telematics and intelligent traffic
-

Source: "[Start me up: Where mobility investments are going](#)," McKinsey & Company. April 2019

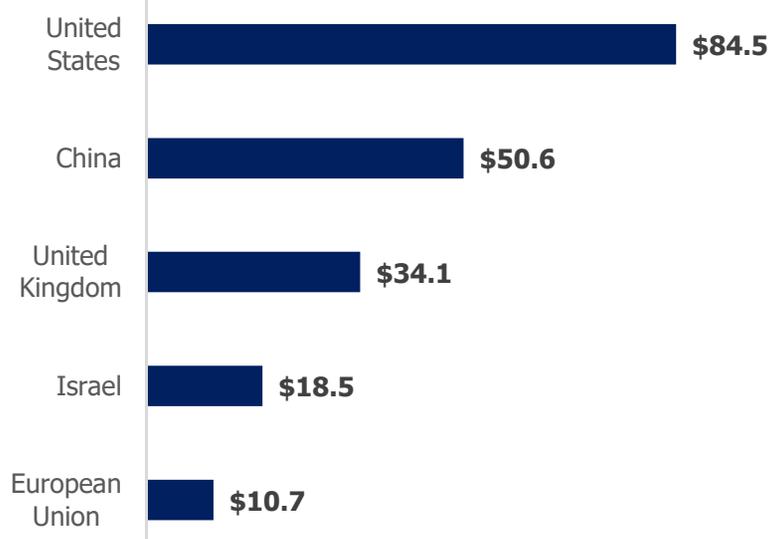
Icons provided by Flaticon

Market Overview - Investment Activity

Total disclosed investment since 2010 by cluster [in \$B]



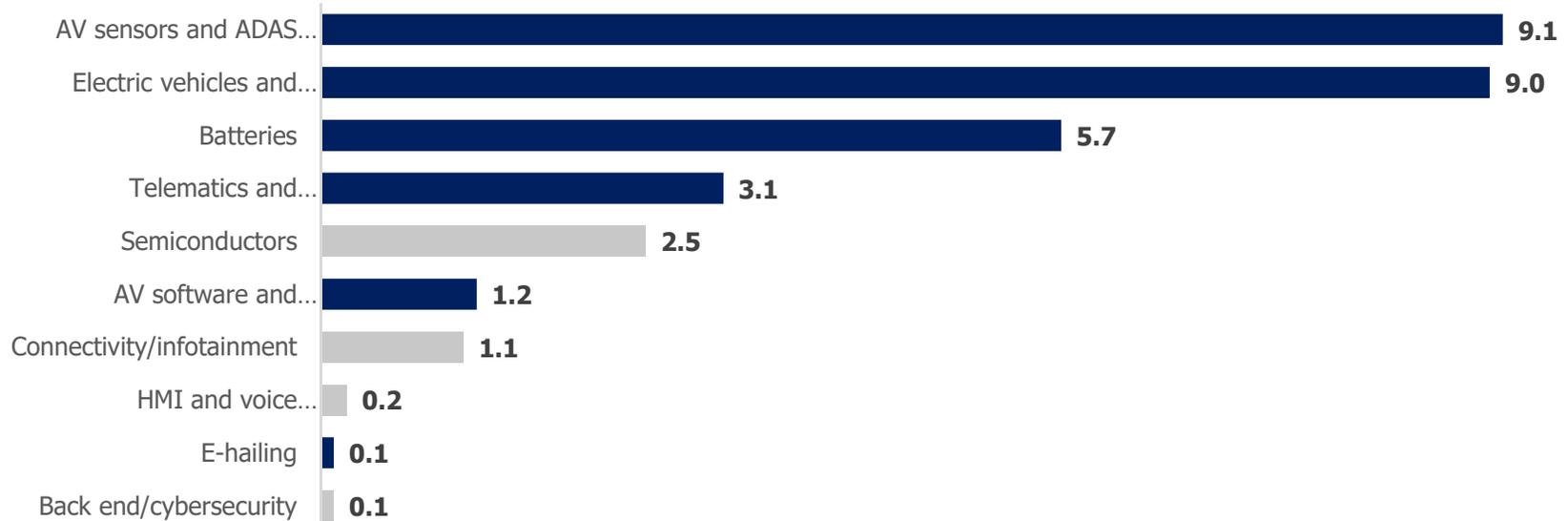
Total disclosed investment since 2010 by geography [in \$B]



Source: "Start me up: Where mobility investments are going," McKinsey & Company, April 2019

Market Overview - Innovation Activity

Total number of patents since 2010 [in thousands]



Source: "[Start me up: Where mobility investments are going](#)," McKinsey & Company. April 2019

Market Overview – Connected Cars



Provider of pay-per-mile car insurance platform intended to empower drivers by creating a more connected and informed car ownership experience. The company's platform offers affordable car insurance, transparent pricing based on the miles you actually drive, data to optimize how to use a car and instant access to detailed vehicle diagnostics via the driving application, enabling low-mileage drivers to save money and stay informed about their car and insurance payments.

example

$$\text{\$29} + (450 \times 6\text{¢}) = \text{\$56}$$

monthly rate miles cost



How it works

- 1. We'll send you a secure device**

This is the Metromile Pulse, which securely measures your exact mileage. You'll plug it in your car when it comes in the mail.


- 2. Your phone pairs with your car**

Log into the Metromile app and connect your car to your smartphone.

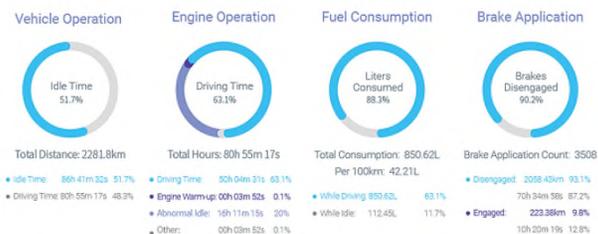

- 3. You can drive with ease**

Claims agents are available 24/7 to take your call, so you'll never be alone on the road.





Provider of fleet management systems intended to optimize the transportation ecosystem. The company's platform allows businesses to locate and monitor trucks transporting their goods, record driver habits, estimate departure and arrival times, enabling corporate clients and business owners to increase the efficiency of their transportation networks.



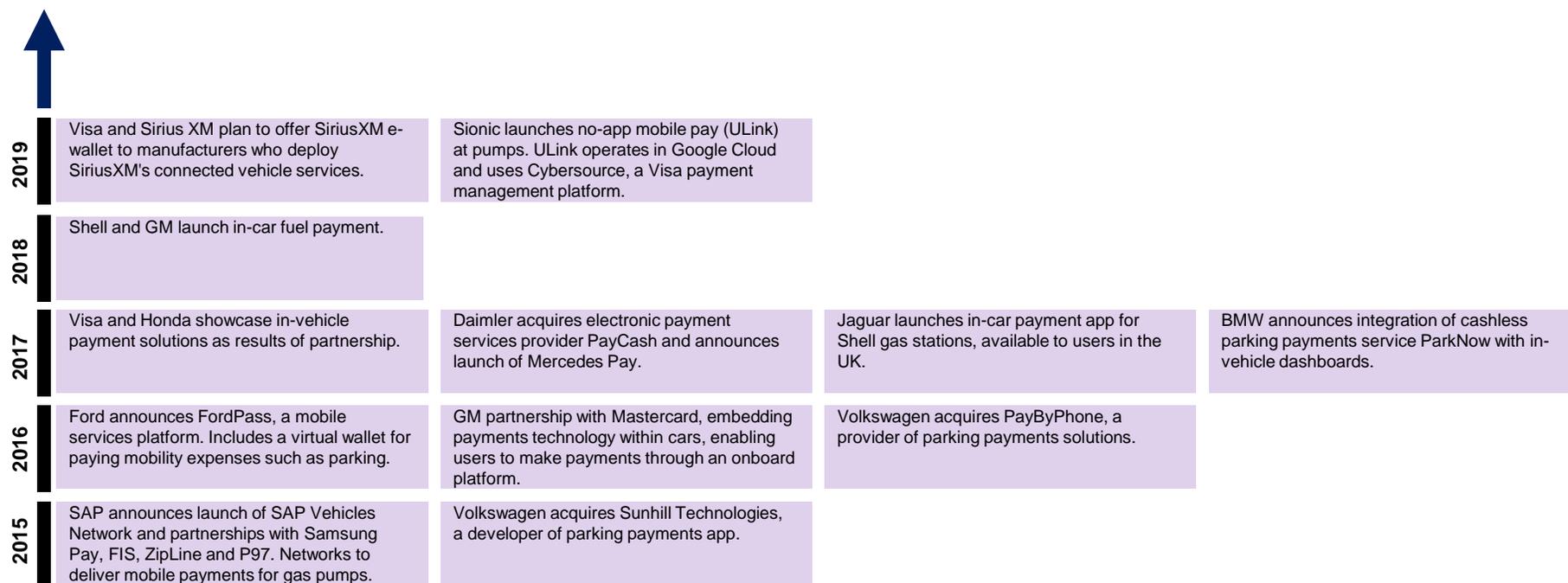
Source: PitchBook Database; www.metromile.com; www.english.g7.com.cn

Connected Cars: In-Car Payment Technology

- Use-cases for in-car payments:
 - Gas station payments
 - Parking payments
 - Repair payments
 - Toll payments
 - Drive-through payments

Source: "[FinTech in Automotive: How to Implement Payment Systems in Connected Cars](#)," intellias. February 7, 2019.

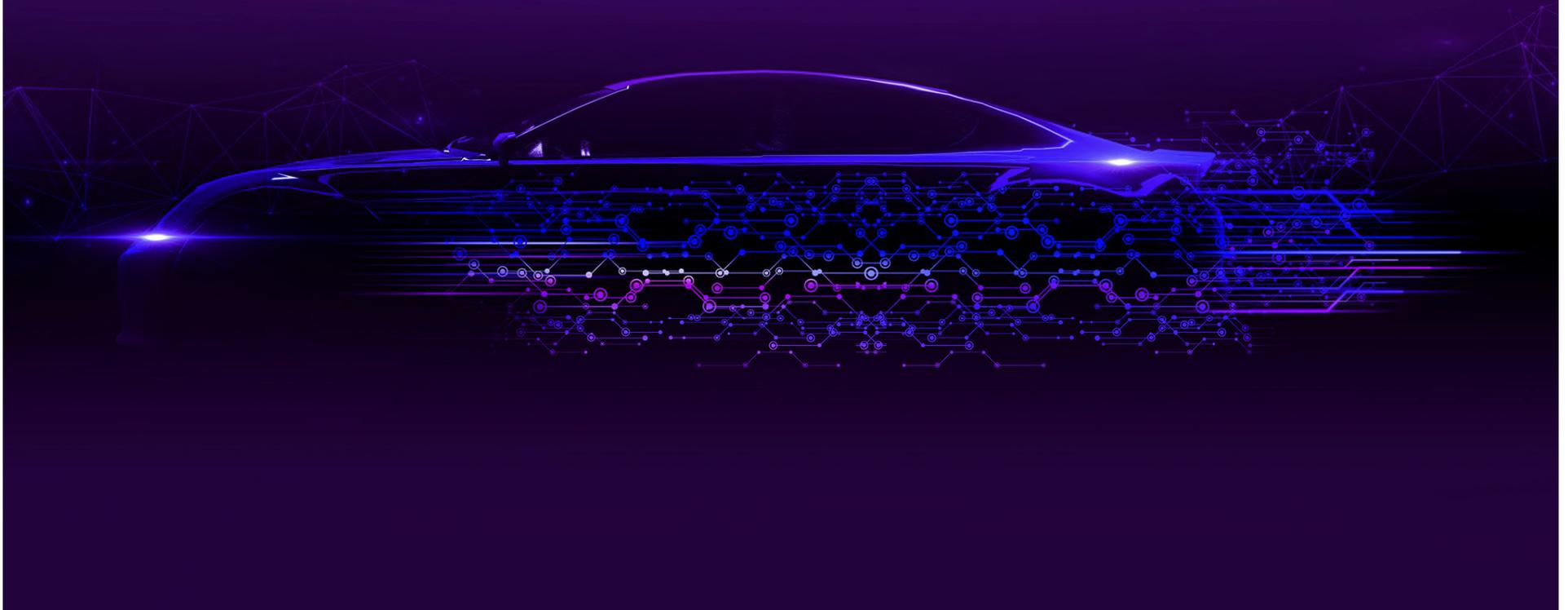
Connected Cars: In-Car Payment Technology



Source: "Auto FinTech Industry Trends," Financial Technology Partners. December 2017; Morgan Lewis Market Research

SECTION 03

DATA ACQUISITION AND USE



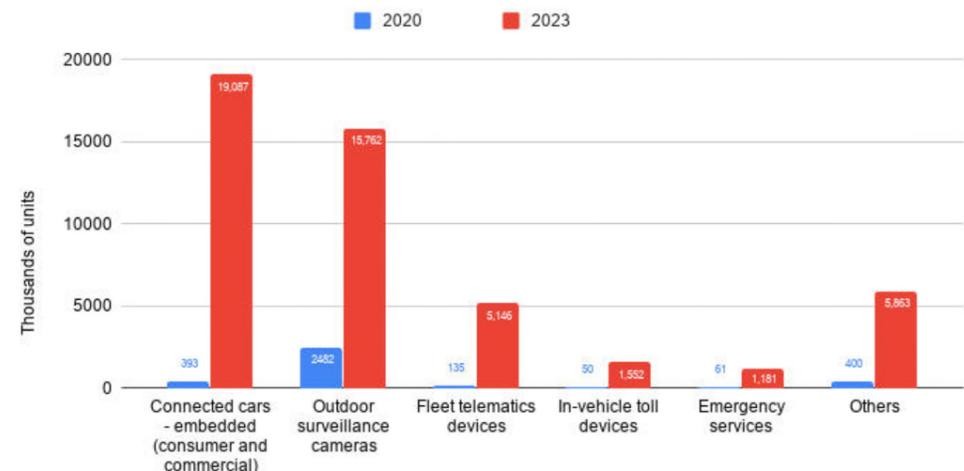
Connecting Cars and Drivers — The Data Wake

- **Event Data Recorders** — Installed on over 90% of vehicles; technical info about operation in the seconds before and after a crash.
- **On-Board Diagnostics** — Legally required to have an On-Board Diagnostic port or OBD-II; all vehicles after 1996.
- **Location Information** — Collected by navigation and similar systems.
- **External Information** — Modern vehicles contain cameras and sensors used to gather information about the surroundings.
- **In-Cabin Information** — Microphones, cameras, and other devices.
- **User Recognition** — Systems that recognize physical characteristics, like fingerprint, facial recognition or other biometrics.
- **Apps** — Third-party systems like Apple CarPlay, Android Auto, Pandora, including interface with driver's mobile devices.
- **User Mobile Devices** — Mobile devices themselves may be tracked.

Acquiring and Using Connected Car Data

The ubiquity of data generated by connected cars and related IoT and apps creates opportunities and challenges for the entire supply chain, commercial and retail consumers.

5G IoT Endpoint Installed Base, Worldwide, 2020 and 2023



Data: Gartner / Image: ZDNet

Source: "[Connected cars: How 5G and IoT will affect the auto industry](#)" ZDNet. February 2020

Morgan Lewis

Connecting Cars and Drivers – Huge Benefits

- Vehicles are increasingly connected to manufacturers, to their driver's smartphones, and each other.
- Connected cars provide huge promise for enhancing safety, reducing environmental impact, diagnosing malfunctions, calling emergency assistance, improving efficiency and performance, navigation services, providing valuable information, autonomous driving, and more.
- Connected cars give businesses of all kinds sales and new marketing opportunities.
- Leveraging this data will unlock new machine learning/AI tools to enhance the driving experience beyond the ways AI is being used to train autonomous vehicles.



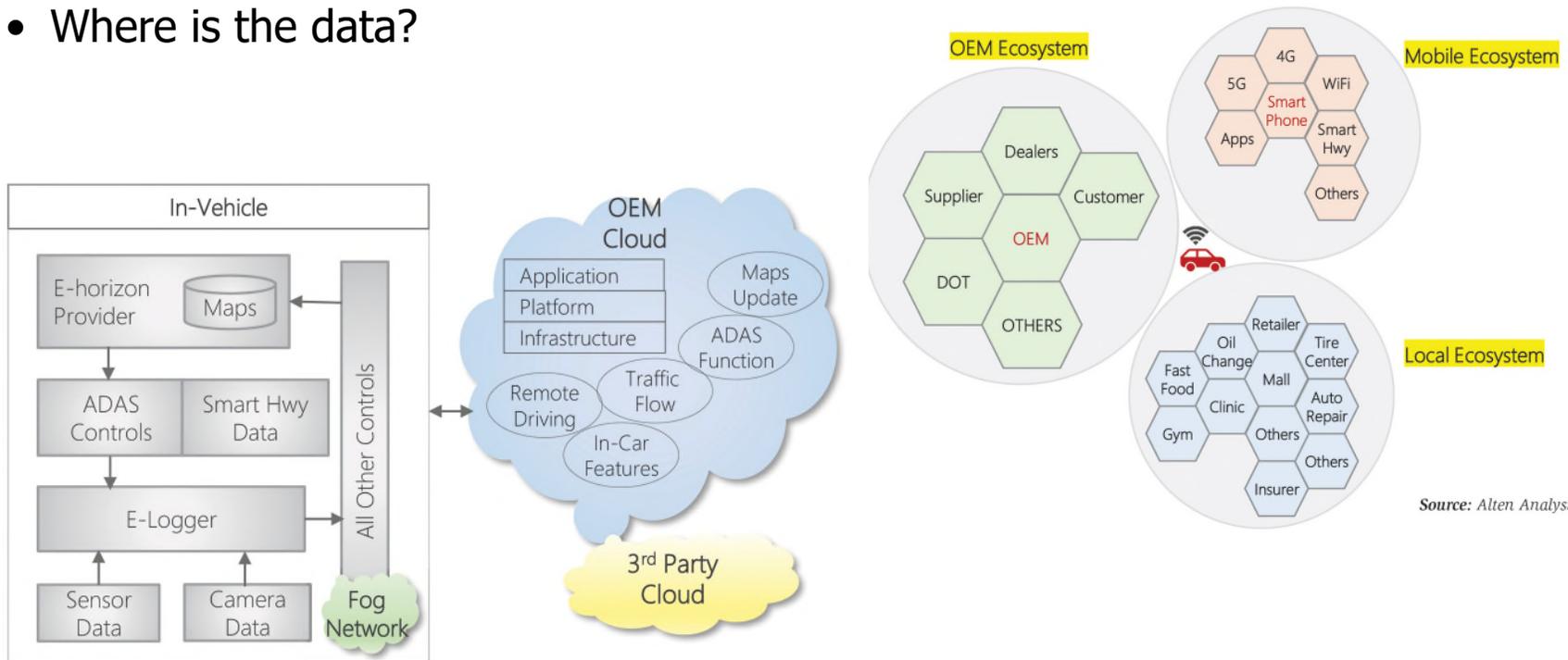
Opportunities

- Safety
 - Driver, occupant and vehicle safety
- Performance
 - OEM and after market devices
- Enhanced Driving Experience
 - Infotainment
 - Location Services
- Marketing
 - Local business ads
 - Systems monitoring (air, gas, oil, coffee)
 - User recommendations
- Monitoring
 - Driver performance
 - Contact tracing
 - Social distancing compliance

Source: "[Connected cars: How 5G and IoT will affect the auto industry](#)" ZDNet. February 2020

Challenges

- Where is the data?



Source: Alten Analysis

Challenges: Data Integrity

- Accuracy:
 - Is data accurate?
 - How is data integrity validated and monitored?
 - *Hypothetical: Fleet assignments. How does the system distinguish between users in monitoring driver performance?*
- Bias:
 - How will demographic and other information be used?
 - If AI/Machine learning is used to train algorithms, will bias - a well known problem in AI development - be embedded in systems that rely on it?
 - *Hypothetical: Will gender, zip code, car model, music selection, friends and connections, or even car color inform use of data and insights?*



Challenges: Data Security

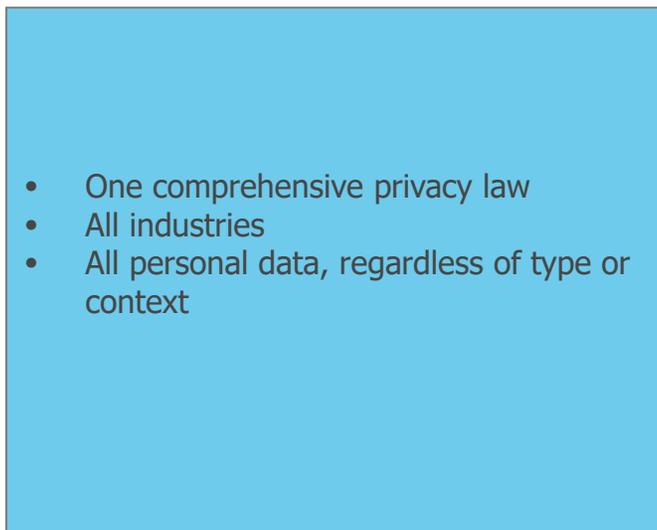
- Hacking is a big concern.
- Two class actions against car companies alleged hacking vulnerability. Both dismissed on lack of standing, the courts relying on lack of facts showing impact of this vulnerability on the market, such as decline in value, resale market, recalls, damages, replacement or repair of vehicles.
 - Flynn et al. v. FCA US LLC et al., March 27, 2020, S.D.. Ill. Dismissed on appeal for lack of standing in an unpublished opinion that relied on Cahen reasoning.
 - Cahen et al v. Toyota Cahen v. Toyota Motor Corp., 147 F. Supp. 3d 955, *aff'd*, *Cahen v. Toyota Motor Corp.*, 717 Fed. App'x 720; dismissed for lack of standing.



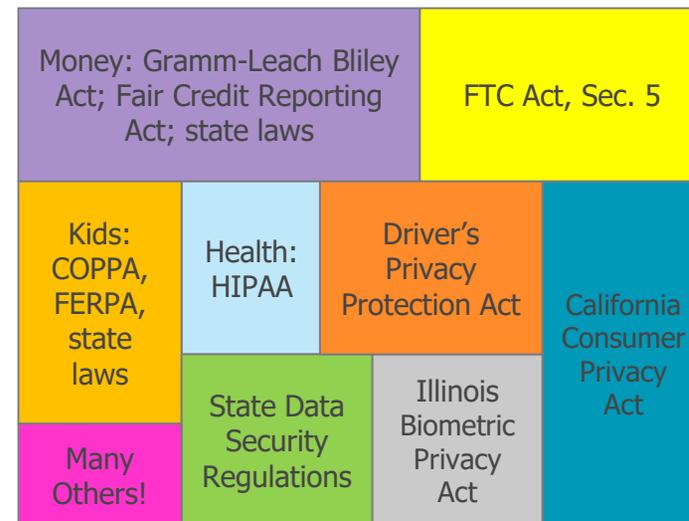
Challenges: Data Privacy

- Comprehensive v. sector-specific

EU GDPR



US Privacy law



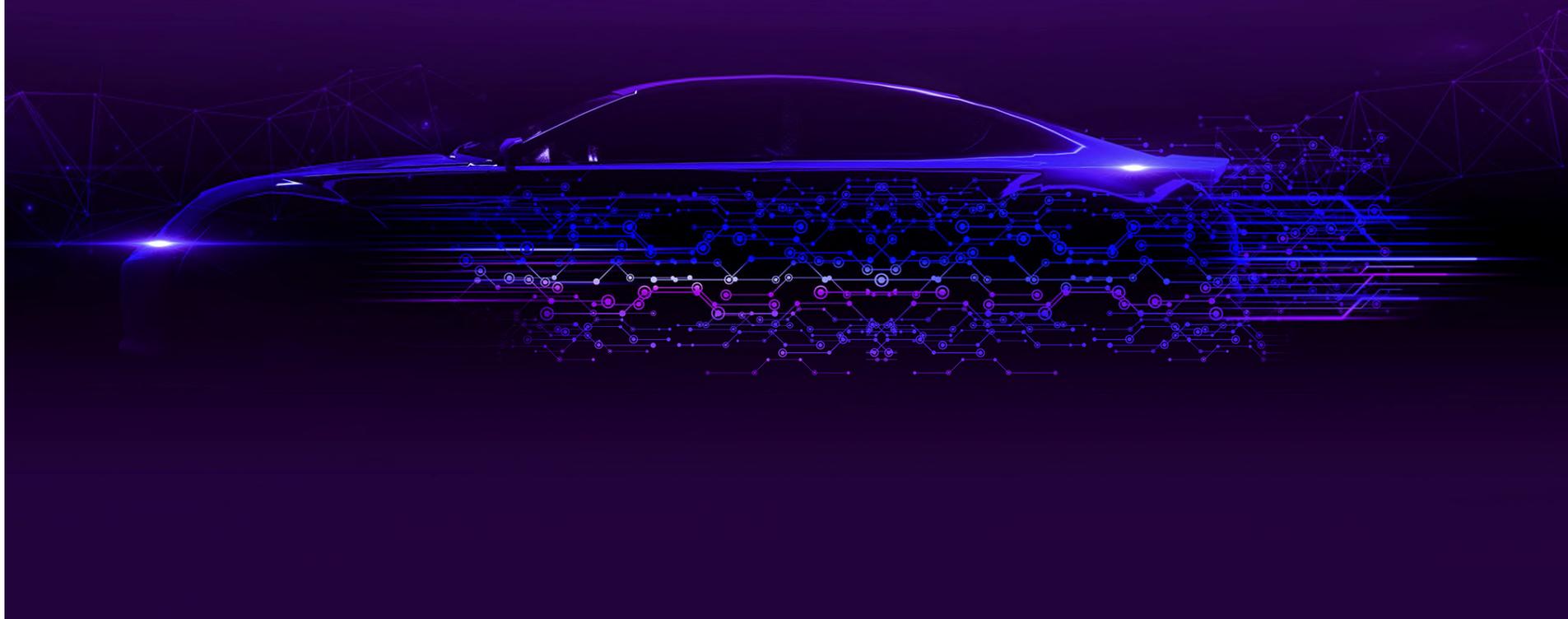
Challenges: Discovery in Litigation

- Discovery Obligations:
 - Preservation
 - Collection
 - Analysis & Review
 - Production
- Legal Issues:
 - Relevance
 - Accessibility
 - Uniqueness
 - **Possession, custody or control**
- Who's data is it?
- How to access?
- How to collect?



SECTION 04

REGULATORY AND ENFORCEMENT RISKS



Consumer Regulatory Risks

More Obvious

Privacy

Privacy

Privacy

Less Obvious

Money Transmission

Collections

Data You Don't Want

Mitigating Risks: Anti-Deception Laws

145 TITLE 15—COMMERCE AND TRADE Page 40

"Antitrust Acts" means the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies", approved July 2, 1890; also sections 73 to 76, inclusive, of an Act entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes", approved August 27, 1894; also the Act entitled "An Act to amend sections 73 and 76 of the Act of August 27, 1894, entitled 'An Act to reduce taxation, to provide revenue for the Government, and for other purposes'", approved February 12, 1913; and also the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes", approved October 15, 1914.

"Banks" means the types of banks and other financial institutions referred to in section 3102(a) of this title.

"Foreign law enforcement agency" means—
(1) any agency or judicial authority of a foreign government, including a foreign state, a political subdivision of a foreign state, or a multinational organization constituted by and comprised of foreign states, that is vested with law enforcement or investigative authority in civil, criminal, or administrative matters; and

(2) any multinational organization, to the extent that it is acting on behalf of an entity described in paragraph (1).

(Sept. 26, 1914, ch. 311, § 4, 38 Stat. 729; Mar. 21, 1908, ch. 49, § 2, 35 Stat. 111; Pub. L. 102-242, title II, § 212(a)(1), Dec. 19, 1980, 105 Stat. 2002; Pub. L. 107-272, div. C, title IV, § 14102(c)(2)(B), Nov. 2, 2002, 116 Stat. 1821; Pub. L. 109-455, § 2, Dec. 22, 2006, 120 Stat. 3272.)

AMENDMENT OF SECTION

For termination of amendment by section 12 of Pub. L. 109-455, see Termination Date of 2006 Amendment note below.

REFERENCES IN TEXT

The Communications Act of 1904, referred to in text, is Act June 29, 1904, ch. 624, 40 Stat. 1980, as amended, which is classified principally to chapter 5 (§ 151 et seq.) of Title 47, Telecommunications, Telephones, and Radiotelegraphs. For complete classification of this Act to the Code, see section 696 of Title 47 and Tables.

The Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies", approved July 2, 1890, referred to in the text, is known as the Sherman Act, and is classified to sections 1 to 7 of this title.

Sections 73 to 76, inclusive, of an Act entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes", approved August 27, 1894, referred to in text, are known as the Wilson Tariff Act. Sections 73 to 76 are classified to sections 8 to 11 of this title.

Act February 12, 1913, is set out as amendments to sections 9 and 11 of this title.

The Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes", approved October 15, 1914, referred to in text, is the Clayton Act. For classification of the Act to the Code, see Reference in Text note set out under section 12 of this title.

CONSTRUCTION

"Subtitle IV of title 49" substituted in text for "the Act entitled 'An Act to regulate commerce', approved February 18, 1907, and all Acts amendatory thereof and supplementary thereto" on authority of Pub. L. 95-455,

§ 303, Oct. 17, 1978, 92 Stat. 1496, the first section of which enacted subtitle IV of Title 49, Transportation.

AMENDMENTS

2006—Pub. L. 109-455, § 2, 1, temporarily added par. defining "Foreign law enforcement agency". See Termination Date of 2006 Amendment note below.

2003—Pub. L. 107-272 substituted "73 to 76" for "73 to 77" in par. defining "Antitrust Acts".

1993—Pub. L. 102-242 added par. defining "Banks".

TERMINATION DATE OF 2006 AMENDMENT

Pub. L. 109-455, § 2, Dec. 22, 2006, 120 Stat. 3282, provided that: "This Act [enacting sections 370-2a, 370-2b, 370-1, and 370-2 of this title, amending this section, sections 45, 46, 378-2, and 38 of this title, and section 3412 of Title 12, Banks and Banking, and enacting provisions set out as notes under this section and section 38 of this title], and amendments made by this Act, shall cease to have effect on the date that is 7 years after the

FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

October 14, 1983

The Honorable John D. Dingell
Chairman
Committee on Energy and Commerce
U.S. House of Representatives

§ 45. Unfair methods of competition unlawful; prevention by Commission

(a) Declaration of unlawfulness; power to prohibit unfair practices; inapplicability to foreign trade

(1) Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.

try regarding the Commission's enforcement. We also hope this letter will provide

deceptive acts or practices unlawful. to induce the purchase of food, drugs, and other commodities. Numerous Commission and judicial decisions have raised "deceptive acts or practices" under a single definitive statement of the Commission believes that such a statement

10. Resp. No. 31-101, 97th Cong., 2d Sess., 10, 11, 14; Resp. No. 98-156, Part I, 98th Cong., 1st Sess. 6 (1983). The Commission's enforcement policy against unfair acts or practices is set forth in a letter to Senators Ford and Danforth, dated December 17, 1980.

2 In determining whether an ad is misleading, Section 15 requires that the Commission take into account "representations made or suggested" as well as "the extent to which the advertisement fails to reveal facts material in light of such representations or material with respect to consequences which may result from the use of the commodity to which the advertisement relates under the conditions prescribed in said advertisement, or under such conditions as are customary or usual." 15 U.S.C. 55. If an act or practice violates Section 12, it also violates Section 5. *Simeon Management Corp.*, 87 F.T.C. 1184, 1219 (1976), *aff'd*, 579 F.2d 1137 (9th Cir. 1978); *Porter & Dietsch*, 90 F.T.C. 770, 873-74 (1977), *aff'd*, 605 F.2d 294 (7th Cir. 1979), *cert. denied*, 445 U.S. 950 (1980).

VII of title 49, and persons, partnerships, or corporations insofar as they are subject to the Packers and Stockyards Act, 1921, as amended (7 U.S.C. 181 et seq.), except as provided in section 906(b) of said Act (7 U.S.C. 227(b)), from using unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affecting commerce.

(2) This subsection shall not apply to unfair methods of competition involving commerce with foreign nations (other than import commerce) unless—

(A) such methods of competition have a direct, substantial, and reasonably foreseeable effect—

(i) on commerce which is not commerce with foreign nations, or on import commerce with foreign nations, or

Mitigating Risks: Money Transmission

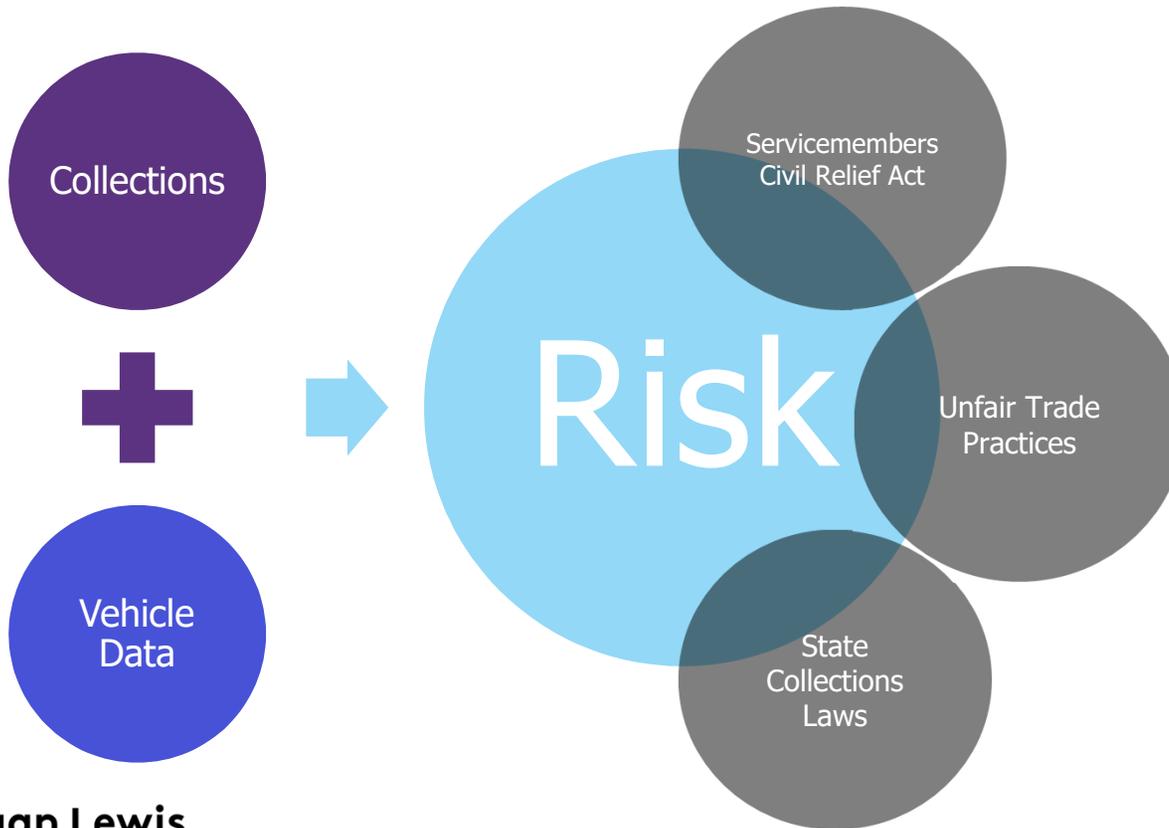


- State licensing and reporting requirements
- Varying definitions of “money transmission” versus “payment processing”



- Federal registration, anti-money laundering requirements
- Closed loop vs. open loop

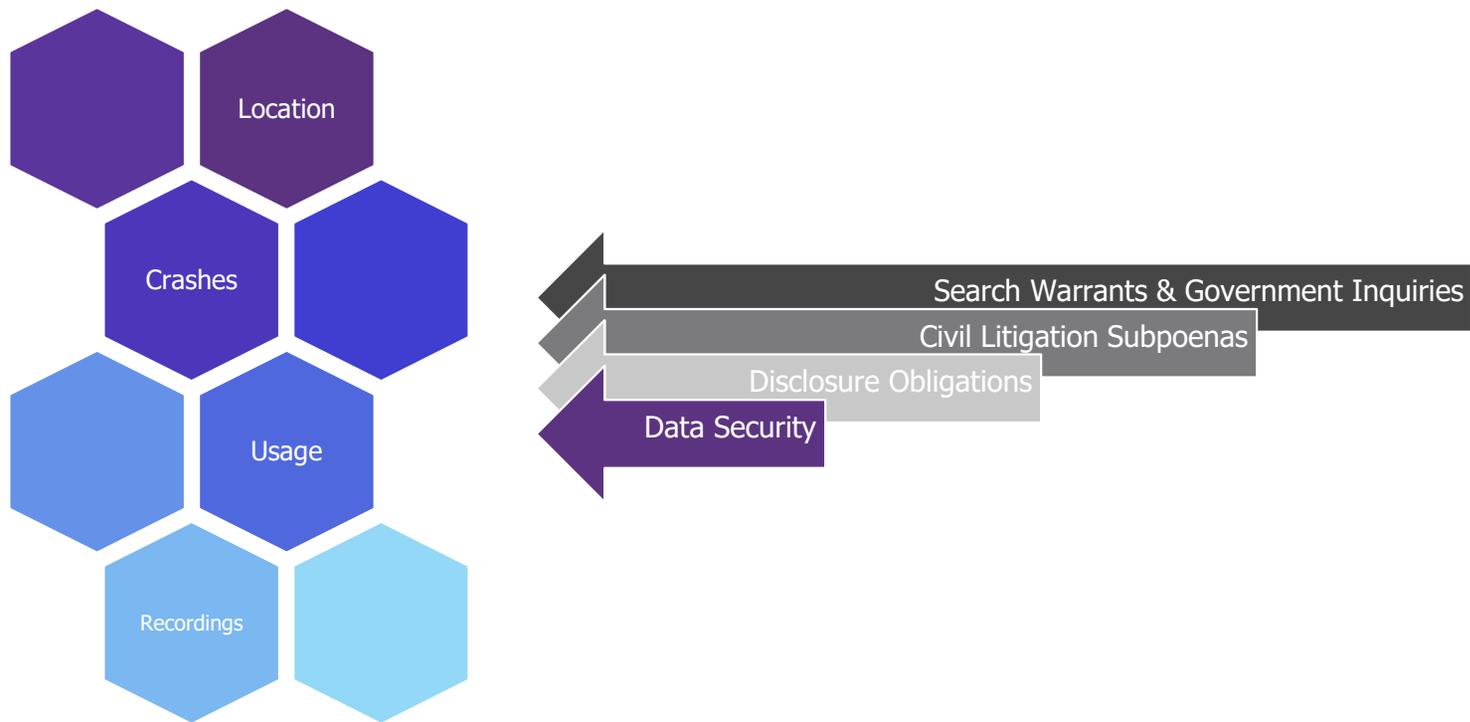
Mitigating Risks: Servicing & Collections



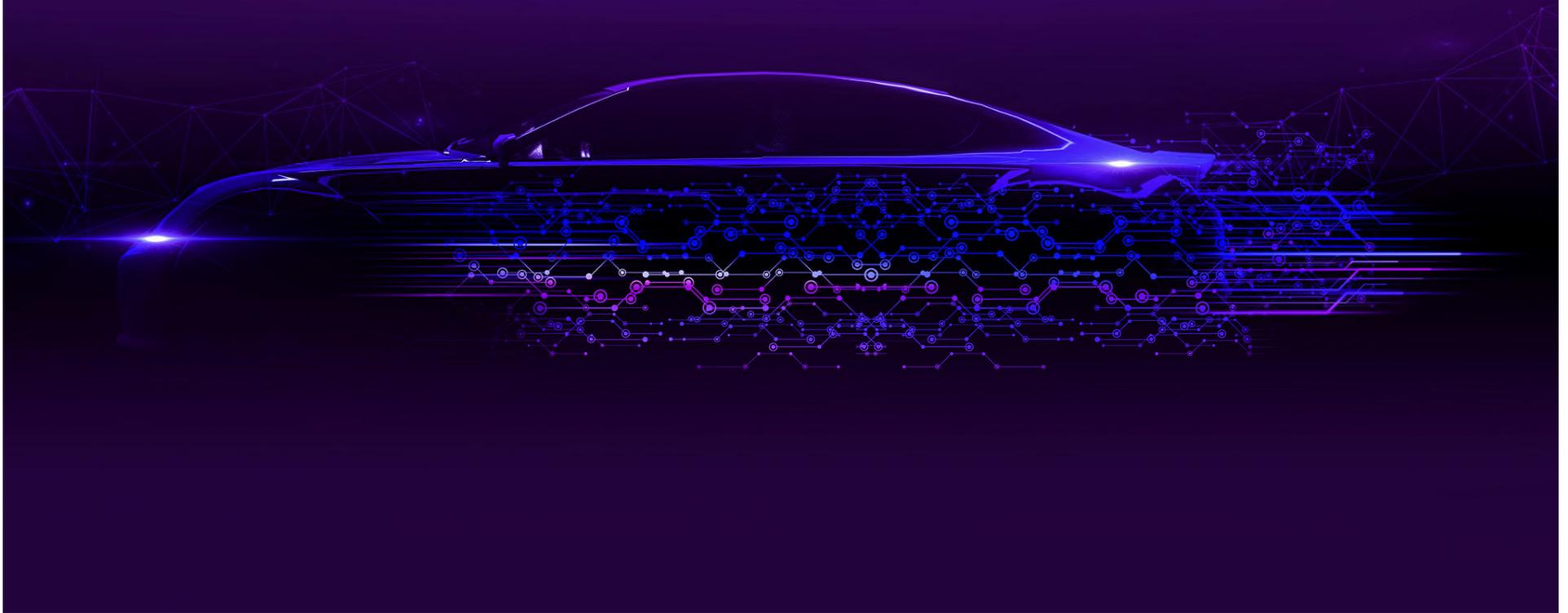
Mitigating Risks: Working with Partners



Data You May Not Want



QUESTIONS?



Today's Presenters – Questions?



Andrew Ray

Washington, DC

Tel +1.202.373.6585

andrew.ray@morganlewis.com



David Monteiro

Dallas

Tel +1.214.466.4133

david.monteiro@morganlewis.com



Tess Blair

Philadelphia

Tel +1.215.963.5161

tess.blair@morganlewis.com

THANK YOU

© 2018 Morgan, Lewis & Bockius LLP
© 2018 Morgan Lewis Stamford LLC
© 2018 Morgan, Lewis & Bockius UK LLP

Morgan, Lewis & Bockius UK LLP is a limited liability partnership registered in England and Wales under number OC378797 and is a law firm authorised and regulated by the Solicitors Regulation Authority. The SRA authorisation number is 615176.

*Our Beijing office operates as a representative office of Morgan, Lewis & Bockius LLP. In Shanghai, we operate as a branch of Morgan Lewis Consulting (Beijing) Company Limited, and an application to establish a representative office of the firm is pending before the Ministry of Justice. In Hong Kong, Morgan Lewis operates through Morgan, Lewis & Bockius, which is a separate Hong Kong general partnership registered with The Law Society of Hong Kong as a registered foreign law firm operating in Association with Luk & Partners. This material is provided for your convenience and does not constitute legal advice or create an attorney-client relationship. Prior results do not guarantee similar outcomes. Attorney Advertising.

Morgan Lewis

Our Global Reach

Africa
Asia Pacific
Europe
Latin America
Middle East
North America

Our Locations

Almaty	Chicago	Houston	Orange County	Shanghai*
Astana	Dallas	London	Paris	Silicon Valley
Beijing*	Dubai	Los Angeles	Philadelphia	Singapore
Boston	Frankfurt	Miami	Pittsburgh	Tokyo
Brussels	Hartford	Moscow	Princeton	Washington, DC
Century City	Hong Kong*	New York	San Francisco	Wilmington



Morgan Lewis

*Our Beijing office operates as a representative office of Morgan, Lewis & Bockius LLP. In Shanghai, we operate as a branch of Morgan Lewis Consulting (Beijing) Company Limited, and an application to establish a representative office of the firm is pending before the Ministry of Justice. In Hong Kong, Morgan Lewis operates through Morgan, Lewis & Bockius, which is a separate Hong Kong general partnership registered with The Law Society of Hong Kong as a registered foreign law firm operating in Association with Luk & Partners.