

S&P Global Mobility

Essential intelligence that accelerates progress



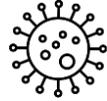
The automotive industry is in the midst of a fundamental business model and technology transformation—arguably the biggest revolution since mass production. Everything we know about our industry must be challenged and unlearned. This next chapter requires new questions, solutions, and insights to first survive, then win.

Edouard Tavernier

President, S&P Global Mobility



Automotive Transformation & Disruption



Post-COVID impact

The acceleration of trends: contactless sales processes, online retail, WFH...but will shared mobility and public transport ever recover?



Supply chain disruption

Recent events...geopolitical tensions, pandemics, natural disasters...highlight the fragility of the global supply chain leading to critical shortages.



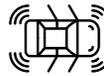
Retail transformation

Traditional model loses relevance. Tesla pioneers. Dealers must transition... smaller, online, a less service-dependent business.



Connectivity

Car to car, car to everything. Smart city pilots and IoT ecosystems. But who owns and manages the data and how to monetise?



Autonomous driving

Tech players outside the industry drive innovation, reduced traffic density and accidents...but legislation, liability, and insurance will need to evolve.



Shared mobility

From owning to using, retail to fleet, will private-car ownership decline? Will new private-public business models and consolidation emerge?



Electrification

Government incentives, new products and growing infrastructure drive adoption...but when is the cost/demand tipping point? And what role does hydrogen play?

Short term:

how to manage uncertainty and navigate the changing landscape and market volatility to optimize and survive



Mid term:

how to understand, access, and acquire new technologies to meet changing legislation, and competitive and customer needs



Long term:

how to find new revenue streams, acquisitions or partnerships to stay relevant and answer the future demands your customers will have

Our six divisions focus on distinct markets-and together, they deliver unmatched breadth and depth.

S&P Global

S&P Global
Market Intelligence

S&P Global
Mobility

S&P Global
Ratings

**S&P Dow Jones
Indices**
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S&P Global
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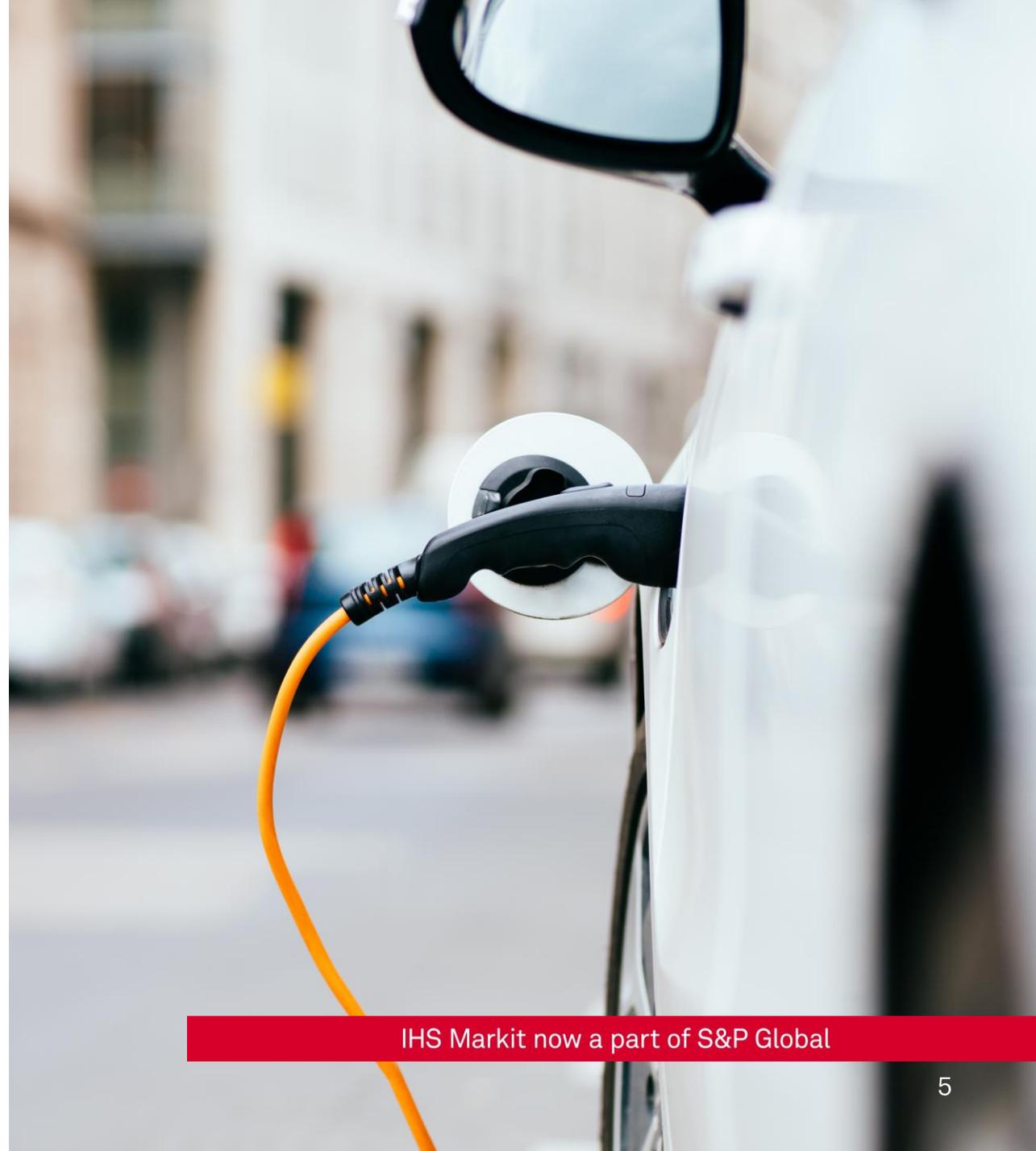
S&P Global
Engineering Solutions

IHS Markit now a part of S&P Global

S&P Global

Mobility

We provide invaluable insights derived from unmatched automotive data, enabling our customers to anticipate change and make decisions with conviction. Our expertise helps them to optimize their businesses, reach the right consumers, and shape the future of mobility.



S&P Global Mobility provides three areas of essential intelligence

Strategy, Planning & Products

Leverages technology and data science to provide unique insights, forecasts and advisory services spanning every major market and the entire automotive value chain—from product planning to marketing, sales and the aftermarket.

New Vehicle Sales & Marketing

automotiveMastermind helps dealers predict future buyers from their loyal, service-not-sold and conquest portfolio...all from one innovative platform.

Used Vehicle Sales and Service

CARFAX continues to revolutionize the used car marketplace by sharing trusted vehicle history and valuation information that helps millions of people shop, buy, service and sell used cars with more confidence.

30

million

lines of forecast data
updated monthly

40

million

new car offer
mailings per year

28

billion

vehicle history
Records

Unmatched Credentials

100%

of the top automakers
14 OEMs with revenue greater than \$50 billion

100%

of the top
medium & heavy
commercial vehicle
providers

100%

of the top
automotive suppliers
with revenue greater than \$5 billion

900+

automotive experts
on the ground in
16 countries, plus select experts
across industries available

1000

data sets
across energy, financial, and
transportation sectors within our
Data Lake

100%

coverage of global
long-term forecasts
of light & medium/heavy
commercial vehicle sales
& production

90+

countries covered for new
vehicle registration data

95%

VIO coverage for
70+ countries
linked to industry
standard coding

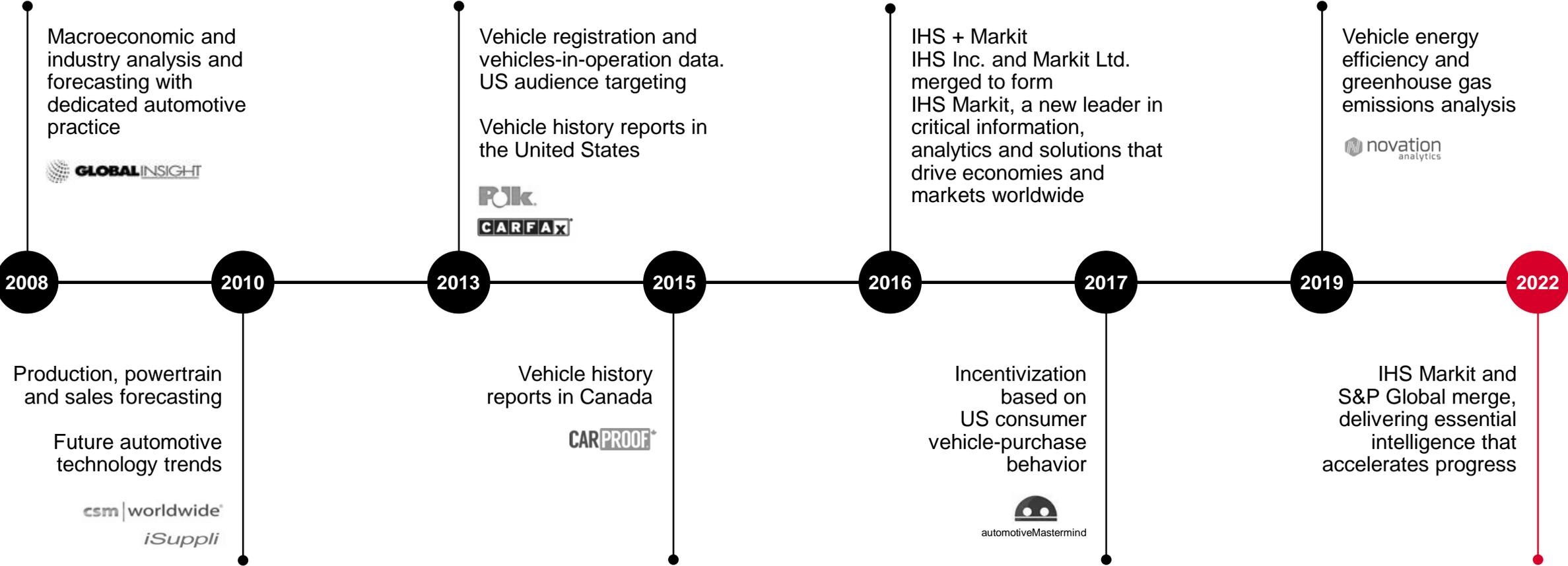
90%

of US DMVs and
top insurers use
our VIN solutions

100%

of OEMs in the United
States use CARFAX for
CPO programs

Constantly Investing For Greater Insights



Understanding your business and reading the future.

Analysis and insight, global and regional context, technology and consumer trends all powered by the best data. Access to an unmatched breadth and depth of international Automotive expertise across the entire value chain. Anticipate change, unlock market opportunity, navigate the uncertainty, join the dots to develop winning propositions for sustainable success.



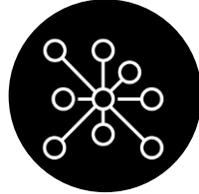
Automotive Solutions From Start To Finish



Planning & forecasting

Vehicle, segment, global & regional sales forecasts, product planning, powertrain forecasts and compliance, CASE mobility trends.

- Future mobility trends
- Market forecasting
- Vehicle volume forecasting
- Powertrain & CO2 compliance
- Electrification & charging infrastructure



Developing & building

Engineering & component solutions, technology platforms and trends, manufacturing capacity planning & outputs, inventory tracking, emerging players.

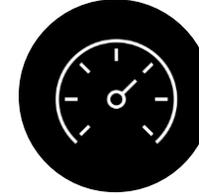
- Connected car, ADAS & tech trends
- Components planning & technologies
- Supply chain & commodity costs
- Engineering standards



Marketing & selling

Network and retail development, sales and incentive optimization, loyalty programs, consumer and audience analysis and targeting.

- Retail transformation & dealer networks
- Incentive optimization
- Audience targeting
- Market & audience analysis
- Dealer marketing solutions



Using & servicing

Vehicle history and identification, VIO/parc size for service & parts penetration, recall management, dealer parts and service.

- Aftermarket parts
- VIN solutions
- Vehicle history reports
- Dealer parts & service
- Recall

Core Customer Categories And Audiences

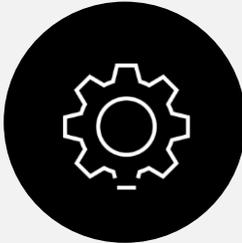
Our insight is available to you as off-the-shelf **subscription services**, or we can dive deep into your unique challenges with customized **advisory** solutions



Light Vehicle OEMs



Medium and Heavy Vehicle OEMs



Suppliers



National Sales Companies & Dealers



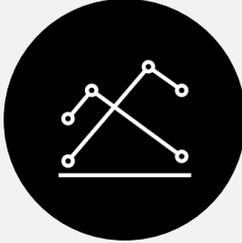
Technology Innovators



Agencies & Media



Energy & Infrastructure



Financial Analysts & Consultants



National & State Governments



Insurance Providers

Automotive Solutions



Planning & forecasting

We can tell you how many and where vehicles will be sold in the coming years, how they will be powered, and with what features, technologies and components.

Our predictions for emerging consumer trends and technologies in Electrification, Mobility and ADAS will lead you through the industry transformation. Our forecasts and insights will guide you in designing your energy, infrastructure or transportation strategy.

How many

- Sales forecasts
- Production forecasts
- Powertrain forecasts
- Daily news analysis
- Data Lake – 1,000 data sets across energy, transportation and financial sectors

What content they will have

- Component forecasts
- Features and technology benchmarking
- Chassis service
- Lighting service
- Powertrain service
- Thermal service
- UI/UX service
- Interior comfort and passive safety service
- Materials and lightweighting service
- Electrics/electronics and semiconductors service

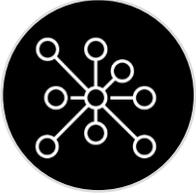
How they will be powered

- Engine forecasts
- Transmission forecasts
- Alternative propulsion forecasts
- E-mobility service
- Vehicle performance and compliance services

How future trends will affect the industry

- Autonomy service
- Autonomy forecasts
- Mobility insight
- Connected car service
- E-mobility service
- Mobility and energy future

Automotive Solutions



Developing & Building

We can help you optimize your manufacturing process, capacity and costs, from design through to procurement and supply chain planning in order to maximize efficiencies and ROI and eliminate risk and redundancy. Be at the forefront of design, technology and engineering trends and gain a competitive advantage.

Design Engineering

- Largest collection of continuously updated engineering and technical reference documents
- Comprehensive emissions modeling to facilitate powertrain selection and compliance planning

Sourcing and Commodity Pricing

- 10-year price forecasts with award-winning accuracy and deep insights into suppliers' cost structures
- OEM-Supplier relationships identified for over 600 components

Component Forecasts

- Forecasts for over 150 automotive components at a manufacturer level and over 90 components at a model level

Production Forecasts

- Production Forecasts for 99% of vehicles produced globally with insights into plant capacity, export destination, and body style

Automotive Solutions



Marketing & Selling

We can help you identify and target consumers to optimize your sales and marketing activity with extraordinary accuracy and cost efficiency. Vehicle specification, pricing and sales channel details are enhanced in the United States with vehicle history and ownership data.

Market/Audience Analysis

- New registrations
- Used registrations
- Vehicles in operation (VIO)
- Early reporting
- Household analytics
- Credit insights
- Diversity insights
- Loyalty insights

Audience Strategy

- Targeting
- Analytics and optimization
- Performance attribution
- 1st party data enhancement services
- Buyer behavior prediction models (automotiveMastermind)

Retail Strategy

- Dealer network studies
- Network simulation tool
- Retail transformation
- Vehicle buyer journey

Incentivization

- Point of sale incentive verification
- Incentive spending optimization (automotiveMastermind)

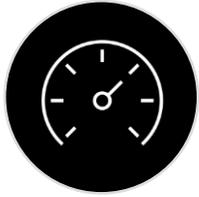
Used Car Listings

- 15+ million used car listings (CARFAX)
- Sell My Car (CARFAX)

Vehicle History

- Vehicle history reports (CARFAX) enable consumers and dealers to buy and sell with confidence

Automotive Solutions



Using & Servicing

We can enable you to increase your parc penetration and loyalty, grow service and parts revenue with targeted aftersales marketing solutions, identify a vehicle's history via its VIN, and efficiently manage turn-key recall programs. Identify and forecast VIO for aftersales parts planning at the OEM, NSC, importer and dealer level plus aftermarket for suppliers.

Aftermarket Parts

- Global vehicle search
- VIO/parc forecasts
- Global OE parts research
- ACES and TecDoc catalog integration

Recall

- Recall Services – to ensure a turnkey successful vehicle recall campaign
- Class action litigation and settlement solutions

Dealer Parts and Service

- After sales marketing solutions
- CARFAX4LIFE (CARFAX) – customer pull service program
- Car Care (CARFAX) – manage your car's maintenance records

VIN

- VIN services – decode vehicle specifications by VIN
- Dealer audit capabilities

Unique Automotive Solutions

Only **S&P Global** Mobility covers the entire global automotive value chain with solutions that drive near-term plans and long-term strategy.



Appendix

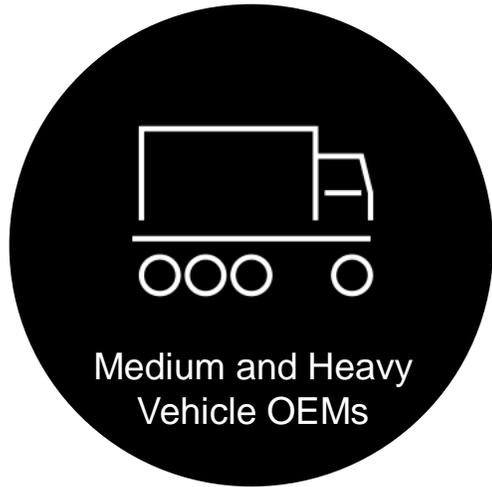


Core Customer Categories And Audiences



- Do we have the right powertrain and battery technology to be successful?
- Do we have the right EV supply chains, partnerships, and order-to-delivery capabilities?
- How will consumer sentiment and behavior change?
- Do we understand distribution channels and dealer network strategies of tomorrow?
- How well does our current branding support new EV models (and broader proposition)?
- What is the impact to warranty and safety recall risk? What is the impact to dealer profitability?
- Is my supply chain optimal? Do I risk component shortages that could disrupt the entire assembly line?

Core Customer Categories And Audiences



- Will electric become viable for short-range? What does the hydrogen transportation economy look like?
- What tomorrow's long-haul transportation and urban distribution ecosystem look like?
- Autonomous driving, vehicle sensors, battery technologies – will they converge on right timeline?
- How will new regulations affect the transportation and energy sectors over the next 20 years?

Core Customer Categories And Audiences



- What will our future book of business look like? Where are the threats and opportunities? How can I understand future production/revenue implications?
- Is my supply chain optimal? Do I risk component shortages that could disrupt the assembly of the component I am supplying?
- How quickly will I need to react to OEM portfolio adjustments?
- How can I forecast new and disruptive trends for which there is no historical data—autonomy, electrification, new mobility—to invest/divest?
- Which OEMs are leading the market, which ones are lagging and need further technology? How far away from compliance are the laggards?
- What would be the impact of new trade barriers & tax reforms?
- What are each OEMs ADAS strategy? And connected car strategy? What software services do they need? Do these provide opportunities?
- Will the market recovery to pre-COVID levels?

Core Customer Categories And Audiences



- Do we understand the competitive landscape? How do we benchmark on where are today? And against the future?
- How do we move from our niche EV approach to one of mass or scale?
- How will automotive fleets evolve from personally-owned models to a multi-dimensional competitive environment?
- How do we retain/convert existing loyal customers? Attract new customers? Optimize incentives?
- Do we understand distribution channels and dealer network strategies of tomorrow?
- Do we have the right marketing and campaign approaches to target specific audience segments?

Core Customer Categories And Audiences



- Will demand for mobility return to pre-pandemic levels? For robotaxi/autonomous vehicles and micro mobility?
- What technology innovation will automakers use to differentiate their brands?
- What breakthroughs are needed globally to achieve net-zero by 2050?
- What partnerships are needed across the technology sectors? How will data be monetized?
- Will a single platform or many be used to 'digitized roadways' to provide autonomous vehicle-enabled future-proof roads?
- What customer experience and digital initiatives will help automotive businesses to boost their brand value?

Core Customer Categories And Audiences



- How can I analyze the market and benchmark how my dealer prospects/clients are doing?
- How can I sell more ad space and market my channel more effectively to dealerships or NSCs?
- How can I efficiently reach the best prospects aligned to my client's brand or marketing strategy who are ready to buy a car now?
- How can I make sure my target lists are up-to-date (e.g.: change of address) and enhanced (e.g.: appends)?
- Which creative treatments and/or messages best resonate with my audience? What was the effectiveness of the marketing investment?

Core Customer Categories And Audiences



- How are different countries developing their fuel efficiency/emissions policies?
- How will market developments and policy changes influence EV sales on a monthly basis?
- How significant and soon will gasoline and diesel demand be reduced due to the growing adoption of electric vehicles?
- Where should utilities plan for future EV charging infrastructure?
- What will be the impact of vehicle electrification on gasoline versus diesel demand?

Core Customer Categories And Audiences



- What is an OEM's competitive standing and future strategy? Does their financial performance and market share support the investment?
- How can I understand a suppliers' future production/revenue implications, analyze book-of-business, and assess their market performance?
- How can I assess a portfolio's profitability risk under different market conditions and accurately and confidently evaluate future investments?
- How can I forecast new and disruptive trends for which there is no historical data—autonomy, electrification, new mobility—to invest/divest?
- Who can help me evaluate major capital projects, cost structures, commercial contracts, partnerships, M&As, and other strategic transactions?
- Where are the blind spots when applying trading strategies? How can I assess the impact of new trade barriers, tax reforms, or compliance rules?
- How can I evaluate loans in a given territory and assess the percent of all personal registrations financed—nationally, regionally, or by brand?
- How can I gauge a portfolio's risk and weigh the consequences of buying deeper: lower credit scores, higher APRs, or larger amounts financed?

Core Customer Categories And Audiences



- Will there be reduction in fuel tax income due to EVs and reduce VMT following the pandemic?
- What new future regulations and legislation should be proposed/crafted in relation to shared mobility or autonomy?
- What is the economic impact of a new or retired plant to my region?
- How will the shift to shared mobility impact congestion and infrastructure needs?
Will my municipality need more/less/different parking facilities?
- How can policy changes influence EV adoption and emissions?

Core Customer Categories And Audiences



- How can I identify accurate vehicle attributes in real time as requests for insurance quotes come in from consumers?
- Where can I map vehicle attributes to a claim to determine the cost to repair (parts costs and service hours) in order to make the decision to repair or total the vehicle?
- How can I identify vehicle attributes that make a specific car more likely to be in a crash, stolen, or be more costly to repair?
- How can I efficiently reach the best prospects best aligned to my marketing strategy?

Customer Care

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Local Language Automotive Site

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Corporate Automotive Site

IHSMarkit.com/Automotive

Automotive LinkedIn Group



Automotive WeChat

