



100 years of automotive insight

## Automotive Offerings 2020

Insight, analytics, expertise, and solutions—driving better decisions and better business results.





## Welcome to IHS Markit!



Joe LaFeir  
Senior Vice President,  
Automotive  
IHS Markit

The automotive industry is one of the world's largest drivers of economic growth and cultural change and a catalyst for exciting new technologies. For decades, automotive manufacturers, suppliers, and dealers along with their financial and agency partners have relied on IHS Markit as a trusted source of critical information and insight.

This trust is built on a history of providing industry leaders with comprehensive, timely, and actionable insight that has shaped better business decisions and driven better business outcomes.

In an increasingly competitive and interconnected business environment, actionable insight—delivered where and when you need it—can be the difference between market leadership and market parity. Like no other, IHS Markit delivers the breadth and depth of automotive insight that will help you gain and retain the lead in your market.

Today, we are proud to celebrate 100 years of providing automotive stakeholders with data, analysis, and forecasts to support product strategy, sales and marketing, and the aftermarket.

For more information or to speak to an IHS Markit expert, please contact us at [ihsmarkit.com/automotive](https://ihsmarkit.com/automotive)



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# Car of the Future

**Disruptive trends or future opportunities?**



# Car of the Future

## MobilityInsight

**With the ownership of vehicles shifting from personal to fleet and the number of miles driven per vehicle likely to quintuple, MobilityInsight, from IHS Markit, provides a unique offering—a highly relevant means of tracking mobility developments in the automotive sector. With MobilityInsight, you will be able to access:**

### Headline Analysis

Stay up to date with ongoing developments in this rapidly changing industry with dedicated mobility news coverage.

### Company Profiles

Discover what strategies other companies are adopting through dedicated automaker and mobility company profiles outlining mobility activities.

### Legal Framework

Access a repository of autonomous vehicle legal and regulatory environment for major markets around the world (i.e., China, France, Germany, India, Italy, Spain, the United Kingdom, the United States).

### Mobility City Map

Understand how locations compare. This interactive map features 90 cities rated according to attractiveness for new mobility services. Overall rating is based on seven key criteria: car-sharing, ride-hailing, bike-sharing, cost of public transport, public transport infrastructure, pollution, and traffic congestion.

### Data Browser

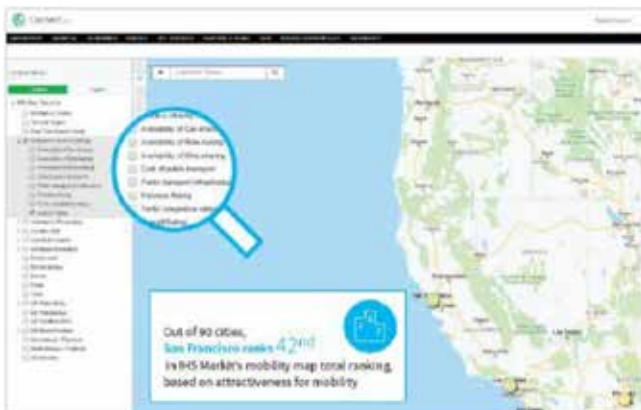
Anticipate what the future holds via the IHS Markit mobility data browser. The browser contains five years of historical data and forecasts out twelve years for the United States, Europe, China, and India. Coverage includes autonomous vehicles (L4/L5) and EVs (BEVs/PHEVs), as well as new mobility channels (such as car-sharing and ride-hailing).

### New Light Vehicle Players Tracker

New manufacturers enter and exit the market with astonishing speed. MobilityInsight tracks and evaluates these new players.

### Ride Hailing Fare Tracker

Does the average fee per kilometer traveled vary greatly by city, provider or service offered? The Ride Hailing Fare Tracker provides high-end/low-end average fares by km traveled for major ride-hailing companies in 20 cities around the world.





## Mobility and Energy Future Service

*Provides insight on the future of cars as well as the oil, automotive, chemicals and power industries to help clients effectively develop long-term business strategies.*

Understanding the pulse of change in the short- and long-term are at the heart of this new service. From monthly updates on EV sales, analysis of new policy and business developments to our scenario-based outlooks that span to 2050, Mobility and Energy Future features ground-breaking insights for the 21st century and provides an in-depth look at how automotive fleets will evolve from the personally-owned models of the past century to a multi-dimensional competitive environment where mobility service companies, electric powertrains, and driverless technology alter traditional buying and use patterns.

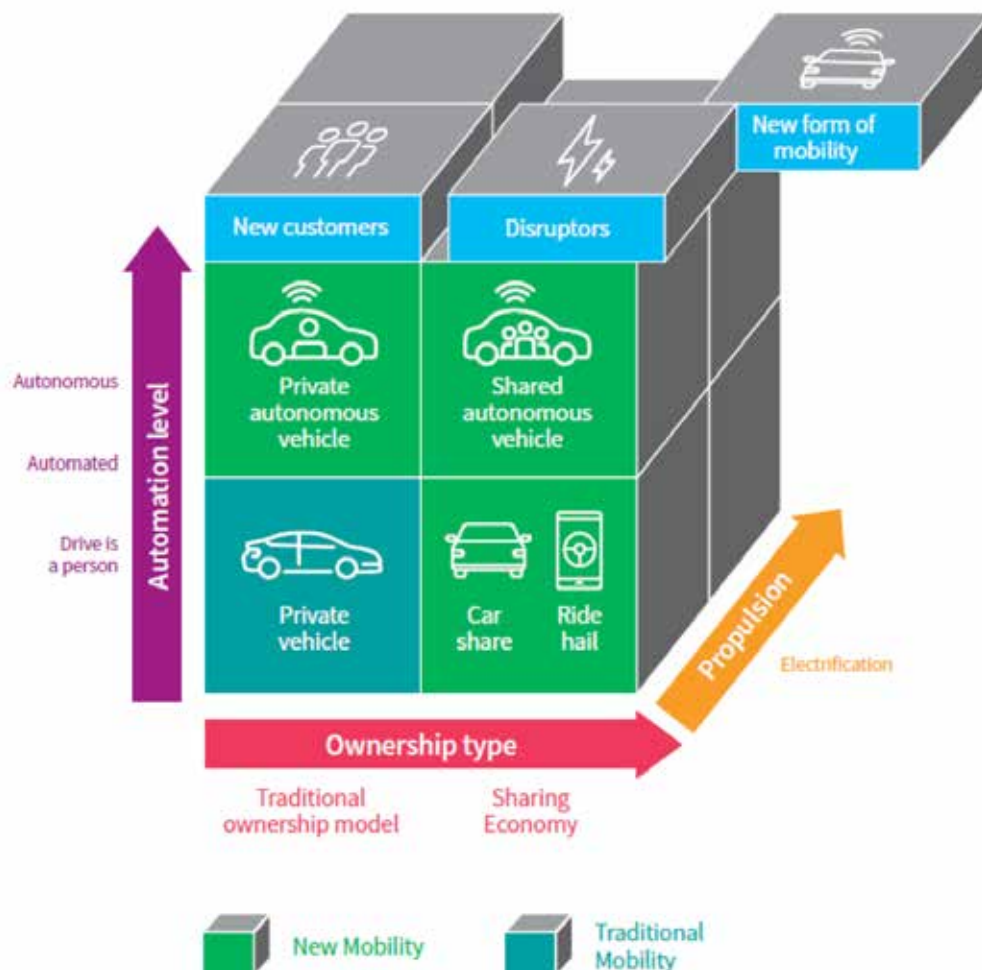
For the automotive industry, understanding the patterns of future car ownership and usage will be vital in preparing for tomorrow's market. The market will become more complex

as ride-sharing platforms and self-driving cars will give consumers an increasing number of options for personal mobility.

Automakers and suppliers will need to adapt their products and business models to ensure they are prepared for greater diversity, the resizing of markets, battery-charging needs, and the related response from electric-power markets.

### With Mobility and Energy Future you can:

- Identify short and long-term opportunities
- Anticipate future changes
- Minimize risk by offering better 'preparedness'
- Explore the validity of commonly held beliefs
- Develop and test business strategies



## Autonomy Forecasts

*Get unprecedented insight into a whole new world of driver(less) technology*

Over the next two decades, fully autonomous vehicles are expected to go from concept to tens of millions sold per year. This seismic shift will not only usher in a new era of in-vehicle user experience but of vehicle ownership as well. It also opens up a whole new industry for technology and associated components. There is profit to be made, but what is the best path forward?

IHS Markit provides insight into OEM autonomy and ADAS applications/features technology strategies. Our new model-level Autonomy Forecasts provide access to detailed technology specifications and clarify how different autonomy levels are delivered from a hardware perspective (sensors). The service also identifies emerging suppliers and OEM sourcing structures.

Get 12-year forecasts and in-depth analytics at the model level for the following:

### Sensor Technology and Supply Chain

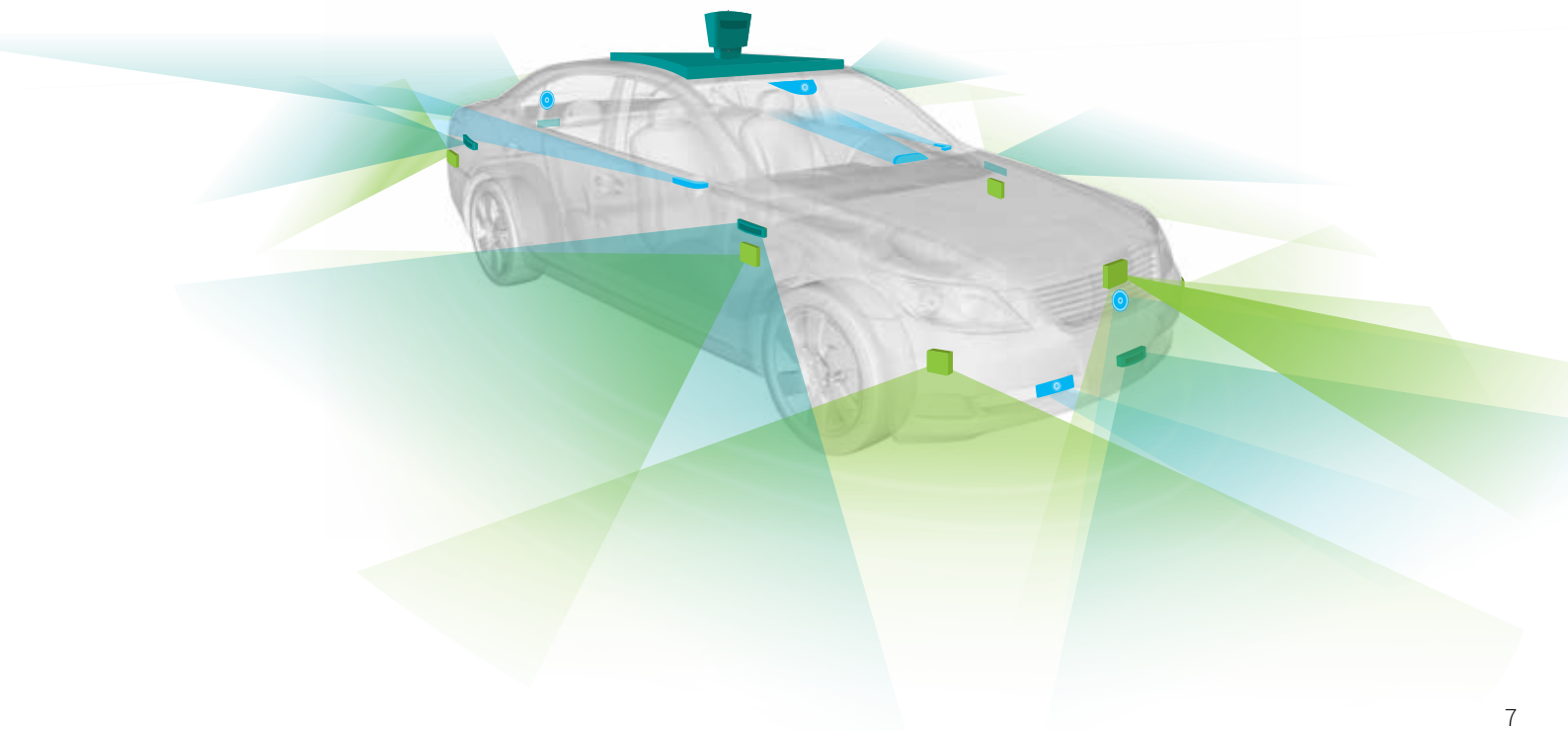
- Lidar
- Radar
- Camera

### Autonomy Features

- 12 application families
- 46 vehicle features

### Autonomy Levels

- SAE Level 0 – no automation
- SAE Level 1 – driver assistance
- SAE Level 2 – partial automation
- SAE Level 3 – conditional automation
- SAE Level 4 – high automation
- SAE Level 5 – full autonomy



## AutoTechInsight Services



### Autonomous Driving Service

Automated driving and advanced driver assistance systems (ADAS) are making vehicles safer and more convenient to drive. Furthermore, they are ushering in a disruptive era in mobility where vehicles are actively aware of the world around them, are able to drive themselves, and can even replace the need for a driver and vehicle ownership.

The IHS Markit Autonomous Driving Service provides insight, context, data and analytics for the ADAS market right through to the cutting edge of mobility, autonomous driving. Users can quickly access key insights from market developments, put context around events and technology trends, dive into deep data and forecasts, and seamlessly drive analytics to support their most challenging decisions.



### Connected Car Service

Connected car technology has grown within the auto industry for the past 20 years. Telematics and infotainment display audio systems are now commonplace. So are technologies such as Apple CarPlay, Android Auto, and even Android based operating systems for infotainment. These advancements further blur the line between traditional in-car human-machine interface and functionality and those often seen on a smartphone or tablet.

Today's high-tech car needs additional capabilities such as over-the-air (OTA) software and cybersecurity to fix bugs and add new functionality on a regular basis. These new capabilities also give suppliers and automakers an opportunity for white-space mapping in data monetization solutions which are critical to future profitability.

The IHS Markit Connected Car service provides insight, context, data and analytics that allow our clients to make informed and strategic business decisions.

Users can quickly access key insights from market developments, put context around events and technological trends, dive into deep data and forecasts, and seamlessly drive analytics to support their most challenging decisions.



### E-Mobility Service

Vehicle electrification is one of the most impactful and long-term trends in the automotive industry. For OEMs to comply with impending carbon dioxide legislation and regional emissions targets, alternative propulsion vehicles are entering product portfolios.

The IHS Markit E-Mobility Service provides insight, context, data, and analytics to help navigate the transition to an electrified powertrain and associated infrastructure. Users can quickly access key insights from market developments, put context around events and technological trends, dive into detailed data and forecasts, and seamlessly drive analytics to support their most challenging decisions.





# News and Analysis

**Track automotive industry developments around the world**



## AutoIntelligence Suite

AutoIntelligence delivers comprehensive industry analysis and monitoring for more than 96% of global vehicle sales and 99% of global vehicle production.

AutoIntelligence is comprised of two services:

### AutoIntelligence Daily

Daily updates of automotive developments including the significance and outlook of automotive news, events and trends

AutoIntelligence Daily is like having a team of industry, economic, and business analysts working directly for your organization. Every business day, headlines customized to your interests and needs arrive in your inbox with links directly to our site, where we curate what you need to know and what it means for your business. No other information service provides this level of timely, meaningful, and customized analysis.

### AutoIntelligence Monitor

A one-stop research hub with access to deep-dive reports, brand-level forecasts, and country and competitor intelligence

Get insight on all the major automotive manufacturers and tier-one suppliers, analyze key markets, access in-depth analysis on topical events and trends, and get deep-dive analysis of segmentation splits, best sellers, and key trends and drivers.



Access AutoIntelligence  
Daily on your mobile device

## AutoTechInsight

### News and Insights

AutoTechInsight daily news & insights provides a fresh, succinct yet insightful IHS Markit spin on the latest news and trends as they emerge. IHS Markit not only sources and aggregates the latest relevant news on technology, supply chain, and OEM strategy but also analyzes their significance and contextualizes them with the help of our original research and forecasts.

News is categorized in different domains (list below) and is tagged against many criteria to allow for easy filtering. A customizable feed tracker, powerful search engine and the in-built RSS feed creation capability streamline the ability to consume the wealth of analysis provided.

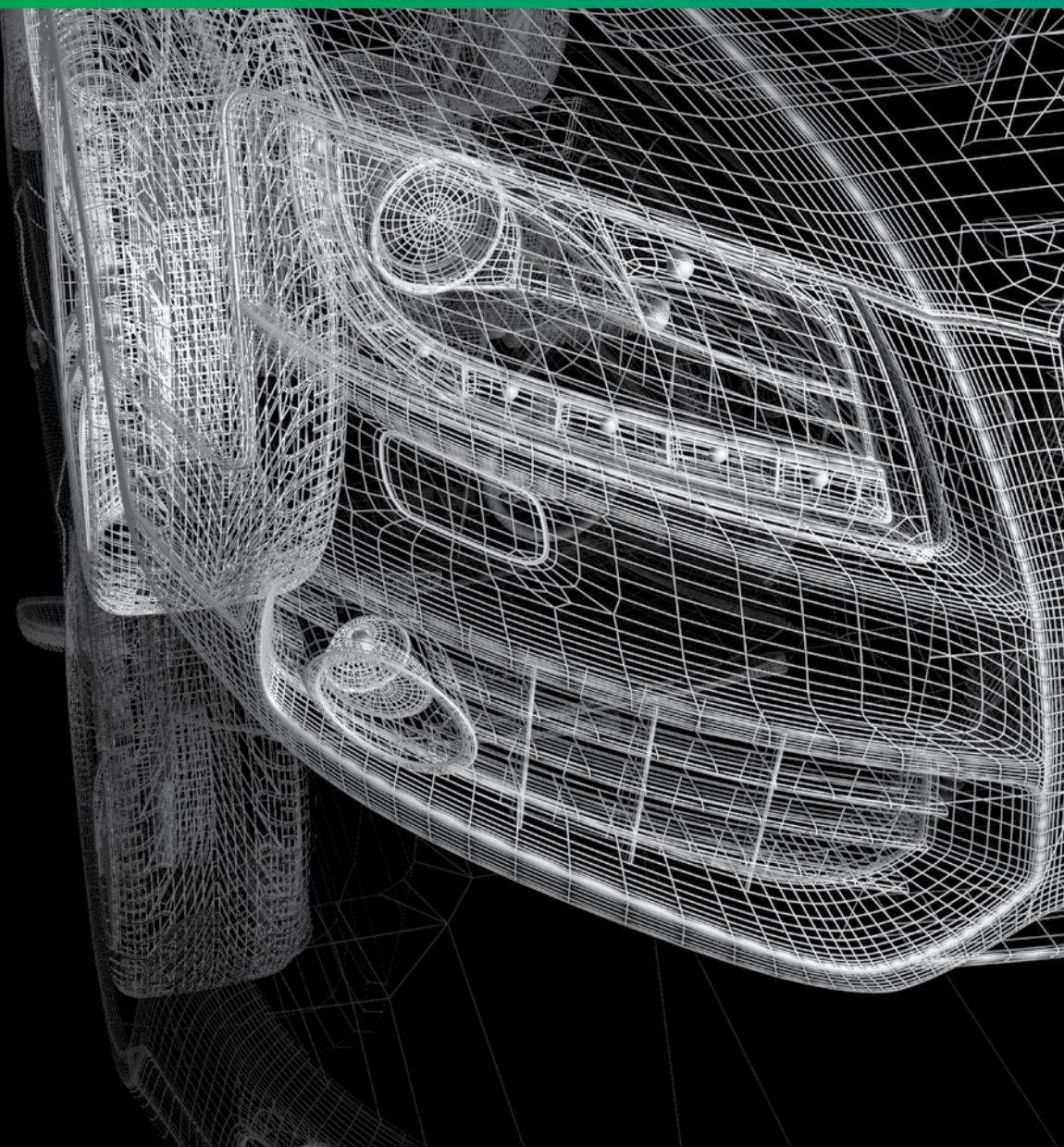
- Autonomy
- Chassis
- Connected Car
- E-Mobility
- Electrics/Electronics and Semiconductors
- Interior Comfort and Passive Safety
- Lighting
- Materials and Lightweighting
- OEM Strategy
- Powertrain
- Thermal
- User Interface/User Experience (UI/UX)





# Light Vehicle Forecasts

**Evaluate options, mitigate risk, optimize investments,  
and improve performance, today and tomorrow**





## Light Vehicle Sales Forecasts

The Light Vehicle Sales Forecast delivers insight on market demand, segment growth, and competitive dynamics.

### Light Vehicle Sales - Base Forecast (7-Year)

Updated twice per quarter and backed by 10 years of historical data, our Light Vehicle Sales Forecast provides an in-depth, rolling 7-year view for 70+ countries across 11 regions representing more than 97% of global light vehicle sales.

#### ADD-ON MODULES

- **Contingency Forecasts**  
Provides two alternative model-level forecasts with the same detailed fields as our base sales forecast.
- **Import Sourcing**  
Delivers additional depth and breadth for strategic sourcing & procurement.
- **Cycle Plans**  
Provides start/end-of-sales date fields for each vehicle/body type combination per sales country for 70+ countries.
- **Body Type**  
Extends vehicle-level forecasts and analysis to include vehicle body type, regional subsegment, and regional price class.
- **Vehicle List Price Forecast**  
Enhances the Body Type module with a seven-year view of future passenger car list prices to the model level.
- **12-Year Extension**  
Extends our 7-year forecast volumes to include years 8–12.
- **Monthly Volumes**  
Reveals Sales and Body Type Forecasts in monthly data buckets for the current year plus two forecast years.

### Light Vehicle Sales: Sub-Saharan Africa Forecast

The Sub-Saharan Africa Light Vehicle Sales Forecast provides market demand for 50 countries. Only IHS Markit is able to provide this holistic view, combining intelligence feeds of its market-leading economic and consumer data forecast services into a single vehicle demand forecast.

### US Retail Fleet Forecast

With fleet registrations accounting for a significant percentage of light vehicle sales, forecasting this channel has never been more important. Automakers rely on fleet sales to generate volume. In addition, the brand exposure presents a unique opportunity to get in front of potential customers. The IHS Markit US Retail Fleet Forecast offers unique insight into the different sales channels within the US market.

### Sales, Volume and Market Planning Advisory Services

#### *In-depth market, vehicle launch, and supplier component entry strategies*

Global automakers are shifting unprecedented levels of capital and resources towards the development of autonomy, connectivity, electrification and shared mobility capabilities. It's more than the components that make up the car that's changed – entire business models may be evolving as we move from an ownership to a service-based model. To spur an alternative perspective, several automakers and suppliers have also taken the next step of establishing new capital structures and organizations.

IHS Markit helps automakers and suppliers plan for the future with customized scenarios and strategic plans. Leveraging our industry leading vehicle forecast models and planning solutions, we can address your unique challenges and pave the way for greater future success.

# Light Vehicle Forecasts

## Light Vehicle Production Forecasts

### Light Vehicle Production Base Forecast (7 year)

Light Vehicle Production Forecasts offer an in-depth view across 50 countries, 600 plants, and 2300 models, giving OEMs and suppliers the ability to identify new opportunities, defend against competitors, and optimize current programs, capacity, and business performance.

Updated monthly and backed by 10 years of historical data, our Light Vehicle Production Forecast provides detailed analysis on regional economics, sales, production, competitive segmentation, product cycles, and manufacturing strategies. Geographic coverage of 50+ production countries across seven regions represents 99% of global light vehicle production.

Field coverage of 30+ attributes are reported consistently for all light vehicles produced.

#### ADD-ON MODULES

- **Contingency Forecasts**  
Provides two alternative model-level forecasts using the same 30+ detailed fields as the base production forecast.
- **Plant Capacity Utilization**  
Provides analysis for each light vehicle assembly facility (plant) including production structure setup, and global analysis for total capacity/utilization by OEM and region.
- **Export Destination**  
Provided for each vehicle and plant, this module covers sales regions, markets, and countries; currencies of both production countries and sales countries; and sales nameplate.
- **12-Year Extension**  
Extends our 7-year forecast volumes to include years 8–12.
- **Body Style**  
Extends forecast coverage to 30 body styles. Includes vehicle silhouette and the number of apertures/doors.

## Vehicles-in-Operation Aftermarket Forecast

### WorldView

Building from the most credible, VIN-based historical registration data available, IHS Markit offers a 5-year VIO forecast across the United States and a 15-year forecast for the rest of the world.

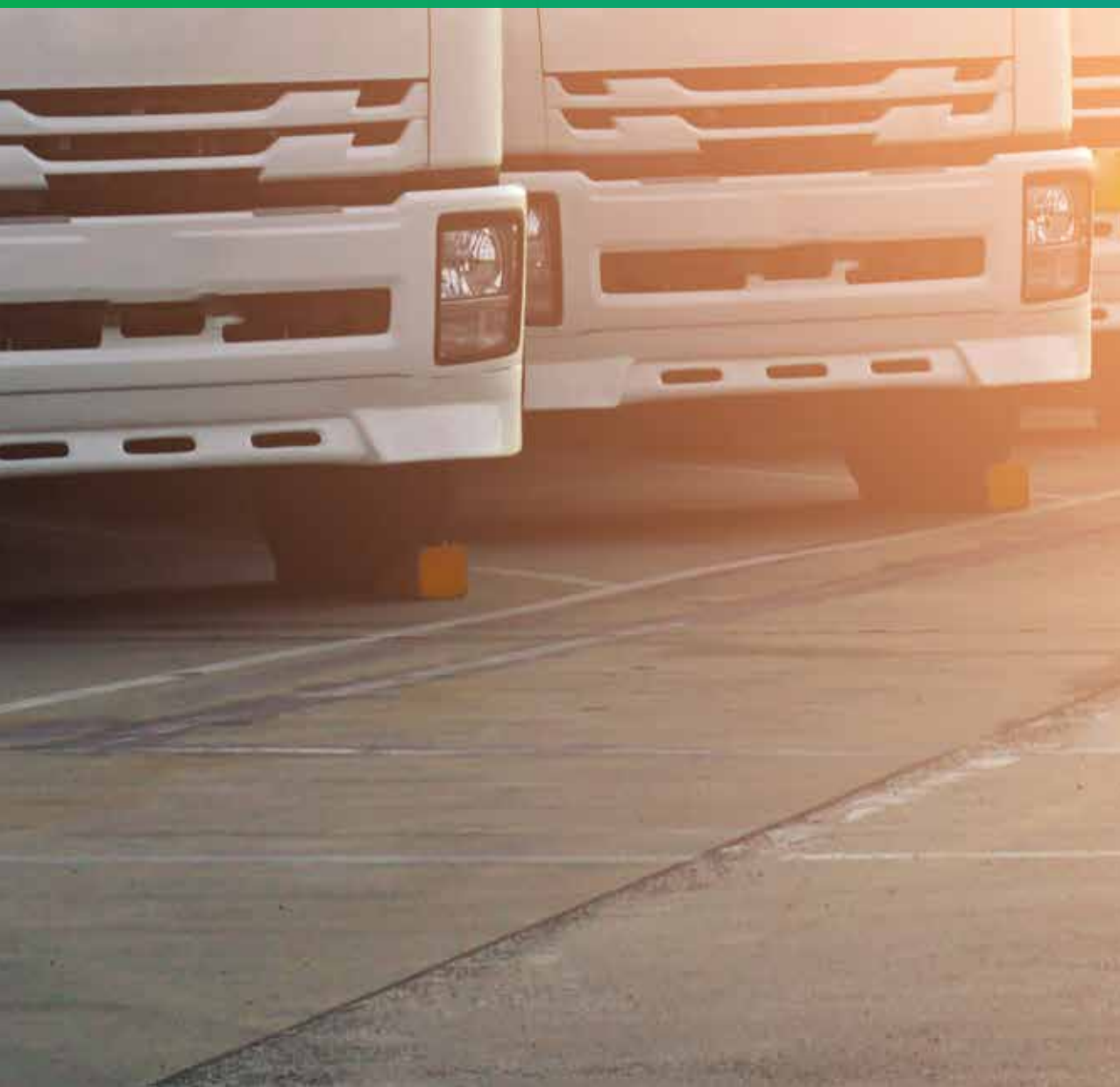
You will no longer struggle to develop a VIO forecast internally. You can rely on our forecasting experience and expertise to guide your product lifecycle planning and provide accurate insights into strategic market shifts. The VIO Forecast includes both vehicles currently on the road and those set to launch within the forecast horizon. With WorldView, you can plan for future vehicle populations, build a detailed part-level forecast, and predict vehicle replacement parts.





# Commercial Vehicles

**Get the world's best insight into light, medium and heavy commercial vehicles**





## Medium & Heavy Commercial Vehicle Forecasts – Global/Regional

**Covering more than 95% of the global truck market, our Medium & Heavy Commercial Vehicle forecast subscriptions provide sales and production insight by region, country, manufacturer, segment, and plant. Our MHCV subscriptions include:**

### Medium & Heavy Commercial Vehicle Industry Forecast

Providing production and new registration truck sales in more than 75 countries, the MHCV Industry Forecast offers a consistent 12-year view to the brand level by weight segment that can be tailored by country, manufacturer, and medium and heavy gross vehicle weight segments for rigid and articulated trucks greater than six tons.

### Medium & Heavy Commercial Vehicle Model Production Forecast

Provides model and platform-level production forecasts (assembly plant and capacity), analysis, and cycle plans of medium- and heavy-duty trucks and buses globally.

Developed in partnership with Power Systems Research (PSR), the forecasts leverage 10 years of historical data to present a 7-year (current plus 6 years) view of uniformed and consistent weight segmentation for vehicles over six tons.

### Medium & Heavy Commercial Vehicle Engine Production Forecast

Providing the most comprehensive technical and geographic coverage of current and future medium/heavy engines, the MHCV Engine Production Forecast is based on 10 years of historical data covering 20+ technical engine attributes for vehicles greater than six tons. Developed in partnership with PSR and updated quarterly, it provides a 7-year view (current plus 6 years) into engine production by platform, model, plant, and engine installation.

### Medium & Heavy Commercial Vehicle Model Family Sales Forecast

Provides 7-year model-level forecasts for key commercial vehicle markets around the world. Covering vehicles greater than six tons, the forecast details body type, weight class, program and platform codes, and start and end of production.

### Reinventing the Truck

Major shifts loom in the medium and heavy-duty trucking industry. Alternative powertrain options, driverless technology, and increased logistical efficiency are just some of the themes around which there is major uncertainty.

IHS Markit is uniquely positioned to look within and across these inter-related industries and offer insights into the changing landscape. In Reinventing the Truck (RTT), we brought together supply chain, automotive, and energy expertise to identify and address the major unknowns facing the industry. This one-time purchase of a market update refreshes our scenarios for the future of trucking and extends our forecasts to 2050.



# Powertrain, Compliance and Electrification

**The most comprehensive coverage of current and  
future propulsion systems**



## Electrification

**Electric vehicle (EV) technology is on the cusp of a steep deployment growth stage that will greatly impact the automotive and transportation industries. In a decade or less, the BEV will meet the four criteria that make it competitive or better than the internal combustion engine (ICE) vehicle—purchase price, variety of models for most use cases, public charging infrastructure approaching gas station coverage, and much lower operating costs than ICEs. IHS Markit helps automakers and suppliers navigate this seismic change for how vehicles are powered.**

### E-Mobility Service

The automotive industry is in transition away from the conventional powertrain, with a long-term aim to fully decarbonize the vehicle parc. The IHS Markit E-Mobility Service provides insight, context, data, and analytics to help navigate the transition to an electrified powertrain and associated infrastructure. Users can quickly access key insights from market developments, put context around events and technological trends, dive into detailed data and forecasts, and seamlessly drive analytics to support their most challenging decisions.

### Electrics/Electronics (E/E) and Semiconductor Service

The IHS Markit E/E and Semiconductor Service provides insight, data and analytics for key technologies affecting vehicle electronics and architecture, electrical networks and semiconductor components. Users can quickly gain insights into market developments, place events and technology trends in context, dive into granular forecasts, and seamlessly drive analytics to support the most challenging decisions.

### xEV Sales Scenario & Compliance Advisory Services

What is your strategy for achieving CO2 compliance? What electrification or fuel types have the greatest growth potential? How will the state of individual market's charging infrastructures and legislative policy effect powertrain sales? IHS Markit experts conduct customer-specific but unbiased sales / scenario forecasts which enable a more thorough market insight based on client's segmentation. We can also help with the identification of relevant legislative drivers—e.g. stricter emission requirements, urban access regulations etc.—and assess their effect of sales volumes and model choice.

### Alternative Propulsion Forecast

Evolving government regulations and growing consumer demand for increased fuel efficiency are driving massive investment and technological innovation in OEMs' alternative propulsion strategies. Successful powertrain electrification programs require a thorough understanding of all the factors involved in replacing current systems—technologies, timing, model cycles, competitive strategies, supply-chain implications, and more. The Alternative Propulsion Forecast provides a seven year forecast covering 30-plus attributes consistently across all alternative propulsion-powered light vehicles produced.

#### ADD-ON MODULES

##### – 12-Year Extension

Provides calendar-year forecast volumes for years 8–12.

### Powertrain Sales Forecast

The Powertrain Sales Forecast provides detailed coverage of light vehicle sales in the United States, Brazil, Europe, China and India. The forecast models all combinations of vehicle nameplates and powertrains (engines, transmissions, alternative propulsion systems, and drivelines) now and in the future.



## Powertrain Forecasts

**Our solutions deliver industry-leading analysis for currently available powertrains and future propulsion technologies. Armed with these insights, business, product, and marketing strategists can make better planning and investment decisions.**

### Transmission Forecast

Providing complete technical and geographic coverage, the Light Vehicle Transmission Forecast provides a seven year view enabling greater insight into production by platform, model, plant, and vehicle installation.

#### ADD-ON MODULES

- **Driveline**  
Includes standard forecast spanning an 8-year horizon (current year plus 7) across 50+ countries, with detailed installation forecasts by vehicle, engine, and transmission.
- **Alternative Propulsion**  
(also available as a “Stand Alone”)  
Covers 30+ attributes across all alternative-propulsion-powered light vehicles produced.
- **12-Year Extension**  
Provides calendar-year forecast volumes for years 8–12.

### Engine Forecast

Providing complete technical and geographic coverage, the Light Vehicle Engine Forecast provides a seven year view enabling greater insight into production by platform, model, plant, and vehicle installation.

#### ADD-ON MODULES

- **Alternative Propulsion**  
(also available as a “Stand Alone”)  
Covers 30+ attributes across all alternative-propulsion-powered light vehicles produced.
- **12-Year Extension**  
Provides calendar-year forecast volumes for years 8–12.

## AutoTechInsight

**The gateway to IHS Markit’s component and technology research, thought leadership, and analysis**

### Powertrain Components & Technology Service

As major emission compliance and air quality challenges emerge, OEMs must evolve conventional powertrain technology and manage the transition to electrified propulsion systems. IHS Markit Powertrain Components and Technology Service provides insight, context, data, and analytics for the key technologies that are reshaping engines and transmissions in cars and light commercial vehicles.

Users can quickly access key insights from market developments, put context around events and technology trends, dive into deep data and forecasts, and seamlessly drive analytics to support their most challenging decisions.

## Vehicle Performance and Compliance (VPaC)

**VPaC provides critical insight into the single greatest area of research and development (R&D) in automotive. Starting with a view into OEM fleets and competitive CO2 performance, VPaC identifies who will strike the best balance between performance and emissions (by brand, segment, or model line) and which OEM may face financial penalties. VPaC offers a one-stop shop for vehicle performance and compliance insight. The base forecast and three ADD-ON MODULES include:**

### CO2/Fuel Economy (Base forecast)

Integrates sales-based powertrain forecasts with fuel consumption and fuel economy & CO2 regulation parameters

#### ADD-ON MODULES

##### – **Vehicle Performance:**

Enables insight into competitive position on the important trade-offs between vehicle performance and efficiency.

##### – **Vehicle Compliance:**

Provides an unbiased, physics-based independent outlook on potential OEM compliance gaps.

##### – **12-Year Extension:**

Adds 5 additional years to the forecast horizon.

## Compliance Suite

53% of automakers are expected to miss compliance targets in the US, EU, and China by 2020. The Compliance Suite will provide comprehensive data and analytics illustrating technology pathways along with their associated investments in meeting fuel economy regulation.

### (EU) COMPLIANCE+

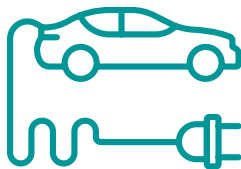


#### **How far is a fleet from compliance? How much are the associated fines?**

Identify the gap between the current fleet mix and compliance regulations. Gauge current and future fleet-average position and assess the fines associated for non-compliance.

For the United States and China, this functionality is included in Compliance Tech

### COMPLIANCE TECH



#### **What technologies can help close the compliance gap?**

Apply various “force compliance” options based on IHS Markit pre-defined pathways and see the likely outcomes. Pathways to compliance include:

- Mechanical
- Electrification
- Fleet mix & credits

### COMPLIANCE COST



#### **How much will pathways to compliance cost?**

Enables financial planners to understand the overall investment of the technology required for achieving compliance based on the three specified routes outlined in the Compliance Tech module.



# Components and Technologies

**A wealth of original thought leadership, data, and analysis  
for components, technologies and the vehicle ecosystem**



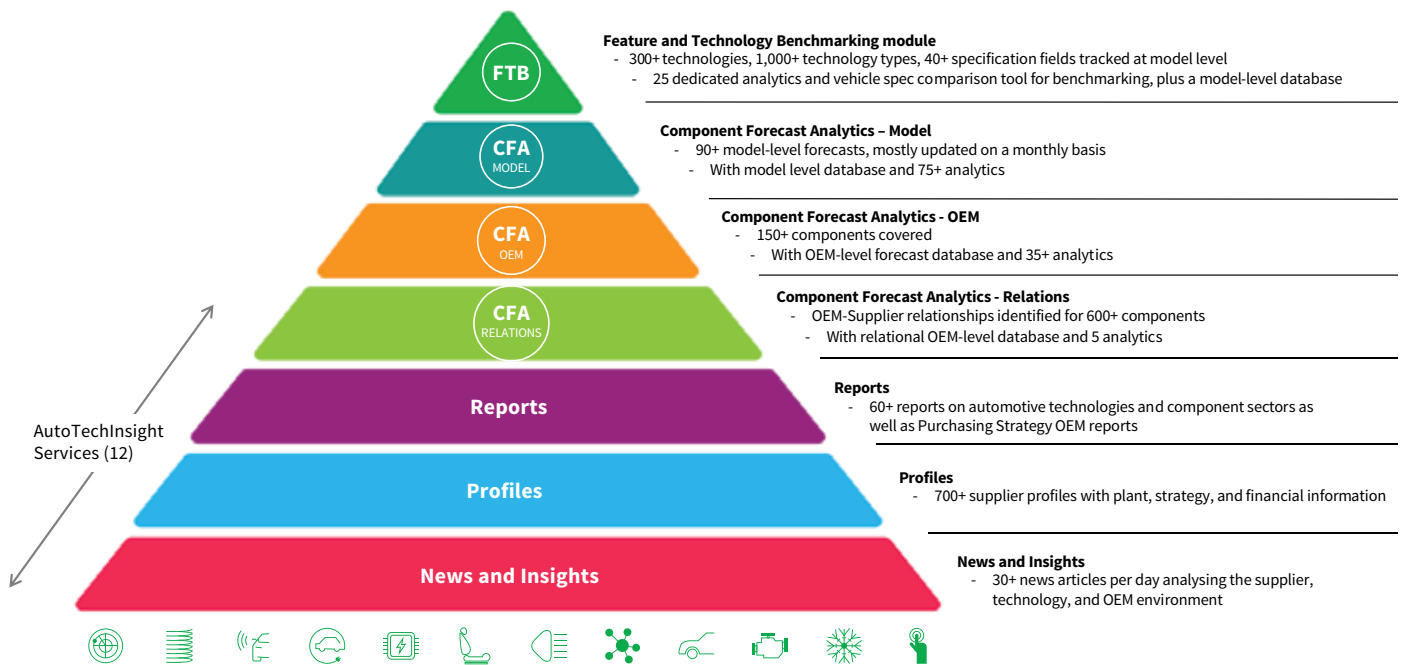


# Vehicle Components and Technologies

## AutoTechInsight is the gateway to IHS Markit's component and technology research, thought leadership and analysis.

AutoTechInsight from IHS Markit is a business intelligence platform providing access to a wealth of original research, analysis, forecasting and thought the leadership on automotive technology, the vehicle eco-system, and the supporting supply chain. The platform has the widest and deepest coverage on vehicle technology, ranging from e-mobility hardware and autonomy-enabling hardware to traditional domains such as chassis and interior which are being impacted by the automotive industry's megatrends.

AutoTechInsight serves this wealth of intelligence through a variety of asset types, from daily news and insights to granular data sets and insightful analytics. A variety of automotive stakeholders use AutoTechInsight for making critical business decision on an ongoing basis.



# Vehicle Components and Technologies

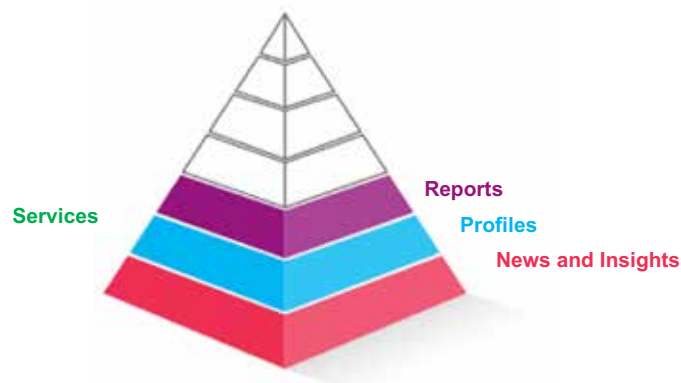
## AutoTechInsight Services

*Offering a lens into a dozen vehicle component categories featuring news & insights, reports, profiles, and more.*

Each of the 12 services provide the insight you need to anticipate future demand, access competitive intelligence, and stay abreast of changing dynamics.

- Autonomous Driving
- Chassis
- Connected Car
- E/E and Semiconductor
- E-mobility
- Interior Comfort and Passive Safety
- Lighting
- Materials and Lightweighting
- OEM Strategy
- Powertrain Components and Technologies
- Thermal Management
- User Interface and Experience (UI/UX)

Subscriptions are available by service or by asset type (news, profiles, reports).



## Component Forecast Analytics

*Providing timely, reliable, and comprehensive automotive component forecasts.*

Component Forecast Analytics (CFA) provides current and prospective granular data on components and subsystems to address specific workflows and questions that are common to those wanting to understand more about the auto supplier sector.

Three levels of granularity are available:

### CFA Model

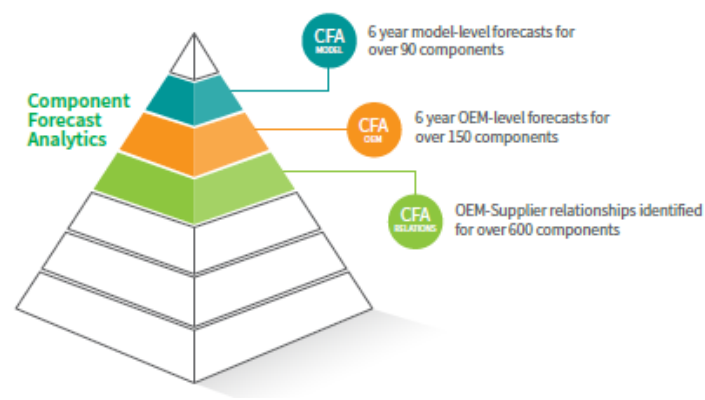
- 6 year model-level forecasts for over 90 components with a model-level database and 75+ analytics. Available by component or subsystem (some forecasts extend beyond 6 years).

### CFA OEM

- 6 year OEM-level forecasts for over 150 components with an OEM-level forecast database and 35+ analytics. Available by individual components.

### CFA Relations

- OEM-Supplier relationships identified for over 600 components across 11 domains. Includes relational OEM-level database and five analytics. Available by domain.



# Vehicle Components and Technologies

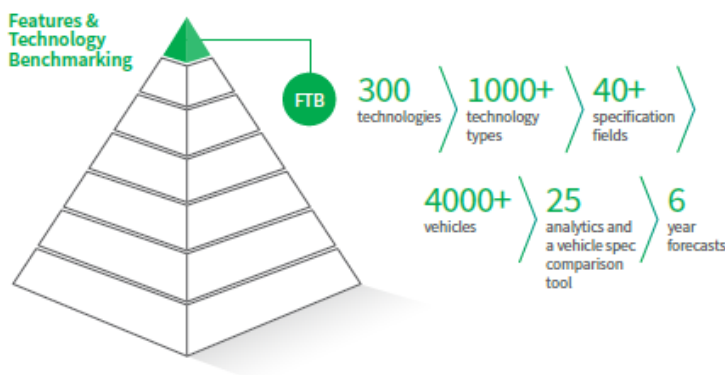
## Features & Technology Benchmarking

***Unprecedented ability to compare automotive technologies and specifications side-by-side.***

Features and Technology Benchmarking (FTB) provides automotive stakeholders with visibility into current and future OEM technology and feature strategies backed by granular data on over 300 technologies based off IHS Markit's vehicle and powertrain forecasts.

On top of a granular data at the model level, the tool also provides intuitive analytics to help benchmark individual models and brands, understand their strengths and weaknesses, identify gaps in a carmakers' feature offering and future must-have technologies.

- 300+ technologies
- 1000+ technology types
- 40+ specification fields
- 4000+ vehicles
- 250+ brands
- 25+ analytics and a vehicle spec comparison tool
- 6 year forecasts



## Consumer Surveys

IHS Markit Consumer Survey reports and companion databases indicate that innovative technologies, new services, and increased connectivity are key deciding factors when considering a new vehicle purchase.

The surveys take input from 8,000 vehicle owners intending to purchase a new vehicle within the next 36 months, across eight key automotive markets—the United States, China, Germany, the United Kingdom, Japan, India (new), Brazil (new) and South Korea (new).

Surveys are available for:

- Connected Car
- E-Mobility
- User Experience

## Technology & Mobility Advisory Services

Launching new automotive technologies is challenging for even the most experienced firms. At a time when the automobile is moving from personally-owned transportation to become a shared, self-driving “fully-connected moving computer,” launching new technologies brings even more levels of complexity.

IHS Markit helps you to drive innovation and strategic investment with advisory services that deep dive into technology readiness, costs, consumer adoption curves, and recommendations for strategic corporate investments.

Leveraging our off-the-shelf solutions, including Connected Car Service, Autonomy Forecasting, MobilityInsight and UX/UI Service, we can customize answers for your most challenging questions.





# New Registrations and Vehicles-in-Operation

**Analyze new registrations and vehicles that are on the road**



# Vehicle Registrations and Vehicles-in-Operation (VIO) Solutions

## Global Registration and Sales Analysis

MarketInsight is an intuitive web-based system that provides immediate access to the most comprehensive source of vehicle sales and registration data at a national and regional level.

Combined with IHS Markit accredited forecasting methodologies, analytics (modeling) and expertise, you are able to better identify customer profiles and predict demand across geographies, markets, segments and dealer networks— globally and consistently.

### **New vehicle registrations**

National monthly new registration data for 80 countries covering 97% of global vehicles sales.

Data cover make, model, and technical details, pricing and specification data, sales channel and emissions details to help product and sales managers.

### **Used vehicle registrations**

As vehicles return from rental companies and the fleet sector, they need to be remarketed. MarketInsight enables automotive manufacturers, NSCs, and dealers to understand used vehicle trends and shift inventories to countries and regions where they are in demand.

### **Vehicles-in-operation (VIO)**

Detailed analysis and forecasts in more than 45 countries, covering 90% of global VIOs.



# Vehicle Registrations and Vehicles-in-Operation (VIO) Solutions

## Aftermarket Parts Cataloging

For more than 30 years, the automotive aftermarket industry has considered IHS Markit the leading provider of automotive forecast data and VIO information. WorldView is a “one-stop solution” for aftermarket professionals looking for credible, third-party data to guide product planning, production, distribution, inventory management, cataloging, and other critical business decisions.

### **Vehicles-in-operation data**

Access current and historical VIO data for over 60 countries. Accurate VIO data help you build, order, and stock appropriate parts to meet customer demand.

### **Global OE parts research**

Access our extensive research (OE part numbers, specifications, and vehicle fitment details) for 22 European markets mapped to TecDoc codes and VIO population counts.

### **VIO trends & forecast**

Understand projected US and global vehicle counts for a five-year time period to make solid production planning, inventory management, and investment decisions based on knowledge of future demand for your parts. Includes ACES and TecDoc coding for precise data on market demand for specific parts.

### **Global vehicle equivalent identification**

Gain insights into parts compatibility on vehicles in disparate global markets. This innovative feature, not available elsewhere, helps bridge ACES to TecDoc codes as a starting point for determining the common parts needed on vehicles produced and sold in markets around the world.

## VIN Information

VINdicator is a VIN lookup tool for the Australian Market containing over 26 Million VINs. VINdicator leverages:

- Australian Government vehicle registration data
- IHS Markit sourced Price and Specification data
- 3rd party pricing data

Vehicle coverage spans back to 1992, covering over 97% of Australia’s vehicle population. VINdicator serves the insurance market, auction market, used vehicle report market, and part fitment market and is accessed via hosted Web Service or Web Interface. Onboarding to VINdicator requires approval from the FCAI (Federal Chamber of Automotive Industries), the owner of the vehicle registration data.

## Rolling Sales Actuals

Keeping abreast of the latest global automotive industry sales data is crucial. Light Vehicle Rolling Sales Actuals does all the data tracking, aggregating, and codifying for you, so you can focus on using it to conduct timely and accurate analysis of your market performance, the effectiveness of incentive programs and market share fluctuations. Our Light Vehicle Rolling Sales Actuals product provides:

- Immediate access to month-end sales actuals at the model level “as reported” by country.
- Updates across the top-42 light vehicle sales volume countries in a consistent single rolling data file format.
- Date-stamped country updates for ongoing version recognition and control.

Rolling Sales Actuals are constantly updated on a rolling basis as supplied monthly by reporting countries.





# Sales and Network Operation Solutions

**Measure performance and find the optimal locations  
for showrooms**



## Dealer Network Solutions

Our Dealer Network Solutions enable national sales companies and automotive service providers to determine the best location and configuration of their retail networks. From adjusting the size and shape of dealers' territories, to determining the best location for a new dealership, we are here to help. IHS Markit can help you optimize the market performance of your retail network with critical insight into market volume, customer drive time, and dealer distribution, location, and density.

### Our Dealer Network Solutions include:

#### Dealer Network Development (DND) studies

IHS Markit customized DND studies help determine network gaps and evaluate existing dealerships regarding location and potential. The analysis provides:

- Ideal network simulation
- Network/dealer gap assessments—providing insight into your network's "distance" from the "ideal"
- The impact of "bridging the gap"—moving from status quo to the ideal

#### NetworkInsight

NetworkInsight is a web-based simulation tool that complements and drives DND analysis and updates. NetworkInsight offers users the ability to:

- Interact with DND analysis via a mapping tool
- Perform "what if" analysis and measure the impact of different scenarios (add, close, relocate)
- Calculate new potential for all points including cannibalization impact
- Perform site potential simulations
- Access monthly reporting data and dealer performance reports

#### New Retail

As disruptive megatrends—digitization, electrification and shared mobility—become a reality, IHS Markit helps automakers understand how they will impact dealer networks in the future. Our New Retail advisory service considers:

- Special treatment of battery electric vehicle potential
- How shared mobility services might replace a significant share of private retail sales
- The onset of diverse dealer types
- The digitization of customer journey and impact on capacity planning needs

# Sales and Network Operation Solutions

## Additional sales and network operations solutions

### Post-Sales Marketing Solutions

In the aftersales world, existing customers are your best source for future business, and your service departments play a major role in customer retention. In fact, there's a direct correlation between service loyalty and future vehicle sales, which lead to long-term loyalty to the dealer, the brand, and the manufacturer.

The Catalyst for Aftersales solution uses key customer and prospect data, as well as relevant market intelligence to provide insights to maintain customer retention and loyalty, to avoid customer defections, to grow parts and service revenue, and to increase overall profitability.

Catalyst of Aftersales helps meet your overall business goals by managing key touchpoints during the vehicle ownership life cycle.

### Sales Operation Forecast

How are the latest monthly registrations impacting this year's volume planning? What effect will this have in coming years and future vehicle generations?

The Sales Operations Forecast provides answers and an independent third-party view to these critical inputs.

Published within days following the release of latest actuals and updated monthly, the Light Vehicle Sales Operations Forecast greatly enhances your short- to mid-term planning.







# Advisory Services

**Solutions scaled towards your specific needs**



## Automotive Advisory Services - Transforming data into knowledge

**Deep expertise, coupled with the largest commercial repository of automotive intelligence, can help you tackle your greatest strategic and operational challenges**

IHS Markit is a world leader in critical automotive information, analytics, and expertise. We deliver next-generation insights and solutions to help customers with their greatest strategic and operational challenges. Now, as the automotive ecosystem moves from an Internal Combustion Engine (ICE) single-owner vehicle to a connected, autonomous, shared, and electrified (CASE) computer on wheels, it has never been more important to have a window into the future and understand what it means for century-old business models. IHS Markit can help you determine your strategic vision and test future scenarios for vehicle demand, use cases, and the viability of new technologies.



### Sales/volume/ market planning

Vet and support market strategies with in-depth, custom scenario planning and insights from a proven business partner



### xEV Sales Scenario & Compliance

Identify business impacts, mitigation strategies, and response approaches with strategic assessments and custom analysis of a comprehensive set of compliance influencers



### OEM sales & marketing

Drive significant ROI via high-spend, high-impact sales and competitive positioning efforts leveraging our full range of proprietary automotive data assets



### Dealer network planning

Optimize your dealer networks with detailed market analyses, optimal dealer modeling, territory design, and dealer/market performance measurement



### Technology & mobility

Plan for tomorrow, leveraging industry-leading strategic insights into the dramatically changing mobility landscape and the enabling technologies and solutions

## Our approach

**Our unparalleled expertise, best-in-class data assets, and deep industry insights drive critical decisions with speed and confidence. From single projects to ongoing support, we offer a variety of solutions that can be scaled toward your specific needs.**



Market sizing and  
forecasting



Market entry and  
development



Strategic support  
services



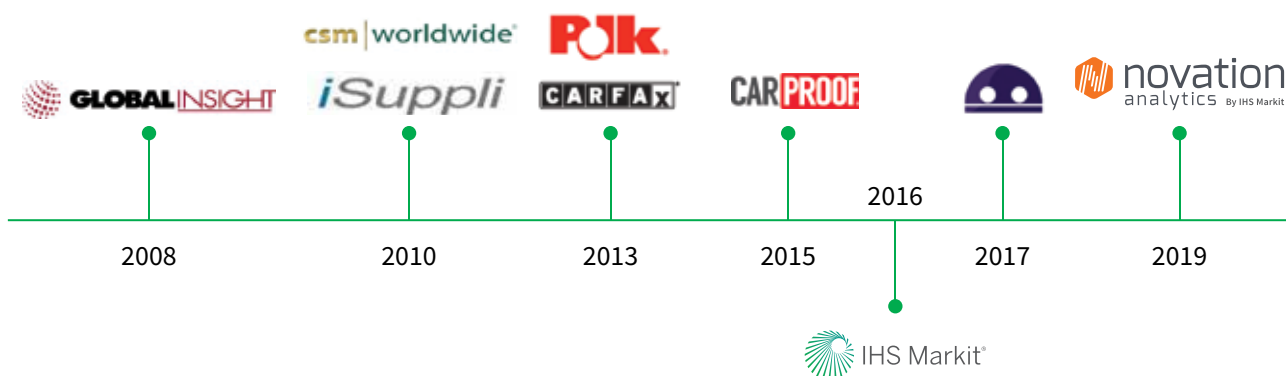
Executive advisory  
services



## Automotive from IHS Markit

IHS Markit provides market-wide insight, expertise, and advanced planning solutions for the automotive industry. With a legacy dating back to the 1920s when R. L. Polk published the first vehicle registration reports, we now deliver next-generation insights and solutions to help customers improve operational efficiency and inform confident strategic decisions. Our expertise spans every major market and the entire automotive value chain—from product planning to marketing, sales and the aftermarket. With a reputation of enabling better decisions and better results, the world's leading automakers, suppliers, and their stakeholders rely on IHS Markit to power growth, improve efficiency, and drive a sustainable competitive advantage.

### An ongoing commitment to expand our automotive offerings



## Sustainability

Contributing to a better world is a core value at IHS Markit, and our commitment to sustainability is a key part of our company DNA. The year 2016 was transformational for our company and for the global community of organizations committed to corporate sustainability.

We merged two proven leaders, IHS and Markit, to form a new information powerhouse capable of providing even greater value to our customers and the industries and markets that drive global economies. IHS Markit immediately adopted sustainability as one of our five corporate goals. We also emerged as a frontrunner in addressing sustainability issues from a new perspective. Our unique ability to look at business information in a holistic way provided us with a natural advantage when tackling economic, environmental and social sustainability challenges through a new global framework – the United Nations Sustainable Development Goals (SDGs).

For more information [www.ihsmarkit.com/automotive](http://www.ihsmarkit.com/automotive)

#### CUSTOMER CARE

##### NORTH AND SOUTH AMERICA

T +1 800 447 2273

+1 303 858 6187 (Outside US/Canada)

##### EUROPE, MIDDLE EAST AND AFRICA

T +44 1344 328 300

##### ASIA PACIFIC

T +604 291 3600

E [CustomerCare@ihsmarkit.com](mailto:CustomerCare@ihsmarkit.com)

## About IHS Markit

IHS Markit (NYSE: INFO) is a world leader in critical information, analytics and expertise to forge solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 business and government customers, including 80 percent of the Fortune Global 500 and the world's leading financial institutions. Headquartered in London, IHS Markit is committed to sustainable, profitable growth.