



IHS Markit®

# Mobility and Energy Future

Understand and monitor the outlook for refined  
product demand from on-road transportation

Even before COVID-19, the automotive industry was in flux. The pandemic is leading to greater uncertainty still. Changes in on-road transportation over the next 10 years could lead to a decline in refined product demand.

The timing and magnitude of the impact will depend on policy and technology developments, consumer preferences—and, of course, the aftershocks of coronavirus disease (COVID-19).



**COVID-19 is a transformational event. Among other factors, IHS Markit's MEF service explores the impact of the virus on:**

**Vehicle miles travelled**

– as a result of greater remote working, shopping, and socializing

**Consumer demand for EVs**

– in a lower oil price environment, and one where many consumers will have less disposable income

**Societal pressure for cleaner**

**air** – after air quality in many megacities improved dramatically amid economy-wide lockdowns

IHS Markit's Mobility and Energy Future (MEF) service addresses an existential issue for the oil and gas industry—the evolution of the global automotive sector and what it means for the future path of energy demand. MEF offers scenario-based forecasts built on our proprietary automotive databases of light, medium, and heavy vehicle sales and fleets to help oil and gas companies examine key areas of change in the global automotive industry and their implications for energy markets.





# How MEF helps with strategic planning and market monitoring:

## Refining and pipeline capacity, and retail fuel network investment planning

- Plan for the magnitude and pace of gasoline and diesel demand reductions
- Understand the divergent impact of vehicle electrification on gasoline versus diesel demand
- Develop differentiated country-level strategies for market entry/exit/participation

## Market monitoring

- Understand how market developments and policy changes are influencing EV sales on a monthly basis
- Monitor the evolution of fuel efficiency standards in key global auto markets
- Gain context on government internal combustion engine (ICE) bans and low emission zone (LEZ) announcements

# Underlying forces and incentives assessment



Battery costs, technologies, and supply chains



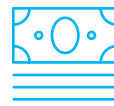
Government EV consumer incentives and producer mandates



Autonomous technology evolution



Consumer preferences for shared vs owned mobility types



Total cost of vehicle ownership for different powertrains

# Key questions about the future of road transportation

## Key question:

What is the future path of road transport fuel demand and how does it vary by region?

How will the pace of vehicle electrification differ in key markets—and between the LV and MHV fleets?

How will government policy support transformation of the automotive ecosystem?

How will fuel economy/emissions standards impact fuel demand in key markets? How does the impact from electrification differ?

How does new mobility – Mobility-as-a-Service (MaaS) and autonomous vehicles (AVs) – come into play?



## MEF provides:

Fuel demand outlook – by region – to 2050 – for LVs and MHVs for two proprietary scenarios, Rivalry and Autonomy

Detailed data on LVs and MHV sales and fleet – incorporating key assumptions on cost parity between ICE and electric powertrains

Regular reports dissecting the impact of new policies on adoption of alternative powertrains

Detailed views on the evolution – and impact – of fuel economy/emissions regulations around the world

Regular analysis on MaaS and AV business models and technology; state-of-the-art modelling which incorporates new mobility into sales/fleet and fuel demand outlooks

## What's Included:

### LV long-term outlook – Annual update

- Comprehensive outlooks for global LV sales and fleet by powertrain; VMT; fuel economy; and fuel demand to 2050 for key markets for two scenarios—Rivalry (base case) and Autonomy (alternative scenario)\*
  - Types of powertrains analyzed include gasoline, flex-fuel, diesel, battery electric, plug-in hybrid electric, hybrid-electric, natural gas, and fuel-cell electric
- Outlooks for battery costs, and the cost of autonomous vehicle technology

### MHV long-term outlook – Annual update

Comprehensive outlooks for global MHV sales and fleet by powertrain; and fuel demand to 2050 for key markets for two scenarios—Rivalry and Autonomy \*\*

- Powertrains include gasoline, diesel, natural gas (CNG/LNG), hybrid- electric, battery electric, and fuel-cell electric

**“Mobility Watch”:** Bi-annual report that provides signposts to gauge the pace of change within the automotive ecosystem

**“Pulse of Change”:** Monthly report that provides an update on LV and EV sales

- Commentary and a data set with LV and EV sales figures across key EV markets.\*\*\* The commentary provides context for the data by addressing major EV market and policy developments

**Strategic Reports and Insights on mobility trends (multiple per year)**

**+ MEF members also receive individual access to analysts**

\* Markets include: Brazil, Canada, China, Europe, India, Iran, Japan, Mexico, Russia, Saudi Arabia, and the United States.

\*\* Markets include: Mainland China, the United States, Europe, and Japan.

\*\*\* Markets include: Mainland China, Denmark, France, Germany, India, Italy, the Netherlands, Norway, Spain, the United Kingdom, and the United States.

# List of select recent MEF Strategic Reports and Insights

## **Testing times**

Will COVID-19 stall electrification of the US car fleet?

**The Trump administration's new fuel economy standards** What is the impact on US gasoline demand?

## **CAFC**

Four letters that will help spell the future of EVs in mainland China

## **COVID-19 spares nobody**

Mobility impacts of a global pandemic

## **From “carrot” to “stick”**

How China's EV policy support is evolving

## **How fast are electric vehicle battery costs falling?**

## **From “green” to “greener”**

EVs are decarbonizing mobility across the United States and getting cleaner

## **Rise of the gigafactories**

The strategic competition for the lithium-ion battery and what it means for EVs

## **EU CO2 regulations to further push EV rollout**

## **“Upscale urbanites” are the United States's core EV buyers**

Will others follow, or could future EV sales be limited?

## **Hands off the wheel**


How fast can autonomous vehicle costs decline and technology improve?

## **Electrifying MaaS**

Mobility as a service will be at the forefront of EV adoption

## **How will micromobility impact the automotive ecosystem?**





# One-stop solution with seamless integrated insight

IHS Markit's products cover the full refined products value chain, from crude oil markets, to midstream, to refined product markets, to retail sales.

Our deep expertise in each area informs our analysis of the other segments in the value chain. Mobility and Energy Future (MEF) is the linkage between midstream networks and refined product markets—and automotive markets.

MEF analyzes the intersecting forces at work and provides a detailed understanding of impacts of changes in the automotive ecosystem on the oil and gas industry.



Crude Oil  
Markets Services



Midstream Oil and  
NGLs Services



Refining &  
Marketing Services



Mobility and  
Energy Future



Automotive  
Forecasts Services



## 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.

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