

# Oil Markets, Midstream & Downstream

Connect™ User Guide

2020



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  - > Biofuels Value Chain Service
  - > Company Strategies & Performance
- Contact Us



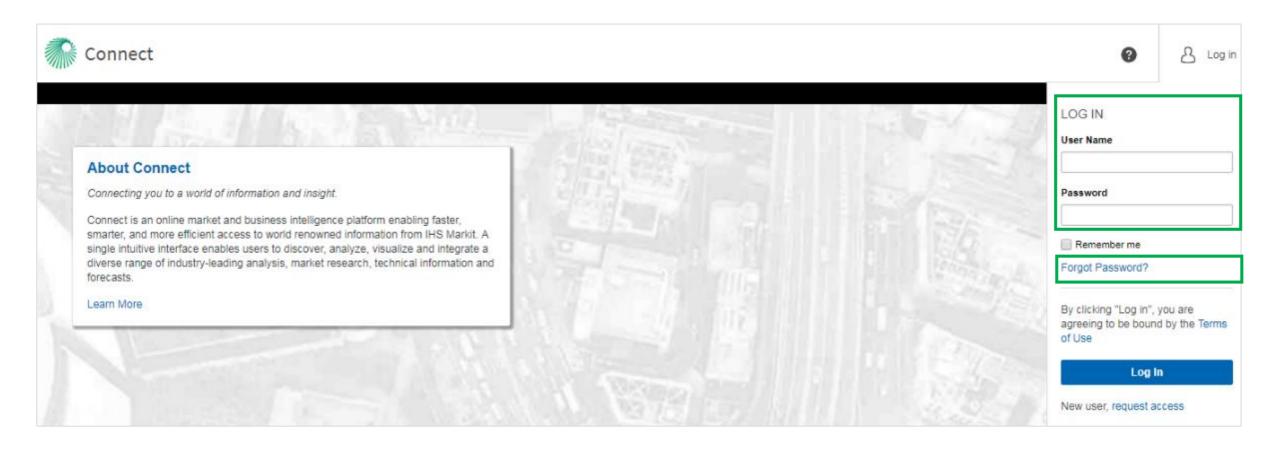
# **Connect Login Instructions**

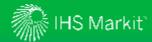


# **Connect Login Instructions**

Go to connect.ihsmarkit.com and log in with your Username and Password.

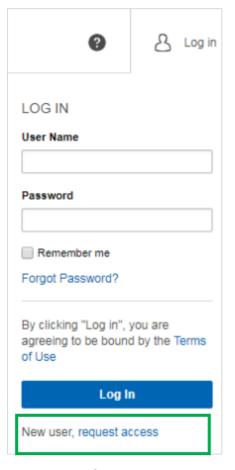
Click on 'Forgot Password?' to reset your password.





### Connect New User Registration

Go to connect.ihsmarkit.com and request access.





### Follow 4 steps for Connect registration



- Enter your corporate email address.
- Complete your profile. (Enter Connect in the Product Used field)
- Accept the terms of service.
- Complete Your Registration

Once you are provided with access, you will receive an email confirmation from customercare@ihsmarkit.com with your login instructions.

Self Registration Step 1: Enter your email address
Create a personal account  Please enter a valid corporate e-mail address to begin.  Email address:
Self Registration Step 2: Complete your profile
Please complete your profile. Required fields are indicated by *. We will keep your information confidential. We never share with third parties.

### Go to connect.ihsmarkit.com and login

•	₿ Log ir	n		
LOG IN				
User Name				
Password				
Remember me Forgot Password?		•		
By clicking "Log in", you are agreeing to be bound by the Terms of Use				
Log In	1			
New user, request ac	cess	•		



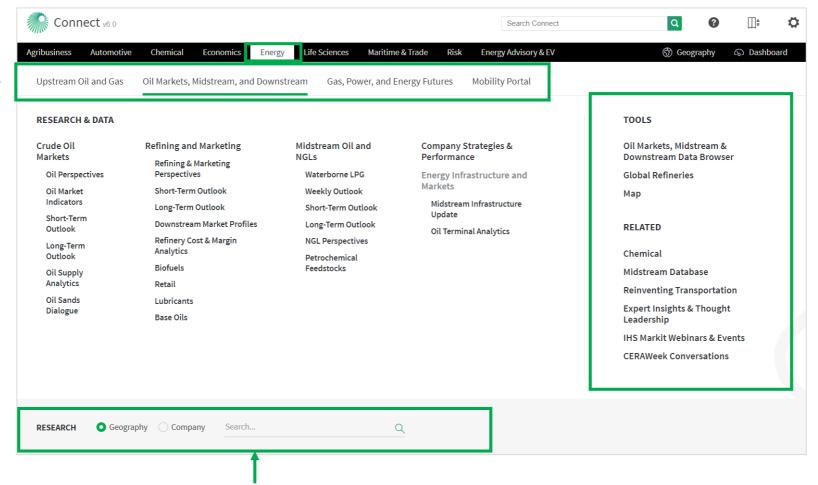
# Energy Menu and Research Page Navigation



## **Energy Menu Navigation**

Hover over **Energy** in the black menu bar to browse Energy research and analysis.

Top navigation features tabs by energy sector.



Quick access to relevant Tools, Related Products and Platforms, and Events.

Direct access to **Country or Company** pages.

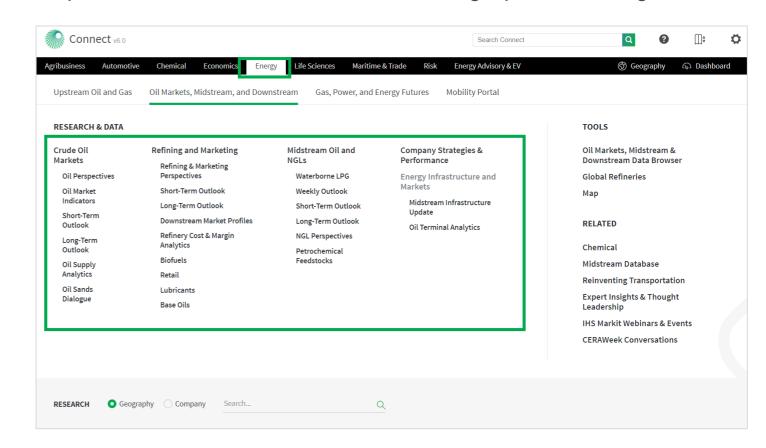
Menu options will appear based on the user's access or company subscription.



### Energy: Oil Markets, Midstream, and Downstream

Focus on Research and Data destinations within that topic area. Oil Markets contains the following topics of coverage:

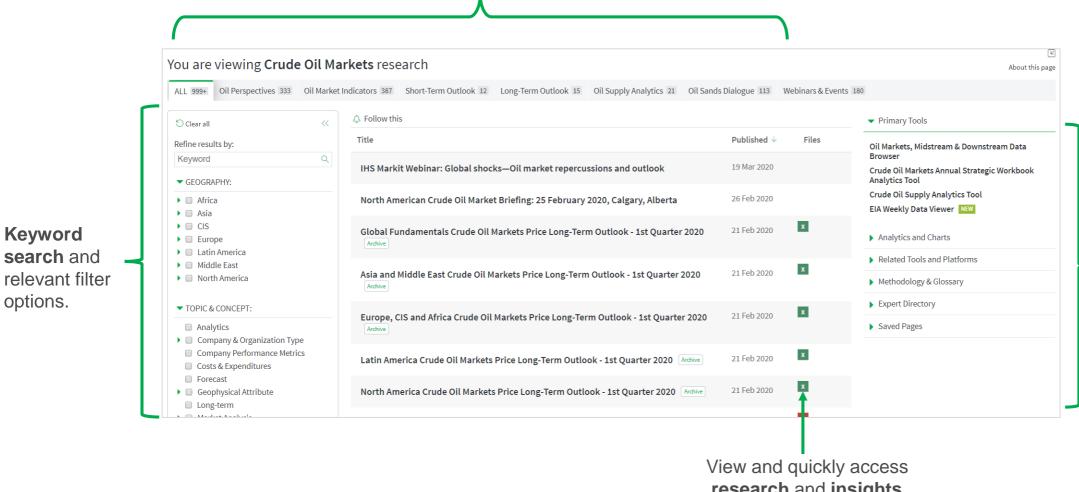
- Crude Oil Markets: Focuses on structural changes that shape the market & influence your business with a consolidated view on potential inflection points in oil markets & signposts.
- Refining and Marketing: Provides country demand projections for fuels, refinery capacity, crude & feedstock qualities, throughput & utilization, retail fuel volumes & distribution, and lubricants analysis & data.
- Midstream Oil and NGL: Shows market value & impact of petchem feedstock demand growth for sellers & producers of NGL, and identifies evolving LPG trade patterns & impact on pricing & shipping.
- Company Strategies and Performance: Allows you to benchmark the refining & marketing businesses and strategies of major downstream operators.





# **Energy Research Page Navigation**

Research and Data are organized within **topical tabs** to instantly narrow down your search.



Relevant Data tools, Charts, and other Resources.

research and insights.



# Customize Your Research

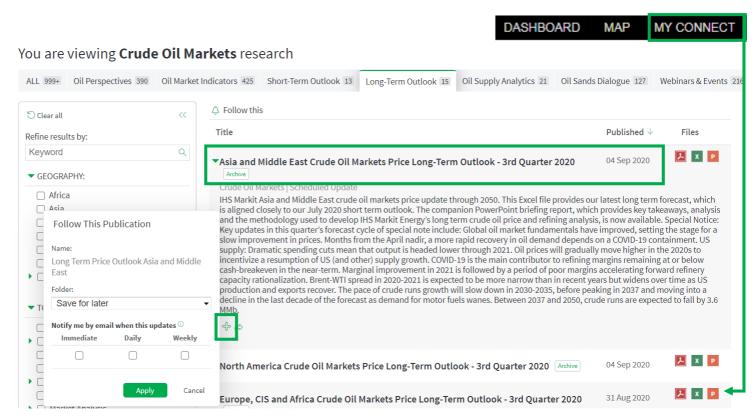
Email alert options and your saved research.



### Customize Your Research: Save and Follow an Individual Document.

Save an individual document into My Connect and apply an email alert to be notified when that document is updated.

- Hover over the title of the report and click on the green arrow.
- Click on the plus sign that appears at the bottom of the dropdown.
- In the Follow This Publication box that appears, select the Save for later folder or click into the dropdown to create your own folder.
- Select your email alert preference and click **Apply.**
- 5. The Archive button next to the report title indicates that this is a recurring deliverable and an email alert can be set. Click into this button to group and view the historical reports.
  Archive



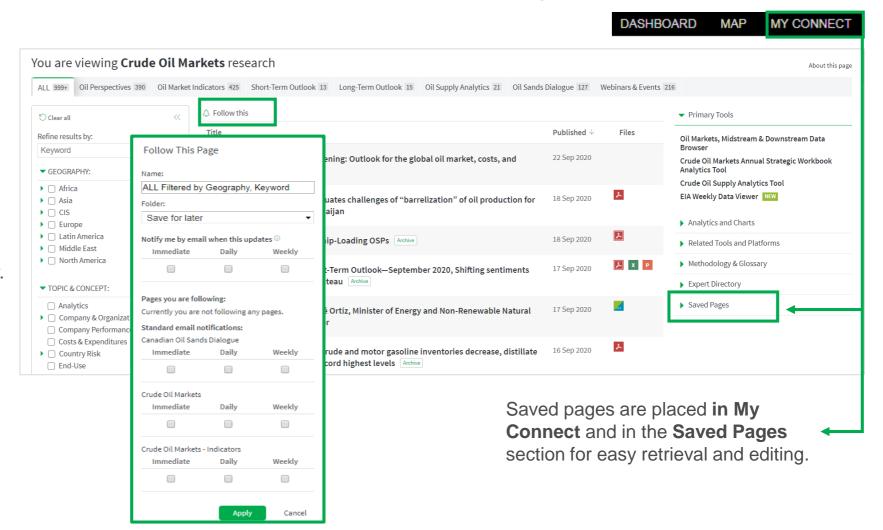
The folders and saved documents are placed in the **My Connect** section in the top, black menu bar.



# Customize Your Research: Save and Follow a Research Page

Save a research page into My Connect and apply an email alert to be notified when your page is updated.

- Apply filters or a key word search on a research page.
- Click on Follow this above the results listing.
- In the Follow This Page box that appears, Name your page and select the Save for later folder, or click into the dropdown to create your own folder.
- 4. Select your email alert frequency.
- Click Apply.





# My Connect

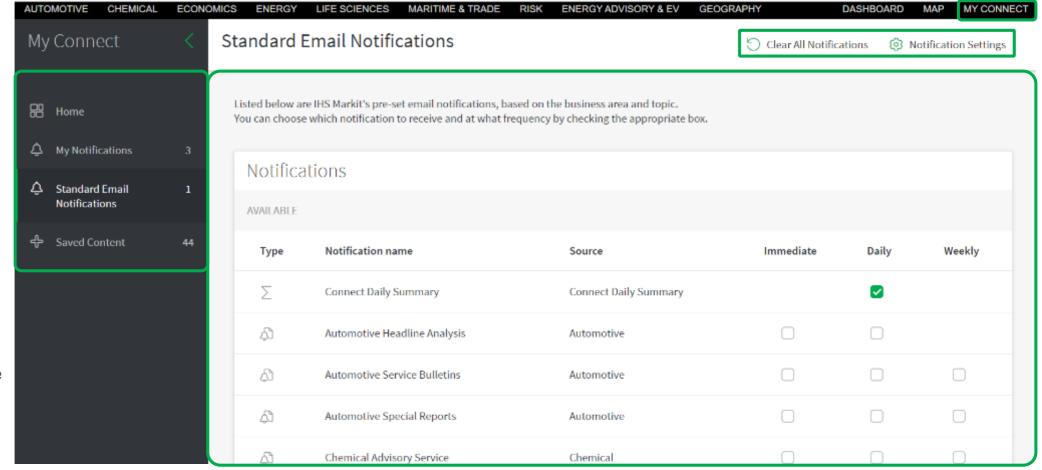
Click on My Connect in the black menu bar to manage Email Notifications and retrieve Saved Content.

**Home**: View your selected notifications and latest saved content.

My Notifications: View your selected email notifications by type (Immediate, Daily, Weekly)

Standard Email
Notifications: A listing of all available email notifications within your subscription.

**Saved Content:** Retrieve and edit your saved content by type and folder.





# **Crude Oil Markets**



### **Crude Oil Markets**

- Reports & Client Briefings: Weekly briefings and analysis on key oil market data releases and monthly & quarterly briefings on global & regional crude oil markets
- Price Outlook: 2 year crude oil price outlook updated monthly, 25 year long-term outlook updated quarterly

Annual Strategic Planning Workbook: Detailed long-term outlooks (25 years) for crude oil and condensate demand,

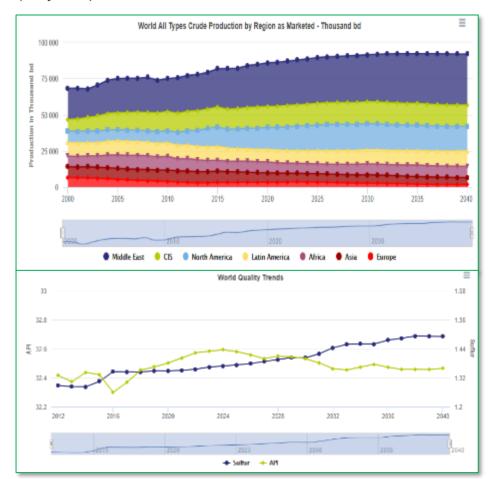
production and trade

 Periodic Reports: Insight on key business trends & critical issues, focusing on long-term implications

• IHS Markit Connect: Business and market intelligence platform to access, query, visualize, and analyze IHS Markit research and data

#### Benefits:

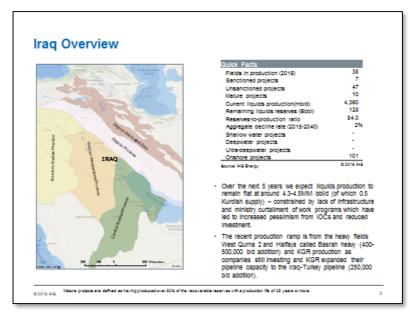
- Understand short & long-term crude price forecasts
- Meet wide range of needs: time horizon, region, commodity etc.
- Track crude oil supply & demand, globally & by region
- Assess effects of economic, geopolitical & policy developments in price setting
- Anticipate critical turning points in the crude oil markets
- Access lead researchers & global network of experts directly, though interactive & on-demand webinars & yearly member events

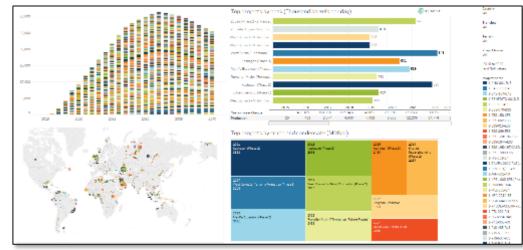




### Crude Oil Supply Analytics Deliverables

- Frequency: quarterly
- Product capabilities & deliverables:
  - > ~10 page PowerPoint decks for **21 priority countries** (80% of global production)
    - Statistical field overview
    - Assumptions & above ground risks underpinning forecasts
    - Analysis of base declines by basin, complex or major field
    - Analysis on major projects by fields or complex
  - > Excel deliverable:
    - Global annual breakeven price tranche by major country
    - Global annual terrain breakouts (onshore, shallow, deepwater, ultradeepwater) by major country
  - > Tableau dashboard breaking out supply in different dimensions by country, terrain operator, breakeven tranche, fields, projects
  - \*\*Excel & Tableau deliverables cover 100% of global production, PPT deliverables focus on the key 80%







### Short report for each of 21 critical countries

#### **OVERVIEW**

#### Overview



Sonangol's regulatory role



- bearing terminal to the deadlesty on another to the manufactor and we reduction crightness, vollege in 1971 to 1,7 eggs in 1974. Mojecta totang 1,200 Militat in Gordo 12 and 1,500 acts of its start in 2015-17 time come. larged the created place.
- regards were the rocus at production remaining or the Congo Hait. Start specimently from the Process Acts in represent at the reachable 2009 of the start up at apply than the processing the protein or protein at project.

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#### SUPPLY by BEP

Sanctioned projects maintain Angola's liquids production at 1.7 MMb/d to

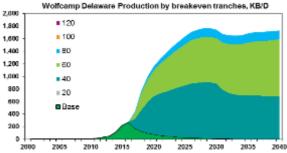


BV branches out threat above a cost forward branches are: The is obtained in the year of exact start to be a decorate out to careed near early contact with the above of the decorate of the start of th

### **ASSUMPTIONS**

#### Critical strategic assumptions underlying the forecast





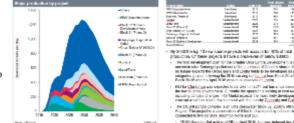
### **NEW PROJECTS**

#### Currently discovered new source production is forecasted to peak at over 1.2 MMb/d in 2029

**ABOVE GROUND RISKS** 

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Above ground risks

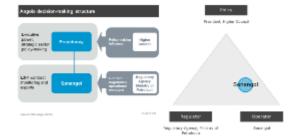


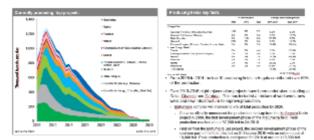
- properties. Of these projects if have a presidence of below facilities. production. Of these popicitis in Turk a contribution of ballot, 1980bb.

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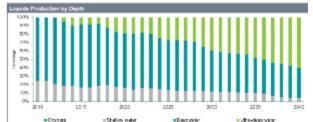
### **BASE**

#### The decline rates in the base production are between 10-20%





#### **SUPPLY by TERRAIN** Over half of the production within the period of 2010-2040 will come from Ultra-Deepwater projects

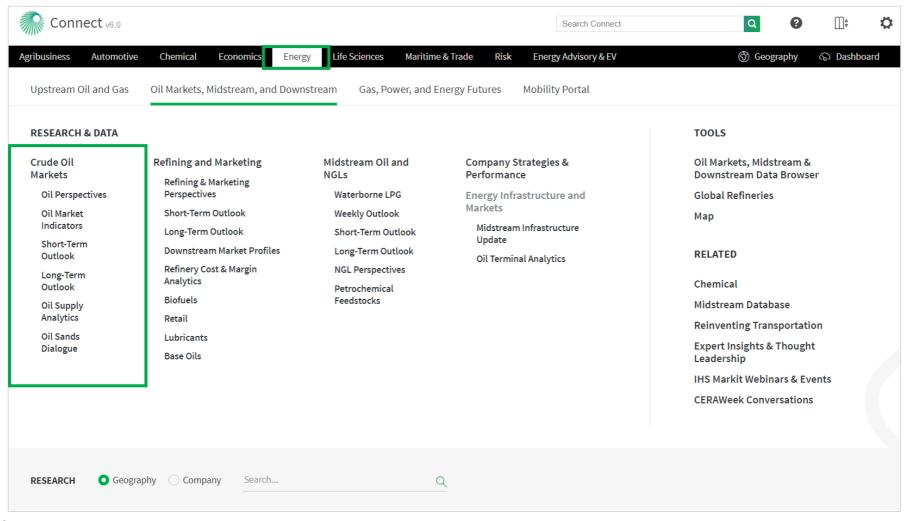




### Crude Oil Markets in Connect

In Connect, hover over the Energy Megamenu > Oil Markets, Midstream and Downstream > Click on Crude Oil Markets

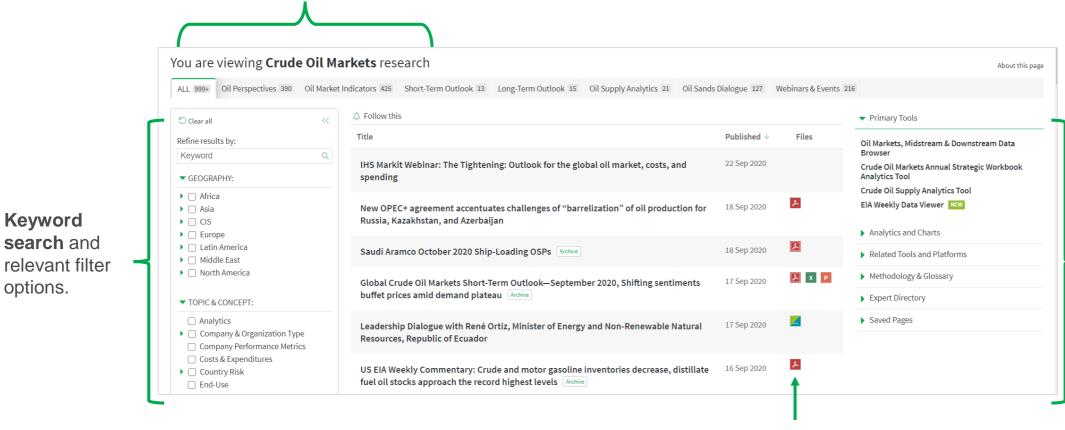
topics.





# Crude Oil Markets Page Navigation

Research and Data are organized within **topical tabs** to instantly narrow down your search.



Relevant Data tools, Charts, and other Resources.

View and quickly access research and insights.



# Crude Oil Markets Topical Tabs on Research Page

You are viewing Crude Oil Markets research

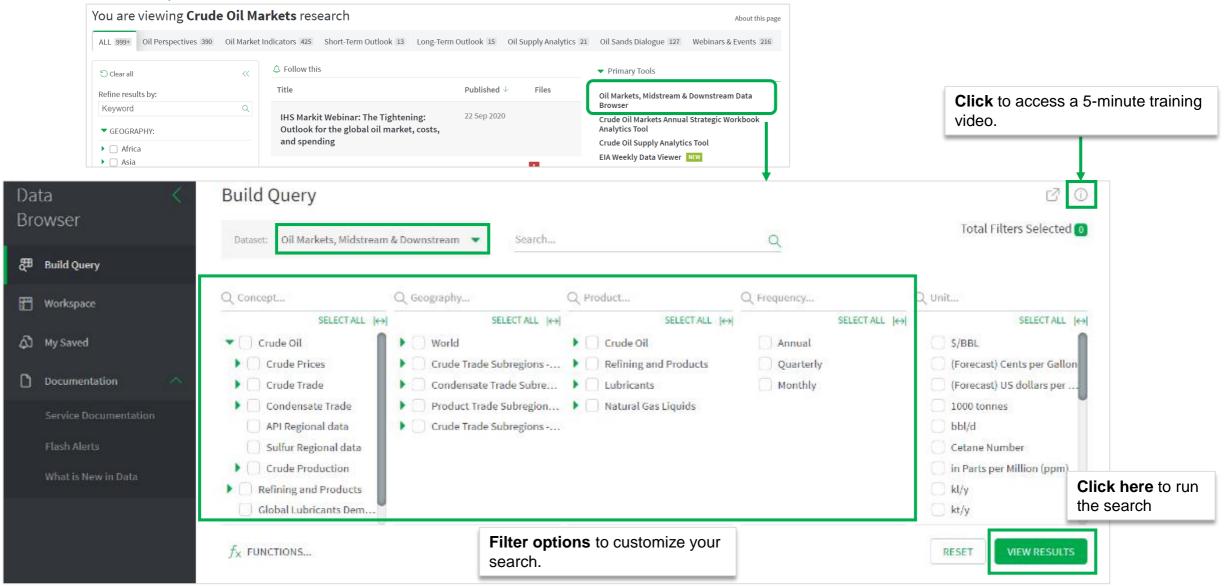
ALL 899+ Oil Perspectives 328 Oil Market Indicators 360 Short-Term Outlook II Long-Term Outlook I5 Oil Supply Analytics 20 Oil Sands Dialogue 108 Webinars & Events 170

Oil Perspectives	Oil Market Indicators	Short-Term Outlook	Long-Term Outlook	Oil Supply Analytics	Oil Sands Dialogue	Webinars & Events
Periodic in-depth analysis pieces.	"US EIA Weekly Commentary.  Oil Market Briefing	Short-Term Outlooks on Crude     Fundamentals &     Crude Oil Prices	Long-Term Outlooks on Crude     Fundamentals &     Crude Oil Prices	<ul> <li>Crude Oil Supply Analytics data file and tool</li> </ul>	Public Special Reports.	<ul> <li>Periodic event &amp; webinar materials.</li> </ul>
	<ul> <li>Oil Market Briefing.</li> <li>Commitment of Traders Report.</li> <li>North America Crude Price Differentials Tracker.</li> </ul>	Crude Oil Prices (Globally and by Region).  • IEA Oil Market Report Commentary.  • OPEC Oil Production Data.	Workbook.	<ul> <li>Crude and Condensate Supply Country profiles</li> </ul>	<ul> <li>North America         COM: Canadian         Fundamentals         Outlook.</li> <li>Calgary Crude         Quarterly         Presentations.</li> </ul>	*Webinars and Events Tab is available across all Capability pages.
		<ul> <li>World Oil Watch.</li> </ul>				

\*This is an example of key research deliverables. More research is available on this page in Connect.



### Oil Markets, Midstream & Downstream Data Browser



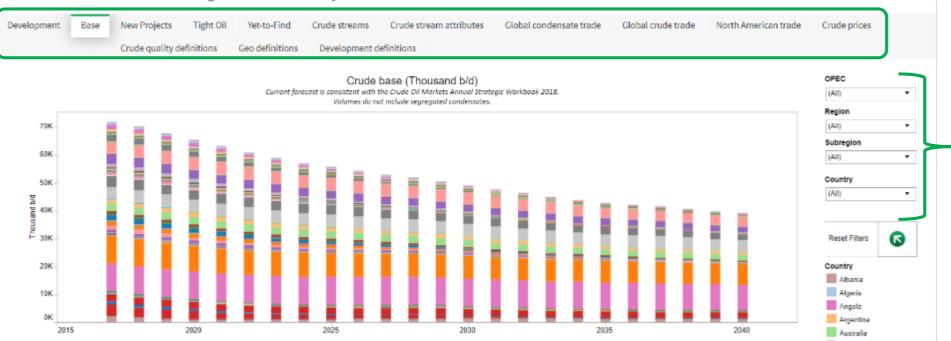


## Crude Oil Markets Annual Strategic Workbook Analytics Tool



Crude Oil Markets Annual Strategic Workbook Analytics Tool

Data Tabs and Sub-tabs allowing you to visualize various datasets

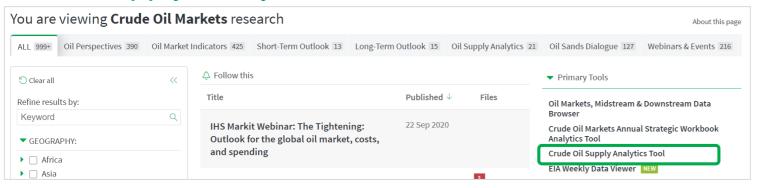


Filters
allowing you
to customize
the view

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## Crude Oil Supply Analytics Tool



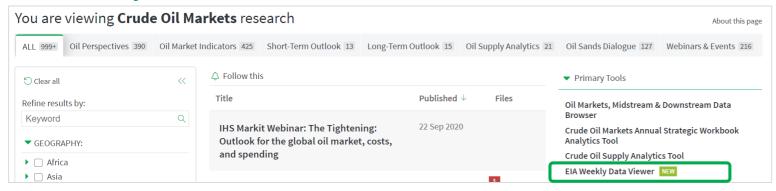
Data Tabs and Sub-tabs allowing you to visualize various datasets



Filters
allowing you
to customize
the view

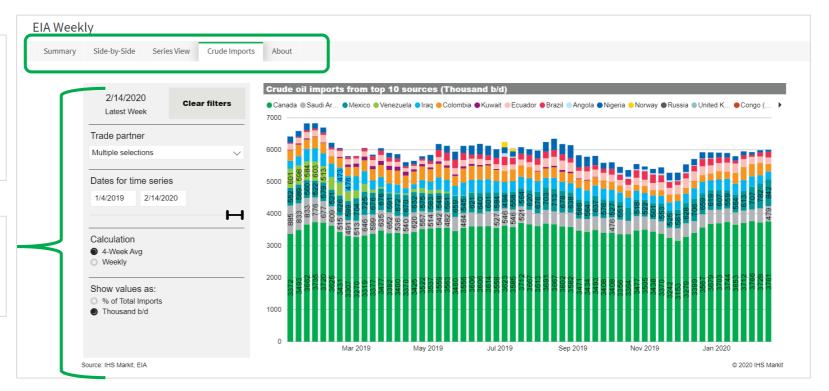


## **EIA Weekly Data Viewer**



Data Tabs and Sub-tabs allowing you to visualize various datasets

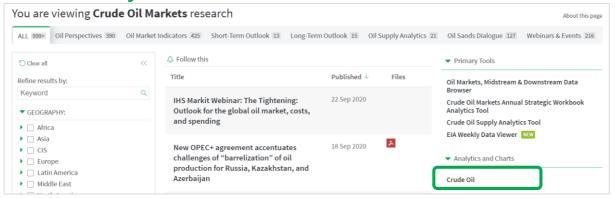
Filters allowing you to customize the view



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### Crude Oil Markets Analytics & Charts



In the **Primary Tools** section, click on **Crude Oil** to visualize, customize, and filter data by Production, prices, trade and Crude streams.





# Midstream Oil & NGLs



## Natural Gas Liquids Market

• Short and Long-term Outlooks: Monthly 2 year and quarterly/annual 25 year forecasts of NGL pricing, production, processing capacities, economics and feedstock interfaces

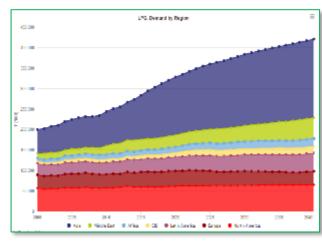
• Regular Data Updates: Supply, demand, trade, pricing and freight forecasts and in-depth insight on NGL including ethane,

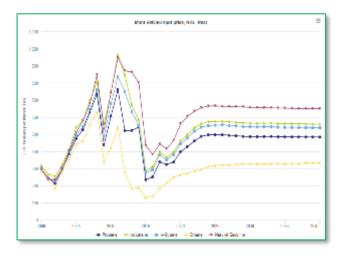
propane, isobutanes & natural gasoline

• Strategic Reports: Insight on key business trends & critical issues, focusing on long-term implications

#### Benefits:

- Understand natural gas liquids supply, demand, pricing & trade, globally & regionally
- · Assess market factors such as supply sources, end uses & waterborne freight
- Make long-term investment decisions in capacity & infrastructure
- Incorporate detailed NGL forecasts into wider energy market models
- Optimize feedstock selections & market exposures to realize the highest possible returns & minimize inherent risks
- Access lead researchers & global network of experts directly, though interactive & on-demand webinars & yearly member events







### Waterborne LIVE LPG

Advanced waterborne LPG trade intelligence platform built upon the Waterborne LPG Report (included with subscription to Waterborne LIVE LPG), such as:

#### Breadth and Depth of Data

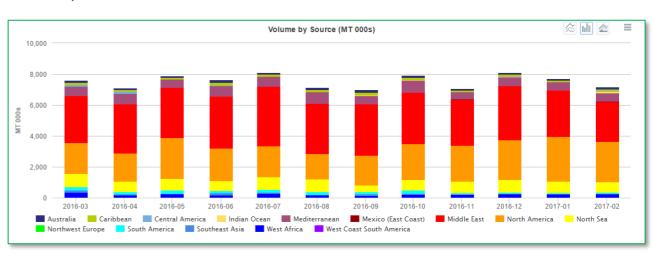
- Direct access to filter through a year of detailed lifting records from our database with an option to export into a refreshable file.
- View monthly aggregated import and export data down to the terminal level, and drill down to individual voyage records that compose any given data point

#### Continual Updates

- New voyage records and updates to records continually pushed to platform as IHS analysts enter them in our database

#### Advanced Navigation/Functionality

- Toggle to view data by fuel type (C2, C3, C4, iC4), or units
- Click on any data point to instantly drill-down to the voyage records it is composed of
- Easily visualize data with multiple chart options
- Export to Excel whatever combination of data you are viewing

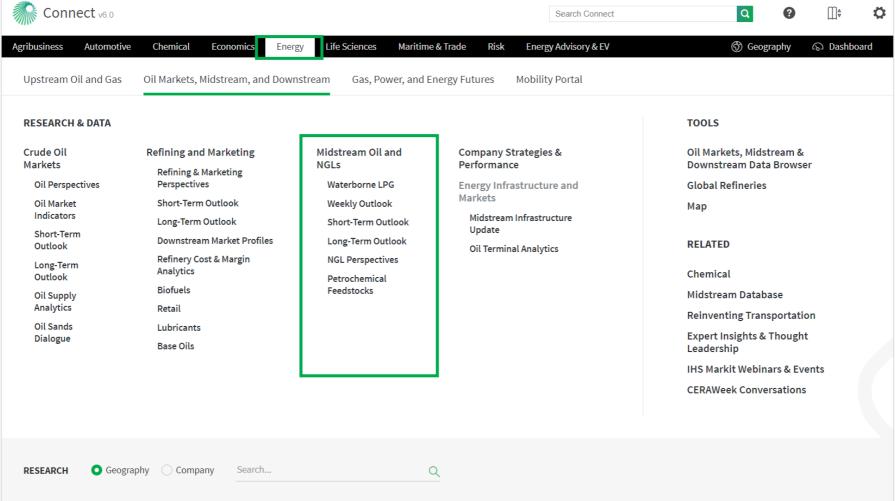


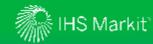


### Midstream Oil and NGLs in Connect

In Connect, hover over the Energy Megamenu > Oil Markets, Midstream and Downstream > Click on Midstream Oil and

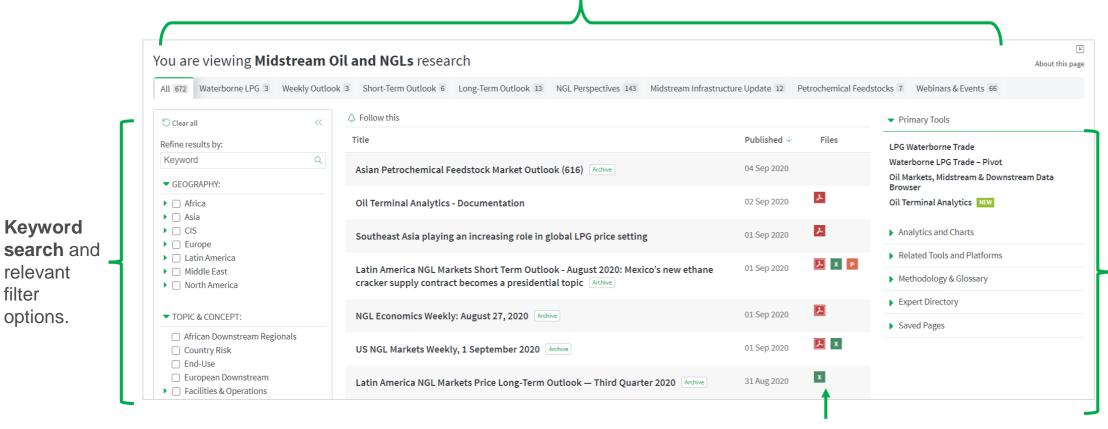
**NGLs** topics





## Midstream Oil & NGLs Page Navigation

Research and Data are organized within **topical tabs** to instantly narrow down your search.



Relevant Data tools, Charts, and other Resources.

View and quickly access research and insights.



# Midstream Oil & NGLs Topical Tabs on Research Page



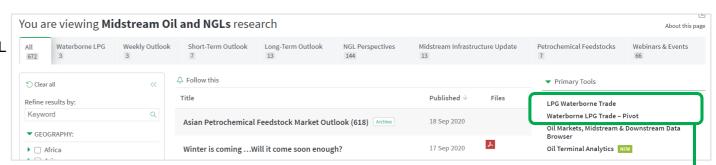
Waterborne LPG	Weekly Outlook	Short-Term Outlook	Long-Term Outlook	NGL Perspectives	Midstream Infrastructure Update	Petrochemical Feedstocks
<ul> <li>Waterborne LPG Report.</li> <li>Waterborne LPG Alerts.</li> <li>Waterborne LPG Historical data.</li> </ul>	<ul> <li>NGL Economics Weekly.</li> <li>US NGL Economics weekly.</li> <li>Asian Petrochemical Feedstock Market Outlook.</li> </ul>	Short-Term Outlooks on NGL and LPG prices (Globally and by Region).	<ul> <li>Long-Term Outlooks on Prices</li> <li>NGL markets Annual Strategic Workbooks for: Supply/Demand &amp; Trade (Globally &amp; by Region).</li> </ul>	Periodic indepth analysis pieces.	<ul> <li>North America NGL         Markets         Infrastructure         Update.</li> <li>Natural Gas         Processing Supply         Chain Profiles for         (China/ CIS/ Europe/         Indian Subcontinent/         Latin America/         Middle East/         Oceania/ Southeast         Asia)</li> <li>Midstream Milestone         Alerts – part of the         "Energy Markets &amp;         Infrastructure"         offering</li> </ul>	<ul> <li>Asian Petrochemical Feedstock Market Outlook.</li> <li>Petrochemical Feedstock Markets Asia &amp; Middle East Short- Term and 5 years Outlook.</li> <li>Naphtha International Market Analysis.</li> </ul>

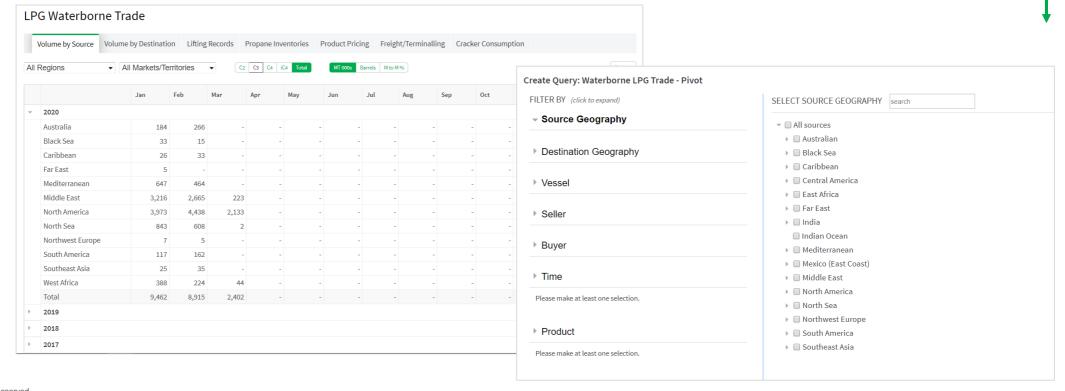
<sup>\*</sup>This is an example of key research deliverables. More research is available on this page in Connect.



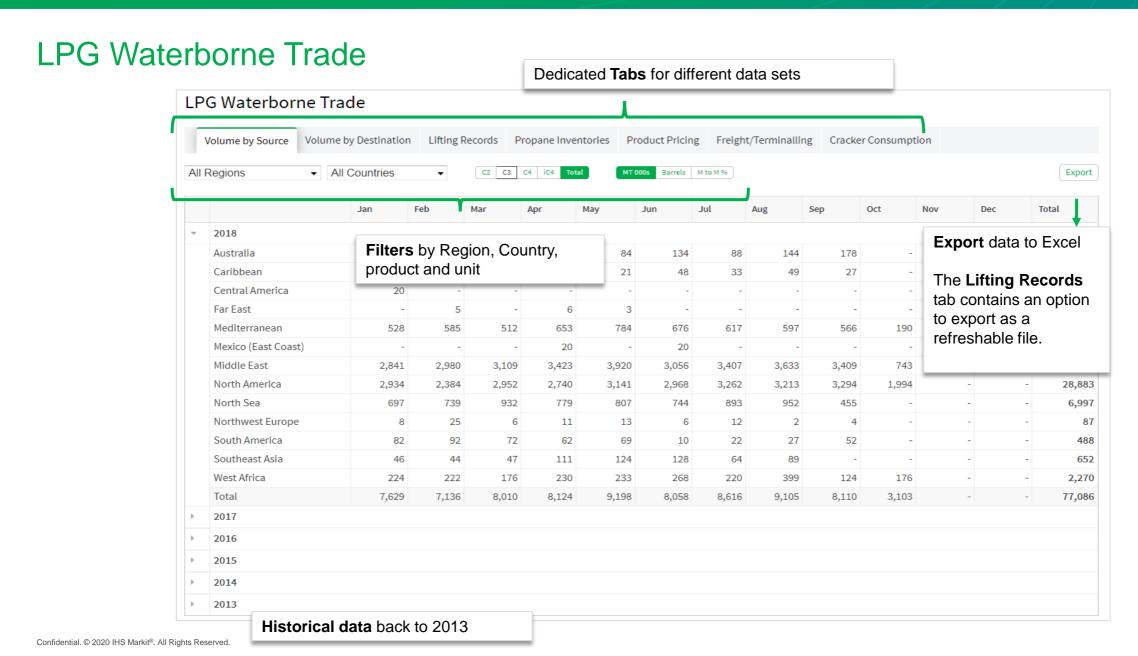
### **LPG** Waterborne Trade Tools

- Databases available under the primary Tools section of the Midstream Oil & NGL page, includes details on:
  - Trade Volumes by Source and destination
  - · Lifting record detail
  - · Product pricing
  - Freight rates
  - Inventories and Consumption



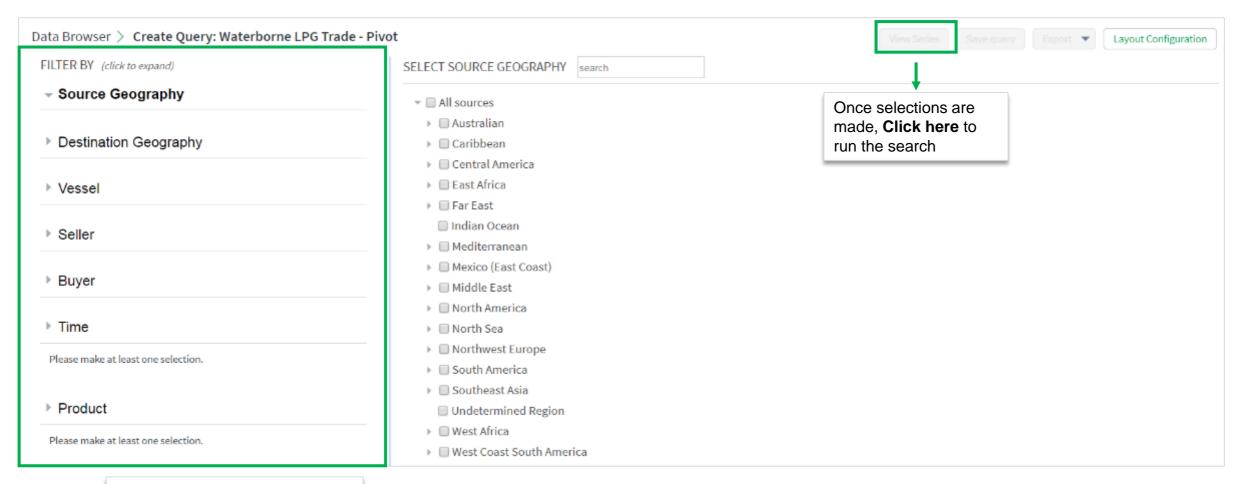








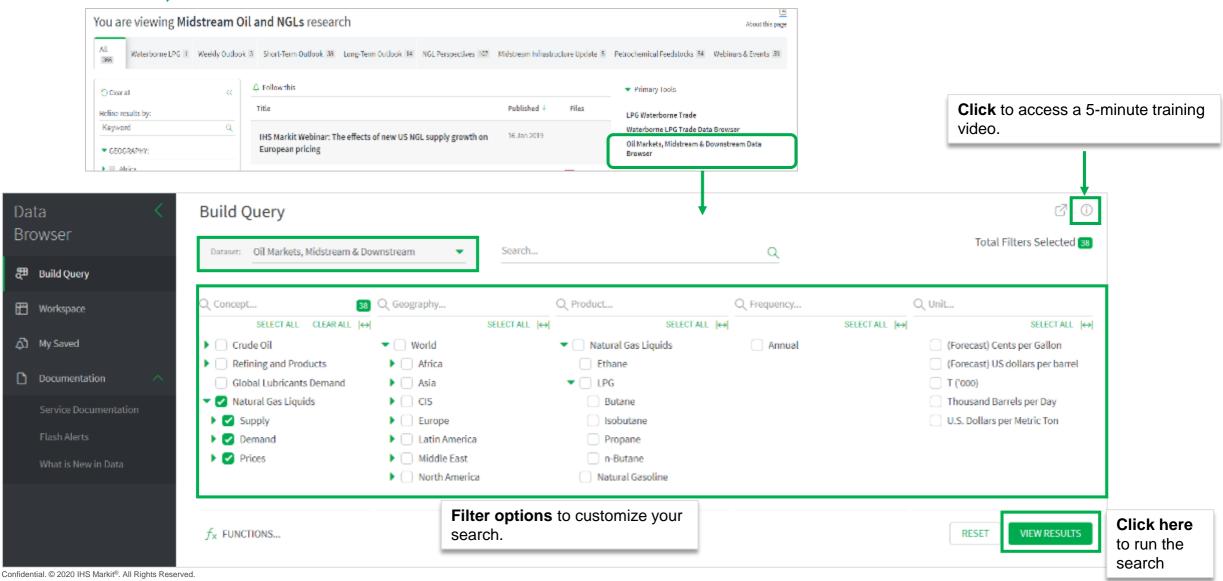
### LPG Waterborne Trade – Data Browser



**Filter options** to customize your search.



### Oil Markets, Midstream & Downstream Data Browser

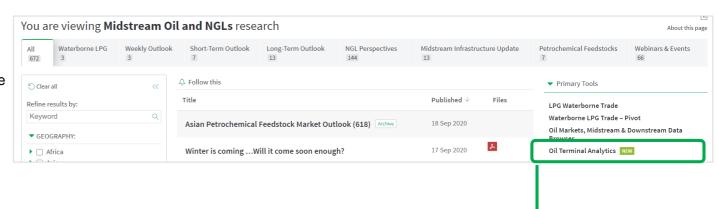




## Oil Terminal Analytics

- Understand liquid storage capacities for crude oil, refined products, NGLs & LPG on a facility basis worldwide
- Monitor liquid storage portfolios for any company, country or region worldwide
- Track storage capacity tied to refineries or global oil hubs
- Identify most competitive terminals based on storage capacity, product flexibility and number of transportation access types
- Benchmark oil terminal berths to determine the most suitable location to load/offload oil cargos
- The Oil Terminal Analytics tool contains 9 PowerBI dashboards for competitive benchmarking of oil terminals worldwide to support competitor intelligence, logistical decisions or portfolio optimization workflows.

Abilene (Delek Abilene (HEP) Adak Terminal





Complexity

Country

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Terminal Score Classification by Country



# Refining & Marketing

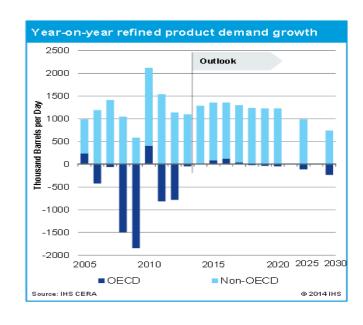


### Refining & Marketing: Global Refining

- Detailed data & analysis: refining capacity/margins,
- product balances/trade/prices, retail fuel prices/margins & demand, 145 downstream country profiles & data
- Monthly & quarterly market updates and forecasts on global & regional refined product markets including gasoline, diesel, jet fuel, fuel oil, alternative liquids etc.
- Annual strategic planning workbook: detailed long-term outlooks (25 years) for crude oil refining & refined product supply, demand, trade & pricing
- **New Global Refineries tool:** interactive access to global refinery capacity & project database (800+ refineries/projects)
- Timely alerts & analysis

#### **Benefits:**

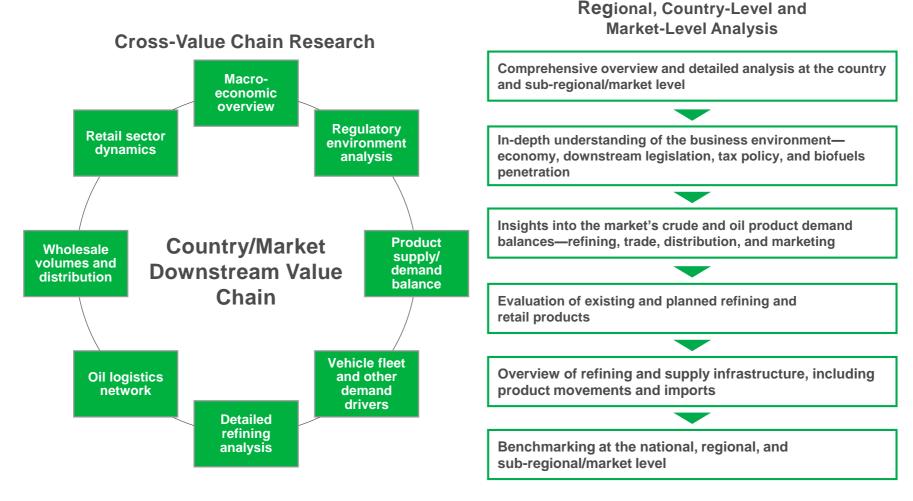
- Assess the impacts of product flows, refinery economics & pricing on refined product markets
- Understand future trends in alternative liquids demand & policies on costs & demand
- Analyze past, present & future capacities by company, including capacity snapshot feature
- Understand how refining portfolios have evolved; when & how expansions occurred & by what type
- Enable forecasting with expected capacity additions & rationalizations by country, data including all announced projects deemed by IHS Markit to be 50% or more probability
- View by equity ownership (direct & indirect) & operators
- · Determine capacity by refining unit by company and unique market intel
- View refining assets over multiple time periods, transparent method to determine competitor industry position





### Refining & Marketing Downstream Country Profiles & Data

R&M regional module country profiles provide critical country-level context that rolls up to the Refining & Product Market regional and global view

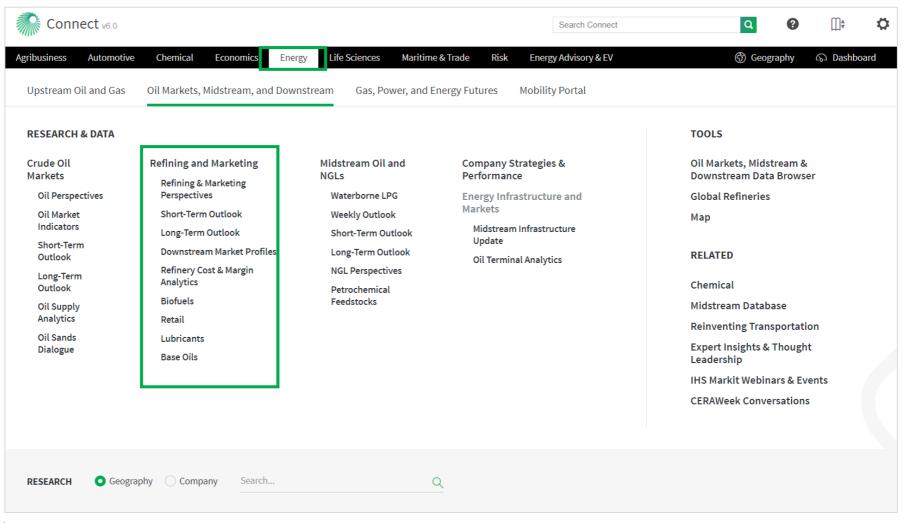




### Refining and Marketing in Connect

In Connect, hover over the Energy Megamenu > Oil Markets, Midstream and Downstream > Click on Refining and

Marketing topics.





Keyword

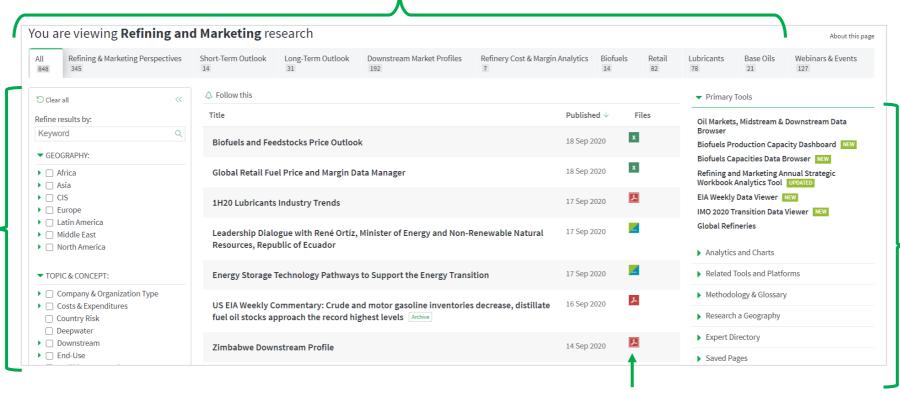
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search and

relevant filter

### Refining & Marketing Page Navigation

Research and Data are organized within **topical tabs** to instantly narrow down your search.

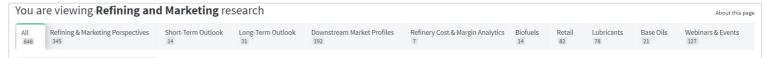


Relevant Data tools, Charts, and other Resources.

View and quickly access research and insights.



### Refining & Marketing Topical Tabs on Research Page

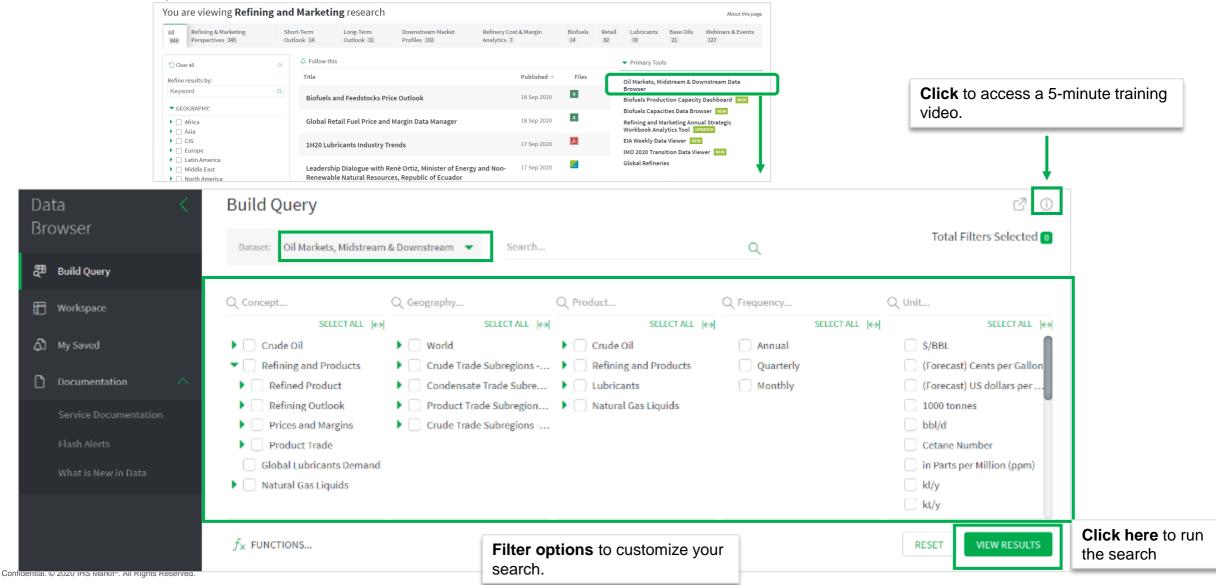


Refining & Marketing Perspectives	Short-Term Outlook	Long-Term Outlook	Downstream Country Profiles	Retail
<ul> <li>Periodic in-depth analysis pieces.</li> </ul>	<ul> <li>Short-Term         Outlooks on refined products prices         (Globally and by     </li> </ul>	<ul> <li>Long-Term Outlooks on Prices &amp; Margins (Globally and by Region).</li> </ul>	<ul> <li>Refining &amp; Marketing in-depth Country profiles:</li> </ul>	<ul> <li>Global Fuel Demand &amp;I Price &amp; Margin Data Managers.</li> </ul>
	Region).  IMO 2020: Global Bunker Fuel Sulfur Cap - quarterly update Refining and	<ul> <li>Refining &amp; Marketing Annual Strategic Workbook.</li> <li>Global Fuel</li> </ul>	-30 for Asia/ME -91 for Europe/CIS/Africa -18 for Latin America -5 for US PADDS + Canada	<ul> <li>Global Retail Trend Report.</li> <li>Retail Data Managers- North America- Asia-</li> </ul>
	Marketing weekly Indicator report	Specification Database.		<ul><li>Europe- CIS- Latin America.</li><li>Periodic in-depth fuel retail analysis pieces.</li></ul>

<sup>\*</sup>This is an example of key research deliverables. More research is available on this page in Connect.



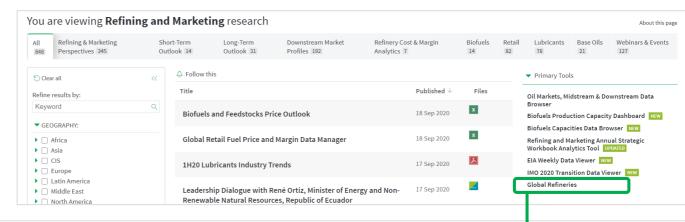
### Oil Markets, Midstream & Downstream Data Browser

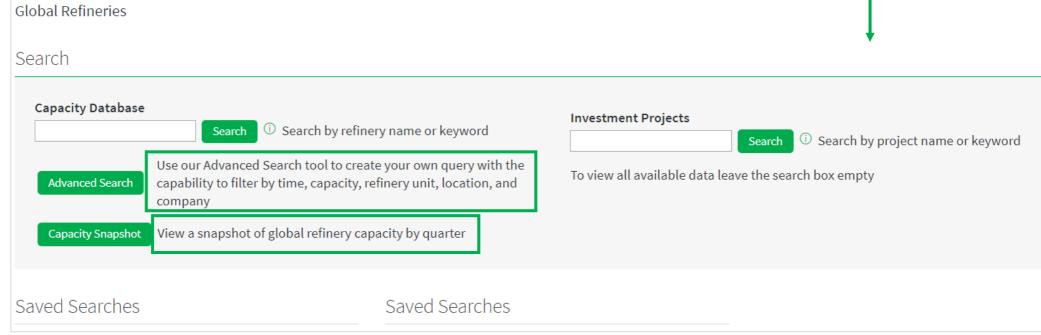


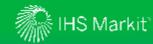


### Global Refineries Database

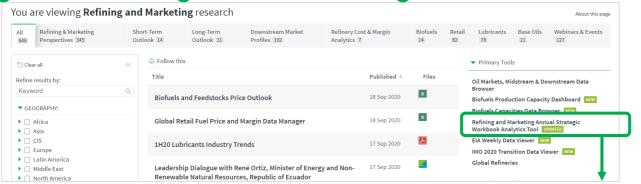
- Provides details on:
  - Existing refinery location, ownership and capacities by unit, on a historic and forecasted basis
  - 2) Refinery investment projects



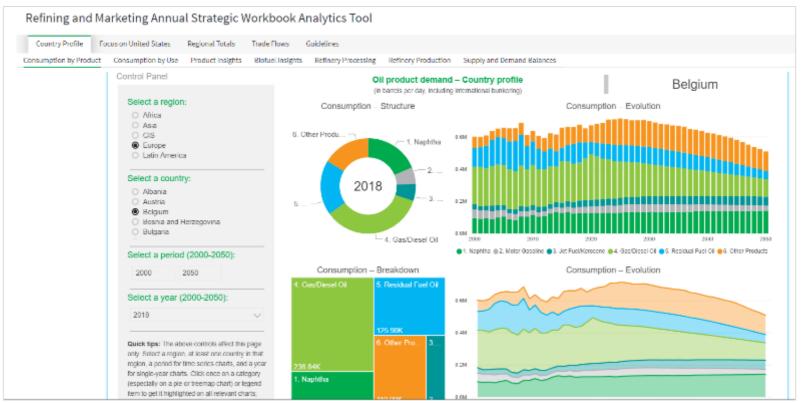


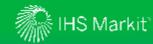


Refining & Marketing Annual Strategic Workbook Analytics Tool

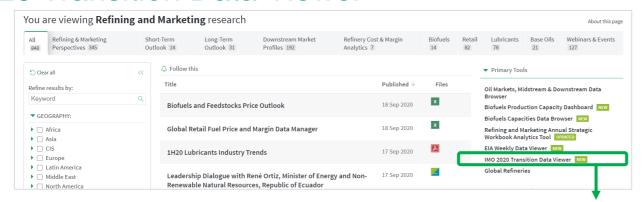


In the Primary Tools section, click on Refining & Marketing Annual Strategic Workbook Analytics tool to visualize, customize, and filter data by Company, region and visualize trade flows.





### **IMO 2020 Transition Data Viewer**

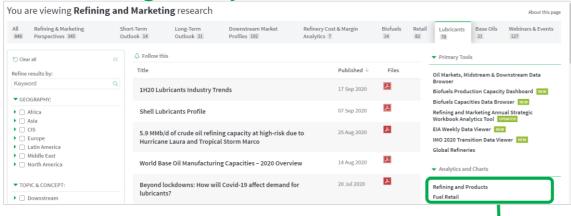


In the **Primary Tools** section, click on **IMO 2020 Transition Data Viewer** to visualize, customize, and view weekly price movements and differentials across key products affected by IMO 2020 regulations



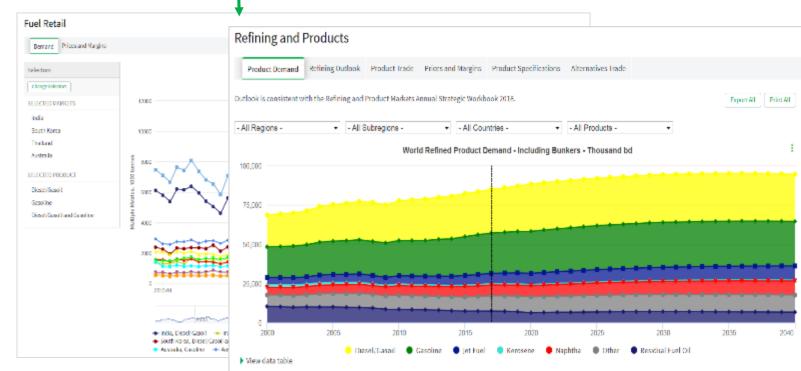


Refining & Marketing Analytics & Charts



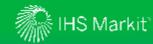
In the **Primary Tools** section, click on **Refining & Products** to visualize, customize, and filter data by demand, prices and margins, Product specs.

Also available for Fuel Retail prices and Lubricants





# Global Lubricants Service



### The IHS Markit Lubricants Suite



- This PFC Energy-legacy service provides lubricants-focused country and company profiles, combined with in-depth industry analysis and data on the lubricants sector worldwide
- Includes regularly updated statistical updates, trend reports and overview analyses, global base oil capacity surveys, and quarterly base oil margin updates

Global Lubricants Service Lubricants Demand Model

- This long-term forecasting model is delivered with IHS Markit base case forecasts through 2050, based on extensive proprietary statistical inputs
- Provides users with a powerful, bottomup analytical tool for developing, validating, and fine-tuning customized forecasts
- Global coverage, including 51 countries and 20+ product types

- Overview analysis of trends & outlook in the merchant shipping sector and international seaborne trade
- In-depth analysis of the market for deep sea marine lubricants
- Extensive analysis of major suppliers' strategies
- Delivered with a full Data Workbook and a detailed listing of ports/barge coverage by operator

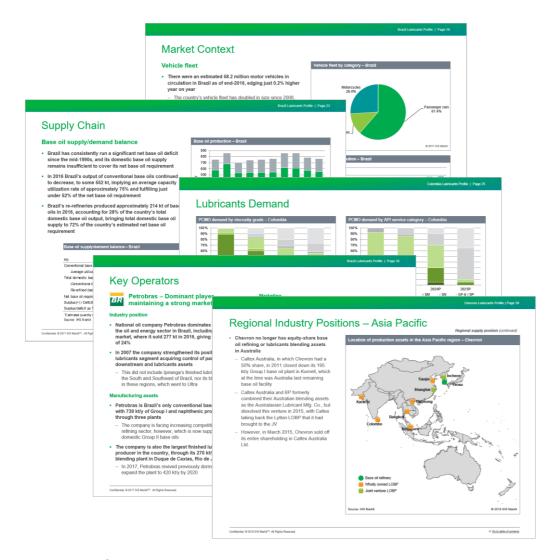
International Marine Lubricants Report

Global Base
Oil Service

- Leverages IHS Markit capabilities to deliver base oils-focused forecasts and analysis:
- Base oil capacities, production and operating data
- Base oil technical demand and actual consumption
- Base oil trade flows
- Base oil pricing and refining economics
- Base oil industry structure



### Global Lubricants





- Country profiles: 30+ country profiles providing in-depth overview analyses of the lubricants industry landscape in key markets: macroeconomic environment; vehicle fleet and automotive production; industrial production; regulatory and fiscal framework; base oil manufacturing, additives, and lubricants blending; lubricants demand; evolution of the competitive landscape; major operators' strategies
- Competitor profiles: 12+ competitor profiles providing in-depth assessments of key operators' strategy and outlook for base oils and lubricants, their assets and operations, and their industry positions by region and in major national markets
- Key market indicators: Industry trend updates, finished lubricants market share database, overview analyses of the competitive landscape
- Base oil manufacturing: Annual world base oil capacity surveys, monitoring of anticipated major capacity changes, quarterly base oil margin updates, and global overview analysis of the base oil manufacturing sector



Keyword

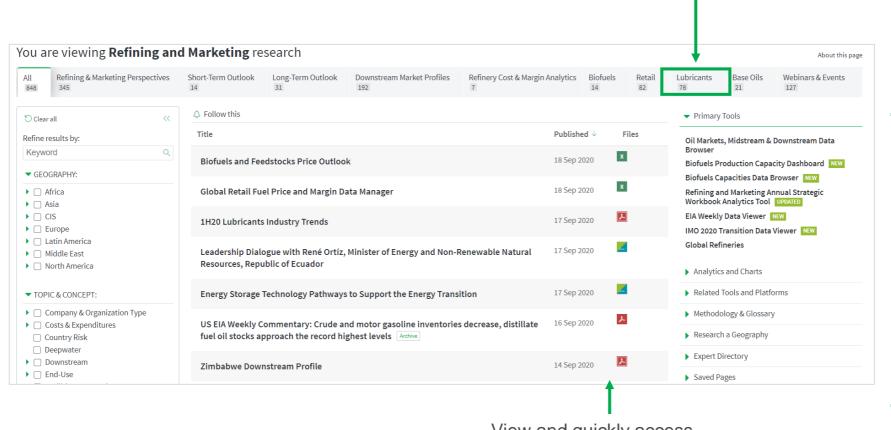
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### Global Lubricants Page Navigation

Research and Data is listed in the **Lubricants** topical tab.

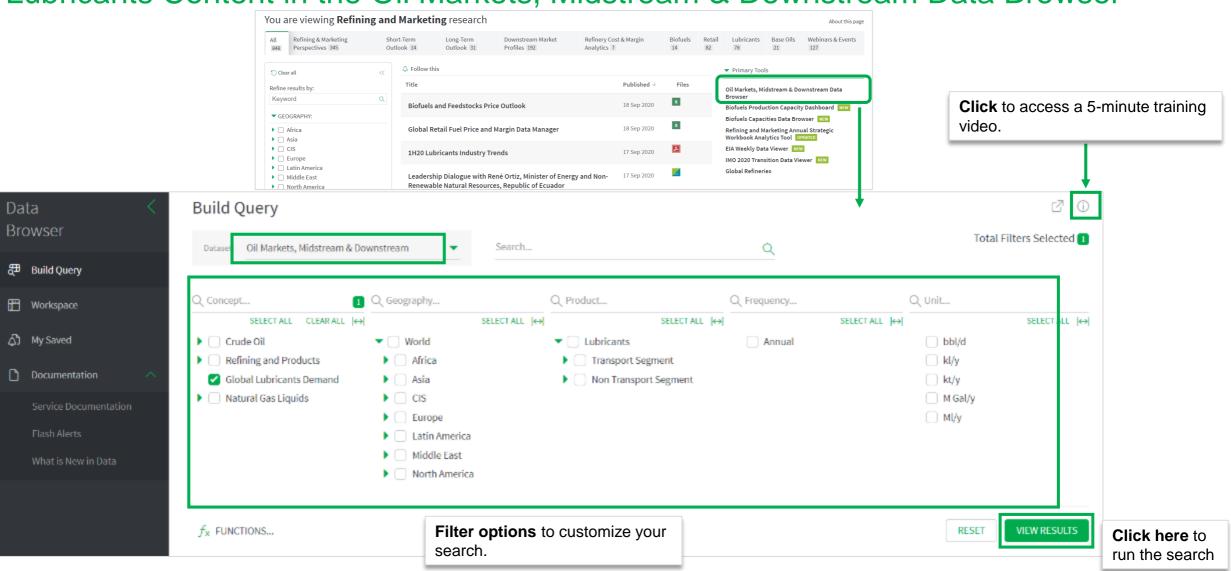


Relevant **Data tools**, **Charts**, and other **Resources**.

View and quickly access research and insights.



Lubricants Content in the Oil Markets, Midstream & Downstream Data Browser





# Global Base Oils Service



### The IHS Markit Lubricants Suite

- This PFC Energy-legacy service provides lubricants-focused country and company profiles, combined with in-depth industry analysis and data on the lubricants sector worldwide
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Global Lubricants Service

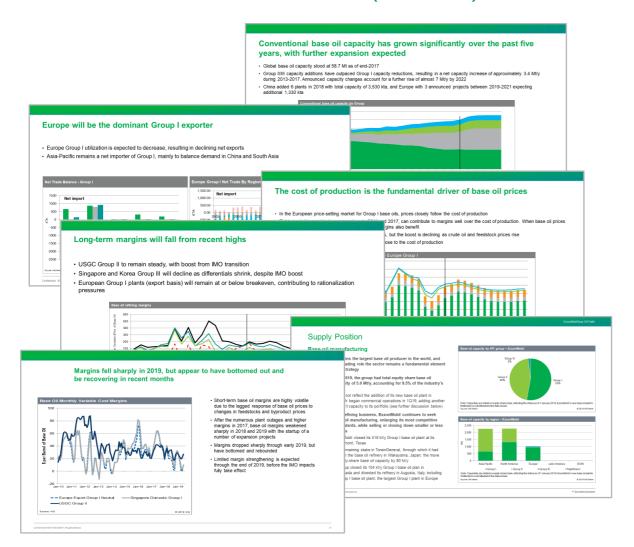
Lubricants Demand Model

- This long-term forecasting model is delivered with IHS Markit base case forecasts through 2050, based on extensive proprietary statistical inputs
- Provides users with a powerful, bottomup analytical tool for developing, validating, and fine-tuning customized forecasts
- Global coverage, including 51 countries and 20+ product types

- International
  Marine
  Lubricants
  Report
- Global Base Oil Service
- Leverages IHS Markit capabilities to deliver base oils-focused forecasts and analysis:
- Base oil capacities, production and operating data
- Base oil technical demand and actual consumption
- Base oil trade flows
- Base oil pricing and refining economics
- Base oil industry structure



### Global Base Oils Service (GBOS)





- Long-term base oil supply/demand balance outlook
- 2. Base oil price outlook
- 3. Base oil manufacturer profiles
- 4. Monthly and quarterly base oil margin updates
- 5. Base oil manufacturing capacities and investments
- 6. Base oil manufacturing sector overview presentation

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Keyword

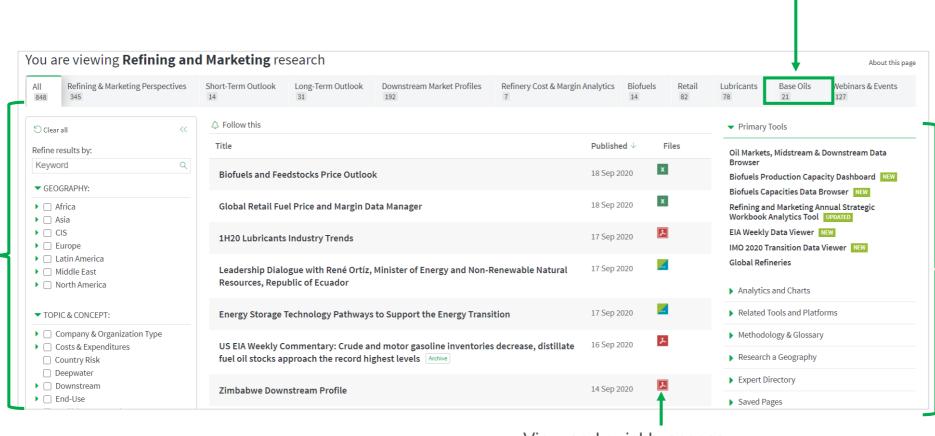
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### **Base Oils Page Navigation**

Research and Data is listed in the **Base Oils** topical tab.



Relevant Data tools, Charts, and other Resources.

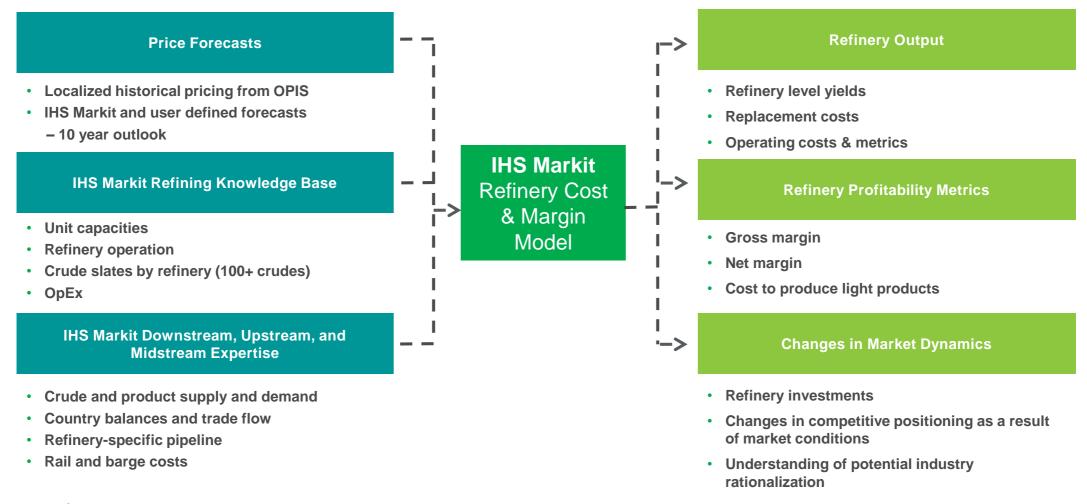
View and quickly access research and insights.



# Refinery Cost and Margin Analytics (RCMA)



# Benchmark investments & evaluate a refinery's long-term competitive position with robust modelling and insight into the competitive landscape of the refining industry



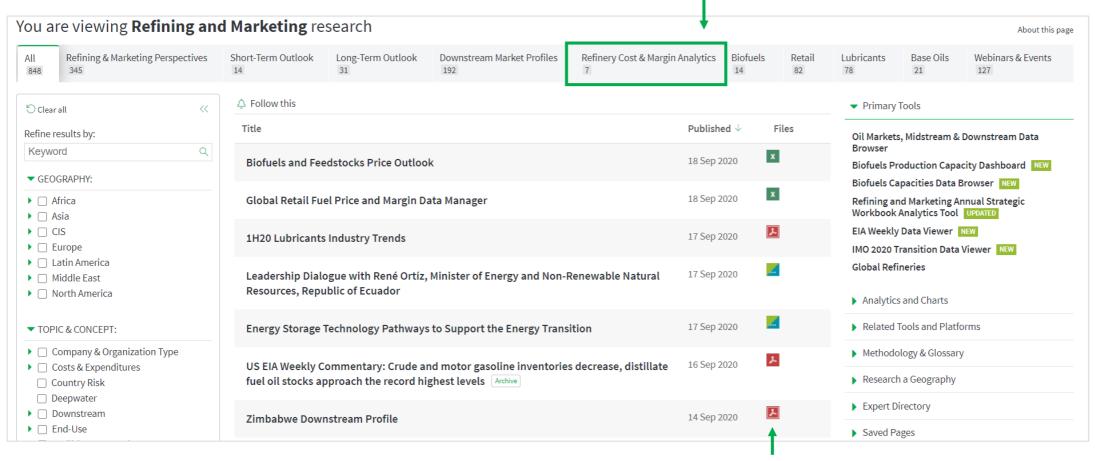


IHS Markit Advantage	<b>Detail</b>
Thorough modeling of refinery specific yields	<ul> <li>Refineries modeled with two types of crude units, a sweet, cracking crude unit and a sour crude unit.</li> <li>Crude blending tool to estimate properties of each cut point based on refinery assay database - &lt;150 possible crude assays included</li> <li>Unit (i.e. FCC /HCK resid) feed limits based on crude cut properties (metals, CCR)</li> <li>Blending of gasoline and distillate to meet country level specifications.</li> </ul>
Model incorporates IHS Markit proprietary data on refinery level operation	<ul> <li>Crude unit operating envelope</li> <li>Hydrocracker and FCC severity</li> <li>Unit level yields vary by feed quality and type and are based on the crude assays &amp; purchased feedstock quality</li> </ul>
Detailed IHS Markit proprietary models and data analysis	<ul> <li>Crude slates based on IHS Markit proprietary analysis using crude supply balances along with data obtained from government reporting agencies, public reporting, terminal balances, and shipping receipts</li> <li>Detailed operating expense estimates based on benchmarking and updated with IHS Markit forecasts for regional labor, materials, and government costs. Operating expense estimates include allocations for water, electricity, natural gas, labor, maintenance, and catalyst/chemicals.</li> </ul>
Market data/insight accuracy	<ul> <li>Pricing, crude slate, and refinery configuration based on regional experts located in offices in London, Paris, Dubai, China, Malaysia, Singapore, the United States, and Canada.</li> <li>Detailed rack level prices available for all U.S. products for greater geographical coverage</li> <li>International prices based on import/export transport parity for inland refineries</li> <li>Localized labor and replacement cost estimates</li> <li>Expert analysis used to forecast changes in competitive landscape</li> </ul>
Historical operating data for over 50% of the U.S. refineries calibrated to reported earnings data	<ul> <li>Refinery utilization based on reported data and individual refinery state and country level reporting</li> <li>Calibrated yields capture chronic reliability issues and unit level performance</li> </ul>



### **RCMA** on Connect

Research and Data is listed in the **Refinery Cost and Margin Analytics** topical tab.



View and quickly access research



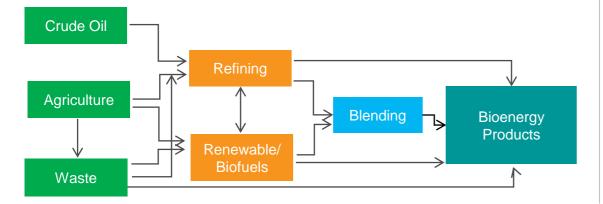
# Biofuels Value Chain Service



### Biofuels Value Chain Service – Long-term clarity in a rapidly evolving sector

# Maintain perspective and anticipate longer-term trends in the ever-changing biofuels markets

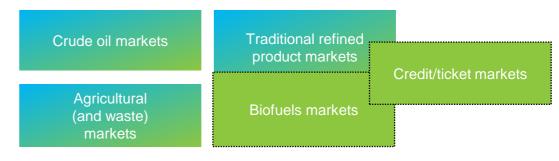
- Biofuels have been around for many years, but recent industry momentum has accelerated as decarbonization pressure and other trends have added support for expanding the sector.
- BVCS supports clients' medium and long-term strategic decisionmaking regarding not only biofuels themselves, but also around their feedstocks and critically important supporting credit/ticket markets.
- The service enables new biofuels investment capacity planning and informs strategic sourcing and marketing decisions.
- BVCS looks beyond complimentary market news and short-term price discovery, to a more comprehensive, integrated view encompassing the entire biofuels value chain:



# Extensive data supplemented with deep market expertise and analysis to give clients a unique biofuels picture

- > Fundamentals-based, medium to long-term analysis of biofuels markets and credit/ticket markets, with coverage of feedstocks markets as they apply to biofuels.
- Supply/demand and price forecasts, with full accompanying analysis of market drivers and dynamics.
- > Bringing together interlocking analysis across the biofuels value chain:
  - **Upstream:** Feedstock markets directly related to biofuels
  - Biofuels-Direct: Biofuels supply/demand, and credit/ticket incentives
  - Downstream: Refined products demand markets, competitiveness versus oil and gas incumbents, regulatory mandates

#### Adjacent markets and Biofuels Value Chain Service coverage:





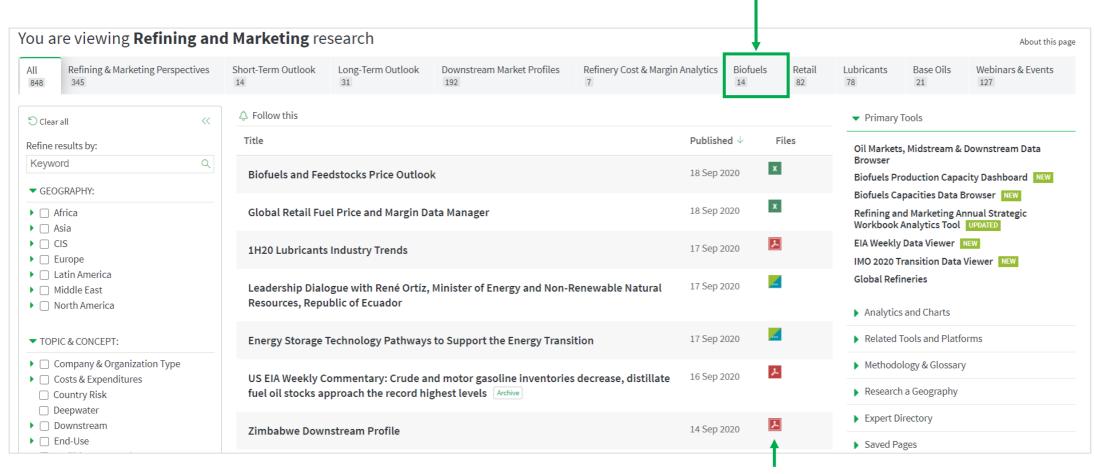
### IHS Markit biofuels portfolio feature comparison

			Feedstock Mar	kets					Biofue	ls Markets				Credit/ Tic	ket Markets	
Product Offering Name	Geographic Coverage	Publication/ Update Cadence	Market News/ Developments		Demand Outlook		Market News/ Developments	Prices	Supply/ Demand Outlook	Regulatory/ Policy Coverage	Capacities Database	Profiles and Market Analysis	Market News/ Developments	Prices	Market Outlook	Profiles and Market Analysis
Carbon Market Report	Americas	Daily	-	-	-	-	-	-	-	-	-	-	Daily Reporting and Assessment	Daily Current + Historical		
Ethanol and Biofuels Information Service	Americas	Daily	Daily Reporting and Assessment	Daily Current + Historical	-		Daily Reporting and Assessment	Daily Current + Historical		Daily Reporting and Assessment	-	-	-	-	-	-
Ethanol & Biofuels Economics	Global	Weekly/ Biweekly	Weekly/ Biweekly Reporting and Assessment	Weekly/ Biweekly Current + Historical			Weekly/Biweekly Reporting and Assessment	,	Monthly 18-month forecast	Biweekly Reporting and Assessment	Database	Country Profiles + Competitor Profiles	Biweekly Reporting and Assessment	-	-	-
Biofuels Value Chain Service	Global	Evergreen, Quarterly, Annual		Quarterly Historical and Forecast to 2050		Feedstock Profiles	Ad-Hoc Strategic Insight pieces on major developments	and	Annual Historical and Forecast to 2050	Mandate Tracker + Regional Regulatory Overviews	Database + Analysis Too	Regional Value Chain Profiles	Ad-Hoc Strategic Insight pieces on major developments	Quarterly Historical and Forecast to 2050	Quarterly Updates	Regional Value Chain Profiles



### Biofuels Value Chain Service on Connect

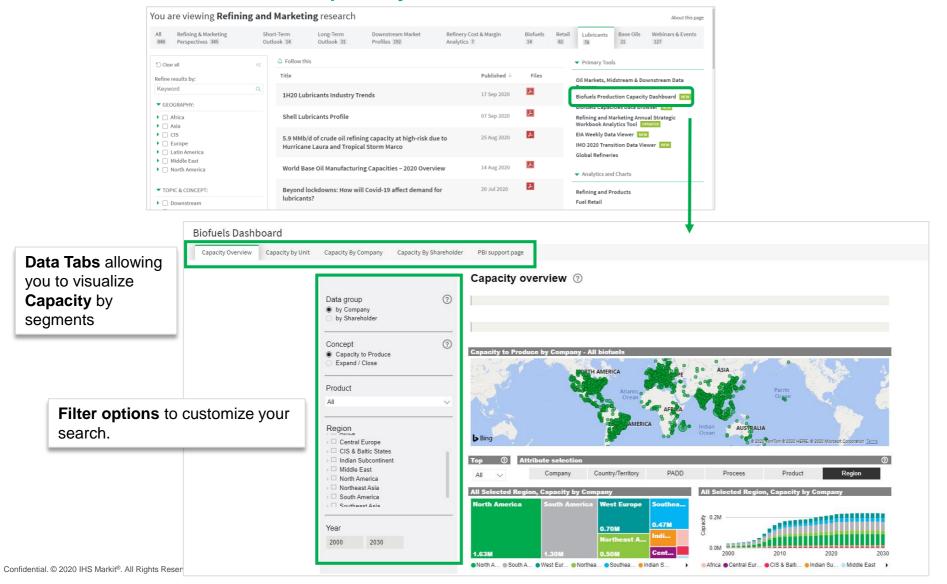
Research and Data is listed in the **Biofuels** topical tab.



View and quickly access research

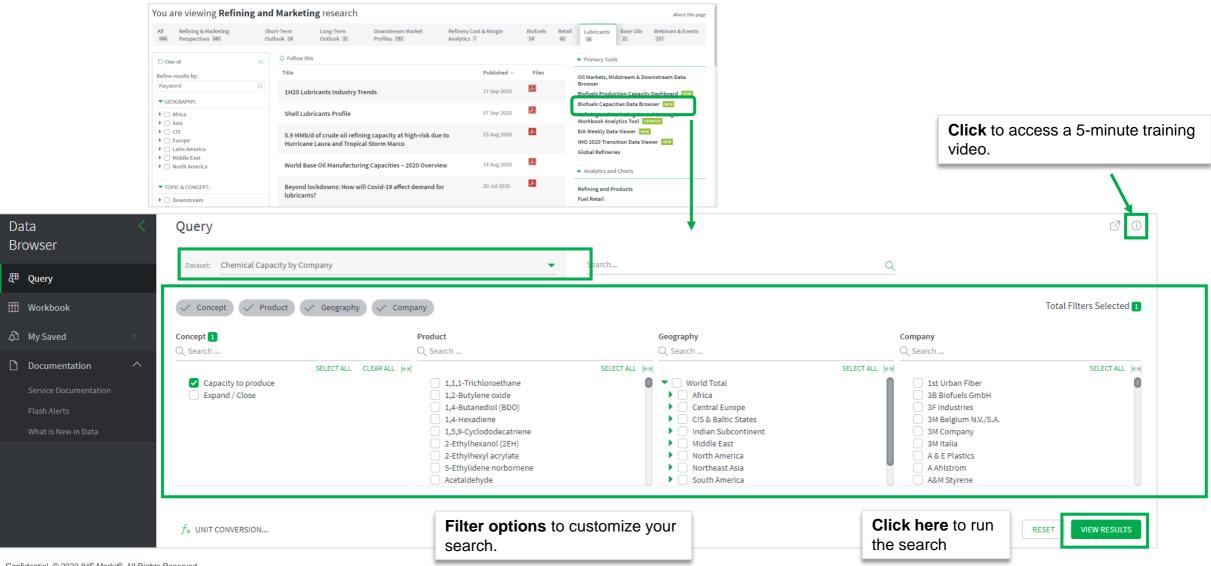


### Biofuels Production Capacity Dashboard





### **Biofuels Capacity Data Browser**





# Company Strategies & Performance



### **CSP Refining & Marketing Module**

- The IHS Markit Company Strategies and Performance (CSP) Refining & Marketing, is a multiclient program offering a unique combination of in-depth analysis and tools to compare peer companies. The product has six main components, which complement each other to provide rich data and analysis to compare the strategic direction and performance of the selected companies.
  - Refining and Marketing Company Profiles—32 individual company reports, analyzing each one's global portfolio, operations, strategy and competitive position, comprises following chapters:
    - Corporate and Financial Overview—Key information on strategy, investments and divestments
    - Refinery Profiles—Global portfolio details covering all major assets
    - Refining and Marketing—Granular coverage of refining and marketing operations including refinery-petrochemical integration
    - IHS Markit View—Our independent analysis of short-term and long-term moves made by the company
  - Performance Review Reports
  - Refining and Retail Extracts
  - Financial Benchmarking Extracts
  - Refining Transaction Data Extracts
  - Company Perspectives
- The peer group set of companies are selected judiciously based on company size (by revenue and capacity) within the competitive space, geographic reach and scale. Refinery throughput and geographies served forms the base of the criteria to bring together a competitive group of organizations. Together, these companies represent nearly 60% of the global refining capacity and refined products output. The overall analysis gives the holistic view of the sector from the perspective of business operations by segment, profitability, investments, mergers, acquisitions, and divestments.

CSP Refining Peer Groups							
Global Majors	National oil companies	North American Majors	North American Mid Majors	European Majors	Asian Majors	Asian Mid Majors	
BP	KPC	Marathon	Delek	Eni SpA	Reliance	Petronas	
Chevron	Petrobras	Valero	Husky Energy	Repsol	Sinopec	Pertamina	
ExxonMobil	Saudi Aramco	Phillips 66	Suncor Energy	Lukoil	PetroChina	SK Energy	
Royal Dutch/Shell	PEMEX		CITGO	OMV	Indian Oil		
TOTAL			HollyFrontier	MOL	ENEOS (JXTG Nippon)		
			PBF Energy	PKN Orlen			

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### Deliverables—CSP Refining & Marketing Module

Performance Benchmarking **Quarterly Financial Benchmark Extract** Excel extract containing reported financial results combined with asset modeling Quarterly **Quarterly Performance Report** Assessment of refining and marketing performance by company for each peer group Quarterly **Annual Performance Report** Annual summary report, benchmarking each company's performance for the year for each peer group

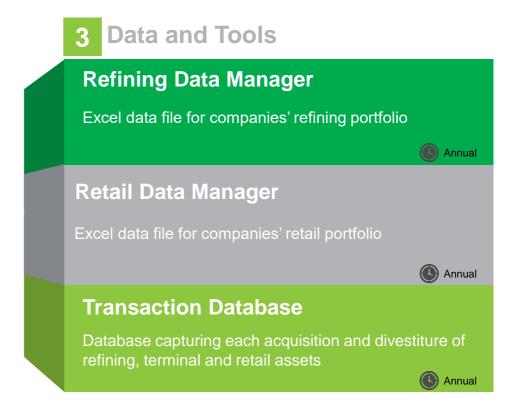
**Company Profiles** 

#### **Company Profiles**

32 profiles of each company's portfolio and competitive positioning



Annual



**Company Perspectives** 

#### **Strategic Reports and Alerts**

Reports and alerts discussing and analyzing key events and trends in downstream competitive landscape



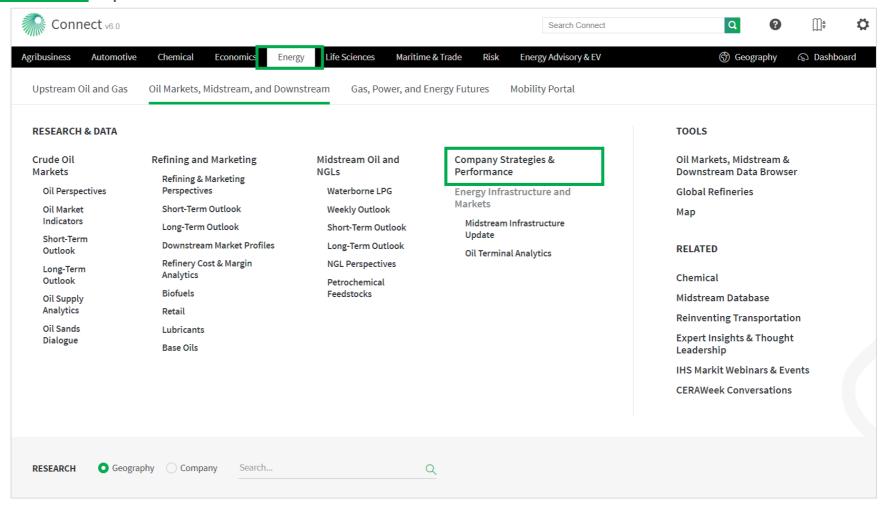
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### Company Strategies and Performance in Connect

In Connect, hover over the **Energy** Megamenu > **Oil Markets, Midstream and Downstream** > Click on **Company Strategies and Performance** topics.





**Keyword** 

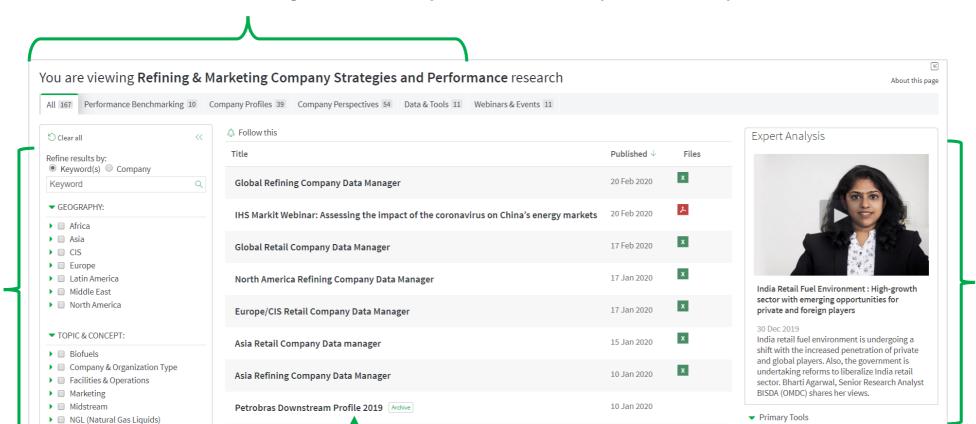
options.

search and

relevant filter

### Company Strategies & Performance Page Navigation

Research and Data are organized within **topical tabs** to instantly narrow down your search.



Relevant
Expert
briefings, **Data**tools and
other
Resources.

View and quickly access research and insights.



### Company Strategies & Performance Topical Tabs on Research Page

You are viewing Refining & Marketing Company Strategies and Performance research

All 123 Performance Benchmarking 10 Company Profiles 28 Company Perspectives 50 Data & Lools 9 Webinars & Events 18

Performance Benchmarking	Company Profiles	<b>Company Perspectives</b>	Data & Tools
<ul> <li>Quarterly Financial Benchmarking Extract</li> </ul>	<ul> <li>Downstream Company profiles:</li> <li>(32 individual company reports</li> </ul>	<ul> <li>Strategic Reports &amp; Alerts: Periodic in-depth analysis</li> </ul>	Refining Data Manager
Quarterly Performance Report	analyzing each refining and marketing company's portfolio	pieces and alerts analyzing key events and trends in the	Retail Data Manager
Annual Performance Report	and competitive position)	Refining and Marketing competitive landscape.	Transaction Database

<sup>\*</sup>This is an example of key research deliverables. More research is available on this page in Connect.



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IHSConnectTraining@ihsmarkit.com

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#### Americas:

+1 800 IHS-CARE (+1 800 447-2273) Mon. to Fri. 0800 to 1800 MDT (GMT -6hrs)

Email: <u>customercare@ihsmarkit.com</u>

#### **Europe, Middle East & Africa:**

+44 (0) 1344 328 300

Mon. to Fri. 0800 to 1800 BST (GMT +1h)

Email: <a href="mailto:customercare@ihsmarkit.com">customercare@ihsmarkit.com</a>

#### **Asia Pacific:**

+604 291 3600

Mon. to Fri. 0800 to 1800 MYT (GMT +8hrs)

Email: <u>customercare@ihsmarkit.com</u>