

Sample

# GLOBAL LNG CARRIER MARKET

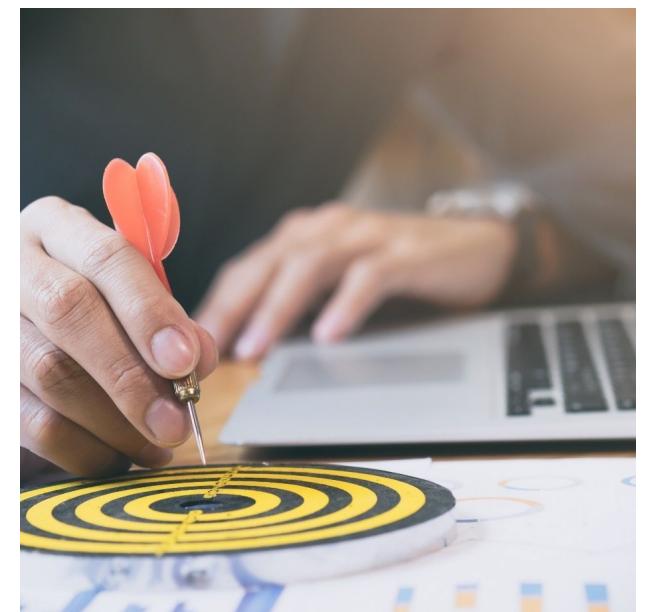
**STUDY PERIOD : (2019 – 2028)**

Domain: **Energy & Power**

Base year: **2022, 2023 YTD**

Forecast Period: **2023 - 2028**

Market intelligence/advisory



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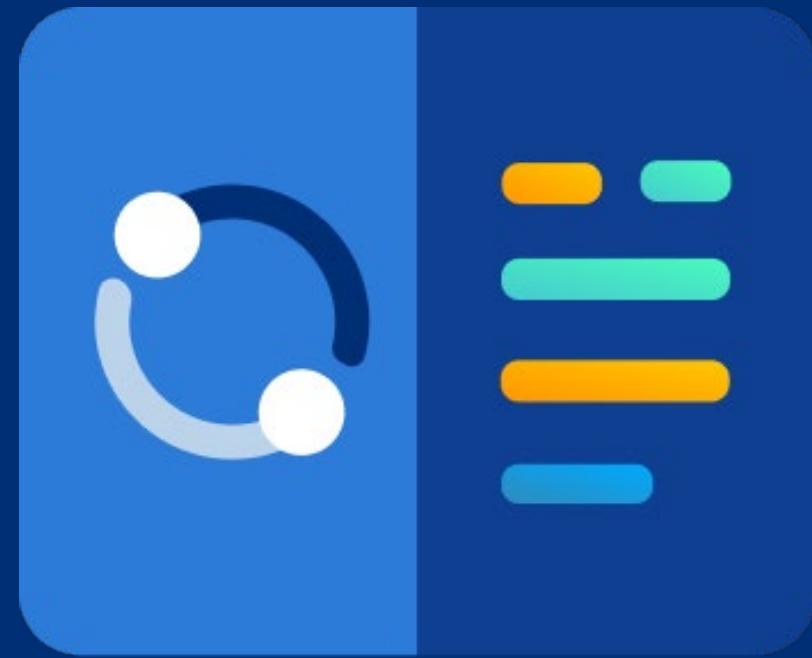
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\*List Not Exhaustive

\*\*Subject To Availability On The Public Domain, Paid Database (D&B Hoovers),  
And Information Generated Through Primary Interviews





## 1.2 STUDY ASSUMPTIONS AND MARKET DEFINITION

### BASE CURRENCY

The base currency is considered as the United States Dollar (USD). Conversion of other currencies is based on the average exchange rates of the respective review period years. The exchange rate conversion for the forecast period is determined according to the base year's conversion rates.

### BASE YEAR, REVIEW & FORECAST PERIOD

The base year is identified based on the availability of annual reports and secondary research information. The base year considered for this study is 2023 YTD. The review period considered for this study is from 2019 to 2023 YTD. The CAGR is for the forecast period 2023-2028.

### FORECAST TERMS

Market-size estimations for the forecast years are in real terms. The exchange rate conversion for the forecast period is determined according to the base year's conversion rates. Nominal values are only considered. Inflation is not to be considered.

### PRIMARY RESEARCH

Distribution of the primary interviews conducted is based on the regional share of the market and the presence of key players in each of the demographics pertinent in the market studied.

Note: Company revenues mentioned as per the fiscal year in the HQ of the company and currency conversion is as per the account closure date of the company.

### MARKET DEFINITION

#### PRODUCT/ SERVICE

LNG CARRIER

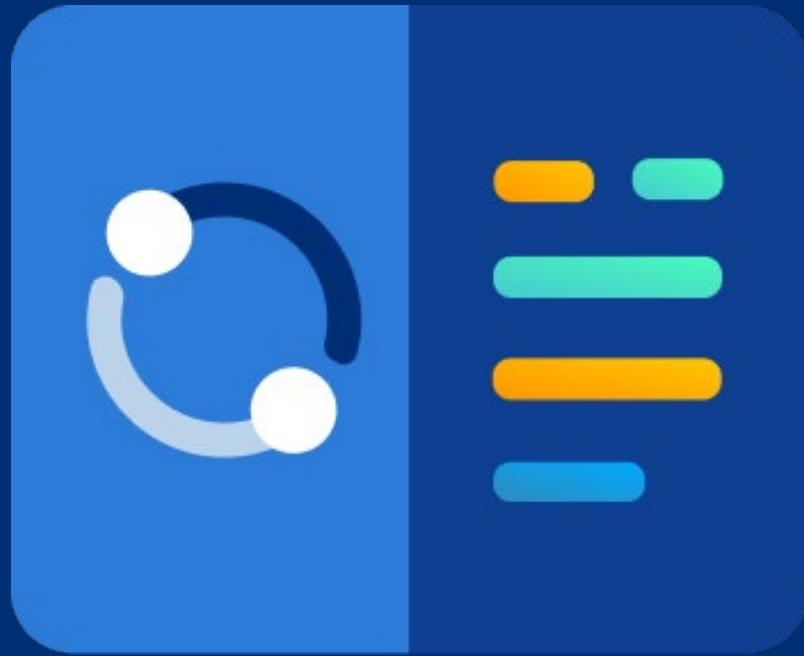
#### DESCRIPTION

An LNG carrier is a ship designed to transport liquefied natural gas in its chilled tanks. LNG carriers emit fewer greenhouse gases than conventional vessels because they are powered by natural gas.



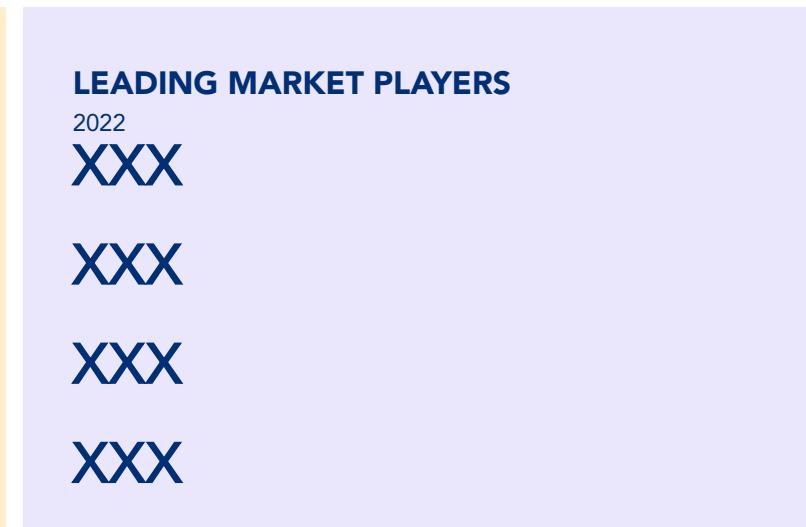
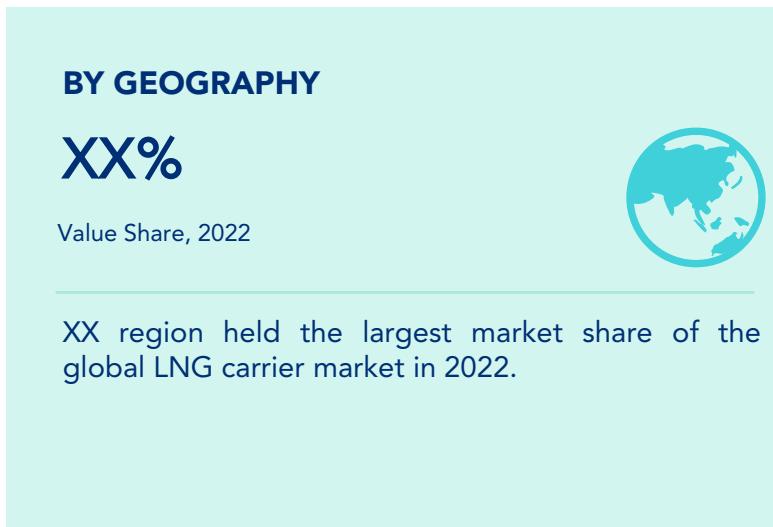
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## 2.1 SAMPLE - EXECUTIVE SUMMARY AND KEY FINDINGS





## 2.2 SAMPLE - MARKET OVERVIEW

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    4.8.3 Threat of New Entrants

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    4.8.5 Intensity of Competitive Rivalry





# INTRODUCTION

## BACKGROUND

- An LNG carrier is a moving vessel developed for transporting liquefied natural gas in its chilled tanks. LNG vessels are usually two-stroke mechanically driven or four-stroke engines with diesel propulsion systems.
- LNG ships are generally classified as fully pressurized, semi-pressurized refrigerated, and fully pressurized to transport natural gas in the liquid form at pressures greater than atmospheric pressure.
- With the increase in offshore oil and production and offtake and import-export activities, the LNG carrier demand will likely increase in the shipping industry in the forecast period.

## MARKET OVERVIEW

- The global LNG carrier market has evolved over the past decade, driven by the growth in the global liquefaction capacity and energy demand. By the end of 2023, out of the 312 LNG carriers, about 28 of them were expected to be delivered in 2023, followed by 81 deliveries in 2024, 88 deliveries in 2025, 85 deliveries in 2026, 29 deliveries in 2027, and 1 delivery in 2028, as per International Gas Union (IGU).
- In 2022, the South Korean and Chinese LNG Carrier manufacturers received multiple orders for manufacturing and delivery, with the demand majorly triggered by large projects of Qatar Energy and the development of United States LNG infrastructure.
- Moreover, the prices of LNG carriers witnessed an increase in 2022. As per the International Gas Union, the cost of a two-stroke vessel of 174,000 cm increased from USD 200 million to USD 260 million. The cost of development of an LNG carrier depends on various factors such as its capacity, technology, propulsion system used, and other design aspects.
- As of October 2023, Samsung Heavy Industries grabbed an order worth USD 260 million to develop an LNG carrier. The vessel is likely to be delivered to be delivered to an Asian company by September 2026.
- Likewise, in September 2023, QatarEnergy agreed with HD Hyundai Heavy Industries (HHI) to develop approx. 17 LNG carriers worth USD 3.9 billion under the second phase of the LNG ship acquisition program. QatarEnergy ordered up to 60 ships from Korean and Chinese shipyards in the first phase. As of October 2023, QatarEnergy had about 77 LNG carrier orders, which is anticipated to be the largest

DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT



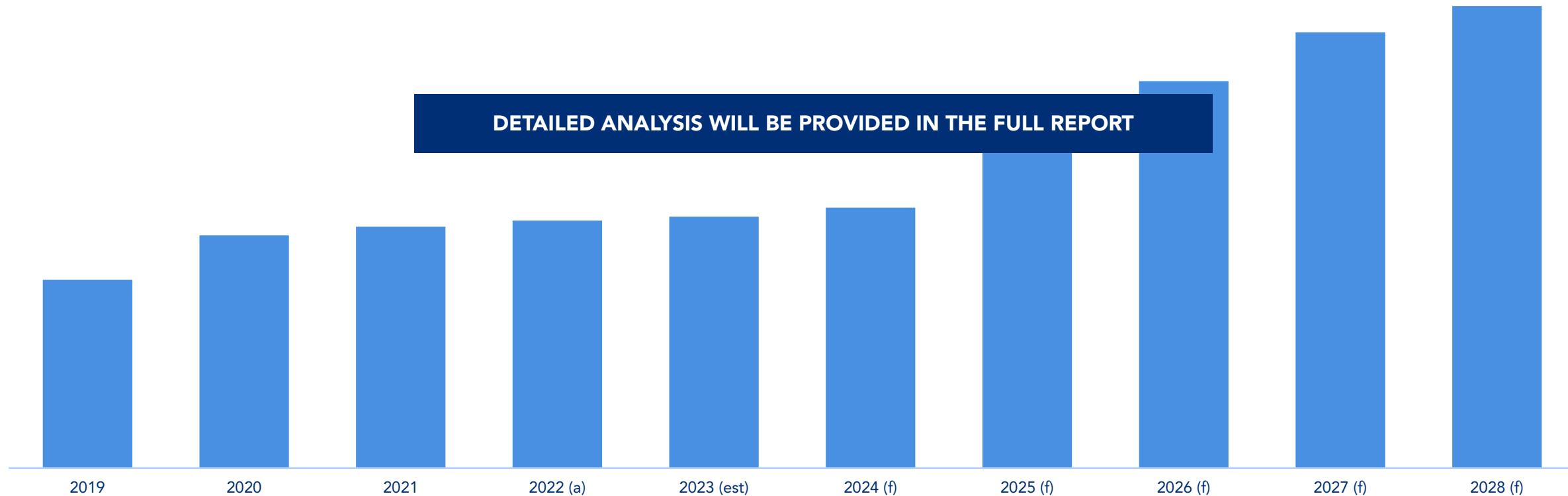


# MARKET SIZE AND DEMAND FORECAST, IN USD BILLION, TILL 2028

LNG CARRIER MARKET, SIZE AND FORECAST IN USD BILLION, GLOBAL, 2019-2028

CAGR (2023 TO 2028): XX %

DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT

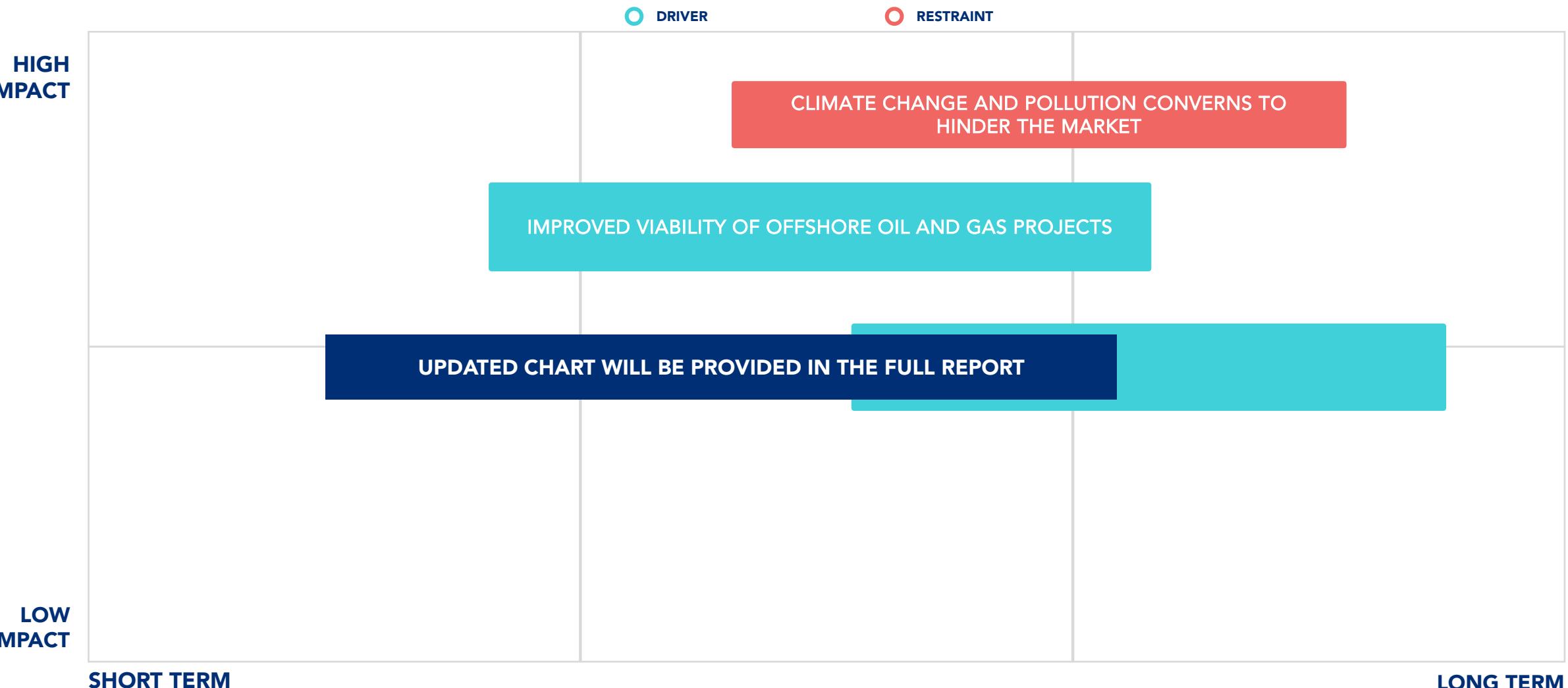


Source: Mordor Intelligence





## 2.3 SAMPLE - MARKET DYNAMICS



Source: Mordor Intelligence





# DRIVER – INCREASE IN OFFSHORE OIL AND GAS PRODUCTION ACTIVITIES

## BACKGROUND

- The upstream companies are undertaking oil and gas exploration and production (E&P) activities in the offshore sector is expected to compensate for declining onshore production due to factors like the maturing of onshore oil and gas fields and almost all the easy oil discovered in the onshore sector. The upstream capital expenditure has increased to support these activities. The growth in offshore production through facilities such as Floating Production Storage and Offloading units and the fulfillment of the demand for oil and gas worldwide is expected to benefit the utilization of LNG carriers in forthcoming years.

## IMPROVED VIABILITY OF OFFSHORE OIL AND GAS PROJECTS

- Recently, the oil and gas industry has reduced offshore development and production costs by around 30% by improving the supply chain and integrating new technologies. Such results in the offshore sector are significantly encouraging exploration and production companies to invest in the FPSO market for oil and gas production. Hence, the transport of the expected increase in production is likely to demand LNG carriers in the forecast period.
- Moreover, the costs of several offshore oil and gas projects have reduced significantly, as the upstream companies have been ensuring viability in a lower-price environment, such as shale oil and gas play. As a result, the breakeven oil price for offshore projects has been reduced from USD 60-80 per barrel in 2018 to around USD 25-40 per barrel in 2022, thereby increasing the viability of offshore oil and gas activities, which would also help the LNG carriers market to grow in future.
- The Government policies are also supporting offshore oil and gas projects. For instance, in India, according to the Hydrocarbon Exploration Licensing Policy (HELP), the royalty rate for offshore blocks in shallow water was 7.50%, whereas, for deepwater blocks, the royalty rate is 0% for the first seven years and 5% after the seven years. Similarly, the royalty rate for ultra-deep blocks was fixed at 0% for the first seven years and 2% after seven years.
- Similarly, the Government of Ireland has supported offshore oil and gas production to ensure oil and gas supply security, reduce dependency on imports, and for financial gains. All these supportive policies are expected to increase the offshore production of oil and gas, which could propel the LNG carrier market in the market period studied.
- The Middle East and Africa are also witnessing a significant rise in offshore reserves development to counter its depleting onshore reserves, and it is one of the prominent offshore oil and gas producing regions worldwide. The availability of abundant resources from several countries (including Saudi Arabia, Iran, Iraq, the United Arab Emirates, and others) and increased potential to recover oil and gas from deep and ultra-deep-water areas will likely witness an increased capital investment in the coming years. The availability of abandoned offshore reserves is expected to grow significantly with the improved viability of offshore oil and gas projects in the region. Thus significantly helping the LNG carrier market to expand in upcoming years

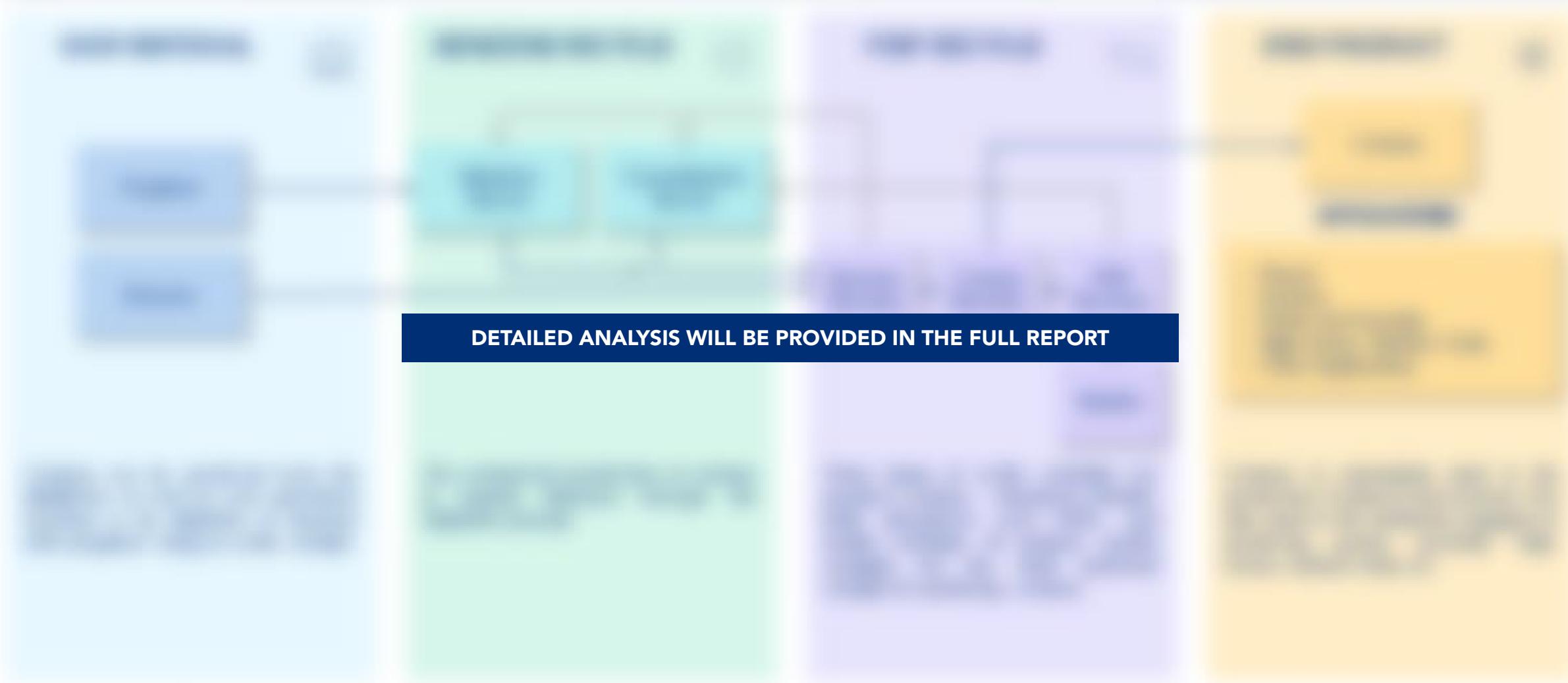
DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT





# SUPPLY CHAIN ANALYSIS

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DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT





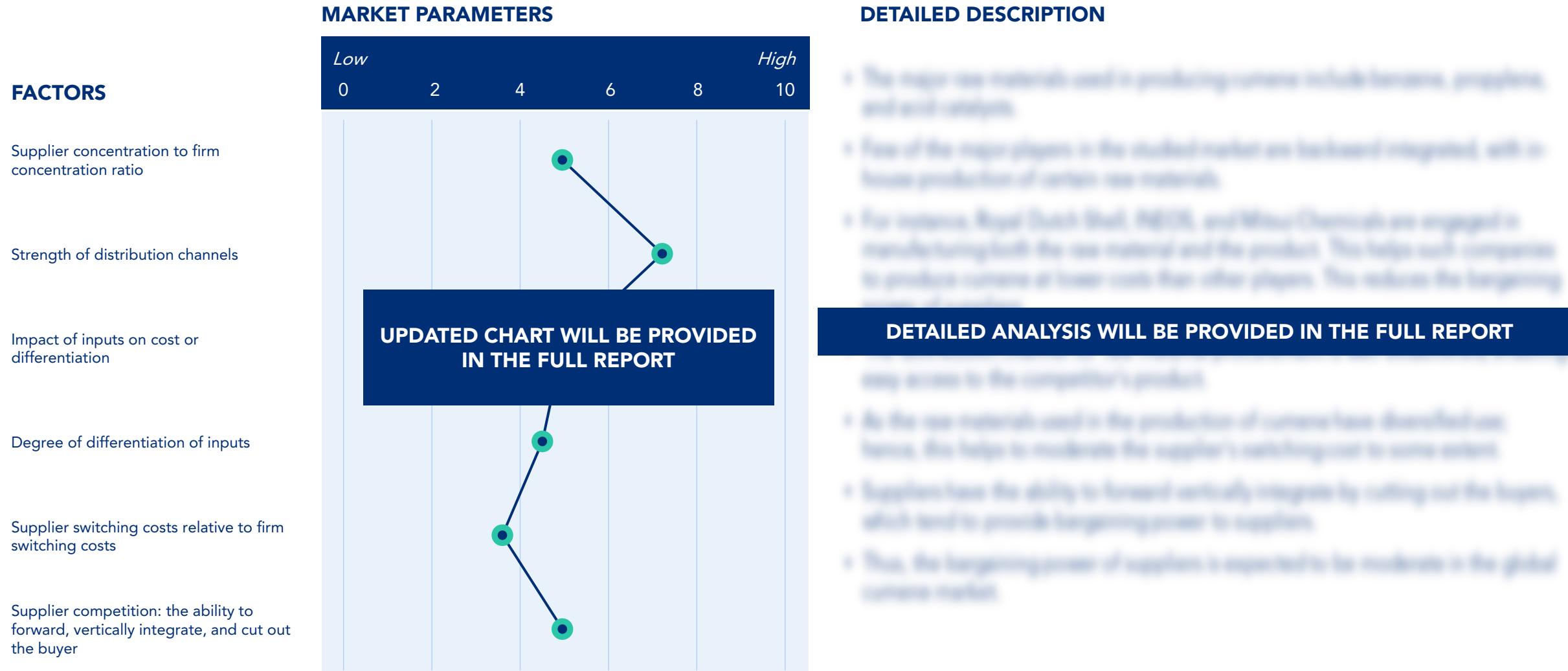
# PORTR'S FIVE FORCES ANALYSIS



- The bargaining power of suppliers is expected to be \_\_\_\_\_ in the market studied.
- The bargaining power of buyers is expected to be \_\_\_\_\_ in the market studied.
- The threat of new entrants is expected to be \_\_\_\_\_ over the forecast period.
- The threat of substitute products and services is likely to be \_\_\_\_\_ over the forecast period.  
**DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT**



# BARGAINING POWER OF SUPPLIERS



Source: Mordor Intelligence





## 2.4 SAMPLE - MARKET SEGMENTATION

### 5 MARKET SEGMENTATION

#### 5.1 Containment Type

5.1.1 Moss

5.1.2 Membrane

#### 5.2 Propulsion Type

5.2.1 Steam Turbines

5.2.2 Dual Fuel Diesel Engine/Tri-Fuel Diesel Engine  
(DFDE/TFDE)

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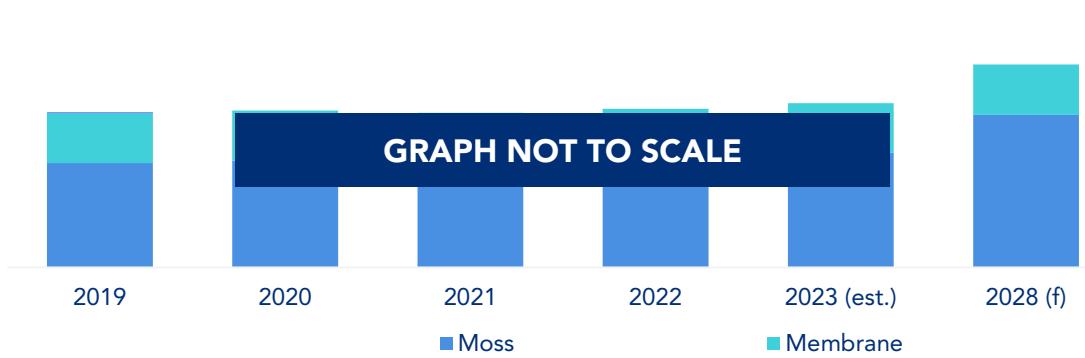




# CONTAINMENT TYPE

LNG CARRIER MARKET, SIZE AND DEMAND FORECAST IN USD BILLION,  
BY CONTAINMENT TYPE, GLOBAL, 2019-2028

CAGR (2023-2028): XX%



LNG CARRIER MARKET, REVENUE SHARE (%), BY GEOGRAPHY, GLOBAL,  
2019-2028



DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT

CONTAINMENT TYPE	2019	2021	2022	2023 (est.)	2028 (f)	CAGR % (2023-2028)
Moss	XX	XX	XX	XX	XX	XX%
Membrane	XX	XX	XX	XX	XX	XX%
Total	XX	XX	XX	XX	XX	XX%

Source: Mordor Intelligence

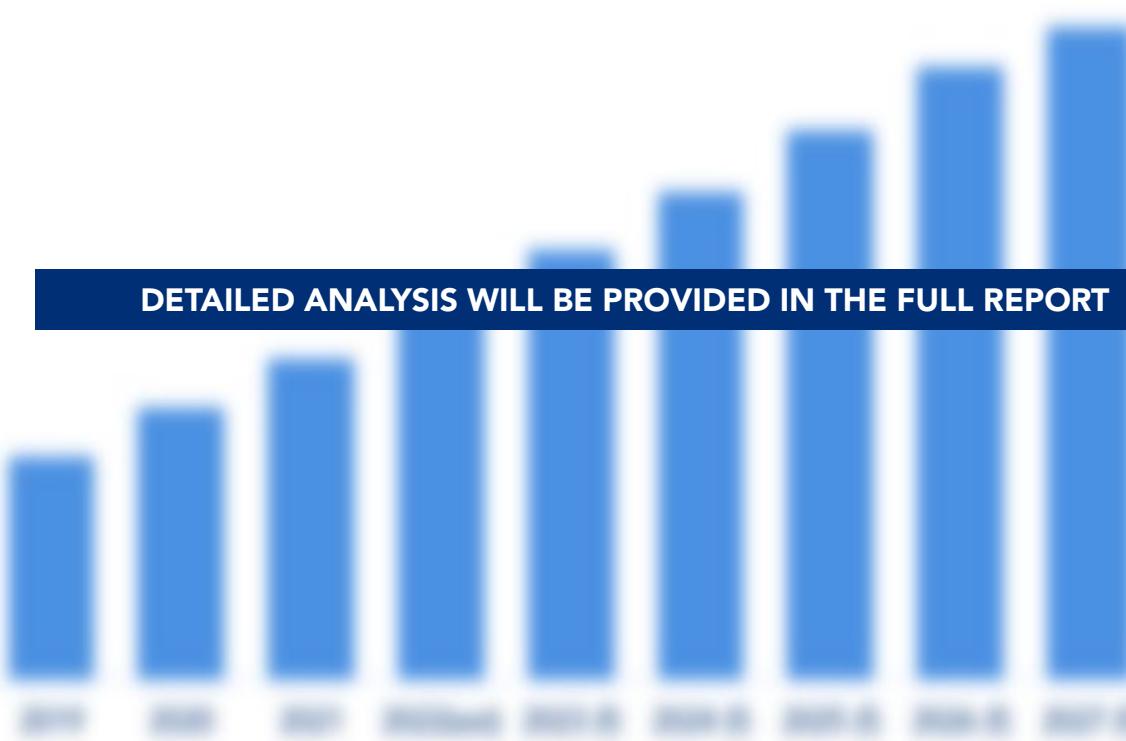




# MEMBRANE

## LNG CARRIER MARKET, REVENUE IN USD BILLION, BY CONTAINMENT TYPE, GLOBAL, 2019-2028

CAGR (2023 TO 2028): XX%



DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT

### BACKGROUND

- Membrane tanks are non-self-supported cargo tanks surrounded by a complete double-hull ship structure. The membrane containment tanks consist of a thin layer of metal (primary barrier), insulation, secondary membrane barrier, and further insulation in sandwich construction. Membrane-type containment systems are further classified into Mark III, GT-96, and CS-1. Some of the major designers of membrane-type cargo tanks include Gaztransport and Technigaz.

### INCREASING DEMAND FOR CONTRACTOR-OWNED FPSO

- The membrane-type segment held the largest market share owing to its higher carrying capacity and other advantages. This containment segment will dominate the global market throughout the forecast period.
- Gaztransport and Technigaz (GTT) designed the most common membrane tank systems. Several GTT systems have been implemented onboard LNG carriers for many years, and other designs from different companies have been developed.
- Moreover, in December 2022, Samsung Heavy Industries (Shi) awarded Gaztransport & Technigaz (GTT) two contracts for the tank design of seven new LNG carrier vessels. The contracts were awarded by a European and an American shipowner. Each LNG vessel will be 174,000m<sup>3</sup> in size. The vessels are expected to be delivered in the first and fourth quarters of 2026 and 2027.
- By 2021, 518 units of the active fleet had a GTT membrane-type containment system, which accounted for 81% of the current fleet count. It continued to lead the order book as the preferred containment option.
- Due to technological advancements, membrane-type containment has a superior capacity to bear the immense pressure of LNG and its compact shape to carry large

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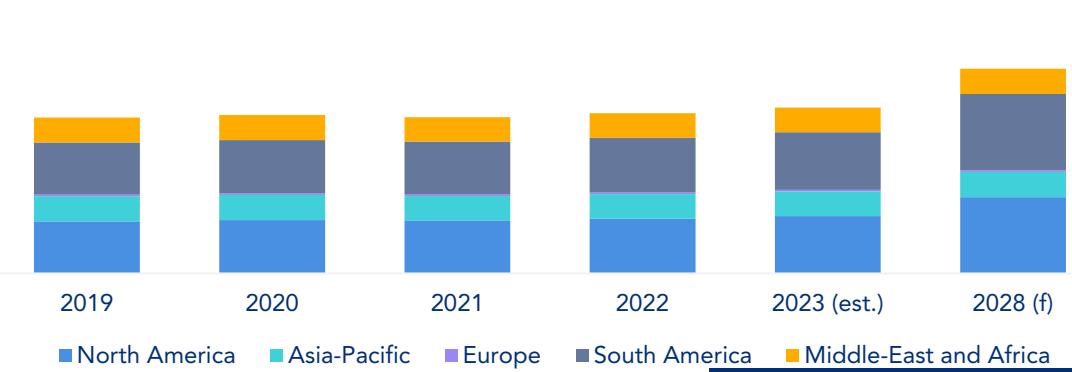




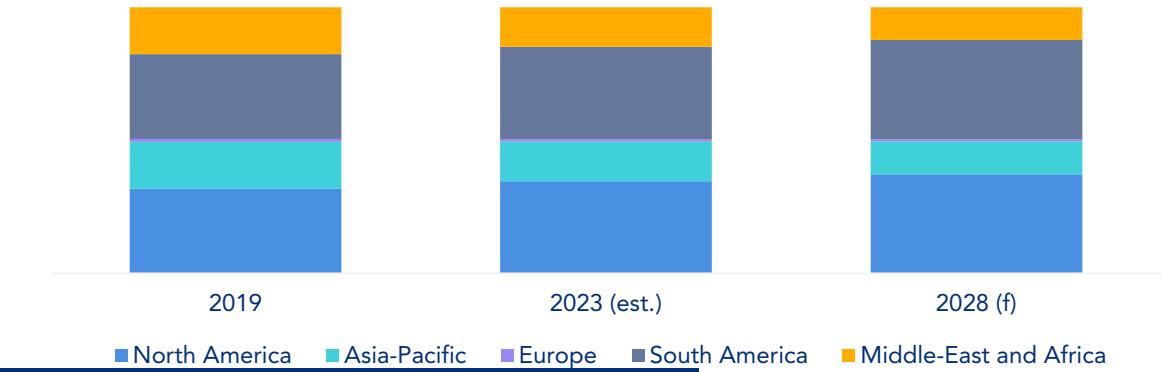
# GEOGRAPHY

## LNG CARRIER MARKET, SIZE AND DEMAND FORECAST IN USD BILLION, BY GEOGRAPHY, GLOBAL, 2019-2028

CAGR (2023 TO 2028): XX%



## LNG CARRIER MARKET, REVENUE SHARE (%), BY GEOGRAPHY, GLOBAL, 2019-2028



DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT

GEOGRAPHY	2019	2020	2021	2022	2023 (est.)	2028 (f)	CAGR % (2023-2028)
North America	XX	XX	XX	XX	XX	XX	XX%
Asia-Pacific	XX	XX	XX	XX	XX	XX	XX%
Europe	XX	XX	XX	XX	XX	XX	XX%
South America	XX	XX	XX	XX	XX	XX	XX%
Middle East and Africa	XX	XX	XX	XX	XX	XX	XX%
<b>Total</b>	<b>XX</b>	<b>XX</b>	<b>XX</b>	<b>XX</b>	<b>XX</b>	<b>XX</b>	<b>XX%</b>

Source: Mordor Intelligence



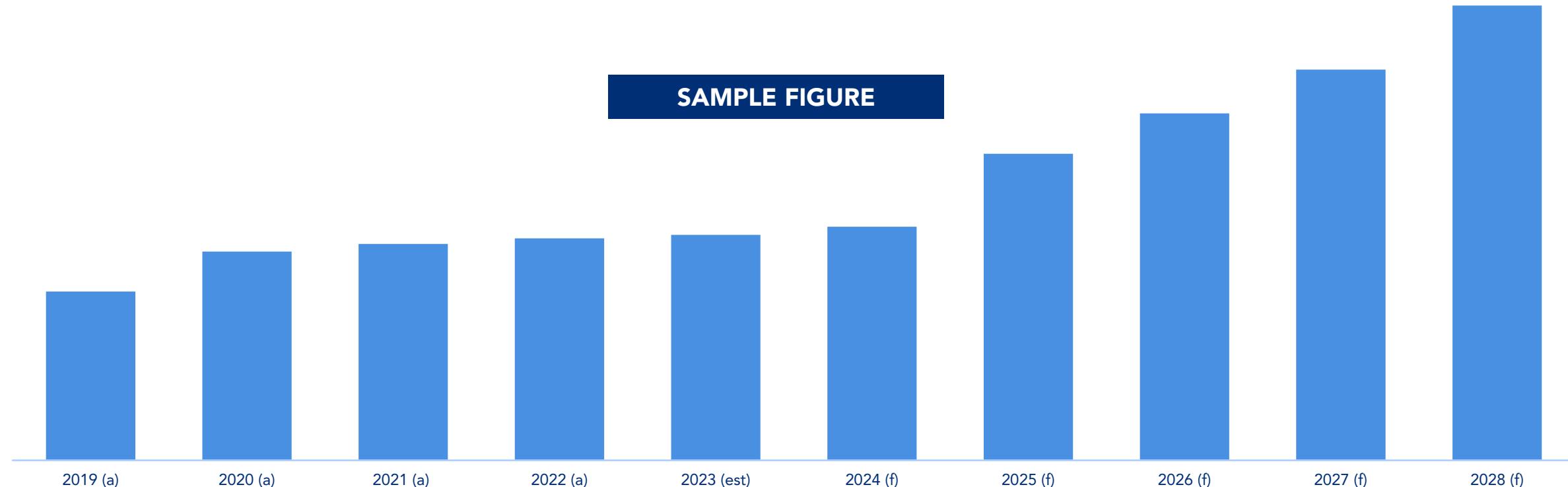


# ASIA-PACIFIC

## LNG CARRIER MARKET, SIZE AND DEMAND FORECAST IN USD BILLION, ASIA-PACIFIC, 2019-2028

CAGR (2023 TO 2028): XX%

SAMPLE FIGURE



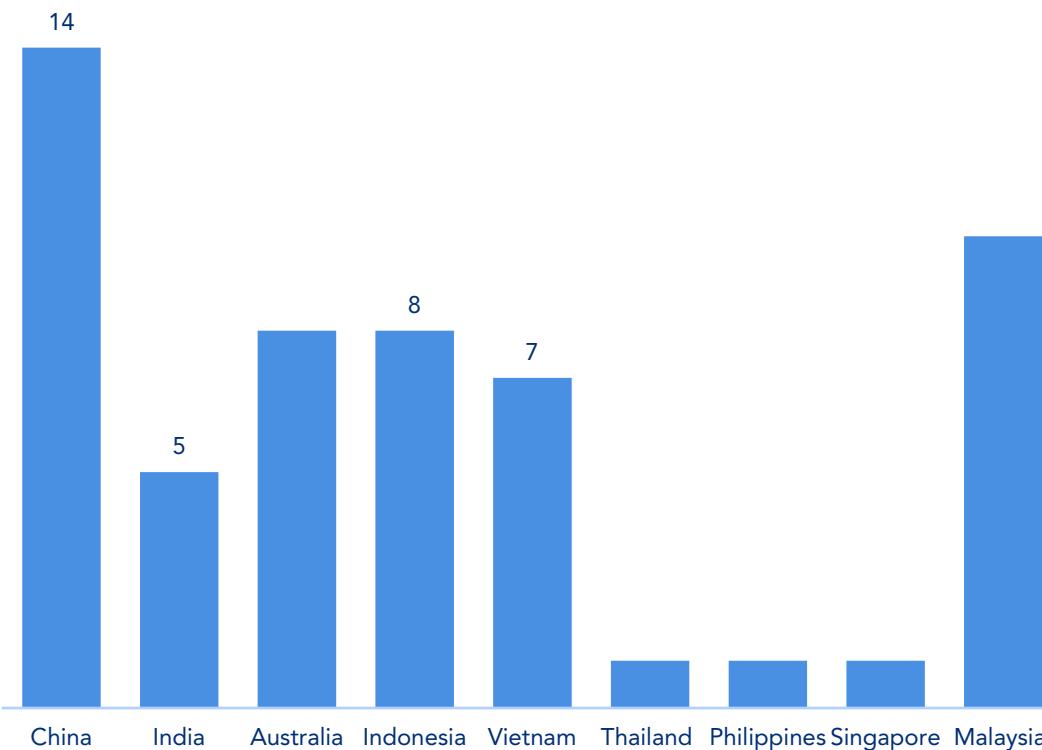
Source: Mordor Intelligence





# ASIA-PACIFIC

## FLOATING PRODUCTION STORAGE AND OFFLOADING (FPSO), IN NUMBER, ASIA-PACIFIC, AS OF DECEMBER 2022



Source: Energy Maritime Associates

### BACKGROUND

- The vast Asia Pacific region – commonly referred to as APAC – is a part of the world defined by its proximity to the Western Pacific Ocean, typically including much of East Asia, South Asia, and Oceania. This uniquely diverse region encompasses Southeast Asia, Greater China, India, Japan, Australia and New Zealand.

### MARKET OVERVIEW

- Asia-Pacific has become "ground zero" for growth in global energy markets. The region's rapid growth drives an enormous rise in oil and liquefied natural gas consumption to fuel booming motorization and industrial development. The energy demand is rising across developing Asia and is shaped by shifting economic and geopolitical factors. The growing energy demand is creating avenues for seaborne oil and gas trade in the Asia-Pacific region, positively impacting the growth of LNG carriers in the forecast period.
- The oil and gas sector is significant in the Asia-Pacific region. Its growth is closely linked to its energy demand; therefore, the need for oil and natural gas is projected to increase, making the sector conducive to foreign direct investment (FDI). Also, India retained its spot as the third-largest consumer of crude oil globally as of 2022.
- As of 2022, China was the world's second-largest consumer of oil and gas and the sixth-largest producer globally. The Chinese energy market is dominated by state-owned oil and gas companies that develop their domestic reserves, build and operate pipelines, and manage and fill their strategic petroleum reserves (SPR). As of December 2022, the FPSO count in China was 14 units, the largest among Asia-Pacific region companies. Owing to the increasing trade of Oil and gas and China's dominance in exporting fuel, the LNG carrier market is expected to see growth in the forecast period.
- Moreover, China has developed new offshore exploration techniques, such as the floating

DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT





## 2.5 SAMPLE - COMPETITIVE LANDSCAPE

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### 6 COMPETITIVE LANDSCAPE

6.1 Mergers and Acquisitions, Joint Ventures, Collaborations, and Agreements

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## 2.5 SAMPLE - COMPETITIVE LANDSCAPE

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### 6.3.2 Ship Operators

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6.3.2.2 Nippon Yusen Kabushiki Kaisha

6.3.2.3 Mitsui OSK Lines Ltd

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6.3.2.9 GasLog Ltd

6.3.2.10 Kawasaki Kisen Kaisha Ltd





# SHELL PLC



[www.shell.com](http://www.shell.com)

## GLOBAL OVERVIEW

Shell plc is a multinational vertically integrated oil and gas conglomerate organization based in the United Kingdom. The company primarily operates in the oil and gas segment. The company was formed by merging The Shell Transport and Trading Company and The Royal Dutch Petroleum Company. The company operates in over 70 countries, including Europe, the Americas, Asia-Pacific, and Africa.

The company is into upstream offshore and onshore exploration and production activities, oil refining, Natural gas processing, petrochemical production, power generation, marketing and transportation, retail outlets, lubricants production, renewables, and energy solutions (previously new energies), and downstream.

**381.3 billion**

Revenue in USD

2022 (All Segments)

Year ended on December 31 , 2022

**~93,000**

Employees

As of December 2022

**1907**

Founded

**London, United Kingdom**

Headquarters

## CORE BUSINESS SEGMENT

INTEGRATED GAS

UPSTREAM

MARKETING

CHEMICALS AND PRODUCTS

RENEWABLES AND ENERGY SOLUTIONS

CORPORATE





# SHELL PLC - MARKET OVERVIEW

## CORE SOLUTIONS AND PRODUCT OFFERINGS

The company is responsible for discovering, drilling, extracting, and producing crude oil, natural gas, and natural gas liquids. It also markets, transports, and operates the infrastructure required to deliver oil and gas to the global market.

## LNG CARRIER MARKET

### MARKET SEGMENT

### COMPANY HIGHLIGHTS

The company manages and operates around 20 LNG carriers across three classes globally. This liquified natural gas (LNG) reduces greenhouse gas emissions by up to 23% compared to conventional fuel, which will help Shell achieve its target of net zero carbon emissions by 2050.

## NATURAL GAS

### COMPANY VERTICAL

### KEY INFORMATION

Shell is one of the world's most extensive LNG shipping operators, from shipping the first commercial LNG cargo in 1964 to managing and operating more than 18 carriers and 65 time-charter. Shell's LNG carriers constitute around 11% of the global LNG shipping fleet.

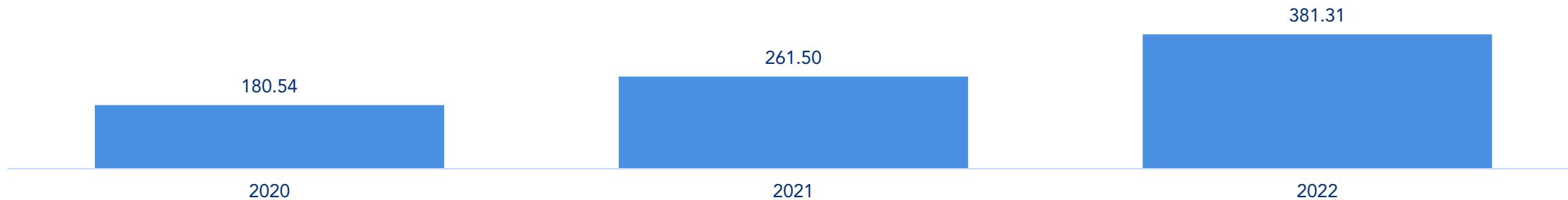
Source: Company website



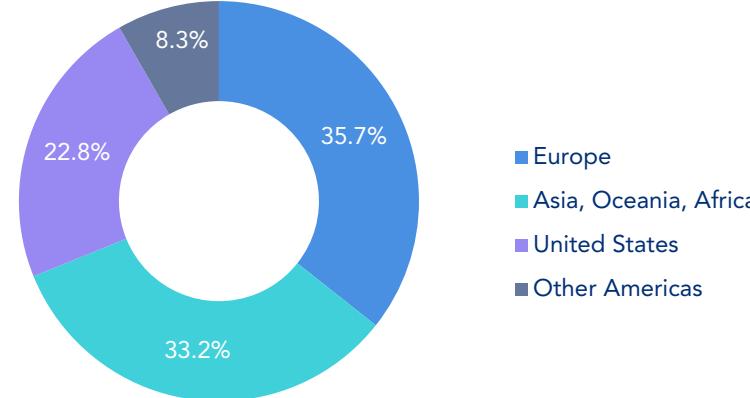


# SHELL PLC – FINANCIALS

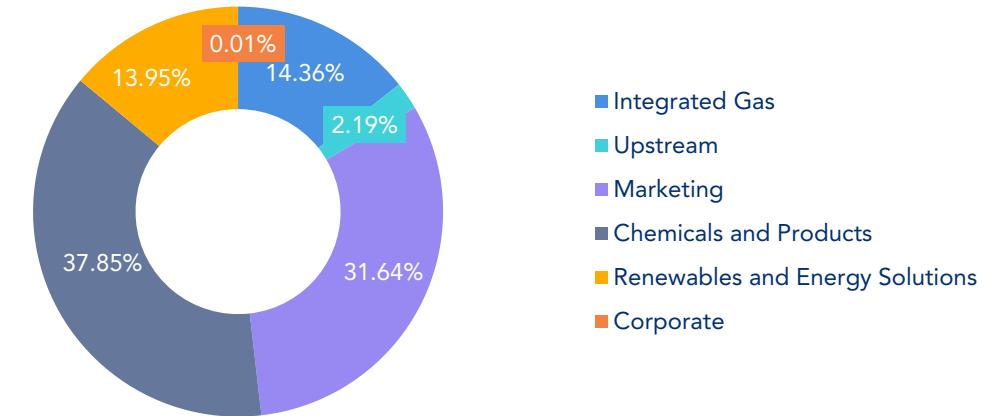
REVENUE, IN USD BILLION, 2020 - 2022



REVENUE BREAKDOWN BY GEOGRAPHY, IN %, 2022



REVENUE BREAKDOWN FROM CONTRACTS, IN %, 2022



Source: Annual Report





# SHELL PLC – RELEVANT PRODUCTS AND SERVICES

SR. NO.	LNG FLEETS	DESCRIPTION
1	M-Class	M-Class vessels can carry 174,000 cbm of LNG. They are twin propulsion vessels fitted with M-type, electronically controlled gas injection (MEGI) engines. The vessels can consume heavy fuel oil, marine gas oil, or natural gas as fuel. They are fitted with both partial reliquefaction systems and sub-coolers.
2	Nakilat Q-Max & Q-Flex	A Q-Max is longer than three football pitches and can carry 266,000 cbm of LNG, while a Q-Flex carries up to 216,000 cbm.
3	NWS-Class	NWS-class LNG carriers are associated with the Northwest Shelf Project in Australia and are managed by Shell Tankers Australia. These vessels typically carry 130,000 cbm of LNG from Australia to customers in Asia.
4	G-Class (LNG)	The G-Class liquified natural gas (LNG) carriers each deliver approx. 130,000 cubic meters of LNG to Shell's customers around the world.

DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT





# SHELL PLC – RELEVANT PRODUCTS AND SERVICES

## LNG CARRIERS



The G-Class liquefied natural gas (LNG) carriers are 130,000cbm Moss Rosenberg vessels, they are steam turbine-powered vessels and are utilized for global trading within the company's infrastructure. The class includes "Gallina."

The Methane-Class are 170,000 cbm membrane vessels that carry liquefied natural gas (LNG). These are twin propulsion vessels fitted with DFDE engines, which can use LNG from the tanks to burn in the ER for propulsion—fitted with a partial reliquefaction system to assist the cargo conditioning. These vessels are trading globally and visit various ports around the world. The class includes "Methane Kari Elin."



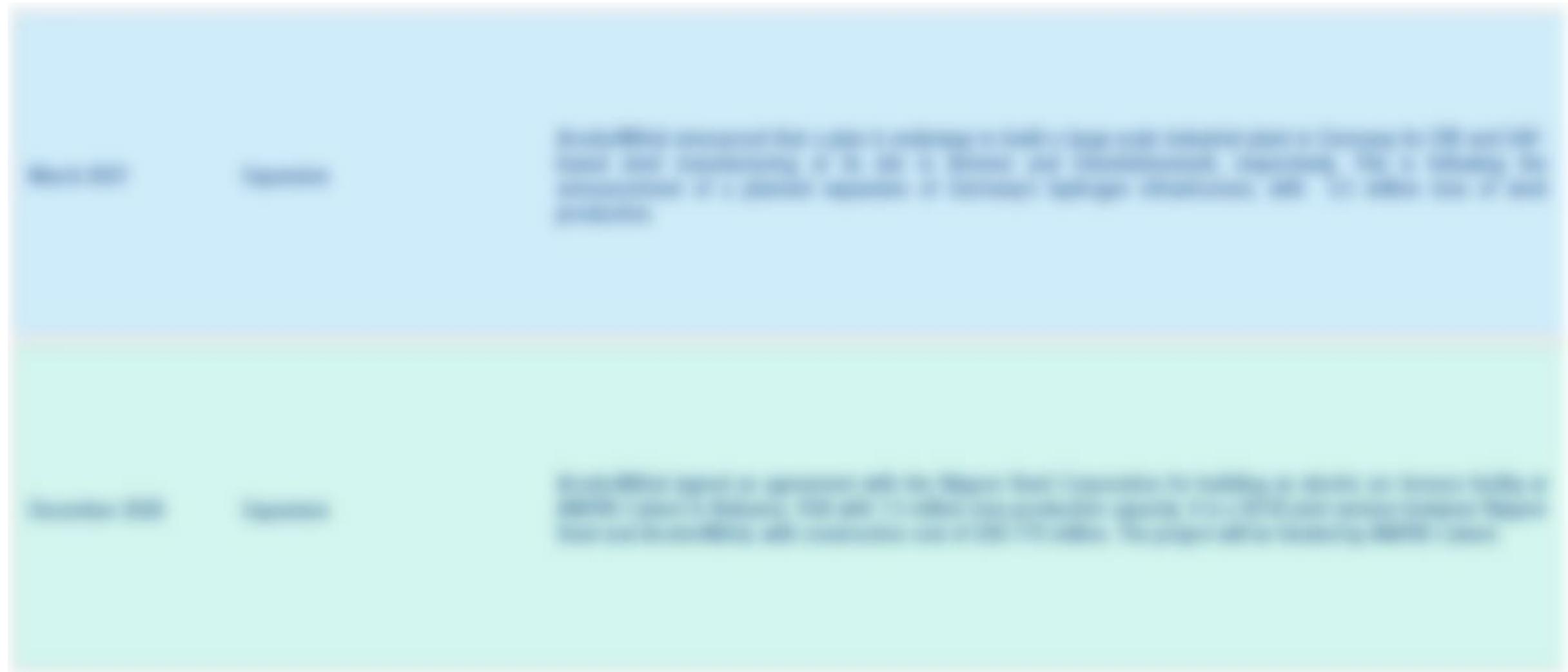
DETAILED ANALYSIS WILL BE PROVIDED IN THE FULL REPORT





## SHELL PLC – RECENT DEVELOPMENTS

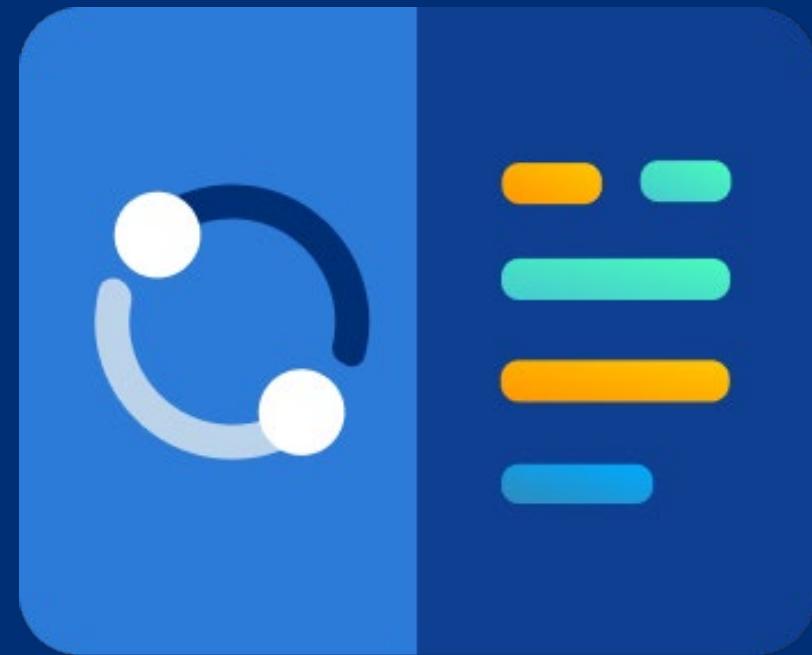
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Source: Company website

## 3 RESEARCH METHODOLOGY

- 3.1 Research Framework
- 3.2 Secondary Research
- 3.3 Primary Research
- 3.4 Data Triangulation & Insight Generation





## 3.1 RESEARCH FRAMEWORK



- Mordor Intelligence (MI) advocates an appropriate mix of secondary and primary research to meet Client objectives.
- MI translates market insights (market dynamics, competition, varying consumer demands, and regulations) into actionable business insights.
- Following phases are practiced at Mordor for efficient delivery of various syndicated and consulting assignments.

### STEP 1 SCOPING/ PROJECT INITIATION



Decipher Client Requirements/ Market to be studied



Tailor made research approach for customized reports



Effective use of Mordor's knowledge repository to gather relevant insights



Confirm the objectives of the assignment with Client

### STEP 2 MARKET ANALYSIS



Extensive desk research to identify most relevant secondary information available



Contact Mordor's empaneled experts and identify industry experts across the market



Conduct primaries & surveys to gather qualitative and quantitative insights

### STEP 3 PROJECT DELIVERY



Triangulate and analyze data to finalize on actionable business insights



Finalize report contents and establish a deliverable format



Report delivery with high quality market insights, competitive landscape etc., as per the proposed contents



## 3.2 SECONDARY RESEARCH

### OBJECTIVE

Hypothesis and insights building; get factual data



#### Shortlisting market intelligence sources

Synthesis of published information



#### Data collection and aggregation

Further validated from expert interviews



#### Insight and hypothesis development

To reach out industry experts for interviews



#### Key contact list

Relevance and credibility of sources

A thorough synthesis of existing publications across the web to gather meaningful insights on the current situation of the market, technology developments, and any other market related information. The sources include, but are not limited to:

- Scientific Papers, Journals and Publications
- Trade information to understand imports, exports, and average traded price of the commodity, if available.
- Industry and Government Websites for blogs, magazines, and other publications
- Conference proceedings and association publications
- Investor presentations, technical brochures, annual reports, press releases, transcripts of key personnel interviews, and other strategic publications by several competitors in the market.
- Product information including technical specifications, approvals, patents etc..
- Public Sources Reports ((BP Statistical Review of World Energy, U.S. Energy Information Administration (EIA), International Energy Agency (IEA), Company annual reports, Investor Presentations, etc..)
- Paid sources (Questel Orbit, Dow Jones, Hoovers, Statista, industry specific subscriptions)





## 3.2 KEY SOURCES USED IN THIS REPORT

---

- World Bank
- UNSTATS
- IMF
- Global Economic Monitor
- WIOD
- COMTRADE
- TRADEMAP
- WTO
- WIPO/EPO
- OECD
- Eurostat
- European Union
- IRENA
- OPEC
- IEA
- BP
- IAEA
- EIA
- D&B Hoovers
- Factiva
- Statista
- International Gas Union
- Energy Maritime Associates





## 3.3 PRIMARY RESEARCH

### OBJECTIVE

Gather first-hand insights on the market studied



#### Expert profile determination

Based on industry, role, experience, and location



#### Expert identification

Using Mordor's empaneled industry experts and new experts



#### Discussion guide

Semi-structured approach to probe and prioritize insights



#### Reach out and interviews

Targeted industry interviews to fill data gaps and validate insights

- At Mordor, we continuously strive to pool in industry experts across the value chain, to gather first-hand insights on the market studied. In addition to this knowledgeable industry veterans or retired experts, consultants and freelancers are a call away to collaborate with Mordor on any assignment which requires real-time industry insights.
- Also, we conduct market surveys to gather qualitative insights and opinion of a group of individuals related to the industry.
- Primary research is used both to validate the data points obtained from secondary research and to fill the data gaps after secondary research.

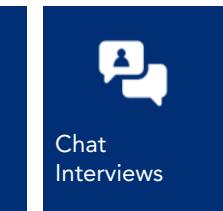
### MODES OF PRIMARY RESEARCH



Telephonic  
Interviews



Email  
Interviews



Chat  
Interviews



Virtual  
Council



Surveys



& Others



## 3.3 PRIMARY RESEARCH APPROACH AND KEY RESPONDENTS

EXECUTIVE LEVEL INTERVIEWS 	OPERATIONAL LEVEL INTERVIEWS 	INDUSTRY/ NEED SPECIFIC INTERVIEWS 	MARKET ECOSYSTEM INTERVIEWS 
<ul style="list-style-type: none"><li>CxOs, owners, founders</li><li>Business unit or country heads</li><li>Directors/VPs of sales and marketing, procurement, strategy, R&amp;D, Product management and other corporate functions as required</li></ul>	<ul style="list-style-type: none"><li>Innovation Manager</li><li>Sales Managers</li><li>Product Managers</li><li>Project Managers</li><li>Pricing Managers</li><li>Regulatory Affairs Managers</li><li>Finance Managers</li></ul>	<ul style="list-style-type: none"><li>Production Managers</li><li>Floor shop Technicians</li><li>Technology Scouts</li><li>Licensing Experts</li><li>Pricing Analysts</li></ul>	<ul style="list-style-type: none"><li>Competitors</li><li>Customers</li><li>End-users</li><li>Agencies/Distributors/Resellers</li><li>Retailers</li><li>Suppliers</li><li>Existing or Potential Partners</li><li>Employees</li><li>Regulatory Agencies</li><li>Industry Associations</li><li>Consultants</li></ul>
<b>SPREAD OF INTERVIEWS</b>	Interviews spread across regions based on regional share in the overall market	<b>BLIND/ OPEN INTERVIEWS</b>	Blind interviews without revealing the sponsor of this study
<b>RESPONDENTS</b>	Multiple interviews covering varying profiles of experts across the entire market value chain	<b>INPUTS COLLECTED</b>	Raw data and intelligence, Insights into market dynamics, Market model and other data validations, Strategy related inputs





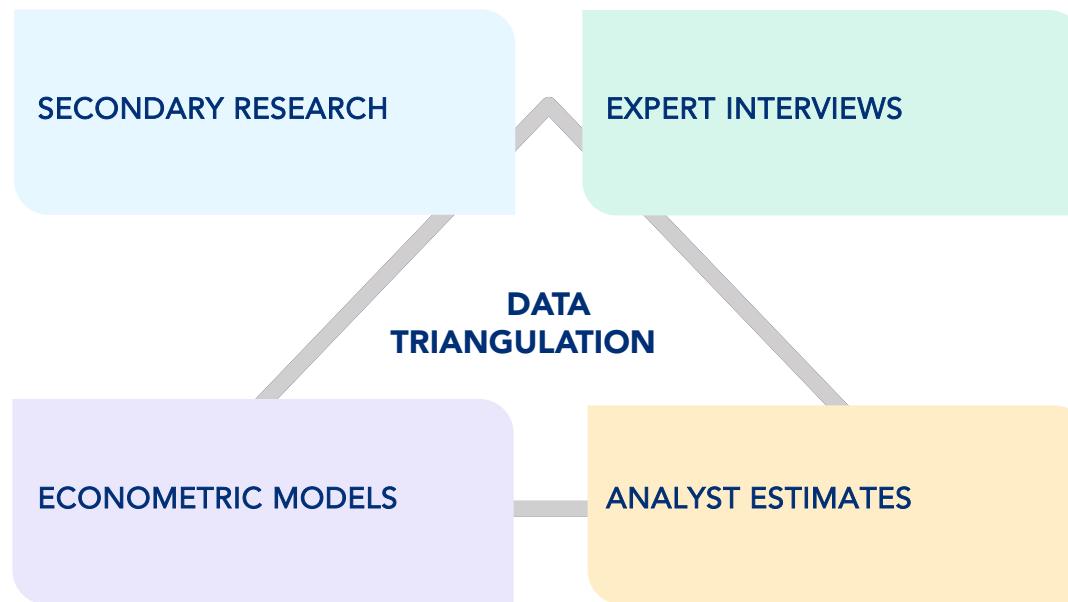
## 3.4 DATA TRIANGULATION & INSIGHT GENERATION

### OBJECTIVE

Logical checks and sanity of information

### TRIANGULATION AND TRANSFORMATION OF INFORMATION EXTRACTED

Based on the factors identified which are endogenous and exogenous in nature collected during the secondary and primary phases, our in-house subject matter experts transform quantitative data extraction and use them for the inferential purpose.



### VALIDATION FOR MARKET ASSESSMENT ESTIMATES

- The market size estimations are carried out through 'Bottom-up' & 'Top-down' approaches.
- Our top-down and bottom-up approaches are integrated into our 'In-house Model sheets' which are used to generate the market estimates and growth rates (depending upon the historical trends of the respective markets along with the various factors like drivers, restraints and recent developments in the market) of the product segment in the respective country.

### TOP-DOWN APPROACH

Macro view of a larger market filtered down to the target market

Expert interviews

### VALIDATION POINT

Expert interviews

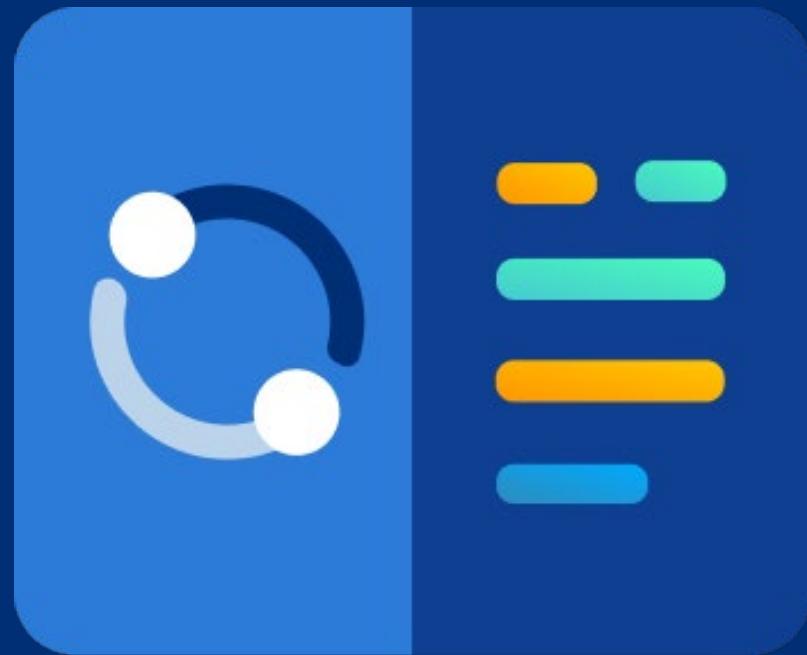
### BOTTOM-UP APPROACH

Revenue analysis leading players consumption centers of or



## 4 CREDENTIALS

### 4.1 Illustrative List of Clients





## 4.1 ILLUSTRATIVE LIST OF CLIENTS

Sumitomo  
Electric Industries



Hyundai MOBIS



General Motors



Zhuhai CosMX  
Battery Co Ltd,



OCEANEERING



Federal Batteries



CASTROL (BP)



EnerSys



ABU DHABI NATIONAL  
OIL COMPANY



TOTAL ENERGIES



Panasonic



Duracell



HALLIBURTON



SIEMENS



EUROPEAN  
COMMISSION



SUMITOMO



SCHNEIDER  
ELECTRIC



EXXON MOBIL



CATERPILLAR



HOWDEN



ROCKWELL  
AUTOMATION



BUREAU VERITAS



ATLAS  
COPCO



GAZPROM



PETRONAS GROUP



WEATHERFORD



VALVOLINE



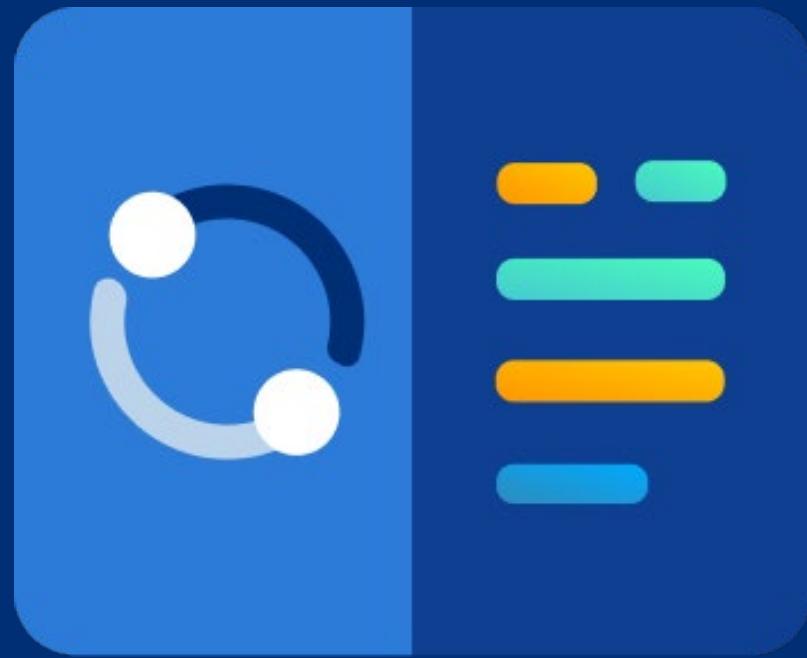
SHELL PLC



## 5 ABOUT US

5.1 Industries Covered

5.2 Our Customized Research Capabilities



# ABOUT US

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[info@mordorintelligence.com](mailto:info@mordorintelligence.com)

[www.mordorintelligence.com](http://www.mordorintelligence.com)



## SNAPSHOT

On-the-ground industry experts in  
**100+ countries**



**3000+**  
Clients served globally



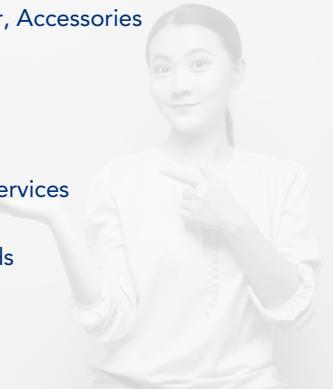
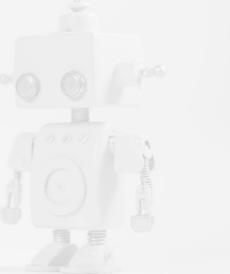
**5000+**  
Projects delivered



**250+**  
In-house analysts



# 5.1 INDUSTRIES COVERED

ICT	CHEMICALS AND MATERIALS	CONSUMER GOODS	PACKAGING
<ul style="list-style-type: none"><li>IoT, Big Data, M2M</li><li>Analytics</li><li>Cloud Computing</li><li>Information Technology</li><li>Data Centers</li><li>Software &amp; Solutions</li><li>Telecommunications</li><li>IT Hardware</li><li>Internet</li><li>Security</li><li>Advanced Technologies</li></ul> 	<ul style="list-style-type: none"><li>Adhesives &amp; Sealants</li><li>Advanced Materials</li><li>Aromatics and Intermediates</li><li>Composites</li><li>Construction Chemicals &amp; Materials</li><li>Metals, Ceramics, Industrial Materials</li><li>Paints &amp; Coatings</li><li>Plastics, Polymers, Elastomers</li><li>Specialty &amp; Fine Chemicals</li><li>Water &amp; Wastewater Treatment</li></ul> 	<ul style="list-style-type: none"><li>Apparel, Footwear, Accessories</li><li>Appliances</li><li>Cosmetics</li><li>Furniture</li><li>Household Care</li><li>Luxury Goods &amp; Services</li><li>Personal Care</li><li>Recreational Goods</li><li>Sports &amp; Fitness</li></ul> 	<ul style="list-style-type: none"><li>Packaging Materials &amp; Types</li><li>Food Packaging</li><li>Beverage Packaging</li><li>Pharmaceutical Packaging</li><li>Household Packaging</li><li>Personal Care Packaging</li><li>Industrial Packaging</li><li>Advanced Packaging</li><li>Country-Level Packaging Industry Analysis</li><li>Packaging Equipment</li></ul> 
ELECTRONICS	ENERGY & POWER	AUTOMATION	HEALTHCARE
<ul style="list-style-type: none"><li>Semiconductors</li><li>Sensors</li><li>Optoelectronics</li><li>Electrical &amp; Electronic Components</li><li>Display Technology</li><li>Security &amp; Surveillance</li><li>Monitoring &amp; Testing Equipment</li></ul> 	<ul style="list-style-type: none"><li>Power</li><li>Oil &amp; Gas</li><li>Renewables</li><li>Energy Efficiency</li><li>Engineering, Procurement and Construction</li></ul> 	<ul style="list-style-type: none"><li>Industrial Automation &amp; Process Control</li><li>Robotics</li><li>Engineering Products &amp; Components</li><li>Building Automation</li><li>Logistics Automation</li></ul> 	<ul style="list-style-type: none"><li>Disease Landscape</li><li>Healthcare IT</li><li>Medical Devices</li><li>Pharmaceuticals</li><li>Biotechnology</li><li>Veterinary Healthcare</li><li>Healthcare Services</li></ul> 

# 5.1 INDUSTRIES COVERED

## AGRICULTURE

- Agricultural Commodities
  - Agricultural Machinery & Tech
  - Crop Protection
  - Fertilizers & Seeds
- 

## FOOD & BEVERAGES

- Food
  - Beverage
  - Processed Food
  - Food Additives & Supplements
  - Food Ingredients
  - Food Service
- 

## AUTOMOTIVE

- Parts and Components
  - Automotive Technology
  - Manufacturing Processes
  - Automotive Materials & Coatings
  - Automotive Services
  - Vehicles
  - Machinery & Equipment
- 

## ANIMAL NUTRITION

- Compound Feed
  - Feed Additives & Premixes
  - Pet Care
  - Pet Food
- 

## AEROSPACE & DEFENSE

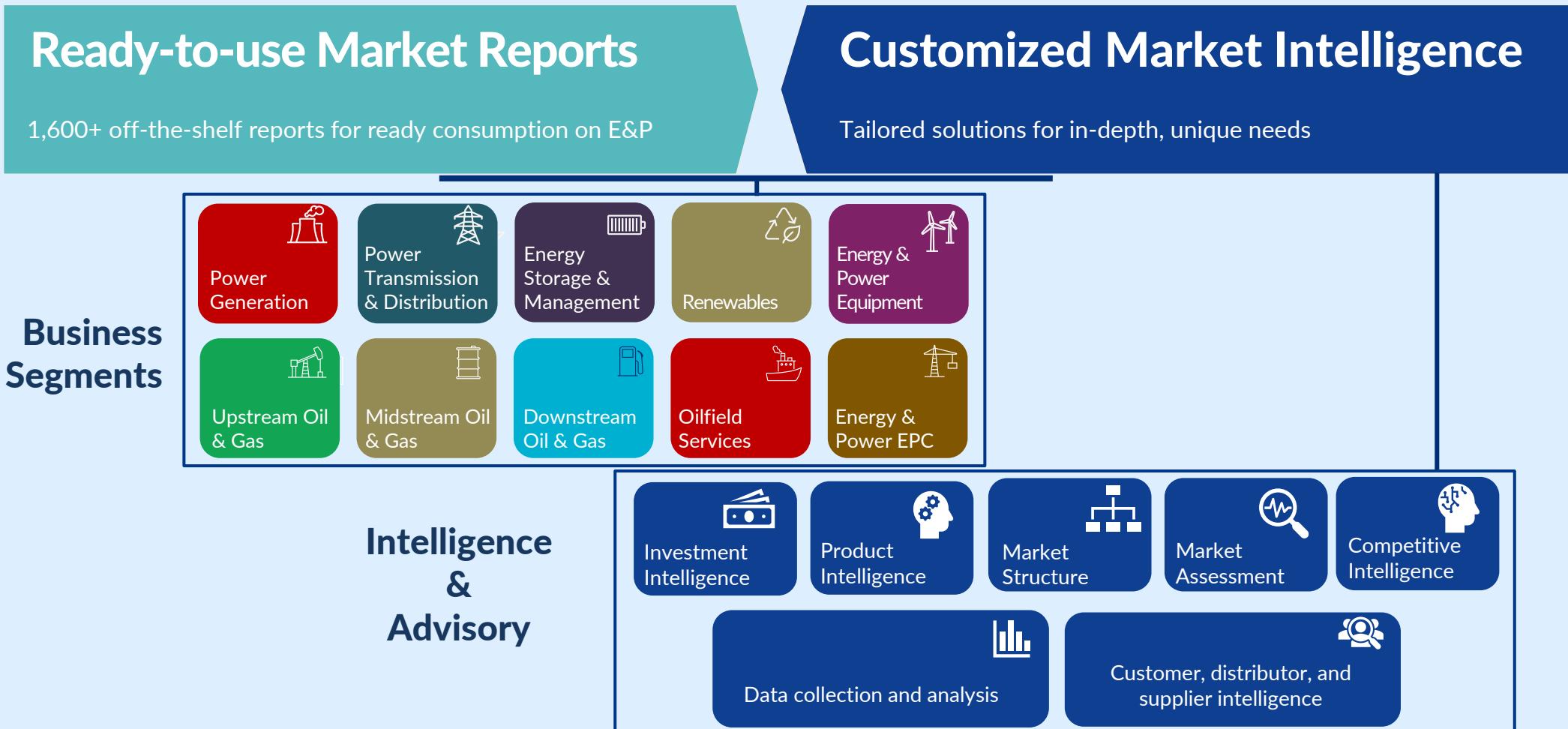
- Defense
  - Airport Operations
  - MRO
  - Technology
- 

## OTHER GROUPS

- Logistics
  - Processing Technologies
  - Finance and Insurance
  - Retail
  - Real Estate and Construction
  - Tourism
- 

## 5.1.1 MARKETS COVERED IN ENERGY & POWER

### Our Energy & Power Solutions



# 5.2 OUR CUSTOMIZED RESEARCH CAPABILITIES

## 7. CUSTOMER, DISTRIBUTOR, SUPPLIER INTELLIGENCE

- Identification of potential partners
- Shortlisting/finalization of potential partners
- Customer need analysis
- Customer's purchase and usage behavior
- Customer/partner feedback and satisfaction\*
- Brand perception analysis\*
- Key Opinion Leader Insights

## 6. PRODUCT INTELLIGENCE SUPPORT

- Import and Export Intelligence\*
- Commodity pricing intelligence\*
- Product pricing intelligence\*
- Product Positioning Assessment
- New product launch tracker\*
- Product claims assessment\*
- Product Concept Testing

## 5. INVESTMENT INTELLIGENCE SUPPORT

- Project feasibility analysis
- R&D and Patent analysis support
- M&A, JV support - Scouting, shortlisting, target assessment



## 1. MARKET STRUCTURE ASSESSMENT

- Macroeconomic analysis
- Value Chain and Supply Chain Analysis
- Regulatory assessment
- Technology scouting and assessment\*
- Sourcing and category intelligence

## 2. MARKET INTELLIGENCE SUPPORT

- Market size and segmentation
- Growth opportunities
- Market dynamics and new developments\*
- Go to Market Strategies

## 3. COMPETITIVE INTELLIGENCE SUPPORT

- Company profiling
- Competition assessment incl. market share
- Drilled down revenue estimations
- Employer value proposition

## 4. DATA COLLECTION AND ANALYSIS SUPPORT

- Data analytics and visualization
- Data collection, manipulation incl. web scraping
- B2B and B2C surveys and interviews

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