MENA Oil and Gas 2023 Webinar presentation

Project market analysis, current trends and future trajectory, challenges and opportunities

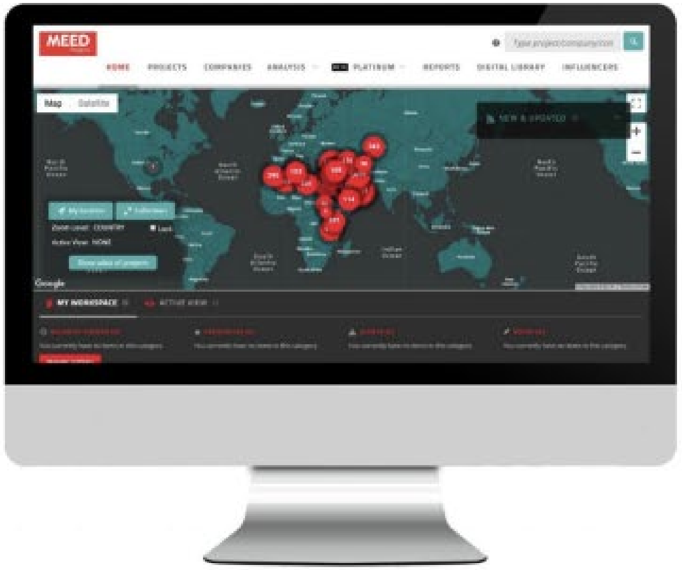
30 August 2023, MEED Webinar

Indrajit Sen, Oil & Gas Editor, MEED
Indrajit.sen@meed.com

Middle East Business Intelligence since 1957

MEED.com

MEED Projects



Content Solutions

MEED
Middle East business intelligence

- Our unique content and data generates highly engaged audiences
- Our team leverage our content expertise and reach to create unique ways for vendors to connect with their target clients
- Our marketing experts help to plan campaigns which target specific companies and individuals in engaging ways
- In print, online or in person we are experts at brand positioning and lead generation

FORMATS

PRINT

DIGITAL

LIVE

EVENTS

CLIENTS

www.meedprojects.com

MENA Oil & Gas 2023 - 24 Report

Report's pre-launch ~~$4,000~~ $3,500

MEED
Middle East business intelligence

Visit buy.meed.com and apply code WEBINAR100 for further -$100 discount*

*The offer is available for webinar attendees only and is valid until 15th September 2023.

MENA Oil & Gas 2023 - 24 Report includes:

- Detailed assessment of the outlook for the oil, gas and petrochemicals projects market in the Middle East and North Africa
- Comprehensive review of 13 oil and gas markets across the Middle East and North Africa
- Outlook for policy and investment in oil, gas and petrochemicals projects across the region
- Projects opportunities with clients and procurement details
- Investment drivers and client spending plans
- Understand risks and set strategy in the Mena oil and gas market

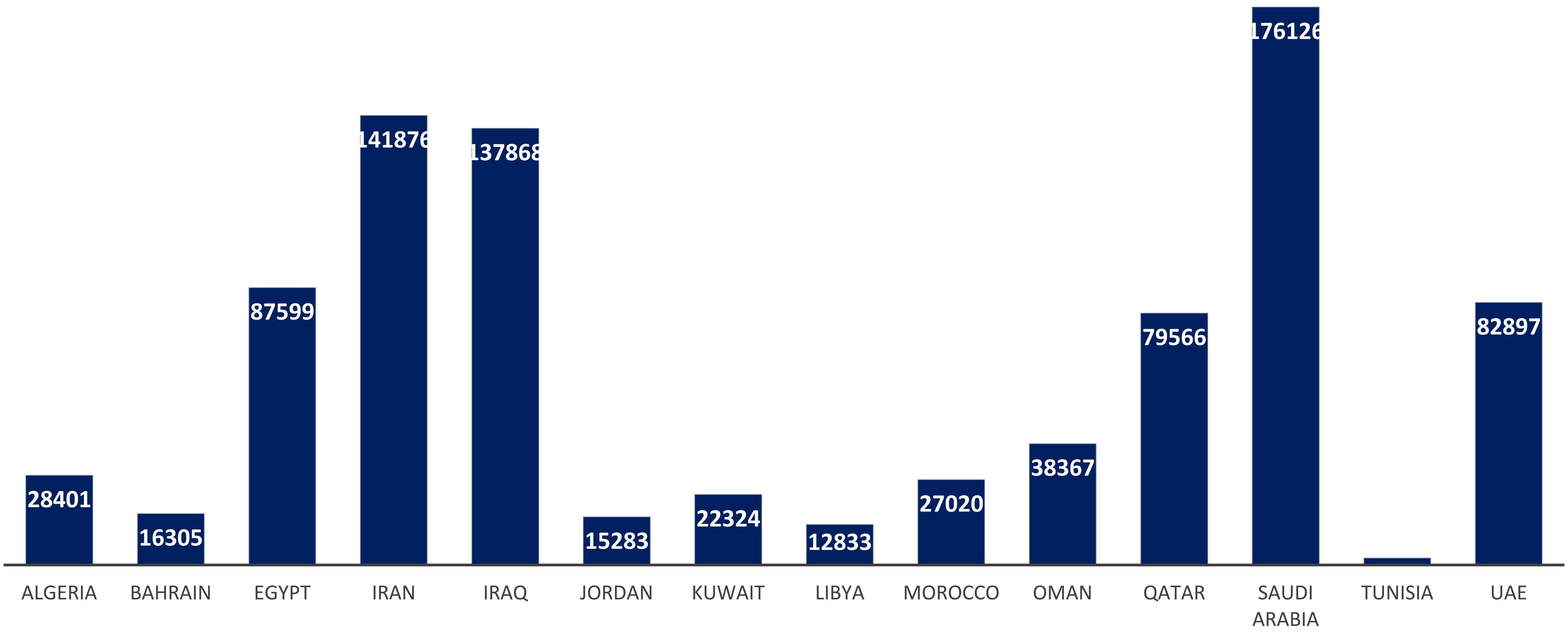
Scan or click the code for more information

Download sample pages to find out more

www.meedprojects.com

MENA oil, gas and chemical projects by value ($m)

Saudi Arabia has the largest share of all active oil, gas and chemical megaprojects, followed by Iran and Iraq. Egypt is the largest market in North Africa. The UAE and Qatar are the second and third largest markets in the GCC, respectively, after the kingdom.

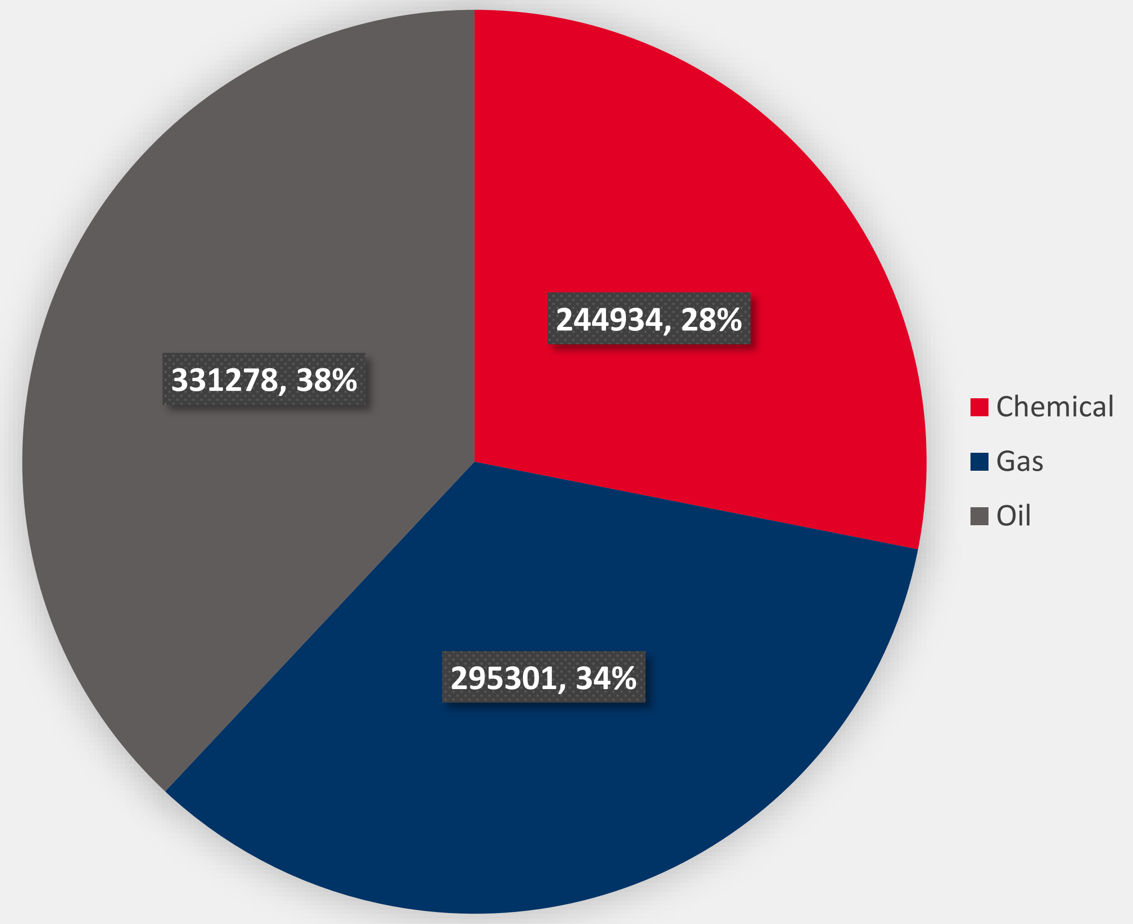


Source: MEED Projects

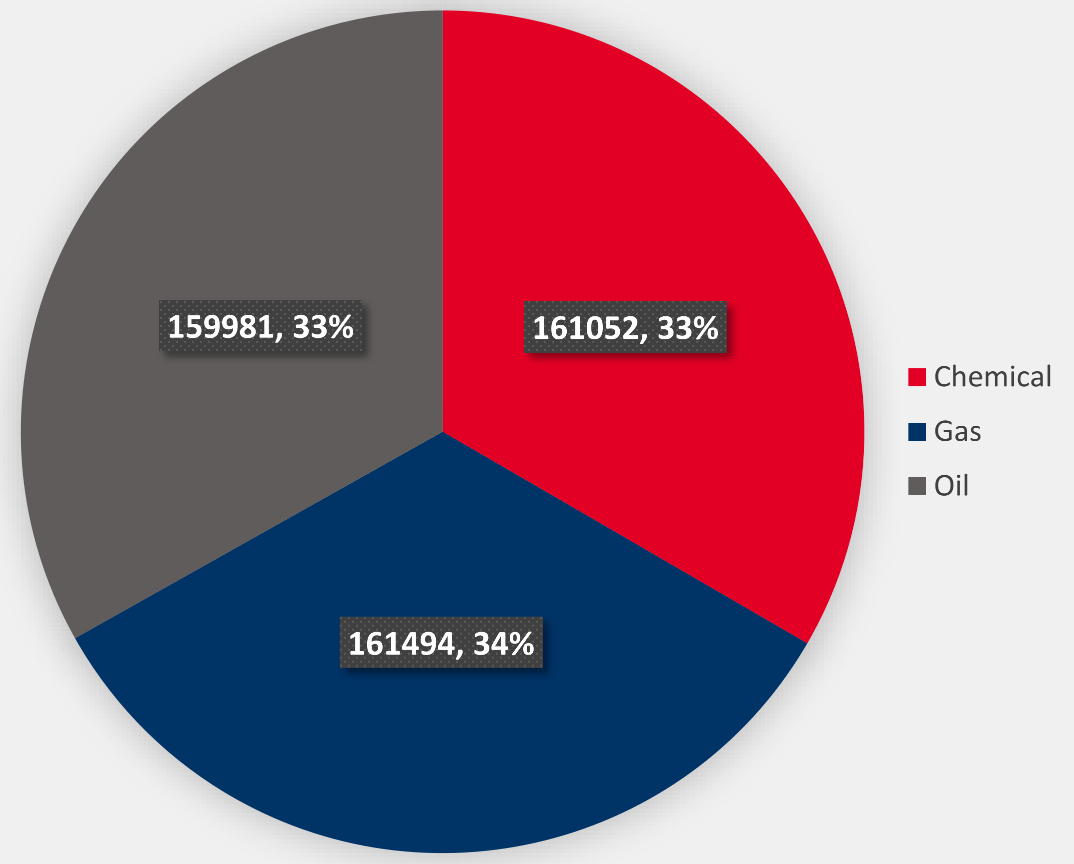
MENA oil, gas and chemical projects in stages

The value of oil projects under execution is considerably larger than projects under execution in the gas and chemical sectors. When it comes to planned projects, the value of gas projects emerges as the largest segment, with chemicals following at second, indicating changing capex trends

MENA oil, gas and chemical projects under execution ($m)



MENA oil, gas and chemical projects in various pre-execution stages ($m)

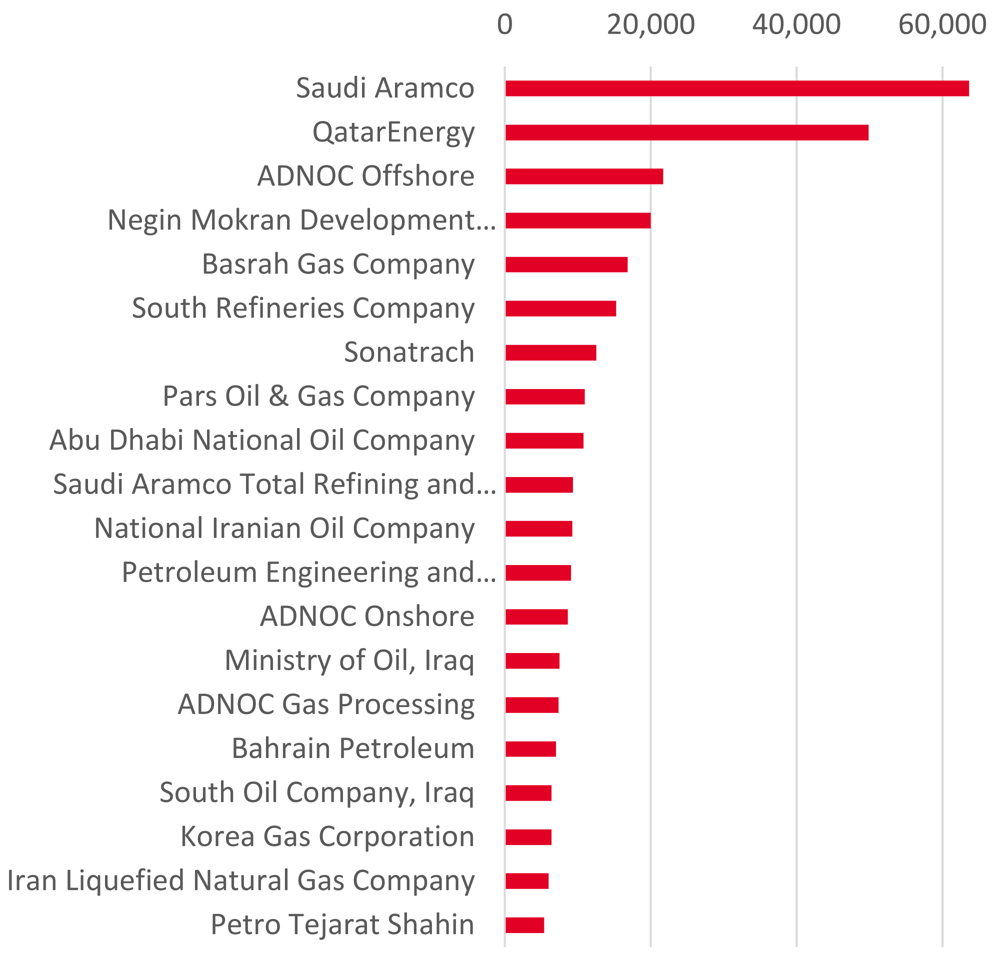


Source: MEED Projects

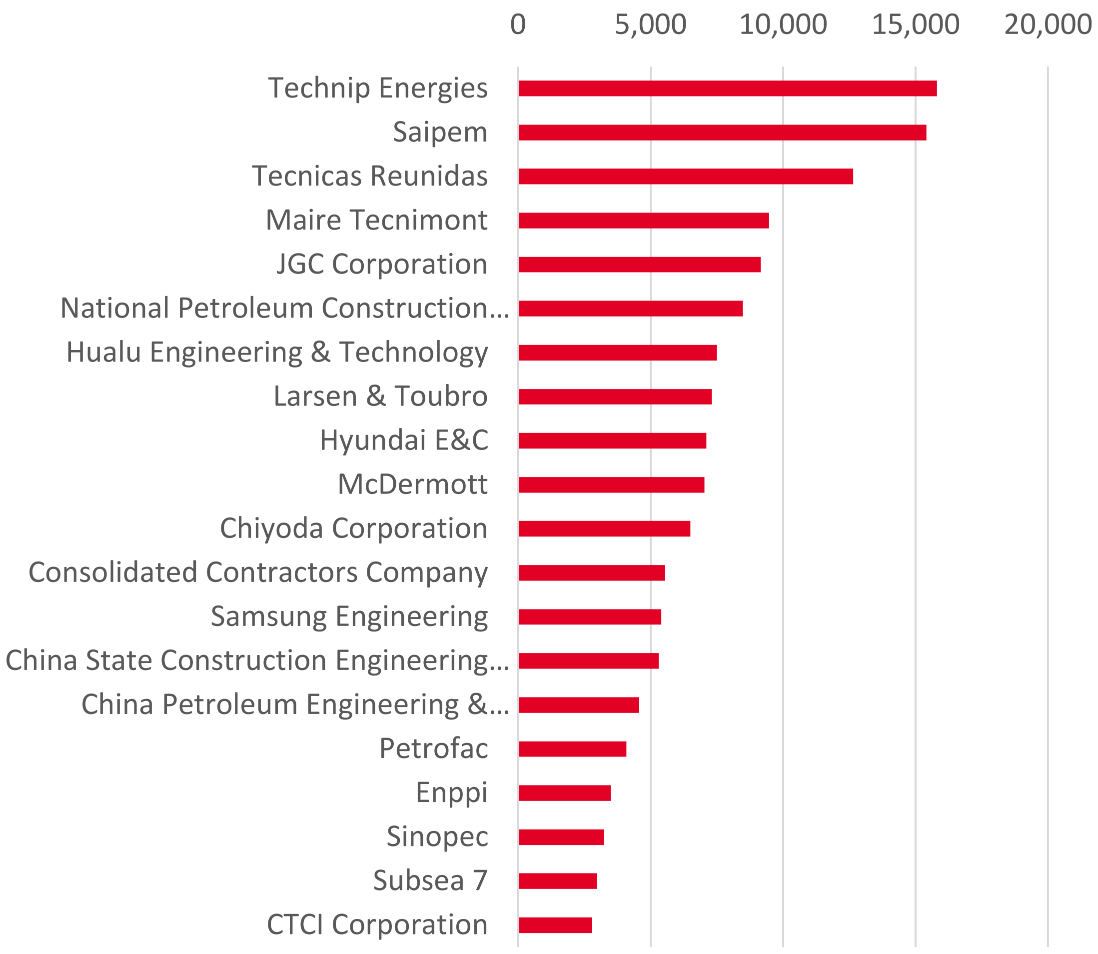
Top project owners and contractors

Top clients led by NOCs with Saudi Aramco unsurprisingly ranked in first position. QatarEnergy in second place owning to its mammoth LNG expansion programme. European contractors continue to dominate regional EPC market, with Japanese and Korean firms making a strong comeback

Top MENA oil, gas and chemical project owners by value of work under execution ($m)



Top MENA oil, gas and chemical contractors by value of work under execution ($m)

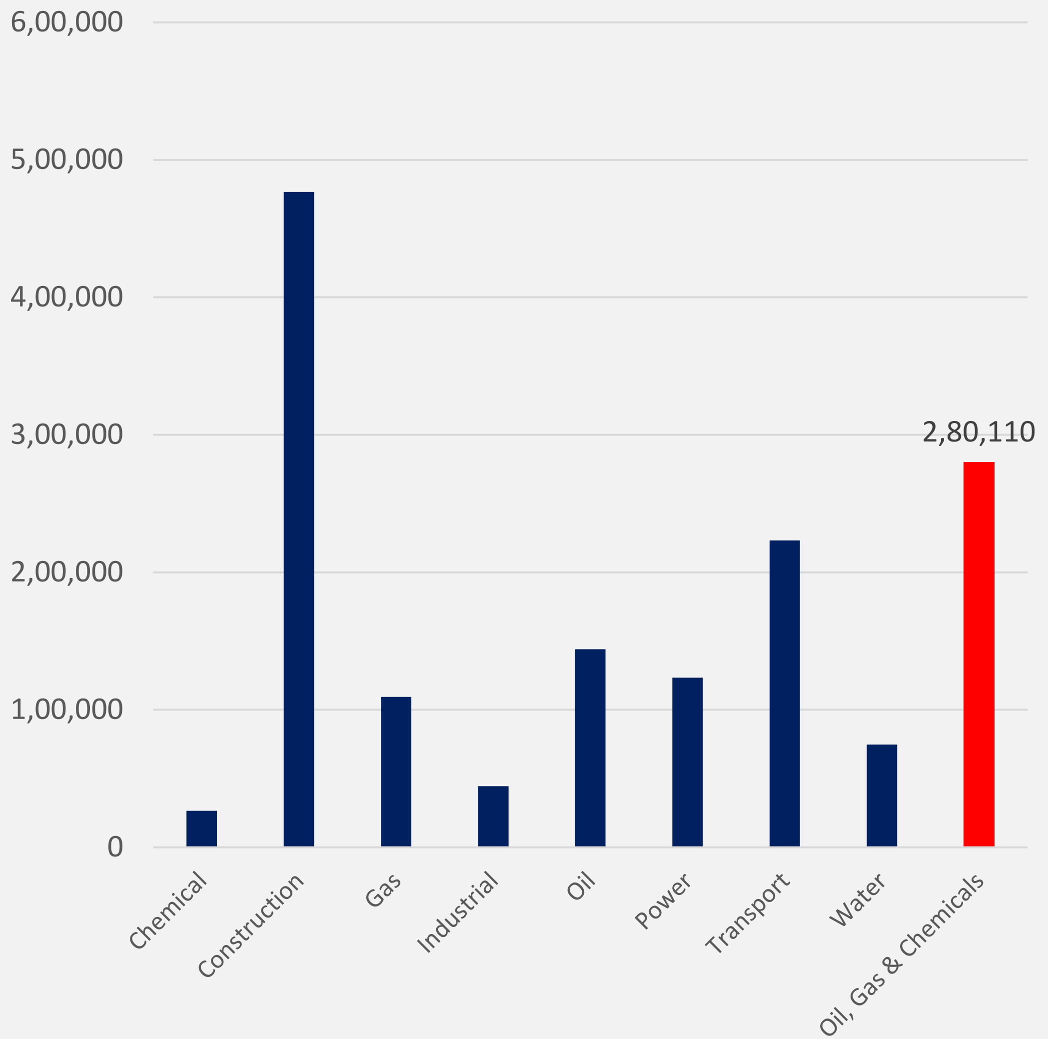


Source: MEED Projects

GCC historical performance

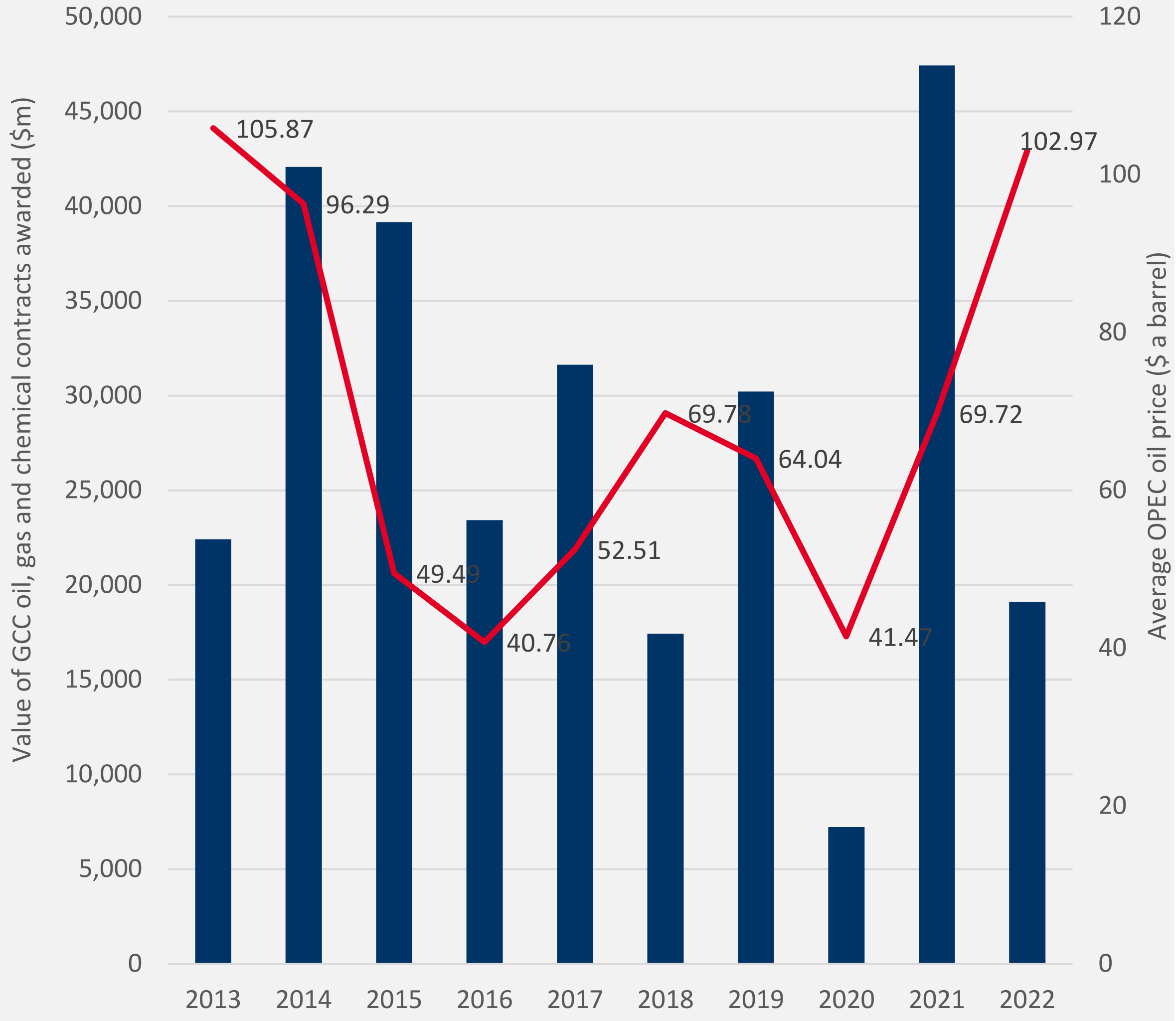
When combined, the oil, gas and petrochemicals market is the second largest sector historically in the GCC. In the past decade there have been more than $280bn worth of contracts awarded in the region, hitting a peak of $47bn in 2021. On an annual basis, the market is highly cyclical. For example, the 2021 record year followed a record low in 2020. Market is not necessarily correlated with the oil price

Value of GCC contracts awarded by sector, 2013-22 ($m)



Source: MEED Projects

Value of GCC oil, gas and petrochemical contracts awarded vs oil price, 2013-22 ($m)



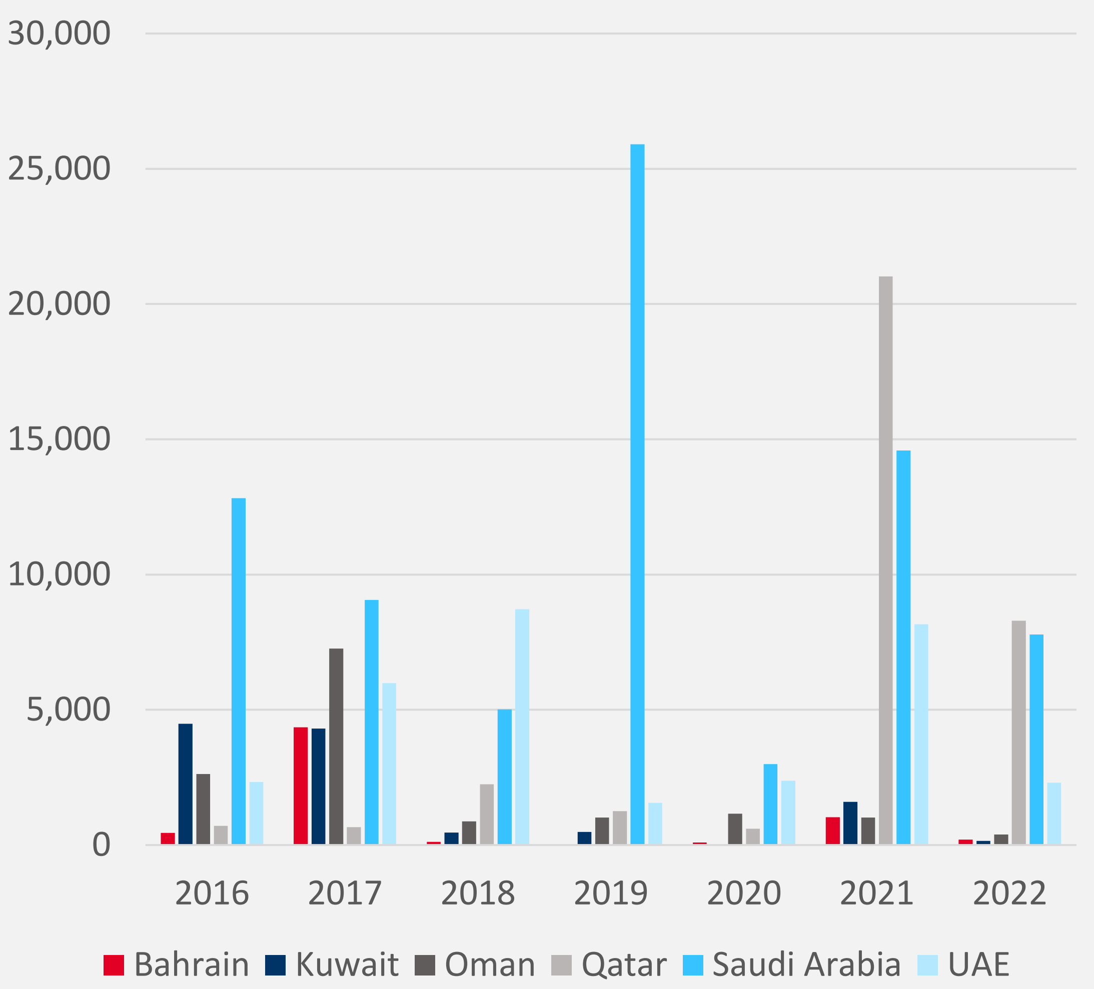
Source: MEED Projects

www.meedprojects.com

Historical Performance

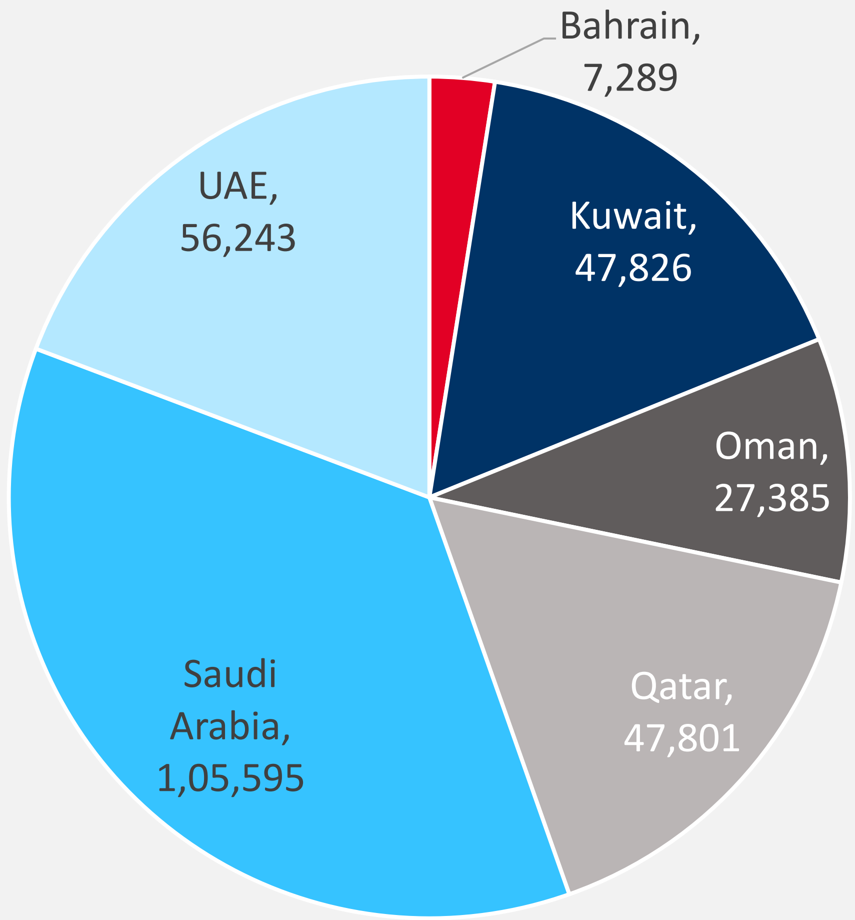
In the past five years, spending has been dominated by Saudi Arabia, the UAE and Qatar, although spending in each is highly cyclical. Kuwait invested more than $40bn in 2013 and 2014 but has spent very little since, while Bahrain and Oman are much smaller markets in comparison

Value of GCC oil, gas and petrochemical contracts awarded by year, 2016-22 ($m)



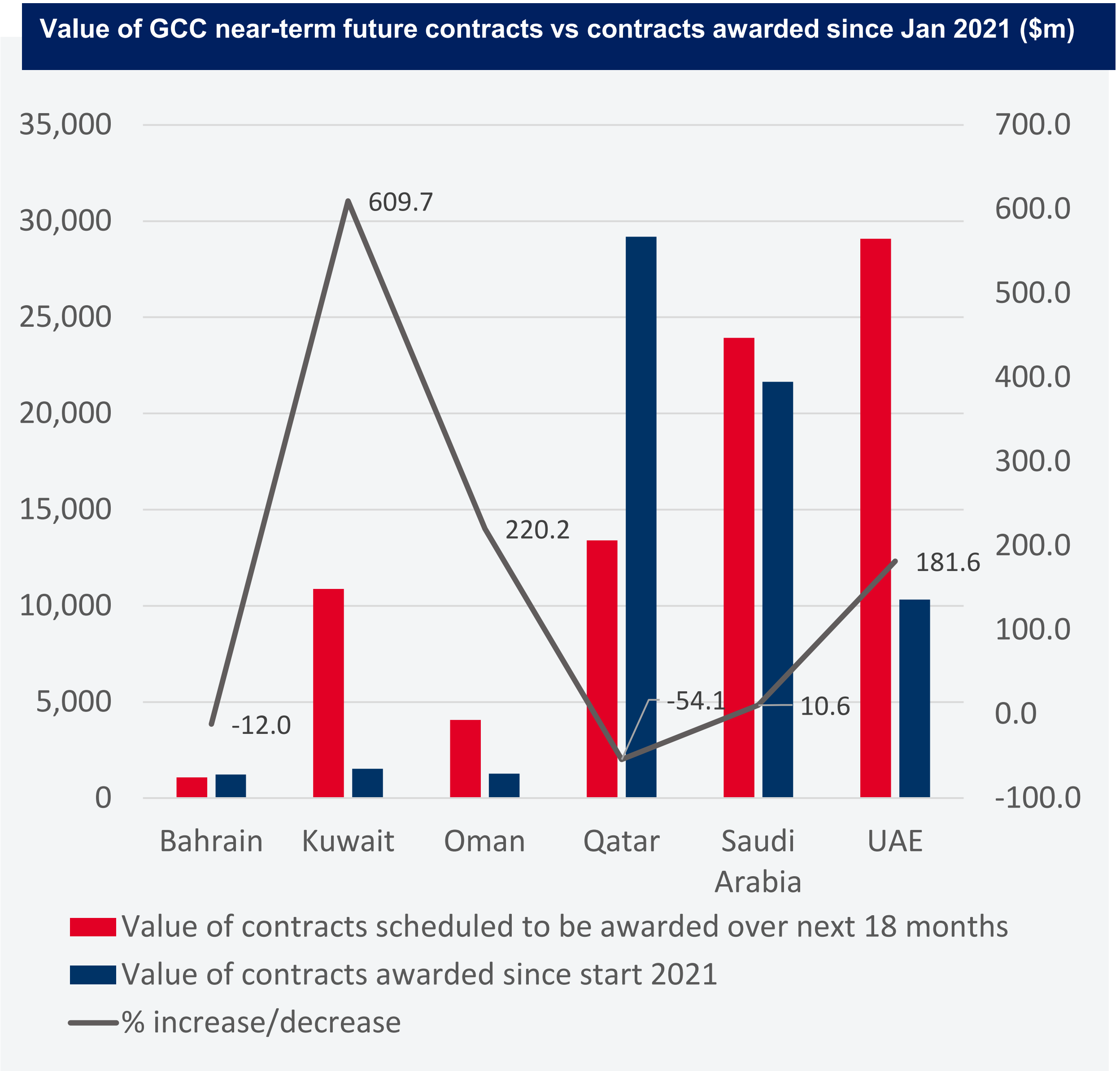
Source: MEED Projects

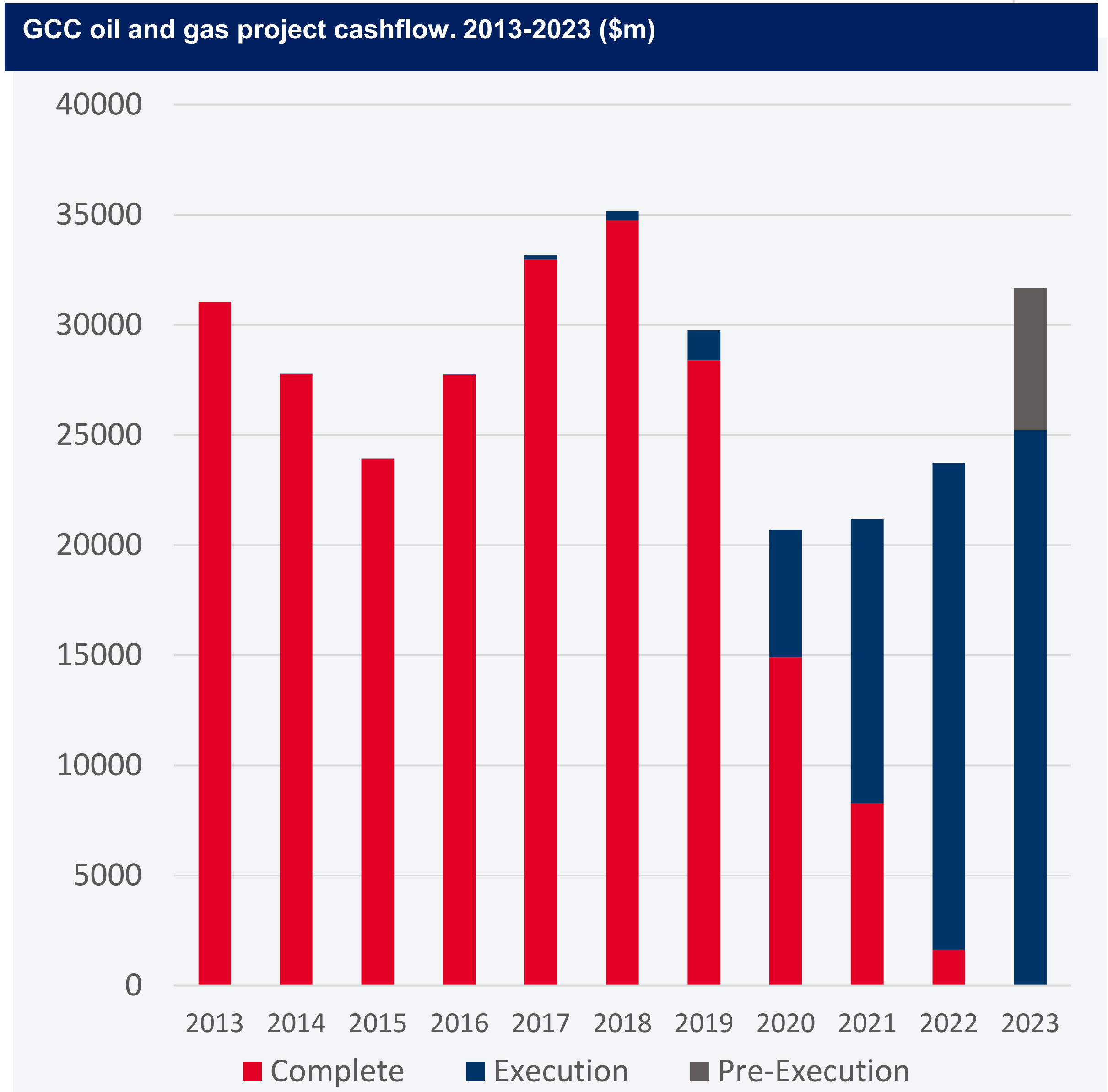
Value of GCC oil, gas and petrochemical contracts awarded by country, 2013-22 ($m)



Source: MEED Projects

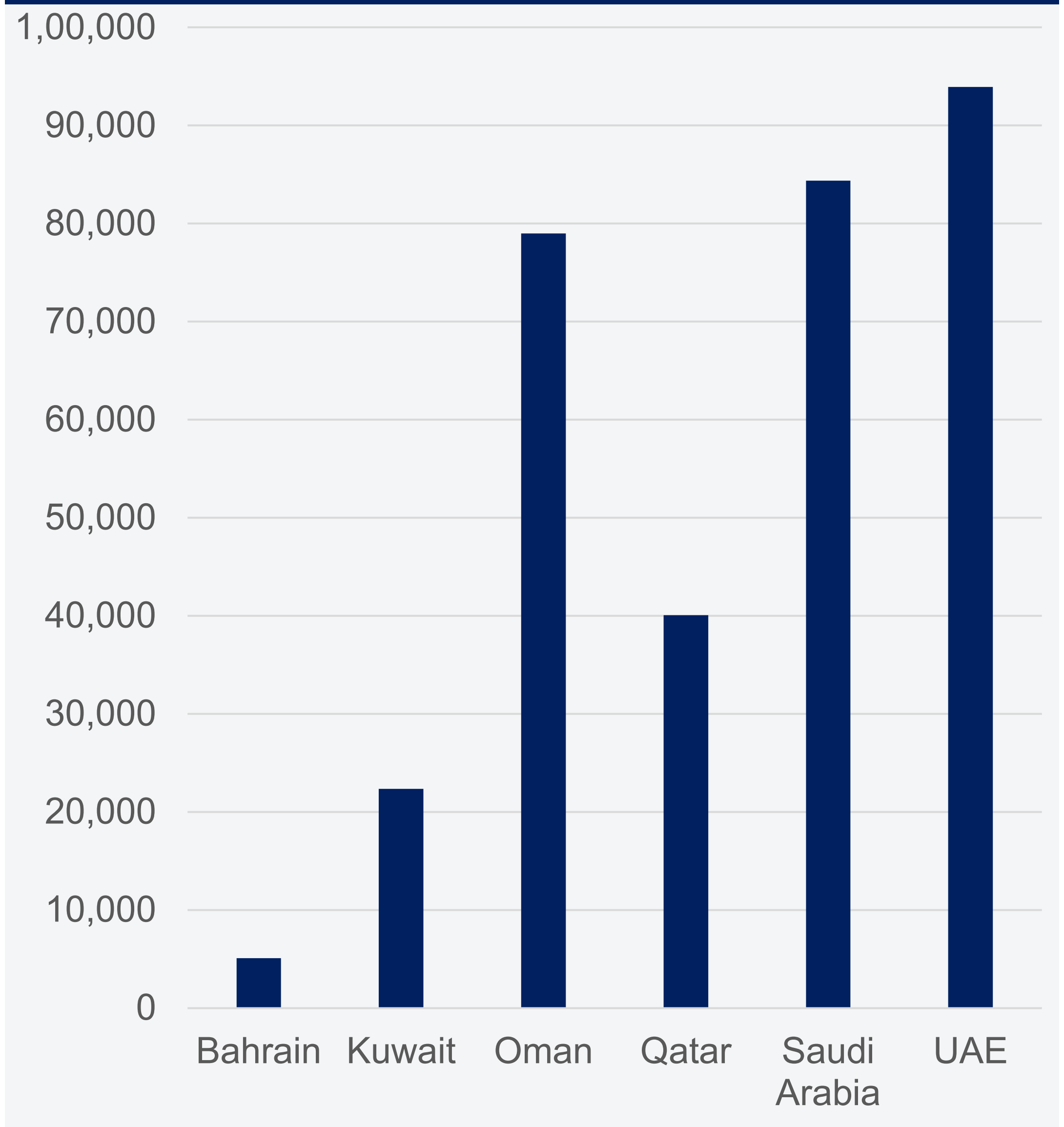
Competing oil and gas spend



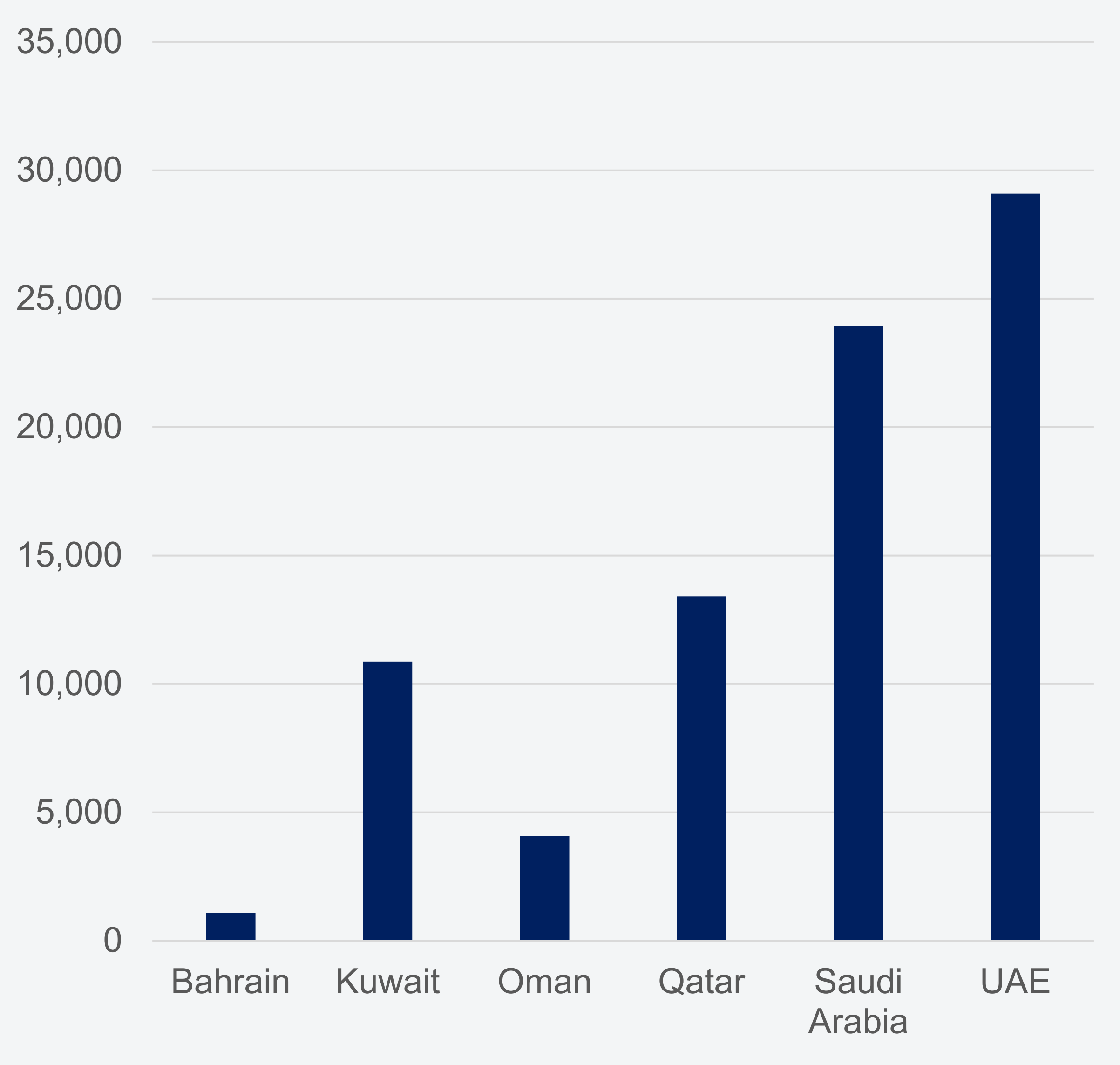


Future spending

Value of GCC known future oil, gas and petchem projects ($m)



Value of GCC known future oil, gas and petrochemical projects expected to be awarded in next 18 months ($m)



Short term future contracts

There are multiple tenders in bid across the region upstream and downstream. The UAE, Iraq and Saudi Arabia have the largest short-term pipeline

Top 20 selected MENA oil, gas and petrochemical projects in bid

Project	Country	Segment	Value ($m)	Project status
ADNOC - Hail and Ghasha Sour Gas Development: Onshore Package	UAE	Gas	5,400	Bid Evaluation
ADNOC - Hail and Ghasha Sour Gas Development: Offshore Package	UAE	Gas	4,900	Bid Evaluation
ADNOC - Fujairah LNG Project	UAE	Gas	4,500	Bid Evaluation
QatarGas - North Field Production Sustainability: Phase 2: Scope D	Qatar	Gas	4,000	Main Contract Bid
Ministry of Oil - Al-Kut Refinery	Iraq	Oil	3,000	Main Contract Bid
MoO - Iraq Strategic Crude Oil Export Pipeline: Najaf - Aqaba Pipeline	Iraq	Oil	2,833	Bid Evaluation
Saudi Aramco - Tail Gas Treatment Desulphurization Project	Saudi Arabia	Gas	2,000	Bid Evaluation
Saudi Aramco - Riyas NGL Fractionation Plant- Processing Plant	Saudi Arabia	Gas	2,000	Bid Evaluation
Saudi Aramco - Zuluf Oil Field: Upgrade of Offshore Infrastructure (CRPO 100)	Saudi Arabia	Oil	1,200	Bid Evaluation
Saudi Aramco - COUR: Jafurah: Utilities & Off-Site Facilities: Phase 2: Pkg 2	Saudi Arabia	Gas	1,000	Bid Evaluation
Saudi Aramco - COUR: Jafurah: Gas Treatment Facility: Phase 2: Package 1	Saudi Arabia	Gas	1,000	Bid Evaluation
Saudi Aramco - Riyas NGL Fractionation Plant: Offsite facilities	Saudi Arabia	Gas	1,000	Bid Evaluation
Marsa LNG - Marsa LNG Terminal	Oman	Gas	1,000	Bid Evaluation
Saudi Aramco - Fadhili Gas Plant Expansion: Gas Processing Plant	Saudi Arabia	Gas	800	Main Contract Bid
Saudi Aramco - Fadhili Gas Plant Expansion: Sulphur Recovery Units	Saudi Arabia	Gas	800	Main Contract Bid
Saudi Aramco - Fadhili Gas Plant Expansion: Utilities and Offsites	Saudi Arabia	Gas	800	Main Contract Bid
Saudi Aramco - Fadhili Gas Plant Expansion: Early Civil Works	Saudi Arabia	Gas	800	Main Contract Bid
Saudi Aramco - COUR: Jafurah: Gas Compression Plant: Phase 2: Pkg 3	Saudi Arabia	Gas	800	Bid Evaluation
MOG - Mellitah Complex Expansion & CO2 Management: Onshore Development	Libya	Gas	700	Main Contract PQ
MOG - Mellitah Complex & CO2 Management A&E Structure: Sealine and Subsea System	Libya	Gas	700	Main Contract PQ

Source: MEED Projects

MEED
Middle East business intelligence

Megaprojects

Megaprojects

MEED defines a 'megaproject' as a project with a total allocated capital expenditure of $1 billion or more. There are more than 230 oil, gas and petrochemical megaprojects in the MENA region either in execution or in different planning stages, as per our data

Top 20 active MENA oil, gas and petrochemical megaprojects

Project	Country	Segment	Value ($m)	Project status
QatarEnergy: North Field East LNG production	Qatar	Oil	21,195	Execution
Saudi Aramco/SABIC: Liquid to chemical programme	Saudi Arabia	Oil	20,000	Study
NMDC: Chabahar petrochemical complex	Iran	Chemical	20,000	Execution
ONHYM/NNPC: Nigeria-Morocco gas pipeline	Morocco	Gas	20,000	FEED
Basrah Gas Company: South Gas utilisation project	Iraq	Gas	17,200	Execution
Saudi Aramco: Marjan oil field development – phases 1 and 2	Saudi Arabia	Oil	15,100	Execution
QatarEnergy: North Field South development	Qatar	Gas	15,000	Execution
Saudi Aramco: Commercialisation of unconventional resources – Jafurah	Saudi Arabia	Gas	13,500	Execution
QatarEnergy: North Field Production Sustainability	Qatar	Gas	12,850	Execution
National Iranian Oil Company: Shahid Ghasem Soleimani refinery	Iran	Oil	11,500	Study
Lukoil/South Oil Company: West Qurna oil field development	Iraq	Oil	11,500	Execution
SATORP: Amiral petrochemicals complex	Saudi Arabia	Chemical	11,000	Execution
Adnoc: Hail and Ghasha sour gas field development	UAE	Gas	10,500	Main contract prequalification
TotalEnergies/QatarEnergy/National Oil Company/Basrah Oil Company: Gas Growth Integrated Project (GGIP)	Iraq	Gas	10,000	Study
Saudi Aramco: Master Gas System expansion – Phase 3	Saudi Arabia	Gas	10,000	Bid evaluation
Ministry of Oil: Al-Faw refinery and petrochemical complex	Iraq	Oil	9,000	Execution
Adnoc Offshore: Upper Zakum oil field production expansion (UZ1000)	UAE	Oil	8,000	Bid evaluation
Ministry of Industry & Minerals: Nebras petrochemical complex	Iraq	Chemical	8,000	Study
Petro Tejarat Shahin Company: Shahid Soleymani Petro-refinery	Iran	Chemical	7,700	Execution
Sonatrach: Bled el-Hadba phosphate plant in Tebessa	Algeria	Chemical	7,000	Study

Source: MEED Projects

Targets

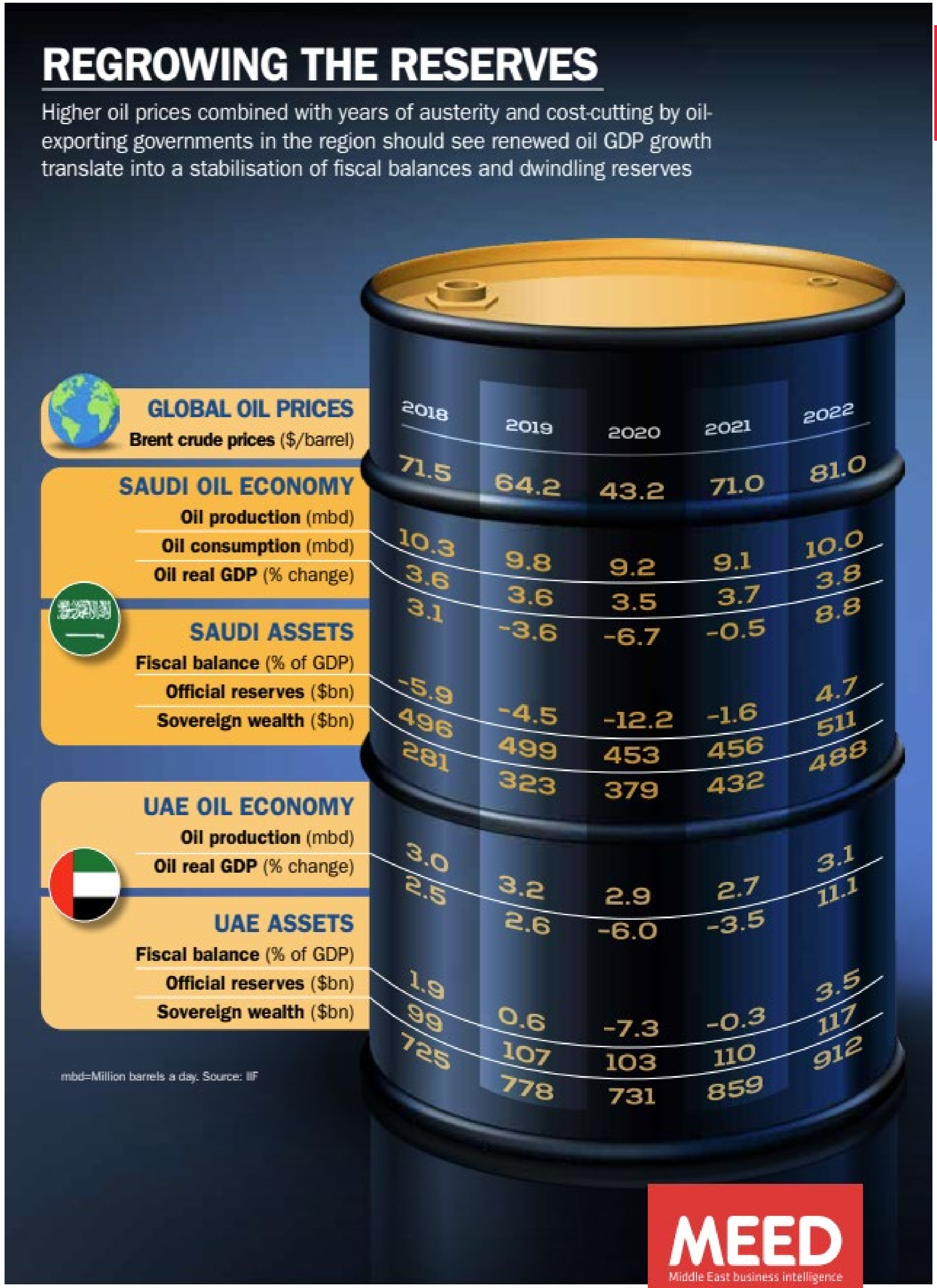
Most GCC states have set themselves production increase targets to meet growing global demand. In some cases, there are estimated to be the maximum each country could sustain as they seek to maintain supply leadership and pricing influence.

In monetary terms, meeting these targets will require total expenditure of well over $300bn, although it is important to note that this make included already committed expenditure on existing projects as well as opex and other costs.

With oil prices at more than $80 a barrel, the region is enjoying budget surpluses to enable the required spending to reach these targets.

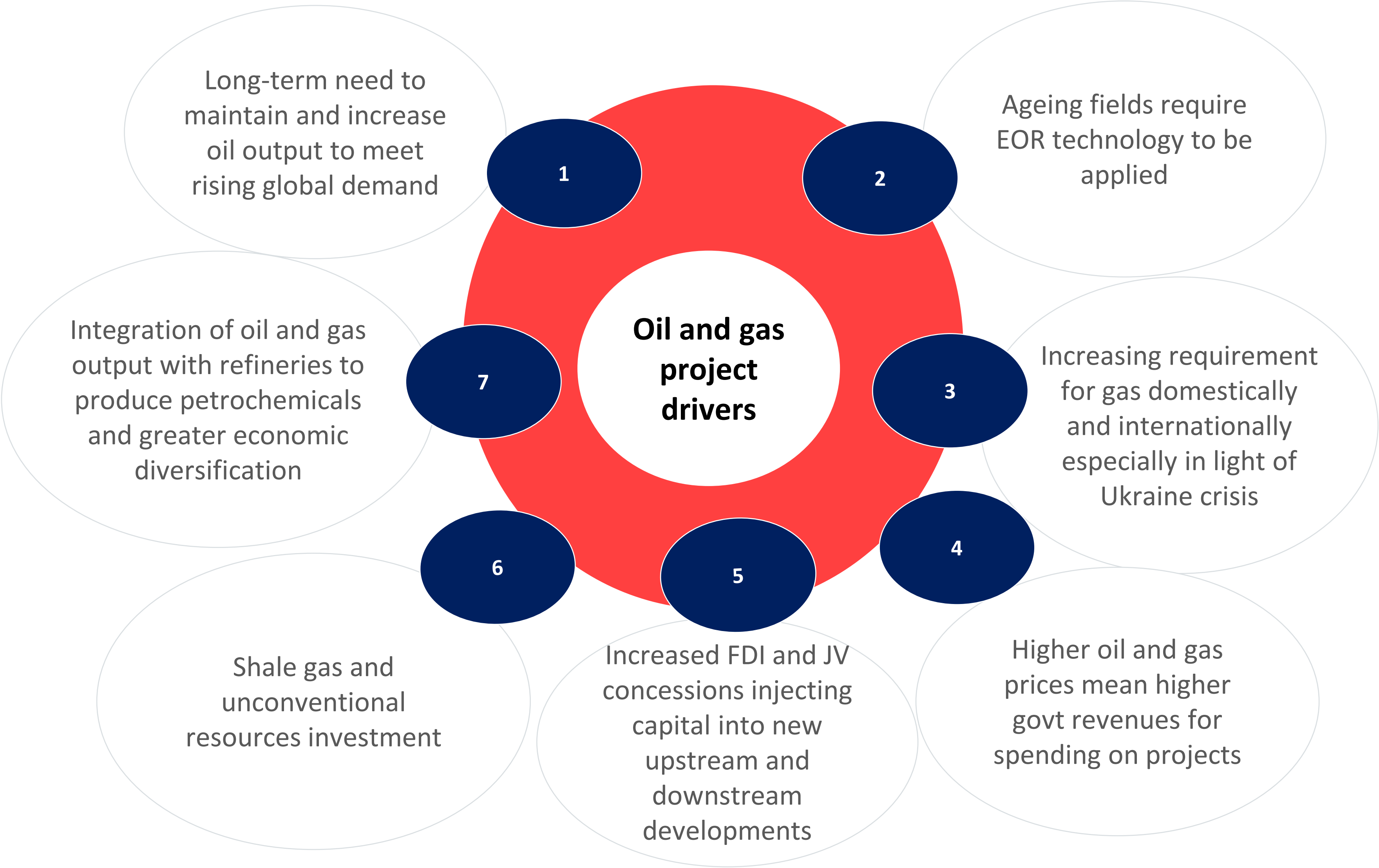
Country	Target Capacity	Current Capacity	Planned Spend
UAE	5 million b/d by 2027	4 milion b/d	$150bn (2022-27)
Saudi Arabia	13 million b/d by 2027	12 million b/d	$40bn-$50bn a year
Kuwait	4.75 million b/d by 2040	2.8 million b/d	$44bn to 2025
Qatar	126 million t/y of LNG by 20327	77.5 million t/y of LNG	$50bn to 2025

Source: MEED



www.meedprojects.com

Market Drivers



QatarEnergy North Field LNG expansion

- QatarEnergy aims to increase its LNG production potential from 77.5 million tonnes a year (t/y) to 126 million t/y by 2027 through its North Field LNG expansion programme, estimated to be valued at $30bn.
- This strategic objective to cement Qatar's spot as the world's top LNG producer and exporter will be achieved in two phases: North Field East and North Field South.
- Launched in 2017, North Field East constitutes the first phase of the North Field LNG expansion project.
- QatarEnergy awarded the main EPC contracts in 2021 for the North Field East project to increase LNG output to 110 million t/y by 2025. The main $13bn EPC package, which covers EPCI of four 8 million t/y-capacity LNG trains, was awarded to a consortium of Japan's Chiyoda Corporation and Technip Energies in February 2021.
- In March 2021, QatarEnergy awarded South Korea's Samsung C&T Corporation the second NFE package, worth $2bn. This will expand the LNG storage and loading facilities in Ras Laffan Industrial City.
- In August 2021, QatarEnergy awarded the third NFE package to Spanish contractor Tecnicas Reunidas. The scope of work on the package covers EPC works to expand the storage and loading facilities for condensates, propane and butane and increase the import facilities for mono-ethylene glycol within Ras Laffan Industrial City.
- A 70:30 joint venture of Tecnicas Reunidas and China's Wison Engineering won the $600m EPC contract for the fourth NFE package in April last year, related to the building of sulphur handling, storage and loading facilities.

Source: MEED; MEED Projects; QatarEnergy

QatarEnergy North Field LNG expansion

- As well as an LNG output of 32 million t/y, North Field East will produce 4,000 tonnes a day (t/d) of ethane as feedstock for future petrochemicals developments, 260,000 barrels a day (b/d) of condensates, 11,000 t/d of liquefied petroleum gas (LPG) and 20 t/d of helium.
- North Field South represents the second phase of the North Field LNG expansion programme. The project's main EPC package involves building two LNG trains, each having a capacity of 7.8 million tonnes a year (t/y), which will increase QatarEnergy's LNG production capacity to 126 million t/y when commissioned in 2028.
- The complex will also consist of associated facilities for gas treatment, natural gas liquids recovery, as well as helium extraction and refining within Ras Laffan Industrial City.
- QatarEnergy awarded a $10bn main EPC contract for the North Field South LNG project, covering two large LNG processing trains, to a consortium of Technip Energies and Lebanon-based Consolidated Contractors Company (CCC) in May this year.
- Tecnicas Reunidas in August won a contract, worth $560m, for executing EPC of off-plot facilities for the North Field South project.
- Tecnicas Reunidas said its scope of work covers the engineering, procurement, construction and commissioning of a range of off-plot facilities, including the LNG rundown lines, boil-off gas (BOG) recovery and utility pipelines that will connect the southern part of Ras Laffan Industrial City to new storage tanks and export facilities in the area.
- This is the third EPC contract that Tecnicas Reunidas has won in the LNG expansion megaproject.

Source: MEED; MEED Projects; QatarEnergy

QatarEnergy LNG business partners

Company	LNG trains (tonnes a year)	Year established	QatarEnergy stake	Other shareholders
Qatargas 1	3 x 3.3 million	1984	65%	ExxonMobil (10%), TotalEnergies (10%), Mitsui (7.5%), and Marubeni (7.5%)
Qatargas 2	2 x 7.8 million	2004	70%	Train 4: ExxonMobil (30%)
				Train 5: ExxonMobil (18.5%) and TotalEnergies (16.7%)
Qatargas 3	1 x 7.8 million	2005	68.50%	ConocoPhillips (30%) and Mitsui (1.5%)
Qatargas 4	1 x 7.8 million	2007	70%	Shell (30%)
RasGas 1	2 x 3.3 million	1993	70%	ExxonMobil (30%)
RasGas 2	3 x 4.7 million	2001	70%	ExxonMobil (30%)
RasGas 3	3 x 7.8 million	2005	70%	ExxonMobil (30%)
North Field East	4 x 8 million	Start-up expected in 2025	65%	TotalEnergies (6.25%), Eni (3.125%), ConocoPhillips (3.125%), ExxonMobil (6.25%), Shell (6.25%), Sinopec (5%), CNPC (5%)
North Field South	2 x 7.8 million	Start-up expected in 2028	75%	TotalEnergies (9.375%), Shell (9.375%), ConocoPhillips (6.25%)

Table: Indrajit Sen • Created with Datawrapper

Amiral petrochemical complex

- Saudi Aramco and Total Refining & Petrochemical Company (Satorp) is the owner and operator of the Amiral integrated refining and petrochemical megaproject, to be located in Jubail in Saudi Arabia's Eastern Province.
- Satorp is a joint venture in which Saudi Aramco owns the majority 62.5 per cent stake and TotalEnergies the other 37.5 per cent share.
- The complex will comprise a mixed-feed cracker capable of producing 1.65 million tonnes a year of ethylene, the first in the region to be integrated with a refinery. It will also include two state-of-the-art polyethylene units using Advanced Dual Loop technology, a butadiene extraction unit and other associated derivatives units.
- Satorp reached the final investment decision on Amiral in December last year. EPC contracts for the project were awarded in June.
- The petrochemicals facility will enable Satorp to convert internally produced refinery off-gases and naphtha, as well as ethane and natural gasoline supplied by Aramco, into higher value chemicals.
- Eventually, the complex will provide feedstock to other petrochemical and specialty chemical plants in the Jubail industrial area, which will be built, owned and operated by globally renowned downstream investors, entailing an estimated additional $4bn of investments.
- This will support establishing key manufacturing industries such as carbon fibres, lubricants, drilling fluids, detergents, food additives, automotive parts and tyres.
- The overall complex, including adjacent facilities, is expected to create 7,000 local direct and indirect jobs.

Contractors	EPC packages
Hyundai Engineering & Construction Company	Mixed feed cracker and utilities, with a nameplate capacity of 1.65 million t/y of ethylene and related industrial gases
Maire Tecnimont	Two high-density polyethylene units, with a nameplate capacity of 500,000 t/y each
Maire Tecnimont	Derivative units
Hyundai Engineering & Construction Company	Utilities, flares and interconnecting systems that support main packages within the facilities
Sinopec Engineering (Group) Saudi Company	Tank farm and Satorp integration
Gulf Consolidated Contractors Company	Transfer pipelines
Mohammed Ali al-Suwailem Trading & Contracting Company	Industrial support facilities
Mofarreh Marzouq al Harbi & Partners Company	Site preparation
Mobarak M. Alsalomi & Partners for Contracting Company	Temporary construction facilities

Source: MEED; MEED Projects; Saudi Aramco; TotalEnergies

Master Gas System – phase 3 expansion

- The original Master Gas System was built during the 1970s and commissioned in 1982. Since then, Aramco has been supplying natural gas to its customers across Saudi Arabia through the network, mainly channelling associated gas from Ghawar and other oil fields.
- Over the past decade, amid rising gas demand from both industrial and household sectors of the Saudi economy, Aramco has undertaken projects to increase its non-associated gas production, and launched the second expansion phase of the Master Gas System in 2015.
- Local contractor Arkad Engineering & Construction won the three main pipeline packages of MGS-II, worth an estimated $1.3bn, in early 2016.
- EPC works were completed in 2021, increasing the gas handling and transport capacity of the Master Gas System from 8.4 billion cubic feet a day (cf/d) to 12.5 billion cf/d.
- The third expansion project of the Master Gas System network (MGS-III) in Saudi Arabia, involves upgradation of existing gas compression systems and installing new gas compressors.
- MGS-III also involves laying of over 4,000 kilometres of gas transport pipelines across various locations in the kingdom.
- Aramco has divided the EPC work on the MGS-III project into 17 packages.
- Aramco completed the solicitation of interest (SoI) process with contractors for the two gas compression packages of the MGS-III project in December. SoIs for the pipeline packages were issued by Aramco in March, with contractors expressing interest within days.
- The Saudi energy giant then issued the main EPC tender for all 17 packages in April. Technical bids were submitted by August-end.

Key facts	
Current capacity	Following the commissioning of MGS-II, gas handling capacity stands at 12.5 billion cf/d
Main objective	Upgradation of existing gas compression systems and installing new gas compressors. Scope also involves laying of over 4,000 kilometres of gas transport pipelines across various locations in the kingdom.
Number of EPC packages	17
Estimated project value	$10bn

Source: MEED; MEED Projects; Saudi Aramco

Hail and Ghasha megaproject

- The Hail and Ghasha fields, along with the Hair Dalma, Satah, Bu Haseer, Nasr, Sarb, Shuwaihat and Mubarraz fields, are located in Abu Dhabi's offshore Ghasha concession.
- Adnoc holds the majority 55 per cent stake in the Ghasha concession. The other stakeholders are Italian energy major Eni with 25 per cent, Germany's Wintershall Dea with 10 per cent and Austria's OMV and Russia's Lukoil, each with 5 per cent.
- Adnoc plans to produce more than 1.5 billion cubic feet a day of sour gas from the Ghasha concession by the end of this decade, which broadly comprises the objective of the Hail and Ghasha megaproject. This target is aligned with the company's broader goal of achieving gas self-sufficiency for the UAE by 2030.
- The third EPC tendering phase of the scheme is currently under way.
- The Abu Dhabi energy giant started a fresh EPC tendering round for the Hail and Ghasha project in late April, just days after cancelling the pre-construction services agreements (PCSAs) it signed with contractors in January.
- Contractors expressed interest in participating in the latest Hail and Ghasha EPC tendering round in May.
- Adnoc directly entered into discussions with bidders, following the prequalification round.
- MEED recently reported about frontrunners emerging for the offshore and onshore scope of work, although negotiations still continue.
- Formal EPC contract awards expected to take place in last quarter.

Source: MEED; MEED Projects

MENA Oil & Gas 2023 - 24 Report

Report's pre-launch ~~$4,000~~ $3,500

Visit buy.meed.com and apply code WEBINAR100 for further -$100 discount*

*The offer is available for webinar attendees only and is valid until 15th September 2023.

MENA Oil & Gas 2023 - 24 Report includes:

- Detailed assessment of the outlook for the oil, gas and petrochemicals projects market in the Middle East and North Africa
- Comprehensive review of 13 oil and gas markets across the Middle East and North Africa
- Outlook for policy and investment in oil, gas and petrochemicals projects across the region
- Projects opportunities with clients and procurement details
- Investment drivers and client spending plans
- Understand risks and set strategy in the Mena oil and gas market

Scan or click the code for more information

Download sample pages to find out more

MEED
Middle East business intelligence

www.meedprojects.com

Q&A

Please feel free to ask…

MEED
Middle East business intelligence

Indrajit Sen
Oil & Gas Editor
MEED
Dubai, UAE
indrajit.sen@meed.com

www.meedprojects.com