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RENEWED AMBITIONS

Petrochemicals investment trends across the Mena region

OCTOBER 2019

MEED
Middle East business intelligence

AN APPETITE FOR GROWTH

Oil producers across the Middle East and North Africa (Mena) are increasing their focus on investments in petrochemicals and other high-value oil derivatives. The strategic move follows in anticipation of a long-term rise in demand for petrochemicals, mainly from Asia, and is supported by a growing acceptance that demand for crude oil would gradually decline.

The rise in petrochemicals production in the region will increase export revenues from non-crude oil sales and support the development of manufacturing of higher-value downstream plastic products. The industry is also forecast to be a major consumer of natural gas and, as a result, several regional producers may favour petrochemical exports over raw gas exports.

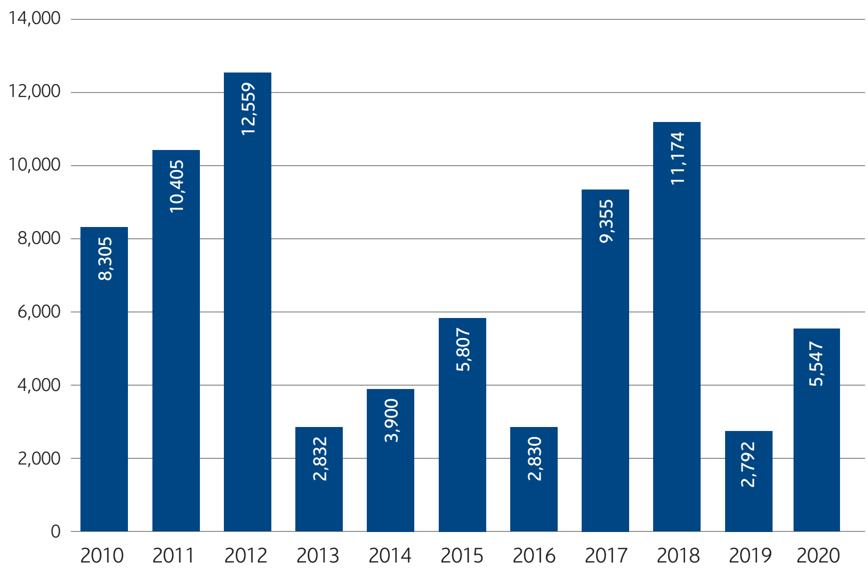
Despite the positive outlook, the petrochemicals industry faces its share of challenges. Depleting feedstocks, volatility of crude oil prices, and rising concerns over the environmental impact of products such as single-use plastics are all hurdles that producers need to rise above to sustain their trade.

SHIFTING SANDS

Prior to the slump in oil prices in 2014-2015, petrochemicals producers in the Mena region held an important competitive advantage over global players with low-cost ethane feedstock. However, with the fall in oil prices, the US shale oil boom and growing petrochemicals production capacity in China and other countries, the region faces heavy competition from other markets.

Regional players have begun to deploy new policies to maintain their stronghold in the field. This includes increasing investments in overseas petrochemical production, particularly in Asian markets, as well as partnerships with international players to introduce newer technologies and produce higher-value specialty chemicals. The development of integrated refineries and petrochemicals complexes are becoming the norm, allowing maximum utilisation of resources.

Mena petrochemicals projects contract awards estimate and forecast ($m)



**Data for 2019-2020 includes estimation and forecast*

Source: MEED Projects

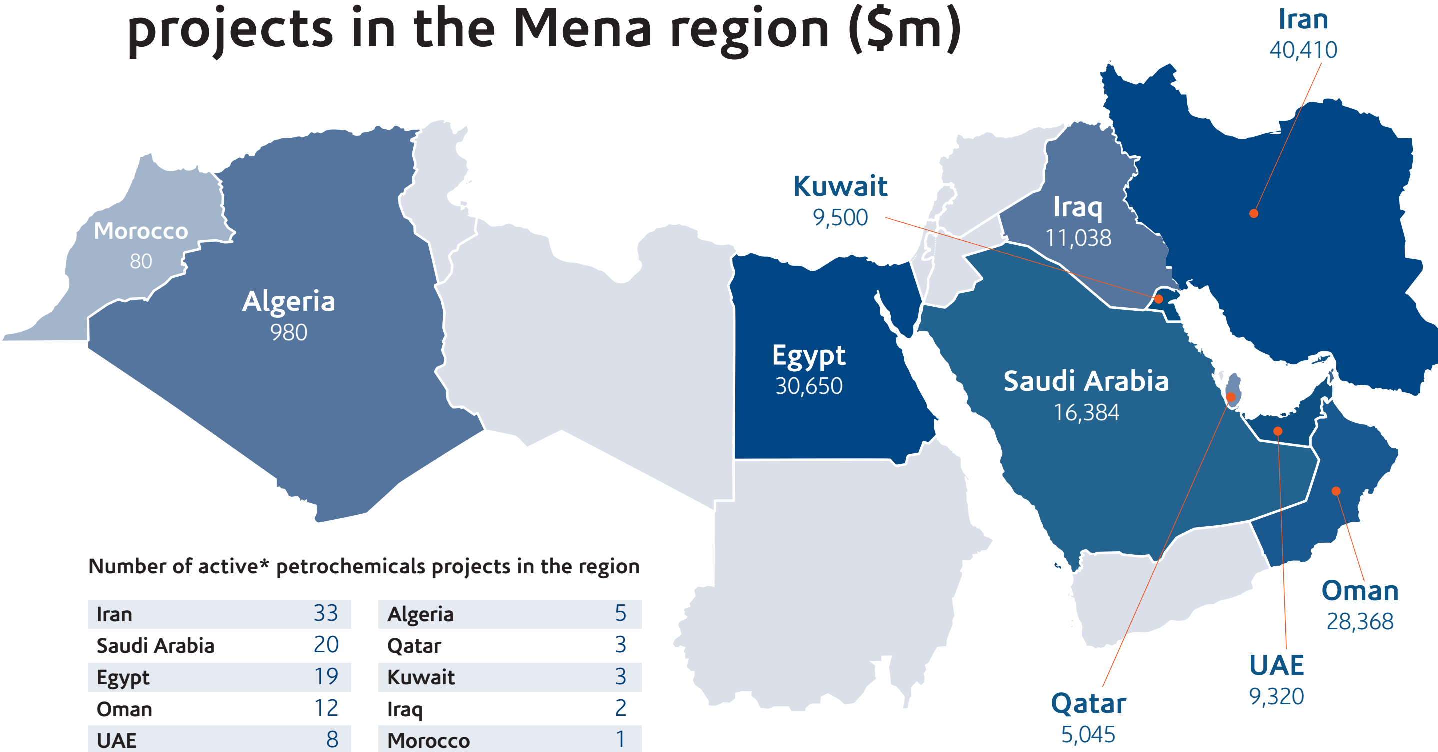
The Mena region has an estimated $152bn-worth of petrochemicals projects planned or underway, of which $33.8bn are under execution.

Saudi Arabia is the leading Mena producer, buoyed by the government's vision to reduce crude oil dependence. According to S&P Global Platts, the kingdom has a combined capacity to produce 17.5 million tonnes a year (t/y) of ethylene, or around nine per cent of total global capacity. The kingdom also has a combined polyethylene production capacity of around 9 million t/y, or eight per cent of global capacity.

Iran leads the market for projects under execution, accounting for nearly 40 per cent of the value of projects. It is followed by Egypt and Oman, with 37 per cent and 15 per cent respectively.

Petrochemicals projects activity in the Mena region fell in 2019, with the value of contracts awarded considerably lower in comparison to 2017 and 2018. However, activity seems to pick up in 2020, with a steady forecast of contract awards worth $5.5bn.

Value of active* petrochemicals projects in the Mena region ($m)



Number of active* petrochemicals projects in the region

Iran	33	Algeria	5
Saudi Arabia	20	Qatar	3
Egypt	19	Kuwait	3
Oman	12	Iraq	2
UAE	8	Morocco	1
Total			**106**

**= study and beyond*

Source: MEED Projects

CONTINUING INVESTMENT

Robust demand outlook, relatively low-risk and predictable returns for producers has buoyed petrochemicals projects across the Mena region

ALGERIA

Crucial to state-owned firm Sonatrach's SH2030 strategy is the setting up of an efficient petrochemical industry, driven by domestic demand and the benefits of catering to the European market.

In October 2018, Sonatrach, France's Total and Algerian Alnaft signed an agreement to create the joint venture (JV) Sonatrach Total Entreprise Polymères to build a petrochemicals plant in Arzew. The $400m plant is expected to produce 550,000 t/y of polypropylene. The project has been in the study stage since May 2018.

A $130m propane and butane production unit is currently under execution in Hassi Messaoud, and will provide gas that will serve as fuel for cars and gas supply.

BAHRAIN

In October 2014, Bahrain Petroleum Company announced plans for a $1.5bn aromatics complex capable of producing 1.44 million t/y of paraxylene, a key component in the production of polyethylene terephthalate. The project was being developed by a JV of Bahrain's Oil & Gas Holding Company and Kuwait's Petrochemicals Industries Company (PIC).

In March 2019, the front-end engineering and design (feed) work was completed by France's Technip FMC. PIC subsequently withdrew from the project and funding issues continue to stall progress of the project.

EGYPT

The surge in activity in Egypt's petrochemicals sector has come about during a period of increasing natural gas production, giving chemical projects a reliable flow of reasonably cheap feedstock, and improving the environment for investment in new projects. Egypt is the second highest in the Mena region in terms of petrochemicals projects underway, with $12.5bn-worth of projects under execution according to MEED Projects.

Work is underway on Carbon Holdings' $6.8bn Tahrir Petrochemicals Complex (TPC), which includes the construction of a 1.5 million t/y capacity ethylene cracker and a polyethylene facility with a 1.4 million t/y capacity. It is expected to be the largest naphtha cracker plant in the world. Construction works on the project are expected to begin in 2019, with completion scheduled in 2023.

Work is also underway on the $4.8bn Egypt Ministry of Petroleum's refining and petrochemicals complex, which will have an output capacity of 8 million t/y.

Meanwhile, Egyptian Petrochemicals Holding Company is studying the feasibility of a new refinery and petrochemicals complex in the El-Alamein region with investments of about $8.5bn.

IRAN

Iran has struggled to meet its ambitious targets over the years, with international sanctions imposed by US deterring foreign companies from doing business with Iran, restricting its ability to implement complex technology projects. However, Iran does lead the Mena region in terms of petrochemicals projects underway, with $13.3bn-worth of projects under execution according to MEED Projects.

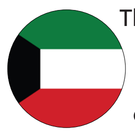
In May 2019, Iran's deputy petroleum minister for petrochemical affairs Behzad Mohammad said that the oil ministry plans to complete 20 prioritised petrochemical projects across the country by March 2022. He added that Iran would increase its current petrochemicals production capacity from 65 million t/y to 92 million t/y by 2021 and 131 million t/y by 2024.

IRAQ

War, sanctions and a lack of investments have hindered the growth of Iraq's petrochemicals industry. Moreover, government efforts to bolster the hydrocarbons sector have generally focused on the upstream oil and gas sector.

Feed works are currently underway on the $11bn Nebras Petrochemical Complex, which will be jointly built by Anglo-Dutch Shell and the Iraqi government. The complex is slated to produce 1.8 million t/y of various petrochemicals, but progress has suffered due to delays over civil unrest and financial issues. In 2018, Saudi Basic Industries Corp (Sabic) was reportedly in talks with the Iraqi government to partner on the Nebras project, with investments ranging between $6bn to $8bn.

KUWAIT



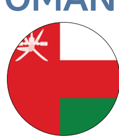
The slower pace of development of Kuwait's petrochemicals industry can be attributed to a lack of new gas allocations, and in particular ethane-rich gas, limiting scope for olefins production.

Kuwait Integrated Petroleum Industries Company (Kipic) is working to establish a massive petrochemicals-producing facility at Al-Zour, estimated to cost $9.5bn. It will use feedstock from the nearby Al-Zour refinery to churn out nearly 2.7 million t/y of aromatics and polypropylene when commissioned in late 2024.

Kipic is said to be making modifications to the project's feed to further commercial feasibility and yield greater value, with the invitation to bid for EPC expected in mid-2020.

Work is underway on the Duqm Refinery project by a JV of Oman Oil Company (OOC) and Kuwait Petroleum International. The project indicates parent company Kuwait Petroleum Corporation's interest in diversifying across regional and international markets.

OMAN

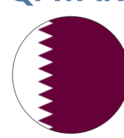


The $6.7bn Liwa Plastics Industries Complex (LPIC) project in Sohar is said to play a vital role in supporting Oman's Vision 2040 and will be integrated with the existing Sohar refinery. LPIC will allow Oman to produce polyethylene for the first time ever, taking Orpic's polyethylene and polypropylene production to 1.4 million tonnes. The $2.8bn steam cracker unit is expected to be completed in the first quarter of 2020.

The $9bn Duqm petrochemicals complex, which will draw feedstock from the nearby, upcoming Duqm refinery project, is also of strategic importance to Muscat. The Duqm Refinery and Petrochemical Industries JV has awarded the feed contract to the UK's Wood Group, and EPC contracts are expected in early 2021.

Meanwhile the $10bn integrated refining and petrochemicals scheme at Sur is currently under study. Shumookh Investment and Services is considering a 6.5 per cent stake in the project which is proposed to be established on a build-own-operate basis.

QATAR



Qatar's petrochemical companies enjoy some of the lowest gas feedstock prices in the world, with the first generation of plants paying as little as $0.50 per million BTUs.

In June 2019, state-owned Qatar Petroleum (QP) announced a partnership with US firm Chevron Phillips Chemical to set up the Ras Laffan Petrochemical complex. The scheme is estimated to be worth $5bn. Scheduled to come online in 2025, the complex will include an ethane cracker with an ethylene production capacity of nearly 1.9 million t/y. QP will also use some of the increased production from the North Field offshore gas field to produce additional ethane to supply as feedstock to this project.

Chevron Phillips Chemical signed a second agreement with QP in July 2019, to set up an estimated $8bn petrochemicals project on the US Gulf of Mexico coast.

SAUDI ARABIA

The kingdom's petrochemicals industry is considered to have significant growth potential, buoyed by factors such as cheap and abundant feedstock, growing demand from Asia and high oil prices. In a further bid to strengthen its petrochemicals portfolio, state-controlled Saudi Aramco acquired a majority stake in industry-leader Sabic in March 2019.

Feed work is underway on the $25bn Yanbu Crude Oil to Chemicals (COTC) project by a JV of Aramco and Sabic. The project will convert the existing Yanbu refinery into an integrated refinery and petrochemicals complex and is expected to begin operations in 2025.

The expansion of Rabigh Refining and Petrochemical Company's complex is nearly complete, allowing the JV between Aramco and Japan's Sumitomo Chemical to process an additional 30 million cubic feet a year (cf/y) of ethane and 3 million t/y of naphtha, serving as feedstock.

Saudi Aramco Total Refinery and Petrochemical Company's (Satorp) $9bn Amiral complex in Jubail is currently in the prequalification stage. Satorp is a JV between Aramco and Total. The complex will feature the Gulf region's largest mixed-feed cracker and will produce 1.5 million t/y of ethylene, 500,000 t/y of propylene and related high added-value derivative products.

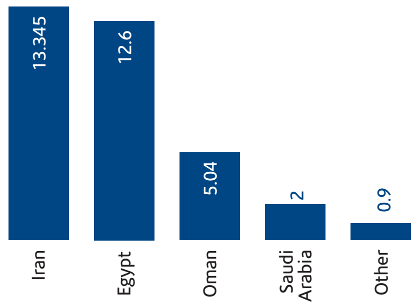
The complex will be integrated with Satorp's existing refinery in Jubail, providing feedstock advantage. Aramco and US-based Dow Chemical's JV Sadara will also supply feedstock to Amiral from its refinery in Jubail.

Feedstock has become a matter of major concern for the petrochemicals industry, due to ethane allocations restraints and increasing competition for gas from other areas of the economy.

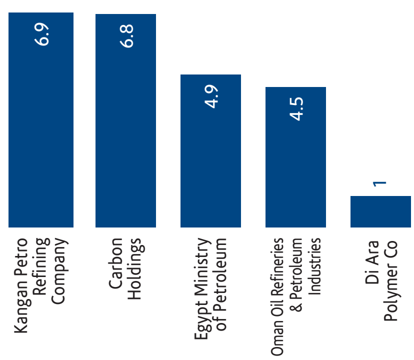
Sabic is regarded as the first in the industry to produce certified circular

PETROCHEMICALS PROJECTS IN THE MENA REGION

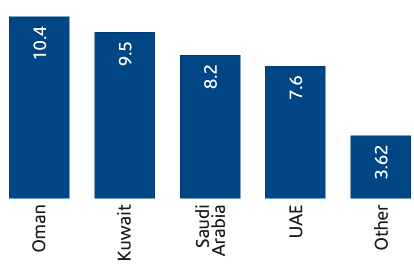
Value of projects under execution ($bn)



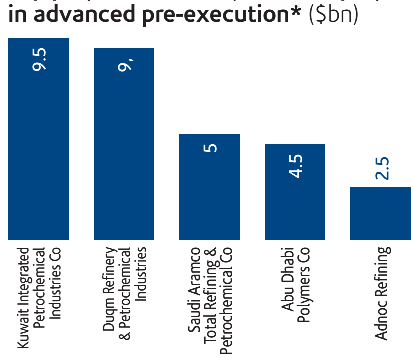
Top project owners by value of projects under execution ($bn)



Value of projects at advanced pre-execution* stage ($bn)



Top project owners by value of projects in advanced pre-execution* ($bn)



Source: MEED Projects

polymers and has announced plans for a semi-commercial, 15,000 t/y plant in the Netherlands, specifically to refine and upgrade pyrolysis oil feedstock, anticipating commercial production in 2021. Sabic believes chemically-recycled feedstock could meet more than 50 per cent of its raw material needs 10–20 years from now.

UAE

As part of its 2030 smart growth strategy, Abu Dhabi National Oil Company (Adnoc) has embarked on a significant expansion of its downstream business. At the centre of its new downstream strategy is a $45bn investment plan aimed at creating the world's largest integrated refining and petrochemicals complex in Ruwais, which will see the company triple production of petrochemicals to 14.4 million t/y by 2025.

Abu Dhabi Polymers Company (Borouge), a JV of Adnoc and Austria's Borealis, is leading the way for Abu Dhabi to achieve its dream of becoming a global petrochemicals producer.

With a 4.5 million t/y production capacity, Borouge is the world's largest integrated polyolefin complex, based in Ruwais. Feed works are currently underway on the $4.5bn Borouge 4 petrochemical complex, which will feature the world's largest mixed-feed cracker. Maire Tecnimont was awarded the feed contract for the project, and is also executing EPC work on Borouge's fifth polypropylene plant (PP5), within the expanded Borouge 3 complex.

The Borouge 4 mixed-feed cracker will have an overall capacity to produce 3.3 million t/y of olefins and aromatics, including 1.8 million t/y of ethylene output, using a variety of feedstocks such as ethane, butane and naphtha from Adnoc's refinery and gas processing facilities. When commissioned in about 2025, Borouge 4 will take Abu Dhabi's total petrochemicals production to about 11 million t/y.

*= progressed beyond study

About MEED

MEED has been integral to delivering business information, news, intelligence and analysis on the Middle East economies and activities for over 60 years.

Attracting a key senior management audience through its content and activities, MEED is a media brand, publication and data business that covers a spectrum of services which inform, engage, connect and ultimately support our subscribers and partners in their business development and strategic growth.

Acquired by GlobalData Plc in December 2017, MEED is now part of one of the largest data and insights solution providers in the world with the capacity to build global communities for our clients.

Our purpose is to support the region's companies make better and more timely decisions through our innovative data solutions and grow through our comprehensive and world-class marketing solutions. To find out more email: info@meed.com

About Mashreq

Established in 1967, Mashreq is the oldest bank in the UAE, with award-winning financial solutions and services.

Throughout its 50 years' history, Mashreq has differentiated itself through innovative financial solutions, making it possible for its customers to achieve their aspirations.

Today, Mashreq has a significant presence in 11 countries outside the UAE, with 21 overseas branches and offices across Europe, the US, Asia and Africa.

Mashreq launched its new Vision and Mission recently, outlining its commitment towards its clients, colleagues and the community. In line with its vision to be the region's most progressive bank, Mashreq leverages its leadership position in the banking industry to enable innovative possibilities and solutions for its customers across corporate, retail, international, treasury and Islamic banking.

Mashreq is proud to be the first financial institution in the UAE to be awarded the Gallup Great Workplace Award for four consecutive years from 2014-17.

Mashreq also continues to invest in recruiting, training and developing future generations of UAE national bankers.

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