



EGYPT'S PETROLEUM SECTOR

2021

SUCCESS STORIES IN NUMBERS





“THE OIL & GAS SECTOR HAS PROVEN ITS RESILIENCE AND ADAPTABILITY IN DEALING WITH THE UNPRECEDENTED CHALLENGES OF THE PAST TWO YEARS. WE HAVE SUCCESSFULLY STRUCK THE RIGHT BALANCE OF APPLYING OUR WORK STRATEGY, ACHIEVING WORK PLANS AND PRESERVING THE LIVES AND SAFETY OF OUR VALUED EMPLOYEES. ”

H.E. TAREK EL MOLLA

MINISTER OF PETROLEUM AND MINERAL RESOURCES

ABOUT THIS

REPORT

The Ministry of Petroleum and Mineral Resources (MoP) has been working hard to maintain sustainable performance and contribute to the growth of the Egyptian economy. Despite the spread of the COVID-19 pandemic since late 2019, the Egyptian petroleum sector was resilient to the fall of the global markets during the pandemic and witnessed several remarkable achievements along the supply chain, thanks to the reforms made over the past seven years. This report, highlights the significant performance of the Egyptian Petroleum sector in 2021, covering the Ministry's major success stories.



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INTRODUCTION

The Egyptian petroleum sector has witnessed many significant developments after 2014. These developments were achieved due to several factors, most importantly the wise political leadership that has been keen on maintaining Egypt's role as a regional and international pioneer. Egypt's leadership continues to strive in meeting the needs of the country's generations over the past period by creating a roadmap to maximize the benefits from its resources, which will help achieve its future goals.

Furthermore, the Egyptian government adopted a series of economic reforms through different acts, including reforms in energy subsidy systems to ensure the sustainability of the country's energy supply. Within this framework, the petroleum sector used a different methodology that targets sustainability through a new vision, policies, and strategies. Additionally, this methodology seeks to secure the country's energy supply as well as overcome the chronic challenges that affect citizens' welfare.

The cornerstone of the MoP's efforts was launching the four-year Sector Modernization Project in 2016

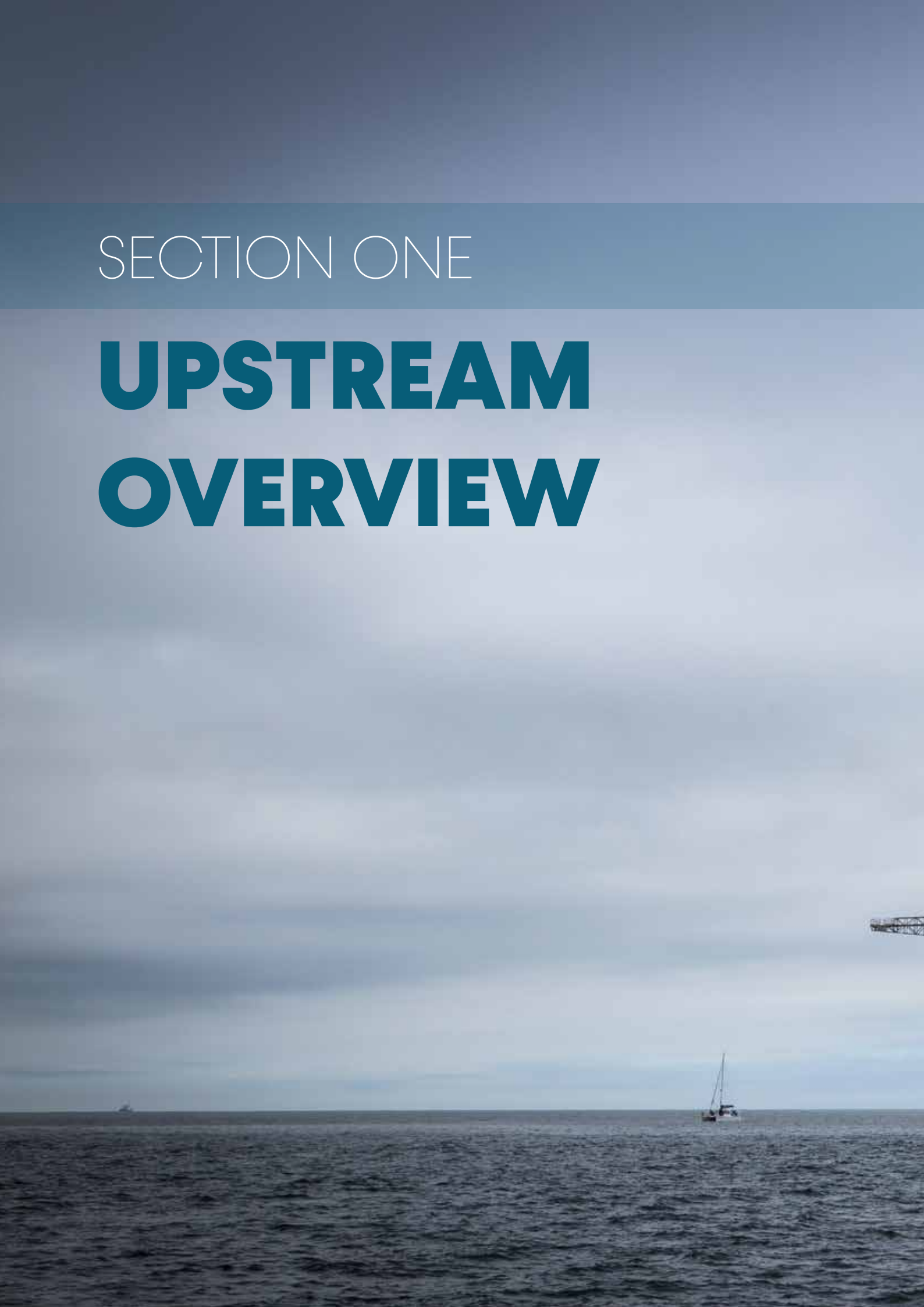
to modernize and improve the petroleum sector through a comprehensive strategy to achieve sustainability within the sector. The project's vision aims at achieving financial sustainability, transforming Egypt into a regional oil and gas hub.

The COVID-19 pandemic, which started in late 2019, forced the entire world into a tight lockdown, which had a major impact on oil and gas supply and demand, causing prices to fall to unprecedented levels. However, all these reforms, plans, and efforts succeeded in making the sector resilient, helping it overcome the crisis that had massive repercussions on the global oil and gas market for the past two years.

Hence, this report highlights the latest updates of the sector's achievements in 2021, which was a special year for the industry, being only one of many years of unlocking the reservoirs and capabilities of the Egyptian petroleum sector.

SECTION ONE

UPSTREAM OVERVIEW







The Egyptian petroleum sector has successfully managed to achieve remarkable progress in pushing investments in oil and gas exploration. This falls within the framework of efforts to develop petroleum resources and make new discoveries.

One of the sector's remarkable steps towards attracting more investments is launching the Egypt Upstream Gateway (EUG), a cutting-edge digital platform that promoted the country's petroleum

areas globally on February 17, 2021. This happened a year after signing a contract with Schlumberger, which is in line with a government initiative to support digital transformation.

Consequently, in 2021, the sector witnessed the signing of seven petroleum agreements with the potential to issue another 11 agreements with a total minimum investment of \$6.5 billion. This is in addition to the signing of 17 development leases.

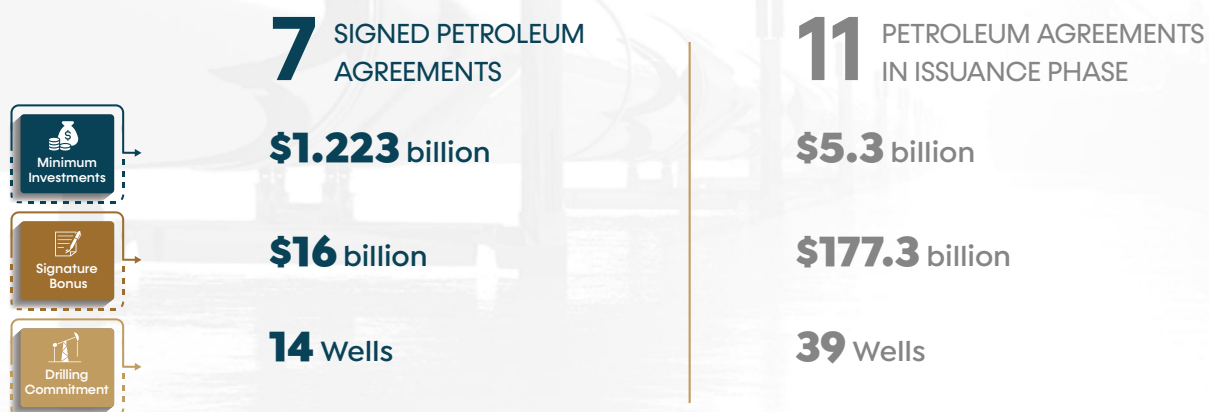
BID ROUNDS, AGREEMENTS & DEVELOPMENT LEASES

EUG LAUNCH

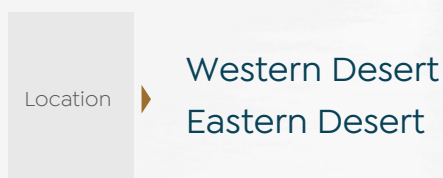
Launched Bid Rounds	Start Date	Concessionaire	Location	Closing Date
2	Feb 2021	EGPC & EGAS	Eastern & Western Mediterranean, Western Desert & Gulf of Suez 24 Blocks	Sep 2021
1	Nov 2021	EGAS	North King Mariout	Jan 2022

EUG 1ST BID ROUND RESULTS

Awarded Blocks	Awarded IOCs	Signature Bonus	Minimum Investments	Drilling Commitment
8	7	\$23.7 million	\$250 million	33 Wells



17 DEVELOPMENT LEASES



EXPLORATION & PRODUCTION ACTIVITIES

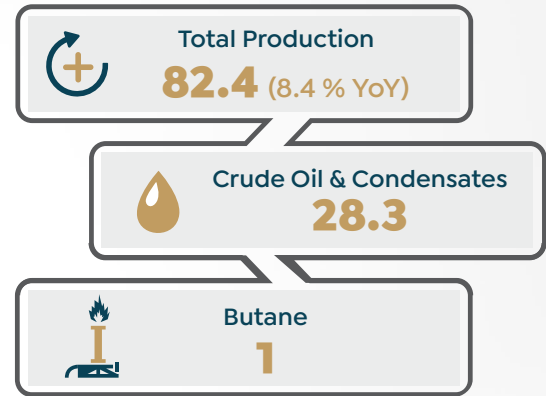
The MoP's efforts acted as a catalyst to develop new discoveries that thereby boost production. Hence, in 2021, the sector achieved 52 discoveries,

adding total production of 82.4 million tons of oil equivalent (mmtoe), recording an annual increase of 8.4%.

52 NEW DISCOVERIES
ACHIEVED



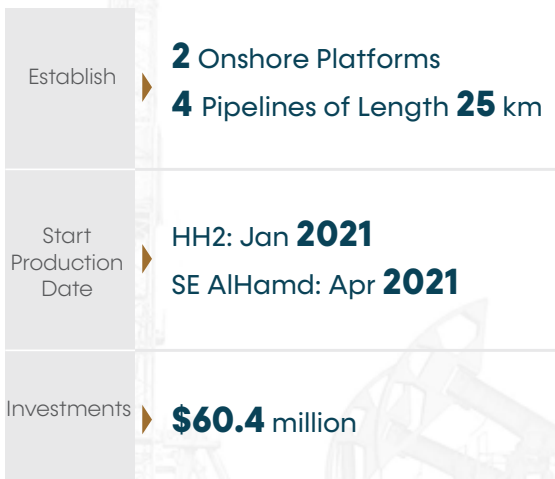
PETROLEUM PRODUCTION (mmt)



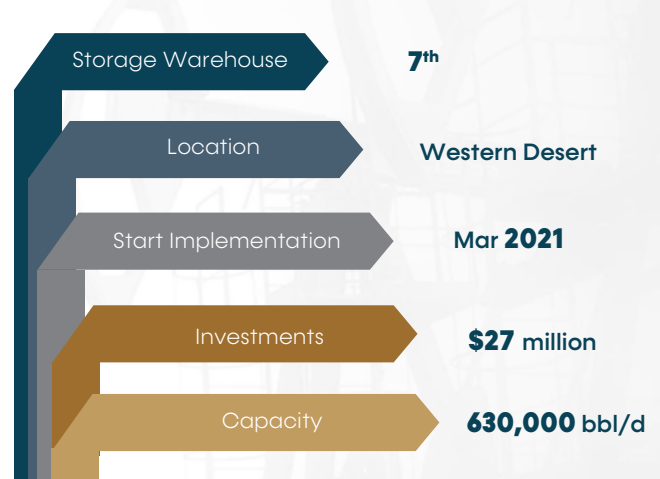
CRUDE OIL FIELDS DEVELOPMENT PROJECTS

Six natural gas and crude oil fields development projects have been successfully implemented and completed in 2021, with total investments exceeding \$4 billion.

HH2 & SE ALHAMD OFFSHORE WELLS DEVELOPMENT PROJECT- GPC



ESTABLISHMENT OF A STORAGE WAREHOUSE AT WPCO



NORTHWEST SEAS GAS PROJECT- GPC

Natural Gas: **15** mmcf
Condensates: **200** bbl
Propane & Butane: **50** t

4 Wells Connected to
a Processing Plant

Length: **15** km
Diameter: **8** inches

Sep 2021

\$16.3 million

TARGETED DAILY PRODUCTION

THROUGH

CONSTRUCT A PIPELINE

START PRODUCTION

INVESTMENTS

SECTION TWO

NATURAL GAS ACTIVITIES







Egypt is well known for its natural gas activities and large discoveries, which started in early 1960s and was crowned by the discovery of the giant Zohr field in 2015. The discovery of Zohr boosted country's potentials to be a regional natural gas hub and

encouraged the government to expand the use of natural gas as main source of energy, which led to a wide expansion in both natural gas upstream and downstream activities, and continuously attracted investments to the sector.

EXPLORATION, PRODUCTION & FIELDS DEVELOPMENT

NATURAL GAS EXPLORATION & PRODUCTION ACHIEVEMENTS



DEVELOPMENT PROJECTS

NORTH ALEXANDRIA & WND PROJECT



PROJECT TARGETS



NORTH SINAI FIELDS (Phase 3)



North Sinai

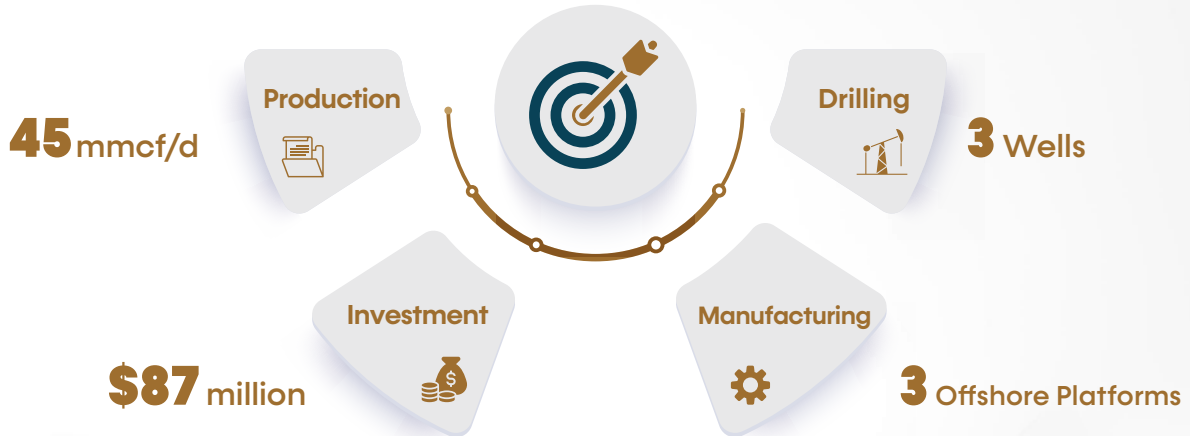
Location



Dec 2021

Production Start

PROJECT TARGETS



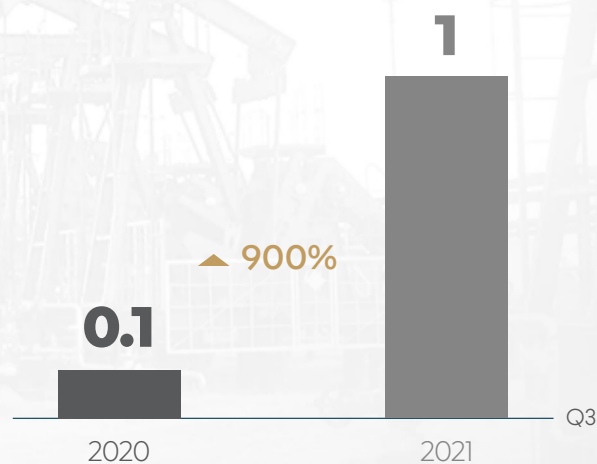
THE EXPANSION OF THE TREATMENT FACILITIES IN ATOLL FIELD -PHPC



LNG TRADE

After an eight-year pause, Damietta's gas liquefaction plant has become fully operational again and has resumed its essential role in liquefying natural gas exports. Liquefied natural gas (LNG) exports have

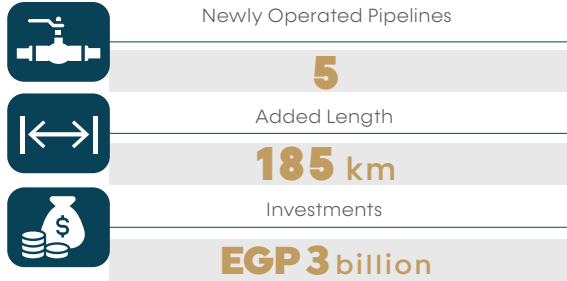
made Egypt one of the leading Arab countries that achieved the highest growth in export volume in Q3 2021.





INFRASTRUCTURE PROJECTS & TRANSPORTATION

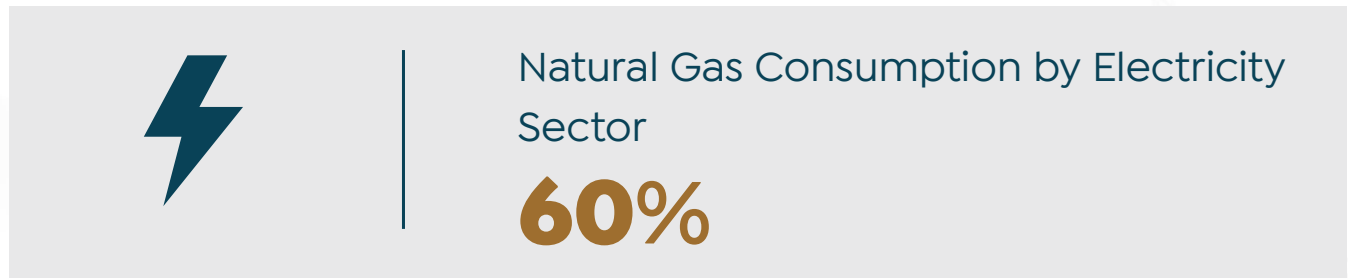
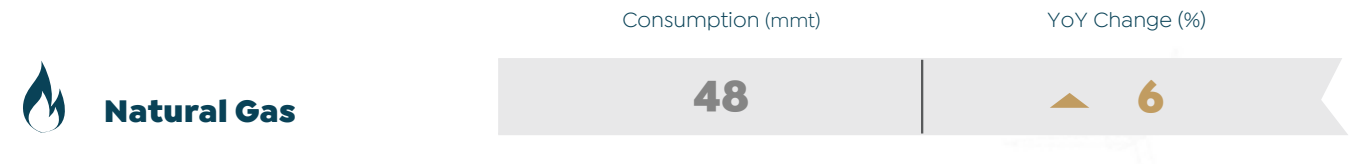
NATIONAL GAS GRID PROJECTS



BUTANE CYLINDERS DISTRIBUTION CENTERS

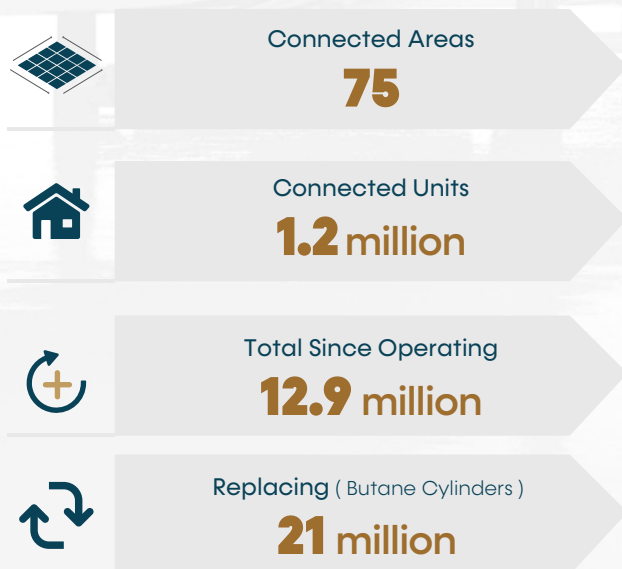


NATURAL GAS CONSUMPTION



NATURAL GAS DELIVERY & USAGE AS FUEL

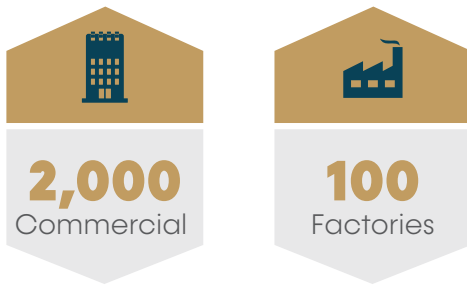
NATURAL GAS DELIVERY TO RESIDENTIAL UNITS



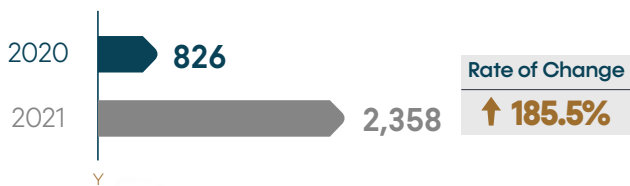
NATURAL GAS DELIVERY THROUGH "HAYA KARIMA" INITIATIVE



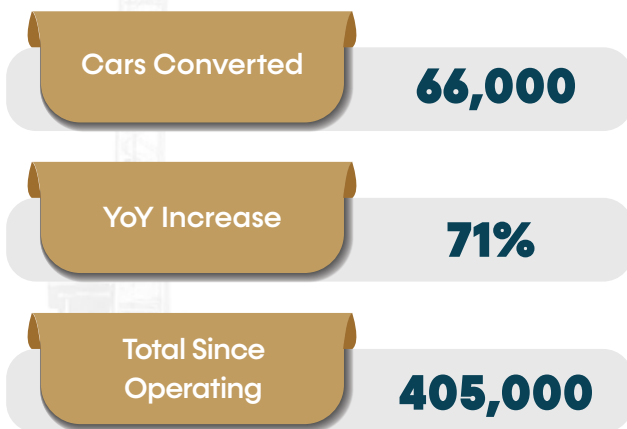
NATURAL GAS DELIVERY TO COMMERCIAL UNITS & FACTORIES



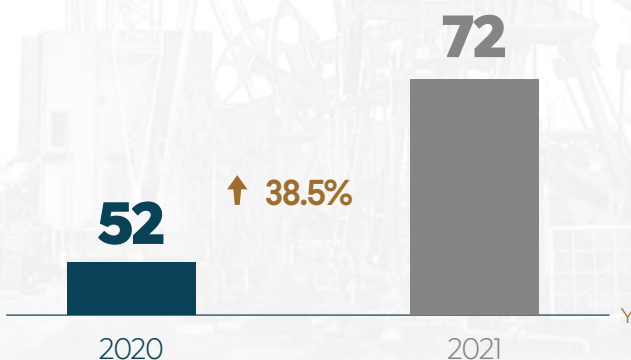
BAKERIES CONNECTED TO NATURAL GAS



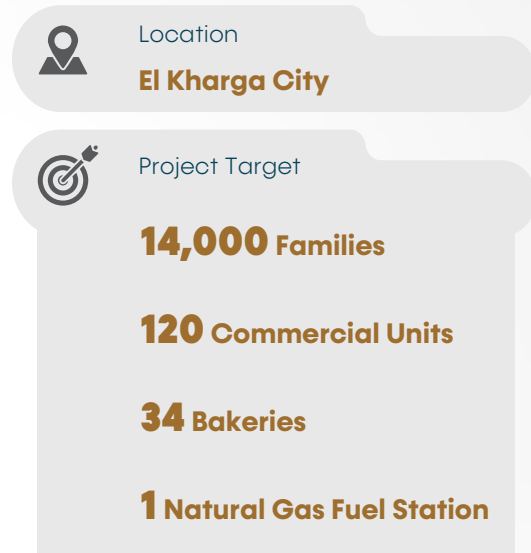
CARS CONVERTED TO NATURAL GAS FUEL



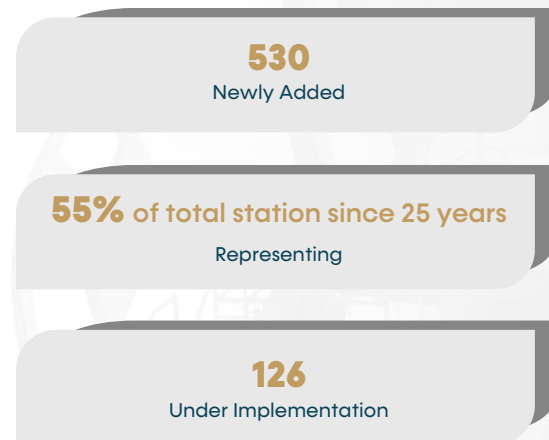
CNG SALES (mcm/ month)



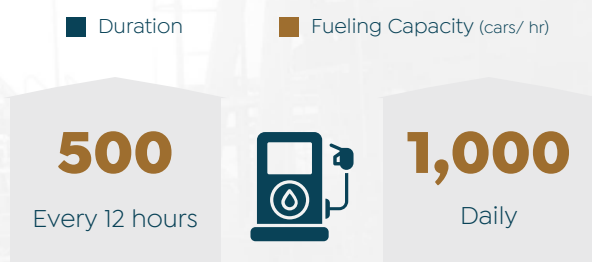
PHASE 1 OF NATURAL GAS DELIVERY PROJECT IN NEW VALLEY



NATURAL GAS FUEL STATIONS



INAUGURATION OF THE 1ST CNG MOBILE STATION



SECTION THREE

DOWNSTREAM ACTIVITIES







REFINING PROJECTS

With the petroleum sector ending 2021 on a strong footing, two major refining projects were successfully inaugurated with a total investment cost of \$511 million. The projects were implemented by Assiut Oil Refining Company (ASORC) and Suez Oil Processing Company (SOPC), providing additional capabilities

that help Egypt enhance its energy security.

Meanwhile, the sector started the trial operation of the first phase of the Midor refinery expansions, which includes a new butane gas treatment project, a new power plant, and a water treatment plant.

HIGH-OCTANE GASOLINE PRODUCTION UNIT AT ASORC



ASPHALT PRODUCTION UNIT AT SOPC

Establish Vacuum Distillation Unit	Feed Capacity Fuel Oil	
	726,000 t/y	
Asphalt Targeted Production	Investments	Operation Start Date
396,000 t/y	\$61 million	Nov 2021

Moreover, the sector is implementing an integrated work program to develop and modernize the refining system. The program aims at raising the operating efficiency of the current operating refineries and adding new production units. The total investment

cost directed to these projects is estimated to exceed \$13 billion, targeting the conversion of more than 4 million tons per year (mmt/y) of fuel oil to high-value products.

UNDER-EXECUTION REFINING PROJECTS



Target



Investments (\$ billion)

MIDOR EXPANSION PROJECT	Increase Refinery's Capacity by 60%	4.2
DIESEL COMPLEX AT ANOPC	Convert 2.5 mmt/y of Fuel Oil to High Value Products	2.9
EXPANSION PROJECT AT SOPC	Convert 1.5 mmt/y to High Value Products	1.8
ASORC, ENPPI, & PETROJET SIGNED MOU	Atmospheric Distillation Facility with 5 mmt/y Feed Capacity	EGP 6 billion

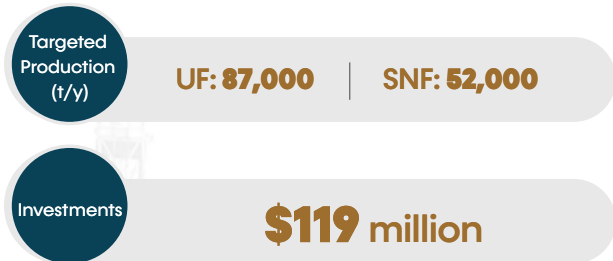
PETROCHEMICALS PROJECTS

The sector witnessed the establishment of four leading petrochemical projects with an investment cost of more than \$400 million. The project's target is sustaining the provision of petrochemical

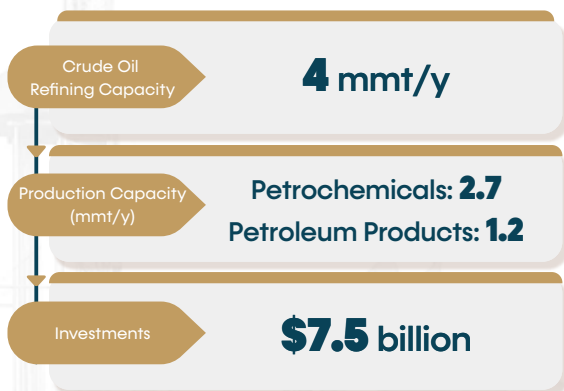
products to the local market and other sectors, as well as reducing the import bill and maximizing the added value.



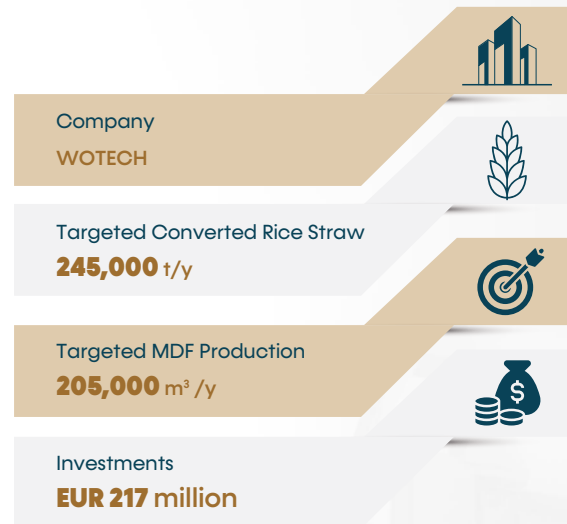
METHANOL DERIVATIVES PRODUCTION PROJECT AT SMD



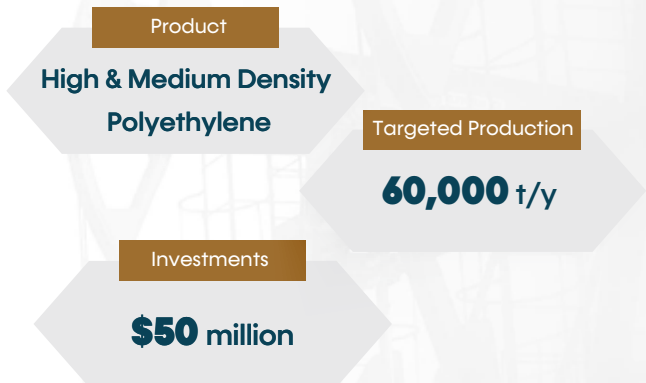
REFINING AND PETROCHEMICALS COMPLEX AT SCZONE



THE PROJECT OF PRODUCING MDF



ESTABLISHMENT OF NEW POLYETHYLENE UNIT AT ETHYDCO



AGREEMENT TO ESTABLISH MISR METHANOL & PETROCHEMICALS COMPANY





PETROLEUM PRODUCTS INFRASTRUCTURE & TRANSPORTATION

During 2021, the petroleum sector managed to achieve complete stability in the local market, as it was able to meet the petroleum and gas needs of citizens. Infrastructure projects have been implemented to transport crude oil and petroleum products, increase storage capacities, and support the national network for the transmission of natural

gas. The policies of the ministry seek to enhance the level of services provided to citizens and all economic sectors all over the country. Accordingly, the ministry increased both the number of car fuel and service stations by 3%. Overall, consumption in 2021 witnessed an increase, compared to the previous year.

CRUDE OIL AND PETROLEUM PRODUCTS PIPELINES



New Pipelines

4



Added Length

295 km



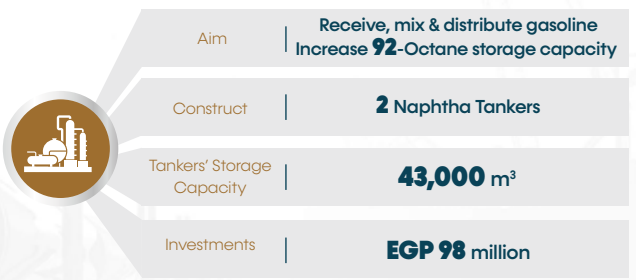
Cost

EGP 1.6 billion

ESTABLISH 2 CRUDE OIL WAREHOUSES AT PPC'S QARUN STATION



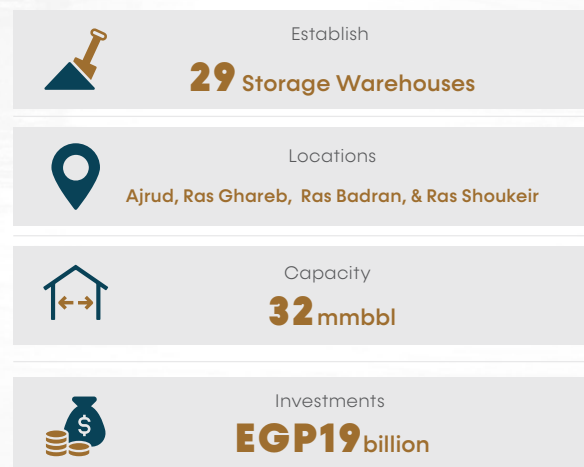
ESTABLISH A UNIT AT EL NASR PETROLEUM COMPANY



ESTABLISH 3 TURBINES, ASPHALT, & SEDIMENT WAREHOUSES AT NPC



ESTABLISH CRUDE OIL STORAGE TANKS




PROJECT CRUDE OIL TANK ENTERS GUINNESS WORLD RECORDS




Reason
Largest floating
storage warehouse
for crude oil
in the world





Capacity
1.1mmbbl

CAR FUEL & SERVICES STATIONS

 Newly Operated
(until Nov 2021) **110**

 Total **3,890**

PETROLEUM PRODUCTS CONSUMPTION

	Consumption (mmt)	YoY Change (%)
 Total	75.8	 6
 Petroleum Products	27.8	 6.9



SECTION FOUR

SUSTAINABILITY AND SOCIAL RESPONSIBILITY



In 2016, the Egyptian petroleum sector started an ambitious program aiming at modernizing the sector in order to increase its contribution to the comprehensive development of Egypt. In 2021, many

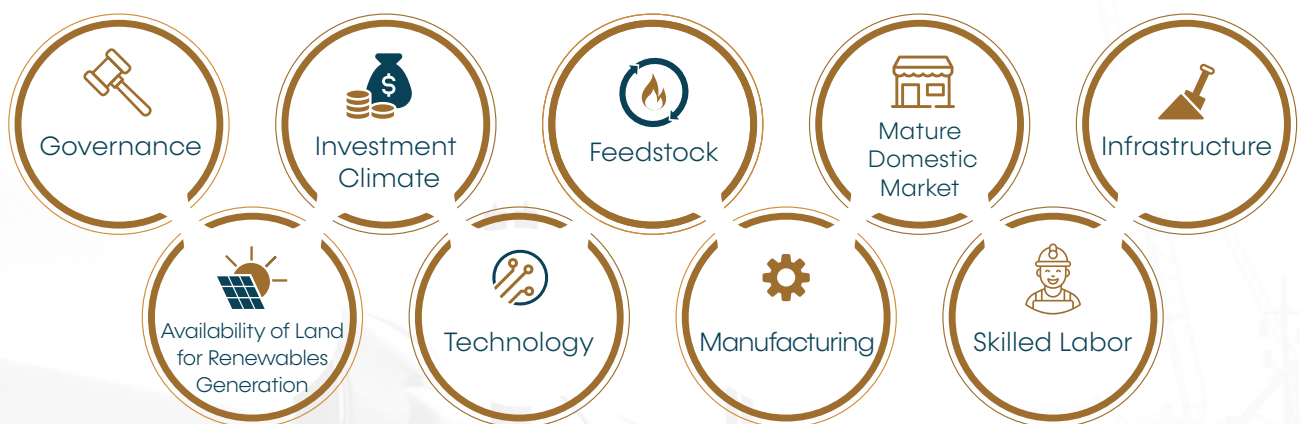
achievements have been fulfilled in this regard to increase performance efficiency, attract more investments, and develop human calibers.

GREEN HYDROGEN

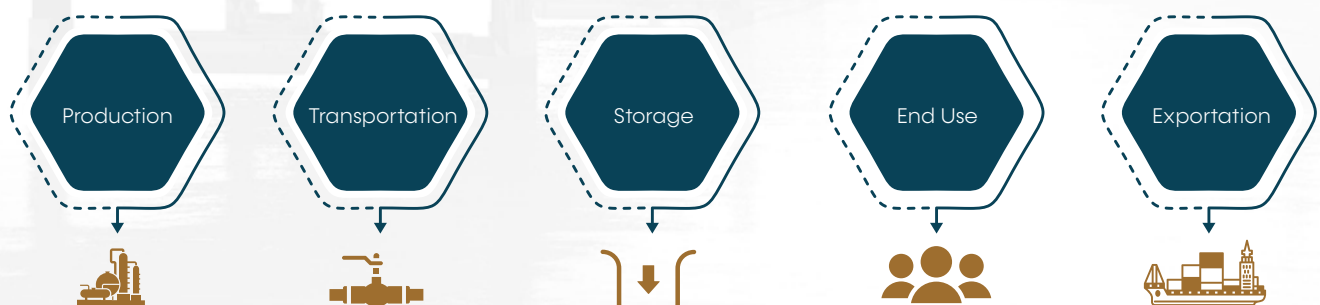
Energy sustainability a key objective in Egypt's Vision 2030 and petroleum sector strategy. Hence, Egypt is pursuing leveraging full production potential of different types of hydrogen. This can be achieved

mainly through leveraging technologies, capitalizing on green hydrogen potential, and exploiting biomass resources for bio-hydrogen through gasification.

EGYPT'S COMPARATIVE ADVANTAGES IN HYDROGEN FIELD



OIL & GAS SECTOR ACTIVITIES TO COVER HYDROGEN VALUE CHAIN



ENERGY EFFICIENCY

ENERGY EFFICIENCY PROJECTS

EGP 580
million

Energy Savings

Companies Connected to EGPC
for Energy Efficiency Data Collection

79

ENERGY EFFICIENCY PROGRAM IMPLEMENTATION



Companies

SOPC
Gasco



Investments

EGP 22.6
billion

PREPARING FOR ENERGY EFFICIENCY TRAINING PROGRAMS

282

No. of
Programs

+275

Targeted
Participants

EU

Partners

5 TECHNICAL REVIEWS CONDUCTED FOR ENERGY EFFICIENCY



Partners

EU & JICA



Companies

ASORC

CORC

GPC

GUPCO

EPC



Target

Prepare a list of potential
energy efficiency projects

SOCIAL RESPONSIBILITY

The Egyptian petroleum sector has developed a social responsibility strategy to contribute to the community's sustainable development, as it is considered an integral part of the sector's vision.

The strategy for social responsibility adopted by the Egyptian petroleum sector is based on the three developmental dimensions; economic, social and environmental.



Petroleum Sector CSR Strategy

The sector's strategy consists of a number of pillars including education, training and economic development, health and gender equality, and

environment. In addition, the framework of the strategy is mainly focused on 10 goals of the Sustainable Development Goals (SDGs).

KEY SDGS IN PETROLEUM SECTOR CSR STRATEGY



Over the past five years, the sector's NOCs along with the IOCs spend more than EGP 2 billion to implement social responsibility initiatives in 26 governorates across Egypt. The initiatives held by the petroleum companies were diversified as they included social

services activities, education and training activities, health related activities, employment and job creation activities, infrastructure related activities, and environment protection activities.



The Success Story of Zohr Sustainable Development Projects

As the discovery of the giant Zohr field is a great success in natural gas activities, it is also a great contributor to the development of the surrounding communities in Port Said governorate. The discovery was followed by three main social responsibility projects that worth EGP 320 million.

ZOHR MAIN SUSTAINABLE DEVELOPMENT PROJECTS

Project	Primary Health Center	Applied Technology School	Community Youth Center
Budget (\$ million)	4.5	5.8	2.4
Duration	2017-2021	2021-2024	2018-2024
Targeted Beneficiaries	Population of Port Said	Direct: 750 students in 3 years Indirect: Population of Port Said	Direct: + 600 youth trained in 2 years & 10 managerial staff Indirect: all YC in Port Said, at least 3,000 citizens



SECTION FIVE

REGIONAL PERFORMANCE





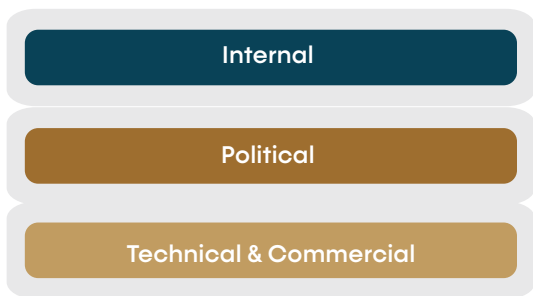


Furthermore, Egypt seeks to achieve its vision of becoming a regional energy trading hub. It has the key success factors, starting from its exceptional geographic location among countries rich in

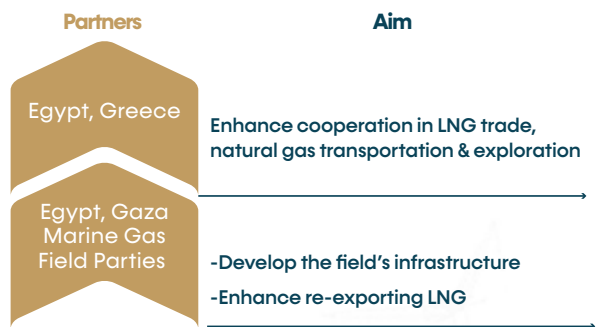
resources, to having the world's most important international shipping lane, the Suez Canal, and the existing infrastructure as a part of the modernization program.

EGYPT'S REGIONAL ACTIVITIES & EXISTENCE

REGIONAL HUB STRATEGY MAIN DIMENSIONS



SIGNED MOUs



EGYPT'S PARTICIPATION IN INTERNATIONAL FORUMS, EVENTS & CONFERENCES

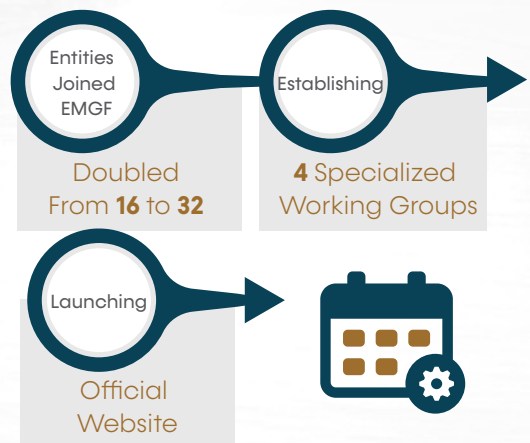
World Petroleum Congress	OMC-Med Energy Conference & Exhibition	ADIPEC Exhibition	Saudi Green Initiative Summit	COP26	Net Zero World Initiative
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EGYPT'S LEADING ROLE IN THE EMGF

ABOUT THE EMGF



EMGF HIGHLIGHTS IN 3 YEARS



EMGF REMARKABLE EVENTS



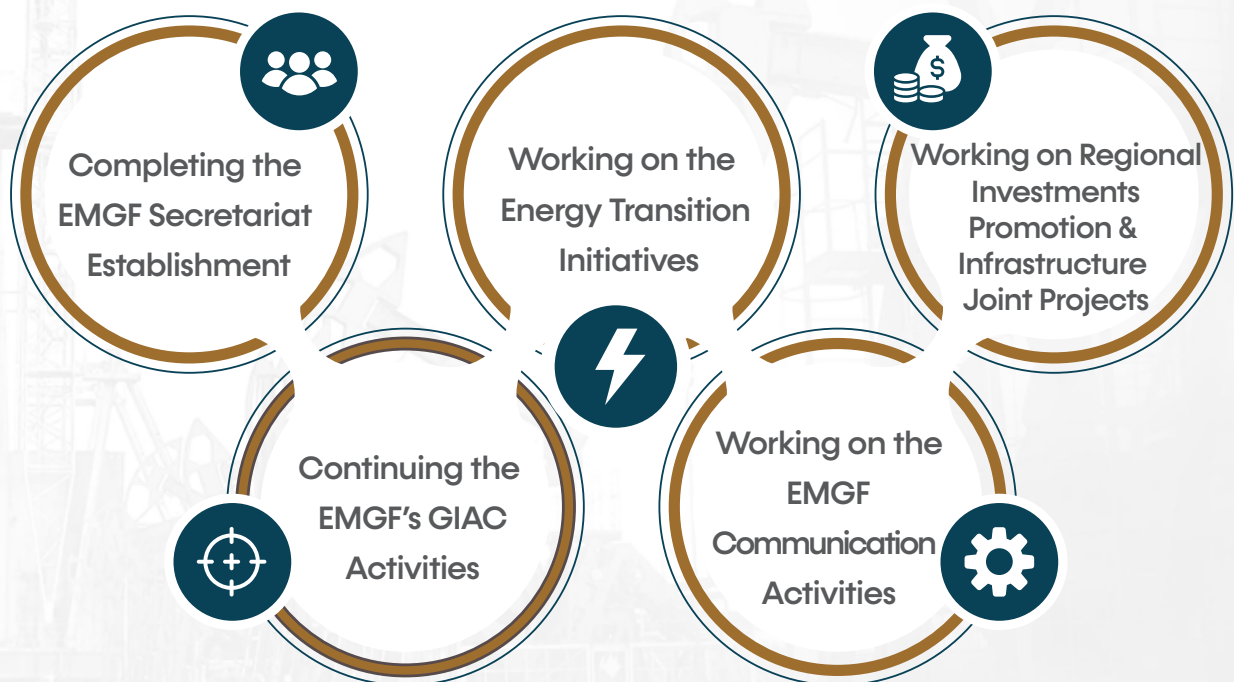
32 GIAC MEMBERS



EMGF HEADQUARTER AGREEMENT WITH EGYPT



2022 MAIN WORK STREAMS



SECTION SIX

MINERAL RESOURCES DEVELOPMENT

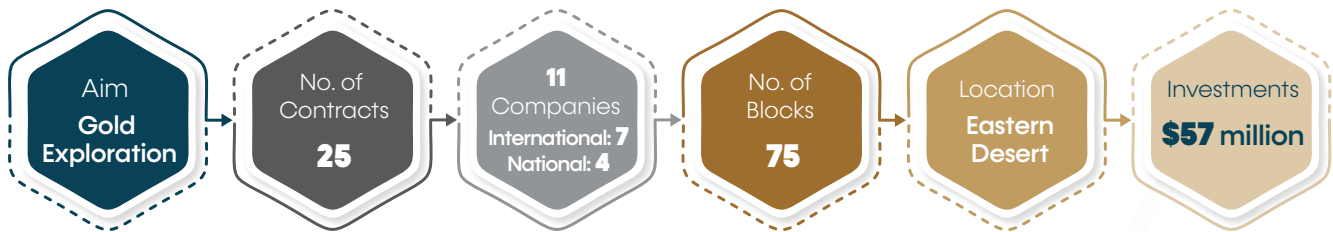




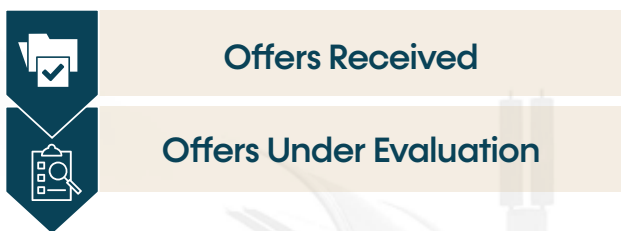
The Egyptian government and the MoP have recently given attention to the performance of the mineral resources sector to attract more investments to the sector and increase its contribution to the growth of the Egyptian economy. By 2020, the ministry launched an international bid round for gold exploration in the Eastern Desert and the Red Sea. In 2021, the results of the first phase of the bid

round were announced, and contracts were signed for 75 awarded blocks. Furthermore, the results of the remarkable Iqat discovery were announced. In the past year, the Egyptian Mineral resources Authority (EMRA) has worked on several dimensions to support the sector's performance, including signing cooperation protocols with a number of entities to help boost the outcomes of the sector.

SIGNED CONTRACTS FOR GOLD EXPLORATION (BID ROUND- PHASE 1 RESULTS)



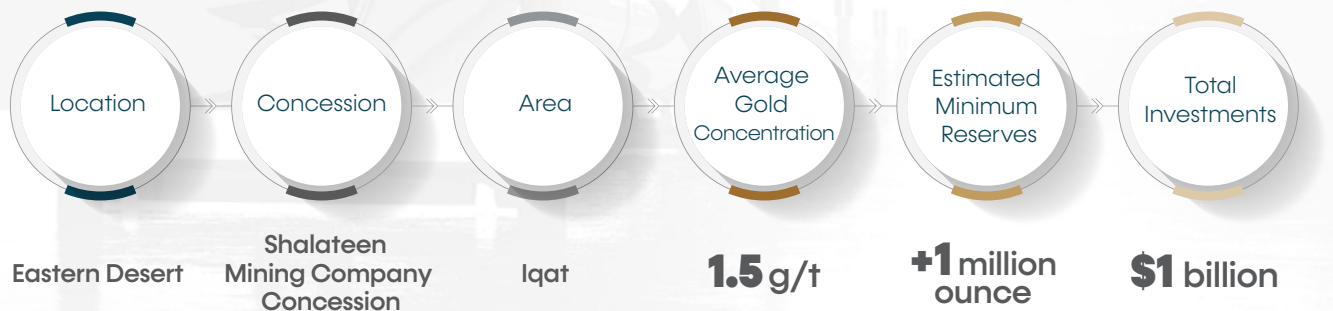
GOLD BID ROUND 2ND PHASE PROGRESS



ANNOUNCEMENT OF NEW BID ROUND FOR MINERAL RESOURCES



IQAT COMMERCIAL GOLD DISCOVERY OUTCOMES



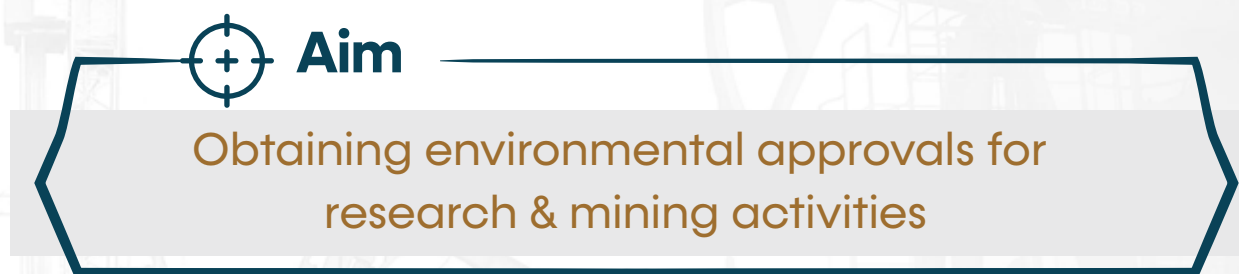
EMRA, NIOF SIGN A COOPERATION PROTOCOL

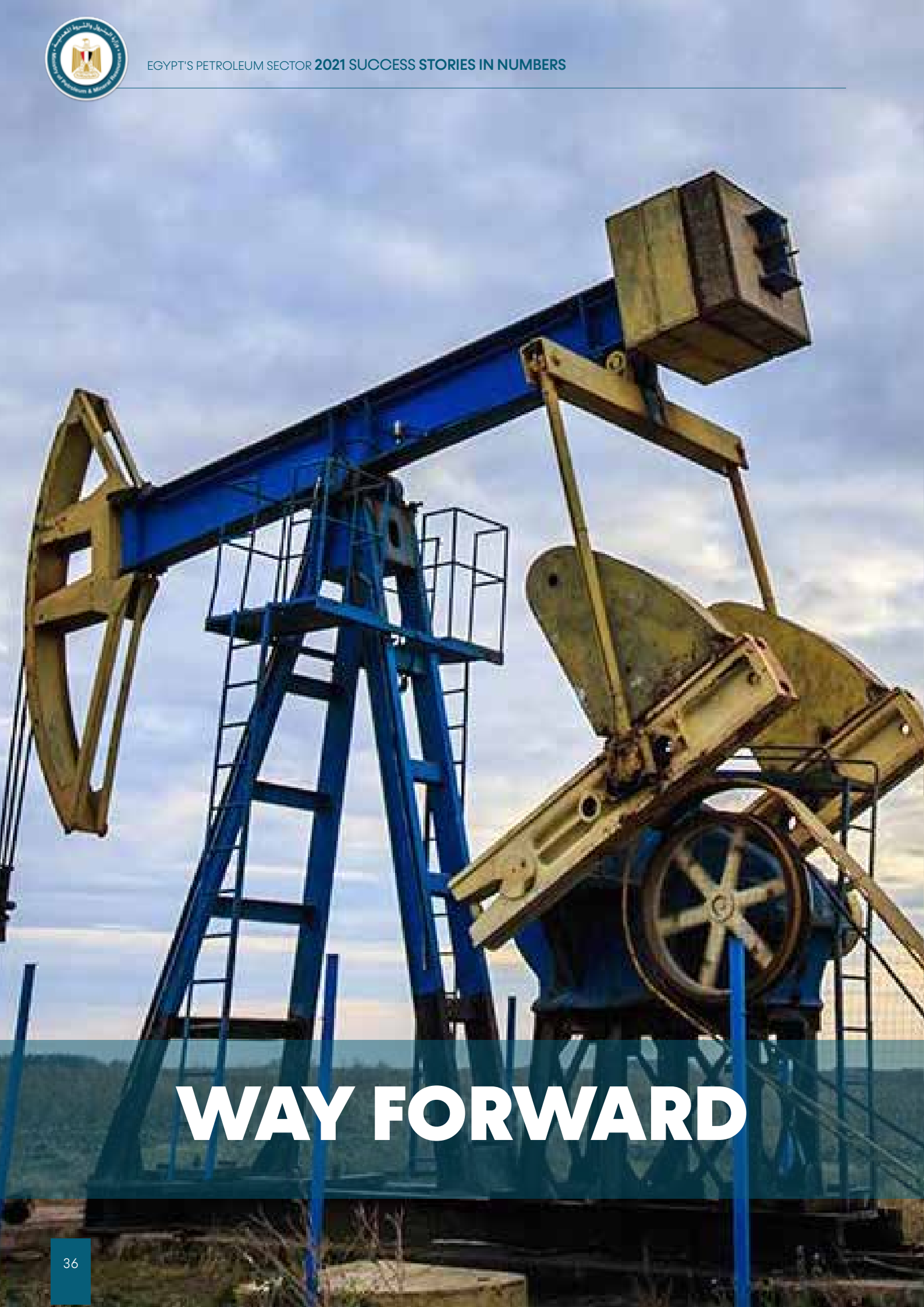


SUKARI GOLD MINE SALES



EMRA, EEAA SIGN A COOPERATION PROTOCOL





WAY FORWARD

The Egyptian oil and gas sector was strong enough to achieve great milestones despite the negative effect of COVID-19 on global markets. The MoP is looking forward to record further positive achievements in the light of the economic reforms implemented in Egypt.

With a clear vision, set plans, and an effective modernization project, the sector was able to record an output of EGP 642.5 billion in FY 2020/21, which is expected to grow by 10.5% in FY 2021/22, according to the Ministry of Planning and Economic Development (MPED). Furthermore, petroleum exports continued to support the Egyptian trade balance as one of the main player, reaching \$ 8.6 billion in FY 2020/21, where natural gas came second in trade balance ranking among all other traded goods, according to the Central Bank of Egypt (CBE).

On another hand, the MoP plans to invest EGP 30 billion in FY 2022/23 to develop the national petroleum companies as a plan

to boost the oil and gas sector's future performance. Additionally, the sector is targeting the attraction of \$7 billion foreign direct investments (FDI) to the sector in the same year. Along with these ambitious plans, there are existing achievements that can be built on to attract more investments and turn Egypt into a regional energy trading hub. These achievements include the EUG, signed protocols, and MoUs with other regional and international parties.

The sector is expecting a brighter future with the wise leadership and a vision of sustainability. The sector is walking in several directions to act accordingly with the presidential initiative to expand the use of natural gas in households, factories, and as an alternative fuel for vehicles. This comes in line with Egypt's Vision 2030, which adapts several SDGs, including climate action. Thus, the sector's achievements will continuously be recorded along the sector's supply chain.





0.03%

+1%

2.75%

6

+

+0.1%

EGYPT OIL & GAS TEAM

CEO

MOHAMED FOUAD

General Manager

AYMAN RADY

Research & Analysis Manager

MAHINAZ EL BAZ

Senior Research Analysts

AMINA HUSSEIN

REHAM GAMAL

Research Analyst

YOUSTINA MOUNIR

Statistician

NADA ABBAS

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