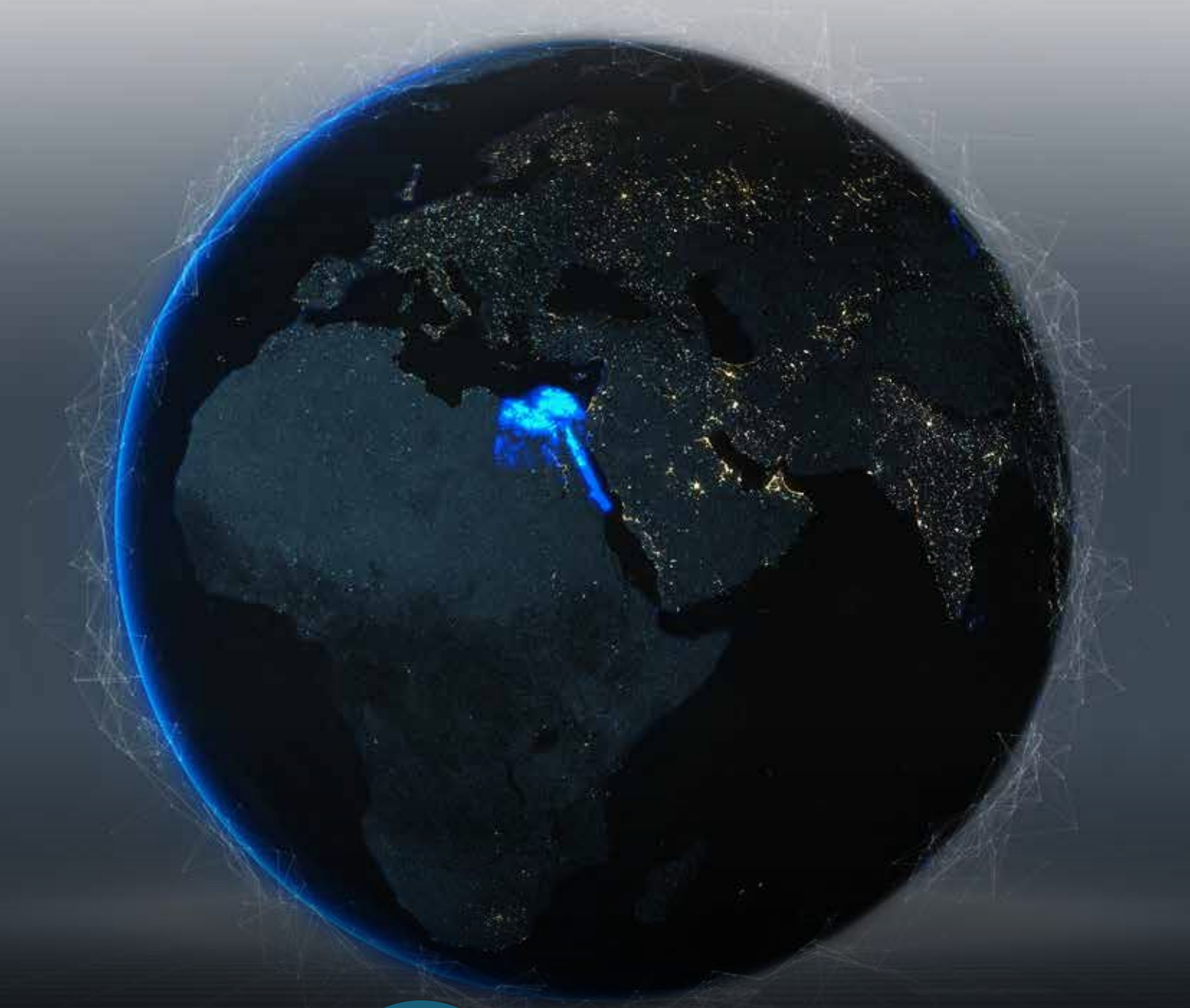
EGYPT UPSTREAM GATEWAY

NEWSLETTER VOL. 1

EUG: A GUIDE TO THE FUTURE OF UPSTREAM INDUSTRY



Ministry of Petroleum & Mineral Resources

Schlumberger

LEADERSHIP'S FAR-REACHING VISION PUTS EGYPT ON DIGITAL TRANSFORMATION TRACK

Egyptian President Abdel Fattah El Sisi is leading a spectacular initiative to swiftly develop the digital transformation of all the country's sectors. The Egyptian leader issued directives to increase the use of the latest advanced technologies in order to maximize the capabilities of Egypt's digital information infrastructure as well as boost digital transformation efforts. The presidential initiative aims to provide e-services to Egyptian citizens 24/7.

As a part of Egypt's Vision 2030, Egypt is committed to the United Nations (UN) Sustainable Development Goals (SDGs) 2035. Hence, the government is adopting a comprehensive strategy to transform Egypt into a digital society. Accordingly, the country plans to integrate all technologies in almost all fields of life, according to the Cabinet's Information and Decision Support Center (IDSC).

The Progress of Egypt's Digital Transformation

ICT statistics in Egypt in January 2021 showed that the population recorded 101.4 million, of which 96.2 million are using mobiles, and 59.19 million are using the internet. Encouraging the use of digital solutions is also important to cope with global trends and the pandemic.

In 2014, El-Sisi launched the Egyptian Knowledge Bank (EKB) during the National Science Day. EKP is considered the world's largest exclusive unlimited digital library with access granted to Egyptians of all ages.

The Ministry of Communications and Information Technology (MCIT) is exerting efforts in the digital transformation field, especially in digitizing courts' services and preparing a digital examination system.

When it comes to the Haya Karima ('Decent Life') initiative, Egypt is developing mobile and internet services in a number of deprived villages. Moreover, the country is raising post offices' efficiency, of which 3,000 offices across Egypt were planned to be upgraded by the end of 2021, according to a press release published by MCIT in November.

The Egyptian government has invested $1.9 billion to provide all the governorates with technological innovation pools, develop digital infrastructure, and establish high-tech industries at the Suez Canal economic zone. In Q2 of the fiscal year (FY) 2020/21, the ICT sector grew by 17% and the sector's contribution to 2020's GDP reached 4.4%, with expectations to reach 8% in 2024, according to IDSC.

Egypt started digitalizing its governorates in 2019, choosing Port Said as a pilot project. In 2020, the governorate had a total of 155 e-services deployed, including notarization, traffic, electricity, supply, family courts, personal status, real state registrations, agriculture, investment, mortgage finance funds, medical insurance, and law enforcement.

Meanwhile, the government established a smart city in the New Administrative Capital (NAC), 60 km away from Cairo. The new city is planned to include a knowledge city, which hosts entrepreneurship incubators, innovation and creativity centers, and digital universities. All parts of the city are also covered with CCTV cameras and control sensors that are integrated into the city's control center.

As a smart city, the New Administrative Capital has smart buildings that use digital solutions to automatically identify the most advanced, effective ways to save its resources and provide a healthy environment. It has a fiber optic infrastructure, which connects every building in the city using FTTX technology.

Egypt has taken and is still taking, steps in other directions to digitalize all services and sectors across the country. According to Vision 2030's digital transformation plans, Egypt will be coping with the UN SDGs and will empower its citizens and economy to benefit from its digital infrastructure.

VISION FOR EGYPT'S FIRST E&P DIGITAL PLATFORM

The Egyptian oil and gas sector has been a pioneer in operating digitally for the past 60 years, which was demonstrated in the different technologies widely deployed across Egypt's oil and gas fields and companies.

In 2016, we dedicated a whole program in our Modernization strategy for digitalizing the oil and gas sector in order to be more efficient as well as achieve optimal performance, full monitoring, and control over the whole value chain to make well-informed decisions. As a result, over 70 digital transformation projects were initiated, and various success stories were achieved through the value chain.

As the pandemic had an immense effect on the global energy market while demand is increasing, a key enabler to combat the COVID-19 crisis in the energy sector was digitalization, which helped improve the safety, productivity, and sustainability of our energy systems. We used different technologies, ranging from data and analytics to improve business decision-making, and harness tools that support and harmonize operational processes.

Realizing that effective data and data management can be a key determining factor for success, we launched the industry's first digital upstream platform, the Egypt Upstream Gateway (EUG), which is a giant step in the digitalization of the upstream business.

The gateway is a modern quantum leap in promoting oil and gas potentials via an integrated digital portal that will boost exploration and production (E&P) activities. It was implemented with the assistance of Schlumberger, a major service provider with expertise and advanced technological solutions. Moreover, the gateway comprises the technical data of such activities and works to maximize its value, development, and marketing worldwide. It displays opportunities, indicators, and potentials together and promotes them via the new portal for international bid rounds, offered by the petroleum sector over the coming period, with the aim of exploring new promising areas.

This advanced mechanism will assist in quickly finalizing investment decisions in Egypt through a clear perception based on information and data. Simply put, the EUG is a world-class national E&P data repository that preserves legacy data, manages the active data, and promotes investment opportunities through international bid rounds to accelerate E&P activities.

Today, with an extensive percentage of the workforce working remotely, the employees' experience of digital technology has gone from "optional" to "the only way work gets done". One of our main objectives is nourishing a digitally oriented culture and the sustainability of the digital transformation process of the sector's companies. Thus, several digital transformation teams were established within the sector companies to carry on the digital transformation initiative and sustain the digital transformation process within different companies' activities.

In short, the EUG reflects the progressive vision that we have for Egypt's Ministry of Petroleum's digitalization initiative and will be a key enabler in positioning Egypt as a modern East Mediterranean hub. Also, it should be noted that digital transformation is not just about transferring processes into the digital world; it is about having a culture that adapts to such kind of change. It is not only the role of IT that can take us through the journey of digital transformation; it is each and everyone's role to embed digital transformation processes and culture in our day-to-day activities.

H.E. TAREK EL MOLLA
Minister of Petroleum and Mineral Resources

EUG: A GUIDE TO THE FUTURE OF UPSTREAM INDUSTRY

The EUG was established to be a giant exploration and production (E&P) national data repository that helps the sector accelerate its E&P business and attract investments through launching digital international bid rounds. Looking back at 2020, the Egyptian General Petroleum Corporation (EGPC) and Schlumberger signed a contract to establish and operate the EUG, which was successfully launched a year later in February 2021.

Strategic Vision

The Egyptian oil and gas sector has a long history of upstream operations and a vast amount of data that need to be well structured and preserved. This huge amount of data triggered the idea of having an innovative digital platform to manage the upstream data and grant digital access to more than 100 years of accumulated non-seismic, seismic, production, well-log, and other subsurface data for offshore and onshore exploration.

The EUG is set to optimize the value of E&P data by attracting global investment to the upstream sector to boost production. Furthermore, the Gateway project is the first electronic platform in Egypt, as well as a milestone in the digital transformation efforts and a significant step putting Egypt in an international level in the oil and gas upstream domain.

Success of EUG Mission

The project offers the opportunity to explore new plays, prospects and evaluate basins' potential, thereby helping the Egyptian oil and gas sector reposition itself on the international investment map. Using online data delivery and visualization, it offers trusted and secure data trading. Moreover, the portal further guarantees access control for proprietary data and have a virtual data room that has application access as well as workflow, representing a successful bid round licensing platform.

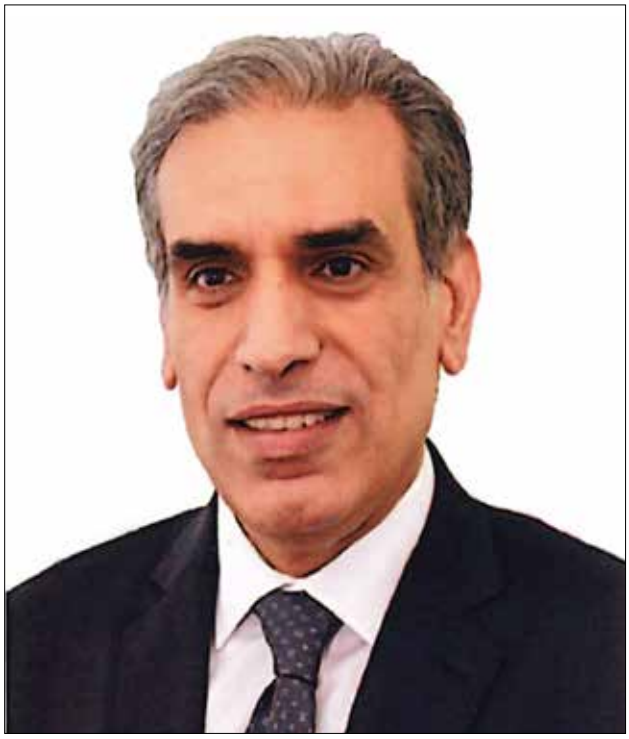
It's worth mentioning that launching EUG amid the Pandemic was a key facilitator for bid round data rooms and helped the sector operate during the lock-time and social distancing procedures. As a result, many major IOCs, including Wintershall Dea, Apache, and Eni were encouraged to sign membership agreements in the platform. These agreements show the trust of IOCs in the EUG and the current EUG members are 32 companies..

During the launch event of the EUG in February 2021, His Excellency Minister of Petroleum and Mineral Resources Tarek el Molla recommended the effective and practical use of the platform through launching the first digital bid round, making the best use of the project infrastructure and resources. In the same month, Egypt announced the launch of its first digital international bid round through the EUG. The bid round included 24 blocks in the Eastern Desert, the Western Desert, the Gulf of Suez, and the Mediterranean Sea.

The EUG comes to leverage technologies and data to accelerate oil and gas discoveries, and to enable digitization in order to modernize the sector. It mainly aims to digitally promote the country's bid rounds through an easier and faster access to the oil and gas sector's online data. According to El Molla, the Gateway reflects the progressive vision he has for Egypt's Ministry of Petroleum digitalization and will be a key enabler positioning Egypt as a modern East Mediterranean Hub.

EUG: A KEY TO UNLOCKING HIDDEN POTENTIALS

An Interview with **GEO. ASHRAF FARAG,**
First Undersecretary for Agreements & Exploration, Ministry of Petroleum and Mineral Resources.



CAN YOU TELL US THE INITIAL IDEA BEHIND THE ESTABLISHMENT OF THE EUG AND THE IMPORTANCE OF HAVING A DIGITAL EXPLORATION PLATFORM?

EUG is considered one of the key outcomes of the Modernization project which is led by His Excellency the Minister of Petroleum and Mineral Resources Eng. Tarek El Molla and at the heart of that, the upstream investment attraction program, which reflects Egypt's digitalization strategy.

The upstream investment attraction pillar was focusing on innovative approaches and ideas to digitally promote international bid-rounds and opportunities, and to save IOCs' time to access the data in a professional and simple way.

It is worth mentioning that EUG is the digital version of the historical Exploration Information Center with extended scope of promoting E& P opportunities and making data seamlessly accessible with the highest security measures.

Egypt acquired more than three PB of data over a century and the real intention is to turn it into digital formats, store it, and derive technical value from it.

EUG WAS LAUNCHED LAST FEBRUARY 2021, APPROACHING ITS ANNIVERSARY DO YOU THINK THAT THE EUG SUCCEEDED SO FAR OR DID YOU EXPECT MORE OF IT IN ITS FIRST YEAR?

The EUG roadmap is well defined, consisting of four phases for the project: site preparations and mobilization phase, build up phase, data population and operational phase that started Feb 2021.

> *EUG is considered one of the key outcomes of the Modernization project which is led by His Excellency the Minister of Petroleum and Mineral Resources Eng. Tarek El Molla and at the heart of that, the upstream investment attraction program, which reflects Egypt's digitalization strategy.*

So far, EUG achieved the key objectives and pillars of loading more than 80% of E&P data acquired over a century, managing the new acquired data, and promoting 25 blocks through international bid-rounds for the first time and results were announced last month.

EUG is now considered as a unique source of E&P data, well known to all energy players and got the appreciation from IOCs as the first digital platform for upstream business in Egypt.

CAN YOU SHED LIGHT ON THE WAY FORWARD FOR THE EUG, WHAT CAN WE EXPECT TO SEE THESE COMING YEARS?

We are working now with our partners to mature the EUG and make the best use of the established technology and resources to intensively promote the available opportunities and derive value from the loaded data to unlock the country's potential. In addition, we are continuously focusing on maximizing the role and value of EUG, particularly for the new energy strategy.

> *EUG achieved the key objectives and pillars of loading more than 80% of E&P data acquired over a century, managing the new acquired data, and promoting 25 blocks through international bid-rounds for the first time and results were announced last month.*

EUG: WHEN KNOWLEDGE MEETS INNOVATION

An Interview with **SHERIF BAYOUMY,** Schlumberger Egypt & East Med. Managing Director

WHAT'S THE EGYPT UPSTREAM GATEWAY'S IMPACT ON THE OIL AND GAS SECTOR IN EGYPT?

Because the data is the most valuable asset, we are working hand in hand with Ministry of Petroleum and Mineral Resources to get the most value out of the huge amount of existing E&P data. The consolidation of these data sets helps in understanding the bigger geological picture. Indeed, creating the National Data Repository (NDR) digital library is only one element of our fruitful collaboration. The EUG is working on evergreening the seismic and well data to give operators the highest value of the available data in Egypt.

In addition, the EUG successfully operated the first digital bid round in the Egyptian industry, in the time of a pandemic that caused most other countries to cancel or delay their bid rounds.

FROM YOUR POINT OF VIEW, WHAT ARE THE KEY BUILDING BLOCKS OF THE EUG?

It is great honor and big responsibility to be the Ministry of Petroleum and Mineral Resources's partner in promoting the country's subsurface potential and attracting investors in the Egypt upstream sector.

The success of EUG project is being defined by people—the human capital deployed for each phase of the project, from design, implementation, and go-live to mature operation. Schlumberger experts from different parts of the world, including Cairo, Houston, London, Paris, and other locations, and are providing support to the EUG team during all these phases. The EUG team participated in an intensive training program during 2021 that will continue throughout the duration of the project.

Such an ambitious scope of work could not be achieved without the strong partnership between the experience and knowledge of Egyptian General Petroleum Corporation (EGPC) team with the innovation and know-how of the Schlumberger team and the use of Schlumberger cutting-edge technology.

I am proud to say that with the EUG in operation, we have an excellent platform for the development of expertise and knowledge transfer across a broad spectrum of disciplines.

And also, I would like to mention the availability of technology—both hardware and software infrastructure—that is enabled by the industry-proven Schlumberger software solution. This infrastructure together with the Egypt upstream data will allow all industry to realize the benefits of digital transformation, including future implementation of leading-edge technologies.

WHAT IS THE SCHLUMBERGER ROLE IN EUG MATURATION?

Establishing the EUG was a significant leap toward the digitalization of the Egyptian oil and gas sector. It helps Egypt boost upstream investments. Moreover, it is a key enabler for remotely obtaining and managing data.

The maturation process of the project includes enhancing the available data by leveraging regional knowledge from the EUG team of experts. This is what we mean by evergreening.

The process also includes the use of artificial intelligence tools to extract useful information from the data to speed up the decision cycle for investors, which will positively reflect directly on Egypt's petroleum industry.

> *We are working hand in hand with Ministry of Petroleum and Mineral Resources to get the most value out of the huge amount of existing E&P data. The consolidation of these data sets helps in understanding the bigger geological picture.*

> *Establishing the EUG was a significant leap toward the digitalization of the Egyptian oil and gas sector. It helps Egypt boost upstream investments. Moreover, it is a key enabler for remotely obtaining and managing data.*

EUG: DIGITAL FOUNDATION FOR LIMITLESS TECHNOLOGY INNOVATION OPPORTUNITIES

An Interview with **SAMIR ZEDIRA,** Schlumberger Digital & Integration Egypt, Sudan & Jordan GeoUnit Manager

HOW IS THE EGYPT UPSTREAM GATEWAY DELIVERING THE DIGITAL VISION FOR EGYPT'S UPSTREAM SECTOR?

The Egyptian oil and gas sector is evolving through its digital transformation program with the aim to transform the upstream sector into one that operates digitally on a wider scope.

Schlumberger is proud to be the country's oil and gas performance partner of choice in its digital transformation journey. The progressive vision of the Ministry of Petroleum's digitalization journey was a key enabler for the Egypt Upstream Gateway (EUG), with a goal set to equally enhance the understanding of Egypt's subsurface offering and unlock the full potential of its assets to meet energy needs in addition of providing a fully integrated platform to enable seamless data access and offer the opportunity to explore new plays and prospects and evaluate basins' potential.

The EUG is the digital one-stop shop that organizes data access for the whole of Egypt's E&P data. The first E&P bid round was launched by the EUG on its digital portal early last year, covering 24 blocks.

HOW IS SCHLUMBERGER SUPPORTING DEVELOPING THE EUG YOUNG PROFESSIONALS?

Schlumberger is very keen on investing in and developing the EUG team. To maximize the benefit from the provided technology, a tailored training plan had to be built. Hence we leveraged the presence of our NExT Oil & Gas Training and Competency Development in Schlumberger to generate a skill gap analysis and build a development plan for the EUG team members.

Both the technology and training plan are directly enabling the strategy the team uses to handle the value extracted from regional knowledge of the rich data, which is helping to promote Egyptian acreage and accelerate decision making for investors.

WHAT DO YOU FORESEE AS THE TECHNOLOGY ROAD MAP FOR EUG?

EUG is based on a fit-for-purpose private cloud environment for hosting the Egypt upstream data and required applications, including specifically developed custom components.

The EUG infrastructure of data, information, and secure environment is the digital foundation that opens limitless opportunities for technology innovation. Already, the EUG team is not only supporting licensing round activities but also has implemented production monitoring modules that enable receiving and visualizing the latest production information. We envisage that in the near future, by leveraging data analytics, EUG will be able to create more added-value data products. Also, our joint team is evaluating the application of upstream data for energy transition solutions, with a special focus on carbon storage opportunities. And finally, the team will explore the possibility of offering its members specialized applications within the EUG environment.

In only one year since going live, the EUG team has built the foundation that will be used to continue the digital transformation and deliver added value to the EUG members.

> *Schlumberger is very keen on investing in and developing the EUG team. To maximize the benefit from the provided technology, a tailored training plan had to be built.*

> *The EUG team is not only supporting licensing round activities but also has implemented production monitoring modules that enable receiving and visualizing the latest production information. We envisage that in the near future, by leveraging data analytics, EUG will be able to create more added-value data products.*

RISING TO THE CHALLENGE

An Interview with **GEO. MOHAMED RADWAN**, Exploration General Manager and EUG Project Manager

EUG IS A UNIQUE PROJECT ACTUALLY MORE LIKE AN ORGANIZATION WITH A HUGE TEAM LOCATED ACROSS DIFFERENT COMPANIES AND WORKING ON SEVERAL DISCIPLINES, HOW WERE YOU ABLE TO MANAGE THIS HUGE TEAM AND ACHIEVE SUCH SUCCESSES IN ITS FIRST YEAR?

The project faced many challenges before the Go-Live date including working locations, project infrastructures, team formations, available data status, and the pandemic's circumstances. Forming a team of young professionals from different backgrounds was a key success for the project, where we divided the EUG team into 10 functions.

The main focus before the Go-Live date was on IT, infrastructure, data transcription, data loading, and market awareness of the value of EUG. During the project, the sales and marketing teams became the primary tool to achieve market engagement and support.

The EUG's G&G arm is now essential for deriving value from the data and highlights the opportunities to attract international investments.

> *"Forming a team of young professionals from different backgrounds was a key success for the project, where we divided the EUG team into 10 functions."*

EUG WAS LAUNCHED IN A CRITICAL TIME WHERE THE PANDEMIC WAS HINDERING SOME PROJECTS, HOWEVER THIS DIDN'T STOP YOU ON THE CONTRARY YOU WERE ABLE TO GO LIVE AFTER ONLY 12 MONTHS, CAN YOU TELL US MORE ABOUT THIS SUCCESS?

We had a well-defined roadmap and scenarios to deliver the project milestones and key phases before signing the EUG contract In February 2020. We succeeded in overcoming all the operational challenges and had all the needed infrastructure in place.

> *"We had a well-defined roadmap and scenarios to deliver the project milestones and key phases before signing the EUG contract In February 2020. We succeeded in overcoming all the operational challenges and had all the needed infrastructure in place."*

With management's support and excellent team commitment and ownership, we successfully delivered the project considering the key objectives of the project: preservation of legacy data (3pb), managing the newly acquired data, and promoting E&P opportunities through international bid-rounds.

IN YOUR OPINION, HOW DOES THE EUG HELP IN PROMOTING CONCESSION AREAS AND THE UPSTREAM INVESTMENT OPPORTUNITIES IN EGYPT?

We have clear plans for promotional activities. With the first international bid-round announced, we have the opportunity to promote the blocks on behalf of the EGPC group. For the upcoming bid-rounds, EUG will actively work with the EGPC group to have more weighted offered blocks relying on the regional G&G studies across all basins and based on the prospectivity maps created. In addition, the EUG has a real footprint on all international marketing events and forums to highlight the opportunities and attract new investments to the market to increase oil and gas production.

> *"We have clear plans for promotional activities. With the first international bid-round announced, we have the opportunity to promote the blocks on behalf of the EGPC group."*

SUPPORTING EGYPT'S VISION FOR MODERNIZING PETRULEUM SECTOR:

An Interview with **AHMED ATIF,** Schlumberger Egypt Upstream Gateway Manager

WHAT DO YOU SEE AS THE FUTURE VALUE THE EGYPT UPSTREAM GATEWAY WILL BRING?

EUG will strengthen overall E&P activities in Egypt by leveraging big data and new technologies to accelerate discoveries, which will result in increasing productivity and improving the decision-making process. This result will support Egypt's vision for digitizing and modernizing the country's petroleum sector.

The prospectivity we have gained from the digital platform, National Data Repository, and evergreening of data through the EUG has translated into a good number of new investors who have approached the EUG to join the Egyptian market.

HOW DO YOU MAKE SURE THE EUG HELPS IN ATTRACTING NEW INVESTORS TO EGYPT?

The strength of our partnership with EGPC means that each of the partners delivers elements that complete the other for the benefit of the EUG member companies. EGPC brings in-depth historical knowledge that provides years of valuable experience and insights to newcomers.

Also, the EUG is working on evergreening the existing Egyptian seismic and well data to give operators the highest value of the available data in Egypt. This process involves applying state-of-the-art subsurface imaging technologies to develop a clearer image of the underground geologic features.

Schlumberger's worldwide operations enable us to communicate the Egyptian opportunities to an international E&P audience. Our portfolio of products and services in combination with this broad network means that we have a large variety of industry contacts and therefore of potential interested parties.

We are participating in many industry events. These are also a great springboard for our EUG discussions. They create the right forum to share not only the technical studies we have done but also illustrate the technological solutions we have developed.

> *"EUG will strengthen overall E&P activities in Egypt by leveraging big data and new technologies to accelerate discoveries, which will result in increasing productivity and improving the decision-making process. This result will support Egypt's vision for digitizing and modernizing the country's petroleum sector."*

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WAS THE LAUNCH OF THE EUG DURING THE TIME OF A PANDEMIC USEFUL TO THE EGYPTIAN UPSTREAM SECTOR?

The EUG enables a fully digital exploration and licensing round process. Through 2021, the online portal with complete information on the bid rounds and blocks eliminated the need for physical access or presence. We also provided virtual data rooms (VDRs) to customers all over the world to support their interest in participating in the licensing rounds launched in March and November 2021. Similarly, our VDRs supported local merger and acquisition activities.

We ran a series of virtual events to share with the E&P community the opportunities posed by the licensing rounds and provide technical insights into the geology of the different basins.

> *"The EUG enables a fully digital exploration and licensing round process. Through 2021, the online portal with complete information on the bid rounds and blocks eliminated the need for physical access or presence."*

IOC'S FEEDBACKS

MARCO ROTONDI
Managing Director IEOC - Eni

"The EUG platform is a world-class data repository promoting and maximizing the value of the country natural resources, particularly those related to the petroleum sector.It is a unique entry point database to quickly access the information relevant to the energy business.It shows the huge effort the Minister of Petroleum and Natural Resources is putting in place to digitalize the sector and simplify the tasks of the O&G companies."

AMR ABOU EITA
ExxonMobil Egypt's Chairman & Managing Director

"EUG is undoubtedly a pioneering digital initiative that will be instrumental in unlocking the potential of Egypt's Petroleum sector by promoting the country's exploration and production opportunities."

ExxonMobil

KRISTIAN SVENDSEN
Country Manager, Chevron Egypt

"Egypt Upstream Gateway (EUG) helps modernize and streamline access to the information we need to advance our exploration program via a simple map-based portal. As a recent subscriber, we look forward to realizing the benefits enabled through this platform."

the human energy company Chevron

KARIM ALAA
CEO & SVP North Africa, Bp

"While ensuring business continuity, digital transformation is fundamental for future success of Egypt hydrocarbon sector. The EUG platform for virtual bid-rounds data-rooms, data viewing and purchase was the right step for this highly needed transformation. More impressively, the speed of the EUG execution & implementation, amidst the corona virus pandemic, was second to none and was evident for the successful 2021 bid-round. My best wishes for continuing this digitalization structure that is able to adapt to the industry needs and any future changes."

bp

SAMEH SABRY
Senior Vice President and Managing Director – Egypt,
Wintershall Dea

"EUG will have a fundamental impact on attracting further investments to Egypt, through securing accessibility to treasures of Egypt upstream data."

wintershall dea

DAVID CHI

Vice-President of Apache Corporation and Country Manager for Apache in Egypt

"The Egypt Upstream Gateway launched by the Ministry of Petroleum and Mineral Resources is a key component of the digital transformation of the oil and gas industry. The gateway provides easy access to information, enabling our team to evaluate potential prospects efficiently."

ROMAIN DE LA MARTINIÈRE

Managing Director, Total Energies

"Total Energies EP Egypt is using EUG since its inception. We see it as a great tool in terms of flexibility and accessibility of data and thus accelerating the upstream business process. It is certainly a significant step towards the digitalization of the Egyptian oil and gas sector which came right on time to cope with the pandemic restrictions."

ALI AL JARWAN

CEO ,Dragon Oil

"The EUG portal has been a key enabler for Dragon Oil to operate and participate in the 2021 bid round during the global pandemic. It gave the team access to the available digital data sets which allowed them to work safely with minimum exposure to the Covid-19 pandemic. This is a great step by the MoP to modernize the Petroleum sector in Egypt"

DENISSE ABUDINÉN BUTTO

Chief Executive Officer- ENAP SIPETROL - General Manager - ENAP SIPETROL - Egypt Branch

"EUG platform is a great opportunity to all IOCs in accessing a fully integrated, digital E&P platform which provided virtual access to all 2021 bid round data ,including relative information of the offered blocks. ENAP Sipetrol was one of the leading companies that participated in the EUG platform, as one of our values comprise of our belief that digital transformation plays a positive role in the oil and gas industry in Egypt. Finally EUG has facilitated a lot in analyzing all blocks and being awarded with the West Amer Block in the Gulf of Suez. Congratulations EUG team for all the success! and looking forward for more achievements."

NICOLAS KATCHAROV

Country Manager Egypt, Energean PLC

"In terms of business, the world becomes a more digital place and will continuously need effective digital strategies, we are truly appreciating EUG efforts toward modernization through digital transformation, we look forward to further collaboration and success through this digital platform."

KAMEL AL SAWI
President, Kuwait Energy Egypt

"We were happy to experience this digital transformation in the Egyptian oil and gas sector which was launched in the optimum time that helped to continue efficient workflow during the lock time caused by COVID-19. EUG is providing valuable fully integrated platform for Egypt that will help the sector to reposition itself on the international investment map and attract more global investment."

Kuwait Energy

RAAFAT BELTAGY
CEO & President, MOG Energy

"Considering my background and experience in the Egyptian Oil & Gas Sector, I see that EUG is a dream that came true which enabled digitizing subsurface information and delivering a digital subsurface platform which helped our company having a smoother access to the subsurface data for a more efficient evaluation for the offered opportunities"

MOG Energy
MENA Oil & Gas

DAVID THOMAS
CEO, Cheiron

"The launch of the EUG portal has revolutionized data management practices in the Egyptian E&P sector and significantly improved our ability to identify and evaluate new business opportunities. Knowing what data are available and being able to download them remotely, in a fast and effective manner, has expedited the evaluation process and allowed us to optimize the deployment of our technical specialists. It has also helped protect everyone's health during a challenging time with the Covid pandemic upon us."

CHEIRON

FEDIR BAYUK
Egypt Branch Director, Naftogaz

"EUG will become the main platform of Egypt's digital transformation in the petroleum sector and it will easily be able to handle access to data as well as facilitate farm-ins and bid-round licensing. This cutting-edge platform was designed for users to quickly view and download all available data sets for Egypt in a way that will save time and effort. Given so, I take great pleasure in saying that initiating the Virtual Data Room during the last bid-round was a great project, which made quick progress beyond expectations."

NAFTOGAZ GROUP

NENAD HRIBAR
General Manager, INA Exploration and Production Egypt

"EUG platform is a window to upstream future in Egypt, it enables our team to have the right information on their fingertips."

SUNEEL GUPTA
Vice President and Chief Operating Officer, TAG Oil Ltd.

"TAG Oil as a new entry company to the Exploration and Production of energy in Egypt, has been active for the past year reviewing oil and gas assets and participated in the recent 2021 Exploration Block Bid Round. The EUG Portal is a good platform to access historical technical information on an asset and the conduct of the EUG team was cordial and effective to provide us overview information through VDR sessions and resolve any concerns that arose."

AMANI BADAWI
Exploration & BD Manager, SDX Energy Plc

"Egypt upstream industry has been a key contributor toward the Egyptian economy growth and stability in the last decade. To attract and increase foreign investment, Egypt had to take big steps in the modernization of the industry. Egypt Upstream Gateway "EUG" – is the first Egypt's digital subsurface platform, efficiently enhanced the accessibility and data availability for E&P companies. It is an integral part of Egypt 2030 vision that aim to exploit Egyptian infrastructure, supporting a national goal for turning the country into a vital energy hub."

GEORGE KOZMA
Country Manager, Dana Petroleum Egypt

"Dana Petroleum is vigorously looking at increasing its growth potential with particular focus on exploration and new ventures opportunities in the Egyptian petroleum sector. Dana Petroleum recognizes that it can achieve its strategic objectives more efficiently by utilizing EUG's platform which provides ready access to comprehensive database and virtual data room associated with bid rounds."

ANDREI ZIMIN
General Manager, LUKOIL Overseas Egypt Ltd

"The EUG portal allows to access the necessary well information from anywhere in the world where there is an Internet connection. This is an important factor in the face of remote work requirements and other COVID-19 restrictions in now days."

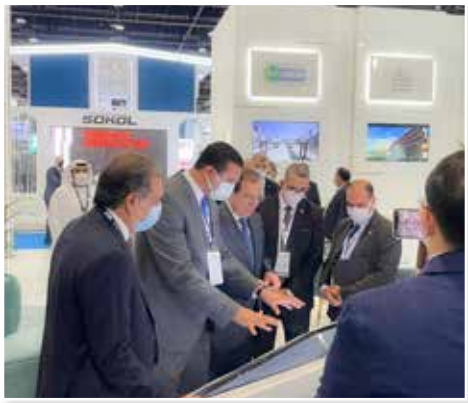
GLANCE FROM EVENTS AND EUG PRESENCE

Tendering Committee Meeting

EUG Go Live Event

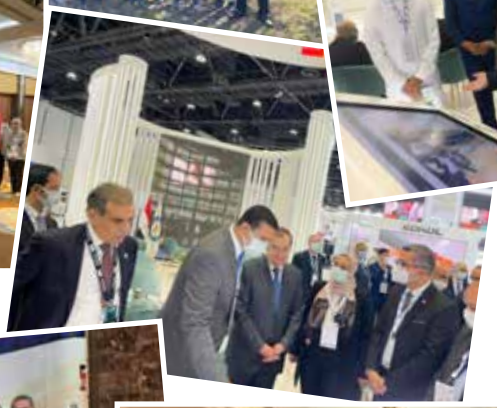
Offshore Mediterranean Conference (OMC)

Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC)



4th Upstream Technical Convention

MEET THE TEAM BEHIND EUG



SCOUT CHECK MEETING
IDC

EUG JOURNEY FROM SIGNING TO LAUNCH- KEY MILESTONES

On 17th February 2021, H.E Eng. Tarek El Molla, Minister of Petroleum and Mineral Resources, declared the actual launch of Egypt Upstream Gateway (EUG), after 12 months of signing the contract between EGPC and Schlumberger, within the activities of EGYPS 2020. Since then the EUG witnessed several achievements and key milestones. The launch of the first international digital bid round in 1st March remarks the most important milestone in EUG's journey.

The EUG platform was able to support the bid round through visual data rooms (VDRs) and technical content. In November, the limited EGAS bid round on North King Mariout Block was launched through the EUG.

Along its operation period, the EUG was able to upload Along its operation period, the EUG was able to upload 2 Petabyte (PB) 2 Petabyte (PB) of E&P data of 10,500 wells, and more than 272 3D , 367 2D seismic surveys and 40 Grav/Mag surveys .seismic volumes, in addition to merging 50,000 km2 of 3D seismic data in the East Mediterranean and the Western Desert.

MILESTONES & ACHIEVEMENTS 2021

- **Feb** — Go Live Date
- Finalizing the build-up phase of
  - Primary Centers
  - Disaster Recovery Centers
- **Feb** — EUG Bid Round Preparation
- Uploaded "2PB of E&P Data"
  - **10,000** Wells
  - **+250** 3D Seismic Volumes
- **1 Mar** — 1st Digital International E&P Bid Round
- Supporting the bid round through VDR and technical content — Until **30 Sep**
- **Sep** — Participating on OMC , Ravenna Italy
- Participating on ADIPEC, UAE — **Nov**
- **1 Nov** — Supporting the start of mini bid round on North King Mariout Offshore Block
- Promoting East Abu Sennan Area & Western Desert for Tharwa — **1 Oct - 15 Dec**
- **2021** — Merging **50,000** km² of 3D seismic data in East Mediterranean & Western Desert
- Having **31** memberships with **4** new companies
- Developing capabilities of young professionals through technical & soft skill courses

OVERVIEW ON THE FIRST BID ROUND IN NUMBERS

The results of the first digital international bid round for oil and gas exploration and exploitation in the Mediterranean, the Western Desert, and the Gulf of Suez were announced in January 2022.

EUG LAUNCHED DIGITAL BID ROUNDS

Start Date	Concessionaire	Offered Blocks	Location	Closing Date
Feb 2021	EGPC & EGAS	24	Eastern & Western Mediterranean, Western Desert & Gulf of Suez	Sep 2021
Nov 2021	EGAS	1	Mediterranean Sea	Feb 2022

BID ROUND SUMMARY 2021

- **10** Engaged Companies
- **38** Booked PVDRs
- **28** VDRs for EGPC's Bid-Round
- **10** VDRs for EGAS' Bid-Round
- **35** Running VDR for EGPC's Bid-Round
- **3** Running PDR for EGPC's Bid-Round
- **14** Data Packages

EUG 1ST DIGITAL INTERNATIONAL BID ROUND RESULTS

Awarded Blocks	Awarded Companies	Total Area
8	7	12,300 km²
Signature Bonus	**Minimum Investments**	**Wells**
$23.7 million	$250 million	33

Location

- Mediterranean: 2
- Western Desert: 4
- Gulf of Suez: 2

AWARDED BLOCKS

Awarded Blocks	Awarded Companies	Area (km²)	Location
EGY-MED-E5	Eni, BP	3,203	Mediterranean Sea
EGY-MED-E6	Eni	2,983	
EGY-WD-7	Eni, Apex	514.8	Western Desert
EGY-WD-8	Energean Egypt INA Nafte	1,612.4	
EGY-WD-9	Eni	732.2	
EGY-WD-11	United Energy	1,400.6	
EGY-GOS-13	Eni	954.7	Gulf of Suez
EGY-GOS-14	Enap Sipetrol	907.9	

DATA LOADING PROGRESS AND VIEW

The EUG National Data Repository (NDR) is providing access to data accumulated for more than 70 years of exploration and development activities in Egypt. Everyday more data is being added to EUG to enrich the NDR content. This wealth of Upstream data is ready to support investments in Exploration and Development activities in Egypt.

EUG DATA LOADING SUMMARY

Covered Basins

Gulf of Suez, Western Desert, Eastern Desert, Mediterranean & Nile Delta

Covered Duration
More than **70** years

Wells
Estimated Volume **12,000**
Loaded YTD **10,518**

Documents & Reports
+100,000

Daily Field Production
868 Fields

Seismic Survey

2D
Estimated Volume **803**
Loaded YTD **367**
Covering: **320,548** km

3D
Estimated Volume **362**
Loaded YTD **272**
Covering: **313,060** km²

Grav/Magnetic Survey
Estimated Volume **66**
Loaded YTD **40**

Seismic Data
1.5 PB

Oil & Gas Facility
+550

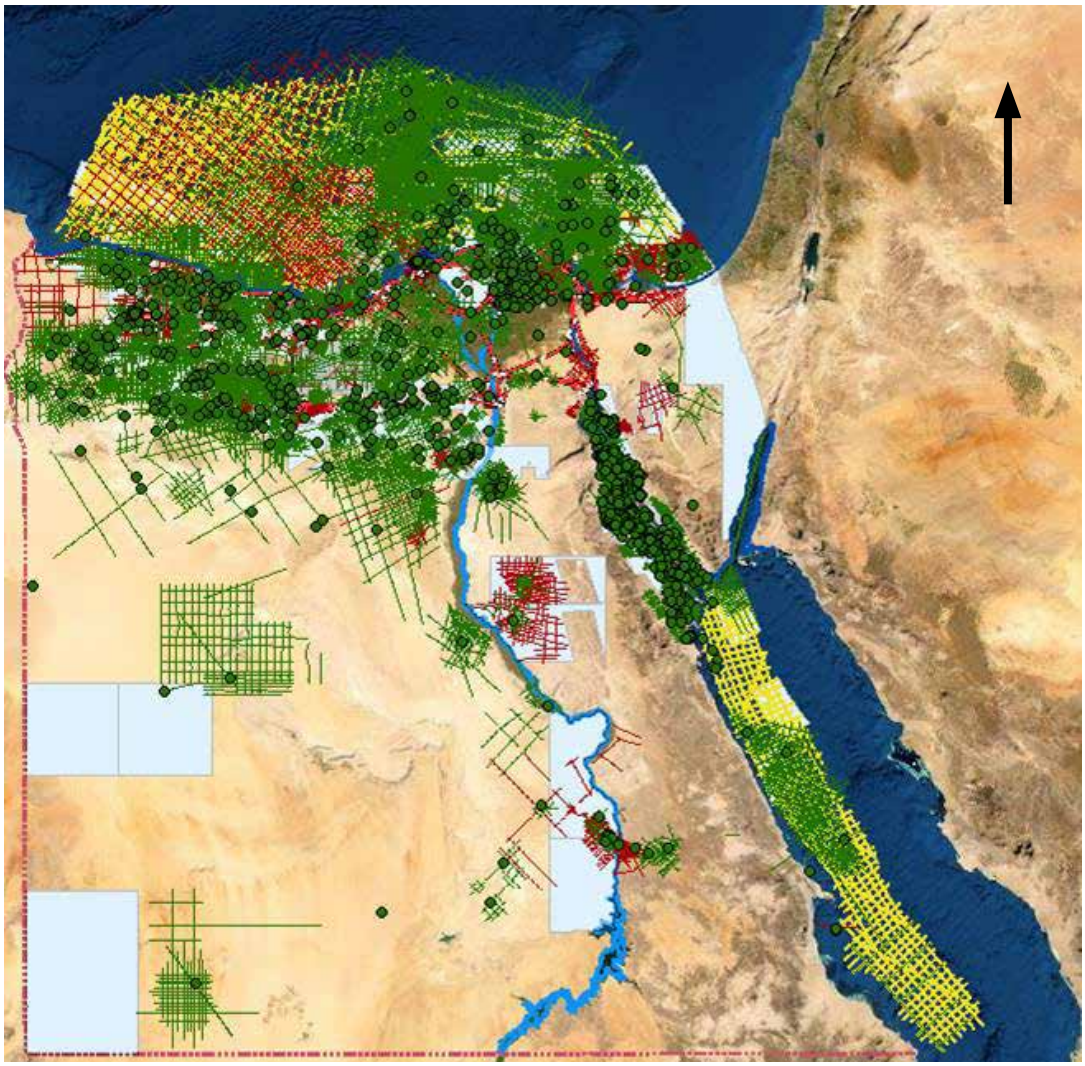
Development Leases
465

Exploration Concessions
74

Media Transcribed
275,607

Server
PS

Integration with
Egypt Production Digital Center (EPDC)



EUG EVERGREENING

In EUG Evergreening, we focus on understanding data-specific challenges through continuous geophysical and geological evaluations to deploy the required technology to improve the quality of seismic data, with an overarching goal to evaluate basins' potential, explore new prospects, and most of all reduce exploration risk.

The EUG Evergreening team has successfully completed the 3D "Regional Post Stack Merge" covering collectively over 50,000 km² in the Eastern Mediterranean and the Western Desert. (Fig 1) We have merged 28 legacy surveys in the Eastern Mediterranean and 35 legacy seismic surveys in the Western Desert of different vintages together into one seamlessly merged volume enabling technical teams to conduct regional subsurface evaluations using one contiguous volume.

For further information about the project, kindly contact EUG: info@eug.petroleum.gov.eg

In continuation of EUG Evergreening's efforts, an 'Accelerated 3D pre-stack depth processing" was conducted during 2021 in the Eastern Mediterranean, covering 12,000 km². The "Accelerated 3D pre-stack depth processing" project includes the merge and processing of 12 input surveys from field tapes, where advanced broadband processing technology, earth model building workflows, and the latest migration algorithms were applied to enhance the data quality in order to assist exploration companies for license rounds. This product is available for licensing.

For further information about the project kindly contact EUG: info@eug.petroleum.gov.eg

The EUG team has built a comprehensive pipeline of projects to extend the evergreened data footprint from the East Mediterranean to the Nile Delta basin in the offshore and to implement an extensive depth imaging effort in the Western Desert.

The ambition is to provide the industry with differentiated data across key basins to understand the basin architecture, the petroleum systems and to enable play fairway mapping across the various sub-basins.

For more details on the planned projects kindly contact EUG: info@eug.petroleum.gov.eg

Regional G&G insights (new)

EUG regional team currently works on fully integrated evaluation from basin scale to prospect level to effectively support bid rounds and promote acreage in local and global markets. This type of evaluation will be a key enabler for the market to understand the prospectivity and value of bid round blocks, global market dynamics, and potential client interest. These valuable insights are used as the main feed for a) defining potential data enhancement via cutting edge seismic and wells processing workflows that fit each data needed enhancement requirements b) planning future projects

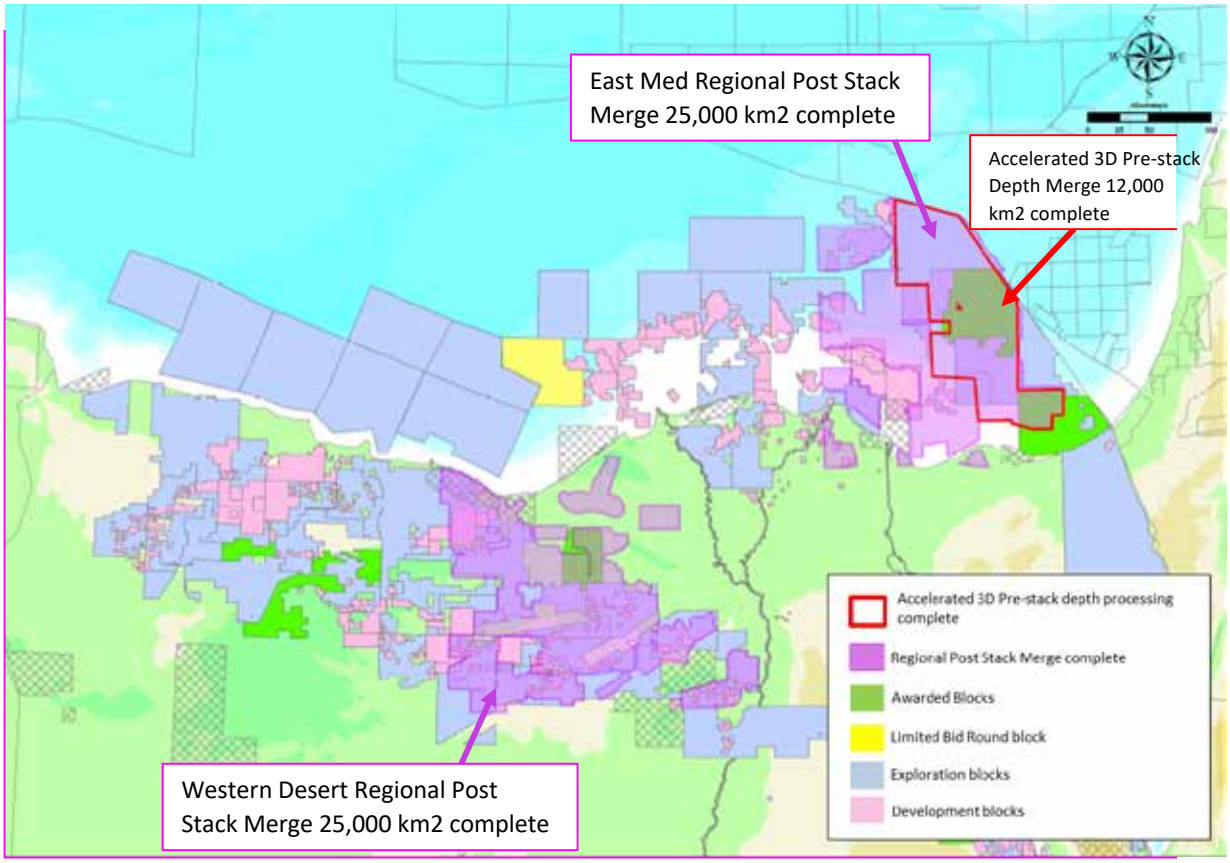


Fig. 1 Completed Evergreening Projects in 2021

with the objective of finding additional upside potential in the prospective basins.

Insights from subsurface evaluation studies have been presented to technical communities worldwide during technical conferences to promote Egypt's basins potential.

Utilizing the ''Regional Post Stack Merge'' covering NE Abu Gharadig, Gindi, Qatara, and Alamein basins, seismic, petro-technical experts in the EUG Evergreening team have conducted regional evaluations to understand additional upside potential of the thin bed Abu Roash sandstone reservoirs. This is described in the publication below.

This evaluation study will be presented at the Schlumberger Booth during the EGYPS Conference.

PETEX LONDON

23rd – 25th November 2021, London, England

PRESENTED AT PESGB / HGS AFRICA E&P LIVE EVENT CONFERENCE 2021 IN PETEX

Open acreage exploration upside – untested Turonian Abu Roash channelized reservoirs in southern Alamein Basin, northern Western Desert.

Hosny Diab, EUG Geoscientist

E-Mail: **HDiab@eug.petroleum.gov.eg**

We also have another interesting publication from the EUG Evergreening team on Offshore Mediterranean which will be presented at the main Technical conference during EGYPS.

EGYPS EGYPT PETROLEUM SHOW

12th -14th February, Cairo, Egypt

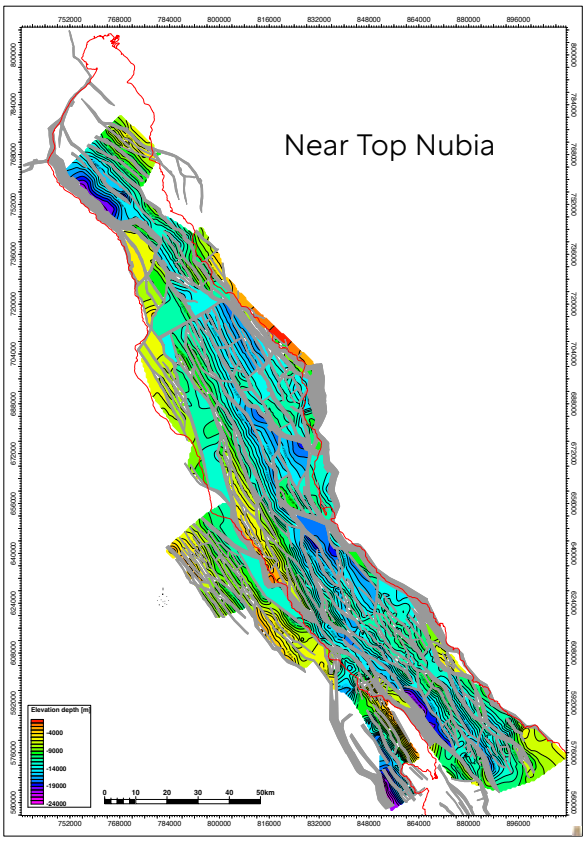
EGYPT OFFSHORE MEDITERRANEAN: NEW STRATEGY AND INSIGHTS TO ACCELERATE EXPLORATION AND DEVELOPMENT CYCLE

Amr Talaat, Ph.D., MBA, PMP, EUG Evergreening Special Projects Lead

E-Mail: **ATalaat@eug.petroleum.gov.eg**

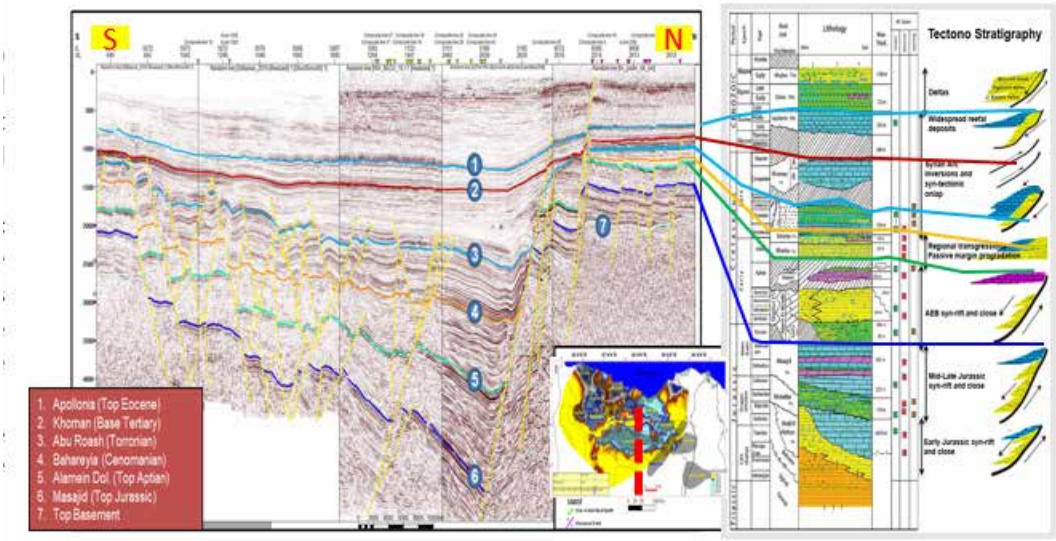
Gulf of Suez Rift Overview

The Gulf of Suez (GOS) is a failed rift located north of the triple junction formed by it and the Gulf of Aden and the Red Sea. It is one of the oldest known hydrocarbon provinces in the world with reports of natural seeps going back to Pharonic time. In the modern era, oil was first discovered in 1868 by a French mining company while digging for sulfur. The first "true" exploration well (Gemsa D-1) was drilled by the Egyptian Government in 1886. Commercial oil was developed, later in 1908, by the Anglo Egyptian Oil Company and the Egyptian Oil Trust with the establishment of Gemsa Field. It has an excellent hydrocarbon potential, with the prospective sedimentary basin area measuring approximately 19,000 sqkm. With more than 130 oil fields and 3050 wells it s considered the most prolific oil province rift basin in Africa and the Middle East. The majority of oil fields incorporate multiple productive reservoirs of Precambrian to Quaternary age.



Western Desert Overview

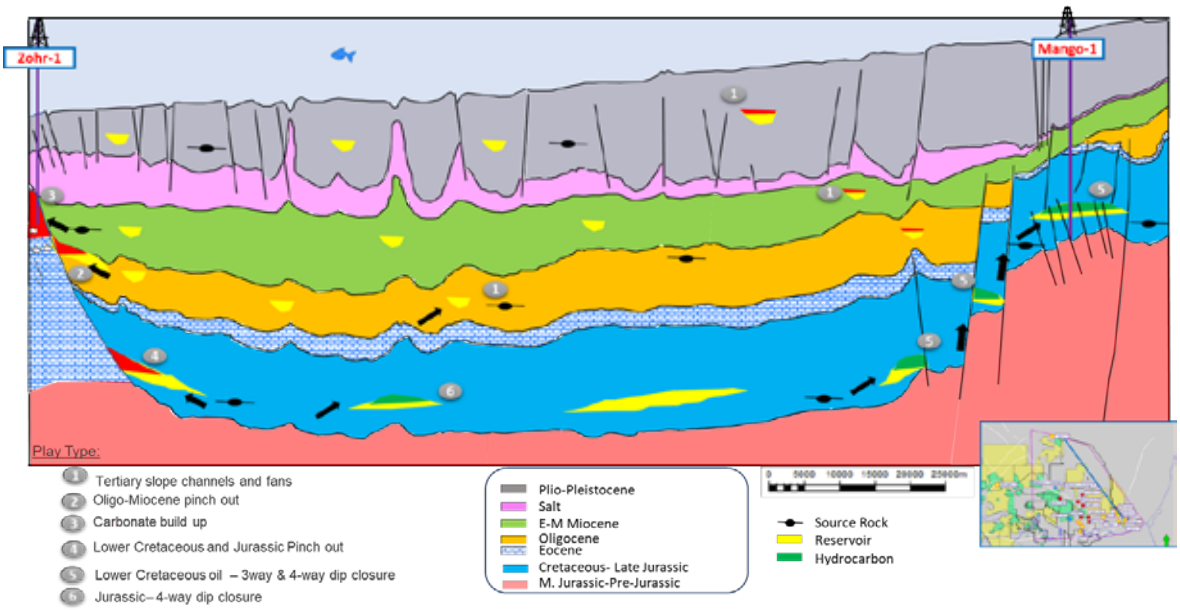
The Western Desert of Egypt has a sporadic history of exploration. Production has been continuous since the discovery of the Alemein field in 1967. Recent discoveries, and better quality seismic data from the basins to the northern part, indicate that there are significant untested structures. It has and excellent hydrocarbon potential, with Yet-to-find volumes up to 5.5 Billion BOE. The prospective area of the sedimentary section measures approximately 140,000 sqkm divided between seven sedimentary basins. More than 4000 drilled wells producing various hydrocarbon types from different reservoirs that ranges in age from Eocene to Paleozoic. With respect to the percentage of recoverable volume/age both the Paleozoic and Jurassic reservoirs are still under-explored and need more work to reveal and unlock their potentiality.



Offshore Nile Delta Overview

Mediterranean Sea, Nile Delta and North Sinai off-shore are still under-explored basins with anticipated large volumes of hydrocarbon resources especially within the Pre-Messinian deeper targets. In the early sixties, exploration for gas was started in the Mediterranean, Nile Delta and Western Desert with major activities leading to the discovery of an outstanding number of gas fields. The first gas field (Abu Madi Field) was discovered onshore the northeastern portion of the Nile Delta Cone in 196. This was followed, in 1969, by the discovery of the Abu Qir gas field offshore Mediterranean Sea, northeast of Alexandria city. The discovered gas potential of these fields, by that time, encouraged the spread of exploration activities onshore Nile Delta, offshore Mediterranean Sea (shallow water) and onshore Western Desert.

Recently, in 2015, the giant Zohr gas field was discovered by Eni through the drilling of the Zohr-1 well in the deep water of the Mediterranean Sea, some 160m to the NE of Port Said city. The field was classified as the world's largest gas find during that year as it was estimated to host substantial in-place gas volumes of 30 TCF. It was also considered as a new play opener with first time in Egypt to encounter gas-bearing reservoir in Cretaceous carbonate build-up.



BUDLING ON EUG'S SUCCESSES: WAY FORWARD

In line with Egypt's VISION 2030 pillars to digitize all Egyptian sectors, EUG is a real representation of the modernized Egypt and the progressive vision of the Ministry of Petroleum and Mineral Resources to digitally transform the upstream business. The digital gateway is a way forward to attract new investments and boost production rates.

EGPC group highlighted the four key phases to launch the platform including the site preparations and mobilization phase, building up two centers, data population into the system, and the operational phase (Go-Live date).

The amount of exploration and production (E&P) data acquired over the last 70 years is huge and exceeds 3 PB. Most of this data requires tremendous efforts to be uploaded into the system in digital formats.

EUG paves the way to a highly promising future of managing and promoting concessions online. The EUG management's vision is not only about building a national data repository but also to derive technical value from this data to highlight the significant potential of Egypt's geologic basins. Then, the digital platform aims to promote these opportunities to attract international investments.

The platform successfully ran two international bid rounds despite the COVID-19 lockdown. The results of these bid rounds were encouraging considering the global circumstances. Hence, the success of the bid rounds guarantees a promising future for the oil and gas sector.

Since the Go Live date of the EUG platform, management looks for additional maturation of the project, where the team can prepare technically for the upcoming bid rounds once finalizing the regional geological and geophysical (G&G) studies for the different basins on merged seismic surveys and help design new blocks to de-risk the opportunities and increase the chances of success for drilling activities.

EUG will grant seamlessly accessible data to the companies interested in the E&P business. It will promote opportunities for new players' and prospects' exploration, and enable the basins' potential evaluation.

As the first digital E&P platform, EUG still has a lot to offer. It will play a role as a key enabler in Egypt's strategy to become a regional energy trading hub. EUG's team works hard to optimize the platform's performance, enhance the offered services, and boost efficiency, based on the members' feedback, in order to meet the Ministry's vision.

EUG
YOUR GATEWAY TO EGYPT'S UPSTREAM INVESTMENTS...
https://eug.petroleum.gov.eg