EGYPT'S OIL & GAS

SECTOR TOWARDS A DIGITALIZED FUTURE

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RESEARCH & ANALYSIS

EGYPT'S OIL & GAS SECTOR TOWARDS A DIGITALIZED FUTURE

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The world is going digital and embracing sundry new technologies. In this regard, the Egyptian oil and gas sector does not tolerate keeping pace with this development, through adopting the digital transformation program. This program comes as the seventh pillar of the sector's modernization program, which was developed in 2016, to transform the oil and gas sector into one that operates digitally on a wider scope.

Flashbacks

The Egyptian oil and gas sector has pioneered digital operations over the past 60 years. This digital adaptation was evident in the widely deployed technologies in the oil and gas sector, such as the Supervisory Control and Data Acquisition (SCADA) systems, the Distrusted Control Systems (DCS), and the smart and digital instruments used in companies and fields.

DIGITAL TRANSFORMATION PORTFOLIO

Within the digital transformation program framework, the Ministry of Petroleum and Mineral Resources (MoPMR) set a digital transformation portfolio that encompasses five main pillars to achieve a comprehensive digital transformation process. These pillars include Enterprise Resource Planning (ERP) systems, and developing information technology (IT) infrastructure that are decisive for digital transformation. Moreover, the portfolio focuses on establishing command centers, Data Analytics Software and field development programs.

TRANSFORMATION ACROSS SECTOR'S VALUE CHAIN

The main objective of the digital transformation program is developing and modernizing Egypt's oil and gas sector to be more efficient, achieve optimal performance across the whole value chain, upstream, midstream and downstream. It is worth mentioning that establishing the Egypt Upstream Gateway (EUG) is considered to be a significant step towards digitalizing the upstream activities, being the first exploration and production (E&P) digital data center.

UPSTREAM

1. EUG

EUG VISION

EUG ACHIEVEMENTS

2. Digital Applications

Egypt Production Digital Centre

Monitoring and reporting oil & gas production data using AVOCET Software

GIS Platform

Digitizing asset's locations and data maps of production locations

Digital Data Centre

Preserving, managing and analyzing oil & gas sector data

MIDSTREAM

1. Monitoring & Control for Oil & Gas Grids

NATA Control Center

Enhancing management, operation and monitoring of national gas network

ERP Systems

Implemented across GASCO & PPC

Phase 1 of PPC SCADA System

Enhancing management, operation and monitoring crude oil & products network

Phase 1 of Automatic Tank Gauging System

Completed for PPC

DOWNSTREAM

1. ERP System Implementation

Holding Companies as EGPC and others

More than **60** companies

Affiliated companies, including refineries and sales & distribution companies

2. Refinery Operations

Phase 1 of Radar Tank Gauging System	Phase 1 of Linear Programming
Monitoring operations & storage facilities	Optimizing process operations and supply chain activities

3. Sales & Distribution Operations

Digital monitoring of petroleum products consumption

Automatic Tank Gauging System

Tracking petroleum products transportation and distribution

Digital Smart Systems & GPS

Facilitating identifying nearest locations of fuel stations

First Mobile Application "MOP Stations"

COLLABORATION WITH DIGITAL PARTNERS

The MoPMR is keen to continue collaboration and cooperation with different digital partners through signing Memoranda of Understanding (MoUs) and agreements to accelerate digitalization implementation efficiently by using various modern solutions and technologies.

The collaboration mainly aims to support digital transformation projects, benefit from the IT companies' advisory services in digital transformation, and enhance digital transformation to meet international best practices.

Signed MoUs and Agreements for Digital Transformation

Feb, 2023

MoPMR & IBM
EGPC & Cisco
EGPC & Oracle
Enppi & SAP
Tanmia Petroleum Company & Huawei Technologies
EMC & Huawei Technologies

Mar, 2022

Abu Oir & SAP

Feb, 2022

MoPMR & Apache

MINISTRY'S FUTURE PLANS

The MoPMR paid attention to developing future plans for digitalization, being one of the most essential aspects of the sector's future. The future plans are mainly focused on continually expanding the sector's digital foundation projects, continuing collaboration with partners to deploy the latest technologies, synthesizing information, business analytics, and insights, as well as, supporting unlocking the full potential of the Egyptian oil and gas sector.

Digital transformation is not just transforming processes to become digital; it is the approach to remodeling any enterprise to incorporate digital technology across different sectors to achieve greater efficiencies. The MoPMR seeks to digitize Egypt's entire oil and gas sector by establishing integrated digital systems to leverage integration and improve coordination between sector entities. This is in addition to ensuring the availability of data to support, speedy decision-making and being able to help when facing crises.

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