

Digitalization and Automation in the Oil and Gas Industry - Challenges and Opportunities

When: June 18, 2018, 9:00-16:00

Where: Stock Exchange Conference Center, 2 Ahuzat Bayit St., Tel Aviv, Israel

Target Audience:

- **Oil and Gas companies:**
CTOs, VPs Innovation, VPs Operations, senior management of Technology, Engineering, and Innovation departments
- **Oilfield Service companies:**
VPs Digitalization/Digital Oilfield/Integrated Operations, senior management of Technology and Innovation departments
- **Israeli Technological companies:**
CEOs, CTOs of companies in fields related to industrial digitalization, industrial automation, and industrial cyber security.

Rationale and objectives:

The oil and gas industry is facing dramatic challenges. The need to increase efficiencies and cut costs, the thrive to increase productivity and further exploit known reservoirs, and the need to comply with strict HSE regulations, are all key drivers for some major changes in the way the industry has been operating in recent decades.

It is clear that technology and innovation, and more in specific, digitalization and automation technologies, are increasingly integrating into the oil and gas industry and are becoming key enablers for the industry to successfully address the challenges it is facing.

Israel, coined globally as the "Start-Up Nation", is a global innovation hub, with the highest share, globally, of R&D investments as a percentage of GDP, and hosting over 300 R&D centers of multinational companies, for many, the only R&D center out of their home countries.

Israel has been traditionally strong in ICT-related technologies, and today has a thriving ecosystem abundant of researchers, start-ups, accelerators, incubators, mature companies, MNCs, and investors in fields such as Industrial IoT, big data & analytics, AI & machine learning, deep learning, machine vision, AR/VR, scalable computing systems, cloud environment, unmanned systems, blockchain, industrial cyber security, and more.

All those capacities Israeli industry excels in could create immense value in the oil and gas industry. Clearly, this will happen only through dialogue and cooperation between key players from the oil and gas industry and Israeli technological companies, discussing the challenges the oil and gas industry is facing and innovative technologies and solutions that have the potential to successfully address those challenges.

The "Digitalization and Automation in the Oil and Gas Industry – Challenges and Opportunities" event, organized by the **Israel Innovation Authority**, is designed to do exactly that: create a focused and qualitative platform for discussion on challenges the oil and gas industry is facing, and innovative technologies that bears the potential to successfully address them.



Agenda Outline and Contents:

9:00-9:15 **Opening remarks**

9:15-10:15 **Overview**

- What is the current state of adoption of digitally-related technologies in the oil and gas industry?
 - How will the future Digital Oilfield look like?
 - Current state of E&P activity in Eastern Mediterranean region
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10:15-10:30 **Coffee Break**

10:30-11:30 **Control & Automation Systems**

- How could IIoT and M2M technologies help optimize operational efficiency and safety in the oil and gas industry?
 - Combining automated failure prediction and AR solutions to achieve safer, cost effective maintenance activities
 - Pitching session of innovative solutions (5 companies, 15 min)
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11:30-12:30 **Analytics, Artificial Intelligence & Automated Systems**

- How machine learning and deep learning technologies could improve yields and value of geophysical, operational, and other complex data?
 - How could AI and GPU-accelerated computing reduce the cost of finding, extracting, processing and delivering oil and gas?
 - Pitching session of innovative solutions (5 companies, 15 min)
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12:30-13:30 **Lunch Break**

13:30-14:30 **Unmanned Systems**

- How could robotics and industrial automation techniques be used for safer and more efficient inspection, maintenance and repair activities?
 - Use cases for drones and UAVs in oil and gas operations
 - Pitching session of innovative solutions (5 companies, 15 min)
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14:30-15:30 **Cyber Security & Blockchain**

- How could the risk of connecting and digitalizing assets be mitigated through cyber security technologies?
 - How could blockchain technologies make data transmission in decentralized systems more secure?
 - Pitching session of innovative solutions (5 companies, 15 min)
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15:30-16:00 **Refreshments and networking**

