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

Creating Value through Partnerships & Innovation

24-25 June 2019, Tel Aviv, Israel

Come learn how the oil and gas industry is changing and hear about the **latest technological trends** in the industry

Come learn about the **digital and business transformation** the oil and gas industry is undergoing as it transitions to become an energy industry

Come learn about **the Israeli Innovation Ecosystem** and how to effectively engage with the Start-Up Nation

Target Audience

Oil and Gas & Oilfield Service companies

CTOs, CIOs, Corporate Technology Venture Units, VPs Innovation/Digital Transformation, VPs Operations, Senior Technology and Engineering Management, Directors New Energy Business

Israeli Technological companies

CEOs and CTOs of companies in fields related to industrial digitalization, industrial automation, industrial cyber security and new energy solutions

Rationale and objectives

Following the success of last year's event, which attracted key professionals from the oil and gas industry and 125 Israeli tech companies for discussions on how novel digitalization and automation technologies can create value in the oil and gas industry, we are pleased to continue and deepen this important, business-oriented dialogue.

The oil and gas industry is in the midst of major transformations. The need to increase efficiencies and cut costs, to increase productivity and further exploit known reservoirs, and to comply with strict HSE regulations are all key drivers for major changes in the way the industry has operated in recent decades. In addition, be it because of regulation, public opinion, or a shortage of natural resources, it is clear that the future energy portfolio will have a higher share of sustainable resources in it. As a result, oil and gas companies are proactively seeking a transition path to become truly holistic energy companies.

Technology and innovation, and more specifically, digitalization and automation technologies are increasingly being deployed in the oil and gas industry, helping the industry to successfully address the challenges it faces. Technological breakthroughs in fields like energy storage and energy management have a key role to play in enabling and accelerating the transition to the future energy world.

Israel, known throughout the world as the "Start-Up Nation", is a global innovation hub, with the highest share, globally, of R&D investments as a percentage of GDP. Israel hosts over 300 R&D centers of multinational companies; for many, it's 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 in 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.

In addition to the conference itself, new this year, the program will integrate a field visit to meet the Israeli innovation ecosystem. This will help decision makers from the oil and gas industry form first-hand impressions of the local ecosystem and deepen their understanding of how to effectively engage with it and the value they could generate as a result.

Israeli industry and its innovation capacities provide a unique opportunity to create immense value in the oil and gas industry. Clearly, this will happen only through dialogue and cooperation. The 2nd "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 engaging forum for discussing the challenges the oil and gas industry is facing and innovative technologies that bear the potential to successfully address them.

Program Outline (*)

08:15-09:00	**Registration**

09:00-09:10	**Opening remarks**

09:10-09:30	**Keynote**

09:30-10:30 **Session 1: Overview**

- What is the current state of adoption of digitally-related technologies in the O&G industry?
- What will the future Digital Oilfield look like?
- What are the "hotspots" for tech investments in the O&G industry?
- How is the oil and gas industry preparing itself to the future energy world?
- What is the current status of development of Israel's offshore reservoirs?
- How have novel Israeli technologies created value in the local reservoirs?

10:30-11:00	**Coffee Break and Networking**

11:00-12:00 **Session 2: Unlocking the Hidden Value of Data**

- How can machine learning and deep learning technologies improve yields and the value of geophysical, operational, and other complex data?
- How can AI and GPU-accelerated computing reduce the cost of finding, extracting, processing and delivering oil and gas?
- How can IIoT, M2M and AR/VR technologies help optimize operational efficiency and safety in the oil and gas industry?
- Pitching session for innovative solutions

12:00-13:00 **Session 3: Unmanned Systems**

- What is the role of unmanned systems in the future oilfield?
- How can the use of drones help increase safety and efficiency in oil and gas operations?
- Learning from other industries: heavy-duty machinery in mining
- Pitching session for innovative solutions

13:00-14:00	**Lunch Break and Networking**

14:00-15:00 **Session 4: Cyber Protection of Critical Infrastructure**

- How can the risk of connecting and digitalizing assets be mitigated through cyber security technologies?
- How can blockchain technologies secure data transmission in decentralized systems?
- Pitching session for innovative solutions

15:00-16:00 **Session 5: The Transition from Oil and Gas to Energy Companies**

- What are the key challenges and barriers in achieving this transformation?
- What new business opportunities are being pursued in sectors such as transportation and mobility, low carbon power, and carbon management?
- Which technologies have the potential to disrupt these markets?
- What is the role of digitalization in enabling these new energy services and solutions?
- Pitching session for innovative solutions

16:00-16:45	**Refreshments and Networking**

Tuesday, 25 June 2019 (08:30-16:30)

Join a **Field Visit to the Israeli Innovation Ecosystem**. The program will include visits to selected R&D centers of multinational corporations active in Israel, Technology Transfer Units of research institutes, Technological Incubators, Open Innovation Labs, and more.

* The program is subject to changes