



Ministry of Economy and Industry  
OCS - Office of the Chief Scientist



מתימוֹפּ  
מרכז התעשייה הישראלית למחקר ופיתוח  
Israeli Industry Center For R&D



ISRAEL EXPORT INSTITUTE



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# DIGITAL OILFIELD CHALLENGES AND OPPORTUNITIES

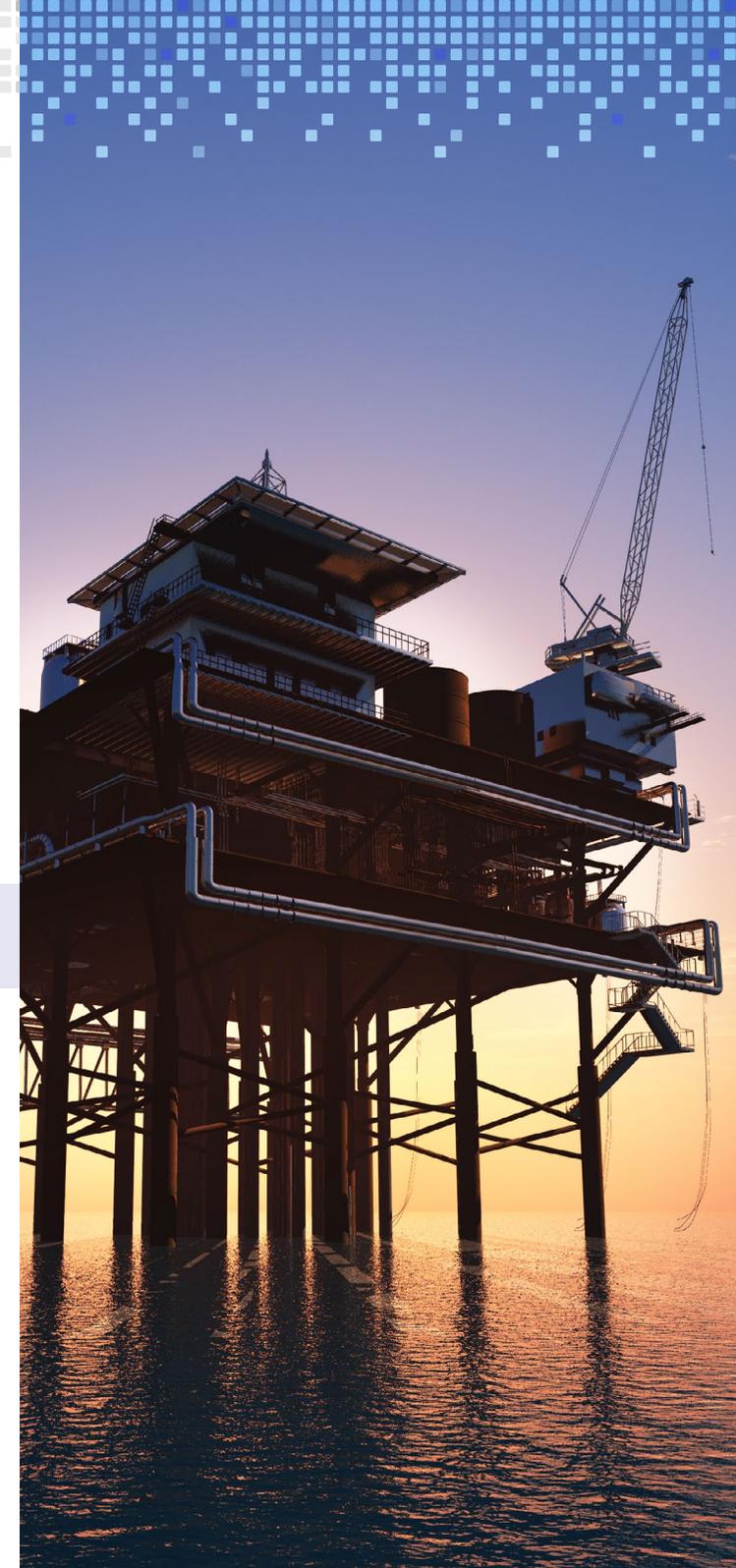
An Expert Workshop with **Dr. Tony Edwards**

**At the initiative of:**

Office of the Chief Scientist, Ministry of Economy and Industry (OCS)  
Israeli Industry Center for Research and Development (MATIMOP)  
Israeli Export Institute (IEI)

**In collaboration with:**

Global Stepchange





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## Description and Aims

The global oil and gas industry is going through a transformational environment where the price of crude oil is low, competition is fierce and the need to reduce costs and improve efficiencies is becoming more critical than ever.

To adapt to these new conditions, oil and gas companies are realizing the value of the application of Digital Oilfield technologies such as predictive maintenance, big data analytics, asset automation, and remotely monitored & controlled operations.

This workshop, led by one of the field's top experts, is aimed to facilitate a better understanding of the digital oilfield technologies, challenges, and opportunities, and show how innovative Israeli companies can integrate themselves into this growing global industry.



## Workshop Leader

**TONY EDWARDS PhD –**

CEO of Stepchange Global Limited, with extensive

experience in the oil and gas exploration and production industry worldwide. Tony has a BA degree from Keele University in Geology and Chemistry and a PhD from the University of Manchester in Computational Silicate Mineralogy.

He had a 17 year career with BP that spanned R&D through to front line operations and project management, including being a founding member of BP's Field of the Future program.

In January 2009 he co-founded Stepchange Global, a dedicated digital oilfield consultancy and advisory company, and has since advised Statoil, PETRONAS, BP, ConocoPhillips, Santos, Origin Energy, Total, Chevron, ExxonMobil, Baker Hughes, HP, Emerson and BAE systems on their digital oilfield strategies. Tony is regarded as one of the key thought leaders in Digital Oilfield and Integrated Operations.





# Workshop Highlights

The workshop highlights will include:

- Current state of the art application of digital technologies in the O&G industry.
- Industry best practice examples of digital oilfield, remote operations, and support.
- Industry best practices of application of collaborative working technologies.
- Digital input to projects and operational phases.
- Digital technology application to:
  - Operations & Maintenance
  - Production & Petroleum Engineering
  - Subsurface Engineering
  - Drilling Operations
  - Automation & Control
  - IT & Data Management

- Process Engineering & Automation
- Maintenance & Operations
- Devices & Sensors
- Monitoring & Control
- Data & Integration
- Visualization
- Cloud Computing
- Mobile Computing;
- Big Data & Analytics
- Telecom
- Industrial Internet of Things
- Autonomous Systems and Robotics
- Machine Learning

## Why you should attend?

The recent fall in oil prices means that oil and gas companies are turning the spotlight on technologies that can help lower costs, reduce capital expenditure and improve efficiency. Foremost amongst these technologies is the application of data and information-related technologies that are known as Digital Oilfield.

The global Digital Oilfield market is expected to reach USD 30.78 Billion by 2020, growing at 4% to 5% per annum from 2015 to 2020. This represents a huge opportunity for high-tech companies to move into the oil and gas market.

This workshop will highlight the opportunities it creates for technology developers and providers and help the companies better understand the market.

## Who should attend?

CEOs, CTOs, CMOs and technology-oriented experts from relevant Israeli technological industry interested to learn about the digital-related needs and challenges in the O&G industry and the opportunities they represent for them.

Relevant Israeli technological industry includes companies active in fields such as:



## Preliminary Agenda

### Monday 18<sup>th</sup> April 2016

08:30-09:00 - Welcome Reception

09:00-09:30 - Introductory Remarks

09:30-11:00 - Overview of Oil and Gas landscape including Exploration, Development, Operations, Drilling, Upstream and Downstream  
The application of Digital Oilfield - what has been achieved to date?

11:00-11:30 - Coffee/Tea Break

11:30-13:00 - Digital Oilfield Key Concepts and how Digital Oilfield is applied in operating companies

13:00-14:00 - Lunch Break

14:00 -15:30 - Technology Opportunities:  
What is the Data and Information used for? - Focus on Subsurface and Drilling

15:30-16:00 - Q&A and group recap of key learnings from Day 1 & Discussion

### Tuesday 19<sup>th</sup> April 2016

09:00-09:30 - Morning Reception

09:30-11:00 - Technology Opportunities:  
What is the Data and Information used for? - Focus on Operations, Maintenance, Machinery and Logistics

11:00-11:30 - Coffee/Tea Break

11:30-13:00 - Technology Opportunities:  
Automation, Sensors, Data Integration, Visualisation and Collaboration Technologies

13:00-14:00 - Lunch Break

14:00-15:30 - Technology Opportunities:  
Data Analysis, Analytics, Modelling, Robotics, Drones and where next?

15:30-16:00 - Q&A and group recap of key learnings from Day 2 & Discussion & Closing Remarks

## How much does it cost? Other terms and conditions:

A regular market price for this type of workshop abroad stands at \$1,200-\$1,600 (~4,700-6,250 NIS). On a joint effort of the OCS, MATIMOP and IEI this course is being offered to Israeli industry and experts at subsidized rates, as follows:

Participation fee:	Before March 27	After March 27
Regular Price	1950 NIS (\$500)	2340 NIS (\$600)
Reduced Price	1560 NIS (\$400)	1950 NIS (\$500)

Please note following terms and conditions:

- Reduced price will be applied for representatives of companies with less than 10 employees and for second and more participants from same company.
- Second and more participants from same company will be approved based on availability.
- There is a cap of 50 participants to the workshop. Priority in participation approval will be given to early registration.

## Additional information?

For any question, clarification or additional information needed, please contact Mr. Avner Montemayor at [avnerm@matimop.org.il](mailto:avnerm@matimop.org.il).

## Individual meetings

Participants will have the opportunity to hold one-on-one discussions with Dr. Edwards. Meetings will be scheduled according to companies' interest and time limitations and take place on the days following the workshop.

**REGISTER NOW!**  
Attendance is limited to 50 participants