



International
Association
of Oil & Gas
Producers



Geomatics
Committee



Geomatics in Digital – Pioneering Digital Transformation in Energy

IOGP / Chevron / TotalEnergies 13th Geomatics Industry Day

10th-11th December 2024 [online event]

REGISTER

As the energy sector continues its digital transformation, the role of geomatics has never been more crucial. Geomatics is at the forefront of integrating geospatial data with innovative digital solutions which in turn supports the drive for safe, efficient and sustainable operations.

Geomatics already provides a robust set of digital tools and techniques that is revolutionizing how the energy industry operates. By enabling data acquisition, through advanced survey and geophysics equipment, geomatics serves as a key driver of the digital transformation. Seamlessly collected data feeds into geodetically coherent geospatial databases, which are increasingly connected to critical asset-operating applications. This integration facilitates the use of digital tools such as Digital Twins and Smart Rooms. The ability of the geomatics industry to efficiently measure, manage, transform, and visualize geospatial data - from the depths of our oceans to outer space - not only streamlines operations and enhances business decisions, but also supports sustainability goals. This makes geomatics indispensable and enticing in the modern, digital energy landscape.

The 13th Geomatics Industry Day will be co-hosted by IOGP, Chevron, and TotalEnergies. The focus of this year's event will be the role that Geomatics plays in Digital, through enabling Geospatial Data Visualization, Mapping and Analysis, embedding Machine Learning & Artificial Intelligence, developing Remote Operations, Robotics & Autonomy (RORA) and exploring emerging digital trends in geomatics.

The event will comprise two half-day sessions, split into two parts:

Day 1 (10th December 2024)

Theme 1: Spatial Visualization and Analysis

This session will focus on the use of advanced geospatial visualization techniques and analysis, that provide enhanced situational awareness and decision-making capabilities.

Theme 2: Application of Machine Learning/ Artificial Intelligence

This session will highlight the growing importance of machine learning and artificial intelligence in analyzing geospatial data (incl. GIS visualization & Remote Sensing imagery), enabling predictive insights into environmental impact, asset management, and operational optimization.

Day 2 (11th December 2024)

Theme 3: Remote Operations, Robotics & Autonomy

This session will showcase the role of remote operations, robotics, and autonomous systems in performing complex tasks in challenging environments, significantly enhancing safety, data quality and operational efficiency.

Theme 4: Future trends of Geomatics

The last session will investigate emerging digital trends that will define the future of geomatics, focusing on the drivers of cost efficiency, climate action, and safer operations.

For more information, please contact the Geomatics Committee Manager, Lucyna Kryła-Straszewska, at lks@iogp.org.



10th December 2024 – Agenda

TIME	PRESENTATION TITLE	SPEAKER	COMPANY
DAY 1 PART 1			
12:15 - 12:20	Welcome	Yen Puasa	IOGP Geomatics C. Chair, Shell
12:20 - 12:30	Word from IOGP Engineering Director	Sajeev Menon	IOGP Engineering Director
12:30 - 12:45	Introduction to IOGP Geomatics Committee	Yen Puasa	IOGP Geomatics C. Chair, Shell
12:45 - 12:50	Setting the scene for Day 1	Damian Ling	Chevron
12:50 - 13:10	Geomatics on the front line: refactoring the Common Operating Picture for modern crisis response	Josh Townsend	bp
13:10 - 13:30	Geo-digitalization of emergency response process in Saudi Aramco	Hussein Al-Mashouq	Saudi Aramco
13:30 - 13:50	SIMOPS vessel scheduling – GIS project management tool	Martin Berry	Subsea 7
13:50 - 14:10	Geomatics' Contribution to Offshore CCS Project on Sunda-Asri Basin	Puguh Sarwanto	Pertamina
14:10 - 14:30	Scaling Geospatial Data for AI Anomaly Detection and Computer Vision Asset Identification with Chevron Atlas	Steve Huerta	Chevron
14:30 - 14:45	Discussion	Damian Ling	Chevron
14:45 - 15:15	BREAK		
DAY 1 PART 2			
15:15 - 15:20	Welcome	Damian Ling	Chevron
15:20 - 15:35	Keynote speech from Chevron	TBC	TBC
15:35 - 15:55	Innovating Geomatics: Leveraging Deep Learning for Sustainable Energy Operations	Ainel Satken	NCOC
15:55 - 16:15	Revolutionizing Oil & Gas with GeoAI: Enhancing autonomy in geospatial analysis	Frank de Morsier	Picterra
16:15 - 16:35	Enhancing Subsea Surveys with AI: Active Learning and Simulator-Driven Techniques	Yury Brodskiy	EIVA
16:35 - 16:55	Harnessing AI and Geospatial Data for Energy Asset Monitoring: Practical Insights from the Field	Lucy Kennedy	Spottitt
16:55 - 17:15	Transforming Legacy Subsurface Data into Actionable Insights Using AI-Driven Digital Solutions	Romain Clavaud	Fugro
17:15 - 17:35	Digital engineering (and data science) to optimise design and operation of marine infrastructure	Arthur Filoche, Jeff Hansen, Marzieh Derkani	University Western Australia
17:35 - 17:50	Discussion	Damian Ling	Chevron
17:50 - 18:00	Closing remarks and adjourn for Day 1	Yen Puasa	IOGP Geomatics C. Chair, Shell

11th December 2024 – Agenda

TIME	PRESENTATION TITLE	SPEAKER	COMPANY
DAY 2 PART 1			
12:15 - 12:20	Welcome	Yen Puasa	IOGP Geomatics C. Chair, Shell
12:20 - 12:35	Word from IOGP Digital Transformation Committee Chair	Rob Kelly	IOGP Digital Transformation C. Chair, bp, VP Digital Product Management
12:35 - 13:05	Keynote speech (TBC)	TBC	TBC
13:05 - 13:10	Setting the scene for Day 2	Arnaud Vidal	TotalEnergies
13:10 - 13:30	Spatio-Temporal Enhancement of Offshore Tidal Measurements Using Satellite Altimetry in Energy Industry Applications	Kristiawan Tri Nugroho	Petronas
13:30 - 13:50	Qualification Testing Results for the Aquanaut Vehicle	Daniel Dehart	Nauticus Robotics
13:50 - 14:10	Our Journey to Simplification - MASS Pilot in Nigeria	Olajide Fagbewesa	Shell
14:10 - 14:30	Changing the Geomatics Landscape through Fast Digital Inspection	Simon Manser	Chevron
14:30 - 14:50	Enhancing Operational Efficiency and Safety: Situational Awareness Applications Developed by NCOC	Anuar Ospanov	NCOC
14:50 - 15:00	Discussion	Arnaud Vidal	TotalEnergies
15:00 - 15:30	BREAK		
DAY 2 PART 2			
15:30 - 15:35	Welcome	Arnaud Vidal	TotalEnergies
15:35 - 15:50	Keynote speech from Total Energies	Melanie Plainchault	TotalEnergies
15:50 - 16:10	Challenges of Digital Transformation in the Oil & Gas Sector: Data Management, Standards Update, and Integration of BIM and Digital FM Technologies	Szymon Bloch	Scan 3D
16:10 - 16:30	Deployment of 3D Reality Capture Solutions at Every Scale of TotalEnergies	Simon Olive	TotalEnergies
16:30 - 16:50	Earth Observation for Energy: An Overview of Market Trends, Technologies, and Applications	Aravind Ravichandran	TerraWatch Space
16:50 - 17:10	Ambitious Methane Emission Reduction Goals and Monitoring Strategies	S�everine Fougeirol	TotalEnergies
17:10 - 17:30	Loggerhead: An Uncrewed Robotic System for Over the Horizon Survey, Inspection and Maintenance	Chris Sotzing	HonuWorx
17:30 - 17:45	Discussion	Arnaud Vidal	TotalEnergies
17:45 - 17:50	Event closing remarks	Yen Puasa	IOGP Geomatics C. Chair, Shell