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ENGINEERS



Second EAGE Eastern Mediterranean Workshop

19-21 NOVEMBER 2019 • ATHENS, GREECE

- **Workshop Brochure | Programme**

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**HELPE
UPSTREAM**

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Claudio Turrini	Hellenic Petroleum
John Underhill*	Heriot-Watt University
Kevin Shrimpton	PGS
Bjorn Wygrala	Schlumberger

* Co-chairs

ABOUT THE WORKSHOP

Exploration in the Eastern Mediterranean has been reignited by important gas discoveries during the last decade and with offshore finds in Egypt, Cyprus and the Levant Basin the area is now considered a highly prospective petroleum province.

The regions' complex geodynamic history has seen it evolve from two Tethyan passive continental margins to one dominated by Alpine collision and neotectonic subduction-accretion along its northern flank.

The rifting initiated in the Permo-Triassic continued through the Mesozoic and was characterized by the development of a mixed siliciclastic-carbonate platform attached to the African, Arabian and Eurasian plates as well as the formation of isolated carbonate outer-high platforms located on continental blocks (e.g., Eratosthenes, Ionian Sea and around Apulia). The subsequent influx of siliciclastic sediments due to the tilting of the Afro-Arabian shoulders and the initiation of Cenozoic fold-and-thrust systems during the late Oligocene to early Miocene formed younger reservoirs. Subsequent marine isolation and evaporation led to the Messinian Salinity Crisis before the rejuvenation of clastic systems were in the Late Neogene in response to northward drainage off the African continent (Nile Delta), continued collision and a neotectonic overlay.

Aiming to unlock hydrocarbon deposits below the Messinian salt layer, industry experts are keen to conduct ambitious geological and geophysical exploration and drilling in these ultradeep waters. This will require further geological understanding and the investigation of geophysical solutions to the challenges of complex salt bodies and salt/carbonate systems. In addition, there are significant drilling and safety issues related to rock mechanics and reservoir properties in the Eastern Mediterranean.

AIMS OF THIS WORKSHOP

This workshop aims to develop our understanding of the complex regional geology, how we can use state of the art geophysics to visualize it and modern techniques to drill with maximum safety and consideration for the environment. With this intention, the workshop will bring together and



integrate the experience of geoscientists drawn from industry, government bodies and academia and promote discussion and interchange between scientists and explorers interested in extending the potential of the Eastern Mediterranean.

TECHNICAL PROGRAMME

Oral Presentations | Tuesday 19 November

APHRODITE ROOM

Opening Session

08:15 **Keynote 1 - Host Country's Welcome** - Y. Bassias^{1*}
¹HHRM

08:25 **Keynote 2 - Petroleum Exploration Activity in Greece** - G. Grigoriou^{1*}
¹Hellenic Petroleum

Regional Geology I

J.I. Soto (University of Granada),
J.R. Underhill (Heriot-Watt University)

08:45 **Keynote 3** - E. Barrier^{1*}
¹iSTeP

09:15 **Tu EM 01 - The Architecture of the Eastern Mediterranean and Implications for Play Potential, Tying the Marginal Basins Together** - P. Bellingham^{1*}, L. Fullarton¹, E. Gillbard¹, V. Agar¹, N. Hurst¹, B. Horn¹, K. McDermott¹
¹ION

09:35 **Tu EM 02 - Triassic Evaporites On- and Offshore Western Greece and their Significance in Hydrocarbon Exploration** - J. Makris^{1*}, J. Papoulia²
¹University of Hamburg; ²Hellenic Centre for Marine Research

09:55 **Discussion**

10:10 **Coffee Break**

Regional Geology II

J.I. Soto (University of Granada),
J.R. Underhill (Heriot-Watt University)

10:30 **Keynote 4** - M. Hamilton^{1*}
¹PGS

11:00 **Tu EM 03 - Forward Stratigraphic Modeling of a Restored Cross Section from Apulia to Gavrovo** - C. Pellan^{1*}, P. Hernandez Jimenez², R. Perez Martin², B. Rubio de las Alas - Pumariño², A. Chambers²
¹Repsol SA; ²Repsol Exploracion

11:20 **Tu EM 04 - Integration of Potential Methods and Surface Data for the Construction of a Structural Section in Aitolokarnania** - P. Hernandez Jimenez^{1*}, J.M. Jimenez¹, M. Zanzi¹, Y. Malmcrona¹, R. Perez¹, J.P. Pita¹, L. Cascone¹, B. Rubio¹, A. Ponte¹, P. Konstantopoulos², K. Nikolaou², A. Chambers¹
¹Repsol Exploration; ²Energean Oil & Gas

11:40 **Tu EM 05 - Deformation Patterns of a Mesozoic Carbonate Platform Offshore South of Crete** - K. Oikonomopoulos^{1*}, G. Makrodimitras¹, M. Hamilton²
¹Hellenic Hydrocarbon Resources Management S.A. (HHRM S.A.); ²PGS

12:00 **Discussion**

12:30 **Lunch Break**

Leveraging on Seismic Imaging I V. Agar (ION), J. Panizzardi (Eni S.p.A. – Upstream and Technical Services)	
13:30	Keynote 5 - N. Bernitsas ^{1*} ¹ ION
14:00	Tu EM 06 - Appraising a Mediterranean Giant Discovery in Pre-Salt Carbonates: the Key Value of Depth Imaging - A. Lomartire ^{1*} , R. Bacenetti ¹ , B. Webb ¹ , M. Corciulo ¹ , J. Panizzardi ¹ , M. Cella ¹ , R. Ruspi ¹ ¹ Eni Upstream and Technical Services
14:20	Tu EM 07 - Advantages of the Use of Drones in a Complex Onshore Seismic Project in Greece - G. Ocampo Botero ¹ , A. Islamov ¹ , I. Garcia Saiz ^{1*} , D. Lara ¹ ¹ Repsol
14:40	Coffee Break
Leveraging on Seismic Imaging II V. Agar (ION), J. Panizzardi (Eni S.p.A. – Upstream and Technical Services)	
15:00	Keynote 6 - K. Rodriguez ^{2*} ¹ TGS
15:30	Tu EM 08 - Improving the Illumination Below Messinian Interval through Better Acquisition Planning - I. Mihaljevic ^{1*} , A. Abouelela ¹ , N. Moldoveanu ¹ , F. Le Diagon ¹ , H. Mannaerts-Drew ² , E. L'heureux ² , G. Xia ² , H. M Al-Attar ² ¹ Schlumberger; ² BP
15:50	Tu EM 09 - Seismic Pitfalls Related to Converted Waves - Lebanon Offshore Case Study - P. Bourguignon ^{1*} , P. Christian ¹ ¹ Total E&P
16:10	Tu EM 10 - DNNs in Automatic Salt Identification: How Effective Are They, and How Do We Rank their Performance? - D. Oikonomou ^{1*} , G. Stefanos ¹ , T. Papadopoulos ¹ , C. Jaruwattanasakul ¹ , S. Purves ¹ , E. Larsen ¹ ¹ Earth Science Analytics AS
16:30	Discussion
19:00	Workshop Dinner
22:00	End of Workshop Day 1

Oral Presentations | Wednesday 20 November

APHRODITE ROOM	
Petroleum Systems & Role of Evaporites I B. Didier (Total), B. Wygrala (Schlumberger)	
08:35	Keynote 7 - The Messinian Salinity Crisis - C. Gorini ^{1*} ¹ University Pierre and Marie Curie (UPMC)
09:05	We EM 01 - South of Malta – Integrating Well Data and Seismic Allows to Better Understand the Petroleum Potential - O. Schenk ^{1*} , O. Shtukert ¹ , F. Winter ² , A. Checconi ² ¹ WesternGeco; ² TGS
09:25	We EM 02 - The Zohr Biogenic Gas Discovery: an Initial Assessment of Controlling Factors in the Petroleum System - M. Neumaier ^{2*} , A. Bartha ¹ , B. Wygrala ¹ ¹ Schlumberger; ² Ucon Consulting
09:45	We EM 03 - The Leviathan Field - Nine Years Since Discovery and Nearing First Gas - K. Karcz ^{1*} , Y. Gellman ¹ , O. Shitrit ¹ , J. Steinberg ² ¹ Delek Drilling; ² Ratio Oil Exploration
10:05	We EM 04 - Structural and Gravimetric-Magnetic Modeling to Support Sub-Salt Plays in Western Greece: the Patraikos Gulf Case Study - L. Gagala ^{1*} , N. Likakis ¹ , A. Abdelsamad ² , I. Fahrner ¹ , S. Sotiropoulos ¹ , A. Pagoulatos ¹ , C. Turrini ¹ ¹ Hellenic Petroleum; ² Hellenic Petroleum former employee
10:25	Discussion
10:40	Coffee Break

Petroleum Systems & Role of Evaporites II B. Didier (Total), B. Wygrala (Schlumberger)	
11:00	We EM 05 - The Impact of Neogene Thermal Blanket to the Maturation of Mesozoic Source Rocks, W. Greece - I. Oikonomopoulos ^{1*} , E. Tripsanas ¹ , N. Lykakis ¹ , S. Sotiropoulos ¹ ¹ Hellenic Petroleum S.A.
11:20	We EM 06 - Hydrocarbon Exploration Risk Assessment in Structurally Complex Areas. Examples from Western Greece - M. Marin ^{1*} , B. Wygrala ¹ , E. Mavridou ¹ ¹ Schlumberger
11:40	We EM 07 - Identifying Organic-Rich Intervals Sourcing the Pliocene-Quaternary Yafo Petroleum System Biogenic Gas in the Levant Basin - A. Meilijson ^{1*} , Y. Makovsky ¹ , M. Lazar ¹ , N.D. Waldmann ¹ ¹ University Of Haifa
12:00	Discussion
12:30	Lunch Break
Exploration Opportunities I C. Hardy (ExxonMobil), K. Shrimpton (PGS)	
13:30	We EM 08 - The Carbonate Platforms of Neotethys: a Comparison Study between Apulia and Eratosthenes Platforms - V. Kosmidou ^{1*} , N. Papadimitriou ¹ ¹ Hellenic Hydrocarbon Resources Management (HHRM)
13:50	We EM 09 - Residual and Commercial Gas Discrimination by Spectral Decomposition Using Ultra-Far Stacked Seismic Data, Nile Delta, Egypt - W. Fathy ^{1*} , A. Shams ¹ ¹ Heriot Watt University
14:10	We EM 10 - Open Questions and New Frontiers for Exploration in the Deep-Water Domain of the Levant Basin - Y. Ben-Gai ^{1*} , J.I. Soto ² ¹ Oil and Gas Exploration Consultant; ² Department of Geodynamics, University of Granada
14:30	Coffee Break
Exploration Opportunities II C. Hardy (ExxonMobil), K. Shrimpton (PGS)	
14:50	Keynote 8 - C. Tichatschke ^{1*} ¹ Total
15:20	Keynote 9 - C. Turrini ^{1*} ¹ Hellenic Petroleum Exploration & Production of Hydrocarbons S.A.
15:50	Keynote 10 - S. Moore ^{1*} ¹ Energiean
16:20	Discussion
17:20	Wrap-up Discussion
17:30	End of Workshop Day 2

FIELD TRIP

Anatomy of the West Part of the Gulf of Corinth:
Active processes over the last 4 Ma.

Field Trip Guides: I. Koukouvelas & V. Zygouri
(University of Patras)

Date: Thursday 21 September 2019

The third and final day of the workshop will be a field trip to the Gulf of Corinth where delegates will explore the Helike fault and ottoman bridge, the Doumena fault and the Kerpini fault. Detailed information can be found on the workshop website.

IMPORTANT DATES

Registration is now open!

Early Registration Deadline	15 October 2019
Late Registration Deadline	11 November 2019
Eastern Mediterranean Workshop	19-21 November 2019

REGISTRATION FEES

REGISTERED AND PAID	FROM 16/10/2019 - 11/11/2019	FROM 12/11/2019 UNTIL ON-SITE
EAGE Green Member ^{1,5}	€ 845	€ 945
EAGE Bronze/Silver/Gold Member ^{1,5}	€ 795	€ 895
EAGE Platinum Member ^{1,5}	€ 695	€ 695
Non-member ³	€ 895	€ 995
EAGE Student Green Member ^{1,2,5}	€ 400	€ 450
EAGE Student Bronze/Silver/ Gold Member ^{1,2,5}	€ 375	€ 425
Student Non-member ^{2,3,4}	€ 425	€ 475

- Members please note: To qualify for the member registration fee, your EAGE membership dues for 2019 must have been paid and confirmed. The processing time for membership applications or renewals is 10 working days.
 - To qualify for the reduced student registration fee:
 - Students must be enrolled in a full-time study programme at a recognized university or institute.
 - The registration must be accompanied by a copy of a student ID card and/or official proof of enrolment.
 - The non-member fee includes EAGE membership for 2020.
 - Student non-members cannot be older than 34 years of age (when registering).
 - Green membership status gives you a €50 discount (€25 for students) on each EAGE event registration; starting from the Bronze status, you can benefit from an even greater reduced EAGE member registration fee.
- All fees are in Euros (€). One Euro of your total registration fee is donated to the EAGE Green Fund.
- Please note: The deadlines are following the Local Time in the Netherlands.
EAGE reserves the right to cancel the event due to low participation.

VENUE

St George Lycabettus Hotel
2 Kleomenous Street
106 75 Athens, Greece

SPONSORING

The Second EAGE Eastern Mediterranean Workshop offers excellent sponsoring opportunities to create high visibility for your brand. For more information about sponsoring, please refer to the 'Sponsor Guide' that is available on the event website (via events.eage.org) or contact us via eage.events@eage.org.

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CONTACT

For further up-to-date information, please visit the event website via events.eage.org or contact the EAGE Europe Office via eage.events@eage.org or +31 88 9955055.



See you in Athens!

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