Under the auspices of the
PRESIDENCY OF THE
REPUBLIC OF TURKEY

2017

istanbul
22nd WORLD PETROLEUM CONGRESS

BRIDGES to our
ENERGY Future

09 - 13 July 2017

REGISTRATION BROCHURE

V.6.0. / 17.06.2017
Dear friends and industry colleagues,

In July 2017 we will meet once again for the largest gathering of senior oil and gas representatives from all over the world at the 22nd World Petroleum Congress in Istanbul.

Our Turkish hosts and the WPC Congress Programme Committee (CPC) have prepared another world class Congress for you. The theme ‘Bridges to our Energy Future’ is a perfect fit for the current challenges we are seeing in the petroleum industry. Building bridges between the oil and gas industry, its customers and stakeholders, across nations and oceans, between the different aspects of our sector and to other industries, will make our industry more efficient and more environmentally sound, and will help to improve the image both for the upstream and downstream sectors.

As part of the expected 5000 delegates we look forward to welcoming over 600 speakers to the Congress, including ministers and CEOs of NOCs and IOCs, the heads of international organisations and top-level experts from around the globe. In nearly 100 sessions they will share their knowledge and expectations for the future of the oil and gas industry with you. The Plenaries, CEO Panels, Strategic Sessions, Forums and more will address a wide spectrum of issues across the sector, such as upstream challenges in a low oil price environment, the increasing importance of petrochemicals in downstream, the rise of natural gas, climate change strategies, engaging and retaining talent in our industry and how to manage all these issues through better governance.

The Congress will be accompanied by one of the largest strategic oil and gas exhibitions, the World Petroleum Exhibition, featuring our 70 member countries, as well as special stands showcasing the industry’s involvement in social responsibility and young leaders to the 20,000 visitors we anticipate. This is where you will also find the Poster Plaza with up to 200 presentations from 20 different technical Forums on E&P, petrochemicals and refining, natural gas and the sustainable management of the industry.

With beautiful Istanbul as the background, the social events, including the Opening Ceremony and Turkish Night will be another highlight at the “Olympics of the Oil and Gas Industry”. We are grateful to hold the Congress under the auspices of the Presidency of the Republic of Turkey and re-assured by their dedication to hosting a safe and secure event for all.

We look forward to welcoming you to Istanbul and I hope you will join us with your team for the 22nd World Petroleum Congress in July 2017.

As the Turkish National Committee (TNC) of the World Petroleum Council (WPC), we are honoured to be selected to host the 22nd World Petroleum Congress in 2017.

I am proud to tell you that, the 22nd WPC will be held under the auspices of the Presidency of the Republic of Turkey and Turkish Petroleum, the National Oil & Gas Company of Turkey, is the host country sponsor of the event.

With the theme “Bridges to our energy future”, the 22nd WPC Congress Programme Committee is working on an extensive programme to cover all opportunities and challenges regarding the oil and gas industry, from energy geopolitics to finance, technical innovation to collaboration, new business models to energy access, as well as many other major issues to consider. With 70 member countries, the World Petroleum Congresses attract more than 100 countries and 1500 companies. We are expecting more than 50 ministers, 500 policy makers, 500 CEO’s and 5000 delegates as well as 20,000 exhibition visitors.

Turkey’s close proximity to more than 75% of the global oil and gas reserves makes it a natural bridge between world’s 2nd largest gas market, continental Europe and world’s largest oil and gas resources, namely the Middle East and Caspian Region. Besides being a huge market with a rapidly growing economy, Turkey is a young and dynamic country where demand for energy increases consistently. Furthermore, Turkey still stays as a large frontier in terms of hydrocarbon exploration. Lately, the recent discoveries in the nearby geography have revived the interests of major companies in the Turkey section of Black sea and Eastern Mediterranean. The shale gas potential in Turkey is also substantial and unconventional exploratory drillings in two basins in Turkey already started. All these dynamics make Turkey an important player in the global petroleum industry.

İstanbul, which is uniquely spanning the two continents of Europe and Asia, acting as a physical and metaphorical bridge between East and West, is a city that calmly reconciles the traditional with the modern. In light of the previous high level events, high quality hotels (more than 30,000 rooms), excellent congress facilities and services, I would like to assure you that, Istanbul, with the historical heritage will provide an unforgettable event for all congress participants.

İstanbul is a global city that has the spirit, history, culture and technology. Along with the strong support from the government, institutions, corporates, academia and private companies, we are sure that Istanbul, with her mystical and modern atmosphere, is going to fulfill the expectations in a very high level and enchant all the congress participants.

We are ready to welcome you to Istanbul for this very distinguished event, 22nd WPC on 9-13 July, 2017.
The World Petroleum Council (WPC) is a neutral, non-political organisation with charitable status in the U.K. and has accreditation as a Non-Governmental Organization (NGO) from the United Nations (UN). The WPC is dedicated to the promotion of sustainable management and use of the world’s petroleum resources for the benefit of all. WPC has now 70 member countries (www.world-petroleum.org).

WPC organizes the triennial World Petroleum Congress, covering all aspects of the industry including management of the industry and its social, economic and environmental impact. In addition, all stakeholders including governments, other industry sectors, NGOs and international institutions have also joined the dialogue.

Every three years, the World Petroleum Council organizes the World Petroleum Congress as the principal meeting place for a global discussion of oil and gas issues. Following a twelve-month campaign period, one of the candidate countries is selected by its fellow Council members to host the next World Petroleum Congress. Following the 21st World Petroleum Congress in Moscow from 15-19 June 2014 in Moscow, Turkey will be the host of the 22nd World Petroleum Congress in Istanbul in 2017 (www.22wpc.com).

HISTORICAL TIMELINE OF THE WPC

- 2017: 22nd WPC, Istanbul
- 2014: 21st WPC, Moscow
- 2011: 20th WPC, Doha
- 2008: 19th WPC, Madrid
- 2005: 18th WPC, Johannesburg
- 2002: 17th WPC, Rio
- 2000: 16th WPC, Calgary
- 1997: 15th WPC, Beijing
- 1994: 14th WPC, Stavanger
- 1991: 13th WPC, Buenos Aires
- 1987: 12th WPC, Houston
- 1983: 11th WPC, London
- 1979: 10th WPC, Bucharest
- 1975: 9th WPC, Tokyo
- 1971: 8th WPC, Moscow
- 1967: 7th WPC, Mexico City
- 1963: 6th WPC, Frankfurt
- 1959: 5th WPC, New York
- 1955: 4th WPC, Rome
- 1951: 3rd WPC, The Hague
- 1937: 2nd WPC, Paris
- 1933: 1st WPC, London
EXECUTIVE COMMITTEE

Current members of the WPC Executive Committee (from June 2014 to 2017):

- Dr. József Toth (Hungary) President
- Mr John Martin (UK) Senior Vice President
- Dr Pinar Yilmaz (USA) Vice President Finance
- Mr Zhou Jiping (China) Vice President Marketing
- Mr. Pedro Nicolás Baridon (Uruguay) Vice President Membership
- Mr Tor Fjæran (Norway) Vice President Programme
- Mr Milton Costa Filho (Brazil) Vice President Youth and Gender
- Mrs Burcu Gunaş (Turkey) Host Representative
- Prof Anatoly Zolotukhin (Russia) Past Host Representative
- Mr Jambulat Sarsenov (Kazakhstan) Special Advisor, Future Energy
- Dr Katharina Gruenberg (UK) Young Professionals Committee Chair
- Dr Pierce Riemer WPC Secretariat Director General
- Ms Ulrike Von Lonski WPC Secretariat Director of Communication

CONGRESS PROGRAMME COMMITTEE

Under the leadership of the WPC Vice President for Programme, Tor Fjæran from Norway, the 22nd WPC Programme Committee has put together the technical content for the Congress. Nominated by the National Committees and selected by the Council at the beginning of the cycle, the 20 experts and scientists from around the world put together a high-level programme that is the result of 3 years effective cooperation between the international CPC members.

CPC Chair
- Tor Fjæran, Norway

CPC Members (2014 -2017)

- Mr Jose Miranda Formigli Filho - Brazil
- Mr James McFarland - Canada
- Mr Liu Zhenwu - China
- Mr Pascal Breton - France
- Dr Stefan Ernst - Germany
- Mr Artur Thernesz - Hungary
- Shri Nalin Srivastava - India
- Dr Mohammad Ali Emadi - Iran
- Mr Uichiro Yoshimura - Japan
- Dr Mohammad AlSaleh - Kuwait
- Dr Henk Vasmel - The Netherlands
- Dr Pandele Neculae – Romania
- Mr Nikolay Seregin - Russia
- Dr Nabeel Alafaleg - Saudi Arabia
- Mr Pedro Miras Salamanca - Spain
- Mr Toby Hunt - UK
- Mr Gerardo Uria - USA
- Dr Katharina Gruenberg - Young Professionals Committee Chair and YP Representative
- Mr Memet Ali Kaya - CPC Host Representative, Turkey
- Dr Pierce Riemer - WPC Secretariat Director General
- Ms Ulrike Von Lonski - WPC Secretariat Director of Communication
22nd WORLD PETROLEUM CONGRESS & EXHIBITION

The World Petroleum Congress is the leading event for the global oil and gas industry and brings together over 5,000 delegates every three years. The Congress has been taking place since 1933 and the World Petroleum Congress will be held in Istanbul, Turkey for the first time on 9-13 July, 2017. The Congress is organised by the World Petroleum Council and delivered by the Turkish Organising Committee.

The triennial World Petroleum Congress is widely known as the “Olympics” of the petroleum industry and covers all aspects of the industry from technological advances in upstream and downstream operations to the role of natural gas and renewables, management of the industry and its social, economic and environmental impact. In addition, outside stakeholders such as governments, other industry sectors, NGOs and international institutions have also joined in the dialogue.

Over 500 exhibitors from more than 100 countries are expected to take part in the exhibition of the 22nd WPC. International and domestic oil & gas majors, as well as service companies are invited to take advantage of this unique opportunity to showcase their businesses to the rest of the world. Among the visitors of the exhibition are expected to be over 5,000 senior level delegates and 600 speakers of the Congress.

The exhibition will also feature key attractions, such as the Social Responsibility Global Village, the Young Professionals Lounge and Auditorium, the Digital Poster Plaza and the Media Village.

THE CONGRESS PROGRAMME

22nd WPC Theme: BRIDGES to our ENERGY Future

The world is experiencing a global shift with dramatic political, economic and industrial changes, increases in population and volatile pricing that will have a long-term impact on energy requirements and the global petroleum sector. Demand for conventional and unconventional oil and gas continues to rise and remains critical to the changing energy mix, which includes a significant growth of renewable energy. The industry will need to cooperate with all stakeholders including government, industry, academia and society to build the bridges to a sustainable energy future for all. Partnerships, Technical innovations, human ingenuity and strong leadership will form the foundations, supported by global policies for energy efficiency, low carbon solutions, infrastructure development and continuing investment in order to supply energy for our future in a reliable, secure, affordable and responsible manner.

The 22nd World Petroleum Congress will provide the platform for open dialogue to build bridges between consumers and producers, governments and academia, financiers, leaders and society, in order to address these issues and present debates, developments and solutions for sustainable production and use of the world’s energy resources.

The Congress is structured around Plenary Sessions, Forums with papers and posters, Round Tables, Ministerial Sessions, CEO Panels, Strategic Sessions and reports from the WPC Expert Workshops.

The technical subjects will be addressed in four main blocks:

**BLOCK 1**
Exploration and Production of Oil and Gas

**BLOCK 2**
Refining, Transportation and Petrochemistry

**BLOCK 3**
Natural Gas Processing, Transportation and Markets

**BLOCK 4**
Sustainable Management of the Industry

100 SESSIONS
DeWhurst aWarD

rex W. Tillerson, former chairman and chief executive officer of ExxonMobil Corporation, is being recognised for his “outstanding contribution to the oil and gas industry” with the highest honour of the World Petroleum Council, the DeWhurst Award. This distinguished lifetime achievement award celebrates his exceptional leadership of the largest publicly traded oil and gas company in the world over the past 10 years.

Mr. Tillerson is only the tenth recipient of the DeWhurst Award in the history of the WPC. In 1933, Mr. Thomas Dewhurst (1881-1973), then president of the Institute of Petroleum in the United Kingdom, organised what was to become the first World Petroleum Congress. The DeWhurst Lecture is a tribute to him and to the person asked to deliver the DeWhurst Lecture.

Mr. Tillerson will receive the award during the DeWhurst Ceremony at the 22nd World Petroleum Congress in Istanbul on the 13th July 2017.

About Rex Tillerson

A native of Wichita Falls, Texas, Rex Tillerson earned a bachelor of science degree in civil engineering at the University of Texas at Austin before joining Exxon Company, U.S.A. in 1975 as a production engineer. In 1992, Mr. Tillerson was named production advisor to Exxon Corporation. Three years later he was named president of Exxon Yemen Inc. and Esso Exploration and Production Khorat Inc., and in January 1998 became vice president of Exxon Ventures (CIS) Inc. and president of Exxon Neftegas Limited. In those roles, he was responsible for Exxon’s holdings in Russia and the Caspian Sea as well as the Sakhalin I consortium operations offshore Sakhalin Island, Russia.

In December 1999, he became executive vice president of ExxonMobil Development Company. Mr. Tillerson was named senior vice president of Exxon Mobil Corporation in August 2001, and was elected president of the corporation and member of the board of directors on March 1, 2004. He assumed his current position on January 1, 2006.

Mr. Tillerson is a member of the executive committee and a former chairman of the American Petroleum Institute. He is also a member of the Society of Petroleum Engineers, a trustee of the Center for Strategic and International Studies, and a past national president of the Boy Scouts of America. He is a member of the Chancellor’s Council, Development Board and the Engineering Advisory Board for the University of Texas at Austin, where he was named a distinguished alumnus in 2007.
# 22nd WPC – CONGRESS TIMETABLE

<table>
<thead>
<tr>
<th>TIME</th>
<th>SUNDAY</th>
<th>MONDAY 10th JULY</th>
<th>TUESDAY 11th JULY</th>
<th>WEDNESDAY 12th JULY</th>
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<td>08:00-09:30</td>
<td>Women’s Networking BF</td>
<td>PLENARY 3</td>
<td>PLENARY 6</td>
<td>PLENARY 9</td>
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<td>09:30-10:30</td>
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<td>PLENARY 7</td>
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<td>10:30-10:45</td>
<td>Chair &amp; Co-Chair Briefing</td>
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<td>12:00-14:00</td>
<td>WPC Council Meeting</td>
<td>EXCELLENCE AWARDS</td>
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<td>PLENARY 8</td>
<td>PLENARY 11</td>
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<td>F10</td>
<td>F3 F9</td>
<td>F18</td>
<td>CE04 S12 S30 S28 S18 S29 S16 S31 S20 S10 S13 S14 S15 S19 S21 S12 S13 S14 S15 S16</td>
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<td>ST1 F34 F38</td>
<td>ST6</td>
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<td>16:45-17:30</td>
<td>DEWHERST LECTURE</td>
<td>CLOSING CEREMONY</td>
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**PLENARIES**

**PLENARY 1:** TURKEY AND THE REGION  
**PLENARY 2:** SHAPING THE FUTURE OF ENERGY  
**PLENARY 3:** LEADING THROUGH CHANGE  
**PLENARY 4:** SUPPLY AND DEMAND CHALLENGES FOR OIL, GAS AND PRODUCTS  
**PLENARY 5:** INVESTING FOR THE FUTURE  
**PLENARY 6:** OPEC – NON-OPEC MINISTERIAL ROUND TABLE  
**PLENARY 7:** TAKING LEADERSHIP FOR RESPONSIBLE OPERATIONS  
**PLENARY 8:** IEA – OPEC DIALOGUE  
**PLENARY 9:** PARTNERING FOR SUCCESS  
**PLENARY 10:** STRATEGIES FOR A NEW REALITY  
**PLENARY 11:** BUILDING LONG-TERM RELATIONSHIPS WITH STAKEHOLDERS
CONFIRMED KEYNOTE SPEAKERS

H.E. Berat ALBAYRAK
Minister of Energy and Natural Resources, Turkey

Rövnag ABDULLAYEV
President, SOCAR

Osmar ABIB
Global Head of the Oil and Gas, Credit Suisse

H.E. Shaikh Mohamed bin Khalifa AL KHALIFA
Minister of Oil, Bahrain

H.E. Abdullah bin Hamad AL-ATTIYAH
Former Deputy Prime Minister of Qatar

H.E. Mohammad Sanusi BARKINDO
Secretary General, OPEC

H.E. José Ramos - HORTA
Special Representative of United Nations

Ben van BEURDEN
CEO, Shell, the Netherlands

Fatih BİROL
Executive Director, International Energy Agency (IEA)

Peter COLEMAN
CEO, Woodside, Australia

Bob DUDLEY
CEO, BP, United Kingdom

Remi ERIKSEN
CEO, DNV GL, Norway

Didier HOUSSIN
Chairman and CEO, IFP Energies Nouvelles, France

H.E. Frederik Willem de KLERK
Former President of South Africa

Katsuo NAGASAKA
Executive Chairman, Chiyoda Corporation, Japan

Amin H. NASSER
President and Chief Executive Officer, Saudi Aramco, Saudi Arabia

H.E. Alexander Valentinovich NOVAK
Minister of Energy of The Russian Federation

Patrick POUYANNÉ
CEO, TOTAL, France

H.E. Shri Dharmendra PRADHAN
Minister of Petroleum and Natural Gas of India

Lorenzo SIMONELLI
President & CEO, GE Oil & Gas, Italy

Besim ŞİŞMAN
CEO, Turkish Petroleum, Turkey

Rex TILLERSON
Former Chairman & CEO, ExxonMobil, USA

Dr Jozsef TOTH
President, World Petroleum Council

Darren W. WOODS
Chairman & CEO, ExxonMobil, USA

Prof Sun XIANSHENG
Secretary General, International Energy Forum (IEF)

Daniel YERGIN
Chairman, IHS Cambridge Energy Research Associates, USA

H.E. DR. Amir Hossein ZAMANINIA
Deputy Minister of Petroleum for Trade & International Affairs Iran
CEO PANELS

CEO 1 The industry’s response to the Paris Declaration
CEO 2 How to be competitive in a cyclical environment
CEO 3 Diplomacy and dispute resolution in the oil and gas industry
CEO 4 Strategies for Refining & Petrochemicals
CEO 5 Importance of Research for Innovation
CEO 6 Promoting Women in the Industry (with BCG)
CEO 7 Future workforce
CEO 8 Global Midstream Strategies
CEO 9 WPC Leadership: promoting responsible operations and sustainable solutions
CEO 10 WPC/IGU: Gas monetization

STATEGIC SESSIONS

ST 01 Risk management, resilience & adaption in a volatile world
ST 02 Bridges to a sustainable energy future: innovative solutions
ST 03 Operational safety and security
ST 04 Reserves & Resources (UNECE)
ST 05 Unconventionals – the new conventional
ST 06 Future Energy
ST 07 WPC features World Bank: “Zero Routine Flaring by 2030” Global Initiative
ST 08 YP session: Disruptive technology and future of energy landscape
ST 09 Technology and Innovation
ST 10 JOR/EOR
ST 11 Methane management in Extractive Industries (UN)

EXPERT WORKSHOPS

EW 01 Carbon Emission Management: Upstream and Downstream Best Practices & Opportunities
EW 02 Masterclass in Strategies & Techniques for Raising Capital for the Global Oil & Gas Industry
EW 03 Low-cost Development of Unconventionals
EW 04 Challenges of the European Refining Industry in a Global Market
EW 05 Local Content Development
EW 06 Perspectives of the Petroleum Industry in the Future Energy Mix
EW 07 Best Practices in Offshore Exploration & Production in times of Crisis
EW 08 Biofuels Session: Growing Demand for Energy and the Environment: The Role of Biofuels
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<td>Exploration challenges – how to reduce risk</td>
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<td>F 02</td>
<td>Unconventional hydrocarbon resource development North American phenomena or global opportunity?</td>
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<td>F 03</td>
<td>Managing upstream mega projects</td>
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<td>F 04</td>
<td>New technologies in production and development</td>
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<td>F 05</td>
<td>Geoscience technology and innovation</td>
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<td>F 06</td>
<td>IOR / EOR – maximising the development of mature fields</td>
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<tr>
<td>RT 01</td>
<td>Exploration and production cost efficiency – building resilience</td>
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<td>RT 02</td>
<td>Bridging other industry technologies – impact on upstream</td>
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<td>RT 03</td>
<td>Innovative collaboration: what’s next for IOCs, NOCs and service companies?</td>
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<td>RT 04</td>
<td>Upstream portfolio development in cyclic business environments</td>
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<th>Block 2</th>
<th>Refining, Transportation and Petrochemistry</th>
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<td>Competitive refining technologies</td>
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<td>F 08</td>
<td>Integration of the refining and petrochemical industry</td>
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<tr>
<td>F 09</td>
<td>Oils and products storage and transportation</td>
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<td>F 10</td>
<td>New marketing approaches for delivering products to consumers</td>
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<td>F 11</td>
<td>Products of the future</td>
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<td>RT 05</td>
<td>Delivering successful downstream projects</td>
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<td>RT 06</td>
<td>Asset Management in refining and petrochemicals</td>
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<td>RT 07</td>
<td>Outlook of the downstream industries</td>
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<th>Block 3</th>
<th>Natural Gas Processing, Transportation and Markets</th>
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<td>F 12</td>
<td>Opening up new uses and applications for gas</td>
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<td>Sustainable value chains for unconventional gas</td>
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<td>F 14</td>
<td>Delivery of large scale gas projects</td>
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<td>F 15</td>
<td>Best practices in the management of safe operation of gas assets</td>
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<td>RT 08</td>
<td>Role of LNG in security of global energy supply</td>
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<td>RT 09</td>
<td>Role of gas in the energy mix in a volatile world</td>
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<td>RT 10</td>
<td>Gas from producer to market</td>
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<th>Sustainable Management of the Industry</th>
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<td>F 16</td>
<td>Knowledge management</td>
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<td>F 17</td>
<td>Cyber security and new technology risks</td>
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<td>F 18</td>
<td>Human resources - how to attract and retain talent in our industry</td>
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<td>F 19</td>
<td>Energy poverty alleviation initiatives</td>
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<td>F 20</td>
<td>HSE and operations integrity – keeping pace</td>
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<td>RT 11</td>
<td>Geopolitics and global trends</td>
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<td>RT 12</td>
<td>Ethics, compliance and business principles</td>
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<tr>
<td>RT 13</td>
<td>Perception of the petroleum industry by society</td>
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FORUMS

F01 - EXPLORATION CHALLENGES – HOW TO REDUCE RISK?

Our industry continues to make new oil and gas discoveries using advanced technologies and improved processes – enabling us to go deeper, more quickly, more accurately, and more safely than ever before. To do so, we must manage the uncertainty of geopolitical risks, economic risks, financial risks, geologic risks, project risks, policy risks, regulatory changes and the supply and demand volatility inherent to commodity markets. This Forum will discuss reducing risks in exploration – from regional geology, geophysical techniques and advances in high-speed drilling and completions to commercial and geopolitical risks in order to develop these resources in a safe, secure, and environmentally responsible way.

CHAIR: Erling Vågenes. SVP International Exploration, Statoil, Norway
VICE CHAIRS: Dr. Georg Bresser, Head of Department Portfolio & Planning Exploration, Wintershall, Germany
Stacey Weltmer, Exploration Manager, Europe-Caspian, ExxonMobil Exploration Company, UK

Papers

• Managing a portfolio of prospects | Talal Al-Adwani, Senior Geologist KOC, Kuwait | Co-authors: Yousef Al-Sulabi, Ahmad Al-Otaibi, KOC, Kuwait
• The role of partnerships in reducing exploration risk | Lorna Campbell, Exploration Vice President, ExxonMobil, USA
• Can new seismic imaging technologies reduce exploration risks? | Kenan Erdoğan, Geophysicist, Turkish Petroleum, Turkey | Co-author: Suat Aktepe, Turkish Petroleum, Turkey

Posters

• Application of off-line seismic in tight oil ‘Sweet Spot’ characterization | Yijun Zhou, Senior Geophysicist, BGP/CNPC, China | Co-authors: Yongning Wang, Zhenganhong Yuan, Wei Li, BGP/CNPC, China
• Petroleum taxation in a low oil price environment: Benchmarking oil and gas fiscal regimes in deep water offshore West Africa | Theophilus Acheampong, Researcher, University of Aberdeen, UK | Co-author: Ebenezer Karanteng Harman, Petroleum Commission, Ghana
• Analysis of hydrocarbon generation and migration and prospectivity of the Lunpola Basin, South-Central Tibetan Plateau | Dr. Liu Yiming, Student, China University of Geoscience, China | Co-authors: Ye Jiaren, Cao Qiang, China University of Geoscience, China
• Sulfur-heterocycles: Potential geotracer for crude oil migration assessment | Dr. Sanoj Panda, Scientist, Saudi Aramco, Saudi Arabia | Co-author: Khaled Aroui, Saudi Aramco, Saudi Arabia
• Drivers characterization on tilting oil-water contact in a giant oil state, southwest of Iran | Amir Abbas Askari, Reservoir Modeler, RPI, Iran | Co-authors: Seyedmahdia Motahari, Tunaj Behrouz, RPI, Iran
• Pore structure and petrophysical characterization of hamelin pool stromatolites and pavements, Shark Bay, Western Australia | Ergin Karaca, Reservoir Geophysicist, Turkish Petroleum, Turkey | Co-authors: Gerezzi Eberli, Ralf Weyer, R. Pamela Reid, University of Miami, USA | Co-author: Bush Heritage Australia

• Reconstruction of the petroleum system based on the integrated geochemical, petrophysical and geological investigation of outcrops and seepages in the outer carpathians in Poland | Prof. Irena Matyjalk, Head of Geochemistry Laboratory Oil and Gas Institute, Poland | Co-author: Grzegorz Lesniak, Oil and Gas Institute, Poland

• A multidisciplinary approach to reduce hydrocarbon exploration risks in deep water turbidites, Ordu Fans, Eastern Black Sea Basin | Özbal Yazar, Geophysicist, Turkish Petroleum, Turkey | Co-authors: Öge Karaman, Kenan Yazar, Şükrü Gökhan Köse, Ergin Karaca, Riza Özgür, Temel Şükri Seçolkıran, Erhan Kansu, Tülin Kaplan Atasoy, Sezer Türk, Turkish Petroleum, Turkey

• Integrated uncertainty quantification by probabilistic forecasting approach in undeveloped field | Saeed Sajjadian, Engineer, NIOC, Iran | Co-authors: Vally Ahmad Najadian, Ahmad Asghigh Hossein, Abolfazl Hashemi, NIOC, Iran

F02 - UNCONVENTIONAL HYDROCARBON RESOURCE DEVELOPMENT – NORTH AMERICAN PHENOMENA OR GLOBAL OPPORTUNITY?

Oil and gas production from unconventional resources such as tight oil and gas, shale oil and gas and oil sands has made an enormous contribution to hydrocarbon production in North America. Development of similar resources has been very slow outside North America. This forum will address the contributions from unconventional oil and gas to world supply today and future potential, the technologies, government policies and public engagement that have made this possible, and the lessons learned for other parts of the world planning to turn their unconventional resource opportunity into reality.

CHAIR: Anthony Marino, President and CEO, Vermillion Energy, Canada
VICE CHAIRS: Hafiz Al-Shammery, Manager, Northern Arabia Unconventional Gas Asset Dept, Saudi Aramco, Saudi Arabia
Melissa Stark, Managing Director and Global Unconventional Resource Development Lead, Accenture, UK
Papers

- **Status and tendency of engineering technology in shale gas development within SINOPEC** | Baoping Lu, President, SINOPEC Research Institute of Petroleum Engineering, China | Co-authors: Shidong Ding, Guangjun Ma. SINOPEC, China

- **Unconventional shale and tight reservoirs of Argentina. Opportunities and challenges** | Prof. Luis Stinco, Professor, University of Buenos Aires, Argentina | Co-author: Silvia Barredo, University of Buenos Aires, Argentina

- **Development of unconventional oil resources in a low price environment: what strategy?** | Philippe Charlez, Senior Technical Advisor, TOTAL, France | Co-authors: Pierre Delfiner. PetroleoBras, France; Vincent Bordmann. TOTAL, France

- **Latin American unconventional resources: how to turn opportunities into reality** | Juan Miguel Moyano, Upstream Director, Arpel, Uruguay | Co-authors: Ana Cristina Sanchez Thorin. Equinor; Francisco Grosse. Tecpetrol; Pietro Milazzo. Weatherford; Stephen Wharton. Tecpetrol; Emmanuel D’Hutaye. Gonzalez Lopez Nardone. YPF

- **Saudi Arabia’s Unconventional Program in the Jafurah Basin: Transforming an Idea to Reality with the Jurassic Tuwaiq Mountain Formation** | Ahmed Almubarak, Team Leader, Saudi Aramco, Saudi Arabia | Co-authors: Ahmed Hakami. Ivan Levy. Clay Kurison. Exploration, Saudi Arabia

- **Southern Sichuan - A large shale gas region with an annual productive capacity of 30 billion cubic meters is emerging** | Guo Wei. RIPED, China | China Co-author: Liu Honglin. Director, RIPED, China

- **Surface factors for break-even economics - hiding in plain sight!** | Manas Satapathy, Managing Director, Accenture Strategy, USA | Co-author: Muqbil Ashraf, Accenture Strategy, USA

- **The impact of shale, fundamentals and geopolitics on the crude oil imports mix: analysis of three key countries** | Bosco Marten. Student, Comillas University, Spain | Co-author: Jose Arroyo, University Autonoma de Madrid, Spain

- **Exploration of unconventional oil shale resources in Iran: New advantages towards future potential!** | Mehrab Rashidi. Head of Geochemistry Studies and Researches Department, NIOC, Shahid Chamran University, Iran | Co-authors: Ali Shekari. Farid Tehran University, Iran; Manouchehr Davarbandeh. NIOC, Iran; Mustafa Versay Koc. METU, Turkey; Bahram Alizadeh. Shahid Chamran University, Iran; Alireza Tahmasb Sarvestani. NIOC, Iran

- **Results of unconventional reservoirs completion in Poland** | Dr. Kasia Plotr. Department Manager, Oil and Gas Institute, Poland | Co-authors: Mariusz Dziadkiewicz, Polish Oil and Gas, Poland; Piotr Kenar Orlen. Upstream, Poland

- **Shale gas in India - a global perspective** | Bibhuvan Sinha. Chief Engineer, ONGC, India

- **Emerging shale plays of Turkey** | Hasan Armaçan Derman, Unconventional Resource Manager, Turkish Petroleum, Turkey | Co-authors: Cem Karataş, Ayşe Güzel, Sezer Selvin, Turkish Petroleum, Turkey

Posters

- **Southern Sichuan - A large shale gas region with an annual productive capacity of 30 billion cubic meters is emerging** | Guo Wei. RIPED, China | China Co-author: Liu Honglin. Director, RIPED, China

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- **Emerging shale plays of Turkey** | Hasan Armaçan Derman, Unconventional Resource Manager, Turkish Petroleum, Turkey | Co-authors: Cem Karataş, Ayşe Güzel, Sezer Selvin, Turkish Petroleum, Turkey

F03 - MANAGING UPSTREAM MEGA PROJECTS

Driven by the need to have access to new reserves, oil companies are increasingly investing in fields that are very challenging technologically and commercially, such as Arctic or deep water projects. The investment and continuing expenditure needed to develop and produce from these fields puts them in the realm of ‘megaprojects’, costing US$5 billion or more. This forum will address execution risks and challenges related to delivering profitable megaprojects.

**CHAIR:** Mag E. O’Neill, Vice President, ExxonMobil Development Company, USA

**VICE CHAIRS:** Dr. Bi Chen. Vice President, CNODC, China

**Zhakyp Marabayev.** Deputy Managing Director, North Caspian Operating Company, Kazakhstan

Papers

- **Arkutun-Dagi field development** | Greg Russell. Senior Project Manager, ExxonMobil, USA

- **Advances in project leadership to meet the challenges of Mega-Projects** | Tera Segimoto. JGC Corporate HSE Manager, Japan | Co-authors: Akira Kondo, JGC, Japan; Mike Goddu. JGC Associates, Singapore

- **Managing fast track contract for handling high water cut in Kuwait Oil Company (KOC) - Challenges and approach** | Parvez Hanif. Sn. Contracts Engineer, KOC, Kuwait | Co-author: Mamoon Al-Ghawas, KOC, Kuwait

- **Project-to-asset: Smooth transition to operation. Operational readiness assurance** | Gabriele Pichon. Senior Consultant, Jacobs Consultancy, the Netherlands | Co-author: Gabriele Pichon. Jacobs Consultancy, UK

Posters

- **Mastering technological and organizational challenges with effective project management: An exemplary view on the Mittelplate Beta South development project** | Heiner Knueger. Senior Project Scheduler, DEA AG, Germany | Co-author: Thomas Flemming. DEA AG, Germany

- **Prospects of the giant oil deposit discovery in the Northern Barents Basin** | Prof. Alexey Piskarev. Chief Research Scientist, VNIOkeangeologia, Russian Federation | Co-authors: Gennady Kazanin, Sergey Pavlov, MAGE; Artem Kireev, Victor Poselov, Oleg Smirnov, Victor Butsenko. VNIOkeangeologia, Russian Federation

- **Developing a geographical information system for managing CO2 sources and geological sinks for CO2 storage in Iran** | Hossein Zangeneh. Researcher, RIP, Iran | Co-author: Mohammad Parvazdavand, RIP, Iran

- **CGE model of Russian economy with large-scale projects in oil and gas industries** | Prof. Anton Anasasyev. Research Fellow, Russian Academy of Sciences, Russian Federation

- **The comprehensive adjustment innovation and practice of offshore complex fluvial heavy oil field** | Su Yanchun. Chief Reservoir Engineer, CNODC, China
F04 - NEW TECHNOLOGIES IN PRODUCTION AND DEVELOPMENT

As hydrocarbons get tougher to find and extract, innovation and new technologies play an important role in becoming more efficient and cost-effective. Business necessities and advanced technologies that could drive changes to lower energy intensity for oil and gas production, operational integrity and intelligent field technologies, unconventional field development and reservoir recovery enhancement will be of importance. This forum will address the role of new technologies in production and development to overcome future challenges in finding, exploiting and commercializing oil and gas.

CHAIR: Prof. Elmira Ramazanova, Director, Scientific-Research Institute Geotechnological Problems of Oil, Gas and Chemistry, Azerbaijan
VICE CHAIRS: Narendra Kumar Verma, Managing Director and CEO, ONGC Videsh, India

Prof Abdullameed Al-Hashem, Director General, Petroleum Research Center (PRC), KISR, Kuwait

Papers

- Simulations & challenges of ESP application in high-GOR wells at South East of Turkei | Muhilse Basak Bulutekkin, Production Engineer, TransAtlantic Petroleum, Turkey | Co-authors: Burcu Usluoy, Darcy Dorscher, TransAtlantic Petroleum, Turkey

- Simulation of Gel injection, Oil barrier and DWS methods in Water Coning Prevention in a conventional and tight reservoir | Masoud Riazi, Associate Professor, Shiraz University, Iran | Co-authors: Roohbehan Banakhi, Mohammad Reza Malayeri, Masoud Riazi, EOR Research Center, Shiraz University, Iran, Soroush Salmanpour, Department of Petroleum Engineering, Shiraz University, Iran

- Enhancing recovery of oil using nano particles—An overview | Shuna Sharma, Engineer, AEE, ONGC, India

- Unconventional dry heat recovery enhancement of Wafra-Eocene using conventional temperatures | Dr. Waleed Al-Bazzaz, Associated Research Scientist, KISR, Kuwait | Co-authors: Abdulrahim Kameil, Abbas Talal, Khalifa Buresli, KISR, Kuwait

Posters

- Evaluation of Reservoir Dynamic Connectivity Based on Drainage Area Estimation | Dr. Abdulaziz Al-Qasim, Petroleum Engineer, Saudi Aramco, Saudi Arabia

- Research study of microbial processes of residual oil into methane in depleted oil field for enhanced hydrocarbon recovery | Haruo Maeda, Technical Advisor, INPEX Corporation, Japan | Co-authors: Tatsuki Wakayama, Masayuki Ikaraishi, Hideharu Yonebayashi, INPEX, Japan; Daisuke Mayumi, Satoshi Tamazawa, Hideyuki Tamaki, Susumu Sakata, Yoichi Kamagata, Advanced Industrial Science and Technology, Nippon Osaka, Takashi Iida, Tokyo Gas, Japan

- Deterministic fracture network modeling by super resolution microseismic imaging and its impacts on fracturing design, a case study of Eagle Ford shale | Dr. Yusuke Kumano, Research Manager, INPEX, Japan | Co-authors: Mamoru Nakata, Tetsuya Tamagawa, INPEX, Japan

- Some aspects of the development oil fields | Prof. Turgarpahkhan Salavatov, Chief of Reservoir Engineering Azerbaijan State Oil and Industry University, Azerbaijan | Co-authors: Elmira Ramazanova, SRI of Geo-technological problems of Oil and Gas and Chemistry, Azerbaijan; Rafael Mammadzade, Aziz Mammadov, Azerbaijan State Oil and Industry University, Azerbaijan

- The Feasibility Appraisal for CO2 Enhanced Gas Recovery of Tight Gas Reservoir: Case Analysis and Economic Evaluation | Yieg Jia, Senior Engineer, E&P Research Institute, SINOPEC, China | Co-authors: Yunqing Shi, Li Hong Yang, Yuqun Huang, Xiazi Wang, E&P Research Institute, SINOPEC, China

- Real time prediction of the rheological parameters of NaCl water-based drilling fluid using artificial neural networks | Dr. Salaheddin Elkatatny, Assistant Professor, King Fahd University of Petroleum and Minerals, Saudi Arabia

- Deriving efficient operations and production uplift through advances in technology | Dr. Dayo Oyerinde, Research Manager, ExxonMobil, USA

- The SINOPEC’s new development in Ultra-DeepDrilling technologies | Jianhuang Zhang, Director, SINOPEC, China | Co-authors: Ximing Nie, Lianzhong Sun, SINOPEC, China

- From domestic tar sand and heavy oils to middle distillates: SCH2O as an alternative upgrading technology | Ramazan Ojuz Canaz, R&D Superintendent, TUPRAS, Turkey | Co-authors: Serhat Arca, TUPRAS, Turkey; Can Erkey, Koç University, Turkey

- Petroleum Economic Evaluation – Usage of technology to make smart E&P decisions | Krishanu Bhattacharya, SAP, UK | Co-authors: Arif Abdullah, Stephan Klein, SAP, Germany; Suresh Iyaji, OPEC, UAE, Krishanu Bhattacharya, SAP, UK

F05 – GEOSCIENCE TECHNOLOGY AND INNOVATION

This forum will address innovations and technology development within the geoscience area from outcrops to assets, ranging from exploring hydrocarbons to effective production. The challenge is to develop cost-effective and environmentally friendly technologies that tackle issues such as seismic imaging advances, hydrocarbon phase prediction, complex reservoirs, rock mechanics, reservoir management and production forecasting to improve the industry’s ability to predict.

CHAIR: Saleh M. Saleh, Manager, Area Exploration, Saudi Aramco, Saudi Arabia
VICE CHAIRS: Dr. Michael Peter Suess, Head of Subsurface Technology and Innovation, Wintershall, Germany

Papers

- Assessment of facies distribution in carbonate fields using stratigraphic forward, diagenetic and seismic modelling | Dr. Didier Granjeon, Project Leader, IFPEN, France | Co-authors: Cedric Pellet, Repsol CTR, Spain; Mickael Barbler, IFPEN, France

- Predicting the impact of natural fractures on reservoir performance | Sarah R. Pietraszek-Mattner, Exploration Manager, ExxonMobil, USA | Co-authors: James W. Barron, Rodrick D. Myers, David J. Moreton, Jean Christophe Semperle, ExxonMobil Upstream Research, USA

- Seismic acquisition and imaging in Saudi Aramco: Challenges and opportunities | Saleh Almahlooth, Manager, Saudi Aramco, Saudi Arabia

- Modelling and optimization technologies - A competitive edge in hydrocarbon recovery | Rob Kleibergen, Programme Director PetroSigns, Shell, The Netherlands
F06 – IOR / EOR – MAXIMISING THE DEVELOPMENT OF MATURE FIELDS

More than 70% of the world’s remaining conventional reserves are contained in fields that are already in production. The industry is faced with developing and implementing profitable technologies and solutions to extract more oil from these mature oil fields. This forum will provide practical examples of how successful IOR and EOR in combination with new reservoir-management techniques and technologies, production optimization, drilling and side-tracking, and facilities can enhance recovery and increase efficient management of mature fields in a cost effective way.

CHAIRS: Prof. William Rossen, Professor of Reservoir Engineering, Delft University of Technology (TU Delft), the Netherlands
VICE CHAIRS: Dr. Torsten Clemens, Senior Reservoir Engineering Adviser, DMY &P, Austria
Dr. Tomomi Yamada, General Manager, Iraq Project Dept, Middle East, Africa and Europe Div., JAPEX, Japan

Papers

- Optimization of recovery in waterfloods with bang-bang control in reservoirs with subsidence and uplift | Gulcan TurkerSali, Schlumberger, Turkey | Co-authors: Cenk Temizel, AERA (Shell-ExxonMobil) JV, USA; Onder Saracoglu, Enegyes Consultancy, USA; Karthik Balaji, Anaj Suhag, Rahul Ranjit, University of Southern California, USA

- Nanosilica based fluid system for water shut-off | Ayman Almolhim, Petroleum Engineer, Saudi Aramco, Saudi Arabia | Co-authors: Jin Huang, Prasad Karadkar, Mohamedd Batzewa, Saudi Aramco, Saudi Arabia

- The study and pilot on heterogeneous combination flooding system for high recovery percent of reservoirs after polymer flooding | Prof. Xulong Cao, President, SINOPEC, China | Co-authors: Lanlei Guo, Hongmin Yu, Cuilan Wei, Yu Liu, SINOPEC, China

- History of a commercially successful gas-based IOR in Japan: 12 years’ challenge on maximizing the profit of offshore oil and gas field by optimizing allocation of gas volume between sale and injection | Shinichi Koshii, Reservoir Manager, JAPEX, Japan | Co-authors: Takafumi Yamakawa, Yoko Takahashi, Fumiya Sugita, Ryo Ueda, Koji Hosokoshi | JAPEX, Japan

Posters

- EOR projects in the Middle East: Past, present, & future | Serdar Bender, Senior Reservoir Engineer, Turkish Petroleum, Turkey

- Open multi-scale carbonate geological model for enhancing IOR/EOR workflows | Alexandre Darischev, Postdoctoral Research Associate, Texas A&M University, Qatar | Co-authors: Dominique Gueillet, Texas A&M University, Qatar; Jérôme Brugel, Terna3E, Qatar

- A novel characterization and optimization workflow for waterflooded reservoirs: Interwell connectivity mapping & production optimization | Mustafa Erkin Gozel, Reservoir Engineer, Turkish Petroleum, Turkey | Co-author: Serhat Alun, METU, Turkey

- Research progress and applications of EOR techniques in SINOPEC | Prof. Bingu Ju, Chief Engineer, Petroleum Exploration & Production Research Institute, SINOPEC, China | Co-authors: Youqi Wang, Hongmin Yu, Li Zhang, Jun Nie, Qiang Wang, Petroleum Exploration & Production Research Institute, China

- A successful ASP pilot implementation in Caracara Sur oil field: an integrated and multidisciplinary project | Jesus Montes, EOR Technical Coordinator, CEPSA E&P, Spain | Co-authors: Enrique Yuste, Hernando Mayorga, Sergio Andres Bonilla, Guillermo Quintanilla, CEPSA, Spain

- Assessment of EOR chemicals back-production possible impact on upstream facilities | Dr. Abdulkaarem AlSafi, Petroleum Engineer, Saudi Aramco, Saudi Arabia | Co-authors: Gusal Alkhatib, Hassan AlAbed, Qwelal Wane!, Badr AlZahrani, Alhasan Fesenti, Saudi Aramco, Saudi Arabia

- In-Situ combustion site test in Xinjiang Oil Field | Kanni Zhati, Field Engineer, CNPC, China | Co-authors: Zhati Kanni, Long Chen, Jingyun Pan, Ruyan Wang, Gang Cal, Jianjun Liang, Xiao Song, Lin Ji, CNPC, China

- Nanoparticles for EOR purposes: State of art, opportunities and challenges | Masoud Riazi, Assoc. Professor, Shiraz University, Iran | Co-authors: Y. Kazemzadeh, M. Sharifi, Arak University, M. Reza Malayeri, Shiraz University, Iran
ROUND TABLES

RT01 - EXPLORATION AND PRODUCTION COST EFFICIENCY – BUILDING RESILIENCE

During the past 30 years there have been three major cycles of a sharp run-up in world crude oil (and gas) prices followed by a steep decline. In such a volatile environment, a strategy focused on being a low cost producer can be critical in building the resiliency and sustainability of the business. This roundtable will discuss learnings from companies and projects that have taken extraordinary steps to capture efficiencies in capital expenditures and operating expenses to reduce supply costs and to improve operating margins.

MODERATOR: Marcos Galvão, General Manager for International Exploration, Petrobras, Brazil

RT02 - BRIDGING OTHER INDUSTRY TECHNOLOGIES – IMPACT ON UPSTREAM

This roundtable will be about learning from other industries by sharing experiences, new technologies and best practices, and by approaching the issues in a new and alternative way. Innovative industries as for example pharmaceutical, automotive, aerospace, banking and IT are all facing and addressing challenges somewhat similar to the petroleum upstream industry. Close cooperation across industries has and will continue to generate new ways of solving problems and stimulate innovative solutions beneficial to more than just one industry.

MODERATOR: Eric Koenig, Strategy Vice President for Schneider Electric Oil & Gas Business, France

RT03 - INNOVATIVE COLLABORATION: WHAT’S NEXT FOR IOCS, NOCS AND SERVICE COMPANIES?

How can International Oil Companies, National Oil Companies and Service Companies work together to build and implement innovative strategies to jointly meet the future energy demand? This roundtable will address how these relationships can benefit all stakeholders, help in providing a more equitable balance of risk and reward and explore how the NOC-IDC-Service Company relationship can evolve into successful partnerships.

MODERATOR: Dr. Iván Martén, Global Leader Energy Practice Senior Partner and Managing Director, Boston Consulting Group, Spain

RT04 - UPSTREAM PORTFOLIO DEVELOPMENT IN CYCLIC BUSINESS ENVIRONMENTS

Oil price volatility is very challenging for the industry. A low oil price environment demands a focused approach based on high quality decision making in order for companies to maximize returns and achieve their performance targets. Success requires recognition of uncertainty and practical strategies for the minimization or mitigation of risk to ensure delivery of projects within budget and to generate predictable cash flows. This roundtable will be a discussion around issues such as creating portfolio robustness and development, balancing short and long term value and shareholders perspectives.

MODERATOR: Graham Talbot, Executive Vice President & CFO, Maersk Energy Division, Denmark
FORUMS

F07 - COMPETITIVE REFINING TECHNOLOGIES

This Forum focusses on improving the economics of refinery processes in order to make them more competitive. This can be done in particular through energy savings and efficient feedstock utilization. Both are strongly related to improved catalysts and optimized separation steps (distillation, molecular sieve separation or membrane separation, process intensification). The Forum will also optimize processes with respect to matching the product yields and specifications with the market demands, based on the feedstock available. Typical examples are gasoline vs. diesel yield, octane number, sulphur and hydrogen management etc.

CHAIR: Prof. Meena Marafi, Executive Director - Petroleum Research Center, KISR, Kuwait
VICE CHAIRS: Dr. Rainer Rakocy, Global Product Manager for Fuel Upgrading, Clariant Produkte Deutschland, Germany
Dr Carl Mesters, Chief Scientist Catalysis & Chemistry, Shell International Exploration & Production, USA

Papers

- *Impact of crude oil quality on downstream refining processes* | Dr. Abdulazim Marafi, Senior Researcher, KISR, Kuwait
- *Homogeneous catalysis as a promising route to reduce bottom of the barrel* | Madan Kumar Kumaravelan, Senior Engineer, Hindustan Petroleum, India | Co-authors: Praveen Kumar Singh, Pramod Kumar, Paddy V. C. Rao, Gandham Sriganesh, Hindustan Petroleum, India
- *From solution to commercial hydrocracking unit: A successful catalyst development story* | Dr. Omer Koseoglu, Principal Professional, Saudi Aramco, Saudi Arabia | Co-authors: Mitsunori Watabe, J&C & C, Suheil Abd, UOP, USA

Posters

- *Low-grade Diesel Hydro-upgrading and LCO Hydro-conversion technology* | Dr. Chong Peng, Senior Engineer, SINOPEC, China | Co-authors: Ronghui Zeng, Xiuhua Huang, Yanze Du, Hong Guo, Xiangchen Fang, SINOPEC, China
- *New advances in ULSD producing* | Dr. Rong Guo, Professor, SINOPEC, China | Co-authors: Xiangchen Fang, Yong Zhou, Chengmin Yang, SINOPEC, China
- *Heavy crude oils compositional characterization using comprehensive two-dimensional gas chromatograph; a tool for improving refining processes* | Dr. Hassan Al-Rabiah, Associate Research Scientist, KISR, Kuwait | Co-authors: Latifa Al-Ostad, Abdullah Sabah, Takanai Al-Shamary, Hisham Al-Henayyan, Roaya Khazemi, KISR, Kuwait
- *Commercial Operation Result for Chiyoda Thoroughbred Hybrid Titanium (CT-HBT) Catalysts for Hydrodesulphurization* | Satoshi Morikami, Refinery, Petrochemical & New Energy Unit General Manager, Chiyoda Corporation, Japan | Co-authors: Yujiro Ueda, Yutakata Wada, Dai Taoye, Akihiro Muto, Chiyoda Corporation, Japan, Kazutomo Yamura, Yusuke Segawa, Seibu Oil, Japan
- *Preparation and characterization of modified PVA/Chitosan/Gluutaraldehyde membrane with TiO2 nanoparticles for pervaporation of benzene/cyclohexane mixture* | Nasrin Allian Belkazzaz, Expert, OIEC, Iran
- *Identifying opportunities in Petrochemical plants through data analysis – A Case Study* | Dr. Prasanna Pathath, Staff Scientist, SINOPEC, China | Co-authors: Venugopal BV, Satish Angadi, SABIC, India, Hatem Belfadel, SABIC, Saudi Arabia
- *Reduction of coke yield in Delayed Coking process through use of additive* | Hari Venkata Dev Prasad Terapalli, Deputy Manager, Indian Oil Corporation, India | Co-authors: Pradeep Poonam Ramachandran, Satyen Kumar Das, Debasis Bhattacharyya, Sri Venkata Ramakumar Sankara, Indian Oil, India
- *How to find more markets for your GTL diesel* | Mostafa Shaha, Lead Process Engineer, ORYX GTL, Qatar
- *Maximizing diesel and hydrogen in refinery with minimum CAPEX* | Tirupati Naidu A.K, Chief Manager, Hindustan Petroleum, India | Co-authors: G. Venkata Madhav, K. Vijaykiran, B. Balagangadharam, Hindustan Petroleum, India
- *C9 side stream utilization* | Monika Piter, Product Development Engineer, MOL Group, Hungary | Co-author: Laszlo Keresztury, MOL Group, Hungary

F08 - INTEGRATION OF THE REFINING AND PETROCHEMICAL INDUSTRY

Integrating refining and petrochemical sites will help fight volatility in the petroleum value chain. If properly planned and implemented, integration not only diversifies the product portfolio, but reduces site specific costs, increases capital efficiency and increases returns. This Forum will demonstrate through practical case studies how the strategic planning of aromatics/fuels/olefin conversion units with a common utility management system capture long term business benefits.

CHAIR: Miika Eerola, Group Production SVP, MOL Group, Hungary
VICE CHAIRS: Oscar Chambriel, R&D Downstream Manager, Petrobras, Brazil
Gandham Sriganesh, Executive Director, Visakh Refinery, Hindustan Petroleum Corporation, India

Papers

- *From crude oil to steam cracker: how petrochemical naphtha quality drives the simultaneous refinery and petrochemicals optimization* | Balazs Balasko, Group Modelling Manager, MOL, Group, Hungary
- *Strategic expansion for petrochemical generation via valorization of low value streams in refinery: Case Study* | Vineet Bakshi, Deputy Process Manager, Engineers India, India | Co-authors: Anil Kumar, Manoj Kumar, Engineers India, India
- *FCA(Fluid Catalytic Aromatization): A newcomer to processes for producing BTX* | Yasuyuki Iwasa, Assistant Manager, JXTG Nippon Oil & Energy, Japan | Co-author: Seiichiro Takano, Chiyoda Corporation, Japan
• Optimized products inventory for improved working capital management
• New R&D initiatives for refinery-petrochemical integration in Brazil | Dr. Bernardo Siqueira, Process Engineer, PETROBRAS, Brazil | Co-authors: Carlos René Rabello, Marilite Gomes Jr., PETROBRAS, Brazil

Posters
• Cold oil absorption technology for recovery of refinery dry gas | Jingsheng Zhang, Beijing, China, Beijing Research Institute of Chemical Industry, SINOPEC, China | Co-authors: Dongfeng Li, Jianmin Cheng, Lihua Liao, Liang Guo, Zhixin Liu, SINOPEC, China
• Research of the industrial application of IHCC technology processing paraffinic residue oil | Wang Yi, Vice General Manager, Huaiuan Qingjiang Petrochemical, China | Co-authors: Shouye Cui, Youhao Xu, Qifeng Gu, SINOPEC, China
• Restoring gases emission with approach of CO2 capture | Case Study: Petrochemical & Refineries in PSEEZ | Dr. Ali Rahemesh, Foreign Purchasing, Borouzuyh Petrochemical Complex (BPC), Iran | Co-authors: Peyman Razmjoo, Koosh Pakbin, Borouzuyh Petrochemical Complex, Iran
• Novel engineered inert shapes media for use in fixed bed dehydrogenation reactors | Dr. Guillermo Leal, Advisor/Consultant, SABIC, Saudi Arabia | Co-authors: Mohammad Bismillah Ansari, Vijay B. Bodas, SABIC, Saudi Arabia
• Optimum transportation method for development of extra heavy crude oil | Tomoki Kayukawa, Senior Engineer, Engineers India, India | Co-authors: Rajasekhar Mallaramu, Rajeev Namdar, S. C. Gupta, Sheeraj Singh, Vartika Shukla, Engineers India, India
• Research and performance analyses of FAU-structured zeolites during alklylation of isobutane by olefins | Ayyup Shadrina, Student, Ufa State Petroleum Technological University, Russian Federation | Co-authors: Artur Davletshin, Shihat Shiriyazdianov, Institute of Petroleum Refining and Petrochemistry, Russian Federation

F09 - OILS AND PRODUCTS STORAGE AND TRANSPORTATION
The Forum will discuss the best practices in cross-border pipeline management considering the safety and reliability factors. It will also include subsea pipelines, storage systems, maritime transportation, and tanker terminals. The Forum will look into the impact of storage capacities and locations on local processing capacities. The ultimate target of this Forum is to share ideas on facilitating transportation from the producers to the consumer markets.

CHAIR: Liv Hovem, Director of Division Europe and Africa, Oil & Gas, DNV – GL, Norway
VICE CHAIRS: Anand Kumar Tewari, Executive Director, Indian Oil Corporation, India

Papers
• With the application of new technology and management methods to ensure the safety of oil and gas pipeline operation | Weibin Wang, Senior engineer, Shenyang Longchang Pipeline Survey Center, China
• Strategic petroleum reserves: An energy security initiative of India | Dr. Ranjit Rath, Assistant General Manager, Engineers India, India | Co-authors: Amanpreet Chopra, Atul Nanda, Engineers India, HPS Ahuja, Indian Strategic Petroleum Reserves, India
• Optimum transportation method for development of extra heavy crude oil | Tomoki Kayukawa, Senior Research Engineer, JGC, Japan | Co-authors: Rajasekhar Mallaramu, Rajeev Namdar, S. C. Gupta, Sheeraj Singh, Vartika Shukla, Engineers India, India
• Optimized products inventory for improved working capital management | Shailendra Mohite, Senior Engineer, Kuwait Petroleum International, Kuwait

Posters
• Research on distributed fiber pre-warning system based on coherent rayleigh for pipelines | Yunbin Ma, Department Manager, Petrochina, China | Co-authors: Yan Zhou, Donglei Tan, Xiaoqiang Tian, Petrochina, China
• Small-scale refinery process can be an efficient alternative for the evacuation of heavy oil in the East Colombian Fields | Enrique Gómez Restrepo, Process Engineer, Ecopetrol, Colombia | Co-authors: Carlos Acosta, Liliam Camargo, Ecopetrol, Colombia
• Oil spillage remediation and recovery: A novel approach using phase selective soft materials | Dr. Ravishankar Raman, Chief Manager, Hindustan Petroleum, India | Co-authors: Siva Kesava Raju Chinthalapati, Peddy V. C. Rao, Gandham Srikanth, Ramesh Kandanelli, Hindustan Petroleum, India, Ram Kumar Mangala, Bhaskar Pramanik, HP Green R&D Center, India
• A case of operating a pipeline susceptible to fatigue failure of Double Submerged Arc (DASAW) long seam | S S Gupta, Deputy General Manager, Indian Oil, India | Co-author: Santosh Kumar A R, Indian Oil, India
• Improving the technology process of crude oil transportation by trunk pipelines | Roman Mazur, Oil and Gas Transportation Department Manager, Gasoservice, Ukraine
• Experimental investigation of two phase flow in horizontal pipes: Oil-water and oil-polymer, flow regime assessment and pressure drop modification | Reza Shams, Student, Sharif University of Technology, Iran | Co-author: Saeed Shad, Sharif University of Technology, Iran
• Startup flow of gelled crude oils: An experimental study | Behboud Abedi, Student, Pontifical Catholic University of Rio de Janeiro, Brazil | Co-author: Paulo Roberto de Souza Mendes, PUC-Rio, Brazil
• Flow measuring principles | Eleonora Pechorskaya, Master’s Student, Gubkin Russian State University of Oil and Gas, Russian Federation
F10 - NEW MARKETING APPROACHES FOR DELIVERING PRODUCTS TO CONSUMERS
The oil industry foresees major changes to approach customers. This Forum will look at the integration between trading and refining activities, with oil companies looking for asset-backed trading whilst traders are gaining importance as new refining and retail players. New independent companies are also appearing in the retail business with new business models. The importance of the non-oil business is growing in service station networks, whilst low-cost models are increasing their market share. Additionally, Big Data management enables new delivery and marketing strategies, developing personalized promotions. The retail business also faces the challenge to integrate the traditional service station networks with new model developments, making room for alternative fuels for vehicles.

CHAIR: Lourdes Rodríguez, Executive Director Trading and Gas & Power, Repsol, Spain

Papers
- The impact of the advent of e-cars on transport fuel consumption | Dr. Johnstone Chikwanda, Chairperson, Energy Forum Zambia, Zambia | Co-authors: Marielise Poeschko, Mining University Leoben, Austria; Markus Lueftenegger, OMV Upstream, Austria
- Beyond the product | Rich Kho, Managing Director, Accenture, UK | Co-author: Fergal Madigan, Accenture, UK
- Joint optimization of retail station operation and secondary distribution with utilization new business models | Dr. Máté Zöldy, Market Operation Regional Leader, MOL Group, Hungary | Co-authors: Csaba Kárti, Gábor Egresits, MOL Group, Hungary
- Agility approach to facilitate supply chain: Case studies from oil industry | Mehmet Akif Çalış, Specialist, Turkish Petroleum, Turkey

Posters
- Opportunities and challenges in the Sub-Sahara African petroleum value chain | Johnstone Chikwanda, Chairperson of the Board of Directors, Indeni Petroleum, Zambia
- The optimal scheduling of products pipeline based on Big Data | Haoran Zhang, Student, China University of Petroleum, Beijing, China | Co-authors: Bohong Wang, Qi Liao, Xinyuan Zhou, Yongtu Liang
- Can successful loyalty programs sustain profitability in the oil industry? | Manar Al-Murad, Marketing Analyst, Kuwait Petroleum International, Kuwait
- End to end supply chain solutions for delivering products to consumers in oil industry | Shalini Tiwari, Deputy Manager, Engineers India, India

F11 - PRODUCTS OF THE FUTURE
When we look at a low carbon future most forget about the petrochemical industry or refinery of the future producing polymers, pharmaceutical and fuels. There are many possible biological building blocks including crops and algae. There are also a number of processes using CO2 as a feedstock. The latter could be a potential solution but it all depends on thermodynamics and the energy mass balance. This Forum will look at all the feasible technologies for the future.

CHAIR: Mrs Nathalie Brunelle, General Secretary - Refining & Chemicals, TOTAL, France
VICE CHAIRS: Fuad Mosa, General Manager, Sabic Innovation and Technology, Saudi Arabia
Prof Dr. Slobodan Sokolovic, Vice President, NPL Serbia and Professor, University Novi Sad, Serbia

Papers
- Unlocking the potential of fuel to enable sustainable transport | Dr. Amer Ahmad Amer, Chief Technologist, Saudi Aramco, Saudi Arabia
- Solar fuels by photo and Photo-electro catalytic reduction of carbon dioxide | Dr. Ramesh Kanaparthi, Manager, Hindustan Petroleum, India | Co-authors: Ravishankar Raman, V Jeyalakshmi, P S Ramesh, Paddy V. C. Rao, Sriganeend Gandham, Hindustan Petroleum, India
- Can successful loyalty programs sustain profitability in the oil industry? | Manar Al-Murad, Marketing Analyst, Kuwait Petroleum International, Kuwait
- End to end supply chain solutions for delivering products to consumers in oil industry | Shalini Tiwari, Deputy Manager, Engineers India, India

Posters
- The bi-reforming of methane to syngas for GTL application: analysis of technical challenges | Dr. Saeed Sahebdelfar, Head of Catalysis Group, Petrochemical Research and Technology, Iran | Co-author: Maryam Takhti Ravanchi, Petrochemical Research and Technology, Iran
- System and catalyst development for hydrogen production from organic hydrides | Dr. Hideki Mi, Principal Researcher, JX Nippon Oil & Energy, Japan | Co-author: Kazunori Mihayama, Yasushi Mizuno, Satoshi Funata, Shouichi Tsukagoshi, Tomomi Nagatsu.ka, Yutaro Hirano, JKTG Nippon Oil & Energy, Japan
- Carbon dioxide utilization to value added chemicals | Dr. Ajay Arora, Chief Research Manager, Mardon Refinery and Petrochemicals, India | Co-author: Krishnarao Lopinti, Meeta Sharma, Suresh Patel, Sanjendra Majumdar, Indian Oil, India
- Petroleum refinery as plastic waste management hub | Chayan Bhalla, Deputy Manager, Mangalore Refinery and Petrochemicals, India | Co-author: Raj Mohan Bala, National Institute of Technology, India
- Fuels with high hydrogen content in their molecular structures | Dr. Jenő Hancsök, Professor, Pannon University, Hungary | Co-author: Zoltán Varga, Pannon University, Hungary
- Economic corridor thriving on hydrocarbon industrial waste stream: Opportunity to lower GHG emissions & crude import | Vineet Bakshi, Deputy Process Manager, Engineers India, India | Co-author: Amanpreet Chopra, Grandhi Sridaranth, Varlaka Shukla, Engineers India, India
- Analysis of soot emissions from less polluting diesel fuel blends | Mujeeb Kareem, Research Assistant, The Petroleum Institute, UAE | Co-author: Abhiljeet Raj, The Petroleum Institute, UAE
- Application of Lotka-Volterra equations in Biomass versus Petrol and their environmental impact | Juan Alberto Vera, Student, Universidad Rey Juan Carlos, Mexico
ROUND TABLES

RT5 - DELIVERING SUCCESSFUL DOWNSTREAM PROJECTS
Delivering downstream capital projects within-budget / on-time in today’s volatile business environment is of paramount importance. With case studies, this Roundtable discussion will give pragmatic guidance how to prioritize project objectives, phase design stages, evaluate costs, source and conclude EPC contractors and implement construction. Special emphasis will be given to exploring the technical and leadership competencies of project personnel and management to properly mitigate risks throughout large scale refinery and petrochemicals projects.

MODERATOR: Sanjay Gupta, Chairman & Managing Director, Engineers India Limited, India

RT06 - ASSET MANAGEMENT IN REFINING AND PETROCHEMICALS
It is essential that modern and aging refineries are operated in a safe, efficient and environmentally acceptable manner. In general, a PDCA cycle, including maintenance planning, implementation of repair and replacement, operation of improved facilities and evaluation of maintenance, is introduced for asset management in consideration of financing and human resources. The panel will share examples of operational excellence for asset management in refineries and their implementation in software and hardware, including capital management, human resources and preparation for disaster response.

MODERATOR: Dr. Eng. Hatem Abdullah Belfadhel, Director, Global Technology Programming, CHSBU, Technology Management, SABIC, Saudi Arabia

RT07 - OUTLOOK OF THE DOWNSTREAM INDUSTRIES
This panel will focus on current trends and emerging technologies in the downstream industries, including business challenges arising from the increasing use of sustainable first and second generation biofuels and from the advent of new mobility concepts, such as electrical and hydrogen mobility. Changes in the demand and supply pattern resulting from these changes, novel feedstock options and diversification for the downstream industry is also covered in this discussion. It will also address the production capacities and demands in the local and global markets for the refinery and petrochemical industry.

MODERATOR: Csaba Zsótér, Product & Renewables Trading Manager, MOL Group, Hungary
FORUMS

F12 – OPENING UP NEW USES AND APPLICATIONS FOR GAS

Consumption of gas is increasing faster than oil or coal. In order to feed the increased demand for gas, we need to search for technology innovations beyond the shale gas revolution, which can unlock new sources such as hydrates and hydrogen, develop new processes for unconventional gas, CBM and CTL, as well as focus on new applications such as CHP. What impact do these new technologies have on the usage of gas in transportation, mobility and power generation?

CHAIR: Mrs Meriem Mokrani, Senior Vice President Operations, Engie, France
VICE CHAIRS: Jorge Delmonte, Executive Manager, IEP, Brazil
Makoto Yasu, General Manager, Technology Development Unit, Chiyoda Corporation, Japan

Papers

- Gas Grows Up - new markets and applications | Melissa Stark, Managing Director, Accenture, UK
- Green natural gas – well in reach | Olea Skalmeraas, Vice President, Statoll, Norway
- Expanding natural gas footprint in the Indian energy market | Rajeev Mathur, Managing Director, Mahanagar Gas, India
- How Selective Oxidation technologies can open up new options for exploiting Ethane and Propane from Shale gas | Dr. Srikant Gopal, Lead Scientist, SABIC, Saudi Arabia | Co-authors: Turki Al-Smail, Mohammed Al-Hazmi, SABIC, Saudi Arabia

Posters

- Implementation of alternate energy sources as a solution towards sustainable development | Dr. Reji Mathal, Deputy General Manager, Indian Oil, India | Co-authors: Sumit Kumar Mishra, Saurabh Singh, A K Sehgal, Indian Oil, India
- Advances in technology utilization of clean natural gas | Dr. Hao Wang, Project Manager, SINOPEC, China | Co-authors: Jianwen Da, Hongxia Xue, Hantao Yu, Xiaojun Song, SINOPEC, China
- Chemical Looping Process (CLP): An Attractive route for Hydrogen Production & Simultaneous CO2 Capture | Dr. Sudarshan Reddy Ragreddy, Senior Research Officer, Hindustan Petroleum, India | Co-authors: Raman Ravishankar, Paddy K.C. Rao, Gandham Srikanesh, Hindustan Petroleum, India
- Creating new demand for gas | Andrew Brogan, Partner, EY, UK | Co-authors: Drew Krasnov, EY, UK
- Small-scale LNG: playing a key role in gas markets transformation | Victoria Fedorova, Assistant professor, Gubkin Russian State University of Oil and Gas, Russian Federation
- Natural gas is considered by Iran as the fuel of the future, best practice about conversion gasoline | Saeed Sajadian, Engineer, NIOC, Iran | Co-authors: Yali Ahmad Sajadian, NIOC, Iran
- The analysis and research on natural gas extension and utilization prospects | Xiaochun He, Executive Assistant, CNPC, China | Co-authors: Huijuan Zhang, Zhen Wang, CNPC, China; Yongjue He, National Development and Reform Commission National Energy Board, China, China
- New design of DME conversion to Olefins | Mariya Magomedova, Head of Chemical Engineering, TIPS RAS, Russian Federation | Co-authors: Salambek Khadzhiev, Anton Maksimov, TIPS RAS, Russian Federation

F13 – SUSTAINABLE VALUE CHAINS FOR UNCONVENTIONAL GAS

The value chain for the gas industry covers production, processing, transportation, storage and distribution, and each of these sectors has a social and business impact on the industry. For unconventional gas the value chain is largely similar to that of conventional gas but has unique features in terms of sustainability and cost effectiveness, as well as social and environmental impacts. We will consider the differences between the value chain of conventional and unconventional gas, review comparative studies and examples of building an effective value chain for unconventional gas which adds value to the company’s revenue line whilst providing a stable supply of gas to the end users.

CHAIR: Ning Ning, Vice President, RIPED Langfang, China National Petroleum Corporation, China
VICE CHAIRS: Christophe Amadell, VP, Unconventional Development Division, TOTAL, France

Papers

- Interconnections: Leading the development of the unconventional gas value chain | Paloma Izquierdo, Regulatory Development, Enagas, Spain | Co-authors: Pedro Miras Martinez-Berganza, ENTSOG, Belgium
- China shale gas economic evaluation based on Monte Carlo simulation | Nan Wang, Deputy Director, CNPC-Petrochina, China | Co-authors: Qian Zhao, CNPC, China
- Monetizing gas of a giant high helium and nitrogen gas reservoir – Amur gas processing plant | Marcus Lang, Executive Vice President, Linde AG, Germany | Co-authors: Igor Almanayev, Gazprom, Russian Federation; Boris Shutalov, NPGas, Russian Federation; Florian Schmid, Linde Group, Germany
- Mitigating shale gas developments carbon footprint: evaluating & implementing solutions in Argentina | Christiane Eygun, Unconventional Division, Social License to Operate, TOTAL, France | Co-authors: Jed Belgrad, Yang Wu, TOTAL, France; Fabián Pavez, TOTAL AUSTRAL, Argentina
Posters

- The prospect of trade and production of liquefied natural gas in the Petrostates in 2035 | Mohsen Haerinnejad, Research and Development Expert, Oil Industries’ Commissioning and Operation Company (OICO), Iran | Co-authors: Mohadeshe Mohie, Tehran Polytechnic University, Iran
- Sweet spots prediction and evaluation in shale gas reservoirs using geophysical data | A case study in the Langmaxi Formation of the Lower Silurian Jurassic of W201 area, Sichuan Basin | Dr. Sheng Chen, Geophysicist, China University of Petroleum, RiPED, CNPC, China | Co-authors: Wenzi Zhao, Yonglin Ouyang, Jingcai Zeng, Qing Yang, Huaxiong Hou, Shaohua Gu, Shihe Bao, Xinbo Li, Jiajiaqiang Huang, Xing Chang, CNPC, China
- Progress and performance of China’s Coalbed Methane Industry | Yangpeng Chen, Senior Engineer, RiPES, CNPC, China | Co-authors: Fengjun Sun, Wuzhong Li, Xun Liu, Meng Geng, Xinchun Jiang, CNPC, China
- Socio-economic impact of gas condensate well spacing problems using genetic algorithms | Case study from Northern America | Abdul-latif Benson Lamidi, Researcher, Saint Petersburg Mining University, Russian Federation | Co-authors: Riverson Oppong, Gubkin Russian State University of Oil and Gas, Russian Federation
- The effect and function of materials used in waste management of drilling fluids | Farid Amraei, Student, Ceyon, Iran | Co-authors: Amin Amraei, NOC, Iran
- Liberalization of Indian gas market for development of unconventional gas | Debasish Nayak, Senior Marketing Officer, ONGC, India | Co-authors: R. Gohain, ONGC, India
- Natural gas replacement methodology with LPG/AIR system at gas distribution network for peak shaving | Behrouz Mozey, Technical Inspector, National NIGC, Iran
- Scenarios in energy industry future: CO2 emission approach | Amin Amraei, Engineer, NOC, Iran | Co-authors: Ali Rahmsheh, Borouzey Petrochemical, Iran, Joanna Desjardins, Conoco Phillips, Kseniya A. Bondarenko, Institute of Forecasting and Macroeconomic Researches, Uzbekistan, Sharhan Poussardhi, Avandian Oil Refinery, Iran
- Oil & gas industry scenarios for energy in 2030-2050: CO2 emissions scenarios point of view | Ali Rahmsheh, Senior Foreign Purchasing, Borouzey Petrochemical, Iran | Co-authors: Joanna Desjardins, Conoco Phillips, Kseniya A. Bondarenko, Institute of Forecasting and Macroeconomic Researches, Sharhan Poussardhi, Avandian Oil Refinery, Iran

F14 - DELIVERY OF LARGE SCALE INTEGRATED GAS PROJECTS
Management of large scale gas projects requires a deep integration of various disciplines, including HSE, design, contracting and procurement, project management and construction. Adoption of novel ways of working, including 4D and 5D planning as well as effective deployment of new technology are essential to deliver the next wave of LNG, (lean) FLNG and unconventional gas projects.

CHAIR: Neil Gilmour, Vice President Integration Upstream International, Shell International, UK
VICE CHAIRS: Jiangchuan He, Vice President, Exploration & Production Company, PetroChina, China

Paper

- The end of the LNG mega-project? | Chris Pateman-Jones, Director, EY, UK
- How early, integrated and continuous management of societal interests increases project value, cost and schedule certainty | Susannah Pierce, Director, External Relations, LNG Canada, Canada | Co-author: Katharine Birtwistle, Patti Schom Moffatt, Michael Eddy, Lucy Shaw Day, LNG Canada, Canada
- Yormal LNG, Kashagan, Absheran - Challenges of a Mega Projects | Michael Borrel, Senior Vice President Europe and Central Asia, TOTAL Exploration & Production, France

Posters

- LNG projects as part of petroleum companies diversification strategy in the period of energy challenges | Diana Tytyshova, Teaching Assistant, Gubkin Russian State University of Oil and Gas, Russian Federation | Co-author: Elena Telechina, Russian State University of Oil and Gas (NRU), Russia
- An optimisation study in designing a cryogenic circuit of floating liquefied natural gas units | Sukanandan Jangmushil Nagarakorn, Deputy General Manager, ONGC, India | Co-authors: Anil Kumar Santosh, Rao Pawan, Chandha Prakash Singh, ONGC, India
- Gas pipeline route selection practices evaluation | Almir Santos, Regulation Specialist ANP, Brazil | Co-author: Erika Christina Ashton Nunes Chrisman, UFRJ, Brazil

F15 - BEST PRACTICES IN THE MANAGEMENT OF SAFE OPERATION OF GAS ASSETS
The gas industry has accumulated very large and complex facilities, including gas fields, pipelines, processing plants, transportation, storage and distribution networks. These physical facilities together with their non-physical counter parts, such as management procedures, software platforms, form the assets of the gas industry. As the gas industry grows, we need to address the risk of these huge, complex assets, and if they might become obsolete in the foreseeable future. Integrated management and risk control are the two important issues facing our industry and we have to evaluate and regularly revise our business practices in terms of effective asset usage and cost reduction without compromising safety. This Forum will share best practices in the management of safe operation of gas assets.

CHAIR: Mrs Adriana Petrovic, Corporate Affairs Advisor, INA Oil Industry, Croatia
VICE CHAIRS: Dr Cengiz Soyla, Senior Technical Advisor, Turkish Petroleum, Turkey

Papers

- An enhanced understanding of emerging risks within the gas industry is paramount to sustain safe operation in the future | Frode Leversund, CEO, Gassco, Norway
- Corrosion management program in gas plant | Hatam Mehrz, Corrosion Control Engineer, Saudi Aramco, Saudi Arabia | Co-author: Abdulrahman Hummadi, Saudi Aramco, Saudi Arabia
- Safety and environmental management systems – a journey of continuous learning and improvement and the basis of a safety culture | Charlie Williams, Executive Director, Center for Offshore Safety, USA
- Management of safe operations of natural gas assets in the Digital Age: New models to improve your safety performance | Stephan Klein, Senior Vice President, SAP, Germany | Co-author: Thomas Keel, SAP, UK; Arif Abdullah, SAP, Germany
Posters

- Production liner cementing practices in challenging horizontal wellbores | Islam Al-Baiyat, Drilling Engineer, Saudi Aramco, Saudi Arabia | Co-author: Mohamed Khalil, Thomas Heinold, Dean Porter, Saudi Aramco, Saudi Arabia
- Demand estimation of natural gas in the European Union by the year 2035 | Morteza Andalib Sahnehsaraei, Maintenance Head, NIGC, Iran | Co-author: Mohammad Javad Mahmoodabadi, Sijan University of Technology, Iran
- Business model of underground gas storage in Japan – Technical challenge to evolve from raw gas to imported LNG | Tomoya Ohata, Business Staff, JAPEX, Japan | Co-author: Ryo Ueda, Masanori Nakano, JAPEX, Japan
- Flaring reduction challenges and opportunities – a case study of gas to liquids industry | Pon Saravanan, Environmental Specialist, ORYX gTL, Qatar
- Dew point depression unit standby facility solution | Eisa Alhaddad, Senior Instruments Engineer, KOC, Kuwait | Co-author: Mahdi Ashkanani, Naser Abu Taleb, KOC, Kuwait
- Risk and reliability management of regasification plant modified from LNG plant and combined with new equipment | Grace Intan Melania, Sr. Analyst, Pertamina, Indonesia | Co-author: Siowanto Siowanto, Id Arifandi, Arie Wisianto, Pertamina, Indonesia
- Gas trunkline comprehensive safety in view of the operating factors influence | Sayali Alekperova, Head of Department, SERCONS, Russian Federation | Co-author: Alan Revazov, Gubkin Russian State University of Oil and Gas, Russian Federation
- Sulfur free gas supply for Kuwait refineries | Mahdi Ashkanani, Senior Mechanical Engineer, KOC, Kuwait | Co-author: Eisa Al-Haddad, KOC, Kuwait
- Application of strain stress state measurement in oil and gas equipment building inspection and technical diagnostics | Georgy Batov, Vice Head of Science Education Centre, Gubkin Russian State University of Oil and Gas, Russian Federation

ROUND TABLES

RT08 - ROLE OF LNG IN SECURITY OF GLOBAL ENERGY SUPPLY
Demand for gas continues to rise, with gas forming an effective bridge to lower the carbon footprint of power generation. This roundtable will review the role of LNG as an essential element in the gas supply chain, with LNG increasingly supplementing pipeline gas where the latter is either impractical or impossible as a transport option. The panel will consider if all aspects including supply chain reliability, LNG shipping, technical assurance of plant design as well as safety and integrity assurance are sufficiently covered to guarantee the required security of supply.

MODERATOR: Dr Elena Fedorova, Associate Professor, Gubkin University of Oil and Gas, Russian Federation

RT09 - ROLE OF GAS IN THE ENERGY MIX IN A VOLATILE WORLD
Global energy demand is forecasted to increase over the next decades due to economic growth in emerging countries and population increase, with fossil fuels remaining the main source of energy by 2035. At the same time it becomes crucial to reduce greenhouse gas emissions to decrease climate change impact, while waiting for new energies to be technically ready and economical to replace fossil energies.

Could natural gas be the key actor for the energy mix evolution? Its price evolution, its accessibility, its smaller CO2 impact and its better acceptability could make it the energy mix leader for the transition period. But what will be the necessary conditions?

MODERATOR: Marjan van Loon, President Director, Shell Nederland, the Netherlands

RT10 - GAS FROM PRODUCER TO MARKET
Connecting producers to markets is key for the gas business. Various gases, including conventional and unconventional gas, are produced with high or low BTU content. Gas markets include power generation, commercial gas, city gas, residential gas etc. To connect production with the consumers an extensive infrastructure, including gas networks, storage, transportation and various facilities, is required. This Round Table will discuss what innovative technology is evolving? How can infrastructure optimization be achieved? How can we minimize the environmental footprint of bringing gas from the producers to the markets?

MODERATOR: Mehmet Öğütçü, Chairman, Global Resources Partnership, Bosphorus Energy Club, Turkey
SUSTAINABLE MANAGEMENT OF THE INDUSTRY

FORUMS

F16 - KNOWLEDGE MANAGEMENT

The Forum will discuss the way Knowledge Management (KM) has evolved from an 'information revolution' into a 'knowledge revolution'. In fact, by fostering innovation and the development of technologies in learning organizations, KM has turned into a new source for competitive advantage. The Forum will share best practices and discuss how this new Knowledge Management approach, along with Innovation and R&D, can allow for great changes in this collaborative era and evaluate how intellectual capital can shape a new future for energy organisations, when dealt with as “collective know-how.”

CHAIR: Nazan Topgüder, Deputy Group Manager, Research Center, Turkish Petroleum Corp, Turkey
VICE CHAIRS: Martin Maeso, Knowledge and Technical Director, Energy Institute, UK

Papers

• Knowledge management strategies to maximize organizational benefits | Sandeep Chaturvedi, Contract Specialist, KOC, Kuwait | Co-author: Manal Abu Shaibah, KOC, Kuwait

• Reduce the costs of ignorance through knowledge management | Rob van der Spek, Director, ONV GL, the Netherlands

• Improving efficiency and productivity through knowledge management – A case of HPCL, India | Vikas Gupta, Senior Manager, HPCL, India

• Lessons learnt knowledge base | Rima Al-Awadhi, Team Leader, Quality Assurance & Business Improvement, KOC, Kuwait

Posters

• A comprehensive multi-platform petroleum engineering toolbox for oil and gas industry | Dr. Tayfun Tuna, Postdoctoral Fellow, University of Houston, USA | Co-author: Cenk Temizel, Area Energy, USA

• Knowledge management: Are we doing the best we can? | Mel George, Deputy Manager, Bharat Petroleum, India

• A process and application for tracking failure investigation – A tool for knowledge sharing | Mustafa Amer, Drilling Engineer, Saudi Aramco, Saudi Arabia | Co-author: Ali Haji, Lenin Pineda, Bobby Walker, Saudi Aramco, Saudi Arabia

• Knowledge management applied to refineries maintenance: A new approach | Manuel Hurtado Hernandez, Consultant, Indra Sistemas, Spain

• Developing a framework on documentation of experiences and extracting the knowledge of managers and experts of oil and gas industry | Mohammad Raho Ahmadi, Knowledge Management Expert, POGC, Iran | Co-author: Maryam Khorram, POGC, Iran

• Knowledge management for sustainable management of the industry | Shalini Thwalli, Deputy Manager, Engineers India, India

• A far-reaching study on Knowledge Management 2.0: A game changer for transforming and shaping the future of E&P 2.0 | Ajay Kumar, Superintending Engineer, ONGC, India | Co-author: Anoop Yadav, Gaurav Dubey, Y.C. Shukla, ONGC Videsh, India

F17 - CYBER SECURITY AND NEW TECHNOLOGY RISKS

Cyber-attacks have evolved from random, self-propagating destructive viruses and website hacking attempts with no specific target and limited-in-scope to becoming ever more targeted, financially, or politically driven persistent attacks. The advancement of information technology security controls has also led attackers to adopt increasingly more sophisticated new attack methods. This session will discuss the following areas: how to prepare against targeted cyber-attacks against oil and gas companies, the challenges of securing often outdated critical industrial control systems, role of national agencies and regulators in establishing and enforcing common cyber security standards and controls and overcoming the challenges associated with intelligence sharing among different institutions.

CHAIR: Ali Al-Masadi, Manager, Information Protection Dept., Saudi Aramco, Saudi Arabia
VICE CHAIRS: Sthanalubramonian Sathivageeswaran, Executive Director - Information Systems, Hindustan Petroleum Corporation, India
Joaquin Reyes, Chief Information Officer, Cepsa, Spain

Papers

• Critical controls for effective cyber defense | Mustafa ElBaradie, Engineering Consultant, Saudi Aramco, Saudi Arabia

• Cyber security in oil & gas: Outsourced or in-house? | Martin te Lintelo, Business Development Manager, Yokogawa, the Netherlands | Co-author: Marcel Kelder, Patrick Kools, Yokogawa, the Netherlands

• Digital transformation in oil & gas – Cyber security and approach to safeguard your business | Stephan Klein, Senior Vice President, SAP, Germany | Co-author: Justin Somai, SAP, USA; Arif Abdullah; SAP, Germany

• Evolution of cyber threats and the development of new security architecture | Piotr Cieplela, Executive Director, EY, Poland | Co-author: Bala V Venkateshwaran, EY, India

Posters

• Cyber security in the Indian oil and gas sector: More questions than answers | Chetan Rana, Assistant Manager, Bharat Petroleum, India | Co-author: Mel George, Bharat Petroleum, India

• Pertamina’s Data Loss Prevention (DLP) program; A response to cyber security challenge | Indrari Wahyu Kusuma Indradi, Sr Analyst Information Security, Pertamina, Indonesia | Co-author: Jeffri Hajrianda Jeffri, Pertamina, Indonesia

• Comparing cyber security strategies across countries and their implications for the energy sector | Benjamin Dean, President, Iconoclast Tech, USA | Co-author: Thomas Lind, Iconoclast Tech, USA
• **Capacity building process:** A prime requirement for oil & gas value chain

• **Retaining human assets by developing their leadership skills and competence**

• **Beyond growing energy demand – Africa’s socio-economic and technological challenges**

• **Artificial intelligence for the Smart Grid**

• **Fiscal break-even of oil states**

### Posters

**F18 – HUMAN RESOURCES – HOW TO RETAIN TALENT**

Managing the increasing talent gap, involving young people in the industry and fostering diversity and inclusion in the workforce are some of the hot HR topics. How will the workplace change over time and how do companies manage the transition? How can companies manage talent through boom and bust cycles and retain the knowledge and experience for critical operations?

**CHAIR:** Dr Béla Kelemen
**Group Supply Chain Management SVP, MOL Group, Hungary**

**VICE CHAIR:** Ms Vlada Streletskaya, Executive Assistant of Rector, Gubkin University and Student Programme Chair, SPE Moscow section, Russian Federation

#### Papers

• **Influence of socio-demographics diversity on work performance and talent management** | Ahmed Almaghiašal, IT Systems Analyst, Saudi Aramco, Saudi Arabia

• **From reactive to proactive: Talent management in the "New Normal" for oil and gas** | Aleek Datta, Managing Director, Accenture, USA | Co-author: Jean-Marie Roussel, Accenture, USA

• **Mentor and mentee: Who teaches whom?** | Dr. Anna Illariominova, Russian Representative, WPC YP Committee, Russian Federation

• **Securing talent supply in the industry: A focus on the MOL group** | Zdravka Demeter Bobalo, Human Resources Vice-President, MOL Group, Hungary

#### Posters

• **Women’s participation in oil and gas industry** | Merve Serine Topça, Student, Boğaziçi University, Turkey

• **Study of the impact of Intellectual capitals on organizational performance in gas organization** | Dr. Saeid Esmamholizadeh, Lecturer, GAZ Group, Iran | Co-author: Mohammad Esmael Ebrahimzadeh, Norooz Kolbadi Nejad, Gas Mazandaran, Iran

• **Retaining human assets by developing their leadership skills and competence** | Toru Sugimoto, Corporate HSE Manager, IGC, Japan

• **Capacity building process: A prime requirement for oil & gas value chain** | Dr. Amannpreet Singh Chopra, Sr. Manager, Engineers India, India | Co-author: Dr. Ranjit Rathi, Engineers India, India | Co-author: Rajesh Bagaria, Gas Authority of India, India

• **Future work now** | Michael Lopez, Executive Director, EY, USA | Co-author: Mareike Hoffschmidt, EY, Germany

• **Nurturing young leaders at HPCL** | Kapil Gaihar, Deputy Manager, Hindustan Petroleum, India | Co-author: Karun Bichauli, Hindustan Petroleum, India

• **Talent management in oil and gas industry through Industry 4.0** | Mosa Bilgihan Akgün, Senior Engineer, Turkish Petroleum, Turkey

#### F19 – ENERGY POVERTY ALLEVIATION INITIATIVES

With nearly 1.3 billion people lacking access to electricity and 2.6 billion people relying on biomass for their domestic cooking and heating needs, the UN has called a Decade of Sustainable Energy and set up the Sustainable Energy for All (SE4ALL) programme. How can the oil and gas industry play a role and make a difference by using its strength as a technology and innovation leader in the energy sector?

**CHAIR:** Biswajit Roy, Director (Human Resources & Business Development), Oil India, India

**VICE CHAIRS:** Philippe Cabus, Managing Director of TOTAL Access to Energy, TOTAL France

**Amanda Pereira,** Director Strategic Affairs, ARPEL, Uruguay

#### Papers

• **Opportunities and challenges in the Sub-Sahara African petroleum value chain** | Johnstone Chikwanda, Chairperson of the Board of Directors, Indeni Petroleum Refinery, Zambia

• **How business can help democratize access to less polluting sources of energy and improve people’s lives** | Alejandro Jimenez, Institutional Relations and Sustainability Manager, Pacific E&P, Colombia | Co-author: Pamela Gomez, Pacific E&P, Colombia

• **Energy is about quality of life of bottom of pyramid people** | Dr. Debesh Patra, Deputy General Manager, Bharat Petroleum, India

#### Posters

• **Fiscal break-even of oil states** | Dr. Abhishek Deshpande, Chief Energy Analyst, Natixis, UK

• **Artificial intelligence for the Smart Grid** | Dr. Hesam Komari, Engineer, SGPC, Iran

• **Beyond growing energy demand – Africa’s socio-economic and technological challenges** | Riverson Oppong, Research Assistant, Gubkin Russian State University

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ISTANBUL 22nd WORLD PETROLEUM CONGRESS

JULY 09-13, 2017
University of Oil and Gas, Russian Federation | Co-author: William Oppong, Ministry of Local Government and Rural Development, Ghana; Benson Lamidi, The Saint Petersburg Mining University, Russian Federation

- Energy poverty alleviation: India’s experience with clean cooking fuel access schemes | Mel George, Deputy Manager, Bharat Petroleum, India | Co-author: Chetan Rana, Bharat Petroleum, India

- Study of CSR & sustainability in energy saving, energy opt. & industrial environmental point of view (Case study: South of Iran refineries & petrochemicals) | Dr. Ali Rahemesh, Sr. Foreign Purchasing, Boozooy Petrochemical, Iran | Co-author: Joanna Desjardins, Conoco Phillips, Canada; Kseniya A. Bondarenko, Institute of Forecasting and Macroeconomic Researches, Iran

- Local content policies for development - study case: Brazil and Norway | Gabriel Freitas, Analyst, Accenture, Brazil

- Empowering women from poorer households-improving access to efficient sources of energy | Vikas Gupta, Senior Manager, HPCL, India | Co-author: Pradeep Gupta, Hindustan Petroleum, India

- Strategy for India towards Energy Poverty Alleviation | Sivardhan Grandhi, Senior Engineer, Engineers India, India | Co-author: Rajeev Nambiar, Sheo Raj Singh, Vartika Shukla, Engineers India, India

- Impact of the domestic gas project in families and industries in the north and south of Peru | Christian Valentin, Financial Advisor, SDP, Peru | Co-author: Rafael Segovia, Shell, Peru

**F20 - HSE AND OPERATIONS INTEGRITY – KEEPING PACE**

As the petroleum industry pursues new supplies from frontier areas in deep water, the Arctic and other remote and sensitive environments, unconventional resources using more intensive operational practices in populated onshore areas, and mature fields with aging wells, facilities and pipelines, the industry faces new challenges to preserve the integrity of these operations and to protect people and the environment. The Forum will present case studies of new and enhanced systems, processes, practices and technologies that have enabled companies to keep pace with this industry evolution and meet their ongoing operations integrity and health, safety and environmental responsibilities, which remain key to earning and retaining a license to operate.

**CHAIR:** Dr. Monika Hausenblas, Executive Vice President Safety & Environment, Shell Global Solutions International, the Netherlands

**VICE CHAIRS:** Slavash Derafshi, HSE Director, NOIC, Iran

Jim Andrews, VP of HSE, Schlumberger, UK

**Papers**

- CASHe – Change agents for safety, health and workplace environment: A new paradigm of HSE management | Dhaival Gupta, Manager PSU Business, Reliance Industries, India | Co-author: Aditya Pallival, Himanshu Jain, Atin Goyal, Sejeet Kumar, Reliance Industries, India; Vinay Kumar Gupta, Oil & Natural Gases, India

- Pursuing health, safety and environment performance improvement through operational excellence in offshore Saudi Arabian Fields | Karam S. Yateem, Intelligent Field Supervisor, Saudi Aramco, Saudi Arabia | Co-author: Mohammed E. Gomaa, Olakunle T. Ayoola, Hussain A. Al Muailu, Engineer, Saudi Aramco, Saudi Arabia

- Creating safety as a value and a way of life | Toru Sugimoto, Corporate HSE Manager, JGC, Japan | Co-author: Peter Nance, Fluor, USA; Takashi Sameshima, JGC, Japan

- Driving HSE culture change – A case history | Jack Hinton, Executive Vice President, Baker Hughes, USA

**Posters**

- Analysis of Greenhouse gas emission reduction potentials in China’s oil and gas industry | Wenjia Xu, Engineer, CNPC, China | Co-author: Xingchun Li, CNPC, China

- Pragmatic Road Hazard Assessment with the aid of new technology | Qasim Shah, Regional Marketing Manager, MIX Telematics, UAE | Co-author: Brodie VonBerg, MIX Telematics, UAE

- Engineering management and inspection schedule of petroleum well integrity | Prof. Musaed N. J. AlAwad, Professor and Faculty Member, King Saud University, Saudi Arabia | Co-author: Hwass A. Mohammad, King Abdulaziz City for Science and Technology, Saudi Arabia

- Strategic objectives versus accident investigation | Sara Masoum, HSE Expert, PDCC, Iran | Co-author: Sahar Amini, Zahra Mirshafiei, Elina Bageh, PDCC, Iran

- Environmental risk mitigation by microseismic traffic light system in the Onnagawa shale oil fracturing pilot in Akita, Japan | Dr. Kazuhiko Tezuka, General manager, JAPEX, Japan | Co-author: Tetsuya Tamagawa, Satoru Yokoi, JACEP, Japan

- Improvements to process safety management at Shell | Eamon Chandler, Manager, Shell, the Netherlands | Co-author: Eric Wakley, Shell, Canada

- A novel approach to assess environmental risks of gas-to-liquids industries | Pon Saravanam, Environmental Specialist, ORYX CTL, Qatar

- FPSO Decommissioning | Samir Leite Alves Junior, Project Manager, SBM, Brazil
ROUND TABLES

RT11 - GEOPOLITICS AND GLOBAL TRENDS

Geopolitics continue to challenge the global petroleum industry in many aspects. For oil and gas companies, access to reserves and safe routes for development and transportation are of vital importance, while securing energy supplies is paramount for national interests. Regions holding reserves are considered prime assets and are often the subject of political disputes. A thorough understanding of regional and geopolitical trends is therefore essential. How do they impact global operations, and how can we manage to balance the interests of the various stakeholders in the host countries and the industry in order to minimize disruptions and other risks to the operations. In addition, the emergence of unconventional resources has been reshaping geopolitics and marking a break with several established trends in energy supplies.

MODERATOR: Bob Fryklund, Chief Upstream Strategist, IHS, USA

RT12 - ETHICS, COMPLIANCE AND BUSINESS PRINCIPLES

This Forum will discuss how compliance and ethics practices should be part of the overall business strategy and operations, permeating the entire organization. Taking this integrated approach leads to better overall performance, mitigates risks and allows the organization to meet its business objectives. The Forum will create an opportunity to enhance your leadership skills by learning and sharing innovative experiences and best practices on how a compliance and ethics programme can promote and preserve the organization’s values and principles to support long-term prosperity while addressing increasing stakeholders’ expectations.

MODERATOR: Sven Mollekleiv, Senior Vice President, Sustainability, DNVGL Group, and President, Norwegian Red Cross, Norway

RT13 - PERCEPTION OF THE PETROLEUM INDUSTRY BY SOCIETY

In a communication driven world where anyone can raise their voice using social media, the oil and gas industry must reinforce its communication strategy in order to transmit the key role that hydrocarbons have in the present and the future and its capability to deliver strong safety, environmental, and community engagement performance. How can oil and gas companies improve their presence in social networks in order to get a better image and be closer to the customer, media and the influencers? How can we cooperate better with institutions, governments and consumers to build public confidence and obtain a social license?

MODERATOR: Tim McMillan, President and CEO, Canadian Association of Petroleum Producers, Canada
THE EXHIBITION

Over 500 exhibitors from more than 100 countries are expected to take part in the exhibition of the 22nd WPC. International and domestic oil & gas majors, as well as service companies are invited to take advantage of this unique opportunity to showcase their businesses to the rest of the world. Among the visitors of the exhibition are expected to be over 5,000 senior level delegates and 600 speakers of the Congress.

THE WORLD PETROLEUM EXHIBITION (WPE)

The WPE, located in ICC – B5 and ICEC Rumeli Floor will feature the largest international oil, gas and service companies from around the world, as well as many other companies. With the high profile of its visitors, its media presence and its prestigious exhibitors, the WPE is a window for the WPC and a unique platform for its participants.
The 22nd WPC VENUE: İSTANBUL CONGRESS VALLEY

The Congress Valley is located in the city centre and features two main complexes, namely İstanbul Congress Center - ICC and the İstanbul Lütfi Kırdar - ICEC. Opened during the World Bank – IMF Summit in 2009, the İstanbul Congress Center covers more than 16,000 square meters (172,222 sq. ft.) of exhibition space, which includes a 3705-pax auditorium and 115 meeting rooms. As the first convention venue of Turkey İstanbul Lütfi Kırdar – ICEC, features over 7000 square meters (75,347 sq. ft.) of exhibition space. These venues are only at a walking distance from a wide range of hotels, restaurants and attractions.

Hilton Istanbul Bosphorus - HEADQUARTER HOTEL

Nestled in the heart of Istanbul, amidst picturesque gardens, you’ll find Hilton Istanbul Bosphorus, an iconic hotel with a storied past spanning 6 decades. Guest rooms and suites offer modern conveniences and private balconies overlooking the Bosphorus and the Old Town. While you’re here, make use of our full list of resort-style amenities – including indoor/outdoor pools, fabulous dining venues, Turkish baths and spa, and dedicated children’s facilities.

İstanbul Congress Center / ICC - CONGRESS AND EXHIBITION AREA

İstanbul Congress Center is an international congress and event destination, boasting world-class technological infrastructure, experienced staff, and a high-quality service it offers to visitors.

Spanning an area of 120.000m² on a total of eight floors, İstanbul Congress Center hosts social, cultural and professional events of all kinds, including but not limited to national and international congresses, conferences, symposiums, corporate meetings, fairs, exhibitions, concerts, musicals, and theater and movie premieres.

İstanbul Lütfi Kırdar / ICEC - Rumeli Building - EXHIBITION AREA

İstanbul Lütfi Kırdar - ICEC, in the heart of the Congress Valley, has the capacity to host all kinds of organizations from conventions to fairs, from concerts to exhibitions with its 44 halls in daylight and a view of the Bosphorus at its location of the cross section of İstanbul’s elegant restaurants, luxury brands and fashion district.

Address:
Harbiye Mahallesi,
Şişli/Istanbul
The WPC Young Professionals bring together the passion and talents of industry students, young professionals and emerging leaders willing to contribute shaping the global energy future by being a part of a global community of motivated talents and volunteers.

THE WPC YOUNG PROFESSIONALS AIM TO:

• Connect future leaders to each other and to current industry leaders
• Share passion for the industry and the WPC brand “glocally” (globally + in local regions)
• Bridge geopolitical boundaries to build new relationships
• Integrate global young professional perspectives with the industry
• Foster leadership skills today to serve the industry of the future

Many students, PhD researchers and young professionals in the energy sector from around the world will have the opportunity to engage with 5000 industry leaders and 20,000 visitors gathering for the 22nd World Petroleum Congress in Istanbul on 9-13 July 2017.

There will be an extensive Youth Programme engaged with the 22nd WPC. The Youth Events will include, but not limited to:

• Auditorium Sessions with Remarkable Topics
• YP Special Session
• Young Volunteers Programme
• Oilympics - Istanbul
• WPC Young Professionals Lounge Activities
  • Technical Tours
  • Fine Tune my CV
  • We want you
  • Oil Talks
  • Work Your Network
  • Afterwork
• Youth Night
AUDITORIUM DISCUSSION TOPICS

1. WPC YP Committee Activities: How to join and be active?
2. Youth Profiles: Career Path by WPC YP Committee Member(s)/Volunteer(s)
3. YP Survey Outcomes: Future of the Industry & The Oil and Gas Image from the Young Insiders
5. Petroleum Economics: How to survive and thrive in the new normal era of oil prices
6. New Generation’s Challenges: Bridging the generation gap
7. Gender Diversity in the Petroleum Industry: Journey to leadership
8. WPC Mentoring Programme

YP SPECIAL SESSION - Break-Throughs: The Intersection of Industry and Technology

In a world that is ever more connected and interdependent, fast changes in one area have wider and deeper consequences than ever before. The impact of social media on election outcomes around the world and the “uberisation” of society are but a few examples. The energy industry by its very nature of powering society will be impacted by the many technology changes lying ahead, both on the supply and the demand side.

Also, changes in energy consumption patterns might render some traditional industry solutions less relevant. In the connected economy, autonomous driving paired with e-mobility could have a severe impact on petrol demand. Are we prepared for the impact, and informed on the possibilities, that the tech revolution will bring to the new digital oilfield?

This session aims to take a glimpse at potential ways the future may unfold and how the oil and gas industry is equipped to deal with those changes.

Thursday, July 13th | 14:15 – 15:45

The aim is to team up representatives of the young generation in oil games, to develop the skills needed, in a way to enable networking, as well as providing industrial learning. Participants will work in teams to solve mini puzzles, industrial questions and quizzes while visiting major attractions around the city and discovering the fascinating Istanbul highlights, with maps, Go Pro Cameras, Head Straps, and accompanying guides. The team which finishes the planned racetrack in the shortest time with more correct answer will be the winner.

NATIONAL OLYMPICS 2017

On May 6th, the Turkish Young Professionals Committee successfully carried out National Olylympics with 30 Turkish students nominated by the leading universities in Turkey with their industry related departments; Middle East Technical University, Istanbul Technical University, Hacettepe University, Ankara University, Istanbul University and Batman University. There were five teams with a senior from the industry in each and the Team Zeugma got the first place after a cutthroat competition. As the prize, Team Zeugma members will participate not only in the Olylympics – Istanbul on July 8th but also in the 22nd WPC as a volunteer.
The 22nd WPC will feature an interactive Social Responsibility Programme put together by a dedicated team of industry experts. The SR team is made up of an Advisory Board and Turkish SR Committee.

THE MEMBERS OF THE ADVISORY BOARD

- Cengiz Soylu, Turkish Petroleum, Turkey
- Ulrike von Lonski, WPC
- Helen Murphy, IPIECA, UK
- Finn Roar Aamodt, Statoil, Norway
- Michiel Kool, Royal Dutch Shell, Qatar
- Jean-Marc Fontaine, Total, France
- Amanda Pereira, ARPEL, Uruguay
- Ali Rahneshin, WPC Young Professionals, Iran

KEY ELEMENTS INCLUDE

1. Strategic Session on Social Responsibility in the oil and gas industry
2. “Global Village” Stand in the World Petroleum Exhibition
3. WPC Excellence Awards for Social Responsibility

22ND WPC STRATEGIC SESSION ON:

Bridges to a sustainable energy future: innovative solutions

A high-level moderated session with industry leaders, multilaterals and NGOs to discuss innovative ways of addressing the industry’s approaches to responsible operations in cooperation with all stakeholders to achieve a sustainable energy future for all.

Tuesday 11th July 2017 | 14:15-15:45
Moderator: Sven Mollekleiv, Senior Vice President, DNV GL and President, Red Cross, Norway
SR EXHIBITION STAND: **GLOBAL VILLAGE**

The Global Stand Village Stand will be on the “Bridge”, connecting the two exhibition area in ICC & ICEC. Positioned next to the WPC Young Professionals stand, they will share an auditorium and provide a wide choice of activities throughout the week as well as a relaxed environment for a break and a cup of coffee.

The “Social Responsibility Global Village” stand will provide a hub for networking with experts and interested stakeholders and will feature a host of activities on innovate industry approaches and Social Responsibility activities, including presentations, interactive discussions, kinetic energy stations, an art Project and a World CSR Globe. Highlights will include the presentations of the winning projects from the WPC’s Excellence Awards for Social Responsibility.

Selected companies will share their experiences and provide case studies of practical engagement and joint projects on some of the following themes:

- **Climate Change**
- **Local Community Engagement**
- **Ethics and Human Rights**
- **Innovation**
- **Energy Poverty**
- **Environment**
Every three years at the World Petroleum Congress, the World Petroleum Council honours outstanding projects within the oil and gas sector with the WPC Excellence Awards. The prizes are awarded in two categories.

**TECHNOLOGICAL DEVELOPMENT AND SOCIAL RESPONSIBILITY**

The objective of the WPC Excellence Awards (WPCEA) is to distinguish companies, institutions or any public or private organisation (not individuals) engaged in the oil and gas industry for promoting or operating with high excellence.

The judging panel is selected from an international group of stakeholders and industry experts and is independent of WPC. To recognise the efforts of both NOCs / large companies and small to medium sized organisations, there are two winners in each category. In addition, the WPC presents two highly commended awards within each category.

Projects can be nominated online at the WPC website www.world-petroleum.org. The winners will be announced at the prestigious WPC Excellence Awards Ceremony on the first day of the 22nd World Petroleum Congress.
SOCIAL PROGRAMME

OPENING CEREMONY AND GALA DINNER

On the evening of July 9th the President of the World Petroleum Congress, the Chairman of the Turkish National Committee and CEO and President of the Turkish Petroleum will welcome all delegates attending the 22nd World Petroleum Congress.

Opening Ceremony and Gala Dinner of the 22nd World Petroleum Congress and Exhibition will be held at Istanbul Congress Center (ICC).

YOUTH EVENT

Youth Event will be held on the night of the 12th of July.

CLOSING CEREMONY

Following the prestigious Dewhurst Lecture on the final afternoon of the Congress, Turkey will officially pass over the flag to the next host country, USA, for 2020 in a joyous celebration. The meeting of the cultures will formally close the 22nd World Petroleum Congress on the evening of the 13th of July.

TURKISH NIGHT

Turkish Night with fantastic shows and food will be held on the evening of July 11th. This event will enable delegates and guests to discover and enjoy Turkish traditions and genuine cuisine.
The 22nd World Petroleum Congress is pleased to offer a wide selection of accommodation options around the Congress Venue and in the city centre. There are 14 official hotels from 4-star hotels to 5-star hotels as listed below with special rates.

<table>
<thead>
<tr>
<th>Distance to ICC &amp; ICEC</th>
<th>Single (Bed &amp; Breakfast, Including VAT)</th>
<th>Double (Bed &amp; Breakfast, Including VAT)</th>
<th>Contact Person</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEADQUARTER HOTEL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hilton Istanbul Bosphorus (5*)</td>
<td>Walking Distance 1 min.</td>
<td>290,00 €</td>
<td>330,00 €</td>
</tr>
<tr>
<td><strong>5 STAR HOTELS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conrad Istanbul Bosphorus (5*)</td>
<td>4 km, 10 min. (by car)</td>
<td>259,20 €</td>
<td>275,40 €</td>
</tr>
<tr>
<td>Intercontinental Istanbul (5*)</td>
<td>Walking Distance 5 min.</td>
<td>210,50 €</td>
<td>232,20 €</td>
</tr>
<tr>
<td>Point Hotel Taksim (5*)</td>
<td>Walking Distance 5 min.</td>
<td>190,00 €</td>
<td>220,00 €</td>
</tr>
<tr>
<td>Radisson Blu Hotel Istanbul Sisli (5*)</td>
<td>3 km, 10 min. (by car)</td>
<td>216,00 €</td>
<td>226,80 €</td>
</tr>
<tr>
<td>Radisson Blu Hotel Istanbul Pera (5*)</td>
<td>3 km, 10 min. (by car)</td>
<td>190,00 €</td>
<td>210,00 €</td>
</tr>
<tr>
<td>Pullman Istanbul Airport Hotel (5*)</td>
<td>4 km, 10 min.</td>
<td>172,80 €</td>
<td>183,60 €</td>
</tr>
<tr>
<td>Renaissance Istanbul Polat Bosphorus Hotel (5*)</td>
<td>4 km, 10 min. (by car)</td>
<td>194,40 €</td>
<td>216,00 €</td>
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<tr>
<td>Swissotel The Bosphorus Istanbul (5*)</td>
<td>2 km, 7 min. (by car)</td>
<td>291,60 €</td>
<td>312,20 €</td>
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<td>The Marmara Taksim (5*)</td>
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<td>237,60 €</td>
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<tr>
<td>W Istanbul Hotel (5*)</td>
<td>3 km, 8 min. (by car)</td>
<td>205,20 €</td>
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<tr>
<td>Midtown Hotel Taksim (4*)</td>
<td>Walking Distance 5 min.</td>
<td>180,00 €</td>
<td>210,00 €</td>
</tr>
<tr>
<td>Nippon Hotel Taksim (4*)</td>
<td>Walking Distance 5 min.</td>
<td>160,00 €</td>
<td>180,00 €</td>
</tr>
</tbody>
</table>

For group bookings and any inquiries about accommodation, please contact the 22nd WPC Accommodation Team.

e-mail: accommodation@22wpc.com
• Located in the heart of the city’s business & cultural centre  
• Easy access to municipal, domestic & international transportation networks  
• 23 km (14.3 miles) from Atatürk International Airport  
• 5 km (3 miles) from Sirkeci train station  
• 100 m from Harbiye bus stop on the Taksim-Sisli Line  
• 500 m from Taksim Metro Station
Complimentary shuttle bus services will be arranged from all official hotels to / from the ICC & ICEC and the social events venues. There are 4 different shuttle routes covering all the official hotels.

**SHUTTLE ROUTES**

[Map showing shuttle routes from different hotels to the ICC & ICEC congress venue, covering both the European and Asian sides of Istanbul.]

<table>
<thead>
<tr>
<th>Route</th>
<th>SHUTTLE ROUTES</th>
<th>WALKING DISTANCE HOTELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>POINT HOTEL TAKSIM / NIPPON HOTEL TAKSIM / MIDTOWN HOTEL TAKSIM</td>
<td>HILTON ISTANBUL BOSPHORUS HOTEL</td>
</tr>
<tr>
<td>2</td>
<td>RADISSON BLU HOTEL ISTANBUL PERA</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>RADISSON BLU HOTEL ISTANBUL SISLI</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>CONRAD ISTANBUL BOSPHORUS</td>
<td></td>
</tr>
</tbody>
</table>

HISTORICAL PENINSULA

**Taksim Square**

**European Side**

**Asian Side**
REGISTRATION

Registration has to be completed online at www.22wpc.com

REGISTRATION STEP-BY-STEP INSTRUCTIONS

Start your registration process by setting up a personal account at www.22wpc.com In order to complete your registration, you will have to enter all your personal details and make your payment. Once completed, you will receive a confirmation e-mail. You will be able to log in to the online registration system at anytime to update your information or add an accompanying person, book a technical tour and select the social activities. Please note that the delegate rate is determined by the date on which payment is received.

22ND WPC REGISTRATION FEES

Delegate fees include 5 days of the Congress, all lunches, access to the exhibition, social events, Congress materials and more. Participants from WPC member countries (Check http://www.world-petroleum.org for list) and early bookers will receive special discounts. See deadlines below.

<table>
<thead>
<tr>
<th>DELEGATE REGISTRATION</th>
<th>15-May-17 (08-\text{July-17})</th>
<th>ON SITE (from 09-July-17)</th>
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<tbody>
<tr>
<td>Delegates from WPC Member countries</td>
<td>€ 2800</td>
<td>€ 3000</td>
</tr>
<tr>
<td>Delegates from WPC non-member countries</td>
<td>€ 3000</td>
<td>€ 3300</td>
</tr>
<tr>
<td>Academics or non-profit institutions</td>
<td>€ 1800</td>
<td>€ 1800</td>
</tr>
<tr>
<td>Students</td>
<td>€ 850</td>
<td>€ 850</td>
</tr>
<tr>
<td>Speakers &amp; Congress Chairs / Vice Chairs</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Accompanying Persons</td>
<td>€ 600</td>
<td>€ 600</td>
</tr>
<tr>
<td>Sponsors Group Fees (conditions apply)*</td>
<td>€ 2300</td>
<td>–</td>
</tr>
<tr>
<td>Group rates (above 20 delegates)*</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

For security reasons, your photo and passport details will need to be provided during the online registration process.

DELEGATE FEE INCLUDES

- All Plenary and Technical Sessions
- Opening Ceremony and Gala Dinner
- Turkish Night
- Closing Ceremony
- Lunches
- Congress related hand-outs and publications
- Global Business Opportunities Center
- Exhibition
- Shuttle Services between the official hotels and Istanbul Congress Centre (ICC) and Lütfi Kirdar International Convention & Exhibition Centre (ICEC)
- Transfers between official hotels and social events
- Congress Bag

ACCOMPANYING PERSON FEE INCLUDES

- Opening Ceremony and Gala Dinner
- Turkish Night
- Closing Ceremony
- Visiting the Interactive Poster Plaza, Young Professionals Lounge and Social Responsibility Global Village at ICC B4 Floor
- Visiting the World Petroleum Exhibition at ICC B5 Floor and ICEC Rumeli Building
- Shuttle Services between the official hotels and The Congress Venue
- Transfers between official hotels and social events
- Accompanying Persons Programme

NOT INCLUDED IN THE DELEGATE FEE

- Accommodation
- Pre and Post Technical Tours
- Airport Transfers
GROUP REGISTRATION

- Group registrations are available for more than 20 delegates. Please contact registration@22wpc.com

SPONSOR GROUP REGISTRATION

- Sponsor group registration will be possible for a minimum of 5 participants from sponsor companies. Please contact registration@22wpc.com

STUDENT REGISTRATION

Students need to provide a copy of their valid student ID that must be uploaded through the registration system.

ACADEMIC OR NON-PROFIT INSTITUTIONS

Proof of your academic or non-profit institutions status will be required during online registration or on-site registration.

PAYMENT METHODS

Payments can be made by credit card or bank transfer. All payments must be made in EUR.

For the bank transfer, please use the following bank information:

<table>
<thead>
<tr>
<th>Account Holder</th>
<th>FLAP KONGRE TOPLANTI HIZMETLERI OTOMOTIV VE TURIZM A.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>TURKIYE IS BANKASI A.S.</td>
</tr>
<tr>
<td>Bank Account Number</td>
<td>1831</td>
</tr>
<tr>
<td>Swift Code</td>
<td>ISBKTRIS</td>
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<tr>
<td>IBAN</td>
<td>TR960006400000243980001831</td>
</tr>
<tr>
<td>Payment Reference</td>
<td>Specify full delegate name</td>
</tr>
</tbody>
</table>

Please remember that all bank transfer fees must be paid by the sender.

Please note that your registration can only be confirmed after payment of the congress fee into our bank account.

NAME CHANGE (SUBSTITUTION)

Name change of a confirmed registration is possible for free until 1 May 2017. After this deadline, a handling fee of 150 EUR will be charged for every name change.

CANCELLATION POLICY

No refunds will be made, except where organisers decline registration.

ON-SITE REGISTRATION

On-site registration will start from 09/07/2017.

IMPORTANT NOTES FOR ATTENDEES

- English is the official language of the Congress.
- All delegates are advised to register early and to make their own arrangements to secure visas, flight bookings and hotel accommodation.
- Official Congress hotels will be offering shuttle services from and to the Congress Venue.

CONTACT INFORMATION

Please contact registration@22wpc.com for any questions.

To register now, go to www.22wpc.com
TO SEE IF YOU NEED A VISA OR NOT

It is recommended that foreigners, who wish to attend to the 22nd World Petroleum Congress, check on the web page of the Ministry of Foreign Affairs / Visa Information for Foreigners at: http://www.mfa.gov.tr/visa-information-for-foreigners.en.mfa to see if they require a visa for Turkey.

The citizens of several countries are allowed to enter Turkey with their national ID’s only. Countries whose citizens are allowed to enter Turkey with their national ID’s are Germany, Belgium, France, Georgia, The Netherlands, Spain, Switzerland, Italy, Turkish Republic of Northern Cyprus, Liechtenstein, Luxemburg, Malta, Portugal, Greece.

IF YOU REQUIRE A VISA

To see if you are eligible to apply for an e-visa, please visit: www.evisa.gov.tr. E-visas can be obtained via an online application in a few minutes 24/7 from everywhere with internet connection.

If you need an invitation letter for your visa application, please contact: registration@22wpc.com. Please note that you must complete the following steps before requesting an invitation letter:

- Complete your registration
- Make your payment
- Get your confirmation information
**IZMİT CRUDE OIL REFINERY**

**11 July 2017, Tuesday**

**Processing Capacity**

The İzmit Refinery started production in 1961, with a 1 million tons/year capacity of crude oil processing. As a result of significant capacity augmentation and investments over the years, its design capacity reached 11.5 million tons/year. Following modernization efforts to increase white product productivity, the crude oil processing design capacity was registered at 11.0 million tons/year. İzmit Refinery is located at the center of a consumption hub that accounts for about 33% of Turkish petroleum products consumption. The refinery is capable of producing at Euro V standards in compliance with EU norms.

**Nelson Complexity**

The Residuum Upgrading Facility, which was commissioned and began test production at end 2014, started full scale production in May 2015. As a result, a total of 12.1 million tons of material, including 11.2 million tons of crude oil and semi finished products, were processed at the RUP Facility at maximum capacity.

**Storage Capacity**

The production of its main petroleum products LPG, naphtha, gasoline, jet fuel, kerosene, diesel, heating oil, fuel oil and bitumen amounted to 11.3 million tons. Total domestic sales amounted to 10.7 million tons, while total sales were 13.6 million tons in 2015.

11:00 Departure to İzmir TÜPRAŞ Crude Oil Refinery by Bus
13:45 Greetings by representatives of İzmir TÜPRAŞ Crude Oil Refinery
14:00 Briefing
14:45 Questions and Answers session
15:00 Technical Tour
16:00 Departure from TÜPRAŞ

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**SİLİVRİ NATURAL GAS STORAGE**

**12 July 2017, Wednesday**

BOTAS Silivri Natural Gas Storage Facility has been put into service in 2007, which is the first underground storage facility in Turkey.

The main objective of the underground natural gas storage is to compensate the seasonal differences in natural gas consumption. Natural gas is injected to the reservoirs in low-demand periods while it is produced back from reservoirs in high demand periods.

In addition, the natural gas is stored for the following secondary purposes:

- to have strategic reserve in case of technical problems on gas supply,
- to meet excessive demands for short terms,
- to meet excessive electricity demands on summer period,
- to manage take-or-pay obligation,
- to balance the flow in pipeline system,
- to decrease price fluctuation.

Silivri Underground Natural Gas Facility has two fields. One of them is Kuzey Marmara Field which is a depth of 1200 meters and discovered in Marmara Sea in 1988. Other one is Değirmenköy Field which is a depth of 1100 meters and discovered in 1994. After feasibility study that determines the fields appropriate for storage services, “Natural Gas Storage and Reproduction Services Agreement” was signed between TP and BOTAS on 21.07.1999. Surface Facilities was awarded with EPIC type of bidding and commercial activity has started on 01.04.2007.

Storage facilities have a total storage volume of 2,841 Bscm with maximum 16 MMScm/day injection and 25 MMScm/day withdrawal capacity. General Terms and Conditions for utilization of Silivri Underground Gas Storage Facilities is approved by Energy Market Regulatory Authority (EMRA) and published in Official Gazette of Republic of Turkey on 06.04.2012. After that, the facility has granted non-discriminatory access to third parties.

09:00 Departure to Silivri Natural Gas Storage Facility
11:25 Greetings by representatives of Silivri Natural Gas Storage Facility
11:30 Briefing
12:00 Questions and Answers session
12:30 Technical Tour
15:00 Departure from Silivri Natural Gas Storage Facility

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**İSTANBUL STRAIT VESSEL TRAFFIC SERVICES CENTER**

**13 July 2017, Thursday**

Turkish Straits, as geographical area in which vessel traffic services are provided, consist of the Istanbul Strait (17 NM in length), Marmara Sea (110 NM in length) and Çanakkale Strait (37 NM in length) under the sway of the State of Turkish Republic. This waterway which its length is 164 NM in total between Black Sea and Aegean Sea has no alternative and it is very important for all countries, especially for the economies of Black Sea countries.

Because of its geographical situation, narrowness, strong currents, sharp bends, uncertain weather conditions and 2500 regional maritime traffic activity in which approximately 2 million people were transported, 150 non-stopover vessels and 23 vessels carrying hazardous cargo passed every day, Istanbul Strait is the most important natural narrow waterway in the world.

**MORNING TOUR**

09:15 Departure to Istanbul Strait Vessel Traffic Services Center by Bus
10:30 Greetings by representatives of Istanbul Strait Vessel Traffic Services Center
10:45 Briefing
11:00 Questions and Answers session
11:15 Technical Tour
11:45 Departure from Istanbul Strait Vessel Traffic Services Center

**AFTERNOON TOUR**

11:45 Departure to Istanbul Strait Vessel Traffic Services Center by Bus
13:00 Greetings by representatives of Istanbul Strait Vessel Traffic Services Center
13:15 Briefing
13:30 Questions and Answers session
13:45 Technical Tour
14:15 Departure from Istanbul Strait Vessel Traffic Services Center
İstanbul is the only city in the world built on two continents. Its fate has been determined by its vital strategic location and enchanting natural beauty. It has long been coveted by powerful empires, and served as capital city first to the Byzantium and then to the Ottoman Empire.

İstanbul stretches along the two shores of the Bosphorus that links the Sea of Marmara in the South with the Black Sea in the North. It is Turkey’s largest city with a population of approximately 12 million.

İstanbul is also at the heart of the economy of Turkey. The largest companies and banks, the main national newspapers, television networks and advertising agencies all have their headquarters in this city.

İstanbul is capital of art and culture with a rich tradition in opera and ballet, theatres performing Turkish and foreign plays, concerts, art exhibitions, festivals, auctions, conferences and of course unique museums. The city also boasts the country’s largest and finest universities. As an imperial capital for 1500 years, Istanbul has acquired a highly original personality. At every turn in the city you are faced with Roman, Byzantine and Ottoman palaces, mosques, churches, monasteries, monuments, walls and ruins. Yet Istanbul is not a city living only in the past. It is a vibrant, modern and future-oriented metropolis. Bazaars and ultramodern supermarkets and department stores, street vendors and stock-brokers, old crumbling buildings and skyscrapers, horse-drawn carts and sumptuous limousines coexist and this amalgam gives the city a multi-faceted outlook and flavor. Istanbul is like an intricately woven carpet, a subtle blend of eastern and western cultures.
ISTANBUL HIGHLIGHTS

SULTANAHMET MOSQUE (BLUE MOSQUE)

This mosque was built by Sultan Ahmet I during 1609-1616 in the square carrying his name in Istanbul. The architect is Sedefhar Mehmet Ağa. It is the only mosque in Turkey with six minarets.

BOSPHORUS BRIDGE

The natural beauty of the Bosphorus has been praised ever since people have been living on its shores. Private, waterfront wooden villas, which originally belonged to prominent Ottoman families, fortresses built by Mehmet the Conqueror and palaces where the sultans used to live, are all part of the unique character of the Bosphorus.

BASILICA CISTERN

The cistern was built by the Byzantine Emperor Justinian in A.D. 542 on the other side of the Hippodrome to meet the Great Palace water requirements. Nowadays, it is a museum and an exhibition hall, as well as hosting concerts and poetry readings.

THE MAIDEN TOWER (LEANDER’S TOWER)

A symbol of Istanbul. It was used as a watchtower and a lighthouse sitting on a small islet located in the Bosphorus strait off the coast of Üsküdar in Istanbul, Turkey. Nowadays serves as a restaurant to its visitors.

GALATA TOWER

Tower has been overlooking the Bosphorus and the historic peninsula for hundreds of years. It’s a medieval stone tower in the Galata district of Istanbul, just to the north of the Golden Horn. One of the city’s most striking landmarks, it is a high, cone-capped cylinder that dominates the skyline and affords a panoramic vista of Old Istanbul and its environs.

GRAND BAZAAR (KAPALI ÇARŞI)

It is the oldest and biggest closed bazaar in the world, also known as the Grand Bazaar, has around 4000 shops and over 60 alleyway, covering a huge labyrinth in the city centre.

HAGIA SOPHIA (AYASOFYA) MUSEUM

Ayasofya was built, for nearly a thousand years ago, is the largest enclosed space in the world, and still seen as one of the world’s most important architectural monuments. It is one of Turkey’s most popular attractions, drawn by the sheer spectacle of its size, architecture, mosaics and art.

TOPKAPI PALACE MUSEUM

One of the most astounding and popular places to visit in Istanbul is Topkapi Palace, the symbolic and political centre of the Ottoman Empire in between the 15th and 19th centuries.