

24th WORLD PETROLEUM CONGRESS
17-21 September 2023
Calgary, Canada

**CHAIRS AND VICE CHAIRS OF
 TECHNICAL BLOCKS & FORUMS**

BLOCK 1: *Transition in Exploration & Production*

Technical Keynote-1: **Transition in E&P in the future**

Forum 1 - New supply sources to meet global energy demand

With global energy demand expected to increase substantially in the next few decades the world will continue to need a wide range of energy sources. As current oil and gas resources deplete, new supply sources are needed including new basins, unconventional (oil sands, shale, tight oil and gas and gas hydrates) to meet continued oil and gas demand and provide feedstock for the production of blue hydrogen and rare gases in the transition to a lower carbon world.

CHAIR	Mr	Chi-Tak	Yee	Chief Technology Officer	MEG Energy	CANADA
VICE CHAIR	Prof	Lirong	DOU	Executive Vice President	CNPC Research Institute of Petroleum Exploration & Development	CHINA
VICE CHAIR	Dr	Heloisa	Borges Esteves	Director	Energy Research Office	BRAZIL

Forum 2 - Innovations for cleaner production

The upstream sector is continuing to apply new technologies to achieve continuous improvement in minimizing the environmental impact of its operations including those aimed at: reducing GHG and other emissions; reducing fresh water use; recycling and/or safe disposal of produced water; reducing spills; utilization of waste heat; electrification; limiting operational footprints; and facilitating safe and timely abandonment of wells and facilities and reclaiming sites at the end of their useful life. This forum will showcase new technologies and other innovations being applied in both conventional and unconventional oil and gas operations to achieve cleaner production of oil and gas resources and lower environmental impact.

CHAIR	Mr	Florent	Bertini	E&P Chief Innovation Officer	TotalEnergies	FRANCE
VICE CHAIR	Prof	Yijin	ZENG	CHIEF EXPERT OF SINOPEC/Professor	SINOPEC Research Institute of Petroleum Engineering	CHINA
VICE CHAIR	Mr	Mohammad	Al Mulhim	General Manager, Southern Area Oil Producing	Saudi Aramco	SAUDI ARABIA

Forum 3 - Sustainable ways to maximise recovery

Upstream has been contributing to significant advancement of innovation and custodianship of the environment, maximizing recovery while minimising the carbon footprint and overcoming continuous cost

challenges. In this session, we will share advancements in technology innovation and digitalisation, subsurface modelling, best in class reserves management, water management, drilling and production technologies for IOR and EOR, while recognising climate challenges and the role of enhanced recovery in our transition to a low carbon future.

CHAIR	Mrs	Monica	Boe	VP SSU EPI	EQUINOR	NORWAY
VICE CHAIR	Mr	Takaaki	Uetani	Manager, Reservoir Engineering, Technical Research Center	INPEX Corporation	JAPAN
VICE CHAIR	Mr	Dmitry	Tananykhin	Dean of the Petroleum Faculty	Saint-Petersburg Mining University	RUSSIAN FEDERATION

Forum 4 - Carbon capture and storage

As the petroleum industry works to reduce GHG emissions to net-zero, one key tool at their disposal is Carbon Capture, Utilisation and Storage (CCUS). Capturing emissions can be done at their source, such as at large industrial facilities, or by removing CO2 emissions directly from the atmosphere through Direct Air Capture (DAC), or through Nature Based Solutions. Once GHG's such as CO2 are captured, they can be stored underground or utilized for other purposes. This Forum will examine the current state of the CCUS industry, what is required for it to grow, and the nascent technologies that will deliver the large-scale growth of CCUS required to address global emissions

CHAIR	Mr	Chris	Grant	VP Pathways to Net Zero	Suncor Energy Inc.	CANADA
VICE CHAIR	Dr	Naif	AlQahtani	Manager of the National Center for Carbon Management Technology	King Abdulaziz City for Science and Technology (KACST)	SAUDI ARABIA
VICE CHAIR	Mr	Suleyman	Coskun	Researcher	University of Manchester	TURKEY

Forum 5 - New technologies in geoscience

Technology is changing the way we do business, and the geoscience industry is no different. The oil and gas industry has historically been at the forefront of applying new technologies due to their economic impact. Digital technology advances are rapidly altering the landscape of geoscience and the simultaneous emergence of access to large data sets and machine learning tools is and will continue to change the way we work. This session will illustrate the impact of new technologies on the way we work with geological data in the oil and gas industry today.

CHAIR	Mr	Ivan	Kozak	Partner & Global Geoscience Lead	Boston Consulting Group	UNITED STATES
VICE CHAIR	Mr	Damaso	Contreras	Geophysicist	PEMEX	MEXICO
VICE CHAIR	Dr	Nikolay	Eremin	Deputy Director for Innovation, Chief Scientific Officer	Oil & Gas Research Institute of the Russian Academy of Sciences (OGRI RAS)	RUSSIA

BLOCK 2: Transition in Refining, PetroChemicals & Products

Technical Keynote-2: Circular carbon economy options

Forum 6 - CO2 Utilisation and removal in products and processes

In many cases (e.g. in the field of mobility), the goal of a comprehensive reduction of CO2 emissions cannot only focus on the operating phase (fuel consumption), but must also take into account the manufacturing and subsequent dismantling phase. This results in the need for a multifaceted analysis of partly small-scale product flows and the associated processes. This Forum will explore possible ways of capturing CO2 from processes, using it in closely coupled production paths which can be implemented in an economically justifiable manner, and the utilisation of CO2 by converting it into useful products.

CHAIR	Mr	Todd	Spengeman	Director for BASF's gas treatment business in the Americas	BASF Corporation	GERMANY
VICE CHAIR	Mr	Yoshiyuki	Watanabe	Group Leader, Technology Development Group, Sustainability Co-Creation Department	JGC Holdings Corporation	JAPAN
VICE CHAIR	Dr	Ammar	Nahwi	Manager, Research & Development Center	Saudi Aramco	SAUDI ARABIA

Forum 7 - Emission reduction and recycling in refining & petrochemicals facilities

The world is in transition to a zero carbon society toward 2050, and the petroleum refining and petrochemical industries are no exception. For this reason, the petroleum and petrochemical industries must promote the reduction of carbon emissions from plants and the effective use of carbon more strongly than ever before. In this Forum, we will discuss the latest information on not only emission reduction by developing new processes and high-performance catalysts, but also material/chemical carbon recycling such as recovery of emitted carbon, reuse of petrochemical products and fuel synthesis by FT and other processes.

CHAIR	Mrs	Nathalie	De Muynck	Zeeland Refinery General Manager	TotalEnergies	FRANCE
VICE CHAIR	Ing. Ph.D	Ivan	Soucek	Director	Association of Chemical Industry of the Czech Republic	CZECH REPUBLIC
VICE CHAIR	Dr	Seyed Abdolmajid	Khaksar	Deputy Managing Director	Nouri Petrochemical Company	IRAN

Forum 8 - Cleaner fuels

In order to achieve climate targets it is necessary to manufacture new fuels with advances in utilization technology and properties corresponding to them. This will include net zero carbon fuels that are offset by other carbon sinks. Biofuels, which have been attracting attention as carbon-neutral fuels in recent years, should also be featured. In this Forum, we will discuss the progress of utilization technology, fuel properties and manufacturing technology required by new utilization technology, leading to net zero targets.

CHAIR	Mr	Abdullah	Al-Osaimi	Manager Corporate Planning	Kuwait Integrated Petroleum Industries Company	KUWAIT
VICE CHAIR	Prof	Rong	GUO	Professor	SINOPEC Dalian Research Institute of Petroleum and Petrochemicals	CHINA
VICE CHAIR	Mr	Péter	Bartos	Head of Group Downstream Research and Development	MOL Group Downstream	HUNGARY

Forum 9 - Innovation in products

The goal of further developing a circular economy requires a forward-looking determination of the underlying plastics and their compatibility with this goal in the case of plastic-based and plastic-containing products. Also of growing importance for the future material spectrum will be possible recycling processes (e.g. pyrolysis, hydrogenation, etc) and the development of new polymers. The Forum will address both aspects and how they will influence the future product spectrum of the petrochemical industry and their impact on the operation of refineries.

CHAIR	Dr	Ibrahim	Abba	Chief Technologist Chemicals R&D DIV	Saudi Aramco	SAUDI ARABIA
VICE CHAIR	Dr	Michael	Bender	Research Fellow - Expert Catalysis & Sustainable Value Chains	BASF SE	GERMANY
VICE CHAIR	Dr (Ms)	Ru	Xie	Manager - Customer and Application Development, Global Polymers Technology	ExxonMobil Chemical Company	UNITED STATES

BLOCK 3: Transition in Gas & Transportation

Technical Keynote-3: **Gas as a transition fuel**

Forum 10 - Smart infrastructure

New strategies and technologies for transport and storage of natural gas will change the availability and affordability of gas, whilst reducing our carbon footprint. Infrastructure developments and integration for pipeline and LNG options are essential to ensure the efficiency of the system, reduce duplicity, diversify sources and increase competitiveness for producers, transit countries and consumers. Shorter term gas infrastructure and storage will play an instrumental role in the transition to new energy sources.

CHAIR	Mr	Arsenii	Kirichenko	Chief Economist at Department of Economical Expertise and Pricing	Gazprom PJSC	RUSSIAN FEDERATION
VICE CHAIR	Mr	David	Hardie	Liability Director	Alberta Energy Regulator	CANADA
VICE CHAIR	Dr	Guosheng	DING	Director	The Underground Gas Storage Department, CNPC Research Institute of Petroleum Exploration & Development	CHINA

Forum 11 - Innovations in LNG & FLNG for the Energy Transition

Innovative developments in LNG and FLNG are helping to open up new frontiers and make gas more competitive, including its use as a transition fuel. Digitalisation allows for processes to become more efficient and enhanced communications with all customers across the entire value chain.

FLNG technology offers countries a more environmentally-sensitive way to develop natural gas resources. As demand increases for conventional uses of LNG, we also expect to see an increase in LNG-driven ships in the coming decade. IMO 2020 has placed a cap on sulphur emissions from ships, and due to low sulfur content requirements, LNG has been highlighted as a viable solution. This forum will look at the future prospects for FLNG development together with the increased use of LNG as a transition fuel.

CHAIR	Mr	Tirilly	Vincent	Principal Proces Engineer NGL/LNG Expert	TechnipEnergies	FRANCE
VICE CHAIR	Prof	Elena	Fedorova	Head of Department	National University of Oil and Gas «Gubkin University»	RUSSIAN FEDERATION
VICE CHAIR	Prof	Tongwen	Shan	Vice GM	Science & Information Technology Dept.,China National Offshore Oil Corporation	CHINA

Forum 12 - Towards zero methane emissions

This Forum will focus on the ways towards zero methane emissions, including overview of the general pictures of global methane emissions from various sources, monitoring, treatment and prevention technologies, best practices, innovations and advanced technologies solutions such as; imaging, sensors, roboitics, UAV, AI, among others, government regulations and industry roadmap.

CHAIR	Mr	Antonio	Lopez-Rodriguez	Head of Energy Transition and Climate Change	REPSOL	SPAIN
VICE CHAIR	Dr	Soheil	Asgarpour	President & CEO	Petroleum Technology Alliance Canada	CANADA
VICE CHAIR	Dr	Roman	Samsonov	Visiting Professor	Saint-Petersburg Mining University	RUSSIAN FEDERATION

Forum 13 - Hydrogen – emerging use, generation and distribution networks

The use of hydrogen in transportation and stationery power supply is free of on-board carbon emission and offers an alternative climate change solution. This Forum will present use cases, efficient and innovative generation processes, distribution and transportation. The Forum will also discuss production pathways comparing their environmental and economic impacts and demonstrate viable technology solutions for the distribution and storage challenges of the tiny molecules

CHAIR	Dr	David	Layzell	Director Canadian Energy Systems Analysis Research	University of Calgary	CANADA
VICE CHAIR	Mr	Osamu	Ikeda	Deputy General Manager, Hydrogen Business Department, Section Leader, Business Development Section, Frontier Business Division	Chiyoda Corporation	JAPAN
VICE CHAIR	Mr	Laurent	ALLIDIRES	Technical Director, Hydrogen Energy World Business Line	Air Liquide	FRANCE

BLOCK 4: *Leadership Challenges in Transition*

Technical Keynote-4: **Legislative landscape to redress climate change**

Forum 14 –Safety & Risk management

Safety of the people, assets and environment has always been and will continue to be the focus of the industry. Assessment of all the risks and uncertainties and the development of practical strategies is necessary to ensure highest safety standards and risk minimisation and mitigation. Achieving those objectives are dependent on training, quality data and robust workflow processes and robust and reliable procedures in place to identify, evaluate and address the broad variety of risks inherent in the oil and gas industry. In this Forum we will look at best practices, increasing adaptation of innovation in technology, and strategies as requirements for highest level of safety and successful risk management as part of a good governance.

CHAIR	Mr	Frank Børre	Pedersen	Vlce President	DNV	NORWAY
VICE CHAIR	Prof	Weidong	DU	Vice President	CNPC Research Institute of Safety & Environment Technology (RISE)	CHINA
VICE CHAIR	Mr	Ashraf	Al-Rashdi	Superintendent, EH&S	Saudi Arabian Chevron	SAUDI ARABIA

Forum 15 - Cybersecurity

The industrial world is becoming more digitally connected, resulting in smarter and more productive operations. With the increasing amount of data, internet-connected devices and automation, cybersecurity is a higher priority than ever. Being the largest industry in the world, oil and gas companies are a major target for cyberattacks. No organisation, regardless of size or industry, is immune to cyberattacks, and just one breach could cause significant catastrophic/safety financial, reputational or regulatory consequences. So, today's oil and gas industry needs more innovative and efficient ways to maintain security. This session will present how the oil and gas industry maintains safety, efficiency and capitalizes on innovative, cost-saving technologies and big data without compromising security, operations and the environment.

CHAIR	Mr	Yaz	Alattia	Managing Director, Canada National Security Lead	Accenture Security	CANADA
VICE CHAIR	Mr	Javier	García Quintela	Chief Information Security Officer (CISO)	REPSOL	SPAIN
VICE CHAIR	Mr	Jean-Emmanuel	Bieber	VP Technology & Innovation	Siemens Energy	GERMANY

Forum 16 - Future skills for an evolving workforce in the energy transition

The new requirements and challenges facing the oil and gas industry, have become a major challenge for managers and employees in the oil and gas industry. The Energy Transitions and new product trends, as well as evolving employee expectations, are prompting our industry to reimagine the make-up and performance of their workforces. Environmental responsibility, sensitivity to innovation and teamwork are coming to the forefront. The rapid development of technology dictates the need for new approaches to training and retraining, closer and more effective interaction between educational centers and the industry. The Forum discusses some of the best practices and solutions to recruiting and retaining the best talent for the industry.

CHAIR	Mrs	Sigrid Borthen	Toven	Vice President Subsurface Competence Center	Equinor	NORWAY
VICE CHAIR	Mrs	Vlada	Streletskaya	Director, Executive assistant to rector	RNC WPC, Gubkin university	RUSSIAN FEDERATION
VICE CHAIR	Mr	Walter	Hufford	Vice President North America Government and Regulatory Affairs	Repsol - USA	UNITED STATES

Forum 17 - Innovation & partnerships in supply chains

Sustainable, reliable, secure and cost effective supply of materials, equipment, technology and services is critical for the oil and gas industry. The greening of the supply chain can promote sustainability and transparency. Relationships between sustainability and value creation will be a key issue to be tackled over the long term resulting in new business relationships with demonstrable sustainable strategies. Sustainable procurement considers the whole life cost of goods through Life Cycle Assessment, to ensure it is economical in a comprehensive manner rather than basing decisions primarily on price, quality and time. The Forum will also look at new local content policies which are being introduced in many countries adding complexity and creating new business models for the oil and gas industry to secure the supply of energy required for the next decades.

CHAIR	Mr	Ahmed	AlZahrani	Manager, Materials Logistics Department	Saudi Aramco	SAUDI ARABIA
VICE CHAIR	Dr	Valery	Kryukov	Director	Institute of Economics and Industrial Engineering within the Siberian Branch of the Russian Academy of Sciences	RUSSIAN FEDERATION
VICE CHAIR	Mr	François	Kalaydjian	Director, Economics and Technology Intelligence	IFP Energies nouvelles (IFPEN)	FRANCE