

OTC Starts Another 50 Years by Looking to the Future

Stephen Whitfield, Senior Staff Writer | 01 April 2019



Source: OTC/Alan Lessig.

OTC 2019 will feature more than 2,000 exhibiting companies representing 40 countries, as well as 23 international pavilions.

Last year, the Offshore Technology Conference (OTC) commemorated its 50th year with a host of events that reflected on its history, in which it grew from a small gathering of industry professionals to one of the largest conferences in the United States. This year, OTC's Golden Anniversary establishes the offshore sector amidst a shifting industry paradigm, in which the conference will look at the innovations and new discoveries that will define offshore operations in the near and distant future.

NRG Park will once again host OTC, which takes place from 6 to 9 May. The 2018 conference drew more than 60,000 attendees and 320 credentialed media from around the world, and this year should see similar attendance numbers.

The conference's opening general session takes a look at the next 50 years of offshore developments, as industry executives share their visions on the future of offshore exploration and production (E&P) operations, exploring how companies are preparing for a new frontier of digitalization, automation, and machine learning. Scott Tinker, director of the Bureau of Economic Geology at the University of Texas at Austin, will moderate the session, and the following executives are scheduled to participate:

- Arnaud Breuillac, president of E&P at Total
- Doug Pferdehirt, CEO of TechnipFMC
- Lisa Davis, CEO of Siemens Gas and Power
- Susan Dio, chairman and president of BP America
- Jannicke Nilsson, executive vice president and COO of Equinor
- Maria Claudia Borrás, president and CEO of oilfield services at Baker Hughes, a GE Company
- Arno van den Haak, president of worldwide business development for oil and gas at Amazon Web Services

Malcolm Frank, executive vice president of strategy and marketing for Cognizant and coauthor of the book *What to Do When Machines Do Everything*, is scheduled as a special guest speaker for the opening session.

Distinguished Achievement Awards

On 5 May, OTC will host its Golden Anniversary Gala Dinner at the Downtown Houston Marriott Marquis, during which it recognizes the OTC Distinguished Achievement Award recipients.

Carlos Mastrangelo will be awarded the Distinguished Achievement Award for Individuals for his efforts in the worldwide design and adoption of cost-efficient floating production, storage, and offloading units (FPSOs). In the 1990s, Mastrangelo worked with the Brazilian Navy, Port Authorities, and Class Societies toward the standardization and development of regulations for fully classed FPSOs. He is also credited with establishing the basis for Petrobras' leased unit contract that is still in effect today. In 2005, SPE named Mastrangelo Engineer of the Year, and in 2012 he received the SPE Projects, Facilities, and Construction Award for his work in this area.

The ExxonMobil-operated Hebron offshore project, located offshore Newfoundland and Labrador in the Jeanne d'Arc Basin, will be honored with the Distinguished Achievement Award for Companies, Organizations, and Institutions in recognition of its technological advancements in the field of safety performance. These advancements include the heavy oil/separation process technology used to significantly reduce the separation process footprint; the alleviation of heat loads on nearby equipment by utilizing an innovative design on the power plant gas turbine exhaust stacks; integration of process control, process shutdown, fire and gas, and emergency shutdown procedures enabling real-time collaboration and support from onshore.

In coordination with ASME and other engineering societies, the Hoover Medal will be presented to David Baldwin, co-president of SCF Partners. The medal recognizes outstanding extra-career services by engineers to humanity.



Panelists listen in on a question during a technical breakfast at OTC 2018. More than 60,000 people are expected to attend this year's conference at NRG Park in Houston. *Source: OTC/Matt Herp.*

Around the World Series

On the first 3 days of the conference, OTC will feature a new program called the "Around the World" series, where global industry leaders will discuss new licensing and business opportunities, as well as recently introduced technologies. Principals from the following countries will present:

- **Norway:** The two sessions will present advances in long-distance tiebacks, flow assurance, cost controls for installation services, and increased oil recovery with subsea production systems.
- **Australia:** Representatives from Woodside and BHP will share examples of how new learnings are changing the way they conduct business.
- **Mexico:** Two separate panels will discuss the challenges faced in midstream development from the perspectives of offshore leaseholders in Mexico, service companies, and Mexico's midstream regulator (CRE).
- **Canada:** Officials from Canadian provinces will highlight the most recent developments across the country, including LNG Canada's project under construction on the British Columbia coast, the growth in crude production in Saskatchewan, and the significant financial investment in Newfoundland and Labrador.
- **France:** Representatives from the French oil services sector will review past achievements to understand present and future technical and commercial issues.
- **United Kingdom:** Over two sessions, the UK Department for International Trade will discuss current and future energy opportunities in the country. The first session will discuss the needs for the UK Continental Shelf, while the second session delves into the transition from oil and gas to offshore wind.
- **Israel:** Representatives will look back on the country's transformation from being a net importer of fossil fuels to becoming self-sufficient, thanks in large part to the discovery of giant gas fields in the Levant Basin. These sessions will also include a discussion on Israel's offshore bid round.
- **Ghana:** Discussion will center on Ghana's first licensing round, the country's evolving upstream industry, and the need for investment and local capacity development in its downstream sector.
- **Guyana:** National government leaders, international oil and gas executives, and nongovernment expert organizations will talk about the industry's role in sustainable development.

Special Events

The Spotlight on New Technology Awards will recognize innovative technologies and allow companies to showcase the latest advances in offshore E&P activities. The Spotlight on New Technology Small Business Awards will honor companies with fewer than 300 employees.

In the OTC Energy Challenge, teams of high school students will work toward solving a real-world energy challenge in a competition that will culminate in an event within the formal OTC program. All competing teams will present their findings to the broader OTC audience via an e-poster

session and compete for a scholarship prize.

The University R&D Showcase provides universities the opportunity to share their current and planned research and development projects that are relevant to offshore technology.

Renewable Energy Focus

Advancements in marine renewables have affected the offshore sector on a global scale. In response, OTC has expanded its program content, offering technical sessions on wind, hydrokinetic, and gas hydrate advancements.

The discussion begins on the first day of the conference, with a breakfast presentation by Gordon Birrell on advancing the energy transition. Birrell, chief operating officer for production, transformation, and carbon at BP, will address the dual challenge energy markets face in halving carbon emissions over the next 20 years to meet the goals of the 2015 Paris Agreement while still meeting continued energy demand growth as the world population increases by 2 billion people over the same time frame. Birrell will look at some of the technologies being deployed to underpin production enhancement and reduce emissions.

Also on the opening day, a technical session will examine the foundation design and geotechnical considerations for offshore renewables. Paper topics for this session include the development of foundation models for dynamic analyses of offshore wind turbines, and the prediction and monitoring of the installation of an offshore foundation for wind farms.

The following afternoon, a panel of government and energy industry officials will speak about the rapid growth of wind energy activities in the offshore sector, particularly the ways in which oil and gas companies can help further develop the technologies behind these activities. Region-specific challenges, such as port and harbor infrastructure, installation vessels, grid connection, public perception, and other environmental issues could present delays to wind project development. These challenges could have a detrimental effect on project economics and reliable product delivery. Representatives from Equinor, Orsted, the US Department of Energy, and the US Bureau of Ocean Energy Management are among the speakers scheduled to participate.

Panel Discussions

The wind energy panel is one of 11 panel sessions that will take place during the conference, each of them touching on an important issue facing future offshore activities.

One area of particular interest is the growing market share of liquefied natural gas (LNG). Thanks largely to exports from Australia and the United States, among other things, spot and short-term cargoes have skyrocketed over the past decade. However, large-scale LNG projects still require multi-billion-dollar financing, long development lead times, and credit-worthy buyers. A panel featuring speakers from Chevron, Tellurian, and IHS Markit will look at broad LNG market themes and explore how the nuts and bolts of project development fit in with those themes.

Another panel will showcase successful applications of the digital transformation in areas such as data integrity, security, mining, analysis, and transfer. The panelists will speak about industry's increased understanding of the value added by data analytics, as well as ways in which the experiences of adopting analytic systems in other industries can help inform future adoption in oil and gas.

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