



## Press Release

# Abu Dhabi: ADNOC and Total Innovate in the Field of Seismic Acquisition with the Use of Unmanned Drones and Vehicle

**Paris, November 13th, 2019** - The Abu Dhabi National Oil Company (ADNOC) and Total announce their collaboration to deploy the world's first automated seismic acquisition system in Abu Dhabi. This pilot project, performed with Total's Multiphysics Exploration Technology Integrated System (METIS®), uses autonomous drones and a ground vehicle to drop off and retrieve seismic sensors without human intervention, therefore at a lower cost. It will be deployed throughout the emirate of Abu Dhabi, to contribute to onshore exploration and appraisal campaigns — a first in the region.

Following successful trials of METIS® conducted by Total end 2017 in Papua New Guinea, this new pilot project will be undertaken by ADNOC Onshore to test the versatility and upscaling ability of the system in a 36 sq. km desert environment. The seismic sensors will be dropped by six autonomous aerial drones and later be retrieved by an unmanned ground vehicle — whereas they are conventionally manually deployed and recovered by ground based teams.

*“Total is focusing on innovation in seismic acquisition to minimize surface impact of petroleum activities and improve the quality of sub-surface images, while increasing our overall operational efficiency. We are proud to have this opportunity to collaborate once again with ADNOC to share advanced technological knowhow and expertise,”* stated Dominique Janodet, Vice President R&D of Total Exploration & Production. *“In addition, METIS® is a major technology to reduce the environmental footprint of our onshore exploration and appraisal campaigns, which is completely in line with our environmental commitments and our ambition to be the responsible energy major.”*

*“METIS is a pioneering automated technology with the potential to conduct seismic surveys in harsh environments, such as the desert, which are tough on people and equipment. This collaboration demonstrates our commitment to using ground-breaking technologies, throughout our operations, to unlock the opportunities of the 4th industrial age”* said Alan Nelson, Chief Technology Officer at ADNOC.

*“The ultimate purpose of this collaboration is to be able to jointly develop a safer, faster, more efficient and cost effective acquisition system to acquire 3D and 4D high resolution seismic images of the subsurface, which can be processed in real-time to build a clearer understanding of the subsurface, lowering geoscience and drilling uncertainties and optimizing field production”* added Khadija Al Daghar, Vice President Research and Technology Development at ADNOC.

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## **About Total & ADNOC**

ADNOC and Total collaborates across the full oil & gas value chain, from offshore and onshore exploration, development and production, to processing, products and shipping. In March 2018, Total was awarded a 20% interest in the offshore Umm Shaif and Nasr concession, a 5% interest in the Lower Zakum concession and, more recently, a 40% stake in Abu Dhabi's first Unconventional Gas Concession.

## **About Total**

Total is a major energy player that produces and markets fuels, natural gas and low-carbon electricity. Our 100,000 employees are committed to better energy that is safer, more affordable, cleaner and accessible to as many people as possible. Active in more than 130 countries, our ambition is to become the responsible energy major.

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