



Support Ocean Knowledge for a Sustainable Future

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Based in the Washington DC area, Mr. Millar serves as Fugro's key account manager for government clients throughout the Americas, as well as with the United Nations, the World Bank, and other multilateral development banks. He is responsible for managing the development and execution of Fugro's partnerships with public sector clients, and oversees Fugro's regional collaborative science activities with government, academia, and non-governmental organizations. Mr. Millar also leads Fugro's global support of and participation in The Nippon Foundation-GEBCO Seabed 2030 Project and the United Nations Decade of Ocean Science for Sustainable Development. He has more than 30 years of operations, business development, and management experience in the ocean mapping, marine geophysical, and hydrographic survey industry.

What do energy security, food security, and future medicines have in common? The world's ocean. The United Nations projects that global population will increase from 7.6 billion today to 8.6 billion in 2030 and then to 9.8 billion in 2050. The 57,491,000 square miles of available land we have to support this growing population is already well mapped and its resources well understood. However, the same is not true of the 139,397,000 square miles of ocean that cover over 70 percent of our planet.

Despite offering considerable energy, food, and medicine potential, we have only observed 4 percent of the deep ocean and directly mapped 15 percent of the ocean floor. Additionally, human activity has contributed to a decline in ocean health, and climate change is exacerbating disaster risks worldwide. Improving the health and understanding of our world's ocean is critical to meeting the needs of a growing population.

The Ocean Exploration Movement

Two closely related initiatives are helping to spur an ocean exploration movement. The United Nations Decade of Ocean Science for Sustainable Development (2021-2030), set to start in January 2021, is a multifaceted initiative to develop a common, global framework for ocean science. The initiative aims to help reverse the cycle of decline in ocean health and help countries create improved conditions for sustainable ocean development.

A key enabler of the Decade is a wholly mapped ocean. The Nippon Foundation-GEBCO Seabed 2030 Project, underway since 2017, is a collaborative project between The Nippon Foundation and the General Bathymetric Chart of the Oceans (GEBCO) to inspire the complete mapping of the ocean by 2030 and the compilation of all bathymetric data into the freely available GEBCO Ocean Map. Seabed 2030 supports the United Nation's Sustainable Development Goal 14 and is recognized as an important initiative in line with Decade objectives.

Success in these programs will require cross-sectoral, interdisciplinary collaboration and partnerships, and a bot-

tom-up approach. Stakeholders from government, academia, non-governmental organizations, the private sector, and society at large will need to support, partner, and collaborate to achieve the overall goals and objectives of both initiatives.

The Role of the Private Sector

Sustainability starts with the actions of individuals and organizations, including corporations. Now more than ever, companies understand that employees, shareholders, customers, and society expect them to contribute to a sustainable future. Businesses must balance short- and long-term stakeholder interests while integrating economic, social, and environmental considerations into decision-making. In this way, we can meet our needs today without sacrificing the next generation's ability to meet theirs.

Fugro recognizes the importance of sustainability to its business and has included support for Seabed 2030 and the Decade in its corporate sustainability program. Collaboration, partnerships, innovation, technology development, and data-sharing are critical ways we are contributing to the ocean mapping and ocean observation requirements of these initiatives.

Since the start of Seabed 2030, more than 1,000,000 square kilometers of survey data collected by Fugro has been contributed to the project. We have also facilitated the contribution of bathymetry data acquired by Fugro but owned by our clients; helped increase private sector participation in the program through industry outreach; and established new partnerships to accelerate ocean-mapping. Building on these successes, Fugro is now implementing similar strategies around ocean observations to benefit the Decade.

While these actions are important to the sustainability of our ocean, they are also good for business, as these initiatives will inevitably create a higher demand for ocean-mapping and ocean observation data. Fugro challenges all private sector enterprises to find ways they can support Seabed 2030 and the Decade so that together we can create a safe and livable world for generations to come.