

Dr Emma Heslop

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Emma is a physical oceanographer with significant strategic & business development expertise. An initial career in the technology industry developed skills in new market development and communications. Sailing made her profoundly aware of the importance of the oceans and of the human impacts on them. She completed a PhD in physical oceanography and is passionate about the need for sustained monitoring of the oceans and the utility of ocean data for science, government and industry applications, now and into the future. Her experience in oceanography encompasses circulation variability, new technology such as gliders, model validation, multi-platform ocean observing systems, the economics of ocean data and ocean data products. She has proven leadership of research projects, international collaborations and a successful record of applying business practice to help bridge the gap between ocean science and societal applications. In April 2018 she joined the Intergovernmental Oceanographic Commission (IOC) of UNESCO to support the development of the global ocean observing system through the work of GOOS, in particular the development and launch of a vision for ocean observing for the next decade with the Global Ocean Observing System [2030 Strategy](#). She is now focused on energising the community, nations and partners towards the implementation of this ambitious vision. Ocean observations have a key role to play in supporting our sustainable future and the ocean we need for the future we want.



The Global Ocean Observing System 2030 Strategy and the UN Decade of Ocean Science for Sustainable Development, an ambitious vision for the future of our oceans

Our ocean, seas and coastal regions are critical to life on Earth, and a rapidly expanding 'blue economy' estimated to be worth \$3–6 trillion per year. The cumulative impacts of climate change, development, pollution and overfishing are placing considerable stress on our marine environment. We now know that the trajectory of change and damage threatens the future of our planet and all those that live on it.

Societies need for ocean observations to inform and manage these multi-faceted challenges is growing; achieving sustainability at global, regional and local scales will require a comprehensive understanding of the current and projected state of our ocean, seas and coasts; improving early warnings of floods, droughts, and severe storms will require expanded ocean observations; the blue economy, a future source of jobs and economic growth, will be underpinned by ocean information.

Although we have made significant improvements in our ability to observe and understand the oceans over the past three decades, our current efforts will fall well short of what is needed. The recently released *Global Ocean Observing System 2030 Strategy* provides a framework for designing, building and widening observing and the use of observations. Implementing this strategy will require a step change in the level and effectiveness of partnership across the scientific and end user communities, and a deep commitment to multidisciplinary systems and capacity development. Backing and expertise from the private sector will also be required.

The *UN Decade of Ocean Science for Sustainable Development* is also seeking to effect transformational change in the future for our oceans, harnessing national, regional and global support towards projects in ocean science that will achieve a step change in our ability to meet the challenges of sustainable and healthy oceans. Observations will play a major role and the UN Decade offers an opportunity for the observing community to develop and support transformational projects with deep connection to societal outcomes, supporting the sustainable development goals and safe, transparent, healthy and accessible oceans.