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TITLE: What We Have Learned From the Framework for Ocean Observing: Evolution of the Global Ocean Observing System

AUTHOR: ['Toste Tanhua', 'Andrea McCurdy', 'Albert Fischer', 'Ward Appeltans', 'Nicholas J. Bax', 'Kim Currie', 'Brad deYoung', 'Daniel C. Dunn', 'Emma Heslop', 'Linda K. Glover', 'John Gunn', 'Katherine Hill', 'Masao Ishii', 'David M. Legler', 'Eric Lindstrom', 'Patricia Miloslavich', 'Tim Moltmann', 'Glenn Nolan', 'Artur Palacz', 'Samantha E. Simmons', 'Bernadette M. Sloyan', 'Leslie Smith', 'Neville Smith', 'Maciej Telszewski', 'Martin Visbeck', 'John Wilkin']

ABSTRACT:

The Global Ocean Observing System (GOOS) and its partners have worked together over the past decade to break down barriers between open-ocean and coastal observing, between scientific disciplines, and between operational and research institutions. Here we discuss some GOOS successes and challenges from the past decade, and present ideas for moving forward, including highlights of the GOOS 2030 Strategy published in 2019. The OceanObs'09 meeting in Venice in 2009 resulted in a remarkable consensus on the need for a common set of guidelines for the global ocean observing community. Work following the meeting led to development of the Framework for Ocean Observing (FOO) published in 2012 and adopted by GOOS as a foundational document that same year. The FOO provides guidelines for the setting of requirements, assessing technology readiness, and assessing the usefulness of data and products for users. Here we evaluate successes and challenges in FOO implementation and consider ways to ensure broader use of the FOO principles. The proliferation of ocean observing activities around the world is extremely diverse and not managed, or even overseen by, any one entity. The lack of coherent governance has resulted in duplication and varying degrees of clarity, responsibility, coordination and data sharing. GOOS has had considerable success over the past decade in encouraging voluntary collaboration across much of this broad community, including increased use of the FOO guidelines and partly effective governance, but much remains to be done. Here we outline and discuss several approaches for GOOS to deliver more effective governance to achieve our collective vision of fully meeting society's needs. What would a more effective and well-structured governance arrangement look like? Can the existing system be modified? Do we need to rebuild it from scratch? We consider the case for evolution versus revolution. Community-wide consideration of these governance issues will be timely and important before, during and following the OceanObs'19 meeting in September 2019.

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