

OCEANS OF KNOWLEDGE 2023

BEYOND NET ZERO: THE ROLE OF THE OCEAN IN CLIMATE REPAIR

Beyond that contained in the Earth's crust, the ocean holds by far the largest stock of carbon on our planet, dwarfing carbon in the atmosphere and soils.

How can we make most effective use of the ocean's capacity to sequester carbon in delivery of net zero and beyond, while regenerating healthy ocean environments and essential ecosystem services? What can be achieved through restoration of natural ocean systems that contribute to removing carbon dioxide from the atmosphere, or the use of other climate repair solutions?

The 'Beyond Net Zero – the role of the ocean in climate repair' edition of the Oceans of Knowledge conference series, will explore these opportunities. The conference will set this critical future use of the ocean into the context of associated scientific, technological, engineering, operational and regulatory challenges. It will focus on the ocean data, information and knowledge needed to inform use of the ocean in climate repair.

WEDNESDAY
18 OCTOBER 2023

Institute of Physics, London
and Remote Participation
Worldwide

PROGRAMME

EVENT PARTNERS



SUPPORTING ORGANISATIONS



PROGRAMME

OCEANS OF KNOWLEDGE 2023 BEYOND NET ZERO: THE ROLE OF THE OCEAN IN CLIMATE REPAIR

08:30 Registration and Breakfast

CLIMATE REPAIR AND THE OCEAN

09:30 Introduction and Welcome

Professor Ralph Rayner, Grantham Research Institute on Climate Change and the Environment, London School of Economics

09:40 Keynote Address: The Climate Crisis

Professor Sir David King, Founder, Centre for Climate Repair, University of Cambridge/Chair, Climate Crisis Advisory Group

10:00 An IPCC Perspective on The Role of Carbon Removal and Sequestration in Achieving Net Zero and Beyond

Dr Chris Jones, Research Fellow, Earth System and Mitigation Science Team, UK Met Office and School of Geographical Sciences, University of Bristol

10:20 Ocean-based Carbon Dioxide Removal Options for Climate Change Mitigation

Dr David Keller, Senior Scientist, GEOMAR Helmholtz Centre for Ocean Research

10:40 Questions and Discussion

11:00 Break

OCEAN CARBON DIOXIDE REMOVAL AND SEQUESTRATION

Session Chair: **Bella Corpora**, Associate Director, Carbon Business Council

11:20 Recovery of Natural Systems

Dr Brian von Herzen, Executive Director, The Climate Foundation

11:40 The Potential of Pelagic Sargassum

Dr Mar Fernandez, Research Scientist, Alfred Wegener Institute

12:00 Connecting Capital to Nature

Jordan Breigner, SVP of Commercial Operations, Running Tide

12:20 Alkalinisation

Peter Chargin, Vice President, Commercialization and Community & Government Relations, Planetary Technologies

12:40 Questions and Discussion

13:00 Lunch

14:00 Driving Global Carbon Dioxide Drawdown via Direct Ocean Capture

Dr Harry Atwater, Chief Scientist and Co-Founder, Captura and Chair, Division of Engineering and Applied Science, California Institute of Technology

14:20 Carbon Capture and Storage

Stephen Fasham, Chief Executive Officer, Covelya Group

14:40 Questions and Discussion

14:50 Break

MONITORING, REPORTING AND VERIFICATION

Session Chair: **Charlotte Powell**, Head of BioEnergy and Carbon Removals Innovation Team, Department for Energy Security and Net Zero

15:00 A Policy Perspective

Dr Leo Mercer, Policy Analyst, Grantham Research Institute on Climate Change and the Environment, London School of Economics

15:20 The Legal and Regulatory Frameworks

Navraj Singh Ghaleigh, Senior Lecturer in Climate Law, Edinburgh University

15:40 Evaluating Impacts

Dr Vassilis Kitidis, Marine Biogeochemist, Plymouth Marine Laboratory

16:00 Requirements for Safe and Effective Implementation of Ocean-based Carbon Dioxide Removal.

Dr Christopher Pearce, Principal Marine Geoscientist, National Oceanography Centre

16:20 Questions and Discussion

16:40 Break

OCEAN INFORMATION NEEDS

16:50 A Panel Discussion Moderated by:

Dr Shaun Fitzgerald OBE, Director, Centre for Climate Repair, Cambridge University

Comprising of:

Professor Ed Hill, Chief Executive, National Oceanography Centre

Brad Ack, Executive Director, Ocean Visions

Pete Chargin, Vice President, Planetary Technologies

Professor Jerry Blackford, Head of Science, Plymouth Marine Laboratory

Dr Jessica Cross, Earth Scientist – Decarbonization and Carbon Removal, Pacific Northwest National Laboratory

17:40 Closing Keynote

Brad Ack, Chief Executive Officer, Ocean Visions

18:00 Closing Remarks

18:05 Networking Drinks Reception

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