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Celebrating GEOMAR's membership in the Helmholtz Association Researchers from Kiel contribute a broad range of expertise on the "blue" ocean

18.05.2022/Kiel. For ten years, GEOMAR Helmholtz Centre for Ocean Research Kiel, has helped the Helmholtz Association of German Research Centres to address urgent questions regarding the development of our natural environment. The Helmholtz Research Field Earth and Environment benefits in particular from GEOMAR's broad expertise. As its Vice-President, GEOMAR Director Professor Dr. Katja Matthes has been coordinating the Research Field, whose member centres cooperate closely in the joint programme "Changing Earth – Sustaining our Future", since April 2022. Representatives of the Helmholtz Association, the centres and the responsible ministries celebrate the anniversary today as part of a meeting of the Earth and Environment Strategic Advisory Board. During the internal celebration, the Prof. Dr. Werner Petersen Foundation also presents its Young Scientist Awards.

Climate change is one of the greatest challenges of our time. Understanding it, predicting future changes and reducing risks requires diverse knowledge especially about the ocean and its various interactions with the climate system. The Research Field Earth and Environment of the Helmholtz Association of German Research Centres therefore takes a systemic approach to researching our natural environment. For ten years, GEOMAR Helmholtz Centre for Ocean Research Kiel has been contributing crucial knowledge about the open "blue" ocean from the seabed to the atmosphere. Today, representatives of the Helmholtz Association, its member centres and responsible ministries celebrate the anniversary in connection with a meeting of the Strategic Advisory Board of the Helmholtz Research Field Earth and Environment in Kiel.

"I cordially congratulate GEOMAR on its tenth Helmholtz birthday. As a marine research institution exploring the 'blue' ocean, GEOMAR ideally complements the portfolio of the Helmholtz Research Field Earth and Environment," says Otmar D. Wiestler, President of the Helmholtz Association. "Human-induced global warming is one of the greatest challenges of our time. Our ocean can have an important factor in this context – for better or worse. Understanding and decisively addressing climate change requires deeply committed and competent cutting-edge research, and that's exactly what is being done here in Kiel at the Helmholtz Centre for Ocean Research every day."

"The unique range of expertise integrated at GEOMAR is rooted in the history both of our centre and of marine research in Kiel, which has always been multidisciplinary," emphasises Professor Dr Katja Matthes, Director of GEOMAR since October 2020 and Vice-President of the Research Field Earth and Environment of the Helmholtz Association since April 2022. GEOMAR was founded as a merger of two Kiel research institutes: the Institute of Oceanography (Institut für Meereskunde, IfM) and the GEOMAR Centre for Marine Geosciences. In 2004, the two institutions jointly formed the Leibniz Institute of Marine Sciences (IFM-GEOMAR) at Kiel University (Christian-Albrechts-Universität zu Kiel, CAU). IFM-GEOMAR scientists were involved in academic teaching at CAU. In 2012, IFM-GEOMAR joined the Helmholtz Association as GEOMAR Helmholtz Centre for Ocean Research Kiel. The close cooperation with the CAU was maintained as the "Kiel Model". "We are very proud to have been working with renowned partner institutions in Germany's largest research community for ten years now," says Professor Matthes.

In particular, GEOMAR contributes to the joint research programme of the Research Field Earth and Environment, “Changing Earth – Sustaining our Future”. “Connected by a joint programme, we can cooperate particularly closely in the Research Field,” Professor Matthes emphasises. “Building on its broad expertise in geology, biology, chemistry and physics of the ocean as well as the atmosphere and the seafloor, GEOMAR is involved in four of the nine topics of the programme. The topic ‘Marine and Polar Life’ is coordinated at GEOMAR. By addressing climate-related changes in the ocean, adaptation options for marine life as well as the protection and sustainable use of the ocean, we focus on urgently pressing social issues that also play a major role in the United Nations Decade of Marine Research for Sustainable Development.”

Within the framework of its new strategy GEOMAR 2030, the centre continues to steer towards the future and, in addition to basic research, focuses even more strongly on application and transfer: Members of the four GEOMAR research divisions cooperate on the three core topics “Ocean and Climate”, “Marine Ecosystems and Biogeochemical Cycles” and “Ocean Threats and Benefits” as well as the three Integrative Research Foci “Atlantic Ocean Upwelling”, “Marine Carbon Sinks” and “Digital Ocean Twin”.

After an introduction to the strategy following the slogan “Our world is the ocean” by GEOMAR Director Professor Matthes at the internal celebration, researchers provide insights into current highlights – from training for young scientists and multidisciplinary research in Cabo Verde to approaches for carbon uptake in the ocean, early warning of marine geohazards and new technologies for deep-sea research. On a tour in the afternoon, the guests deepen their impressions of infrastructure development and technology transfer. They also get to know the new extension building that will bring together all of GEOMAR’s research areas at Kiel East Shore in 2023.

Together with the Prof. Dr. Werner Petersen Foundation, GEOMAR also honoured the work of six young researchers during the event. For the first time, special engagement in the areas of knowledge transfer and transdisciplinary research are particularly recognised and a scholarship for research exchange awarded in addition to the traditional awards for excellent doctoral theses.

“The award intends to motivate young academics on their further career path,” says the chairman of the Prof. Dr. Werner Petersen Foundation, Dr. Klaus-Jürgen Wichmann. “Because interdisciplinary cooperation and dialogue with the public and other stakeholders are becoming increasingly important in addition to excellent disciplinary research, we also want to promote engagement in these areas with two new awards and a scholarship.”

The awardees for 2021 are:

- Dr Florian Petersen, Research Division “Dynamics of the Ocean Floor”, for his outstanding PhD thesis “Analysis of seismic and aseismic deformation using shoreline-crossing observations”.
- Dr Yang Yu, Research Division “Ocean Circulation and Climate Dynamics”, for his outstanding PhD thesis “Stable Barium Isotopes – Biogeochemical Cycling and Paleoceanographic Applications”.
- Dr. Jahangir Vajedsamiei, Research Division “Marine Ecology”, for his outstanding PhD thesis “The neglected role of environmental fluctuations as modulator of stress”.
- Dr Ross Cuthbert, Research Division “Marine Ecology”, for outstanding interdisciplinary research and knowledge transfer in the area of “Global economic impacts of biological invasions”.
- Dr Amir Haroon, Research Division “Dynamics of the Ocean Floor”, for outstanding interdisciplinary research and knowledge transfer in the area of „Integrated Geoscientific Analysis to Image Coastal / Marine Groundwater Interactions“.

- Dr. Rebecca Zitoun, Research Division "Dynamics of the Ocean Floor", received a grant for a research exchange on "Preliminary environmental impact assessment of potential mercury release from deep-sea mining activities of sulphide mineral deposits".

Background: The Helmholtz Association of German Research Centres

The Helmholtz Association of German Research Centres is Germany's largest research organisation and develops solutions and technologies for the world of tomorrow. In doing so, Helmholtz addresses central questions such as: What helps in the fight against life-threatening diseases? How can climate change be slowed down? How will the next quantum revolution change our lives? Top-level research is needed to meet challenges like these. At Helmholtz, more than 43,000 employees work together in 18 centres to create something extraordinary. Together, the Helmholtz Centres want to develop innovative technologies and thus preserve the foundations of human life. With an annual budget of five billion euros and long-term, interdisciplinary research programmes, Helmholtz is also one of the leading research organisations internationally. Helmholtz cooperates with the best scientific institutions worldwide.

Background: The research programme "Changing Earth - Sustaining our Future"

Climate change, species extinction, environmental pollution and geological risks are among the greatest challenges of our time. In the Research Field Earth and Environment, Helmholtz scientists take a systemic approach to the natural foundations of life - from the land surface and the oceans to the most remote polar regions. With its research programme "Changing Earth - Sustaining our Future", Helmholtz is developing concrete solutions and strategies along the lines of the following questions: How can humans adapt to changing environmental conditions? How can global threats such as climate change be mitigated? And what effects can these risks have - not only on the environment, but also on the economy and society? Helmholtz is exploring ways to preserve our Earth, human society and the biosphere as a whole in the future.

Background: The Prof. Dr. Werner Petersen Foundation

The Prof. Dr. Werner Petersen Foundation is dedicated to promoting young scientists, outstanding scientific, technical, cultural and research achievements and to raising funds for these purposes. In doing so, it initiates positive development processes and supports young people on their various career paths. Within this framework, the foundation has been awarding prizes for excellent doctoral theses within GEOMAR since 2014. New additions are prizes for outstanding commitment to knowledge transfer and transdisciplinary research as well as a scholarship for research exchange.

Links:

<https://www.helmholtz.de/en> Hermann von Helmholtz Association of German Research Centres
<https://earthenvironment.helmholtz.de/changing-earth/program> The programme "Changing Earth - Sustaining our Future"
<https://www.petersen-stiftung.de> The Prof. Dr. Werner Petersen Foundation
www.geomar.de GEOMAR Helmholtz Centre for Ocean Research Kiel

Images:

Images are available for download at <http://www.geomar.de/n8473-e>

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