Symposium highlights growth opportunities for sustainable bio-based economy

First symposium "Blue Bioeconomy in Northern Germany" at Kiel University with about 80 participants from science, industry, politics and associations

At the invitation of the Christian-Albrechts-Universität zu Kiel (CAU) and the newly founded association "Bioökonomie auf Marinen Standorten e.V.", around 80 experts from science, industry, politics and associations met on 3 and 4 March to discuss new processes and projects for the growth field of the bio-based and sustainable blue economy. The FBN was represented by Prof. Dr. Tom Goldammer.

Under the keyword "blue bio-economy", aquatic recycling management and new processes based on natural resources from the sea such as algae, fish or mussels are to be developed in the future, which rely on renewable marine raw materials and thus support social change towards more sustainability and climate neutrality. To this end, nutrients from surface and coastal waters as well as from industry and agriculture are used. Biological raw materials from the sea can be used in medicine, cosmetics, the food and feed industry, but are also increasingly found in everyday objects and products.

The aim of the first Kiel symposium on the blue bio-economy is to identify suitable model locations for larger networks, to bring industrial partners on board and to discuss new research projects. "The northern German federal states, above all Schleswig-Holstein, have great potential to play a key role in the blue bio-economy. Both in research and on the company side, there is unique know-how in Germany, for example in the production of algae or the manufacture of alternative feed in aquaculture, which can be further exploited. We want to bring together interested people, researchers and business experts from different fields and initiate new research and development projects," said Carsten Schulz, one of the responsible organizers of the symposium, Professor of Marine Aquaculture at the Faculty of Agriculture and Nutrition (AEF) and member of the steering group in the university's research focus Kiel Marine Science (KMS).

About a year ago, the German Federal Ministry of Education and Research (BMBF) approved the project "Bioeconomy at Marine Sites" (BaMS), which was funded with up to 20 million euros and coordinated by Kiel University. In the meantime, eight collaborative projects have already started work in BaMS and deal, for example, with the optimisation of housing conditions for fish in aquaculture facilities or the sustainable use of regionally produced algae for the cosmetic and pharmaceutical industry. The main focus here is on skin lightening agents for the Asian market. Through close cooperation with companies, the research results in individual projects are also transferred into products for the cosmetics market. These include, for example, mussel paste as a spread or pesto made from algae. It is also planned to carbonise the fish faeces to produce biochar. Other partners are investigating how fish food can be produced from algae mash or how innovative water purification systems can be developed using microalgae.

In autumn 2020, new consortia are to follow, which will be funded within the framework of the BMBF project "Bioeconomy on Marine Sites". Draft proposals can still be submitted until the end of May 2020. The new projects will then start in spring 2021. "Our main aim is to promote synergies between companies and experts in such a way that holistic and at the same time sustainable systems are created that are also rooted in a region. The symposium is therefore also the starting signal for a

new network of interested parties from all areas of the Blue Bioeconomy," said Dr. Stefan Meyer, coordinator of the project "Bioeconomy on Marine Sites" at the University of Kiel, summarizing the aim of the North German industry meeting.

The two-day symposium began with a general meeting of the non-profit association "Bioökonomie auf Marinen Standorten e.V.", which was newly founded in September 2019 and is responsible for the management of the projects and the support of cooperations. Afterwards, project partners presented the eight joint projects in BaMS. The second day was followed by keynote speeches and workshops to improve networking between the players. The participants were welcomed by Dr. Dietmar Walter from the Department of Sustainable Management and Bioeconomy in the Federal Ministry of Science and Research (BMBF) in Berlin. The German Minister of Education and Research, Anja Karliczek, recently presented the German government's bioeconomy strategy and highlighted the particular importance of the blue bioeconomy, i.e. bio-based processes from marine products such as algae or mussels. Germany has the goal of becoming a leading location in the sustainable bioeconomy and making a relevant contribution to achieving the sustainability goals of the United Nations' Agenda 2030.

Source: https://www.uni-kiel.de/de/detailansicht/news/066-biooekonomie#

Photo Saggau/AEF: Eight collaborative projects are currently underway as part of the project "Bioeconomy on Marine Sites". At the symposium, the project leaders presented their project ideas on marine biotechnology. 1st row from left: Stefan Meyer (BaMS coordinator, CAU), Mirko Bögner (Alfred Wegener Institute, Bremerhaven). 2nd row from left: Prof. Carsten Schulz (CAU), Prof. Thomas Schweder (Greifswald University), Martina Mühl (Coastal Research & Management, Kiel) Elke Böhme (Fraunhofer Institute for Marine Biotechnology and Cell Technology, Lübeck), Sascha Hermus (3N Competence Centre Lower Saxony), Prof. Norbert Reintjes (Technical University Lübeck), Prof. Tom Goldammer (Leibniz Institute for Farm Animal Biology, Dummersdorf/Mecklenburg-Western Pomerania).