

**CREATE** develops **C**oncepts for **R**educing the **E**ffects of **A**nthropogenic pressures and uses on marine **E**cosystems and on **B**iodiversity in the North Sea and Baltic Sea and contribute to more sustainable human-ocean interactions.

**Background**

Climate change and unsustainable use of coasts and seas not only affect the marine environment, but also human health and well-being, as humans and the sea form a socio-ecological system. **Multiple anthropogenic interventions in nearshore marine ecosystems are increasingly leading to conflicts of use that require compromise.** Cumulative stressors, which include nutrient and other inputs from agriculture, further development of renewable energy, use of coastal waters for sediment dumping, shipping, pollution, and tourism, must be considered here, which are often in conflict with mandatory marine conservation goals.

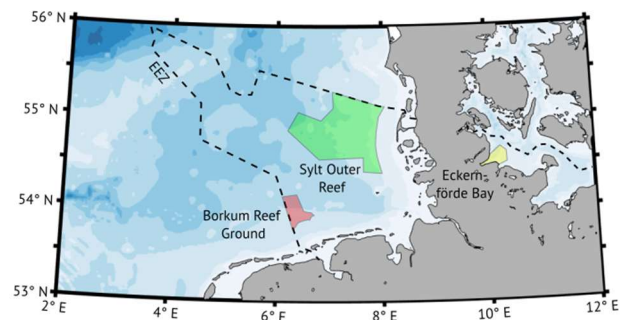


**Our Vision**

The CREATE project accordingly aims to **develop solution-oriented action knowledge** to reduce the cumulative impacts of **multiple uses on biodiversity in three real-world laboratories (RWLs) involving a diverse group of stakeholders.** To this end, CREATE is providing bio-geo-physical data and modeling to improve coastal ecosystem assessment and management as a result of the RWLs. Providing social science analysis of formal and informal local governance structures and embedding them in national, European and international policies allows developing improved management methods to reduce the cumulative impacts of multiple uses.

**Our Real-World Laboratories**

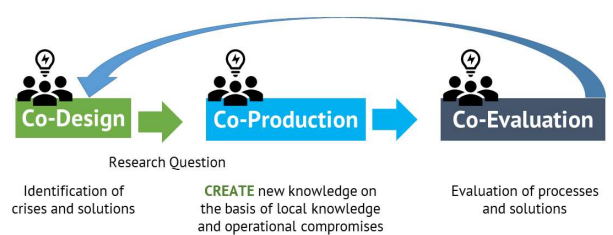
CREATE establishes real-world laboratories (RWLs) in the North Sea and Baltic Sea in order to **generate innovations that can be implemented in practice** by applying transdisciplinary methods to counteract multiple stressors. CREATE focuses on the **Natura 2000 habitats** Borkum Riffgrund, Sylt Outer Reef and Eckernförde Bay.



**Our Working Methods**

The CREATE consortium, which consists of scientists from the natural and social sciences, engineers, economists and societal stakeholders, is working in three work packages on:

- **Identifying stakeholders to co-design the RWLs** and developing operational management objectives and concepts to reduce cumulative impacts of multiple uses and climate change.



- The **development and validation of novel methodologies to fill gaps in the analysis of biodiversity** and the physical environment of the RWLs and their connectivity, and to generate recommendations for action based on the projects results.
- The analysis of existing **governance structures** in a multi-level approach and the **identification of reform needs**.

Through this **multilateral approach**, CREATE generates **concrete recommendations for action** to achieve the formulated goals of marine nature conservation (including the European Marine Strategy Framework Directive [MSFD], Natura 2000, German Sustainability Strategy and National Biodiversity Strategy [NBS]). At the same time, **CREATE builds capacity in interdisciplinary marine sciences** essential to the MARE-N themes of "Ecosystem Functioning and Biodiversity," "Sustainable Resource Use," and "Governance and Participation." CREATE will thus contribute to minimize negative impacts on coastal and marine ecosystems and thus make human-ocean interactions more sustainable.

#### Consortium:



Project period: 01.12.2021 - 30.11.2024

DAM Research Mission „Protection and sustainable use of marine areas“

[www.sustainMare.de/CREATE](http://www.sustainMare.de/CREATE)

Kontakt: Prof. Dr. Helmut Hillebrand

UOL, ICBM, HIFMB, AWI