

# Blue Estuaries â Developing Estuaries as Habitable Sustainable Ecosystem Despite Climate Change and Stress (BluEs)

**Project** 

**Duration** 

Nov 2020 - Feb 2024

### BluEs project website

Estuaries are under considerable human pressure from river basin inputs and direct sources of pollution from ports and industrial sites. In addition, there are countless human activities, including cargo shipping, tourism, trade and fishing. Climate change also results in longer periods of heat and oxygen deficiency, which have a negative impact on the ecosystem. In this diverse range of pressures, clear, science-led and sustainable management is a challenge.

The project name "BluEs" is an abbreviation for Blue Estuaries â Developing estuaries as habitable sustainable ecosystem despite climate change and stress. "BluEs" aims to provide options for redeveloping estuaries as habitable sustainable ecosystem despite climate change and stress. Lead by the Leibniz Institute for Baltic Sea Research, the project comprises eight research institutes, federal agencies and NGOs. The interdisciplinary team will provide stressor oriented data and stakeholder driven science-based environmental models for the estuaries of the rivers Odra and Elbe. All data will be evaluated using network analysis combining diverse ecological and societal information to identify best management strategies for nature conservation, improvements of the European Water Framework Directive, European Marine Strategy Framework Directive, and sediment management. The project will in particular

- a) contribute to an improved system understanding of stakeholders who are involved by interactive network analysis;
- b) identify the environmental factors that constitute adjustable screws for management activities, as well as indicate potential risks of interventions;
- c) develop a research and management methodology that could be transferred to other estuaries and coastal systems.

Ecologic Institute will lead works related to stakeholder analysis and interventions.

### **Funding**

### **Partner**

<u>Leibniz Institute for Baltic Sea Research Warnemünde</u> (IOW), Germany <u>Ecologic Institute</u>, Germany

Universität Rostock Institut fþr Biowissenschaften Lehrstuhl fþr Meeresbiologie, Germany Helmholtz-Zentrum Geesthacht, Zentrum fþr Material und Kþstenforschung (HZG), Germany Hamburg University of Applied Sciences (HAW Hamburg), Germany Universität Hamburg Center of Natural History (CeNak), Germany Verein Jordsand, Germany

### **Team**

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# **Keywords**

### Coastal + Marine

estuaries, human pressure, pollution, fishing, climate change, nature conservation, stakeholder Baltic Sea, Odra, Elbe

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