



Task number three built on the previous ones: to develop a concept for a "Digital Twin Cabo Verde". Digital twins of the ocean consist of simulations of the ocean that reflect the real ocean. The ocean and its simulation in the digital twin are linked by an exchange of information: observations and measurements are made in the real ocean, and recommendations for a future ocean are derived from the simulated ocean. The concept has been designed with local interests in mind, allowing users to explore selected datasets and upload their own data.

"During the project week, the participants were able to test their understanding of fundamental marine scientific processes and their data analysis skills in a new, unfamiliar, and interdisciplinary environment," summarises Arne Biastoch, Professor of Ocean Dynamics and MarDATA spokesperson at GEOMAR. "The proximity to application and the collaboration with the WASCAL Master's programme and local stakeholders is a great gain for both sides".

The participants were also very satisfied with the week. In addition to the exciting scientific exchange, the close cooperation across status groups and cultural differences will remain in their memories. Everyone is already looking forward to next year's reunion, when the WASCAL students will dock with the research vessel POLARSTERN in Germany as part of their training as a "floating university".

### **Background on MarDATA**

The "Helmholtz School for Marine Data Science" (MarDATA) trains marine data scientists. Young researchers from computer science, informatics, and mathematics work together on marine topics, from modelling on supercomputers, and robotics to statistics and big data methods. They are supervised by scientists from the GEOMAR Helmholtz Centre for Ocean Research Kiel and the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI) in cooperation with the Universities of Kiel and Bremen. The broad interdisciplinary training in block courses, summer schools, and colloquia aims to promote innovative handling of marine scientific data.

### **Background on WASCAL**

The West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL) is

<https://www.youtube.com/watch?v=wJEJ2VnH3D8> WASCAL Master Research Program on Climate Change and Marine Sciences in Cabo Verde

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