

Sea Ice Portal

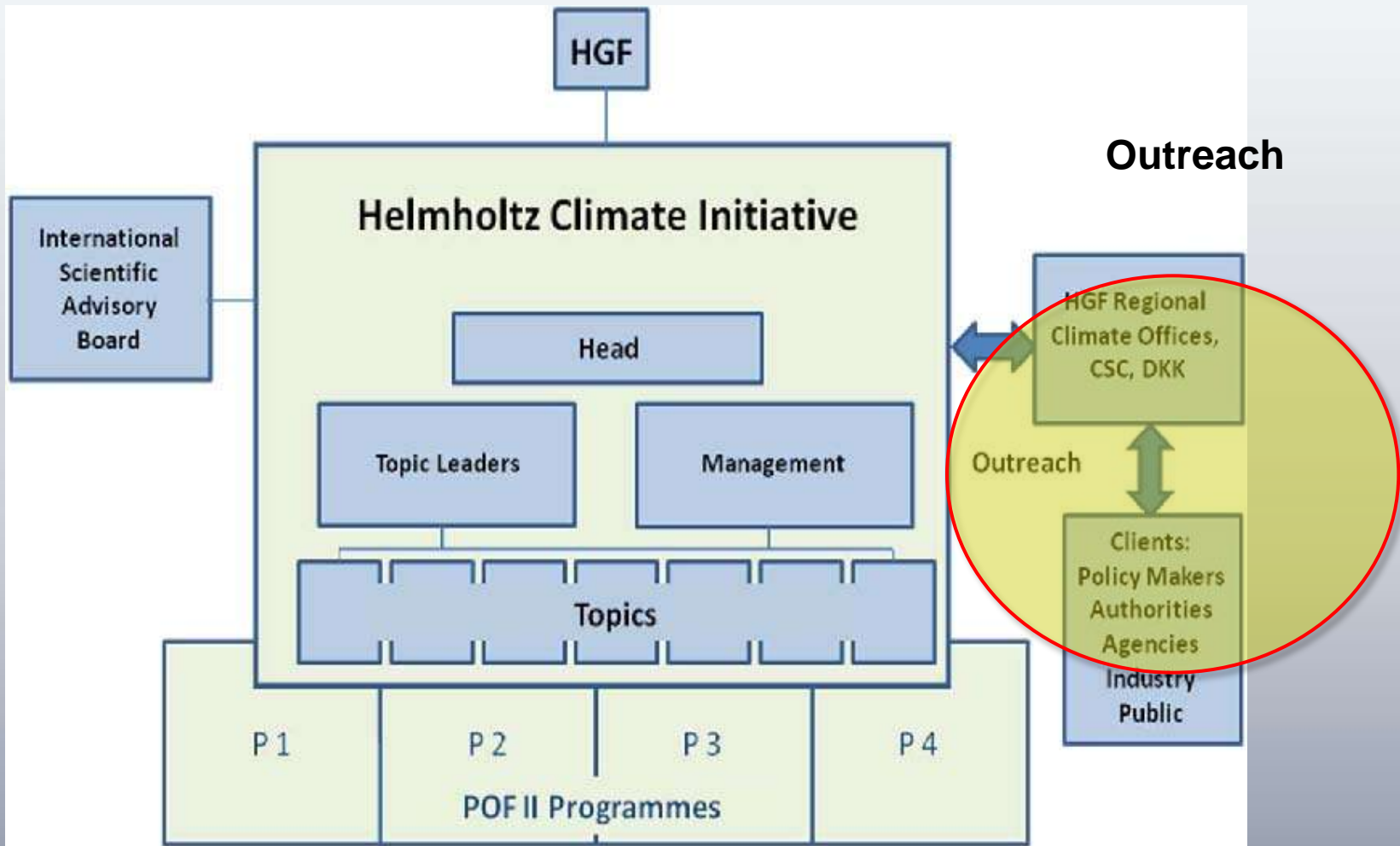
an outreach activity within REKLIM

© Lars Witting/ARC-PIC.COM

Overview

- I What is the idea behind the sea ice portal?
- II What is the portal structure so far?
- III What is the data access problem?
- IV What is a possible solution within the new portal?

OUTREACH WITHIN REKLIM



Climate Office for polar regions
Climate change related to polar regions and sea-level rise

North German Climate Office
changes in storms, storm surges, ocean waves, and coastal climate

Each climate office represents the regional aspects of climate research based on the scientific expertise of the respective Helmholtz centre.

Climate Office for central Germany
climate change impacts and adaptation in the fields of biodiversity, hydrology, and society

South German Climate Office
regional climate modeling and extreme weather events



GOAL OF THE SEA ICE PORTAL:

- is to bring together all important information resources about sea ice for a German broad public

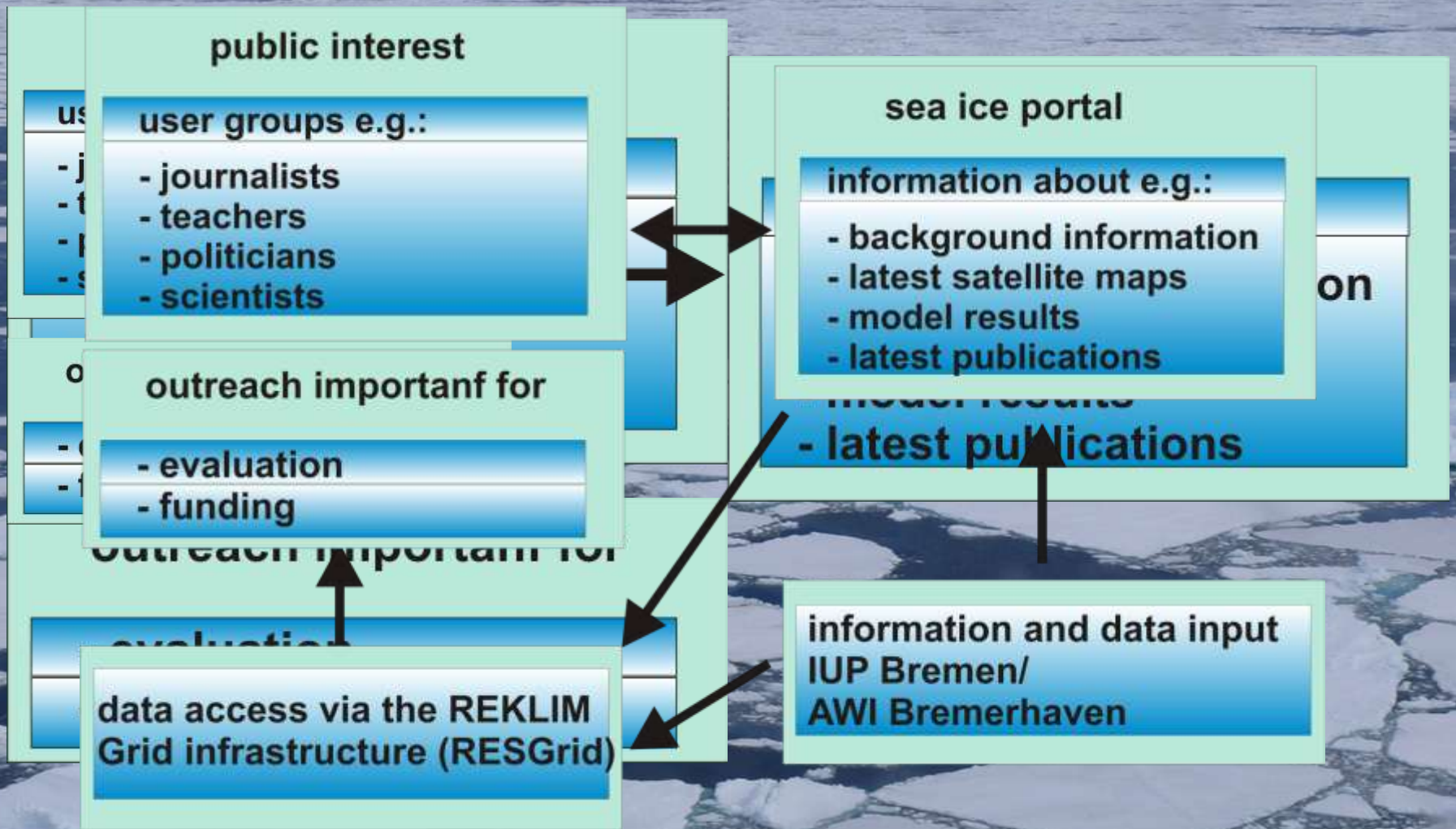
FIRST PARTNERS IN THE PROJECT:

- the sea ice portal is an AWI initiative in cooperation with the University of Bremen (Institute of Environmental Physics)



- mainly focused on satellite measurements of sea ice from IUP Bremen
- input of AWI sea ice modeling group
- measurements of sea ice with e.g. airborne platforms at AWI

THE PORTAL STRUCTURE



□ initiative aims at enhancing the public outreach of REKLIM

SEA ICE PORTAL: DATA ACCESS PROBLEM

- **Problem:** (sea ice) data is stored at different sites

e.g. AWI, DKRZ, Uni Bremen/Marum etc

- **Question:** How to get access to these data without retrieving them individually from the provider?

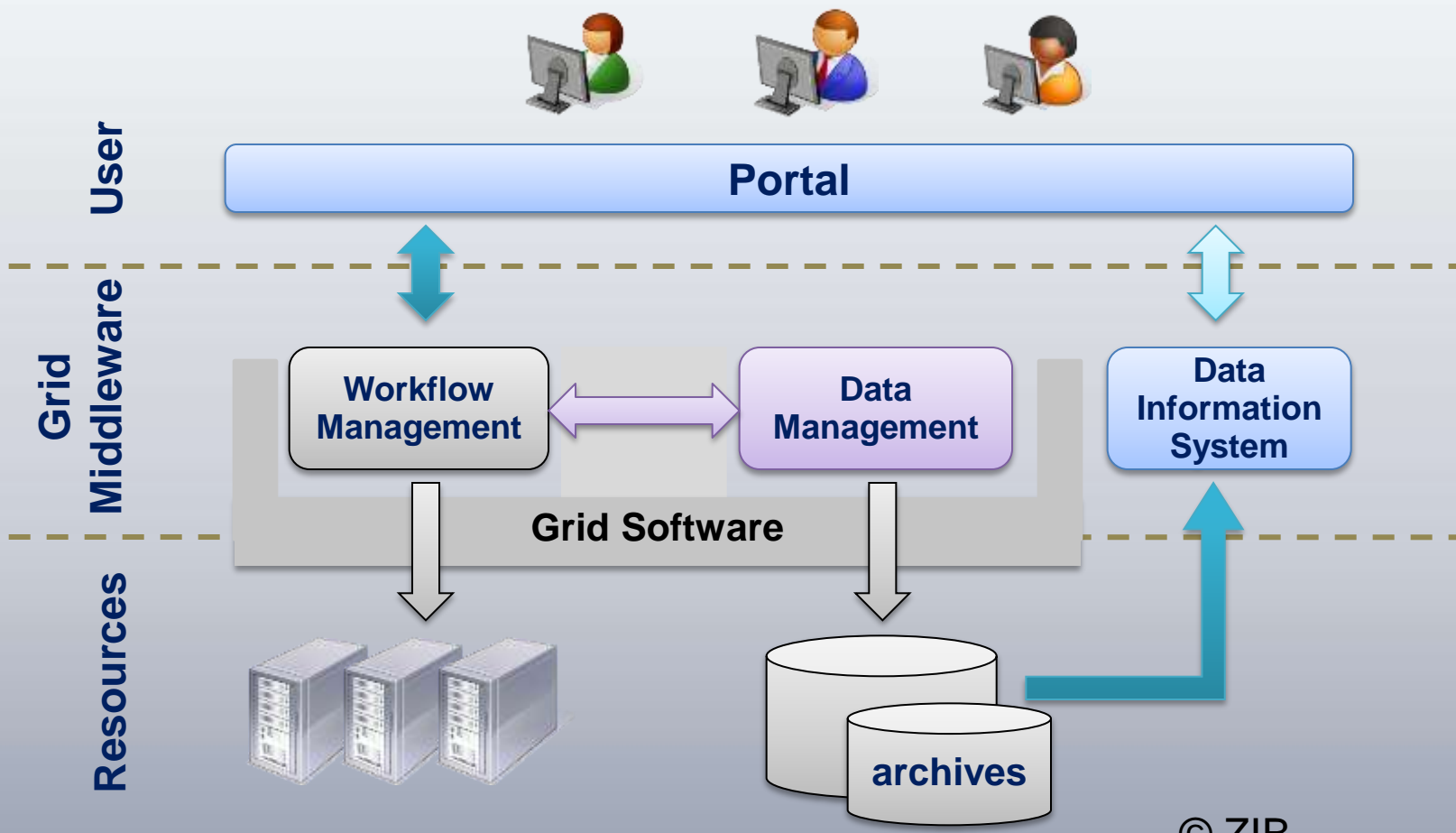
SEA ICE PORTAL: DATA ACCESS SOLUTION (APPROACH)

- One portal as interface to distribute data
- Access to the data via the REKLIM Grid infrastructure (RESGrid)
 - is based on the project „Collaborative Climate Community Data and Processing Grid (C3Grid)“
 - reuse of established technology

SEA ICE PORTAL: C3GRID PORTAL

The screenshot displays the C3Grid Portal interface. At the top, there is a navigation bar with links for Administration, Content, Layout, Profile, Home, and Logout. Below this is a search bar with a dropdown menu showing search results for 'eh5-t63l31_om-gr1'. The main content area shows search results for 'IPCC-AR4 MPI-ECHAM5_T63L31 MPI-OM_GR1.5L40 1%/year CO2 increase experiment to quadrupling run no.1: atmosphere 6 HOUR values MPImet/MaD Germany'. The interface includes several filter panels: Time Constraints (Min Date: 2011-01-01, Max Date: 2011-12-31), File Options (File Type: grb), Vertical Constraints (Min Vertical: 50.00 hPa, Max Vertical: 500.0 hPa), Geographical Constraints (Min Lat: -90.0, Max Lat: 90.0, Min Lon: 0.0, Max Lon: 360.0), and Content Constraints (air_pressure_at_sea_level, air_temperature, etc.). The right sidebar provides details for the selected result, including Date (1930-01-01T00:00 to 2300-12-31T23:00), Geographical Extent (Lat: -90° to 90°, Lon: 0° to 360°), Vertical Extent (standardPressureLevel: 10 hPa to 1000 hPa, depthBeneathSurface: -9.834 m to 0 m), and Data Format (Type: grb). The bottom of the page features logos for Helmholtz Climate Initiative, KIT (Karlsruhe Institute of Technology), Helmholtz Zentrum für Umweltforschung (HZU), Helmholtz Association, and REKLIM (Regionale Klimaänderungen).

SEA ICE PORTAL: C3GRID ARCHITECTURE



© ZIB

SEA ICE PORTAL: CURRENT STATUS

- Sea Ice Portal will provide access to C3Grid infrastructure, but contains an own pool of metadata, especially for sea ice related data
- Development is in progress
- You have data you would like to see in the portal? Speak to us for further details!



Thank you for your attention!



Who is interested to see more please contact us!