Partner information

- **Coordination:**

  Prof. Dr. Hans Matthias Schöniger, Technische Universität Braunschweig, Leichtweiß Institute for Hydraulic Engineering and Water Resources, Division of Hydrology, Water Management and Water Protection.

- **German Partners:**

  ◊ Gesellschaft für Anlangen- und Reaktorsicherheit gGmbH (Köln)/ GRS

  ◊ Oldenburgisch-Ostfriesischer Wasserverband (Brake)/ OOWV

  ◊ Leibniz-Institut für Angewandte Geophysik (Hannover)/ LIAG

  ◊ Niedersächsischer Landesbetrieb für Wasserwirtschaft, Küsten- und Naturschutz (Aurich)/ NLWKN

  ◊ INSIGHT Geologische Softwaresysteme GmbH (Köln)/ INSIGHT

  ◊ GISCON Geoinformatik GmbH (Dortmund)/ GISCON

Partner information

- **International Partners in case studies:**

  ◊ Buffalo City Metropolitan Municipality, Eastern Cape, South Africa

  ◊ Rhodes University, Grahamstown, South Africa

  ◊ Akdeniz University, Faculty of Engineering, Antalya, Turkey

  ◊ Yildiz Technical University, Faculty of Engineering, Istanbul, Turkey

- **Countries of case studies:**

  North-Eastern Brazil, North-Western Germany, Turkey (Antalya) and South Africa (Eastern Cape).

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go-CAM
Implementing strategic development goals in coastal aquifer management

The development and management of water resources in an integrated and sustainable way is benefical to all stakeholders.

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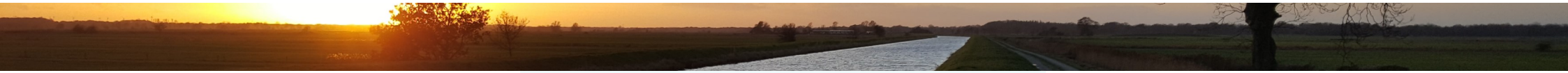
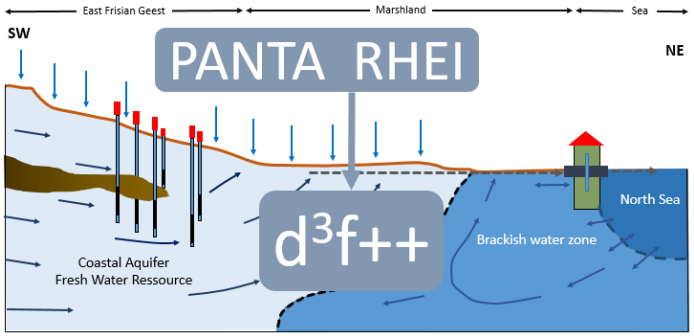


CAM dialogue platform

The main goal of the go-CAM project is the development of an online-platform called CAM (Coastal Aquifer Management) which enables processing the outputs of hydro(geo)logical models using multi-criteria decision analysis techniques (MCDA) and evaluating/analyzing the processing results to strengthen transparency and objectivity in decision-making procedures among stakeholders in the water sector of coastal regions.



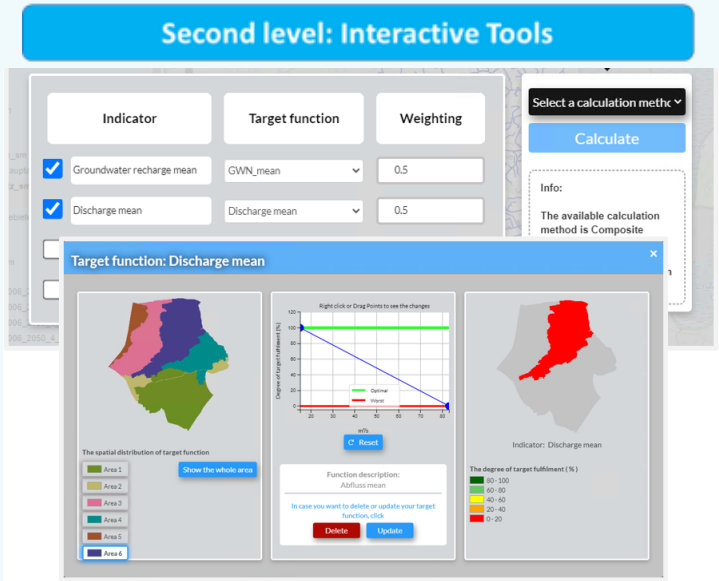
Our groundwater model d3f++ (distributed density-driven flow) and PANTA RHEI (deterministic semi distributed hydrological model).

The CAM platform can be divided into four levels:

1. The first level (CAMup): A background process is implemented to load indicators in raster format and all relevant data into the platform.
2. The second level is used for an interactive selection of water management options by choosing scenarios, target functions and weighting factors. The main challenge here

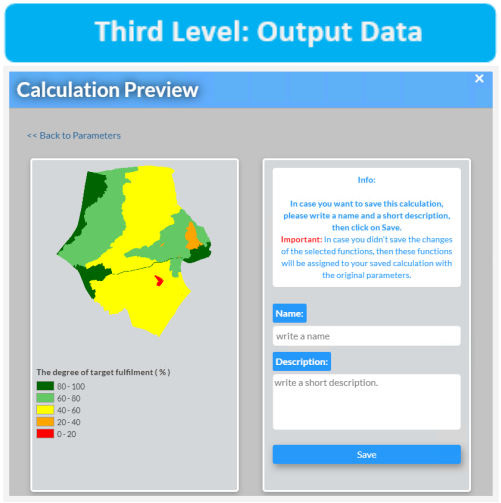
CAM dialogue platform

was to integrate the interactive tools, which use multi criteria decision analysis techniques (MCDA) such as composite programing to evaluate data. One target function can be assigned to each selected indicator. The target functions in the platform are customizable and can be displayed, changed, and saved interactively in a diagram or by entering parameters. Besides, these target functions could be also regionally distributed.



3. The third level provides an output (calculation result) after using the input indicators from level 1 and the selected options from level 2. The calculation results can be previewed and saved for later analysis.

CAM dialogue platform



4. In the fourth level the stored calculation results of two users from level 3 can be displayed side by side and thus be subjected to an interactive comparison and analysis. This supports the dialogue between different interest groups.