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The DataHub Digital Ecosystem – tools and services for an interlinked research data infrastructure

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In order to establish an interlinked research data infrastructure across all seven centers of the Research Field Earth and Environment (E&E), a central objective of the DataHub is the collaborative development of research data management (RDM) tools and services. These tools range from thematic visualization solutions over sensor management systems to a full-fledged metadata portal. This digital ecosystem allows for a user-friendly exploration and interaction with a wide range of data and services from the research field Earth and Environment.

Tools and services for data exploration

The **DataHub website** provides the main point of entry into our digital ecosystem. Besides **thematic viewer** for spotlights from the different topics, it also features a list of **tools and services** that are available within the context of the DataHub.


The jointly developed **Earth Data portal** allows for an user-friendly search, filtering and exploration of environmental research data. More than 20 higher-level and institutional data repositories that provide around 500.000 datasets are linked to the portal. A **viewer suite** will further allow to browse through and visualize a wide range of geospatial datasets across all E&E topics.
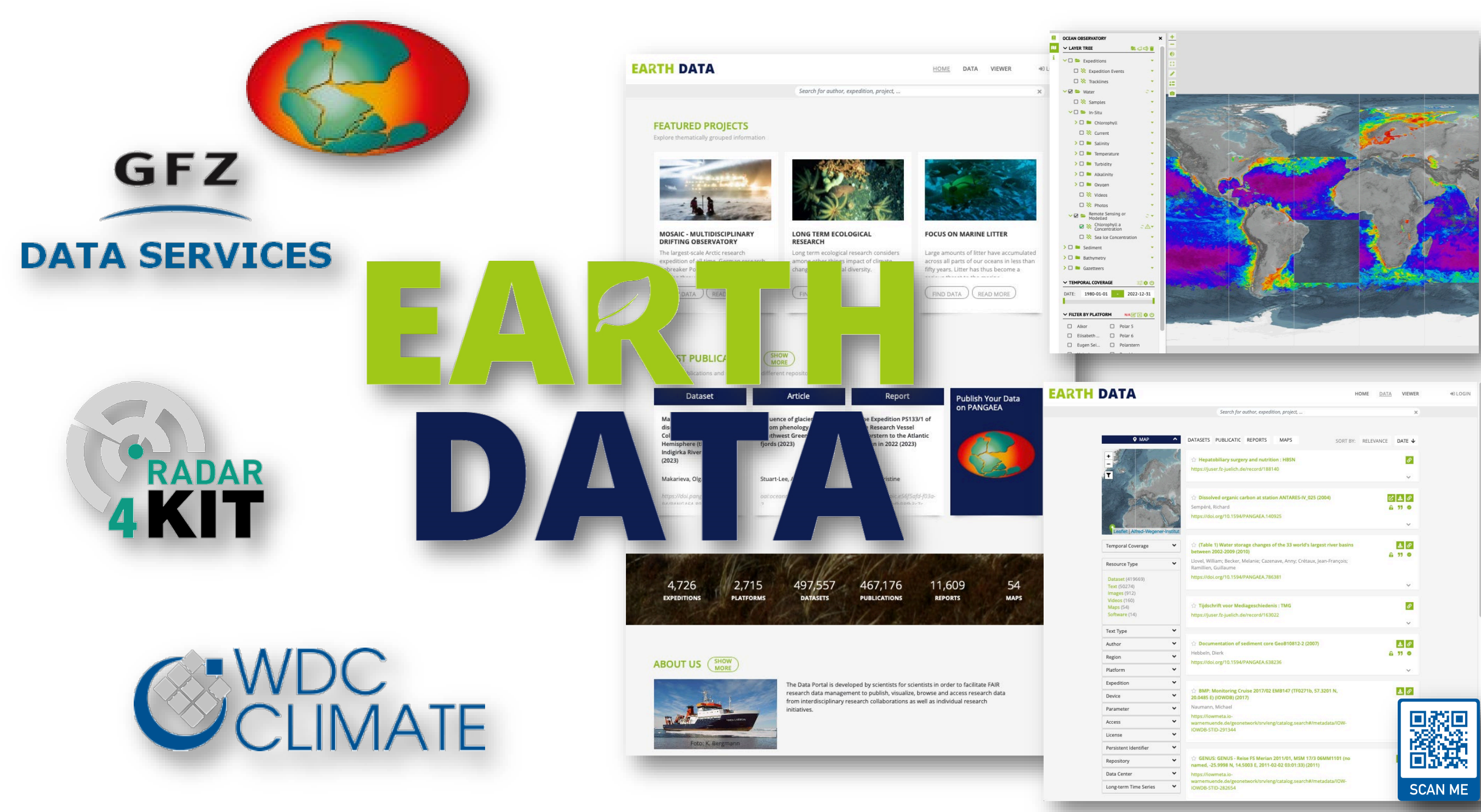

Interlinked Research Data Infrastructure

Within our research field, we are operating some of the worlds' largest environmental monitoring infrastructures. The DataHub supports these activities by providing tools for the **management of sensors** as well as **Quality Control / Quality Assurance (QA/QC)** via **SaQC**.
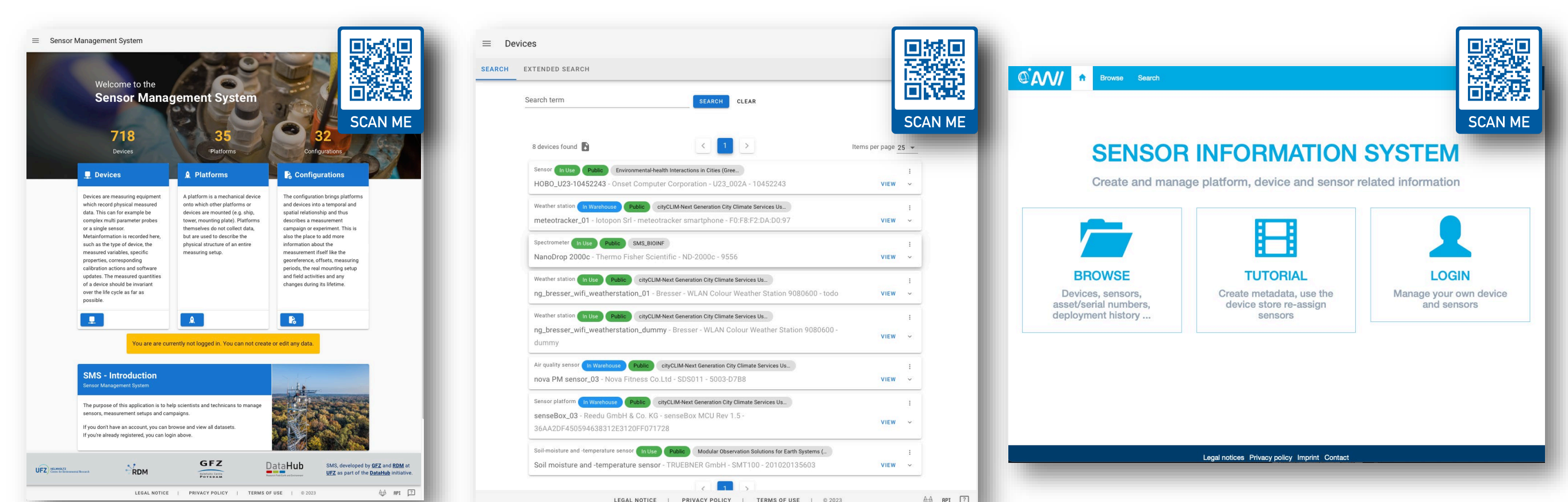
We foster dedicated interfaces for interacting with one- and multidimensional data: The **Model Data Explorer** provides a cross-institutional platform for exploring model data while the **STAMPLATE-Project** aims at the implementation of the **SensorThings API** as a standardized interface for time-series data across all seven centers of our research field.
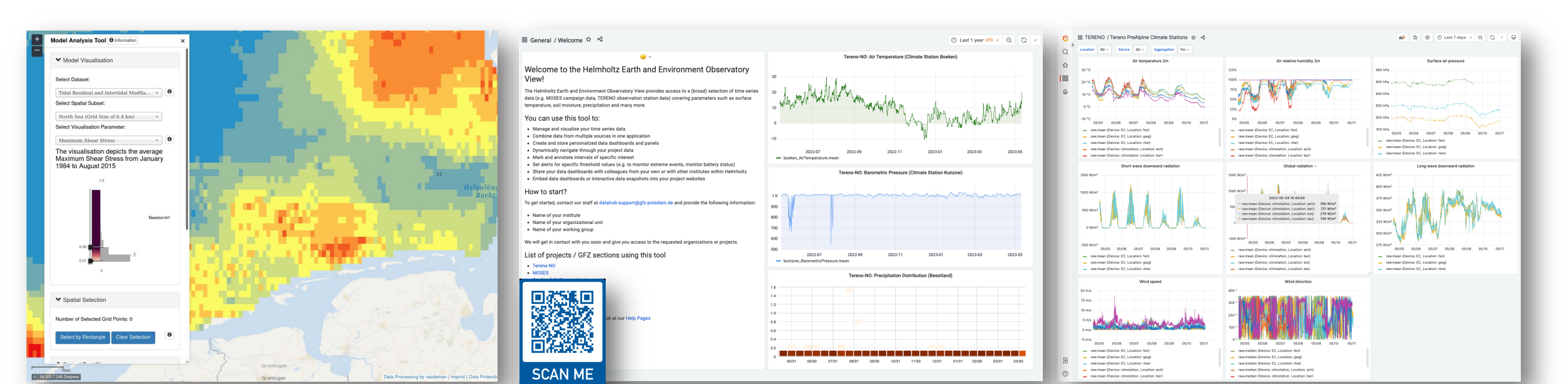
Collaborative development

The development is driven by our E&E community with heavy usage of the ecosystem from HIFIS. The DataHub hence serves as an incubator for a consistent set of tools and services across our research field.