SENSOR

**SENSOR.awi.de** aims to create an authoritative repository for managing platform, device and sensor-related information. It was launched in August 2016 and it will be continuously improved in the form of bi-annual release packages. It supports:

- Autocompletion of **station metadata** (required under under "Actions") for all **large and medium-sized german research vessels** (Polarstern, Sonne, Meteor, Alkor, Heincke, Merian and Poseidon) using PANGAEA expedition catalogue
- Metadata **versionning** including minting of PIDs for individual versions along with **citation**. Example: https://hdl.handle.net/10013/sensor.7bdcc478-a4c9-4eb9-917d-989ee09877#subItemID=625&subItemEventID=3634
- **Good-scientific pratice.** Example: https://doi.pangaea.de/10.1594/PANGAEA.857507 links dataset in PANGAEA to sensor description, under event information https://hdl.handle.net/10013/sensor.664525dc-5b9-4969-bb88-91a1c5e97a5b
- **Management and discovery of standard sensor-specific information** (e.g. manufacturer information, inventory number, history of actions, precision, photos, etc),
- **Management and discovery of data-specific information** (calibration reports, physical characterization of individual sensors, etc),
- **Machine-friendly access to metadata.** Example: OGC compliant output standards,
- **Sensor properties are used in machine-friendly monitoring of data streams** in near real-time (see DASHBOARD)
- **Re-use in AWI-operated portals and various national and international service infrastructures.** Example: https://data.awi.de/?site=platforms
- **Use on board of RV Polarstern including synchronization of DSHIP action log with sensor actions**

**Web Services**

- **REST services** https://sensor.awi.de/api/
- **SensorML output** https://sensor.awi.de/rest/sensors/device/getDeviceAsSensorML/625 (example for ID 625)
- **JSON output including children:** https://sensor.awi.de/rest/sensors/device/getDetailedItem/458?includeChildren=true (example for ID 458)

**Tutorials**

- [https://www.youtube.com/channel/UCljKBoLBjg8XAS3QKrRxA/](https://www.youtube.com/channel/UCljKBoLBjg8XAS3QKrRxA/)

**Recommended videos**