



# PerSYS – Permafrost Information System Web-GIS: Visualization of permafrost-related Remote Sensing products for ESA GlobPermafrost

## Motivation and Project Data

The **ESA** (European Space Agency) project **GlobPermafrost** ([www.globpermafrost.info](http://www.globpermafrost.info)) provides a remote sensing service for permafrost research and applications. The service comprises of data product generation for various sites and regions as well as specific infrastructure allowing overview and access to datasets.

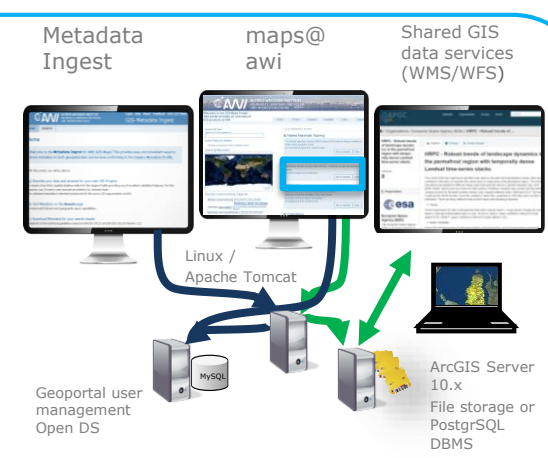
Therefore, we develop the Permafrost Information System **PerSys** which is designed as an open access geospatial data dissemination and visualization portal. **PerSys** will allow visualisation of **GlobPermafrost** raster and vector products such as land cover classifications, Landsat multispectral index trend datasets, lake and wetland extents, InSAR-based land surface deformation maps, rock glacier velocity fields, spatially distributed permafrost model outputs, and land surface temperature datasets.

## GIS - Geodata Infrastructure (GDI) at AWI

**PerSys** is hosted at **AWI** and technical realised upon GIS (Geographical Information Systems)-based Geodata Infrastructure (**GIS-GDI@AWI**). GIS-server technology enables the digital publication and therefore visualization of multidisciplinary project data in the World Wide Web.

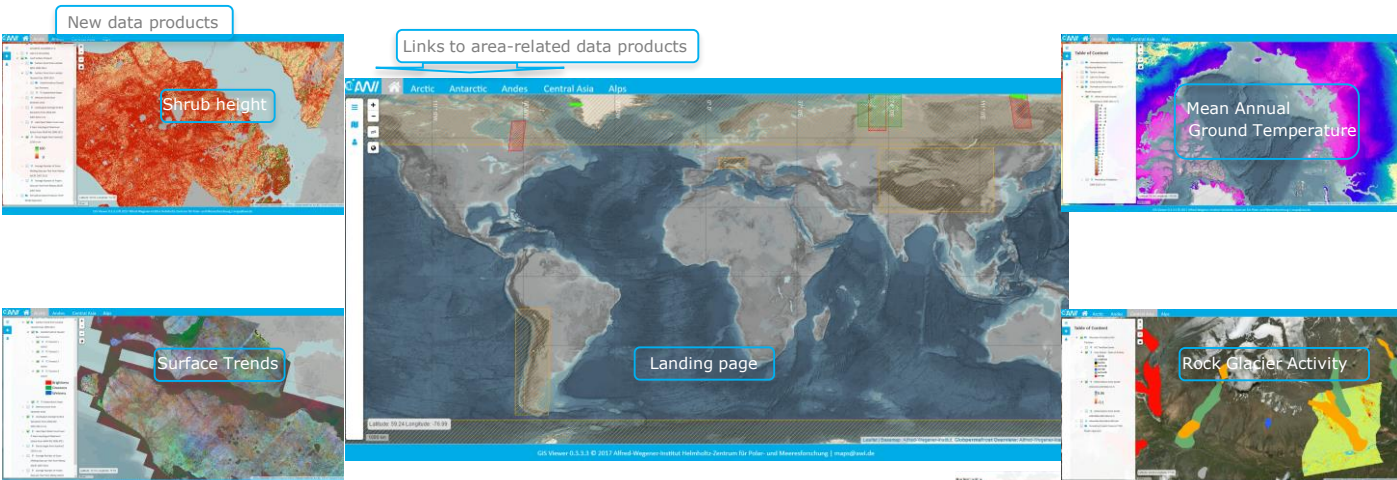
**GlobPermafrost** datasets will be published as WebGIS services relying on OGC-standardized Web Mapping Service (WMS) and Web Feature Service (WFS). Due to this, all services are interoperable and can be integrated into various desktop-GIS applications. All **GlobPermafrost** WMS are embedded in a JavaScript GIS-viewer application based on leaflet library.

**Maps.awi.de** lists all publicly available AWI Web-GIS projects. There, filter functionalities either by key words or by locations link to the **GlobPermafrost** Web-GIS services. Additionally, brief descriptions of the projects will be given



## Point of access to information & WebGIS projects, data

Access to the GlobPermafrost services and data will be given at these points: [maps.awi.de](http://maps.awi.de), [globpermafrost.info](http://globpermafrost.info), **Arctic Permafrost Geospatial Centre (APGC)** and [PANGAEA.de](http://PANGAEA.de) data archive.



However, **GlobPermafrost** data download will be conducted via **PANGAEA** ([www.Pangaea.de](http://www.Pangaea.de)) archive, where matured data products are DOI (digital object identifier) registered archived.