ESA-LPS19

Antonie Haas (1), Birgit Heim (1), Annett Bartsch (2,4), Andreas Walter (1), Sina Muster (1), Guido Grosse (1), Sebastian Laboor (1) Christian Schaefer-Neth (1), Frank Martin Seifert (3)
1- AWI Alfred Wegener Institute, Bremerhaven & Potsdam (Germany),
2- Zentralanstalt für Meteorologie und Geodynamik, Wien (Austria),
3- European Space Agency (ESA)
4- b.geos, Austria

ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG

ESA GlobPermafrost – WebGIS based Visualisation of Remote Sensing Data

Motivation - The **ESA** (European Space Agency) project **GlobPermafrost** (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 visualisation and access to datasets.

The **GlobPermafrost** Permafrost Information System **PerSyS** is designed as an open access geospatial data dissemination and visualisation portal. **PerSyS** allows visualisation of a wide range of **GlobPermafrost** raster and vector products: land cover classifications, Landsat-derived 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.

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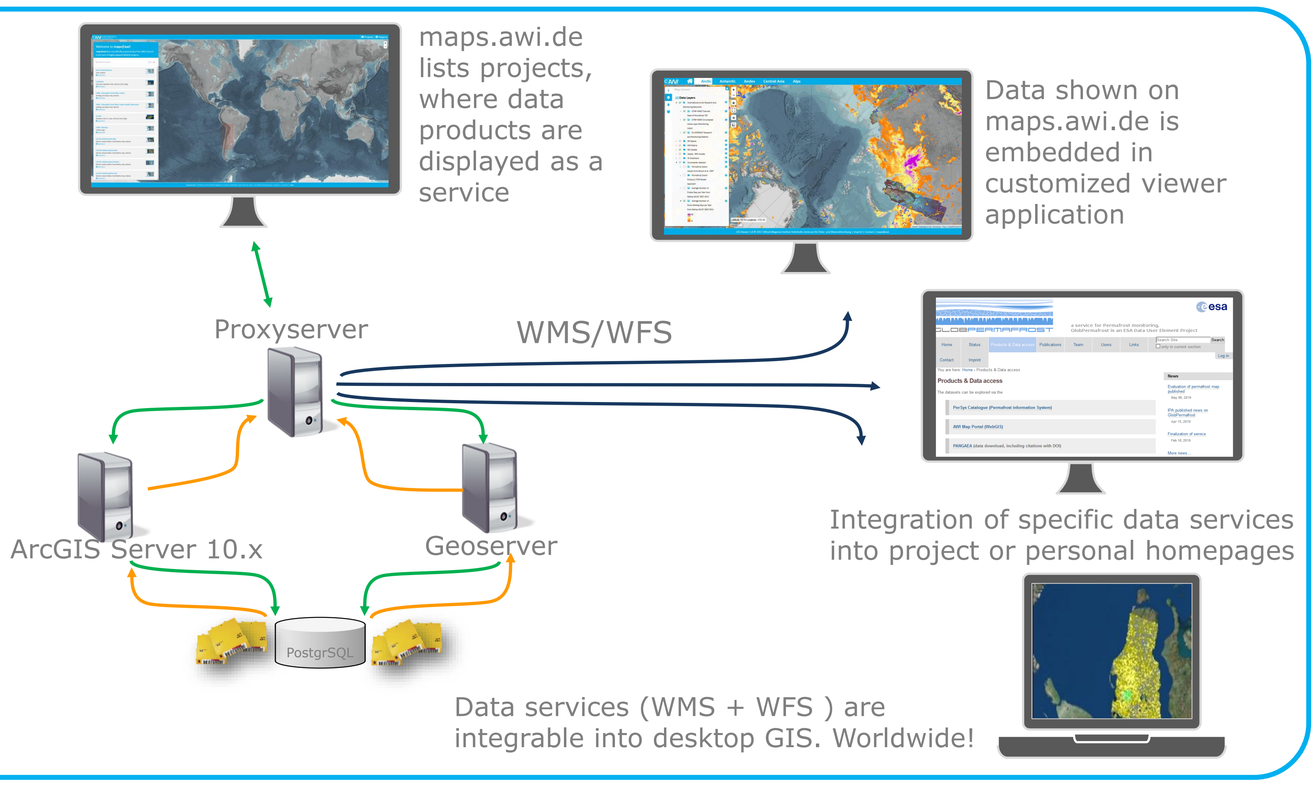
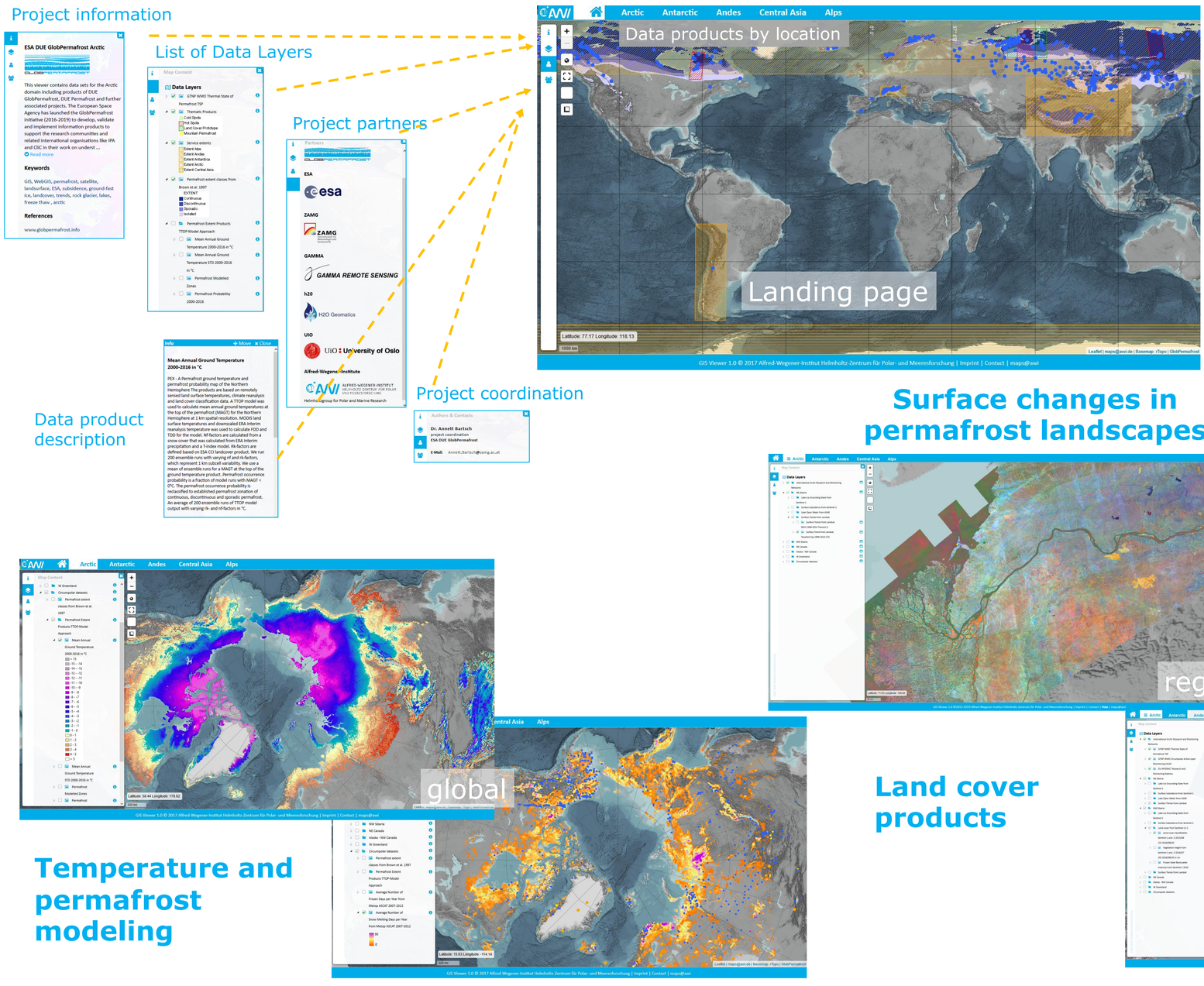
PerSys is hosted at AWI and technically realised upon **GIS (Geographical Information Systems)-based Geodata Infrastructure (GIS-GDI@AWI)**. GIS server technology enables the digital publication and therefore visualization of multidisciplinary project data in the World Wide Web. **GlobPermafrost** datasets have been published as WebGIS services relying on OGC-standardized Web Mapping Services (WMS) and Web Feature Services (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 a leaflet library.



Information and Data - From Global to Local GlobPermafrost Data Products



The ESA DUE Permafrost final product data set is already published under doi:10.1594/PANGAEA.780111

www.globpermafrost.info or **maps.awi.de**