

Mature and flexible open source software for spatial data infrastructures and the geospatial web

## Overview

deegree offers components for geospatial data management, including data access, visualization, and discovery. Open standards are at the heart of deegree. It is completely free, Open Source Software, released under the GNU Lesser General Public License, Version 2.1 License (LGPL 2.1).

The deegree software is built on the standards of the Open Geospatial Consortium (OGC) and the ISO Technical Committee 211. It includes the OGC Web Map Service (WMS), a fully compliant Web Feature Service (WFS) as well as packages for Catalogue Service (CSW), Web Processing Service (WPS) and Web Map Tile Service (WMTS). Since 2000 deegree has been developed with the strong intention to make it a community-driven project. A major step to this effect was the acceptance to be an OSGeo project in 2010.

## Focus on standards

deegree implements numerous Open Geospatial Consortium (OGC) standards and most of these implementations are OGC Reference Implementations (RI). It is also INSPIRE Discovery, View Service and Download Service compliant. Supported standards are:

- ▶ OGC API – Features, Core 1 and 2 (OGC RI)
- ▶ Web Feature Service (1.1.0/2.0.0) (OGC RI)
- ▶ Web Map Service (1.1.1/1.3.0) (OGC RI)
- ▶ Web Map Tile Services (WMTS 1.0.0) (OGC RI)
- ▶ Geography Markup Language (GML 2/3.0/3.1/3.2) (OGC RI)
- ▶ Style Layer Descriptor/Symbology Encoding (SLD/SE 1.0.0/1.1.0)
- ▶ Filter Encoding (FE 1.0/1.1)
- ▶ Catalogue Services for the Web (CSW 2.0.2)
- ▶ Web Processing Service (WPS 1.0.0)
- ▶ Web Coverage Service (WCS 1.0.0)

## Many supported backends

deegree supports numerous backends, such as PostgreSQL/PostGIS, Oracle Spatial, MS SQL Server, Shapefiles or GML instance documents as well as most common raster data formats such as GeoTIFF. The built-in bridge to gdal provides access to more than 100 other formats.

## Access to complex data

The deegree WFS provides access to your data in standard format as GML, Json/GeoJson and CSV formats. It can handle data structures derived even from complex GML application schemas. It also offers WFS-Transactional support for online editing and data manipulation.

## Easy to Customize and Extend

deegree can be easily integrated into common workflows and environments. It is easy to customize by configuration and code. The API provides many extension points to add additional functionality.

## Where it is used

deegree is used across all sectors (including commercial companies, research institutes and public administrations) to publish and share geospatial data, with a strong focus on OGC standards. deegree is also used in education to explain the principles of Open Standards and interoperability.

