Introduction

The GreenerSites Tool is as a site information system for online collaboration of public authorities and other stakeholders that are concerned with brownfield rehabilitation and site development. It is an open source Web-GIS Tool including only the most essential maps and data. These comprise of basic maps and orthophotos as well as selected thematic maps and a manageable amount of detailed site information. Existing INSPIRE compliant geodata services and other web map services (WMS) can be included (e.g. OpenStreetMap, CORINE LandCover, Urban Atlas). Basic features are data sharing, a map viewer, a search function, spatial analysis functions (via QGIS) and the possibility to create and export fact sheets. The existing version 1 of the tool will be updated after the testing phase in the second quarter 2018.

GreenerSites geo-information tool was designed taking into account project partners' needs and expectations concerning the management of brownfield data. The tool helps different public authorities and other stakeholders to share relevant data and maps related to brownfields. Most authorities concerned with remediation and development of contaminated sites already use geographical information systems (GIS) and specialized database applications. But there are many different software products on the market which use mostly individual data formats. Thus cooperation between partners using differing GIS products can be difficult. The GreenerSites Web-GIS Tool enables partners to equally share their information in a web-based application which can be accessed by all users. So cooperation is much easier and no one is excluded. Even stakeholders that have no own GIS can look up the maps in the browser. The tool was developed in Germany but can be used in all European countries, as the tool language is English and the tool is based on the EU-recommended frame of reference for geodata ETRS89 (European Terrestrial Reference System 1989).

Description

The tool was developed under the guidance of the Ministry for Regional Development and Transport Saxony-Anhalt by Baader Konzept GmbH / mena GmbH, Gunzenhausen (Germany). As the tool is based on open source components it can be used freely by other stakeholders. Also the tool is not limited to the once developed functions but can be extended and tailored to the needs of certain stakeholders. It comes with an installation routine allowing setting up the tool easily. Nevertheless, to use the tool it needs more than just to open a browser and start working. There has to be a GIS administrator to set up and run the tool, to manage the data, and to administrate the different features and users. If the tool is operated locally the hosting of a GIS server is required. The tool manual is available in English and in the other languages of the project.

The GreenerSites Tool is based on the following open source components (Fig. 2):

- Backend: PostGreSQL/PostGIS, pgAdmin, QGIS, GeoServer
- Frontend: GeoDjango/OpenLayers

Fig. 2: GreenerSites Tool main components
Each partner region can use their one subdomain to style and organize their website individually (logos, language, etc.). The tool uses a role-based access control. If the user has write rights, editing of the attribute table is enabled after clicking on an existing object (site). A site factsheet can be displayed, showing a picture of the actual map view and the attribute table. This factsheet can be exported into a PDF.

Five installation packages adjusted to the local conditions of the particular partner region have been provided to the project partners. The tool installation packages (Ansible Playbooks) were deployed via GitLab and every partner can implement, administrate, and use the tool on its own responsibility.

The GreenerSites Tool is available at the following links:
http://mlv.greenersites.eu/map/
http://armsa.greenersites.eu/map/
http://cob.greenersites.eu/map/
http://celjie.greenersites.eu/map/
http://rijeka.greenersites.eu/map/
http://greenersites.regione.veneto.it.
GreenerSites gis tool screenshots

Fig. 1: MLV

Fig. 2: ARMSA -
Fig. 5: PRA

Fig. 6: Venice