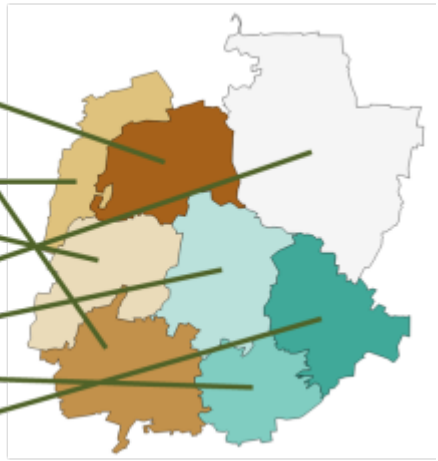
Geographic Information System (GIS) –> WebGIS –> AlpES WebGIS

A **Geographic Information System** (**GIS**) is an information system, which is based on data referenced by geographic coordinates (Curran, 1984)[1)].

Object ID	LAU 2 Label	State	Area km2
1	Dirlewang	Germany	23,3
2	Eggenthal	Germany	28,1
3	Apfeltrach	Germany	15,0
4	Unteregg	Germany	23,7
5	Bad Wörishofen	Germany	58,5
6	Baisweil	Germany	26,3
7	Irsee	Germany	17,3
8	Pforzen	Germany	23,6



It is a system consisting of hardware, software, data, people, organizations and institutional arrangements for capturing, collecting, storing, manipulating, analyzing and disseminating information about areas of the earth (Dueker & Kjerne, 1989)[2)]. Analyses of geodata or spatio-temporal phenomena can be presented and visualized (Goodchild, 2009)[3)].

A **WebGIS** provides access to a GIS requiring only a web browser. It is an Internet based Geographic Information System with reduced GIS functionality (Bartoschek, 2009) [4)]. The best known example of a WebGIS is likely Google Maps.

AlpES WebGIS

One of the main outputs in the AlpES project is the AlpES WebGIS. This WebGIS makes the spatial project data results available to the public and especially to the stakeholders. It can be used as planning tool concerning Ecosystem Services.

Why do we use a WebGIS in the AlpES project?

Because it is the easiest and cheapest way to publish spatial project result-data to a broad audience. The AlpES WebGIS makes the ecosystem services (ES) indicators accessible to the stakeholders. A large number of people can use it at the same time. There is no need of having proprietary GIS software (Painho et al., 2001) [5)], local storage capacity and professional knowledge. It only requires a webbrowser.

The AlpES WebGIS...

- ... is interactive and userfriendly
- ... is multilingual (DE, EN, FR, IT, SL)
- ... does not allow data download
- ... has a modern look and feel
- ... is based on open-source WebGIS architecture
- ... has pregenerated styled project result and background data
- ... is provided by IGF/ÖAW.

Users of the AlpES WebGIS can...

- ... zoom in and out
- ... shift to the area of interest
- ... select layers
- ... access layer and metadata information
- ... change layer's transparency
- ... choose background data
- ... create own maps in an easy way
- ... print maps

Additional Resources

- External link to WebGIS will follow soon!
- AlpES WebGIS tutorials

WebGIS, ecosystem services, AlpES project, indicator

1)
Curran, P. (1984). Geographic Information Systems. Area, 16(2), 153-158. Retrieved from http://www.jstor.org/stable/20002046

2)
Dueker, K. J., & Kjerne, D. (1989): Multipurpose cadastre: Terms and definitions. American Society for Photogrammetry and Remote Sensing

3)
Goodchild, M. F. (2009): Geographic Information System. In: Encyclopedia of Database Systems, pp. 1231-1236. Springer US. DOI: 10.1007/978-0-387-39940-9_178. Retrieved from http://link.springer.com/referenceworkentry/10.1007%2F978-0-387-39940-9_178

4)
Bartoschek, T. (2009): WebGIS für die Schule – ein Überblick. Retrieved from https://www.researchgate.net/publication/236340662_WebGIS_fur_die_Schule_-_ein_Uberblick

5)
Painho, M., Cabral, P., Peixoto, M. & Sena, R. (2001): WebGIS as a Teaching Tool. Retrieved from http://www.academia.edu/2861405/WebGIS_as_a_teaching_tool