



Atmospheric Data Access for the Geospatial User Community

J. v.d. Vegte (1), R. Sluiter (1), M. Plieger (1), W..J. Som de Cerff (1), R. van Hees (2), S. de Witte (2), M. Schaepman (3), N. Groot (3), R. de Jeu (4), B. Domenico (5), S. Nativi (6), O. Wilhelmi (7)

(1) KNMI, The Netherlands, (<http://adaguc.knmi.nl>, vegtevd@knmi.nl), (2) SRON, The Netherlands, (3) WUR, The Netherlands, (4) VU, The Netherlands, (5) UNIDATA, United States, (6) IMAA, Italy, (7) NCAR, United States.

Many tools and data formats exist for atmospheric data. To disseminate this wealth of information to the geospatial communities is still very difficult. It is complicated to easily share data among scientists representing the geospatial communities without performing some cumbersome conversions. ADAGUC aims to reduce the need for scientists to invent their own converter tools. Selected space borne atmospheric and land datasets will be made accessible for Geographic Information Systems (GIS) for data comparison, resampling, selection, manipulation and visualization. Both geospatial and atmospheric user communities are intensively involved in the project for the definition of the use cases.

In the project the ESA's PSS-05 Lite standard for software development is used. It recognizes the following phases: 1) use case definition, 2) user requirements definition, 3) detailed design, 4) implementation, 5) integration and tests. During phase 1 and 2 we consulted the user communities. On the first ADAGUC workshop (October 2006) the following different user communities were identified: policy makers, atmospheric scientists, GIS users and the risk assessment community. These user communities identified their needs in 7 usecases which have been translated to user requirements: several atmospheric data products (NO₂, CH₄, cloud fraction) and weather model products (precipitation, wind, boundary layer height). These data products should be delivered on a high processing level: gridded and reanalyzed data (level 3/4). The user commu-

nities also indicated that they need an easy to use online viewing tool including access by Google Earth (KML). Both user requirements document and use case document can be found on the ADAGUC website (adaguc.knmi.nl).

Currently we are developing the spatial data infrastructure based on OGC compliant web services to provide the atmospheric datasets. These web services include Web Mapping Services (WMS) for online visualization, Web Feature Services (WFS) for downloading vector data and Web Coverage Services (WCS) for downloading raster data. The preliminary results of the implementation phase will be demonstrated on the conference.