To disseminate atmospherical data to the geospatial community is very cumbersome: in general the geospatial community uses other data formats and uses GIS for analyses. Therefore, time-consuming and inefficient conversions are needed to use atmospherical data. Within the ADAGUC project (Atmospheric Data Access for the Geospatial User Community) we provide space borne atmospheric and land datasets using web services that can be used for data comparison, resampling, selection, manipulation and visualization in GIS.

GIS is used throughout the project during preprocessing of the data from lower to higher level products and after provision of the data: the ADAGUC infrastructure enables direct access to atmospheric datasets for use in GIS Tools. On this poster we present the use of GIS in three ADAGUC use cases. More use cases will be presented on the final ADAGUC Workshop: 4–5 December 2008, Amsterdam.

1 Global Methane Patterns
SRON does research on global methane patterns using SCIAMACHY satellite data. In the past two centuries, atmospheric methane has more than doubled. There is a strong demand for more detailed research that correlates the observed patterns to environmental factors on global scales. The use of GIS is considered essential for these spatial analyses.

2 NO₂ Map over South Africa
Eskom is a South African electricity supply company operating several power stations. Air quality researchers of the Resources and Strategy Division of Eskom need spatial information on power station emissions for their environmental impact assessments. ADAGUC will provide OMI tropospheric data in a GIS friendly format.

3 Disaster & Crisis Management
Meteorological information combined with urban, industrial and other geospatial information is essential in e.g. the evacuation plan for an urban area near an exploding chemical plant. ADAGUC will provide this data via the national disaster & crisis management infrastructure as GIS compatible data to users like police, fire departments and traffic information centers.