Copernicus Air Quality Monitoring for Europe
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GAF AG and partners successfully complete the obsAIRve project and continue provision of resulting services

GAF AG, together with a group of European partners, has successfully implemented a project to provide satellite and in-situ based air quality information services for the European Commission's Directorate-General for Enterprise and Industry. The air quality monitoring services deliver near-real-time information through a website and mobile apps and build on previous experience gained in the European Copernicus programme. The project is led by GAF and involves the partners DLR, T-Systems International and the Environment Agency Austria.

Air quality is a key parameter for quality of life. A recent study (2013 Report on Air Quality in Europe) by the European Environment Agency (EEA) states that more than 90 percent of urban citizens in the European Union (EU) are exposed to air pollutants at levels that exceed the threshold values specified by the World Health Organisation (WHO). To increase awareness about air pollution and to provide the European public with up-to-date air quality information, the European Commission initiated the obsAIRve project as a Copernicus pilot service in 2010. Copernicus (formerly GMES – Global Monitoring for Environment and Security) is a joint European Union (EU) and European Space Agency (ESA) initiative promoting the operational use of earth observation based products and services for the environment.

ObsAIRve provides near real-time air quality information services throughout Europe based on satellite and in-situ data. Major air pollutants are ozone (O_3), nitrogen dioxide (NO_2) and particulate matter with a particle diameter of up to 10 µm (PM_{10}). The obsAIRve services provide information about these pollutants in the form of up-to-date maps and forecasts ranging up to 72 hours. In-situ measurement data are integrated from a range of sources: Near real-time air quality values from thousands of measurement stations located all over Europe are provided by the EEA and air quality measurement indices from about 90 European cities are procured via the Citeair project. In order to create a uniform information product from the heterogeneous data sources, obsAIRve automatically refines raw input data and converts it to the Common Air Quality Index (CAQI). Several air quality model forecasts computed by the Copernicus projects MACC and PASODOBLE are also automatically assembled into a single European-wide air quality map.

The resulting information is disseminated to citizens via a range of communication channels, such as a dedicated website (www.obsairve.eu) and mobile apps for Android and iOS.

Dr. Matthias Baron, GAF Project Manager, comments: "This project underlines GAF's role as a one-stop-shop for comprehensive global environmental information services based on earth observation and geo-information." Dr. Peter Volk, GAF CEO, adds: "The success of this project demonstrates the importance of Copernicus services for the daily life of European citizens, and we aim to provide even higher spatial and temporal resolutions in the future.

After three years the project has been concluded with a very positive result; the consortium has therefore decided to maintain the obsAIRve services and portal throughout 2014.

About GAF AG – Germany

GAF AG is globally active and has an international reputation as a skilled provider of project design, management and implementation services in the fields of geo-information, satellite remote sensing and spatial IT consultancy for private and public clients. Over the past 28 years, GAF has worked in more than 100 countries throughout Europe, Africa, South-America and Asia. More information about GAF is available at www.gaf.de.

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