

The Copernicus Atmospheric Monitoring Service (CAMS) air quality forecasting system at the regional and global scales.

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As part of the European Union's flagship space programme Copernicus ([www.copernicus.eu](http://www.copernicus.eu)), the Copernicus Atmosphere Monitoring Service (CAMS) delivers operationally consistent and quality-controlled air quality forecasts at the global and regional scale, as well detailed information related to air pollution and health, solar energy, greenhouse gases and climate forcing

The CAMS global forecasting system is using ECMWF's Integrated Forecasting System (IFS), which is used for Numerical Weather Prediction and has been extended with modules for atmospheric chemistry, aerosols and greenhouse gases. The CAMS system assimilates observations from more than 60 satellite sensors to constrain both the meteorology and the atmospheric composition species. The system is continuously developed to provide the best possible analyses and forecasts: current efforts on model developments and on improving the data assimilation system for satellite observations of atmospheric composition will be discussed. Examples of the evaluation of the forecasts using satellite, surface and airborne data will be given.

Applications and uses of the CAMS products will be presented, including air quality forecasts in Europe and their use by policymakers, and we will show how the global CAMS outputs are used in other parts of the world to support local air quality applications. We will also discuss the CAMS global system capabilities for representing accurately the long-range transport of large wildfire, dust and volcanic plumes.