

EMBARGOED UNTIL 08:00 AM GMT 04 December 2017

## Press Release

Reading, 04 December 2017

# Copernicus data brings pollution forecasting to your mobile phone

Plume Labs, an environmental technology company that fights the air pollution crisis with the world's first crowd sourced, hardware enabled global environmental data platform, is now using Copernicus Atmosphere Monitoring Service for its Live and Forecast Air Quality reports.

The Copernicus Atmosphere Monitoring Service (CAMS), implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF), addresses some of today's most important environmental concerns. Using satellite data, state of the art models, and supercomputer technology, CAMS delivers air quality analyses and forecasts over Europe and, with coarser resolution, over the entire world.

These analyses and forecasts, along with all other CAMS information products are freely available on the [website](#). Public and private sector organizations rely on CAMS products to provide services such as local and daily air quality information to millions of European citizens.

Plume Labs has used this availability to build a strong foundation for their free mobile app, the Plume Air Report (<https://plumelabs.com/en/products/air-report>), bringing live and forecast air quality reports to every city on earth.

The Plume Air Report utilizes advanced machine learning and data fusion from a variety of sources—including 12,000 government-operated monitoring stations, atmospheric models, weather data, and now the Copernicus CAMS forecasts that use a number of satellite and ground based observations.

On a personal level, this innovative application helps users make small changes to their routines to avoid the worst of the bad air. From active parents to urban athletes and commuters, 73% of Air Report users say it has helped them make changes to avoid smog spikes in their city.

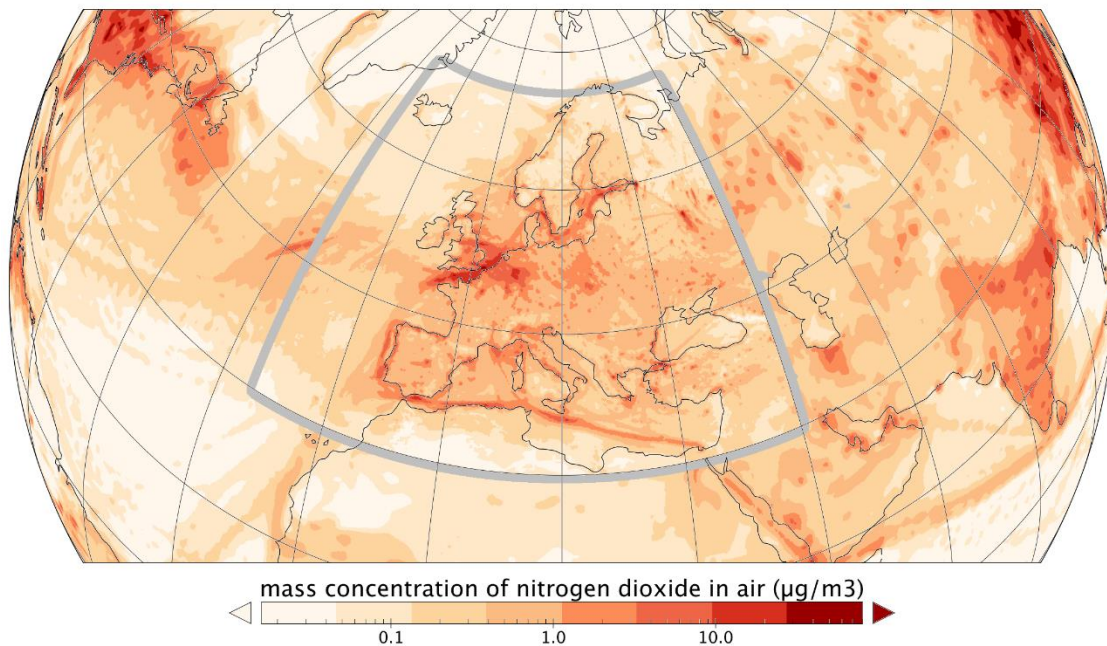
*"We want it to be as easy to check a pollution forecast as it is to check a weather forecast. You take an umbrella if it is predicting rain. Equally you can make small*

*changes to your routine if you know it is a polluted day,” says Romain Lacombe, CEO and Co-Founder of Plume Labs. “You can go a little slower on your bike commute, you can put off your run a few extra hours until the pollution level has fallen, or you can avoid walking on main roads with lots of traffic. Small changes to your routine can make a cumulative difference to your pollution exposure.”*

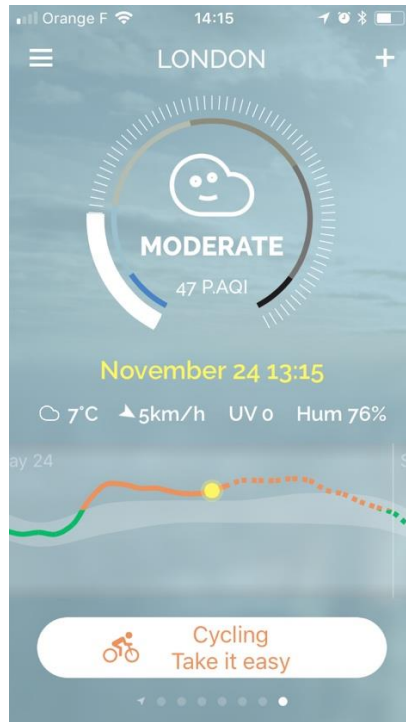
Juan Garcés de Marcilla ECMWF's Director of Copernicus Services, says, *“This is another example of Copernicus enabling accurate and reliable applications to help people live better and longer in Europe and anywhere in the world. We are very pleased to be able to make a real difference to people’s lives.”*

## Notes for editors and footage material

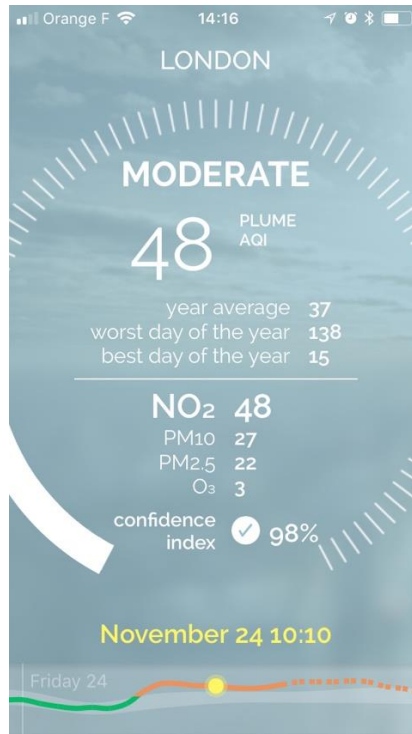
### CAMS regional NO<sub>2</sub> analysis embedded in CAMS global forecast



**Graphic 1:** Example of an air quality forecast provided by CAMS on a daily basis. This picture is a composite of the forecasts provided over the entire globe (horizontal resolution of about 40km) and over Europe (within the domain defined by the grey lines, horizontal resolution of about 10km), which feeds local or regional applications like the one of Plume Labs. The pollutant pictured is nitrogen dioxide (NO<sub>2</sub>), which is relatively short-lived. Due to this, concentrations are higher near the sources like cities, ship tracks or large wildfires. All numerical data are available freely from [copernicus.atmosphere.eu](https://copernicus.atmosphere.eu) (ECMWF Copernicus, CAMS).



**Graphic 2:** Air Report gives users real time pollution levels in their area, and forecasts of how air quality will evolve hour by hour over the next 24 hours—just like a weather forecast. Plume Labs’ environmental AI provides customized recommendations on the best time to do favorite activities without getting overexposed to pollution—73% of surveyed Air Report users say the app helped them make changes in their daily habits to breathe cleaner air.



**Graphic 3:** Air Report provides pollutant by pollutant breakdowns, giving users access to critical air quality data in new and greater detail. This detailed data also includes a new Confidence Index to quickly confirm the accuracy of Plume’s data modelling. The universal Plume Air Quality Index (AQI) allows users to easily compare air quality worldwide by simply swiping between cities. Plume Air Report also offers measurements in  $\mu\text{g}/\text{m}^3$  or a local AQI.

### About Copernicus ECMWF

Copernicus Atmosphere Monitoring Service (CAMS) is operated by European Centre for Medium-Range Weather Forecasts (ECMWF) on behalf of the European Commission. ECMWF also operates the Copernicus Climate Change Service (C3S). ECMWF is an independent intergovernmental organisation, producing and disseminating numerical weather predictions to its 34 Member and Co-operating States.

Academic and environmental institutions from across Europe, including national meteorological services, play an integral part in making Copernicus a success.

The Copernicus Atmosphere Monitoring Service website can be found at <http://atmosphere.copernicus.eu/>

The Copernicus Climate Change Service website can be found at <https://climate.copernicus.eu/>

The ECMWF website can be found at

<https://www.ecmwf.int/>

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