

## Scientist - modelling of global atmospheric composition

### 1. Position information

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<b>Vacancy No.:</b> VN15-59	<b>Department:</b> Copernicus Services
<b>Grade:</b> A2	<b>Section:</b> CAMS
<b>Job Ref. No.:</b> STF-PL/15-59	<b>Reports to:</b> Deputy Head of CAMS
<b>Publication Date:</b> 25 November 2015	<b>Closing Date:</b> 19 January 2016

### 2. About ECMWF \*

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ECMWF is both a research institute and a 24/7 operational service, producing and disseminating numerical weather predictions to its Member States. ECMWF carries out scientific and technical research directed to the improvement of its forecasts, collects and processes large amounts of observations, and manages a long-term archive of meteorological data. Satellite and in situ observations provide the information for up-to-date global analyses and climate reanalyses of the atmosphere, ocean and land surface.

For details, see [www.ecmwf.int/](http://www.ecmwf.int/).

ECMWF has been entrusted to operate the Copernicus Atmosphere Monitoring Service (CAMS) and the Copernicus Climate Change Service (C3S) on behalf of the European Commission until the end of 2020. Copernicus is the European Union (EU) flagship Earth-observation programme. The programme ensures operational monitoring of the atmosphere, oceans, and continental surfaces, and will provide reliable, validated information services for a range of environmental and security applications.

### 3. Summary of the role

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The post-holder will work in the development team of the Copernicus Atmosphere Monitoring Service (CAMS) on the modelling of atmospheric composition species in the global assimilation and forecasting system. He or she will work as part of a team to monitor and improve the representation of processes that affect the distribution of aerosols, chemical species and greenhouse gases in the atmosphere.

#### 4. Main duties and key responsibilities

The post-holder will contribute to the development of the model used in the CAMS global assimilation and forecasting system. This model consists of specific schemes for aerosol, chemical species and greenhouse gases in the composition version of ECMWF's Integrated Forecasting System (C-IFS). He or she will work with internal ECMWF staff and externally contracted experts to improve, integrate and harmonize the relevant schemes for atmospheric composition to keep the CAMS system at the forefront of operational forecasting activities. He or she will work as part of a team of modelling experts and have initially particular responsibilities for the aerosol modelling aspects.

Key responsibilities:

- To maintain and further improve the representation of atmospheric composition in C-IFS with an initial focus on aerosol processes
- To integrate mature system developments prepared by externally contracted experts into C-IFS
- To closely interact with internal and external research & development activities
- To monitor the performance of the operational global CAMS data assimilation and forecasting system and troubleshoot when necessary in collaboration with the CAMS global production team
- To support the production of CAMS reanalyses as well as specific forecast services (e.g., field campaign support)
- To assist the CAMS user support team in the case of user queries directly related to the expertise of the post-holder

#### 5. Personal attributes

- Excellent interpersonal and communication skills, preferably in an international environment
- Ability to work under pressure and interact with demanding users
- Dedication and enthusiasm to work in a team
- Ability to collaborate with both internal and external experts who will support the development of the CAMS global modelling system
- Good analytical and problem-solving skills with a proactive approach

#### 6. Qualifications and experience required

Education	A PhD degree or equivalent professional experience in meteorology, geosciences, or a related subject with a background in atmospheric modelling.
Experience	Experience with developing and maintaining large scientific codes. Experience with modelling of atmospheric composition is desirable. Experience with developing codes on high-performance computing facilities is desirable. Programming experience with Fortran or C, and use of modern scripting languages, such as Python, in a UNIX computing environment.
Knowledge, Skills and Language	Candidates must be able to work effectively in English and interviews will be conducted in English.

	A good knowledge of one of the Centre's other working languages (French or German) would be an advantage.
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## 7. Other information

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### Grade remuneration

The successful candidate will be recruited at the **A2** grade, according to the scales of the Co-ordinated Organisations and the annual basic salary will be **£54,776** net of tax. This position is assigned to the employment category STF-PL as defined in the Staff Regulations.

Full details of salary scales and allowances are available on the ECMWF website at [www.ecmwf.int/en/about/jobs](http://www.ecmwf.int/en/about/jobs), including the Centre's Staff Regulations regarding the terms and conditions of employment.

**Starting date:** As soon as possible.

**Length of contract:** Four years.

**Location:** The position will be based in the Reading area, in Berkshire, United Kingdom.

## 8. How to apply

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Please apply by completing the online application form available at [www.ecmwf.int/en/about/jobs](http://www.ecmwf.int/en/about/jobs).

ECMWF has an Equal Opportunities Policy and applications from all suitably qualified candidates are welcome.

Staff are usually recruited from among nationals of the Member States and Co-operating States.

Staff from non-ECMWF States may be considered in exceptional cases where there is a strong need for a particular competency.

**\* The ECMWF Member States are** Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**The ECMWF Co-operating States are** Bulgaria, Croatia, Czech Republic, Estonia, former Yugoslav Republic of Macedonia, Hungary, Israel, Latvia, Lithuania, Montenegro, Morocco, Romania and Slovakia.