VACANCY NOTICE FOR A CONTRACT AGENT SELECTION

Job title	**FGIV - Scientist - Exploratory Research Project - Air Quality Modelling and Climate-Health Scenario Analysis**
Reference	EC-2026-JRC-529512
Application deadline	**14/12/2026 - 12.00 (noon, Brussels time)**
Directorate-General (full name)	Joint Research Centre (JRC)
Unit	Clean Air and Climate Unit
Place of assignment	Ispra, Italy
Domain	Science and Research
Contract type and Function Group	Contract Agent 3b FGIV

About us

The Joint Research Centre (JRC) provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.

The current vacancy is in the Clean Air and Climate Unit of the Energy, Mobility and Climate Directorate. The Unit's mission is to provide scientific and technical analyses in support of integrated air quality, climate and related policies. It is committed to the evaluation of emissions of greenhouse gases and air pollutants, to measuring and modelling atmospheric components of relevance for human health, ecosystems and climate and to the harmonisation of monitoring and modelling techniques. Important research infrastructures of the Unit comprise the European Commission Atmospheric Observatory (ECAtmO) and the European Reference Laboratory for Air Pollution (ERLAP), where we develop, validate, monitor, standardise and harmonise measurement techniques for health and climate relevant air pollutants.

The vacancy '**Climate Scenarios and Air Quality: From Global Projections to High-Resolution Health Impacts' (CLIMAQ) is an Exploratory Research Project**. The project bridges global climate scenarios and local air quality management by translating the new CMIP7 pathways (Coupled Model Intercomparison Project, a coordinated framework in which climate modelling centres worldwide run their Earth system models with common experiments and forcings so the results can be compared and fed into IPCC assessments) into high-resolution PM2.5 concentration maps and associated health impact assessments over Europe. It will support EU policymaking on air quality, climate and health, including the revised Ambient Air Quality Directive (2024/2881), the National

Emission Ceiling Directive (2016/2884) and the European Climate Law, while also contributing to the IPCC Assessment Reports.

The Centre for Advanced Studies oversees the overall JRC Exploratory Research Programme. The JRC Exploratory Research Programme is a strategic initiative characterised by ideas that might lead to novel results and qualitatively enrich current JRC scientific work.

About the role

We offer a stimulating, varied and rewarding job in a family-friendly and empowering working environment, with opportunities to work on a challenging and high-impact project. We provide a supportive and collaborative atmosphere in an international and multidisciplinary research environment at the interface between science and policy. The position has opportunities for professional growth and development, and the chance to make a meaningful contribution to the EU's environmental objectives. The selected candidate will be part of a motivated team based in Ispra (VA), Italy, and will contribute to the development of innovative methods combining emission inventories, chemical transport modelling, source-receptor tools, machine learning and health impact assessment. The project will generate scientific publications, open-access datasets, software tools and policy-relevant results for European decision-makers. Please see also Working at the European Commission

The jobholder will carry out scientific and technical tasks in accordance with the Exploratory Research Project CLIMAQ with special emphasis on translating global climate mitigation pathways into high-resolution air quality and health impact information over Europe. S/he will contribute to:

• Extracting air pollutant and short-lived climate forcer emission projections from CMIP7 pathways and applying them to the CAMS (Copernicus Atmospheric Monitoring Service) or EDGAR (Emissions Database for Global Atmospheric Research) inventory to produce future emission scenarios.

• Running and supporting air quality modelling activities based on EMEP (European Monitoring and Evaluation Programme) and SHERPA (Screening for High Emission Reduction Potential on Air) and contributing to the production of PM2.5 concentration fields at high spatial resolution.

• Developing, training and validating machine learning emulators for rapid scenario exploration.

• Downscaling model outputs to 1 km resolution using appropriate spatial methods.
• Performing health impact assessments, including estimates of premature mortality and years of life lost attributable to PM2.5 exposure.

• Producing scientific reports, policy briefs, datasets and publications, and contributing to dissemination towards scientific and policy audiences.

• Providing regular and accurate reports on scientific activities every twelve months and a final report.

• Reporting to the Project Coordinator on progress, achievements and potential problems in a timely manner.

Qualifications, experience and skills

We are looking for a highly motivated researcher with a strong scientific background and a robust professional record with an excellent capacity for teamwork and very good communication skills. The following skills and experience are required:

• A university degree in atmospheric sciences, environmental sciences, air quality modelling, climate science, data science, environmental engineering or a related field.
• At least 5 years hands-on experience in machine learning, air quality modelling, environmental data analysis, emission scenario development, or related quantitative environmental assessment.
• Strong analytical skills and experience in handling and interpreting large environmental or geospatial datasets.
• Extensive knowledge in atmospheric pollution, PM2.5 assessment, modelling techniques and scenario analysis.
• Experience with scientific programming and numerical computing tools relevant to environmental analysis and modelling.
• Very good written and spoken knowledge of English (C1).
• Good skills in writing and communicating to scientific and non-scientific audiences as well as the public.

In addition, the following skills and experience are desirable:

• PhD in atmospheric sciences, environmental sciences, air quality modelling, climate science, data science, environmental engineering or a related field.
• Knowledge of health impact assessment related to air pollution.
• Experience with policy-relevant environmental research.
• Solid record of research activities including publications in international peer-reviewed journals.
• Experience in international and multidisciplinary working environment.

How to express your interest?

Please submit your application via the JRC Recruitment Portal.

Being registered for at least one of the two following databases is also necessary:

- the Selection process for contract staff | EU Personnel Selection – EU Careers (EPSO CAST FG IV), which is used by a wide range of organisations (institutions, bodies, offices and agencies of the European Union), or
- the JRC Open Call for Researchers, (JRC Call COM/1/2015/GFIV – Research), which is mainly used by the JRC.

Eligibility

For eligibility please consult this page with all the information needed.