VACANCY NOTICE FOR A CONTRACT AGENT SELECTION

Job title	**FGIV - Scientist - Energy Data Scientist- Exploratory Research Project Model-Oriented Synthesis and Automated Integration of Complex Energy Data (MOSAIC)**
Reference	EC-2026-JRC-529521
Application deadline	**14/12/2026 - 12.00 (noon, Brussels time)**
Directorate-General (full name)	Joint Research Centre (JRC)
Unit	Economics of Climate Change, Energy and Transport Unit
Place of assignment	Seville, Spain
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 with the Directorate for Energy, Mobility and Climate. The mission of the Directorate is to provide support to EU policies and technology innovation ensuring sustainable, safe, secure and efficient energy production, distribution and use, fostering sustainable and efficient mobility in Europe, and providing scientific and technical analyses in support of integrated research for related EU policies.

Specifically, the vacancy is in the Economics of Climate Change, Energy and Transport Unit. The unit conducts economic analysis of climate, energy and transport policies, both at the EU and global levels, using different tools and expertise with in-house models and databases.

The Unit Centre for Advanced Studies oversees the overall JRC Exploratory Research Programme.

The vacancy is within the **Exploratory Research Project 'Model-Oriented Synthesis and Automated Integration of Complex Energy Data' (MOSAIC)**. 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 dynamic position in an international organization to explore how agentic artificial intelligence based on large language models (LLMs) can automate the design of complex energy datasets that directly support EU climate and energy policy. The researcher will work at the interface between AI, data engineering and energy systems analysis to design and evaluate agentic workflows that can capture expert knowledge and consolidate fragmented primary sources in a transparent and auditable way. The project will use the JRC's Integrated Database of the European Energy System (JRC-IDEES) as a testbed, with case studies that will integrate novel spatial datasets into agentic workflows for two key sectors of the energy system: the built environment and maritime transport.

The Exploratory Research Project MOSAIC will generate novel evidence on whether current and near-future agentic AI can reliably handle data engineering workflows that depend on expert judgment to consolidate inconsistent sources, and that need transparency to remain credible for decision support. This includes formalising expert knowledge, designing hybrid pipelines combining LLM-based and conventional data harmonization methods, and validating results under uncertainty. Expected outputs will include scientific publications and a transferable framework for trustworthy agentic data engineering in policy-oriented settings. These results will support faster, higher-quality updates of JRC-IDEES and other JRC databases, with relevance for EU policy and for data-intensive workflows beyond the energy domain.

The JRC offers the opportunity of contributing to leading-edge research with a direct impact on EU policymaking, within a collaborative, family-friendly work environment with opportunities for occasional travel and conference participation. Please see also Working at the European Commission

The successful candidate will carry out scientific and technical tasks in accordance with the Exploratory Research Project MOSAIC, with the goal of developing a novel framework for trustworthy agentic data engineering in a policy-oriented context.

The jobholder will:

- Map current JRC-IDEES data consolidation workflows for buildings and maritime transport, and define criteria to evaluate data quality, transparency and reproducibility;
- Develop methods to embed expert knowledge into agentic LLM workflows;
- Design and prototype agentic workflows to automate data consolidation on JRC-hosted inference resources, combining tool use, suitable retrieval methods and conventional data harmonization methods;
- Integrate novel spatial datasets into these workflows using the JRC's Digital Building Stock Model and Automatic Identification System-based ship tracking data;
- Synthesize case study results into a transferable framework for trustworthy agentic data engineering and evaluation, with a roadmap to cover the full sectoral scope of JRC-IDEES;
- Maintain close interaction with colleagues in partner JRC teams that will provide case study data and computing infrastructure;



- Contribute to collaboration with stakeholders within the EU institutions and with external networks;
- Communicate research outcomes in the form of scientific publications, technical reports and open-source software repositories.

Qualifications, experience and skills

We are looking for a highly motivated researcher with the following essential qualifications:

- A doctoral degree in engineering, computer science, economics, or related fields. Alternatively, completed university studies of at least three years attested by a diploma and at least five years professional experience in a field relevant to the position;
- Experience with the compilation and analysis of large quantitative datasets; • Experience with Python/R or equivalent programming languages and relevant data science libraries;
- Familiarity with LLM technology and its applications for data engineering;
- Ability to gather information and carry out activities in a multi-disciplinary team, in close cooperation with colleagues within the C.6 unit and partner JRC units;
- Excellent oral and written communication skills in English (C1).

In addition, the following competences will be considered an advantage:

- Familiarity with energy system modelling and/or analysis as well as energy statistics, particularly in the focus sectors for the MOSAIC project (built environment and maritime transport);
- Experience with the design and implementation of LLM-based agentic workflows;
- Familiarity with geospatial analysis tools and databases (GIS and related tools);
- A solid record of research activities including publications in international peer-reviewed journals.

The candidate is expected to be creative, work independently, and demonstrate strong analytical and problem-solving skills.

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.