



VACANCY NOTICE – 2023-IPR-D2-FGIV-023679

FGIV - Project Officer – Research and Scientific Advice – Water quality modeller

Type of contract	Member of the European Commission's contract staff, Function Group IV (article 3b of the Conditions of Employment of Other Servants)
Duration of contract	36 months (renewable up to maximum 6 years)
Area	Research and Scientific Advice – Water Resources
Place of employment	Ispra (IT)
Indicative basic salary	3943,39 - 5711,77 € (applicable as of 1 st of January 2023) For more detailed information please consult: Working Conditions

WE ARE

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

The current vacancy is with Directorate for Sustainable Resources, Ocean and Water Unit. The mission of Directorate for Sustainable Resources is to provide independent scientific evidence to support the development, implementation, evaluation and coherence of EU policies, mainly in the areas of agriculture and rural development, international development cooperation, environment and climate change, blue growth and fisheries, the bio economy, industry and trade.

The Ocean and Water Unit at the Sustainable Resources Directorate provides scientific and technical support to Commission services. Our mission is to support EU policies underpinning freshwater and marine governance with independent best available scientific and technical advice by carrying out multi-disciplinary research and socio-economic assessments linked to the European and global hydrosphere. We provide innovative solutions to enable the sustainable and fair use of water and marine resources in the complex context of climate change, planetary health, a growing global population, sustainable food systems, urbanisation, pollution, over-exploitation and the loss of biodiversity. – Further information: <https://ec.europa.eu/jrc/>.

The assignment encompasses the enhancement and application of the JRC water quality modelling framework to tackle the current European and global water crisis, and to provide scientific advice to EU policies underpinning freshwater and marine governance.

We offer:

The opportunity to join the multi-disciplinary team of the JRC Ocean and Water Unit. We have a strong record of innovation and research and the provision of best available scientific advice to policies underpinning the governance of freshwater and marine systems.



We cooperate closely with a number of Commission services, EU Member States and international stakeholders to address major challenges to nature and our society linked to water and marine resources.

WE PROPOSE

The jobholder will contribute to the enhancement and application of the JRC water quality modelling framework, for the benefit of EU policies and priorities.

The assignment entails a close collaboration with various Commission services and stakeholders.

The tasks of the successful candidate will be:

- The development, improvement, calibration and validation of the JRC water quality model, addressing nutrients, chemicals, biochemical oxygen demand (BOD), underpinning the assessment of the impact of EU and international water policies in the context of climate change, and including socio-economic aspects.
- The assessment, in a spatial and time dimension, of nutrient flows and cycles through different pathways in river basins and the land-sea continuum, as well as the analysis of water quality changes at European scale.
- The evaluation of future nutrient pressures scenarios in inland water systems, - rivers, lakes, groundwater, transitional waters -, and coastal waters, while including the effect of climate change as well as cost-benefit assessments and impacts of existing and envisioned policy measures of the Water Framework Directive, Nitrates Directive, Urban Waste Water Directive, and Marine Strategy Framework Directive.
- The maintenance of the GREEN and GREEN+ models and their linkage to the hydrological model LISFLOOD and the JRC freshwater-marine modelling framework Blue2.
- The dissemination of resulting scientific advice to policy makers and stakeholders.

WE LOOK FOR

We are looking for a dynamic and highly motivated colleague with the following essential qualifications:

- A PhD (doctoral diploma) in the field of hydrology or a closely related field, or a university degree and 5 years of research experience after the university giving access to doctoral studies;
- Expertise in nutrient cycles and with the management, processing and analysis of large nutrients datasets.
- Advanced knowledge of R and/or Python programming.
- Good knowledge of spoken and written English (B2 minimum is required).

The following will be considered as assets:

- Experience with water quality models, hydrological models and crop models.
- Experience in the field of large-scale water resource and quality modelling based on high-performance computing and Linux systems.



- Experience in management, processing and analysing large spatial datasets.
- Experience with Geographic Information Systems.
- Experience in SQL language.
- A strong publication record.

HOW TO APPLY

If you are **already on a valid CAST FG IV reserve list**, or you **have already applied to one of the calls below**, you can directly submit your application at <http://recruitment.jrc.ec.europa.eu/?type=AX>.

If not, before applying to this position, **you must register** for one of the two following:

- the [Call for Expressions of Interest | EU Careers \(europa.eu\)](#) (CAST Permanent FG IV), which is used by a wide range of organisations (institutions, bodies, offices and agencies of the European Union), or
- the [specialised call for researchers](#) (JRC Call COM/1/2015/GFIV – Research), which is mainly used by the JRC.

Note that each of the calls above has **different minimum eligibility requirements and different selection tests**.

The JRC cultivates a workplace based on respect for other people and the environment, and embraces non-discriminatory practices and equality of opportunity. In case of equal merit, preference will be given to the gender in minority.