



VACANCY NOTICE – 2023-IPR-D5-FGIV-023236

Scientific Project Officer in Agricultural Monitoring

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	Agriculture
Place of employment	Ispra (IT)
Indicative basic salary	3877,47 - 5616,29 € (applicable as of 1 st of July 2022) 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 in the **Food Security Unit (within the Directorate of Sustainable Resources)** of the JRC, located in Ispra, Italy. The Food Security Unit provides technical assistance and innovative solutions for implementing and monitoring the Common Agricultural Policy (CAP), estimating crop yields in Europe and neighbouring countries. We perform agro-meteorological and climate change modelling and assess food availability and nutrition in third countries with a focus on Africa.

Further information:

[Monitoring Agricultural Resources \(MARS\) \(europa.eu\)](#)

[Agri4Cast ToolBox \(europa.eu\)](#)

We offer:

The current position is related to agricultural crop monitoring and yield forecasting, and assessing the impacts of varying weather, extreme events, and agricultural practise on crop yields and production through advanced crop monitoring activities. The incumbent will be part of a dynamic team of about 25 professionals, including agronomists, meteorologists, remote sensing specialists, and IT experts.

WE PROPOSE

The successful candidate will contribute to research and further development of the MARS Crop Yield Forecasting System with focus on the remote sensing infrastructure to enhance crop monitoring and crop identification with satellite data from various sensors and at different resolution. Together with field and farm level data the research towards regional and automated crop yield forecasting with machine learning technologies is expected to improve accuracy and lead time of the crop yield forecasts made.



The position will also act as agricultural analyst, performing analysis of growing conditions and quantitative crop yield forecasts, thus contributing to the publication of the monthly JRC MARS Bulletin for Europe and its neighbourhood along the growing season.

The post will involve work with national and international stakeholders as well as the international research community to share agronomic and biophysical knowledge and data and run relevant research programmes in the field.

The successful candidate will be in charge of:

- Contributing to the monthly analysis of crop growing conditions in Europe and its Neighbourhood and to the crop yield forecasting exercise, resulting in JRC MARS Bulletins on crop monitoring in Europe;
- Performing R&D in near-real time monitoring of vegetation state and crop growing conditions, using satellite data and other information, to improve the understanding of impacts of yield-reducing factors (e.g. excessive wetness, extreme temperatures, drought, pests, diseases) and to enhance the MARS Crop Yield Forecasting System;
- Exploring new methodologies in quantitative crop yield forecasting, exploiting various data sources from field to continental scale, using novel technologies such as machine learning and artificial intelligence;
- Dissemination/publication of the results.

WE LOOK FOR

The ideal candidate should have completed university studies of at least 3 years attested by a diploma in agronomy, agro-meteorology, geospatial data analysis or a closely related discipline, and at least 5 years professional experience in a field relevant to the position, or a doctoral diploma in agronomy, remote sensing applications or a closely related field.

Essential requirements are:

- Very good understanding of land surface and crop phenology and growth processes as well as agro-meteorological knowledge;
- Hands-on experience in processing and analysing Earth Observation remote sensing data for land surface processes and biophysical parameter estimation;
- Proficient handling of large agronomic datasets, including profound statistical knowledge to analyse them;
- Proven experience with scientific programming languages (e.g. R, Python);
- Good communication and writing skills and the ability to work independently;
- Knowledge of English (B2).

Knowledge and experience in artificial intelligence methods (e.g. machine learning, neural networks, deep learning), cloud computing, and large-scale (regional to continental) applications are considered strong advantages. An understanding of the role of crop monitoring in the EU Common Agricultural Policy is desirable.

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.