



VACANCY NOTICE – 2023-IPR-D5-FGIV-022391

Scientific Project Officer in Crop Growth Modelling

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	Food Security / Crop monitoring and yield forecasting
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, Directorate of Sustainable Resources, of the JRC. 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:

https://joint-research-centre.ec.europa.eu/monitoring-agricultural-resources-mars_en
<https://agri4cast.jrc.ec.europa.eu/>

The position is related to in-season agricultural crop monitoring and yield forecasting across Europe, assessing the impacts of varying weather, extreme events, and agricultural practise on crop yields and production, sustaining food security and the transparency of commodity markets.

We offer:

The JRC provides high-quality working conditions in a dynamic environment. Working in a multidisciplinary and multicultural team, the successful candidate will have a unique opportunity to support EU policies and contribute to JRC's research agenda. The JRC encourages interactions with policy makers, academics and other leading stakeholders active in the field, including participation in (international) conferences and workshops.

WE PROPOSE

The current position within the AGRI4CAST project focuses on agricultural monitoring and quantitative crop yield forecasting through advanced monitoring & modelling methodologies.



The incumbent will be part of a dynamic team of about 25 professionals, including agronomists, meteorologists, remote sensing specialists, and IT experts.

The successful candidate will contribute to the research agenda of the AGRI4CAST project and further develop the crop-modelling infrastructure of our MARS Crop Yield Forecasting System by evaluating the performance of existing crop growth models against new crop-specific models, by performing calibration and validation exercises, thus contributing to a new platform for ensemble modelling. Emphasis will be on the simulation of extreme weather impacts and on agro-management practise options such as irrigation and fertilization in both near-real time and scenario mode.

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

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 crop growth modelling to analyse the impacts of agro-management and extreme conditions on crop yield and agricultural production in food security and climate change impact studies;
- Enhancing the crop modelling infrastructure of the MARS Crop Yield Forecasting System with additional crop models and process descriptions for use in both near-real time and scenario mode;
- 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, environmental modelling 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, crop physiology & modelling, or a closely related field.

Essential requirements are:

- Very good understanding of crop growth processes and agro-management options as well as agro-meteorological knowledge;
- Hands-on experience in calibration/validation and running of crop growth models as well as analysing model output;
- 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 ensemble modelling and analysis, in cloud computing and large-scale (regional to continental) applications, and in simulating agro-management options such as irrigation and fertilization are considered strong advantages. An understanding of the role of agricultural 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.