

## Company Description

BC3 is a Research Centre on the causes and consequences of climate change. Led by one of the most recognized scientists in the Climate Change field -Prof. Maria José Sanz, we produce multidisciplinary knowledge to support decision making towards sustainable development at the international level. With a multidisciplinary team, connected to the main scientific institutions, networks and socio-economic agents, for a decade, our contribution to research of climate change and to the science-policy interface puts us in a unique position to offer knowledge, tools, new methodologies and cross-cutting proposals, that we lead towards action in a collaborative framework with stakeholders, to design and help implement policies aimed at sustainable development.

## Information

 Deadline: 2024-08-15  
 Category: Academia  
 Province: Bizkaia

 Country: Basque Country  
 City: Leioa

## Company

BC3 Basque Centre for Climate Change



## Main functions, requisites & benefits

### Main functions

The Basque Centre for Climate Change (BC3) offers a full-time Geospatial position on the World Ecosystem Extend Dynamics (WEED) project funded by the European Space Agency from 2024 to 2026. The project aims to develop a globally applicable, open-source knowledge base and toolkit for a comprehensive mapping of the extent and distribution of ecosystem types, according to different ecosystem typologies, and for monitoring the temporal variations in ecosystem extent. The project builds on the research activities of Research Line (RL) 5 of BC3 on Integrated Modelling of Coupled Human-Natural Systems. During the past decade, the RL has envisioned and built the ARIES (ARTificial Intelligence for Environment and Sustainability <https://aries.integratedmodelling.org/>) platform, a technology that integrates network-available data and model components through semantics and machine reasoning. Its underlying open-source software (k.LAB, <https://docs.integratedmodelling.org/technote/>) handles the full end-to-end process of integrating data with multiple modelling paradigms. A key focus of ARIES is to integrate spatially and temporally explicit ecological and economic models to support Natural Capital Accounting, which includes ecosystem extent and services. About the Project: The main objective of the project is to develop a globally applicable open-source toolbox, leveraging existing datasets and tools while applying creative and novel methods to use Earth Observation, to enable users to generate comprehensive maps of the extents of terrestrial, freshwater and coastal ecosystem types and their temporal variations according to different ecosystem typologies. Job Description: We are looking for a Geospatial Technician who can support the research projects and the development of ARIES technical tasks. The position's duties will include: (1) technical support in the development of the ARIES platform and in relation to ongoing research projects that use it, especially the WEED. (2) internal coordination of the data resources used by the ARIES teamwork within BC3. Key Responsibilities: To support model development and data integration within ARIES platform. To support the data management and coordinate the WEED project Technical support in relation to ongoing ARIES research activities, and in particular those related to WEED. International travelling and participation to WEED related meetings when required.

### Requisites

Main Requirements/Skills: Masters or PhD Degree related to Geomatics. Previous experience in R&D projects. Previous exposure to Open-Source Software related projects. Experience in geospatial data processing and management. A working knowledge of geomatics and in particular open-source GIS and standards/protocols to expose geospatial assets (JSON at minimum). Experience with database management systems such as PostgreSQL. Experience in programming languages (any language and in particular Python and Java). Ability to participate in teamwork and interact with a broad range of collaborators. Ability to work independently, with a diverse, multi-location and multi-lingual team. Experience in agile management and in particular issue and project tracking. Desirable Requirements/Skills: Experience in environmental (or social or integrated) modelling. Experience with ARIES is a plus. Familiarity with Docker containers. Exposure to Git and Maven technologies. Experience in project coordination and management.