

## KTT D+I specialist in computational science for environmental modelling and forest planning

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Reference: 22-03-00009

The **Forest Science and Technology Centre of Catalonia (CTFC)**, located in Solsona (Pre-Pyrenees, 120 km from Barcelona), Spain, employs app. 100 staff, produces >100 scientific articles annually and has a turnover of app. 6 Mil. €/year. Further institutional information is available at: [www.ctfc.cat/en](http://www.ctfc.cat/en).

CTFC's research activity is organised around three programs: 1) Multifunctional Forest Management; 2) Landscape Dynamics and Biodiversity; 3) Bioeconomy and Governance. As part of the Landscape Dynamics and Biodiversity program, CTFC undertakes research on the ecology of landscapes and biodiversity in a global change context, innovation in multi-purpose forest planning at different scales targeting multiple ecosystem services, development of cutting-edge DSS for forest and agroforest planning, as well as fire ecology and other natural disturbances.

Within this program, CTFC is seeking to appoint a KTT D+I specialist to provide advanced programming and database management technical support to fundamental and applied research related to:

- Modelling stands forest dynamics, soil plant water balance, soil C dynamics, etc.
- Multi-objective spatial optimization to guide decision-making for the design of resilient landscapes
- Multi-criteria evaluation of forest management scenarios and ecosystem services

### TERMS OF THE APPOINTMENT

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- This contract may start on June 2022 (start could be delayed to July if necessary).
- It is a full-time position with a duration of 2 years (with possibility of contract extension).
- The candidate will be based at CTFC in Solsona (NE Spain), working as member of the Landscape Dynamics and Biodiversity Program (LDB), with the possibility of doing networking.
- The candidate will be part of the Precision Forestry (PrecFOR) group and will be involved in the execution of competitive and KTT projects related to Climate-Smart Forestry management, blue water and other ecosystem services provisioning, and strategic planning to design resilient agroforest landscapes.
- Based on CTFC labour categories, annual gross salary will be adjusted to the foreseen role (KTT D+I Specialist N1) and will be commensurated with the specific profile of the selected candidate (qualifications and experience), ranging between 27,000 – 32,500 €/year.

### TASKS

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Key responsibilities will include:

- Generate climatic and forest data at the national scale to feed forest dynamics and soil plant water balance models.
- Add new functionalities to forest stands dynamics models to answer broader research questions related to spatial planning and ecosystem management.

- Build efficient workflows to simulate and evaluate multiple forest ecosystem services under different management approaches and climatic scenarios.
- Co-design and implement a land-use change module to be coupled with a forest dynamic model.

## REQUIREMENTS

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- Master's degree in computer science, bioinformatics and biostatistics, mathematical modelling, data science, or related suitable discipline for the main topic of this call. Master's degree in forestry, forests sciences, environmental sciences, spatial planning, or equivalent is an asset.
- Advanced expertise in programming and in using advanced statistical techniques.
- Demonstrated computer skills in GIS and database management.
- Experience in the use of advanced statistical packages in R will be an asset.
- Knowledge of spatial optimisation algorithms is an asset.
- Good communication skills. Capacity to prepare technical reports.
- Readiness to work in multi-disciplinary teams.

**Integration policy:** reservation of a place for staff with a certificate of recognized disability.

## SELECTION PROCESS AND CRITERIA

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The selection process is led by the Human Resources Area of CTFC. This process consists of:

1. **Admission of candidates:** applicants must submit a curriculum vitae and letter of intent addressed to [dep.personal@ctfc.cat](mailto:dep.personal@ctfc.cat), until **17<sup>th</sup> April 2022**, indicating the reference code of the offer.
2. **Pre-selection:** verification of compliance with the minimum requirements of the offer.
3. **Selection (from April 18<sup>th</sup> to April 30<sup>th</sup> 2022):** assessment of the preselected candidates by scoring based on objective criteria and interview.
4. **Final decision:** in case of finding the suitable person, the election will be formally communicated to him/her, and the identification of the chosen person will be published on CTFC job openings section.

Further information: [dep.personal@ctfc.cat](mailto:dep.personal@ctfc.cat)