

Forest Science and Technology Centre of Catalonia (CTFC) is a research centre affiliated with the Generalitat de Catalunya (the Catalan government), and it reports to the Ministry responsible for forest issues.

CTFC is a CERCA centre and a government accredited TECNIO agent (developer of public technology).

It was granted a 'Human Resources Excellence in Research' award by the European Commission, recognizing CTFC as a European research institution that fosters an attractive and motivating work environment.

## Post-Doctoral offer in Ecohydrological modelling and forest management

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**Reference:** 24-01-00006

**The Forest Science and Technology Centre of Catalonia (CTFC)** are seeking to appoint a post-doctoral researcher to lead and conduct fundamental and applied research related to:

- Modelling in forest dynamics and ecohydrological processes.
- Water-oriented forest management practices.
- Optimization of Ecosystem services for landscape planning.
- Performance of forest restoration actions mediated by water availability.

The candidate will be part of the Forest and Water team of the CTFC. He/she will be working in the framework of the ForH2O project, funded by the Catalan Research Agency (AGAUR). ForH2O aims at contributing to the design of strategies, plans and guidelines to water efficient forest planning.

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 Multifunctional Forest Management Program, CTFC undertakes research on adaptive silviculture to environmental changes, innovation in multi-purpose forest planning at different scales targeting different ecosystem goods and services. The analysis of the influence of forest management on the different processes on natural ecosystems (p. ex. water generation and regulation functions) is crucial for ensuring the persistence of the ecosystems and the future provision of the associated goods and services. In this regard, ecohydrological models and optimisation tools are useful tools to assess the effects of multiple management itineraries under climate change scenarios on ecosystem services, such as water provision, and orientate the design of forest management guidelines and planification.

CTFC is located in Solsona (Pre-Pyrenees, 120 km from Barcelona), Spain. We are a very dynamic research institute that employs app. 160 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)

### TERMS OF THE APPOINTMENT

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1. The contract will start between February and April 2024.
2. It is a full-time position with a duration of 2 years (with possibility of contract extension).
3. The candidate will be based in Solsona (CTFC), although the option to be based in Lleida (UdL) could also be considered. The candidate will be part of the Forests and Water team from CTFC's Multifunctional Forest Management Program.

4. Based on CTFC labour categories, annual gross salary will be adjusted to the foreseen role and will be commensurated with the specific profile of the selected candidate (qualifications and experience), ranging between 29,000 - 34,000 €/year.
5. Working day: full time, 37.5 hours per week, with remote working options according to the institution norms (max. 20 h/week).
6. 23+6 days of holidays per year. Good family-work balance conditions

## **KEY RESPONSABILITIES**

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Key tasks and responsibilities will include:

1. Apply forest dynamic and ecohydrological models to calculate water and carbon balance in Catalanian watersheds under different climatic and forest management scenarios.
2. Develop water availability maps and priority areas to water-oriented forest management under climate change scenarios.
3. Combine ecohydrological models with optimisation algorithms or tools to design water-oriented territorial plans.
4. Analyse large datasets to infer: i) the impact of different forest management practices in water availability and water provision, and ii) the factors explaining the performance of forest restoration actions mediated by water availability, tree species, site features and planting techniques .
5. Definition of ecohydrological forest management guidelines to achieve more resilient systems to drought.
6. Publication and dissemination of results in scientific journals, technical meetings and knowledge transfer activities.

## **BASIC REQUIREMENTS**

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1. A completed PhD on Forestry, Environmental Sciences or another discipline related to the main topic of this call.
2. Proficiency in programming and in using forest dynamics, ecohydrological and landscape modelling techniques.
3. Expertise in statistical analysis of big datasets.
4. Expertise in GIS and spatial data analysis.
5. Advanced knowledge of English and proficiency in Spanish, both spoken and written.
6. Readiness to work in multi-disciplinary teams.

## **DESIRABLE REQUIREMENTS**

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1. Experience in national or international research projects is an asset.
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3. Authorship of relevant publications in high impact journals is an asset.
4. Good communication skills and the ability to interact with stakeholders is an asset.
5. Knowledge of Catalan is an asset.

## **SOFT COMPETENCES**

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1. Team player.
2. Critical thinking and attention to detail.
3. Capacity to work under pressure.
4. Ability to plan and organize their work independently.



5. Result oriented.
6. Flexibility and adaptation.
7. Initiative and pro activity.
8. Availability to travel sporadically.

## CONTACT

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**CTFC guarantees an open, transparent, and merit-based recruitment process (OTM-R) to all registered candidacies avoiding thus any bias on gender, origin, age, ideology, or other circumstances that could be discriminatory. Integration policy:** Candidates who have a recognized disability and accredited equal to or greater than 33% will be prioritized, as long as the disability is compatible with the proper performance of the job.

## 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 motivation letter addressed to [borsa.treball@ctfc.cat](mailto:borsa.treball@ctfc.cat), until **16<sup>h</sup> February 2024**, indicating the reference code of the offer.
2. **Pre-selection:** verification of compliance with the minimum requirements of the offer.
3. **Selection (End February-Beginning March 2024):** 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: [borsa.treball@ctfc.cat](mailto:borsa.treball@ctfc.cat)