Assistant Researcher in Energy System Modelling

We would like to inform that the project CIRCOMOD – Circular Economy Modelling for Climate Change Mitigation, with reference Horizon Europe Project number 101056868 is offering a 36-month research contract (with NOVA School of Science and Technology) in the areas of climate mitigation, circular economy and integrated assessment modelling.

The project aims to develop a new generation of advanced models and model-based scenarios that can analyse the impact of future material use and the contribution of circular economy strategies and policies on emission mitigation. To accomplish this, the CIRCOMOD project brings together a unique consortium of leading research teams from relevant science communities, and multiple models, including the TIMES energy system model.

We offer a young vibrant research atmosphere within a dynamic team at one European leading research university and the possibility of being part of an international and interdisciplinary research project. NOVA University is located in the Lisbon area and was ranked in the top 9 in Europe in the QS World University Rankings 2021 among universities founded less than 50 years ago.

1. **Main scientific area:** Engineering, economics, environment, system analysis, materials, or related disciplines relevant for the project

   **Sub-scientific area(s):** Climate; circular economy

2. **Job description:** Development of scientific research directly or indirectly associated with the tasks defined in the Project such as:

   1. Review the policy context and current model capabilities (i.e., existing analytical frameworks and models, including economic one), regarding circular economy, to identify the shortcomings of existing applied models when representing circular economy options and provide suggestions for modelling improvements according to the most promising practices identified.

   2. Identification and analysis of circular economy practices and strategies

   3. Expand/improve the TIMES energy system model for Europe to simulate:

      i. use- and demand-related circularity options

      ii. supply of primary and secondary materials in terms of technological characteristics, energy use, emissions (including mitigation options) and associated costs

      iii. circularity in the production and lifetime extension of products with high material requirements

   4. define the scenario framework that combines socio-economic projections with narratives on the evolution of circular economy policies to explore their impact on climate mitigation.

   5. Assessment of circular economy impacts on climate mitigation through the use of TIMES for Europe.

   6. Organization and/or participation in the dissemination of preliminary and final results to different types of audiences.

   7. Preparation of scientific publications.

3. **We look for:** A candidate with a scientific background and a professional record in research, and experience on topics related to climate mitigation, energy transition and/or circular economy. The following skills and experience are required:

   - PhD’s degree in engineering, environmental sciences, economics or a related field
Hands-on experience in the fields of energy transition, climate mitigation, and tecnoeconomic development related to the energy system
Hands-on experience with integrated assessment modelling tools, being valued the experience with TIMES model family
Good knowledge of the European energy system and mitigation goals
Excellent spoken and written communication skills in English, particularly the ability to write and expose ideas consistent with scientific standards.
Good skills in communicating to scientific and non-scientific audiences.

The following skills and experience are an advantage:
Experience in the development or application of quantitative modelling techniques, particularly in the areas of energy transition, climate mitigation and circular economy
Knowledge in circular economy strategies and policies over Europe
Experience in a multidisciplinary working environment, particularly in scientific projects

4. Type of contract and applicable legislation: the research contract must be concluded under the terms of Decree-Law no. 57/2016, of 19 July, amended by Law no. 57/2017 of 29 August (Portuguese Laws).

5. Place of Work: The working place shall be at the premises of NOVA School of Science and Technology in CENSE – Center for Environmental and Sustainability Research (Caparica, Lisbon area, Portugal), without prejudice to the provision of work on a teleworking basis when this is compatible with that, as agreed between the parties or when legally required, and will carry out all trips, in Portugal or abroad, inherent to their functions or as necessary for his/her activity.

6. Type and duration of the contract: The contract has an expected duration of 36 months (including a trial period of 6 months) and cannot exceed 48 months.

7. Reference remuneration: The gross salary will be up to €3,230.21 at step 1, index 195, in accordance with Regulatory Decree No. 11-A/2017, of 29 December.

8. Selection criteria
The selection of the successful candidates will be carried out through the evaluation of the scientific and curricular achievements as established by Decree-Law no. 57/2016 of 19 July, as amended by Law no. 57/2017 of 29 August and the selection criteria (scored on a scale from 0 to 20) and their respective weighting shall be as follows:

   a. Adequacy and merit of the academic curriculum of the candidate taking into account the area of the call (50%);
   b. Previous relevant experience, including works published in the areas of research listed above (40%);
   c. Quality of the Individual Interview (10%). The interview will only be conducted for candidates whose weighted classification is higher than 16 in the first two criteria.

Applications that do not include all elements required in the application submission will be automatically excluded from the competition.
9. Jury composition
Applications shall be subject to evaluation by a jury composed of the following members:
President – Doutor Patricia Fortes
First effective member: Professora Doutora Júlia Seixas
Second effective member: Professor Doutor Tomás Ramos
Substitute Member: Professor Doutor Francisco Ferreira
Substitute Member: Doutor João Pedro Gouveia.

10. Final decision
The final deliberation of the jury will be communicated to the candidates by electronic mail with receipt of delivery. The list of admitted and excluded candidates and the respective classification will be given to the candidates if requested.

11. How to apply: The application for this research position must be sent to Patrícia Fortes, through the email p.fs@fct.unl.pt until 28th October 2022 and should include:
- Copy of PhD certificate or diploma;
- Expression of interest (max. 1 page drafted in English) describing the candidate skills and experience, and how they are suitable for this job position;
- Updated CV with the complete list of scientific outputs and working experience;
- At least 1 recommendation letter and contact information of 2 references;
- Other documents relevant to the evaluation of the competence (optional).