(BL173/2026-IST-ID)

One Post-Doctoral Research Fellowship

Applications are open for one Post-Doctoral Research Fellowship, within the framework of "TERRAMARE - Integrated Terrestrial and Marine Decision Support Tool for the Assessment of Resource Use Trade-Offs in Europe", of IST-ID, financed by the Horizon Europe Program (contract no. 101295888), under the following conditions:

Scientific Area: Mechanical Engineering and Engineering Systems (sub-field: Energy and Environment).

Admission Requirements:

a) hold a PhD degree obtained in the 3 years previously to the submission of the fellowship application;

b) have carried out the research work that led to the PhD degree in a different entity from the host institution of the fellowship;

c) Not exceed, with this fellowship contract, including the possible renovations, an accumulated period of 3 years in this type of fellowship, continuously or with interruptions;

d) Not have previously held a post-doctoral fellowship from IST-ID.

Workplan: The selected candidate will integrate insights from exergy economics literature into an ecological macroeconomic system dynamics model (Eurogreen), to properly consider the role of energy in the economy and assess energy policies aimed at improving wellbeing within planetary boundaries. In particular, the model will be extended to include the conversion of energy from the final to the useful stage, linking it to households' demand for energy services and improving the modelling of technological innovation in industry by explicitly including a link between labour productivity growth and use.

Legislation and Regulations: Statute of Scientific Research Fellow, approved by Law nr. 40/2004, of August 18, as worded by Decree-Law nr. 123/2019, of August 28; IST-ID Regulation of Scientific Research Fellowships, available on https://ist-id.pt/recursos/documentos/recursos-humanos/bolseiros/#1690453819726-6707f7f2-ce04

Workplace: The work will be carried out at MARETEC/DEM at the Instituto Superior Técnico (University of Lisbon), under the academic supervision of Professor Tiago Domingos.

Duration: The research fellowship will have a duration of 12 months. It's expected to begin in January 2027 and may be eventually renewed up to the maximum of 36 months, including the duration of the initial contract.

Monthly maintenance allowance: the amount of the monthly maintenance allowance is 1,901.00 €, with the payment method being an option of the Fellow (by Wire Transfer or Check). The fellowship holder will be reimbursed for their Voluntary Social Security contributions (up to the amount corresponding to the first level of payment).

Selection methods: The selection methods will be the following:

1. Experience with ecological macroeconomics modelling (system dynamics, agent-based and input-output), preferably with the Eurogreen model: 40% (0/20);
2. Familiarity with exergy economics literature: 25% (0/20);
3. Software and programming knowledge (Vensim, R, C++, Python): 15% (0/20);
4. Individual interview (in the event of a tie between the best-placed candidates), where motivation and specific knowledge will be assessed: 20% (0/20).

Composition of the selection Jury: Tiago Morais Delgado Domingos (Associate Professor, Chair), Tânia Alexandra dos Santos Costa e Sousa (Assistant Professor, Member), Ricardo Filipe de Melo Teixeira (Assistant Professor, Member) and Marcos Duarte Mateus (Assistant Professor, substitute member).

Announcement/ notification of the results: The final evaluation results will be communicated to all applicants by email.

Deadlines and procedures of complaint and appeal. After notification of the provisional list of evaluation results, candidates have a period of 10 working days to, if they wish, make a statement at a preliminary hearing of interested parties, in accordance with Articles 121 et seq. of the Code of Administrative Procedure. The final decision will be made after analyzing the statements presented at the preliminary hearing of interested parties. The final decision may be appealed to the competition jury or to the President of IST-ID within 15 working days of notification.

Application deadline and formalization: The call is open from November 23 until November 27, 2026.

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application (https://ist-id.pt/recursos-humanos/bolseiros/#documentos-relacionados); ii) *Curriculum Vitae*; iii) academic degree certificate; iv) motivation letter; v) declaration on honour that the applicant does not exceed with this contract an accumulated period of three years in this type of fellowship, continuously or with interruptions, within the technological and scientific system, and that the research work that led to the PhD degree was carried out in a different entity from the host institution of the fellowship.

Applications must be submitted to nuno.sarmento@tecnico.ulisboa.pt .