NOTICE OF OPENING OF AN INTERNATIONAL COMPETITION FOR THE RECRUITMENT OF A DOCTORATE UNDER THE DECREE-LAW No. 57/2016, OF AUGUST 29, WITH THE AMENDMENTS INTRODUCED BY LAW 57/2017, OF 19 JULY AND COMPLEMENTARY LEGISLATION

Public Notice TERRAMARE/IST-ID

1. The Executive Board of the Association of Instituto Superior Técnico for Research and Development (IST-ID) took a decision to open an international selection competition for one doctorate position for the exercise of activities of scientific research in the scientific area(s) of Engineering Sciences and Technologies/Environmental Engineering in the form of an employment contract under an unspecified fixed-term work contract under the "Código do Trabalho" (Labor Code), aiming at carrying out the following tasks (expected completion 24 months after the contract start date):

- Task 1 (months 1 to 9 of the contract): Development of the socio-economic modelling module for the European decision-support tool for land and sea use (LOTUS). The module, which is meso-scale and socio-metabolic in nature, should translate the results of the sectoral models (agriculture, forestry, fisheries and aquaculture, energy) into added value, employment, prices and distributional indicators, in a manner consistent with the MuSIASEM and MEMME model logic, complemented by the useful exergy approach – accounting for energy flows at the primary, final and useful stages, and estimating aggregate prices for useful exergy (cost of energy services). The aim is to obtain biophysically grounded indicators that are directly comparable with conventional economic metrics (GDP, productivity, costs of energy services), at the NUTS II regional resolution;
- Task 2 (months 6 to 15 of the contract): Integration of the socio-economic module developed in Task 1 with the energy sector models and the consortium's other sectoral models. This task includes defining coupling variables that enable the conversion of electricity and bioenergy generation portfolios (including offshore wind and wave energy) into useful exergy flows and their respective economic and social impacts, as well as propagating price and consumption effects back into the models; it also includes a contribution towards running the models in reference scenarios, identifying conflicts between the results of different models, and generating the datasets that feed into the tool;
- Task 3 (months 12 to 21 of the contract): Application and validation of the tool in regional case studies, particularly in Portuguese coastal regions, involving the characterisation of trade-offs between competing land and marine uses – agricultural production, fisheries and aquaculture, biodiversity conservation and renewable energy production – and discussion of these with decision-makers and stakeholders through participatory validation processes at regional and European level;
- Task 4 (months 18 to 24 of the contract): Review and consolidation of the socio-economic module based on the results of the case studies, updating of the data made available to the tool, documentation of the model and data in accordance with FAIR principles, and dissemination of the results through publications in international peer-reviewed scientific journals and conference papers.

These tasks are carried out within the framework of the TERRAMARE project – Integrated Terrestrial and Marine Decision Support Tool for the Assessment of Resource Use and Trade-offs in Europe, funded by the European Union's Horizon Europe Programme (Grant Agreement No. 101295888).

2. Applicable law:

Decree-Law No. 57/2016, of August 29, the regulations for hiring doctorates to stimulate scientific and technological employment in all areas of knowledge (RJEC), with the amendments introduced by Law

No. 57 / 2017, dated July 19, also taking into account the provisions of Regulatory Decree No. 11-A / 2017, of December 29.

“Código do Trabalho” (Labor Code), approved by Law No. 7/2009, of February 12, in its current wording.

3. In compliance with article 13 of RJEC, the jury of the competition is composed as follows:
Tiago Morais Delgado Domingos (Associate Professor, President of the Jury), Ricardo Filipe de Melo Teixeira (Assistant Professor, member), Tânia Alexandra dos Santos Costa e Sousa (Assistant Professor, member) and Marcos Duarte Mateus (Assistant Professor, substitute member).

4. The place of work is located at identify the research unit.

5. In compliance with the provisions of the Regulatory Decree No. 11-A / 2017, of December 29, this tender is open for the remuneration level (NR) 33 of the single remuneration table (TRU) which corresponds to a monthly remuneration of 2,408.11 Euros.

6.

6.1 Decree Law no. 57/2016, of August 29, which approved the regulations for hiring doctorates to stimulate scientific and technological employment in all areas of knowledge (RJEC), is an enabling norm for this international selection competition.

6.2 The opening of this competition is intended for the selection of a doctorate's place for the exercise of scientific research activity under an unspecified fixed-term work contract under the “Código do Trabalho” (Labor Code) approved by Law No. 7/2009, of February 12, in its current wording, being the basis of contracting the execution of a service determined, precisely defined and non-durable, being the contracting necessarily financed regardless of its provenance.

6.3 The maximum duration of the unspecified fixed-term work contract is the duration of the especific task of the project supporting it, and which is, expectedly, 24 months.

6.4 Termination of the financing, termination of the project or completion of the tasks that are the subject of this competition shall determine the expiration of the contract that will operate with the communication referred to in article 345 (1) of the “Código do Trabalho”(Labor Code), meaning that the employer shall notify the termination of the contract to the employee, at least seven, 30 or 60 days in advance, according to whether the contract lasted up to six months, six months to two years, or per longer period."

7. The competition is open for national candidates, foreigners and stateless persons who hold the degree of “Doutor” or hold the recognition of that degree under the terms of the Decree-Law n.º 66/2018, of August 16, in a branch of knowledge or specialty that covers the scientific area of Engineering Sciences and Technologies/Environmental Engineering or related scientific area, and are also holders of a scientific and professional curriculum that reveals an adequate profile to the activity to be developed.

8. Formalization of applications:

8.1 Applications are formalized by means of an application form, made available at https://ist-id.pt/recursos-humanos/investigadores/ electronic address, addressed to the President of Instituto Superior Técnico Association for Research and Development (IST-ID), stating the identification of this notice, full name, affiliation, number and date of identity card, Citizen Card, or number identification number, date and place of birth, marital status, profession, residence and contact address, including e-mail address and telephone contact.
The recognition of the "Doutor" degree should be obtained by the date of the act of contracting.
In the application form, the candidate must indicate his / her consent so that the communications and notifications in the context of this hiring procedure can take place by electronic mail, to the electronic address indicated in that application form.

8.2 The application shall be accompanied by documents proving the conditions laid down in point 7 for admission to this invitation to tender, in particular:

a) Copy of certificate or diploma;
b) "Tese de doutoramento" or equivalent document(s) that determined the award of the academic degree of "Doutor";
c) Detailed curriculum vitae, structured in accordance with the items in points 12 and 14, indicating the works, and adding a copy of them, that the candidate considers most relevant to each of the items in points 12 and 14;
d) Scientific project, focusing on the development of methods and models with a biophysical and socio-economic basis, grounded in a metric of useful exergy, which enable the quantification of the socio-economic implications (value added, employment, prices and costs of energy services) of competing land- and sea-use options, and the assessment of trade-offs between environmental and economic objectives at regional and European level, for integration into a decision-support tool;
e) Other documents that the candidate justifies to be relevant to the analysis of his/her application.

8.3 Applicants submit the documents referred to in 8.1 and 8.2 in PDF format at the electronic address above indicated, issued up to the last day of the tender opening period, which is fixed at 15 working days after publication of this Notice. An applicant may, by reason of the impossibility or technical difficulty of sending any of the documents referred to in 8.1 and 8.2 by e-mail, deliver them on physical support, respecting the above date, by registered mail with acknowledgment of receipt to the address postal service "Av. Rovisco Pais, 1. 1049-003 Lisboa" or by hand at IST-ID Human Resources Division. Not being accepted the justification of the candidate for the delivery of documents only in physical format, the President of the Jury will give a reasonable time to present them also in digital support.

8.4 The application and documents may be submitted in Portuguese or English, although the President of the Jury, and when a member of the Jury is a non-native Portuguese speaker, may request that, within a reasonable time, the candidate translates into English a document previously presented in Portuguese.

9. By decision of the President of IST-ID, candidates who do not comply with the provisions of point 8 are not admitted to the competition. Candidates who do not submit the application using the form

or who do not deliver all the documents referred to in points 8.2 (a) to (d) or who present them unreadable, incorrectly completed, or invalid are eliminated. The jury is also entitled to require any candidate, in case of doubt and for the purposes of admission to competition, to present documentary evidence of the declarations in the submitted documents.

10. Approval on absolute merit:

10.1 The Jury will deliberate on its approval or rejection on absolute merit, by a justified vote where no abstentions are admitted.

10.2 A candidate is considered approved on absolute merit when he/she obtains a favorable vote of more than half of the members of the jury.

10.3 Candidates who have a scientific and curricular path relevant to the scientific area(s) of the competition and taking into account their suitability for the additional weighting criteria identified in 14.5 will be approved on absolute merit.

10.4 The unfavorable vote to approval on absolute merit can still be justified by the failure to fulfill the following circumstance:

a) the Scientific Project prepared by the candidate is shown to be clearly insufficient and misaligned with the scientific area (s), suffering from serious inaccuracies or not supported by previous work of the candidate.

11. According to article 5 of RJEC, the selection is made through the evaluation of the scientific and curricular path of the candidates.

12. The evaluation of the scientific and curricular path focuses on relevance, quality and timeliness:

a) of the scientific, technological, academic, cultural or artistic production during the last five years and considered more relevant by the candidate;

b) of the applied or practice-based research activities developed over the last five years and considered as having the greatest impact by the candidate;

c) of the activities of extension and dissemination of knowledge developed during the last five years, in particular in the context of promoting the culture and scientific practices considered by the candidate to be of greater relevance;

d) of the activities of science, technology and innovation programs management or of the experience in observing and monitoring the scientific and technological system or higher education, in Portugal or abroad.

13. The period of five years referred to in the preceding paragraph may be increased by the jury, at the request of the candidate, when justified on grounds of suspension of scientific activity for socially protected reasons, namely for reasons of parental leave, prolonged serious illness, and other situations of unavailability for work legally protected.

14. The assessment criteria are set out in this entry, with the option mentioned in point 14.5, with particular emphasis on the curriculum vitae and the contributions considered to be of higher relevance by the candidate in the last 5 years:

14.1. Quality of the scientific, technological, cultural or artistic production, considered more relevant by the candidate, and relevant to the project to be developed, which was given a weighting factor of 50% considering:

(i) Scientific publications: a parameter which takes into account books, chapters of books, articles in scientific journals and international conference proceedings of which the applicant was the author or co-author, considering:

- its nature;
- its impact;
- the scientific / technological level and innovation;
- diversity and multidisciplinarity;
- international collaboration;
- the importance of contributions to the advancement of the current state of knowledge;
- the importance of the works that have been selected by the candidate as most representative, in particular as regards their contribution to the development and evolution of the scientific area for which the competition is open.

ii) Coordination and participation in scientific projects: a parameter that takes into account the participation and coordination of scientific projects by the candidate, subject to competitive bidding, considering:

- the territorial scope and its size;
- the technological level and the importance of the contributions;
- innovation and diversity.

iii) Accompaniment and orientation of students, trainees and research fellows: a parameter that takes into account the orientation of doctoral students, master's and undergraduate students, trainees and research fellows taking into account the number, quality, scope and scientific / technological impact of the resulting publications, theses, dissertations and final course papers, distinguishing especially the awarded works and the international recognition.

14.2. Activities of applied or practice-based research, considered to be of greatest impact by the candidate, and relevant to the project to be developed, which was given a weighting factor of 20% considering:

i) Provision of services and integrated consultancy in the institutional mission: a parameter that takes into account participation in activities involving the business community and the public sector, taking into account the type of participation, size, diversity, technological intensity and innovation.

14.3. Activities of extension and dissemination of knowledge, particularly in the context of the promotion of culture and scientific practices, considered of greater relevance by the candidate, and relevant to the project to be developed, which was given a weighting factor of 20% considering:

i) Publications of scientific and technological outreach: parameter that takes into account the articles in magazines and national conferences and other publications of scientific and technological diffusion, taking into account their professional and social impact.

ii) Services to the scientific community and to society: a parameter that takes into account the participation and coordination of scientific and technological dissemination initiatives and taking into account the nature and results achieved by them when carried out towards:

- the scientific community, including the organization of conferences and conferences;
- the media;

• companies and the public sector.

14.4. Contribution to activities related to the management of science, technology and innovation programs, or experience in the observation and monitoring of the scientific and technological system or higher education, in Portugal or abroad, and relevant to the project to be developed, with a weighting factor of 10% considering:

i) Positions in boards of the university, school, or research unit: a parameter that takes into account the nature and the responsibility of the position.

14.5. In weighing the evaluation criteria listed in paragraphs 14.1 to 14.4, each jury member may consider the following additional parameters under the following conditions:

14.5.1. a relevance and quality of the scientific project proposed in/for the development of methods and models with a biophysical and socio-economic basis, grounded in a metric of useful exergy, which enable the quantification of the socio-economic implications (value added, employment, prices and costs of energy services) of competing land- and sea-use options, and the assessment of trade-offs between environmental and economic objectives at regional and European level, for integration into a decision-support tool;

14.5.1. b contribution to the development and advancement of the following topics: 1) Assessment and planning of sustainable development, including energy systems, and 2) Interaction of energy systems with the environment, including economic and socio-political aspects, within the scientific field of Environmental Engineering, for which the competitive selection procedure is open;

14.5.1. c contribution to the development and advancement of the topics 1) Integration of Thermodynamics, Ecology and Economics, and 2) Sustainability at the MARETEC/LARSyS research center of the Instituto Superior Técnico;

14.5.1. d contribution to the development and advancement of the topics 1) Economic models, and 2) Energy sector models within the TERRAMARE research project – Integrated Terrestrial and Marine Decision Support Tool for the Assessment of Resource Use and Trade-offs in Europe, funded by the European Union's Horizon Europe Programme (Grant Agreement No. 101295888);

14.5.1. e contribution to the development and advancement of the topics 1) The economics of useful exergy, and 2) Assessment of trade-offs in the use of natural resources using methodologies for accounting for useful exergy (primary, final and useful stages), time-series and panel data econometrics (including cointegration analyses), and multi-sectoral and input-output economic modelling.

15. The jury may decide to select up to 3 candidates who will be called to hold a session presenting the results of their investigation, following which the jury members should stimulate an open debate on its content and innovative character. This presentation session does not constitute a selection method and is not classified, aiming merely to obtain explanations or clarifications of elements contained in the candidates' curricula.

16. The Jury, when it deems it necessary, may request the candidate to present additional documents proving the candidate's statements, which are relevant to the analysis and classification of his/her application.

17. Classification of candidates

17.1. Each member of the jury assigned a classification to each of the candidates in each evaluation criterion, on a scale of 0 to 100 points, ranking the candidates according to their classification consisting on the sum of the partial classifications assigned in each evaluation criterion, and taking into account the weighting factor given to each parameter.

17.2. Candidates shall be ordered by applying the successive voting method.

17.3. The jury decides by absolute majority, and abstentions are not allowed.

17.4. The final classification of each candidate is the one corresponding to his/her ranking resulting from the application of the method referred to in point 17.2.

18. Minutes of the jury meetings are drawn up, which contain a summary of what has taken place in them, as well as the votes cast by each of the members and their reasons, being available to the candidates whenever requested.

19. The final deliberation of the jury is approved by the President of IST-ID, and it is his responsibility to establish the respective contract.

20. The false statements made by the candidates will be punished according to the law.

21. The list of admitted and excluded candidates as well as the final ranking list advertised on the website of IST-ID, and the applicants will be notified by email with receipt of delivery of the notification.

22. Prior Hearing and Deadline for Final Decision: After being notified, candidates have 10 working days to submit a formal rebuttal. Within the term of 90 days, counted from the deadline for the presentation of the candidacies, the final decisions of the jury are given.

23. This tender is exclusively intended to fill the vacancy(s) indicated and may be terminated until the homologation of the final ranking list of candidates and expiring with the respective occupation of the working position on offer.

24. Non-discrimination and equal access policy: IST-ID actively promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, benefited, disadvantaged or deprived of any right or exemption from any duty owing, in particular, to ancestry, age, sex, sexual orientation, marital status, family status, economic situation, education, social origin or condition, genetic heritage, reduced working capacity, disability , chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs and trade union membership.

25. Under the terms of D.L. No. 29/2001, of February 3, a disabled candidate has a preference when in equal classification, which prevails over any other legal preference. Candidates must declare on the application form their respective degree of disability, the type of disability and the means of

communication / expression to be used in the selection process, under the terms of the aforementioned diploma.