

Numero Registro: Decreto Rettorale 802

# Call for application - Phd Course in *"Tech for good. Technology Transfer, Global Foresight and Sustainable Innovation in Knowledge Ecosystems"*

#### Art. 1 – Announcement

- 1. A public competition is held for the admission to the PhD course in *"Tech for good. Technology Transfer, Global Foresight and Sustainable Innovation in Knowledge Ecosystems"* at *"Link Campus University"*.
- 2. The integrated research lines of the PhD course are indicated in Annex A.
- 3. The number of doctoral students admitted is 8 (of which 6 founded with scholarships and 2 not funded with scholarships).
- 4. There are no doctoral scholarships with an advanced training and research apprenticeship contract on the specific topic.
- 5. The course starts on 30/11/2021; the duration is three years.

#### Art. 2 – Arrangements for the admission to the course

- 1. Access to the course is subject to passing an admission competition, which involves evaluation of the qualifications, evaluation of a research project, the assessment of the level of knowledge of the English language and an oral test.
- 2. The selection procedure aims at ascertaining the candidate's aptitude towards scientific research.

#### Art. 3 – Requirements for accessing the selection procedure

- 1. Candidates who meet one of the following requirements can participate in the selection procedure:
  - a) one of the following degrees achieved in Italy: Laurea 'vecchio ordinamento', Laurea specialistica, Laurea magistrale;
  - b) similar academic qualification obtained abroad, issued by an academic institution officially recognized and declared equivalent or assessed as suitable by the Selection Board for the sole purpose of accessing the PhD program.
  - c) in the absence of one of the qualifications referred to in letters a) and b) above, candidates may participate in the selection procedure if they declare that they will achieve the required qualification no later than 31/10/2021. In the event that these candidates are found to be suitable, and their placement in the ranking useful, they will be granted *conditional admission* to the doctoral course. These candidates must submit, under penalty of irrevocable loss of the right to enrol, the certificate relating to the degree obtained, or their relative self-declaration, no later than 25/11/2021.
- 2. The requisites referred to in the first paragraph, letters a) and b), must be possessed on the date of expiry of the deadline for submitting applications.
- 3. According to the regulations in force, candidates with disabilities, or with Specific Learning Disorders (SLD), can explicitly request the aids and/or interventions necessary for them to be able to take the test by attaching the certification attesting, respectively, their handicap/disability (pursuant to Law 104/92) comprehensive of diagnosis (necessary to judge the adequacy of the request) or the Diagnostic certification (SLD article 3, law no. 170/2010). In addition, in accordance with the law, they must declare in the Application Form that the attached certifications comply with the original ones. The university reserves the right to evaluate



#### Numero Registro: Decreto Rettorale 802

the requests received - on the basis of the current legislation - and to request any additional documentation, and to verify the veracity of the certifications produced.

#### Art. 4 – Participation applications

- Under penalty of exclusion, in order to partake in the selection procedure, the candidate is required to submit the Application Form exclusively through means of a certified e-mail, to be sent to <u>concorsi.lcu@pec.it</u> from the candidate's own certified e-mail address; the Application Form must be submitted using the attached template Annex B and following the instructions therein, no later than 13/10/2021.
- 2. The Application Form must be filled-out in all its parts, and it must contain the following declarations:
  - a) complete personal data, that is: name, surname, place and date of birth, Tax Code/National ID n., citizenship, and address of residence;
  - b) possession of an adequate knowledge of the Italian language (for non-Italian citizens);
  - c) the exact name of the achieved qualification, the achievement date of the same, the university that awarded it, and the final grade, or the equivalent qualification obtained at a foreign university, as well as the date of issuance of the decree declaring its equivalence (if, at the time of the Application Form's submission, the candidate has yet to obtain the qualification, they must declare that the qualification will be obtained by the deadline set out in this Call for applications, under penalty of exclusion from the selection process and disqualification from any ranking);
  - d) commitment to attend the PhD course full-time according to the procedures set out by the Teaching Body;
  - e) commitment to undertake leave from work, if employed in the public sector;
  - f) to have read the Call for participation;
  - g) their own certified e-mail address as well as the commitment to communicate in a timely manner any change of the same;
  - h) to require, due to their disability or SLD, aids and/or interventions in order to withstand the test;
  - to be the author/co-author of the publications (up to 3) attached to the Application Form for evaluation purposes (Annex "List of publications attached to the application"), with the indication, for each of them, of the relevant identification code (ISSN, ISBN, ISMN);
  - j) to have actually carried out the university educational activities listed in the Application Form's designated attachment (Annex "List of university educational activities"); the start/end dates, as well as the type of teaching (replacement, supplementary or exercise teaching), have to be specified;
  - k) to have actually participated in the national and international research groups listed in the Application Form's designated attachment (Annex "Participation in national and international research groups") of which the start/end dates have to be indicated;
  - I) to have actually carried out the activities of "speaker at national and international conferences and conventions" listed in the Application Form's designated attachment (Annex "Speaker at national and international conferences and conventions");



### Numero Registro: Decreto Rettorale 802

- m) to possess the language skills indicated in the Application Form's designated attachment (Annex "Language skills"); for each language specify the CEFR level, as well as whether a certification was achieved (in that case, indicate the achievement date and the name of the certification body);
- n) to hold the additional qualifications considered valuable for evaluation purposes, up to 5, listed in the Application Form's designated attachment (Annex "Additional qualifications attached in PDF format");
- o) to hold the additional qualifications listed in the CV attached to the Application Form;
- p) declaration, according to articles 46 and 47 of D.P.R. 445/2000, that the publications, the documents and the qualifications attached to the Application Form comply with the original copies.
- 3. Candidates must attach to the Application Form under penalty of exclusion the following documents in PDF format:
  - a) the CV, dated and duly signed, of their didactic and scientific activities; include the publications and the qualifications achieved;
  - b) an original research project, dated and duly signed, which has to be consistent with one of the topics of the PhD (indicated in 'Annex A' of the Call for Application) and developed according to Annex D; the project can be written in Italian or English, its length must not exceed 15.000 characters (spaces and bibliography not included), and it must illustrate the research topic, the current status of the studies on the subject, the knowledge gap to be bridged, the experimental hypotheses and the methods for achieving them, the expected results and their implications, clearly highlighting the originality and relevance of the project, as well as an essential and updated bibliography (up to 20 titles);
  - c) the publications referred to in the previous paragraph 2, letter i);
  - d) the additional qualifications deemed valuable for evaluation purposes (up to 5) listed in the Application Form's designated attachment (Annex "Additional qualifications attached in PDF format");
  - e) copy (front and back) of a valid identity document;
  - f) copy (front and back) of the Tax Code/National ID n.; foreign citizens who do not possess such document will be provided with a personal identification code determined by the university;
  - g) proof of payment of € 100.00 as a contribution for participating in the selection procedure, to be paid using the following IBAN:
     IT58P0538703201000002075742; the contribution will in no case be refunded;
  - h) candidates with qualifications achieved abroad who possess the 'Certificate of equivalence of qualifications', must attach to the Application Form the decree declaring the equivalence and the Diploma Supplement.
  - Candidates with qualifications achieved abroad who do not possess the 'Certificate of equivalence of qualifications', must attach to the Application Form the following documents, for the purpose of allowing the Selection Board to declare eligibility for participation in the PhD course:
    - 1. copy of the academic qualification obtained abroad which is comparable in duration, level and subject area to the Italian qualification allowing access to the course;
    - 2. 'declaration of value' or 'certificate of comparability' as well as any other documentation useful for assessing the eligibility of the qualification achieved for the chosen course;



#### Numero Registro: Decreto Rettorale 802

- 3. Certificate of examinations sustained with final grades report (transcript of records), specifying the grading system to which the marks refer;
- 4. Diploma supplement and/or Italian or English translation of the documents referred to in points 1, 2 and 3 above (if issued in a different language).

The documents referred to in points 1, 2, 3 and 4 must be attached to the Application Form, under penalty of exclusion from the selection.

- j) Candidates in the condition referred to in article 3, paragraph 1, letter c) of the Call for application, must attach to the Application form: a self-declaration of examinations sustained with final grades report and University Credits earned.
- k) Candidates with disability or SLD, must attach to the Application form: a certificate attesting their handicap/disability (pursuant to law no. 104/92) comprehensive of the diagnosis (necessary to judge the adequacy of the request) or the Diagnostic certification (SLD – article 3, law no. 170/2010).
- 4. Candidates will be excluded from the selection procedure if:
  - a) they are not among the subjects referred to in article 3, paragraph 1 of this Call for Application;
  - b) they have submitted the application form in different ways than those indicated in this announcement.
  - c) they have submitted the application form after the deadline.

#### Art. 5 – Selection Board

- 1. The Selection Board, appointed by the Rector after consultation with the Teaching Body or the Steering Committee, if established, is made up of at least 3 members, identified among university professors and researchers, including nonpermanent ones, belonging to the macro-sectors consistent with the educational objectives of the PhD course. Preferably, the majority of the Commission should be made up of lecturers from outside the University. The Commission may be supplemented by no more than two experts belonging to public or private research structures, including foreign ones, provided they are extraneous to the University.
- 2. The Board may make use, compatibly with the activities to be carried out, of online tools.

#### Art. 6 - Evaluation of qualifications, of the research project and of the oral exam

- 1. In its first session, the Selection Board determines the criteria to be used for the attribution of a score to the qualifications, the research project and the oral exam, in compliance with the principles and guiding criteria indicated in the following paragraphs.
- 2. The evaluation of qualifications and of the research project provides for the attribution of a maximum score of 50 points according to the following criteria:
  - a) up to a maximum of 20 points for the qualification, of which: up to 7 points for the graduation grade (average of grades in the case of undergraduates); up to 2 points for university educational activities; up to 4 points for research activities; up to 2 points for being a speaker at conferences; up to 3 points for scientific publications; up to 2 points for other academic qualifications and/or professional activities;
  - b) up to 30 points for the research project;
- 3. A score not inferior than 34 has to be reached in order to be admitted to the oral exam.



### Numero Registro: Decreto Rettorale 802

- 4. The oral exam, to be conducted in Italian (or English, in the case of foreign candidates), involves the attribution of a maximum score of 50 points, and it consists in: the presentation and discussion of the research project in consideration of the core themes of the doctoral programme (up to 35 points); the reasons behind the specific training path of the research doctorate (up to 5 points); the assessment of the knowledge of the English language (up to 10 points). English language proficiency will be assessed and evaluated through an interview in English on the research project and the main themes of the PhD programme.
- 5. A minimum overall score of 70 points (given by the sum of the points obtained for the qualifications, the research project and the oral exam) is an essential requirement in order to be considered suitable and access the final ranking.
- 6. The Selection Board, upon the outcome of the evaluation of qualifications, research projects and oral tests, compiles the final merit rankings of suitable candidates. On the basis of the first ranking, 6 positions with scholarships and 2 positions without scholarships are assigned.

#### Art. 7 – Call for the oral exam and evaluation

1. Candidates admitted to the oral exam are summoned by means of a communication sent via certified e-mail to the certified email address provided in the Application Form, with at least 7 days' notice and, with the same terms, via publication on the institutional website of the University in the "Research Doctorate" section.

#### Art. 8 – Formation of the merit ranking and assignment of scholarships

- 1. The candidate who achieves an overall score lower than 70/100 is not considered suitable.
- 2. In the event of a tie, the youngest candidate prevails.
- 3. Doctoral scholarships are assigned to candidates according to the ranking order.
- 4. Places not covered by scholarships are assigned to suitable candidates until they are exhausted.
- 5. Following the renunciation of the scholarship by a candidate who is in a useful position in the ranking, the scholarship is assigned to the candidate in the next position in the same ranking. The renouncing candidate will be the first among the candidates without a scholarship.
- 6. Winners who do not proceed with the enrolment by the tenth day following the publication of the ranking on the "Research Doctorate" section of the website will be considered as having renounced.
- 7. Following renunciation by a winner, his/her relative place with or without scholarship will be assigned to the first candidate placed in a useful position in the same merit ranking. In this case, his/her enrolment must be completed within the peremptory term of 5 working days from the date that will be indicated in the takeover notice sent by certified email.
- 8. The places that eventually become vacant within one month from the beginning of the first year of the course due to renunciation are assigned to those who hold a useful position in the merit ranking. As regards the methods of communication of the takeover and the deadlines for completing the enrolment, the provisions of the previous paragraph apply.
- 9. The ranking is valid only in case of renunciation by the winning candidate(s), i.e. missed enrolment on the Phd Programme.

#### Art. 9 – Terms of the procedure

1. The Selection Board concludes its work in accordance with the legislation.



### Numero Registro: Decreto Rettorale 802

- 2. Acts are approved by the Rector's Decree within 15 days of delivery. In the event that irregularities or formal defects are found, the Rector will send the documents back to the Selection Board, assigning, at the same time, a peremptory deadline for regularization.
- 3. The acts of the Board consist of the minutes of the individual meetings, with the opinions expressed for each candidate attached.
- 4. The merit ranking is published on the website of the University in the "Research Doctorate" section.

### Art. 10 – Enrolment in the PhD course

- Successful candidates must register by the tenth day following the date of the ranking publication; in regards to the following academic years, candidates must register by the 31st October of each year. Enrolment must be formalised by paying the first instalment of € 1,500.00 (PhD students without a grant) / € 430.00 (PhD students with a grant, placed in the first three positions in the ranking) / € 500.00 (PhD students with a grant, placed beyond the first three positions in the ranking), along with current value revenue Stamp and Regional Tax for the right to study, within the above-mentioned deadline, under penalty of forfeiture of the right acquired.
- 2. Candidates not yet in possession of the admission requirements at the time of the application (if in a useful position in the ranking for the admission to the PhD program) must submit by 25/11/2021, by means of a certified e-mail to be sent to <u>concorsi.lcu@pec.it</u>, the documents required according to article 3 under penalty of forfeiture of enrolment rights.

### Art. 11 – Payments

- 1. Doctoral students are required to pay the current value Revenue Stamp and Regional Tax for the right to study.
- Doctoral students who do not receive a grant are required to pay the full annual fee of € 3,000.00. Doctoral students receiving grants and placed in the first three positions in the ranking, are required to pay a partial annual fee of € 860.00. Doctoral students receiving a grant and placed beyond the first three positions in the ranking, are required to pay a partial annual fee of € 1,000.00.
- 3. The annual fee for admission to and attendance of the PhD course is divided into two instalments:
  - a) first instalment of € 1.500,00 (PhD students without a grant) / € 430,00 (PhD students with a grant, placed in the first three positions in the ranking) / € 500,00 (PhD students with a grant, placed beyond the first three positions in the ranking) to be paid by the deadline for enrolment (article 10, paragraph 1); in regards to the following academic years, the first instalment has to be paid by the 31st of October of each year. Proof of payment, duly scanned, must be sent by e-mail to dottorato@unilink.it, specifying the reason for payment;
  - b) second instalment of € 1.500,00 (PhD students without a grant) / € 430,00 (PhD students with a grant, placed in the first three positions in the ranking) / € 500,00 (PhD students with a grant, placed beyond the first three positions in the ranking) to be paid by the 22nd of December each year.
- 4. The amounts due for the two instalments must be paid using the following bank details: IT58P0538703201000002075742. Failure to pay one or both instalments (as well as the Revenue Stamp and/or the Regional Tax for the right to study) will result in forfeiture of the right to be admitted onto the doctoral programme.



### Numero Registro: Decreto Rettorale 802

- Scholarships, in accordance with the M.D. January 25, 2018, present an annual amount of € 15,343.28 and are subject to the INPS social security contribution - Gestione Separata, pursuant to article 2, paragraphs 26 and following, of Law n. 335 of 8 August 1995 and subsequent amendments and additions.
- 2. Scholarships are disbursed in deferred monthly instalments;
- 3. These scholarships cannot be combined with other scholarships awarded for any reason, except those granted by national or foreign institutions, useful for integrating the research activity of the PhD student who stays abroad.
- 4. Starting from the second year, each PhD student is ensured, in addition to the scholarship and within the financial resources available in the budget of the accredited subjects under current legislation, a budget for their research activity (either in Italy or abroad) no lower than 10% of the amount of the scholarship itself; in the case of research activities carried abroad, lasting no more than 18 months and previously approved by the Teaching Body, the budget could reach a maximum of 50% of the amount of the scholarship.
- 5. Stays abroad may benefit from additional mobility allowances, paid for by the Departments or third parties.
- 6. The scholarship is confirmed for the following academic year, provided that the student has completed the program of activities planned for the previous year, verified according to the established procedures, and maintains full administrative regularity.

#### Art. 13 – Rights and commitments of PhD students

- 1. Admission to the PhD course involves an exclusive and full-time commitment, without prejudice to the possibility of a specific discipline in relation to the provisions of art. 12 of M.D. n. 45 of 8 February 2013. The PhD student cannot be simultaneously enrolled in another PhD course, Study Course, Master's or Specialization Course, TFA, in Italy and abroad, without prejudice to any other situation authorized by the Ministry. Any authorizations to carry out work activities can be issued by the Board as long as they do not prevent the student from participating in the activities envisaged by the Doctoral Course.
- 2. All doctoral students are subjected to annual verifications of the completion of the program of activities planned for the previous year. Failure to pass the annual test implies forfeiture of the PhD course, with the obligation to return the scholarship for the current year, where granted.
- 3. PhD students, as an integral part of their training project, can carry out subject to the authorization of the College and without this entailing an increase in the scholarship tutoring activities for the students of the Bachelor's and Master's Degree courses as well as within the maximum limit of 40 hours (article 12 paragraph 2 Ministerial Decree 45/2013) in each academic year supplementary teaching activities.
- 4. Employees of the public sector admitted to the PhD courses are entitled, for the normal duration of the course, to the leave of absence provided for by collective bargaining agreements or, in regards to personnel under public law, to a special leave of absence for study reasons, in accordance with the needs of the Administration (pursuant to article 2 of Law no. 476, 13 of August 1984, and subsequent amendments), with or without pay, unless explicitly waived, only if they are enrolled for the first time in a PhD course, regardless of the disciplinary field.
- 5. The interventions relating to the right to education provided by Legislative Decree no. 68 of 29 March 2012 are extended for PhD students, as well as the provisions for maternity leave referred to in M.D. of 12 July 2007 published on the Gazzetta Ufficiale n. 247 of the 23 october 2017 are extended for female Phd students.



### Numero Registro: Decreto Rettorale 802

6. The suspension of the PhD course is envisaged in the cases provided for by article 19 of the PhD University Regulations.

#### Art. 14 - Achievement of the PhD title

- 1. The Ph.D. title (Dott. Ric. Or Ph.D.) is awarded following the positive evaluation of a research thesis that contributes to the advancement of knowledge or methodologies in the chosen field of investigation.
- 2. The PhD thesis has to be written in Italian or English, or another language if authorized by the Board; the thesis has to be accompanied by a summary, written in Italian and English, and a report by the doctoral student on the activities carried out together with any publications produced during the PhD.
- 3. The thesis is assessed by at least two highly qualified professors, whom might belong to foreign institutions, extraneous to the Board and to affiliated and/or syndicated entities that contribute to the awarding of the doctoral degree. The external evaluators express a written analytical judgment on the thesis and recommend its admission to the public discussion or its postponement for a period not exceeding six months if they consider significant additions or corrections necessary. After this period, the thesis is in any case admitted to public discussion, accompanied by a new written opinion of the same evaluators, made in the light of the corrections or additions made.
- 4. The public discussion takes place in front of a Commission, appointed by the Rector on the proposal of the College, made up of a minimum of three members identified among professors, university researchers and fixed-term researchers, including foreigners, specifically qualified in the relevant fields of reference. The majority of the Commission is made up of professors from outside the university. The Commission may be supplemented by no more than two experts belonging to public or private research structures, including foreign ones, provided they are extraneous to the University.

For those candidates to whom the Board has recognized the possibility of acquiring the qualification of "Doctor Europaeus", the Commission must be constituted by at least one professor or researcher belonging to a European University. In the case of specific co-protection agreements, the Commission is constituted according to the procedures set out in the agreements themselves. The expenses related to the mobility of the members of the Commission are borne by the Doctorate.

- 5. At the end of the discussion, the thesis with a motivated written collegial judgment is approved or rejected.
- 6. Within thirty days of the discussion and approval of the thesis, the university will deposit a copy of the thesis, in electronic format, in the ministerial database, pursuant to article 14 M.D. n. 45 of 2013. Subject to the authorization of the Board, or the Steering Committee if established, parts of the thesis may be made unavailable in relation to the use of data protected by trade secret, in accordance with the current legislation on the subject. The obligation to deposit the thesis at the Central National Libraries of Rome and Florence remains unaffected.
- 7. The PhD title is issued by the Rector who, at the request of the interested party, certifies the achievement.
- 8. The additional "Doctor Europaeus" certification may be issued by the University in accordance with current legislation and the provisions of the University Regulations on Doctorates.

#### Art. 15 – Treatment of personal data

1. Personal data will be processed according to the provisions of the European Data Protection Regulation no. 679/2016 (GDPR), which provides for the protection of people and other subjects regarding the processing of personal data. The University, as the "Data Controller", will process the personal data provided pursuant to Legislative Decree n. 196 of 30 june 2003 and subsequent



#### Numero Registro: Decreto Rettorale 802

amendments and additions "Codice Privacy" as well as article 13 of the GDPR, therefore exclusively for the purposes of the announcement and the survey in question; specific information regarding said purposes can be requested to the Head of the Procedure. Personal data will be subject to processing in compliance with the aforementioned regulations and the confidentiality obligations which inspire the activity of the Data Controller. The data will be processed with IT tools, on paper, and any other type of suitable support, in a lawful and correct manner for the purposes indicated in the Call for Application itself and for the possible establishment of an employment relationship between the Parties, in compliance with the security measures provided for by the GDPR. At any time, the interested party may exercise their rights towards the Data Controller. The collected data will be kept for a period of time not exceeding the achievement of the purposes for which they are processed ("Conservation limitation principle", art. 5 GDPR) and / or for the time necessary for legal obligations. The verification of the obsolescence of the data stored in relation to the purposes for which they are collected is carried out periodically.

#### Art. 16 - Head of the procedure and Secretariat

1. Head of the Procedure: Dr. Achille Patrizi.

#### Art. 17 – Final arrangements

- 1. For matters not provided for in this announcement, please refer to the current legislation and the University Regulations for the PhD course.
- 2. Against this deed it is possible to file a judicial appeal within 60 days to the Lazio Regional Administrative Court, Rome, or an extraordinary appeal to the President of the Republic within 120 days.

Rome, 28 September 2021

The Rector Prof. Carlo Alberto Giusti



Numero Registro: Decreto Rettorale 802

#### <u>ANNEX A</u>

#### **DESCRIPTION AND OBJECTIVES**

The increasingly pervasive use of IT and knowledge technologies is altering the rules of post-modern competition, causing a complex transformation of society, businesses, universities, industries and competitive environments.

The ambidexterity of start-ups and innovative small and medium-sized enterprises has completely changed the rules of R&D processes. The strong increase in disruptive technological changes they introduced, is pushing all economic, social and institutional actors to develop dynamic capacities, in order to support the processes of exploration and application of new knowledge, solutions and technologies. To this must be added the need to respond effectively to increasingly complex and diversified social needs. In particular, the growing demands of stakeholders are raising the awareness that a competitive model based solely on maximising production capacity and reducing costs can only generate а temporary advantage. As underlined in the Fair and Sustainable Wellbeing Framework (Bes) promoted by ISTAT, and mentioned in the economic and financial Documents following the approval of Law 163/2016, research and innovation determine, indirectly, the overall well-being, and they also underpin social and economic progress. Recalling the United Nations Framework Convention on Climate Change (UNFCCC), the sustainable management of R&D processes and, in particular, technology transfer, can be the main driver of change, giving rise to a new managerial and social paradigm defined by the literature as "Sustainable Innovation".

Considering this premise, the PhD course's aim is to examine in depth the main theme represented by the binomial innovationsustainability, intended as multidimensional expression of interconnected phenomena, thus intrinsically open to multidisciplinary approaches.

To this end, the course intends to foster an innovative, international, and interdisciplinary approach of basic and applied training and research on the subject of the management of sustainable innovation and the optimisation of technology and knowledge transfer processes between universities, companies, institutions and non-profit organisations.

Professors and researchers belonging to different SDS (Scientific Disciplinary Sectors), together with diversified and integrated cognitive and methodological tools, guarantee the multidisciplinary nature of the course, thus ensuring an adequate approach to a topic that can be addressed from multiple points of view, as pinpointed in the different lines of research that the PhD proposes.

The identified research areas concern aspects of management, corporate finance, statistics, private law, business economics, sociology, political philosophy, computer engineering and management, as well as bio-medical elements relating to the quality of life and the psycho-physical well-being of people.

In particular, five main lines of research are identified:

Line of research no. 1   Innovation Management in Knowledge ecosystems
Line of research no. 2   Sustainable innovation impact assessment
Line of research no. 3   Research and Development, Technology transfer and Foresight
Line of research no. 4   Collaborative platforms for Sustainability Innovation



Numero Registro: Decreto Rettorale 802

Line of research no. 5 | Sustainable Innovation Governance and Local Economic Development.

### LINES OF RESEARCH

#### Line of research no. 1 | Innovation Management in Knowledge ecosystems

In recent years, the topic of sustainable innovation has drawn the interest of various research fields at international level, gathering matters belonging to different ERC (European Research Council) macro-sectors.

These studies highlight how the reconciliation of economic, social and environmental aspects in innovation activities is a contributing factor to the creation and retention of long-term competitive advantages, when it comes to organisations, and the quality of life and well-being of citizens and communities.

In this framework, the PhD intends to foster research projects oriented towards investigating the following topics and areas: the sustainable management of the innovation cycle; the induction and management of innovation processes within enterprises starting from the evolutionary dynamics of knowledge; the effectiveness of new innovation management models oriented to shared value and environmental and social sustainability; the cognitive nature of innovation processes and the perception of enterprises as dynamic knowledge systems (*knowledge-based theory*); innovation management, both at a strategic and operational level; innovation financing (formal venture capital, business angel investors, project financing, crowdfunding); the effectiveness of models for analysing the innovation needs of organisations; the impact of knowledge management systems (KMS) on innovation; the creation of Knowledge Innovation Communities (KICs); the development of conceptual frameworks and the validation of strategic market-oriented business design methodologies and tools; user-centred and data-driven innovation of products and services; the employment of new technologies for social needs assessment; the development of new technologies for the promotion of social inclusion, well-being, quality of life, active ageing and the prevention of psycho-physical risks in the workplace.

#### ERC fields:

- SH1 Individuals, institutions and markets: economics, finance and management;
- PE8 Products and process engineering: product design, process design and control, construction methods, civil engineering, energy systems, material engineering;
- PE6 Computer science and informatics: informatics and information systems, computer science, scientific computing, intelligent systems;
- LS7 Diagnostic tools, therapies and public health: Aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics



Numero Registro: Decreto Rettorale 802

#### Line of research no. 2 | Sustainable innovation impact assessment

Swift and unrelenting technological developments, fostered by Information and Communication Technologies (ICT) and the advent of Smart Manufacturing, are causing disruptive social and economic changes. The employment of innovative digital technologies and *Internet of Things* solutions, both based on automation, data exchange and interconnection in support of industrial processes, allows to boost cooperation and intertwinement of resources along the entire value chain; it pledges to increase productivity and GDP growth and to improve people's well-being and health. At the same time, digital technologies may entail negative externalities that could include increasing economic and wage disparities, worsening working conditions related to labour intensity, energy consumption, and environmental pollution.

In this context, the new concept of Industry 5.0 promoted by the European Commission, aims at drawing attention on the topic of 'sustainable innovation', and it does so by acknowledging that the social role of industry goes beyond employment and skills development, encompassing care and respect for the planet as well as the well-being of the workers standing at the core of the production process.

Considering these premises, the 'Sustainable Innovation' model urges companies to take into account sustainability (environmental, social and financial) when it comes to their R&D processes, from ideas generation to products and services commercialisation. In particular, the issue of assessing and measuring the impact of Key Enabling Technologies on people's well-being and lives is becoming increasingly important for both companies and policy makers.

In view of the growing interest from people, media and some institutions, and considering the rate and speed at which information are spreading at global level, certification methods are also attracting the attention of researchers, managers and policy makers. A product/service certified as ethical, sustainable and innovative, which is produced by a sustainable supply chain becomes potentially more attractive on the market. A certification of sustainability and innovativeness could provide a differentiated chain supply able to influence the behaviour of consumers and users. Such certification could be used to influence the lower levels of the supply chain, thus improving the overall performance of the chain. At the same time, the development of policies and evaluation tools for Green Public Procurement (GPP) is also being studied and discussed.

In line with this framework, this line of research encourages projects oriented towards assessing and estimating the impact of the 'sustainable innovation'. In particular, abiding to the strategic guidelines of the 2030 Agenda for Sustainable Development, it endorses basic and applied research projects aimed at investigating the impact of technological innovation on the 17 Sustainable Development Goals (SDGs), and the 169 targets that substantiate them.

In this context, original research projects with the following cognitive purposes are promoted: the study of the main theoreticalconceptual frameworks developed by the scientific literature for performance measurement; the development and validation of new econometric models able to measure and evaluate the main drivers and impacts of sustainable innovation; the study of new methodologies to assess the circularity of products/processes/services; new technologies for the certification of sustainable innovation (e.g. Blockchain); the development and testing of sustainable and data-driven management approaches (e.g. Big Data Analytics); the study of new models and standards for financial accounting and non-accounting reporting.



### Numero Registro: Decreto Rettorale 802

Further research topics include investigation of the following areas: the assessment of the negative externalities of digital technologies on human health; the study of multidimensional models for the development of wearable technological applications aimed at assessing the impact of physical and motor activity on the performance and mental and physical wellbeing of workers; the impact of information technologies and communication networks on health management, prevention of major cardiovascular diseases, promotion of healthoriented lifestyles and active ageing.

#### ERC fields:

- SH1 Social Sciences and Humanities. Individuals, institutions and markets: economics, finance and management
- SH3 Environment and society: environmental studies, demography, social geography, urban and regional studies
- LS8 Evolutionary, population and environmental biology: evolution, ecology, animal behaviour, population biology, biodiversity, biogeography, marine biology, eco-toxicology, prokaryotic biology
- PE6 Computer science and informatics: informatics and information systems, computer science, scientific computing, intelligent systems.

### Line of research no. 3 Research and Development, Technology transfer and Foresight

In a knowledge-based economy, technological skills and capacity for innovation play a strategic role.

In order to manage R&D processes, developing a synergistic and relational vision is essential in order to be able to face the major global challenges that have radically transformed the face of our society. At the same time, it is essential to endorse R&D of sustainable, value-creating solutions.

In this framework, this line of research aims at promoting projects oriented towards investigating the drivers and barriers that the implementation of a regenerative economic system faces and towards validating new circular, inclusive R&D models based on the expectations and needs of both users and stakeholders.

In line with the principles of the OECD Frascati Manual, the research will focus on the management of basic and applied research processes, and on experimental development, from scientific research to markets.

Research projects will be promoted in the following areas as well: the role of R&D in promoting growth, competitiveness, employment, inclusion, welfare and health; R&D methods and phases; managerial, financial, cognitive, organisational, cultural and legal drivers of technology and knowledge transfer processes; discoveries, translations and commercial developments of new therapies and solutions to promote human health and well-being; R&D of new diagnostic and therapeutic methodologies; the role of key legal enablers to accelerate the processes of knowledge and technology transfer among and within organizations.

Furthermore, this line of research endorses research projects aimed at studying the key elements and managerial implications of *Technology Foresight* models, with particular reference to converging technologies enabling the bio-economy, the circular economy and the transition to better resource use patterns.



Numero Registro: Decreto Rettorale 802

#### ERC fields:

- SH1 Social Sciences and Humanities. Individuals, institutions and markets: economics, finance and management
- SH2 Institutions, values, beliefs and behaviour: sociology, social anthropology, political science, law, communication, social studies of science and technology
- PE6 Computer science and informatics: informatics and information systems, computer science, scientific computing, intelligent systems
- PE8 Products and process engineering: product design, process design and control, construction methods, civil engineering, energy systems, material engineering

### Line of research no. 4 Collaborative platforms for Sustainability Innovation

In the 2000s, with the advent of the sixth generation of innovation, the future of management literature is marked by the valuable contribution of Chesbrough (2003). Chesbrough introduced the topic of "Open Innovation", thus anticipating a clear shift from a *closed* system that prevents contamination with the outside world, to total openness towards the surrounding environment without defining its boundaries or limits. Digital technologies are further transforming innovation processes (from research to the development and commercialisation phases).

In this context, *digital and collaborative platforms* increasingly represent an alternative for companies, when it comes to adopting sustainable leanings, defining the role of users and consumers in a distributed innovation process.

These platforms provide a disintermediation function with respect to Open Innovation, promoting and facilitating forms of collaborative innovation, supporting R&D projects and intensifying the interactions between the actors in order to explore new solutions. Through collaborative platforms, users can interact, buy products and services, access additional services or participate in co-creation processes, contributing to the wider phenomenon of the so-called 'collaborative economy'. At the same time, companies can use these tools to facilitate processes of technology transfer, capital raising (crowdfunding), resource optimisation (crowdsourcing), networking and intellectual property rights management.

These types of digital platforms, in particular, are making the process of stakeholder engagement more accessible and sustainable for small and medium-sized enterprises as well, redesigning traditional industrial landscapes towards an eco-systemic perspective.

This line of research will promote original research projects related to the impact of digital transformation on innovation management and the most appropriate tools to promote sustainable, inclusive, resilient and resource-optimised innovation ecosystems.

In particular, research projects in the following areas will be promoted: the impact of open innovation platforms on online technology transfer; the role of *open source innovation platforms*; digital crowd-engagement platforms to enable user participation and contribution to the achievement of the UN Sustainable Development Goals; *open innovation participatory ecosystems*; digital open innovation, crowdsourcing, and sustainable business growth; value co-creation with customers and suppliers; collaborative mechanisms associated



#### Numero Registro: Decreto Rettorale 802

with technology and knowledge acquisition; the importance of strategic alliances for knowledge and technology transfer; the creation of Collaborative Business Models; advantages and disadvantages of collaborative platforms compared to traditional trade in goods and services; agile Digital Open Innovation tools to accelerate digital transformation of processes and products in health and wellness; the impact of digital open platforms on business model innovation and the creation of more flexible and customisable products and services that generate value.

#### ERC fields:

- SH1 Social Sciences and Humanities. Individuals, institutions and markets: economics, finance and management
- SH3 Environment and society: environmental studies, demography, social geography, urban and regional studies
- PE6 Computer science and informatics: informatics and information systems, computer science, scientific computing, intelligent systems

#### Line of research no. 5 | Sustainable Innovation Governance and Local Economic Development

During the 20th century, the possibilities offered by the world economy have created far better living conditions and widespread opportunities for prosperity than in previous centuries. Average life expectancy has risen significantly also due to the permanent elimination of once deadly diseases. Technological research and the development of new equipment and machinery have improved the relationship between actual work and physical effort involved. In addition, means of transportation previously unknown or inaccessible to most people have made business connections and human interactions more efficient; together with the widespread availability of computers, mobile phones and the internet, they have led to wider circulation of information and new perspectives in work and everyday life. In spite of the advantages, however, many signs point out the side effects and risks of the established economic system, by the modern economic activities and production caused new means themselves. The economic value chain and the social value chain do not always agree; the debate on the impact of public policies on sustainable innovation as a driver of business growth and territorial development is based on this contradiction.

This line of research aims to promote original research projects in the following areas: local policies and strategies for sustainable development in line with the 2030 United Nations Agenda; public responsibility and smart procurement; participatory processes methods; educational models, design and delivery of training activities, for adults and group management; open government: actors, models, tools; innovation for growth in smart territorial systems; design of services for a smart community: design thinking and sustainability; smart business models, smart ecosystems, public-private partnerships for the development of innovative services for territories; constraints and opportunities of territorial data management, geographical information, information flows: technologies and tools; Knowledge Management, Open Data, Big Data and Smart Data Platforms at the city-user service; assessment of the impact of public policies for sustainable innovation and industrial companies' performance; social impact finance; the effectiveness of national and international policies on improving companies' performance and the development of new governance models oriented towards "shared



### Numero Registro: Decreto Rettorale 802

value"; the management of social relations with stakeholders and the maximisation of the social and cultural impact of innovation.

#### ERC fields:

- SH1 Social Sciences and Humanities. Individuals, institutions and markets: economics, finance and management
- SH2 Institutions, values, beliefs and behaviour: sociology, social anthropology, political science, law, communication, social studies of science and technology;
- SH3 Environment and society: environmental studies, demography, social geography, urban and regional studies.
- LS7 Diagnostic tools, therapies and public health: aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics

### EXPECTED OCCUPATIONAL AND PROFESSIONAL OPPORTUNITIES

The doctorate aims at providing an adequate preparation to carry out professional activities in basic and applied research, also at university level, and highly qualified professional activities in companies and public or private national and international structures/institutions/centres, which deal with aspects related to the management of innovation, sustainability, technology transfer in the fields of economics and statistics, political and social sciences, legal sciences and industrial and information engineering.

Due to its interdisciplinary nature, the doctorate allows the acquisition of transversal scientific knowledge and skills and solid specialist skills; it also allows specific in-depth studies through the possibility of research experience abroad supported by the presence of foreign lecturers in the college.

The training translates into an adequate scientific production.



Numero Registro: Decreto Rettorale 802

## <u>ANNEX B</u>

#### **APPLICATION FORM**

#### The undersigned

Surname	
Name	
Date of birth	
Place of birth	
Country	
Citizenship	
Tax Code	
Permanent address	
City/Town	
Postal code	
Country	
Phone	
Mobile Phone	
eMail	
PEC (compulsory)	

## REQUESTS

to be admitted to participate in the selective procedure for the admission to the PhD course referred to in the Call for application issued with Rector's Decree No.

To that end, aware of the criminal liability that it may incur in the event of a false declaration, pursuant articles 46 and 47 of DPR no. 445/2000,

## DECLARES\* :



Numero Registro: Decreto Rettorale 802

To be in possession of the requirements referred to in article 3, paragraph 1, letter a) of the Call for application
<b>(Qualification obtained in Italy)</b> University degree: 🖵 Laura Vecchio Ordinamento 🖵 Laura Specialistica 🖵 Laura Magistrale
in
University
achieved on// final mark/110.
To be in possession of the requirements referred to in article 3, paragraph 1, letter b) of the Call for application
(Qualification obtained abroad) and:
To have the certificate of equivalence of qualifications issued by
on/ (of which a copy is attached to this application form).
To NOT possess the certificate of equivalence of qualifications, thus the documents referred to in article 4, paragraph 3, letter i) of the Call
for application are attached to this application form.
To be in the condition referred to in article 3, paragraph 1, letter c) of the Call for application
(Qualification to be obtained by 31/10/2021)
thus a Self-Declaration of examinations sustained with final grades report and University Credits earned are attached to this application form.
To have an adequate knowledge of the Italian language (for non-Italian citizens).
To commit to attend the PhD course full-time according to the procedures set out by the Teaching Body.
To commit to undertake leave from work, if employed in the public sector.
To have read the Call for participation.
To commit to communicate in a timely manner any change of the PEC.
To require, due to their disability or SLD, the following aids and/or interventions in order to withstand the test.
to that end, either a certification attesting their handicap/disability (pursuant to law no. 104/92) comprehensive of diagnosis, or the Diagnostic
certification (SLD – article 3, law no. 170/2010), are attached to this application form and they comply with the originals.
To be the author/co-author of the publications listed in Annex "List of publications attached to the application" (up to 3) and that those -
attached in PDF format to this application form - comply with the original ones.
To have actually carried out the university educational activities indicated in Annex "List of university educational activities", which consists of no sheet/s.
To have actually participated in the national and international research groups indicated in Annex "Participation in national and international



### Numero Registro: Decreto Rettorale 802

research groups", which consists of no. \_\_\_\_ sheet/s.

□ To have actually carried out the activities of speaker at national and international conferences and conventions listed in Annex "Speaker at national and international conferences and conventions", which consists of no. \_\_\_\_ sheet/s.

□ To possess the language skills indicated in Annex "Language skills", which consists of no. \_\_ sheet/s.

□ To hold additional qualifications considered valuable for evaluation purposes, listed in annex "Additional qualifications attached in PDF format", and that those - attached in PDF format to the application - comply with the original ones.

To hold the additional qualifications listed in the CV, and that the attached documents and qualifications comply with the original ones.

\* The choice is made by ticking the box on the left of the item of interest.

## ATTACHMENTS

- Curriculum vitae;
- Research project (dated and signed);
- Certificate of equivalence of qualifications and Diploma Supplement (*if the requirements referred to in article 3, paragraph 1, letter 'b' of the Call for application are met*);
- Documents referred to in article 4, paragraph 3, letter 'i' (if in the requirements referred to in article 3, paragraph 1, letter 'b' of the Call for application are met and the Certificate of equivalence of qualifications is NOT available);
- Self-Declaration of examinations sustained with final grades report and University Credits earned (*if the requirements referred to in article 3, paragraph 1, letter 'c' of the Call for application are met*);
- Certification attesting their handicap/disability (pursuant to law no. 104/92) comprehensive of the diagnosis or the Certificate of diagnosis (SLD article 3, law no. 170/2010) complying with the original (*if the requirements referred to in article 3, paragraph 3 of the Call for application are met*);
- Scientific publications listed in Annex "List of publications attached to the application" (up to 3);
- Additional qualifications listed in Annex "Additional qualifications attached in PDF format";
- Copy (front and back, dated and signed) of a valid identity document;
- Copy (front and back, dated and signed) of the Tax Code/National ID n.;
- Proof of payment of € 100,00 as a contribution for participating in the selective test.

The undersigned also declares to be informed that the personal data collected will be processed exclusively in the context of the procedure for which they are provided.

Place \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_ the Undersigned \_\_\_\_\_\_



Numero Registro: Decreto Rettorale 802

## LIST OF PUBLICATIONS ATTACHED TO THE APPLICATION

no.	Publication Title	Publication Year*	Publisher	Identification Code	Type **
1					
2					
3					

\* In regards to works accepted for publication and in course of publication, attach the publisher's declaration in PDF format.

\*\* Specify whether article, book chapter, monograph, curation or other.



Numero Registro: Decreto Rettorale 802

## LIST OF UNIVERSITY EDUCATIONAL ACTIVITIES \*

no.	Start-end date	Educational activity	Replacement/ Supplementary/ Exercise teaching	SSD	ECTS	University	Faculty/Course**	Attendance
1	from// to//		<ul><li>Repl.</li><li>Suppl.</li><li>Ex.</li></ul>				F C	<ul> <li>In class</li> <li>Online***</li> <li>Other</li> </ul>
2	from// to//		<ul><li>Repl.</li><li>Suppl.</li><li>Ex.</li></ul>				F C	<ul> <li>In class</li> <li>Online***</li> <li>Other</li> </ul>
3	from// to//		<ul><li>Repl.</li><li>Suppl.</li><li>Ex.</li></ul>				F C	<ul> <li>In class</li> <li>Online***</li> <li>Other</li> </ul>
4	from// to//		<ul><li>Repl.</li><li>Suppl.</li><li>Ex.</li></ul>				F C	<ul> <li>In class</li> <li>Online***</li> <li>Other</li> </ul>
5	from// to//		<ul><li>Repl.</li><li>Suppl.</li><li>Ex.</li></ul>				F C	<ul> <li>In class</li> <li>Online***</li> <li>Other</li> </ul>

\* If the available rows are not sufficient, use the sheet several times by placing a progressive numbering in the field at the bottom of the document; if the sheet was sufficient, that is not necessary.

\*\* In addition to the faculty, indicate the degree course, the master's degree, the specialization or doctoral course to which the teaching pertained.

\*\*\* By 'Online' we mean an educational activity that does not include any compulsory in class and/or workshop activity; for courses that include both online and in class/workshop activities, tick "other".

For activities carried out abroad, it is necessary to attach a suitable documentation copy.



Numero Registro: Decreto Rettorale 802

## PARTICIPATION IN NATIONAL AND INTERNATIONAL RESEARCH GROUPS \*

no.	Start-end date	Research Group	National - International	Institution	Role
1	from/ to/		<ul><li>National</li><li>International</li></ul>		
2	from/ to//		<ul><li>National</li><li>International</li></ul>		
3	from// to//		<ul><li>National</li><li>International</li></ul>		
4	from// to//		<ul><li>National</li><li>International</li></ul>		
5	from// to//		<ul><li>National</li><li>International</li></ul>		

\* If the available rows are not sufficient, use the sheet several times by placing a progressive numbering in the field at the bottom of the document; if the sheet was sufficient, that is not necessary.

For activities carried out abroad, it is necessary to attach a suitable documentation copy.



Numero Registro: Decreto Rettorale 802

## SPEAKER AT NATIONAL AND INTERNATIONAL CONFERENCES AND CONVENTIONS \*

no.	Year	Place	Event Title	Report Title	National - International	Institution
1					<ul><li>National</li><li>Internat.</li></ul>	
2					<ul><li>National</li><li>Internat.</li></ul>	
3					<ul><li>National</li><li>Internat.</li></ul>	
4					<ul><li>National</li><li>Internat.</li></ul>	
5					<ul><li>National</li><li>Internat.</li></ul>	
6					<ul><li>National</li><li>Internat.</li></ul>	
7					<ul> <li>National</li> <li>Internat.</li> </ul>	
8					<ul><li>National</li><li>Internat.</li></ul>	
9					<ul><li>National</li><li>Internat.</li></ul>	
10					<ul><li>National</li><li>Internat.</li></ul>	

\* If the available rows are not sufficient, use the sheet several times by placing a progressive numbering in the field at the bottom of the document; if the sheet was sufficient, that is not necessary.

For activities carried out abroad, it is necessary to attach a suitable documentation copy.



Numero Registro: Decreto Rettorale 802

### LANGUAGE SKILLS \*

no.	Language	CEFR level	Certification	(if a certification was achieved) Achievement date and certification body
1			QY QN	
2			QY QN	
3			QY QN	
4			QY QN	
5			QY QN	

\* If the available rows are not sufficient, use the sheet several times by placing a progressive numbering in the field at the bottom of the document; if the sheet was sufficient, that is not necessary.

For activities carried out abroad, it is necessary to attach a suitable documentation copy.

Language skills – Page no.\_\_\_\_\_



Numero Registro: Decreto Rettorale 802

## ADDITIONAL QUALIFICATIONS ATTACHED IN PDF FORMAT

no.	Description	No. pages
1		
2		
3		
4		
5		

Use this form to list all the qualifications considered relevant for evaluation purposes.



Numero Registro: Decreto Rettorale 802

## ANNEX C

#### **RESEARCH PROJECT OUTLINE**

Candidate's full name:	
Degree achieved/University: _	
Research project title:	

#### Abstract

Please provide a brief overall summary of the proposed research project. *Max 1.000 characters, spaces excluded.* 

#### Presentation of the research project

Briefly introduce the chosen research topic, the context and the scientific debate in which it is set, highlighting its relevance and originality. Briefly introduce the macro-objectives of the hypothetical research and explain its contribution to the advancement of scientific knowledge in relation to the current status of the studies on the subject.

Max 2.000 characters, spaces excluded.

#### Literature review and scientific basis

Present in detail the current status of the studies on the subject including precise bibliographic references. Reconstruct the main theories and scientific results of research related to the topic. Examine the most up-to-date literature on the topic and make clear, from the literature review, the research gap that the proposed project intends to fill.

Max 5.000 characters, spaces excluded.

#### Objectives and hypotheses of the research project

Present in detail the proposed research line and the research hypotheses underlying the project. Clearly define the research problem, its cognitive objectives and hypotheses in a way that is strictly consistent with the analysis of the literature review presented and with the research "gap" that has emerged.

Identify, as far as possible, the hypothesised variables that are most relevant to the operational implementation of the research. Explain clearly how the results of the proposed project will fill the gap that emerged from the literature review.

Max 2.500 characters, spaces excluded.

Hypothesis for the development of the project: methodologies, intermediate stages, tools to be used



#### Numero Registro: Decreto Rettorale 802

Present a hypothesis for the development of the proposed research project, also in terms of time, indicating: the hypothesised methods of investigation, the chosen methodologies of investigation, the types of empirical tests to be carried out, the type of data and sources to be used, the intermediate stages of development, the tools to be used in order to verify the research hypotheses and achieve the expected scientific results.

Max 2.500 characters, spaces excluded.

#### Expected scientific results

Describe briefly what contribution the research could make to the scientific debate, highlighting the originality of the expected results and their evaluation in relation to the current status of the studies on the subject. Explain in detail what practical implications the expected results might have in relation to the chosen line of research. Clearly explain the originality and relevance of the proposed research.

Max 2.000 characters, spaces excluded.

#### Essential bibliography

Insert the essential bibliography to be consulted in APA Style, consistent with the expected literature review and with the studies on the chosen topic. Indicate the most recent and innovative contributions on the topic.

Max 20 titles.