

Annex A

INFORMATION SHEET N. 1

Name of the doctoral course	Architecture and Design
Cycle	XLII
Curricula	=====
Duration	3 years
Coordinator	Prof. Daniele Colistra
Department	Architecture & Design (DAED)
Positions	6 positions, of which 5 positions with scholarships and 1 position without scholarship
Funding sources	The scholarships are funded by the University, co-financed by the Calabria Region and by companies and are all on research topics consistent with the regional smart specialization strategy (S3) Calabria 2021-2027
Research topics to be indicated in Annex B	All candidates, along with their application, must submit Annex B, indicating whether they intend to apply for a position with a scholarship or a position without a scholarship. Candidates intending to apply for a position with a scholarship must indicate their chosen research topic(s) from those listed below, up to a maximum of two research topics. If two research topics are chosen, the order of the proposals will be considered the priority: n. 2 scholarship positions in the S3 "Eco-sustainable construction, energy and climate" priority area. Research Topic A: <i>Culturally based adaptive urban regeneration. Applied experiences on iconic sites.</i> Research Topic B: <i>Protocols and adaptive devices for resilient design at sea.</i> n. 2 scholarship positions in the S3 "Tourism and Culture" priority area. Research Topic C: <i>Innovative survey and digitalization solutions for the accessibility and enhancement of cultural heritage.</i> Research Topic D: <i>Research and development of innovative solutions in the textile sector applied to design.</i> n. 1 scholarship position in the S3 "Environment, Circular Economy and Biodiversity" priority area. Research Topic E: <i>Landscape architecture and the boundaries between urban and extra urban: new forms of design.</i> For each research topic indicated, the candidate must submit a separate research project consistent with the chosen topic. Therefore, if two research topics are indicated, two separate research projects must be submitted, with their respective priorities. Candidates applying for a position without a scholarship must indicate the topic of their research project, freely chosen. They may also indicate one of the research topics available for positions with a scholarship. If a candidate applying for a position without a scholarship has indicated one of the research topics available for positions with a scholarship, that candidate may be considered for the possible assignment of a position with a scholarship only if there are still available positions on the chosen research topic, according to the ranking order.

Companies – S3 Calabria priority areas	Co-funding companies	Priority areas consistent with the Regional Smart Specialization Strategy (S3) Calabria 2021–2027	Research topic
	Consorzio Jobel Impresa sociale srl	Eco-sustainable construction, energy and climate	<i>Culturally based adaptive urban regeneration. Applied experiences on iconic sites.</i>
	Laboratorio Strumentale ABITAlab	Eco-sustainable construction, energy and climate	<i>Protocols and adaptive devices for resilient design at sea.</i>
	Naos lab srl	Tourism and Culture	<i>Innovative survey and digitalization solutions for the accessibility and enhancement of cultural heritage.</i>
	Kar.pe.ta. srl	Tourism and Culture	<i>Research and development of innovative solutions in the textile sector applied to design.</i>
	A.P.S. spin-off unirc srl	Environment, Circular Economy and Biodiversity	<i>Landscape architecture and the boundaries between urban and extra urban: new forms of design.</i>
Additional obligations for PhD students awarded scholarships co-financed by the Calabria Region, pursuant to the provisions of the "Guidelines"	1. Any renunciation of the scholarship entails the obligation to repay all scholarship instalments received up to the time of renunciation; 2. Failure to obtain the degree, attributable to the doctoral student, will result in the forfeiture of the benefit and the restitution of the amounts received; 3. Candidates, at the time of submitting the application, must be resident or domiciled in Calabria; otherwise, they are required to transfer their residence or domicile to the region within 6 (six) months of admission to the grant, under penalty of forfeiture of the benefit and the obligation to repay all instalments received.		
Required educational qualification	All degrees under the old system, specialist degrees (new system), and equivalent degrees for foreigners are formally eligible for admission. Previous studies in the "Architecture and Civil Engineering" field allow for full overlap between the minimum required knowledge and the educational objectives of the doctoral program.		
Documentation to be attached to the application	Applications must be submitted through the Esse3 platform, together with the following documentation: a. A valid identification document; b. Curriculum Vitae in Europass format; c. Academic qualification: - For candidates holding an Italian qualification: a <u>self-certification of the degree</u> required for admission to the competition, pursuant to Presidential Decree (D.P.R.) No. 445 of 28 December 2000; - For candidates holding a foreign qualification: a <u>degree certificate</u> indicating the study programme followed and the examinations taken, together with the corresponding grades. Additional documents deemed useful for the assessment of the suitability of the qualification may also be attached. Where the certificate and any additional documents are drafted in a language other than Italian or English, they must be translated and legalised by the Italian Embassy or Consulate in the country where the qualification was awarded. The suitability of a qualification awarded by a foreign university may be assessed by the Selection Committee solely for the purpose of admission to the selection procedure, on the basis of the certificates attached to the application.		

	d. Research proposal (using exclusively Annex B to this Call), written in either Italian or English and relating to the research topic(s) for which the candidate intends to apply (see the instructions set out in the section on research topics). Completion of Annex B (Section 1 and Section 2) is mandatory for admission to the competition referred to in this information sheet. The research project must not exceed 2,000 words, including an abstract of no more than 150 words, and shall be organised into the following parts: 1. Aims and objectives of the research; 2. State of the art of the scientific debate concerning the proposed field of study and any interdisciplinary aspects; 3. Research methodology; 4. Expected results; 5. References. The bibliography, tables and figures are not counted towards the word limit, and are permitted up to a maximum of 3 tables and 3 figures per project. Failure to comply with the maximum word count will be assessed negatively by the selection committees. e. Application form, duly completed and signed, after being downloaded from the Esse3 platform in PDF format. FOR NON-EUROPEAN CANDIDATES ONLY: Applicants from non-EU countries are advised that entry into Italy and the formalization of the start of in-person activities at the Università Mediterranea must take place no later than three months after the start date of the program. Failure to meet this deadline will result in automatic dismissal from the doctoral program and subsequent reduction in the ranking.
Admission Procedures	Admission will be based on: a) Evaluation of the research project and qualifications (maximum 60 points) b) Oral exam and assessment of English language proficiency (maximum 60 points) a) Evaluation of research project and qualifications. This assessment is aimed at identifying the candidate's preparation and motivation for participating in the doctoral program and will be based on the following documents and qualifications: • Curriculum Vitae highlighting educational background, degree grade, and any relevant qualifications (maximum 20 points); • Research project in Italian or English (maximum 40 points). Admission to the oral exam is granted with a score of at least 42/60 in the evaluation of the research project and curriculum vitae. b) Oral exam and assessment of English language proficiency. • Discussion of the project and assessment of the candidate's aptitude for scientific research. • Assessment of English language proficiency. Foreign candidates must demonstrate at least basic knowledge of Italian. Candidates must achieve a minimum score of 42/60 to be admitted to the final ranking.
Examination schedule	Evaluation of the research project and qualifications: 14 September 2026 The ranking of those admitted to the oral exam will be published by 18 September 2026. The oral and language exam will be held on 24 September 2026, at 9:30 a.m., at the Department of Architecture & Design of the <i>Mediterranea</i> University of Reggio Calabria, located at Via dell'Università, 25, ex Salita Melissari – 89124 Reggio Calabria.

	Candidates residing abroad and those living more than 700 km from the selection site may request to have the interview via videoconference. This choice must be clearly indicated in the application, specifying a contact email address. This address will be used to communicate the interview methods and platform chosen by the selection committee. Any changes to the exam schedule will be published on the website at the following link: http://www.unirc.it/ricerca/dottorato-di-ricerca/offerta-formativa No other forms of notification will be activated by this University.
Language test	ENGLISH
Study and research periods abroad and in industry	For all scholarship recipients, the programme provides: - an optional study and research period abroad of up to twelve (12) months; - a mandatory study and research period in industry, which will be agreed upon with the Supervisor and the Doctoral Program Coordinator. For candidates admitted without a scholarship, an optional study and research period abroad of up to six (6) months is provided.
Description of the project	The PhD program in Architecture and Design aims to provide third-level postgraduate training that enables PhD students to independently conduct original, high-level research in all fields related to architecture and design, as well as urban planning, restoration, technology, structures, appraisal, history, and design, both in academic and professional settings. The PhD program is part of the broader educational offerings of the Department of Architecture and Design and is a natural continuation and specialization of the first- and second-level programs. Like the latter, the PhD program focuses on architecture and design, which, by their very nature, combine different disciplines and bring them together in a unified vision. Research training is developed through theoretical and experimental methods applied to topics related to contemporary global challenges, providing prestigious opportunities for international exchange and experience at research institutions and companies. The multidisciplinary nature of the educational program is highlighted by the composition of the Faculty Board, the diversity of doctoral theses, and the methodology used throughout the program. The Doctorate includes faculty from other national and international institutions and the introduction of ongoing assessment methods for research, including through the structured involvement of scholars external to the Board. The Doctorate in Architecture and Design integrates basic and applied research methodologies with interdisciplinary and intersectoral training, combining the fields of architecture, design, urban planning, restoration, technology, structures, appraisal, history, drawing, and aesthetics. Research activities are supported by an increasingly strong national and international interuniversity network, with the aim of increasing the participation and learning capacity of doctoral students and faculty in a context of innovation, internationalization, and industrialization. The PhD degree is awarded after a three-year program of training, study, and research, and after successfully defending the doctoral thesis. The degree, along with the specific cultural expertise in the relevant disciplinary areas, clarifies the scope of the degree.
Educational objectives	The PhD program in Architecture and Design responds to the growing demand for specialists capable of engaging internationally in the development of research on basic, industrial, and experimental research topics. The interdisciplinary approach to architecture and design fosters the development of independent, critical, and highly specialized research skills, based on the dialogue between diverse skills and knowledge. Over the course of three years, the program is structured into areas of collective training and individual learning and research processes. The objectives are encompassed in three areas: - disciplinary content on the themes characterizing the doctoral program; - interventions relevant to higher education; - methodological training in research. The main disciplinary contents of the PhD program are: - updated and in-depth knowledge of the general themes characterizing the PhD program in Architecture and Design; - specific study of the themes characterizing architecture and design and in-depth exploration of specific topics that touch on the current international debate in the same disciplinary fields;

	- Scientifically targeted interventions related to the topics addressed, with impact on the local community. The main interventions relevant to higher education are: - Collaborations with eminent figures and internationally renowned scholars for contributions, lectures, and seminars on general or specific topics; - Internships and internships at research and training institutions, government and land management organizations, design and production companies in the fields of construction, infrastructure, and the production of tangible and intangible objects, as well as cultural and creative companies and industries related to cultural heritage. The main elements related to methodological training are aimed at: - Acquiring advanced conceptual and written-graphic processing skills in an academic scientific context; - Acquiring mastery of sources and bibliographical apparatus; - Managing the methodological aspects necessary to structure the topics in question; - Communicating the scientific results achieved through appropriate forms of communication, reporting skills, and teaching interventions; - independently conducting analytical and cognitive fieldwork; - developing research hypotheses appropriate for a PhD program in architecture and design. To achieve these objectives and to provide each doctoral student with the opportunity to best perform their research, the PhD Program in Architecture and Design is organized according to a credit system. Successful attendance at the PhD program corresponds to a total of 180 credits (60 ECTS per year). The credits, listed in more detail in the section for each year of the program, can be classified into the following categories: - training (lectures, conferences, seminars, and workshops); - preparation of the final papers required for attendance at seminars and workshops; - review and discussion meetings with the Teaching Committee; - study trips, internships, conferences, summer schools, and winter schools; - publication of research products in scientific volumes or journals; - periods of study and learning within Italian and foreign research institutions; - training activities promoted by the Doctoral School. Teaching activities are clearly distinct from those of the first- and second-level degree programs and are differentiated from the three active doctoral cycles. Study and research periods in companies and study and research periods abroad are planned, subject to verification that doctoral students have access to qualified and specific operational and scientific facilities, in compliance with the law, for their study and research activities, including scientific laboratories, libraries, and databases. Thanks to the University Doctoral School, the Doctorate in Architecture and Design includes teaching activities for linguistic and IT improvement, research management and knowledge of European and international research systems, and the valorisation of research results and intellectual property. Finally, the aim is to promote the valorisation of research results and guarantee the protection of intellectual property, ensuring open public access to research results and related data through the publication of original scientific research results, raw data and metadata, sources, digital graphic and image representations, and scientific multimedia materials, in the shortest possible time and with the fewest possible limitations, in accordance with the "Open Science" and "FAIRData" principles.
Expected career and employment opportunities	The PhD program in Architecture and Design aims to train high-profile researchers with both theoretical and cultural backgrounds and experimental and innovative skills, aimed at ensuring the development of: - transferable skills within the university system and research institutions in Italy and abroad; - strategic skills, recognizable in relation to the needs of the local community. Activities are oriented towards the multi-scale design of architecture; design in all its forms (product, graphic, indoor-outdoor); urban planning, land use, and landscape; theoretical analysis, material studies, soft computing, and the testing of Resilience Building according to the approaches of the Evolutionary Economy and Transition Management strategies. In the public sector, researchers can find positions within institutions and agencies responsible for city and regional governance, focusing on building and urban design, regional and urban planning, energy, environmental sustainability, land protection and safety, structural safety, and the valorisation of cultural heritage. In the private sector, they can find employment in the technical-professional and entrepreneurial world on an international scale for planning and governance activities.

INFORMATION SHEET N. 2

Name of the doctoral course	Law and Economics	
Cycle	XLII	
Curricula	Private Law (IUS/01 - private law; IUS/03 - agricultural law; IUS/04 - commercial law; IUS/07 - labor law; IUS/18 - Roman law) Public Law (IUS/08 - constitutional law; IUS/10 - administrative law; IUS/11 - canon and ecclesiastical law; IUS/13 - international law; IUS/14 - European Union law; IUS/16 - law criminal procedure; IUS/17 - criminal law; IUS/18 - Roman law; IUS/20 - philosophy of law) Economics and quantitative methods (SECS/P01 - political economy; SECS/P02 - economic policy; SECS/P03 - financial sciences; SECS/P07 - business economics; SECS/P12 - economic history; SECS/S06 - mathematical methods of economics and actuarial and financial sciences; SECS/P08 - Business Management)	
Duration	3 years	
Coordinator	Prof. Giuseppe Tropea	
Department	Department of Law, Economics and Human Sciences (DiGiES)	
Positions	n. 5 positions, of which 4 with scholarship and 1 without scholarship	
Funding sources	Scholarships are funded by the University and co-financed by the Calabria Region with company participation. All scholarships concern topics consistent with the Calabria 2021–2027 Smart Specialisation Strategy (S3).	
Research topics to be indicated in Annex B	All candidates shall submit, together with their application, Annex B (completing Section 1 only), indicating whether they wish to compete for a scholarship-funded position or for the position without a scholarship. Completion of Section 1 of Annex B is a mandatory requirement for admission to the competition referred to in this information sheet. The scholarship-funded positions are allocated as follows: n. 2 positions on the theme “ICT, Digital Technologies and Innovative Services”; n. 1 position on the theme “Environment, Circular Economy and Biodiversity”; n. 1 position on the theme “Tourism and Culture”.	
Companies – S3 Calabria priority areas	Co-funding companies	Priority areas consistent with the Regional Smart Specialization Strategy (S3) Calabria 2021–2027
	Entopan	ICT, Digital Technologies and Innovative Services
	EDITORIALE SCIENTIFICA SRL	Environment, Circular Economy and Biodiversity
	EDITORIALE SCIENTIFICA SRL	Tourism and Culture
Additional obligations for PhD students awarded scholarships co-financed by the Calabria Region, pursuant to the provisions of the "Guidelines"	BIG s.r.l. Spin-Off UNIRC	ICT, Digital Technologies and Innovative Services
	- Any renunciation of the scholarship entails the obligation to repay all scholarship instalments received up to the time of renunciation; - Failure to obtain the degree, attributable to the doctoral student, will result in the forfeiture of the benefit and the restitution of the amounts received; - Candidates, at the time of submitting the application, must be resident or domiciled in Calabria; otherwise, they are required to transfer their residence or domicile to the region within 6 (six) months of admission to the grant, under penalty of forfeiture of the benefit and the obligation to repay all instalments received.	

Required educational qualification	LMG/01 Class of master's degrees in law LM-56 Economic sciences LM-63 Public administration sciences LM-76 Economic sciences for the environment and culture LM-77 Economic and business sciences LM/SC-GIUR Legal Sciences 22/S (specialists in law) 64/S (specialists in economic sciences) 71/S (specialists in public administration sciences) 84/S (specialists in economic and business sciences)
Documentation to be attached to the application	Applications must be submitted through the Esse3 platform, together with the following documentation: A valid identification document; Curriculum Vitae in Europass format; Academic qualification: For candidates holding an Italian qualification: a <u>self-certification of the degree</u> required for admission to the competition, pursuant to Presidential Decree (D.P.R.) No. 445 of 28 December 2000; For candidates holding a foreign qualification: a <u>degree certificate</u> indicating the study programme followed and the examinations taken, together with the corresponding grades. Additional documents deemed useful for the assessment of the suitability of the qualification may also be attached. Where the certificate and any additional documents are drafted in a language other than Italian or English, they must be translated and legalised by the Italian Embassy or Consulate in the country where the qualification was awarded. The suitability of a qualification awarded by a foreign university may be assessed by the Selection Committee solely for the purpose of admission to the selection procedure, on the basis of the certificates attached to the application. Annex B (completing Section 1 only), in which candidates shall indicate whether they intend to compete for a scholarship-funded position or for the position without a scholarship. Completion of Section 1 of Annex B is mandatory for admission to the competition referred to in this information sheet Application form, duly completed and signed, after being downloaded from the Esse3 platform in PDF format. FOR NON-EUROPEAN CANDIDATES ONLY: Applicants from non-EU countries are advised that entry into Italy and the formalization of the start of in-person activities at the Università Mediterranea must take place no later than three months after the start date of the program. Failure to meet this deadline will result in automatic dismissal from the doctoral program and subsequent reduction in the ranking.
Admission procedures	Admission shall be based on: - Assessment of qualifications (maximum 20 points) - Written examination (maximum 40 points) Candidates who obtain a score of at least 42/60 shall be admitted to the oral examination. - Oral examination and language test (maximum 60 points) The oral examination shall be deemed successfully passed by candidates who obtain a score of at least 42/60. Assessment of Qualification (maximum 20 points) Qualifications may be awarded a maximum score of 20 points, allocated as follows:

	- <u>up to 8 points</u> for the <i>Curriculum Vitae et Studiorum</i> (CV). Candidates shall be assessed on the basis of their entire university career, namely the arithmetic average of the grades obtained during the bachelor's degree programme combined with those obtained during the master's degree programme. For this purpose, candidates must provide a self-certification of their Master's Degree (or equivalent qualification), including a detailed list of examinations taken, dates and grades awarded, together with the corresponding grade point average. In the case of degrees not awarded through a single-cycle programme, candidates must provide a self-certification of the examinations taken during both the bachelor's degree programme and the specialist/master's degree programme, indicating dates, grades, and the corresponding grade point average; - <u>up to 7 points</u> for publications relevant to the PhD research areas, including the degree thesis; - <u>up to 5 points</u> for any Master's degrees, research grants, and research scholarships relevant to the PhD research areas. Typescripts, unpublished works, or works in press that have not yet been accepted for publication by scientific journals shall not be taken into consideration. b. Written examination (maximum 40 points) shall consist of an essay on a topic chosen by the candidate within one of the three curricula (Private Law / Public Law / Economics and Quantitative Methods). The topics, of a general nature and identified by the Selection Committee for each curriculum, shall be addressed by candidates within one or more academic disciplines included in the relevant curriculum. c. Oral examination and language test (maximum 60 points) shall consist of a discussion of the written essay and an assessment of the candidate's overall preparation in the relevant field of study, as well as of the candidate's motivation.
Examination schedule	The written examination will be held on 14 September 2026 at 9:30 a.m. at the DiGiES Department of the Mediterranean University of Reggio Calabria, located at Via dell'Università, 25 (formerly Salita Melissari), 89124 Reggio Calabria. The list of candidates admitted to the oral examination will be published by 21 September 2026. Oral examination and language test: these will be held on 28 September 2026 at 9:30 a.m. at the DiGiES Department of the <i>Mediterranea</i> University of Reggio Calabria, located at Via dell'Università, 25 (formerly Salita Melissari), 89124 Reggio Calabria. Only candidates residing abroad and those residing more than 700 km from the examination venue may request to take the interview by videoconference. This option must be clearly indicated in the application, specifying an e-mail address through which the candidate may be contacted. This e-mail address will be used to communicate the procedures and the platform selected by the Selection Committee for conducting the interview. Any changes to the examination schedule will be published on the University website at the following link: http://www.unirc.it/ricerca/dottorato-di-ricerca/offerta-formativa No other form of notification will be provided by the University.
Language test	English, Spanish, French, German (at the candidate's choice)

Study and research periods abroad and in industry	For all scholarship recipients, the programme provides: - an optional period of study and research abroad of up to twelve (12) months; - a mandatory period of study and research in industry of up to six (6) months, to be agreed with the Supervisor and the Coordinator of the PhD Programme. For the position without a scholarship, an optional period of study and research abroad of up to six (6) months shall be provided.
Description of the project	The international doctorate in "Law and Economics", due to its interdisciplinary nature, aims to allow the in-depth study of themes belonging to the respective disciplines included in the basic scientific disciplinary sectors. The research topics of the course are aimed at deepening legal, economic and business knowledge, also according to the comparative methodology and with a view to European harmonisation, with reference to the regulatory systems, theories and practices of the legal discipline of business and Work. The co-financed grant will tend to promote cultural, educational and scientific in-depth initiatives, including those of a multidisciplinary nature, aimed at studying the possible declinations of the concept of "sustainability" on the regulation of intersubjective relationships also in relation to the processes of digitalisation of contractual activities and business. Particular attention will be paid to identifying the main theoretical and operational problems linked to the use of digital in the public sector, to issues of national relevance such as sustainability, technological modernisation, energy reconversion, rationalization of healthcare spending with digitalisation and efficiency of systems, new tax ratio - taxpayer. The course aims to train scholars who are not only able to "read" the regulatory and economic reality, but also equipped to conduct a critical-reconstructive investigation of it. In this sense, internal specializations must not constitute disciplinary "fences", as training that is as interdisciplinary as possible is necessary, capable of grasping today's complexities and transitions, from the ecological to the digital, without forgetting the fundamental contribution of classical reconstructions in individual sectors.
Educational objectives	The programme is founded on a dual approach to the analysis of socio-economic phenomena, combining legal and economic perspectives in a genuinely interdisciplinary framework designed to foster the training of scholars and professionals qualified for both academic research and university teaching. At the international level, there is a well-established tradition—developed primarily in common law jurisdictions—of Economic Analysis of Law, which constitutes one of the intellectual foundations of this educational pathway and supports the acquisition of advanced scientific and technical competencies. The aim is to provide a comprehensive understanding of economic phenomena, paying close attention to the production of the legal rules governing markets, conceived not as purely self-regulating mechanisms but as institutionally constructed spaces. Within this perspective, the programme engages with a plurality of theoretical traditions. It draws first on the law and economics scholarship of Guido Calabresi, who, in <i>*The Costs of Accidents*</i> (1970), proposed an efficiency-based interpretation of tort law, and later, in <i>*The Future of Law and Economics*</i> (2016), advocated a reciprocal relationship between law and economics, whereby not only does law learn from economics, but economics itself broadens its analytical agenda through engagement with legal institutions. This approach is complemented by the foundational contribution of Ronald Coase, whose seminal article <i>*The Problem of Social Cost*</i> (1960) demonstrates how, in the presence of transaction costs, legal rules become decisive in allocating rights to those capable of employing them most efficiently. Alongside this core perspective, the programme incorporates the institutional economics approach developed by Elinor Ostrom, recipient of the 2009 Nobel Memorial Prize in Economic Sciences. In <i>*Governing the Commons*</i> (1990), Ostrom highlighted the central role of rules, institutions, and collective governance arrangements in the creation and distribution of value, thereby moving beyond the traditional dichotomy between State and market. With regard to the rationality of decision-making, the programme considers Richard Posner's <i>*Economic Analysis of Law*</i> (first edition, 1973), a work that significantly shaped the field, while placing it in critical dialogue with the contributions of behavioural economics, particularly the research programme developed by Richard Thaler and Cass Sunstein in <i>*Nudge*</i> (2008), which redefines the relationship between choice architecture, incentives, and public policy. Bringing these perspectives together does not imply adherence to a single methodological framework. Rather, it provides students with the analytical tools necessary to critically examine a wide range of economic and institutional phenomena—from regulation to systems of legal protection—by exploring how legal rules shape incentives, influence the behaviour of economic actors, and affect both productive and distributive outcomes.

	During the first two years, the programme places particular emphasis on broad interdisciplinary and methodological topics, including legal method, interpretation, and general principles. These themes are explored through the reading of classical works as well as the discussion of recent scholarly publications offering systematic and theoretically informed analyses of the most significant transformations in the socio-economic, legal, and institutional landscape. Admission to the final examination requires doctoral candidates to undertake full-time study and research activities for a minimum of three years and to participate actively in the doctoral seminars, the schedule of which is defined well in advance. As part of their academic training, candidates must complete at least 120 hours of coursework over the three-year programme. These hours may be fulfilled through courses organised by the Doctoral Board or by the Doctoral School of the Mediterranean University of Reggio Calabria, or through courses, conferences, and seminars organised by other academic or research institutions, subject to prior approval by the Doctoral Board. At the beginning of the programme, the Doctoral Board assigns each doctoral candidate a faculty supervisor drawn from among its members. The supervisor is responsible for providing continuous academic guidance and overseeing the candidate's research and training throughout the programme. Each year, in consultation with the supervisor, every doctoral candidate submits an individual study plan outlining the courses to be attended and the additional academic activities to be undertaken, while ensuring compliance with the overall requirement of at least 120 hours of coursework during the three-year period. As a general rule, the interdisciplinary and methodological courses organised by the Doctoral School are compulsory during the first and second years. In consultation with their supervisors, candidates may also choose additional courses offered by the Doctoral Board until the required number of hours has been reached. Finally, the programme actively promotes both national and international academic mobility, encouraging doctoral candidates to undertake research periods at leading departments, laboratories, and research centres in Italy and abroad.
Expected Career and Employment Opportunities	The doctorate intends, through a multidisciplinary preparation open to free and reasoned criticism, to introduce young graduates to scientific research, as a fundamental and essential moment for the possible subsequent teaching and/or research activity. Furthermore, it aims to provide the means for the acquisition of professional and/or managerial skills in private enterprise and public administrations, also integrating, for improvement, with the contemporary masters for public administrations organized by the Department. The aim of the course is also to give the young scholar an organic and coherent research method, which is able to make the free thought and creativity of the doctoral student interact harmoniously with the precious help of artificial intelligence, but without the latter mortifying or supplanting the former. It also aims to contribute to the training of new professional figures with specific skills in the areas of civil and public law interest, which can lead to a reasonable implementation of the principles of equal opportunities and non-discrimination, especially in cases involving the needs of protection of the elderly, people with disabilities, and in any case of fragile people. It also aims to build new professional figures capable of analyzing and evaluating public policies related to issues of national relevance such as sustainability, technological modernization, energy conversion, digitalization of the Public Administration. After completing the doctorate, you will have a higher qualification that is also useful for those who decide to undertake the classic liberal professions (lawyer, notary, accountant) or professions such as the judiciary, because never before has it been necessary to read the complexity with the lenses of research and in-depth analysis that a course such as the doctorate can provide and/or help to refine, in order to grasp in an overall vision the legal and economic problems that arise. To this end, it will also be necessary to work intensely on perfecting the "writing" (legal and economic) of the doctoral student, not always adequate at the end of the degree course.

INFORMATION SHEET N. 3

Name of the doctoral course	Civil, Environmental and Industrial Engineering
Cycle	XLII
Curricula	1. Energy production from renewable sources 2. Natural, environmental and anthropogenic risks 3. Sustainable and resilient infrastructures and structures 4. Processes, technologies and materials for the ecological transition
Duration	3 years
Coordinator	Prof.ssa Matilde Pietrafesa
Department	Civil, Energy, Environment and Materials Engineering (DICEAM)
Positions	n. 6 positions, of which n. 5 positions with scholarship and n. 1 position without scholarship
Funding sources	The scholarships are funded by the University, co-funded by the Calabria Region and companies, and all focus on topics in line with Calabria's smart specialization strategy (S3) 2021-2027
Research topics to be indicated in Annex B	All candidates, together with the application form, must submit Annex B, indicating whether they intend to apply for a position with a scholarship or for a position without a scholarship. Candidates who wish to apply for a position with a scholarship must indicate the research topic(s) they have chosen from those listed below, up to a maximum of two research topics. If two research topics are chosen, the order of the proposals will be considered as the order of priority. n. 3 positions with a scholarship in the priority area S3 “Sustainable building, Energy and Climate”: research topic A): <i>Development of innovative solutions for sustainable construction, with a particular focus on improving the energy efficiency of buildings and reducing the environmental impact in the construction sector</i> research topic B): <i>Development of innovative materials/systems for mitigating vibrations in underwater tunnels</i> research topic C): <i>Processes and technologies for the enhancement of e-waste from a circular economy perspective</i> n. 1 position with a scholarship in the priority area S3 “Blue Economy”: research topic D): <i>Advancing Green Ports through Wave Energy and Sustainable Last-Mile Logistics</i> n. 1 position with a scholarship in the priority area S3 “ICT, Digital Technologies, and Innovative Services Sector”: research topic E): <i>Digital Twin approaches and tools for simulation with virtual and augmented reality of complex operational contexts (construction sites)</i> For each indicated research topic, the candidate must submit a separate research project consistent with the chosen topic. Therefore, if two research topics are indicated, two separate research projects must be submitted, along with their respective priority. Candidates who wish to apply for the <u>position without a scholarship</u> must indicate the topic of their research project, freely chosen. It is also allowed to indicate one of the research topics provided for positions with a scholarship. If a candidate applying for the position without a scholarship has indicated one of the research topics provided for positions with a scholarship, can be considered for the

	possible assignment of a position with a scholarship only if there are remaining positions available for the chosen research topic, according to the merit ranking.	
Companies – S3 Calabria priority areas	Co-funding companies	Priority areas consistent with the Calabria Smart Specialization Strategy (S3) 2021–2027
	Edilcom srl	Sustainable building, Energy and Climate
	Wavenergy.it	Sustainable building, Energy and Climate
	Wavenergy.it	Blue Economy
	Redel srl	Sustainable building, Energy and Climate
	Union Ingegneria Sicurezza Sistemi srl	ICT, Digital Technologies, and Innovative Services Sector
Additional obligations for PhD students awarded scholarships co-financed by the Calabria Region, pursuant to the provisions of the "Guidelines"	1. Any renunciation of the scholarship entails the obligation to repay all scholarship instalments received up to the time of renunciation; 2. Failure to obtain the degree, attributable to the doctoral student, will result in the forfeiture of the benefit and the restitution of the amounts received; 3. Candidates, at the time of submitting the application, must be resident or domiciled in Calabria; otherwise, they are required to transfer their residence or domicile to the region within 6 (six) months of admission to the grant, under penalty of forfeiture of the benefit and the obligation to repay all instalments received.	
Required educational qualification	LM-3 Landscape architecture LM-3 R Landscape architecture LM-4 Architecture and building engineering-architecture LM-4 R Architecture and building engineering-architecture LM-4 c.u. Architecture and construction engineering-architecture (five-year) LM-4 c.u. R Architecture and building engineering-architecture (five years) LM-17 Physics LM-17 R Physics LM-20 Aerospace and astronautic engineering LM-20 R Aerospace and astronautic engineering LM-21 Biomedical Engineering LM-21 R Biomedical Engineering LM-22 Chemical engineering LM-22 R Chemical engineering LM-23 Civil engineering LM-23 R Civil engineering LM-24 Construction engineering LM-25 Automation engineering LM-26 Safety engineering LM-26 R Safety engineering LM-27 Telecommunications engineering LM-28 Electrical engineering LM-29 Electronic engineering LM-30 Energy and nuclear engineering LM-31 Management engineering LM-32 Computer engineering LM-33 Mechanical engineering LM-34 Naval engineering LM-35 Environmental engineering LM-40 Mathematics LM-53 Material engineering LM-54 Chemistry	

	LM-71 Industrial chemistry LM-74 Geology LM-75 Environmental and land sciences 20/S Physics 26/S Biomedical engineering 27/S Chemical engineering 28/S Civil engineering 29/S Automation engineering 30/S Telecommunications engineering 31/S Electrical engineering 32/S Electronic engineering 33/S Energy and nuclear engineering 34/S Management engineering 35/S Computer engineering 36/S Mechanical engineering 37/S Naval engineering 38/S Environmental engineering 45/S Mathematics 61/S Material engineering 62/S Chemistry 81/S Industrial chemistry 82/S Environmental and land sciences
Documentation to be attached to the application	Applications must be submitted through the Esse3 platform, together with the following documentation: A valid identification document; Curriculum Vitae in Europass format; Academic qualification: For candidates holding an Italian qualification: a <u>self-certification of the degree</u> required for admission to the competition, pursuant to Presidential Decree (D.P.R.) No. 445 of 28 December 2000; For candidates holding a foreign qualification: a <u>degree certificate</u> indicating the study programme followed and the examinations taken, together with the corresponding grades. Additional documents deemed useful for the assessment of the suitability of the qualification may also be attached. Where the certificate and any additional documents are drafted in a language other than Italian or English, they must be translated and legalised by the Italian Embassy or Consulate in the country where the qualification was awarded. The suitability of a qualification awarded by a foreign university may be assessed by the Selection Committee solely for the purpose of admission to the selection procedure, on the basis of the certificates attached to the application. - Research proposal (using exclusively Annex B to this Call), written in either Italian or English and relating to the research topic(s) for which the candidate intends to apply (see the instructions set out in the section on research topics). Completion of Annex B (Section 1 and Section 2) is mandatory for admission to the competition referred to in this information sheet. The research project must not exceed 2,000 words, including an abstract of no more than 150 words, and shall be organised into the following parts: 1. Aims and objectives of the research; 2. State of the art of the scientific debate concerning the proposed field of study and any interdisciplinary aspects; 3. Research methodology; 4. Expected results; 5. References. The bibliography, tables and figures are not counted towards the word limit, and are permitted up to a maximum of 3 tables and 3 figures per

	project. Failure to comply with the maximum word count will be assessed negatively by the selection committees. e. Application form, duly completed and signed, after being downloaded from the Esse3 platform in PDF format. FOR NON-EUROPEAN CANDIDATES ONLY: Applicants from non-EU countries are advised that entry into Italy and the formalization of the start of in-person activities at the Università Mediterranea must take place no later than three months after the start date of the program. Failure to meet this deadline will result in automatic dismissal from the doctoral program and subsequent reduction in the ranking.
Admission procedures	Admission will be based on: - Evaluation of the research project and qualifications (maximum 60 points) - Oral exam and assessment of English language proficiency (maximum 60 points) a) Evaluation of research project and qualifications. This assessment is aimed at identifying the candidate's preparation and motivation for participating in the doctoral program and will be based on the following documents and qualifications: - Curriculum Vitae highlighting educational background, degree grade, and any relevant qualifications (maximum 20 points); - Research project in Italian or English (maximum 40 points). Admission to the oral exam is granted with a score of at least 42/60 in the evaluation of the research project and curriculum vitae. b) Oral exam and assessment of English language proficiency. - Discussion of the project and assessment of the candidate's aptitude for scientific research. - Assessment of English language proficiency. Foreign candidates must demonstrate at least basic knowledge of Italian. Candidates must achieve a minimum score of 42/60 to be admitted to the final ranking.
Examination schedule	Evaluation of the research project and qualifications: 21 September 2026. The list of candidates admitted to the oral exam will be published by 24 September 2026. Oral and language exam: 28 September 2026 at 15:00, at the Department of Civil, Energy, Environmental and Materials Engineering (DICEAM) of the <i>Mediterranea</i> University of Reggio Calabria, located in Via Zehender, Località Feo di Vito, 89122 Reggio Calabria. Only candidates living abroad and those residing more than 700 km from the selection location can request to do the interview via videoconference. This choice must be clearly indicated in the application, specifying an email address to be contacted. This address will be used to communicate the procedures and the platform chosen by the selection committee for conducting the interview. Any changes to the exam schedule will be published on the website at the following link: https://www.unirc.it/ricerca/dottorato-di-ricerca/offerta-formativa No other forms of notification will be issued by this University.

Language test	English
Study and research periods abroad and in industry	For all scholarship recipients, the programme provides: - an optional period of study and research abroad of up to twelve (12) months; - a mandatory period of study and research in industry (for a minimum of three months and up to a maximum of twelve months), to be agreed with the Supervisor and the Coordinator of the PhD Programme. For candidates admitted without a scholarship, an optional study and research period abroad of up to six (6) months is provided
Description of the project	The PhD course in Civil, Environmental and Industrial Engineering is part of and completes the training offer of the Department of Civil, Energy, Environmental and Materials Engineering (DICEAM), which already provides I level courses in L-7 and L-9 classes and II level courses in LM-23 and LM-30/35 (interclass course) classes. The Department, since its foundation in 2012, has been characterized by a strong interdisciplinarity which is fully reflected in the Doctorate project (in the teaching body there are teachers belonging to the CUN areas 01, 02, 03, 08 and 09). The training course allows doctoral students to train in the world of research focused on theoretical, methodological and technological elements related to the macro-disciplinary areas of Civil, Environmental and Industrial Engineering, with particular reference to geotechnical, hydraulic, structural, transport, health-environmental, of chemical processes, of materials and of energy engineering. In the frame of the ecological and digital transition underway and of the transition from a linear to a circular economic model, the fundamental and transversal elements of the PhD course will be the attention to the new technologies and to the environmental, economic and social sustainability of the technological solutions object of the teaching activities and of research. From a strictly educational point of view, the main objective of the PhD is to introduce students to the world of research by providing them with solid methodological foundations. At the same time, the activities will be aimed both at enriching the scientific and technological knowledge of doctoral students, developing their critical sense, and at expanding their relational skills through the promotion of teamwork both in Italy and abroad, with particular attention to the development of communication and dissemination skills. PhD students will be strongly stimulated to tackle the chosen research topic with an interdisciplinary approach that, in particular, connects the methodological aspects typical of one or more engineering disciplines with those of the basic scientific ones (mathematics, physics, chemistry), which are fundamental and essential components of the PhD. The Doctorate will benefit from the excellent endowment of the Department's 17 research laboratories and facilities (https://www.diceam.unirc.it/laboratori.php), which will allow to better support the research activities of the expected number of students. The declared intention is to attract students of excellence in the areas of reference of the course and to make the Doctorate a center of initiatives of national and international appeal while maintaining strong links with the territory. In addition to this, all students will be encouraged to spend periods of study and research in laboratories of excellence in Italy and abroad. The topics covered in the doctorate both in the teaching and research activities are fully consistent with the provisions of the PNRR. The activities carried out as part of the Doctorate comply with the principle "do not cause significant damage" (DNSH) pursuant to art. 17 of Regulation (EU) 2020/852, in coherence with the technical guidelines prepared by the European Commission (Communication from the European Commission 2021/C58/01).
Educational objectives	The PhD Program in Civil, Environmental and Industrial Engineering aims to train young researchers with solid methodological and technical-scientific bases, who are competitive in the reference sectors at a global level. The training objective is the transfer of knowledge on specific topics of Civil, Environmental and Industrial Engineering to train highly specialized figures able to tackle complex research or application issues. The training objectives are aimed at advancing knowledge: - of basic sciences, technologies and complex systems at the service of the civil, environmental and industrial engineering sector; - of the design, management, control, safety and monitoring of civil and industrial infrastructures and structures that interact with the environment and the territory; - of the engineering aspects related to the production of energy from renewable sources, of new advanced materials and in the management and enhancement of civil and industrial waste in a context of circular economy. Characteristic elements of the training course are: interdisciplinarity, in particular as a link between the basic scientific disciplines (mathematics, physics and chemistry) and the areas of Civil, Environmental and Industrial Engineering object of study and research (geotechnical, hydraulic, structural, transports, health-environmental, materials and energy

	engineering), attention to new technologies, in particular digital ones, and to aspects related to environmental, social and economic sustainability of the innovative solutions under study, connection with the territory of reference of the Course, internationalization. Due to the interdisciplinary nature of the topics, the Doctorate is organized in training courses, with both general and specialized courses, aimed at transferring the basic knowledge of each subject area (mainly during the 1st and 2nd year of the course) and at the development of specific research topics, subject of the doctoral theses (in particular during the 2nd and 3rd year). The training will be complemented by experiences in the laboratories of the DICEAM Department of the Mediterranean University of Reggio Calabria, with the possibility of carrying out research periods abroad at prestigious international institutions. To be admitted to the final exam, PhD students must conduct full-time study and research activities for at least three years. As part of the study activities, specific Courses organized by the Board of Professors or by the Doctoral School of the Mediterranean University or Courses, Conferences and Seminars organized by other Institutions and subject to the authorization of the Board of professors, must be attended for at least 120 total hours in the three-year period. At the beginning of the course, the Board of Professors assigns each PhD student a tutor to supervise and assist the student during the entire course of study. The tutor must belong to the teaching staff. Each year, each student, in agreement with his/her tutor, presents a training plan which presents, in a concise manner, the courses that the student intends to follow and the other planned activities. Normally, the interdisciplinary and methodological courses organized by the Doctoral School of the Mediterranean University of Reggio Calabria are mandatory during the first and second year of the course, each doctoral student, in agreement with his/her tutor, can instead choose, up to the completion of the expected number of hours, which among the courses proposed by the Board of professors, to attend. Study and research activities, including laboratory activities, constitute the preponderant part of the training course. The training plan is approved by the Board of professors and can be amended during the year, at the request of the student and upon approval by the Board, for proven needs. As part of the PhD program, national and international mobility will be stimulated so that students can conduct experiences in laboratories and research centers of excellence in Italy and abroad. Training activities common to the curricula will be aimed, in collaboration with the Doctoral School, in particular at an in-depth study of: 1) English language improvement 2) Enhancement and dissemination of intellectual property results and open access to research data and products 3) Management of research and knowledge of European and international research systems 4) Fundamental principles of ethics, gender equality and integrity.
Expected career and employment opportunities	The figure formed by the PhD Course in Civil, Environmental and Industrial Engineering is characterized by the ability to integrate the specialized skills acquired in the various areas of design, construction and management of structures and infrastructures, of environmental monitoring and protection, of the analysis and prevention of natural and anthropogenic risks, of the production of materials and energy, of innovative industrial technologies, with the characterizing elements of the ecological transition, of the sustainable development, of the circular economy and of the opportunities offered by new technologies. The professional figure to be trained, in addition to holding highly professional positions in productive sectors with a strong technological value, will have professional skills and abilities capable of leading research groups operating in the public or private sector. Therefore, the Doctorate aims to train highly qualified professionals capable of holding key positions in public and private research centers, top management positions in Authorities, Public Administrations and Engineering companies engaged in the design, planning and management of structures and infrastructures, environmental remediation, soil protection, waste management, waste and raw materials management, prevention and management of natural and anthropogenic risks, production and management processes of low environmental impact energy, sustainable mobility. There are many employment and professional opportunities: the PhD in Civil, Environmental and Industrial Engineering will be able to find employment as well as in research centers and national and international universities, especially in all small, medium and large enterprises and public administrations that provide for the management, coordination and execution of highly qualified research activities aimed at the development of innovative technologies in all sectors of civil, environmental and industrial engineering. In addition, the entrepreneurial activity of doctoral students who, in the course of their research, will achieve results with a high degree of innovation, also through the use of academic spin-offs, will be strongly encouraged.

INFORMATION SHEET N. 4

Name of the doctoral course	Information Engineering
Cycle	XLII
Curricula	=====
Duration	3 years
Coordinator	Prof. Tommaso Isernia
Department	Information Engineering, Infrastructure and Sustainable Energy (DIIES)
Positions	8 positions, including 6 fully funded scholarships and 2 positions without scholarship
Funding sources	The scholarships are funded by the University, co-funded by the Calabria Region and companies, and all focus on topics in line with Calabria's smart specialization strategy (S3) 2021-2027. One scholarship is funded by the DIIES department via Department of Excellence funding sources.
Research topics to be indicated in Annex B	All applicants, together with their application, must submit Annex B, indicating whether they intend to compete for a scholarship position or for the position without scholarship. Applicants wishing to compete for a scholarship position must indicate up to two research topics selected from those listed below. If two research topics are selected, the order indicated will be considered the applicant's order of preference. Four (4) scholarship positions within the S3 priority area: "ICT, Digital Technologies and Innovative Tertiary Sector": Research Topic A) <i>Edge AI for technological systems applies to railway security'</i> Research Topic B) <i>Edge AI for processing and reconstruction of critical scenarios'</i> Research Topic C) <i>Resilient and smart Communication systems for 5G/6G advanced private networks: Multi-Layer and optimization of QoE convergence</i> Research Topic D) <i>AIOT : Artificial Intelligence Agents for IoT communication systems'</i> One (1) scholarship position within the S3 priority area: "Sustainable Construction, Energy and Climate": Research Topic E) <i>Smart and sustainable infrastructures: AI-based extraction and processing of sensor data from complex plants for the transportation infrastructures materials production</i> One (1) scholarship position within the themes of 'Dipartimento di Eccellenza' DIIES project 'Smart, Secure and Connected Systems and Society' Research Topic F) <i>Smart, Secure and connected Systems and Society</i> For each selected research topic, applicants must submit a separate research proposal consistent with the chosen topic. Therefore, applicants selecting two research topics must submit two separate research proposals, indicating the corresponding order of priority. Applicants wishing to compete for the position without scholarship can freely choose the topic of their research proposal within all areas of Information Engineering. Applicants may also indicate, one of the research topics available for scholarship positions. Should an applicant competing for the non-scholarship position indicate one of the scholarship research topics, the application may also be considered for the assignment of a scholarship only if positions remain available for the selected research topic, according to the order of the final ranking.

Companies – S3 Calabria Priority Areas	Co-funding companies	Priority Area consistent with the Calabria Regional Smart Specialisation Strategy (S3) 2021–2027
	iComfort	ICT, Digital Technologies and Innovative Tertiary Sector
	Lo Prete Costruzioni	Sustainable Construction, Energy and Climate
	Union Ingegneria Sicurezza Sistemi Srl	ICT, Digital Technologies and Innovative Tertiary Sector
	Union Ingegneria Sicurezza Sistemi Srl	ICT, Digital Technologies and Innovative Tertiary Sector
	Smarts	ICT, Digital Technologies and Innovative Tertiary Sector
Additional obligations for PhD students awarded scholarships co-financed by the Calabria Region, pursuant to the provisions of the "Guidelines"	1. Any renunciation of the scholarship entails the obligation to repay all scholarship instalments received up to the time of renunciation; 2. Failure to obtain the degree, attributable to the doctoral student, will result in the forfeiture of the benefit and the restitution of the amounts received; 3. Candidates, at the time of submitting the application, must be resident or domiciled in Calabria; otherwise, they are required to transfer their residence or domicile to the region within 6 (six) months of admission to the grant, under penalty of forfeiture of the benefit and the obligation to repay all instalments received.	
Required educational qualification	LM-8 Industrial Biotechnology LM-17 Physics LM-18 Computer Science LM-20 Aerospace Engineering LM-21 Biomedical Engineering LM-22 Chemical Engineering LM-23 Civil Engineering LM-24 Building Systems Engineering LM-25 Automation Engineering LM-26 Safety Engineering LM-27 Telecommunications Engineering LM-28 Electrical Engineering LM-29 Electronic Engineering LM-30 Energy and Nuclear Engineering LM-31 Management Engineering LM-32 Computer Engineering LM-33 Mechanical Engineering LM-34 Naval Engineering LM-35 Environmental and Land Engineering LM-40 Mathematics LM-41 Medicine and Surgery LM-41 R Medicine and Surgery LM-44 Mathematical-Physical Modelling for Engineering LM-48 Urban, Regional and Environmental Planning LM-53 Materials Engineering LM-54 Chemistry LM-55 Cognitive Sciences LM-56 Economics LM-66 Cybersecurity LM-70 Food Science and Technology LM-71 Industrial Chemistry Science and Technology	

	LM-75 Environmental Science and Technology LM-82 Statistics LM-91 Techniques and Methods for the Digital Society LM-92 Communication Theory LM-93 Theories and Methodologies of e-Learning and Media Education LM Sc-Mat Materials Science LM-53 Materials Engineering 8/S Industrial Biotechnology 20/S Physics 23/S Computer Science 25/S Aerospace Engineering 26/S Biomedical Engineering 27/S Chemical Engineering 28/S Civil Engineering 29/S Automation Engineering 30/S Telecommunications Engineering 31/S Electrical Engineering 32/S Electronic Engineering 33/S Energy and Nuclear Engineering 34/S Management Engineering 35/S Computer Engineering 36/S Mechanical Engineering 37/S Naval Engineering 38/S Environmental and Land Engineering 45/S Mathematics 48/S Methods for the Evaluation of Complex Systems 50/S Mathematical and Physical Modelling for Engineering 54/S Urban, Regional and Environmental Planning 61/S Materials Science and Engineering 62/S Chemistry 78/S Agri-food Science and Technology 81/S Industrial Chemistry Science and Technology 82/S Environmental Science and Technology 92/S Statistics for Experimental Research 100/S Techniques and Methods for the Information Society 101/S Communication Theory
Documentation to be attached to the application	Applications must be submitted through the Esse3 platform, together with the following documentation: A valid identification document; Curriculum Vitae in Europass format; Academic qualification: For candidates holding an Italian qualification: a <u>self-certification of the degree</u> required for admission to the competition, pursuant to Presidential Decree (D.P.R.) No. 445 of 28 December 2000; For candidates holding a foreign qualification: a <u>degree certificate</u> indicating the study programme followed and the examinations taken, together with the corresponding grades. Additional documents deemed useful for the assessment of the suitability of the qualification may also be attached. Where the certificate and any additional documents are drafted in a language other than Italian or English, they must be translated and legalised by the Italian Embassy or Consulate in the country where the qualification was awarded. The suitability of a qualification awarded by a foreign university may

	be assessed by the Selection Committee solely for the purpose of admission to the selection procedure, on the basis of the certificates attached to the application. d. Research proposal (using exclusively Annex B to this Call), written in either Italian or English and relating to the research topic(s) for which the candidate intends to apply (see the instructions set out in the section on research topics). Completion of Annex B (Section 1 and Section 2) is mandatory for admission to the competition referred to in this information sheet. The research project must not exceed 2,000 words, including an abstract of no more than 150 words, and shall be organised into the following parts: 1. Aims and objectives of the research; 2. State of the art of the scientific debate concerning the proposed field of study and any interdisciplinary aspects; 3. Research methodology; 4. Expected results; 5. References. The bibliography, tables and figures are not counted towards the word limit, and are permitted up to a maximum of 3 tables and 3 figures per project. Failure to comply with the maximum word count will be assessed negatively by the selection committees. e. Application form, duly completed and signed, after being downloaded from the Esse3 platform in PDF format. FOR NON-EUROPEAN CANDIDATES ONLY: Applicants from non-EU countries are advised that entry into Italy and the formalization of the start of in-person activities at the Università Mediterranea must take place no later than three months after the start date of the program. Failure to meet this deadline will result in automatic dismissal from the doctoral program and subsequent reduction in the ranking.
Admission procedures	Admission will be based on: a) Evaluation of the research project and qualifications (maximum 60 points) b) Oral exam and assessment of English language proficiency (maximum 60 points) a) Evaluation of research project and qualifications. This assessment is aimed at identifying the candidate's preparation and motivation for participating in the doctoral program and will be based on the following documents and qualifications: • Curriculum Vitae highlighting educational background, degree grade, and any relevant qualifications (maximum 20 points); • Research project in Italian or English (maximum 40 points). Admission to the oral exam is granted with a score of at least 42/60 in the evaluation of the research project and curriculum vitae. b) Oral exam and assessment of English language proficiency. • Discussion of the project and assessment of the candidate's aptitude for scientific research. • Assessment of English language proficiency. Foreign candidates must demonstrate at least basic knowledge of Italian. Candidates must achieve a minimum score of 42/60 to be admitted to the final ranking.

Examination schedule	Assessment of the research proposal and qualifications: 23 September 2026 The list of applicants admitted to the oral examination will be published by 30 September 2026. Oral examination and English language assessment: 7 October 2026 at 9.00 a.m., at the Department of Information Engineering, Infrastructure and Sustainable Energy (DIIES) of the <i>Mediterranea</i> University of Reggio Calabria, Via Rodolfo Zehender, 89122 Reggio Calabria, Italy. Only applicants residing abroad or living more than 700 km from the examination venue may request to take the interview by videoconference. This option must be clearly indicated in the application form, together with the applicant's e-mail address, which will be used to communicate the interview arrangements and the videoconferencing platform selected by the Selection Committee. Any changes to the examination schedule will be published on the University's website at: http://www.unirc.it/ricerca/dottorato-di-ricerca/offerta-formativa No other form of notification will be provided by the University.
Language test	English
Study and research periods abroad and in industry	For all scholarship recipients, the following shall be provided: - an optional (strongly recommended) period of study and research abroad of up to twelve (12) months; - a mandatory period of study and research in a company (for a minimum of three months and up to a maximum of twelve months), to be agreed with the Supervisor and the Coordinator of the PhD Programme. For the position without a scholarship, an optional period of study and research abroad of up to six (6) months shall be provided.
Description of the project	The PhD Programme in Information Engineering, offered by the Department of Information Engineering, Infrastructure and Sustainable Energy (DIIES) at the Mediterranean University of Reggio Calabria, recognised as a Department of Excellence for the 2023–2027 period, aims to educate highly qualified professionals with advanced, multidisciplinary, and integrated expertise in the fields of Information and Communication Technologies (ICT) and their application domains. The Programme focuses on the technologies, methods, and systems of Information Engineering, which, by their very nature, are applicable across a wide range of highly innovative fields. Accordingly, the Programme promotes interdisciplinary research in the area of Key Enabling Technologies (KETs)—including information and communication technologies, nanotechnologies and nanoelectronics, advanced materials, photonics, and biotechnologies—and offers a broad and multidisciplinary educational pathway designed to equip doctoral candidates with the knowledge and skills required to develop innovative theoretical and applied research. The Programme combines methodological approaches derived from the fundamental scientific disciplines (mathematics, physics, and chemistry) and artificial intelligence with advanced studies in the core disciplines of Information Engineering, ranging from computer science to electronics and telecommunications. The Programme aims to educate PhD graduates with a solid background in Information Engineering who, within a multidisciplinary environment, are capable of driving innovation through advanced solutions, methods, enabling technologies, and, where appropriate, novel technological approaches in strategically important socio-economic sectors. These include Information Engineering itself, the agri-food supply chain, renewable energy, biomedical engineering, public administration, environmental and infrastructure monitoring, Industry 5.0, e-Health, smart cities, and sustainable mobility. The effectiveness of this interdisciplinary approach is demonstrated both by patents jointly awarded and/or filed by faculty members from different disciplinary areas—with significant contributions from PhD candidates—and by the most recent projects funded under the Italian National Recovery and Resilience Plan (PNRR), which have involved faculty members from different scientific fields in research related to Information and Communication Technology (ICT) and its applications across a wide range of national initiatives, including National Research Centres, Innovation Ecosystems, and Extended Partnerships. ICT, which constitutes the scientific foundation of the Programme, is widely

	recognised as a key enabling factor for digital transformation, technological innovation, and the ecological transition, all of which represent strategic priorities within the PNRR and its subsequent developments. The multidisciplinary nature of the Programme is also reflected in the composition of the Academic Board, which includes experts with complementary scientific backgrounds. Most members belong to CUN Area 09 (Industrial and Information Engineering), covering the core disciplinary sectors of Information Engineering, while additional expertise is provided by scholars from CUN Area 08 (Civil Engineering and Architecture), particularly in Roads and Transportation, as well as from CUN Areas 01, 02, and 03, representing the mathematical, physical, and chemical sciences. The Programme's strong integration within both the national and international research landscape is reflected in the composition of its Academic Board, which includes: - 30 faculty members and researchers from the Mediterranean University of Reggio Calabria and 3 faculty members from other Italian universities (University of Naples Federico II, University of Catania, and University of Salento); - 5 international faculty members from the Universities of Karlsruhe, Hannover, Dublin, the Polytechnic University of Valencia, and the University of Bordeaux; - 2 senior researchers from the National Research Council of Italy (CNR), namely a Research Director at the Institute of Applied Sciences and Intelligent Systems (ISASI) and a Director at the Institute for Electromagnetic Sensing of the Environment (IREA), Naples; - 1 highly qualified expert, former Director General of the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) and currently, while on leave from ENEA, Director General of Area Science Park, a national research organisation supervised by the Italian Ministry of University and Research (MUR). The Academic Board is also supported by an Advisory Board composed of internationally recognised experts from academic, industrial, and intergovernmental research institutions in the United States, the United Kingdom, France, Germany, Austria, and the European Space Agency (ESA): https://www.unirc.it/ateneo/dipartimenti/dipartimento-di-ingegneria-dellinformazione-delle-infrastrutture-e-dellenergia-sostenibile-diies/il-dipartimento/qualita/qualita-del-dottorato-di-ricerca/comitato-consulativo-del-corso-di-dottorato. The PhD Programme was a partner, during its 35th cycle, in the Horizon 2020 Marie Skłodowska-Curie Innovative Training Network (ITN)/European Joint Doctorate (EJD) A-WEAR, which brought together 5 beneficiary institutions and 12 partner organisations from Finland, the Czech Republic, Italy, Romania, and Spain. The Programme intends to actively pursue similar international initiatives in the near future.
Educational objectives	The educational objectives of the PhD Programme are: - to provide an in-depth understanding of the theoretical foundations of the disciplines underpinning Information Engineering and their related application domains, with particular attention to sustainability-related issues; - to strengthen the methodological background in mathematics, physics, chemistry, statistics, and artificial intelligence, with particular emphasis on methods of greatest relevance to Information Engineering; - to foster a critical understanding of current research achievements and future developments within the doctoral candidate's specific research area; - to support the development of an advanced research topic within the chosen research field, demonstrated through innovative scientific contributions, including, where appropriate, unconventional applications of Information and Communication Technologies (ICT) and other Key Enabling Technologies (KETs). Furthermore, doctoral candidates will develop the ability to: - design and conduct experimental and/or numerical investigations and validation activities; - analyse the technological innovation needs of national and international companies, as well as public and private organisations; - identify research funding opportunities; - design and manage research and technology transfer projects. Educational activities over the three-year programme are organised into the following categories: - Attendance at mini-courses consisting of courses (8 or 12 hours) organised by the PhD Programme. These courses are both methodological in nature, aimed at providing theoretical, methodological, and practical operational tools on ICT topics and selected application areas (sustainable energy and mobility, agrifood, e-health), and informative in nature, providing an overview of the state of the art and expected developments of the research topic addressed. Mini-courses are selected by doctoral candidates on the basis of a flexible and personalised study plan within a broad multidisciplinary educational offer organised into different categories (see Section

	4). Following the recommendations of the Advisory Board, the educational offer has been updated and slightly expanded this year. - Acquisition of transferable skills through attendance at specific courses or interdisciplinary seminars offered by the University Doctoral School or by the Department, covering • knowledge and management of research, European research systems, and the fundamentals of project management; • the valorisation and dissemination of research results, intellectual property, and open science; • the principles of ethics, gender equality, and research integrity; • language enhancement. - Attendance at external courses by participating in courses offered by other PhD programmes or by national and international research institutions, attending seminar series delivered by qualified representatives of universities, research organisations, and companies on innovative ICT-related topics, and participating in doctoral schools organised by national or international scientific societies in areas relevant to the PhD Programme. To improve language proficiency, the PhD Programme encourages doctoral candidates to prepare progress reports, research seminars, and the doctoral thesis in English. Doctoral candidates are also required to engage in third mission activities and to develop scientific communication skills through, for example, the preparation of scientific and multimedia posts for social media, presentations at scientific or public engagement events addressed to non-specialist audiences, or other science communication initiatives. Doctoral candidates in Information Engineering generally already possess a solid background in computer science disciplines. Additional advanced training activities, including the use of advanced and/or specialised software, may be provided within the Department's laboratories and tailored to the individual study path. About the valorisation of research and intellectual property, in addition to the courses organised in coordination with the Doctoral School, practical activities, interaction with the University's spin-off companies, and seminars on patenting and entrepreneurship organised in collaboration with the Order of Engineers are also provided. Doctoral candidates are continuously engaged in research activities under the supervision of one or more supervisors. These activities include: - independent and/or supervised study of scientific literature and publications; - participation in national and international conferences; - acquisition of experimental laboratory skills and/or computer-aided design and simulation skills; - independent research leading to the preparation of scientific publications and the doctoral thesis; - delivery of seminars. These activities may also be carried out at research institutions or companies in Italy and abroad. In this regard, a stay of at least three months at a qualified institution abroad is strongly recommended.
Expected career and employment opportunities	Over the years, all graduates of the PhD Programme in Information Engineering have secured employment at universities, research institutions, and companies (generally characterised by a high level of innovation) operating in the scientific and cultural fields relevant to the Programme. It is noteworthy that a significant proportion of PhD graduates continue to pursue research careers at Italian and international universities and research centres as postdoctoral researchers or as researchers and faculty members. Equally significant is the percentage of PhD graduates holding prominent positions in multinational ICT companies with a strong research orientation (e.g., Nokia Siemens, Ericsson Finland and Sweden, STMicroelectronics, and Leonardo). Furthermore, the University hosts several academic spin-offs and start-ups founded by, or built upon the expertise of, graduates of the PhD Programme in Information Engineering. Some of these start-ups have distinguished themselves in national competitions (e.g., the Confindustria "Best Practices" Award) and have gained international recognition (e.g., through participation in the Consumer Electronics Show (CES) in Las Vegas). The experience gained from previous PhD cycles, all of whose graduates have successfully secured stable employment in positions aligned with their professional aspirations, strongly suggests that candidates enrolled in this new cycle will likewise have access to a wide range of career opportunities, including: 1. Academic careers. It is worth noting that many graduates of the PhD Programme in Information Engineering have been appointed as Researchers and subsequently as Associate Professors at various Italian universities, while others hold permanent academic positions at universities abroad. 2. National and international research institutions and consortia, including CNR, CIRA, ENEA, ASI, INFN, CNIT, as well as EURATOM, CERN, AFRL, IPP, and ESA.

	3. Research, development, and engineering positions in national and international companies operating in the ICT sector and other Key Enabling Technologies (KETs). It should be noted that Italian industry, particularly in Central and Southern Italy, is continuously seeking highly specialised postgraduate professionals with up-to-date expertise in advanced technologies for research and development departments. 4. Technology innovation management positions within companies, public institutions, private organisations, and innovative start-ups. 5. Establishment of academic spin-offs and small enterprises arising from research outcomes.
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INFORMATION SHEET N. 5

Name of the doctoral course	Agricultural, Food and Forest Sciences	
Cycle	XLII	
Curricula	=====	
Duration	3 years	
Coordinator	Prof. Leonardo Schena	
Department	Agriculture	
Positions	6 positions of which 5 positions with a scholarship and 1 position without a scholarship	
Funding sources	The scholarships are funded by the University and co-funded by the Calabria Region and by the participating companies; all of them address topics consistent with the Regional Smart Specialisation Strategy (S3) Calabria 2021-2027	
Research topics to be indicated in Annex B	All applicants, together with the application form, shall submit Annex B, indicating whether they intend to compete for a position with a scholarship or for the position without a scholarship. Applicants intending to compete for a position with a scholarship shall indicate the research topic(s) selected from those listed below, up to a maximum of two research topics. Where two research topics are selected, the order in which they are listed shall be understood as the order of priority: 2 positions with a scholarship on the S3 priority area “Agriculture 4.0 and Agri-food”: research topic A): <i>Exploiting the microbiome for sustainable management of seeds and fruits after harvest</i> research topic B): <i>Sustainable strategies for the control of emerging diseases of olive in the Mediterranean Basin</i> 3 positions with a scholarship on the S3 priority area “Environment, Circular Economy and Biodiversity”; research topic C): <i>Development of innovative and sustainable processes for enhancing the technological performance of wood</i> research topic D): <i>Development of innovative solutions for the control of insects of medical and veterinary interest</i> research topic E): <i>Eco-design of management strategies for agri-food industry waste</i> For each research topic indicated, the applicant shall submit a separate research project consistent with the selected topic. Accordingly, where two research topics are indicated, two separate research projects shall be submitted, together with their respective priority. Applicants intending to compete for the position without a scholarship shall indicate the topic of the research project, which may be freely chosen. It is also permitted to indicate one of the research topics envisaged for the positions with a scholarship. Where an applicant competing for the position without a scholarship has indicated one of the research topics envisaged for the positions with a scholarship, that applicant may be considered for the possible award of a position with a scholarship only if positions remain available on the selected research topic, following the order of the merit ranking list.	
Companies – S3 Calabria priority areas	Co-funding companies	Priority areas consistent with the Regional Smart Specialisation Strategy (S3) Calabria 2021–2027
	CIHEAM – Mediterranean Agronomic Institute	Agriculture 4.0 and Agri-food

	CIHEAM – Mediterranean Agronomic Institute	Agriculture 4.0 and Agri-food
	Società agricola forestale Ierace Domenico	Environment, Circular Economy and Biodiversity
	FASMI SRL	Environment, Circular Economy and Biodiversity
	Nuova olearia srl	Environment, Circular Economy and Biodiversity
Additional obligations for doctoral candidates awarded scholarships co-funded by the Calabria Region, pursuant to the provisions of the “Guidelines”	1. Any renunciation of the scholarship entails the obligation to repay all scholarship instalments received up to the time of renunciation; 2. Failure to obtain the degree, attributable to the doctoral student, will result in the forfeiture of the benefit and the restitution of the amounts received; 3. Candidates, at the time of submitting the application, must be resident or domiciled in Calabria; otherwise, they are required to transfer their residence or domicile to the region within 6 (six) months of admission to the grant, under penalty of forfeiture of the benefit and the obligation to repay all instalments received.	
Required educational qualification	LM-3 Landscape architecture LM-4 Architecture and building engineering-architecture LM-4 c.u. Architecture and building engineering-architecture (five-year single-cycle) LM-6 Biology LM-7 Agricultural biotechnology LM-8 Industrial biotechnology LM-9 Medical, veterinary and pharmaceutical biotechnology LM-13 Pharmacy and industrial pharmacy LM-17 Physics LM-18 Computer science LM-22 Chemical engineering LM-23 Civil engineering LM-24 Building systems engineering LM-25 Automation engineering LM-26 Safety engineering LM-27 Telecommunications engineering LM-29 Electronic engineering LM-30 Energy and nuclear engineering LM-31 Management engineering LM-32 Computer engineering LM-33 Mechanical engineering LM-35 Environmental and land engineering LM-40 Mathematics LM-41 Medicine and surgery LM-42 Veterinary medicine LM-48 Regional, urban and environmental planning LM-49 Design and management of tourism systems LM-53 Materials science and engineering LM-54 Chemical sciences LM-56 Economics LM-60 Natural sciences LM-61 Human nutrition sciences LM-69 Agricultural science and technology LM-70 Food science and technology LM-71 Industrial chemistry science and technology	

	LM-73 Forest and environmental science and technology LM-74 Geological science and technology LM-75 Environmental and land science and technology LM-76 Economics of the environment and culture LM-82 Statistical sciences LM-86 Animal science and technology LM/GASTR Economic and social sciences of gastronomy 3/S (specialist degrees in landscape architecture) 4/S (specialist degrees in architecture and building engineering) 6/S (specialist degrees in biology) 7/S (specialist degrees in agricultural biotechnology) 8/S (specialist degrees in industrial biotechnology) 9/S (specialist degrees in medical, veterinary and pharmaceutical biotechnology) 14/S (specialist degrees in pharmacy and industrial pharmacy) 20/S (specialist degrees in physics) 23/S (specialist degrees in computer science) 27/S (specialist degrees in chemical engineering) 28/S (specialist degrees in civil engineering) 29/S (specialist degrees in automation engineering) 32/S (specialist degrees in electronic engineering) 34/S (specialist degrees in management engineering) 35/S (specialist degrees in computer engineering) 36/S (specialist degrees in mechanical engineering) 38/S (specialist degrees in environmental and land engineering) 45/S (specialist degrees in mathematics) 47/S (specialist degrees in veterinary medicine) 50/S (specialist degrees in mathematical and physical modelling for engineering) 61/S (specialist degrees in materials science and engineering) 62/S (specialist degrees in chemical sciences) 64/S (specialist degrees in economics) 68/S (specialist degrees in natural sciences) 69/S (specialist degrees in human nutrition sciences) 74/S (specialist degrees in rural and forest resource sciences and management) 77/S (specialist degrees in agricultural science and technology) 78/S (specialist degrees in agri-food science and technology) 79/S (specialist degrees in agricultural and animal science and technology) 81/S (specialist degrees in industrial chemistry science and technology) 82/S (specialist degrees in environmental and land science and technology) 83/S (specialist degrees in economics of the environment and culture) 84/S (specialist degrees in business economics) 85/S (specialist degrees in geophysical sciences) 86/S (specialist degrees in geological sciences) 92/S (specialist degrees in statistics for experimental research)
Documentation to be attached to the application	Applications must be submitted through the Esse3 platform, together with the following documentation: A valid identification document; Curriculum Vitae in Europass format; Academic qualification: For candidates holding an Italian qualification: a <u>self-certification of the degree</u> required for admission to the competition, pursuant to Presidential Decree (D.P.R.) No. 445 of 28 December 2000;

	- For candidates holding a foreign qualification: a <u>degree certificate</u> indicating the study programme followed and the examinations taken, together with the corresponding grades. Additional documents deemed useful for the assessment of the suitability of the qualification may also be attached. Where the certificate and any additional documents are drafted in a language other than Italian or English, they must be translated and legalised by the Italian Embassy or Consulate in the country where the qualification was awarded. The suitability of a qualification awarded by a foreign university may be assessed by the Selection Committee solely for the purpose of admission to the selection procedure, on the basis of the certificates attached to the application. d. Research proposal (using exclusively Annex B to this Call), written in either Italian or English and relating to the research topic(s) for which the candidate intends to apply (see the instructions set out in the section on research topics). Completion of Annex B (Section 1 and Section 2) is mandatory for admission to the competition referred to in this information sheet. The research project must not exceed 2,000 words, including an abstract of no more than 150 words, and shall be organised into the following parts: 1. Aims and objectives of the research; 2. State of the art of the scientific debate concerning the proposed field of study and any interdisciplinary aspects; 3. Research methodology; 4. Expected results; 5. References. The bibliography, tables and figures are not counted towards the word limit, and are permitted up to a maximum of 3 tables and 3 figures per project. Failure to comply with the maximum word count will be assessed negatively by the selection committees. e. Application form, duly completed and signed, after being downloaded from the Esse3 platform in PDF format. FOR NON-EUROPEAN CANDIDATES ONLY: Applicants from non-EU countries are advised that entry into Italy and the formalization of the start of in-person activities at the Università Mediterranea must take place no later than three months after the start date of the program. Failure to meet this deadline will result in automatic dismissal from the doctoral program and subsequent reduction in the ranking.
Admission procedures	Admission shall be based on: a) Assessment of the research project and qualifications (max 60 points) b) Oral examination and assessment of knowledge of the English language (max 60 points) a) Assessment of the research project and qualifications: this is aimed at establishing the applicant's preparation and motivation for taking part in the doctoral programme and shall be based on the following documents and qualifications: • The Curriculum Vitae, highlighting the applicant's educational background, degree mark and any relevant qualifications held (max 20 points); • Research project in Italian or in English (max 40 points). Admission to the oral examination requires a score of at least 42/60 in the assessment of the research project and curriculum. b) Oral examination and assessment of knowledge of the English language • Discussion of the project and assessment of the applicant's aptitude for scientific research.

	Assessment of knowledge of the English language. Foreign applicants shall demonstrate at least an elementary knowledge of the Italian language. Inclusion in the final ranking list requires a score of at least 42/60.
Examination schedule	Assessment of the research project and qualifications: 24 September 2026 The list of applicants admitted to the oral examination shall be published by 28 September 2026. Oral and language examination: 1 October 2026 at 09:00, at the Department of Agriculture of the Mediterranean University of Reggio Calabria, located in Località Feo di Vito – 89122 Reggio Calabria. Only candidates residing abroad and those residing more than 700 kilometres from the examination venue may request to attend the interview by videoconference. This option must be clearly indicated in the application, specifying an e-mail address at which the candidate may be contacted. This e-mail address will be used to communicate the arrangements for the interview and the platform selected by the Selection Committee for its conduct. Any changes to the examination timetable shall be published on the website at the following link: https://www.unirc.it/ricerca/dottorato-di-ricerca/offerta-formativa No other form of notice shall be issued by this University.
Language test	ENGLISH
Study and research periods abroad and in industry	For all scholarship recipients, the programme provides: - an optional period of study and research abroad of up to twelve (12) months; - an optional period of study and research in a company, to be agreed with the Tutor and the Coordinator of the doctoral programme; For the position without a scholarship the programme provides an optional period of study and research abroad of up to six (6) months.
Description of the project	The Doctoral Programme in Agricultural, Food and Forest Sciences (SAAF) brings together expertise and activities spanning numerous lines of research in the agricultural, food and forest sectors, with a view to improving the efficiency of production processes and with particular attention to the themes of innovation and sustainability. The programme trains highly qualified professionals capable of managing agroecosystems and agri-food, forest and livestock supply chains according to the principles of sustainability and the circular economy, with specific reference to the systems typical of the Mediterranean area and to the challenges of climate change, water resource management and the protection of soil health. The programme draws on the specialist expertise of the Academic Board, composed of 45 members (46 including the doctoral candidates' representative, elected from among students enrolled in the first or second year and admitted to meetings dealing with teaching and organisational matters). It includes 41 academic staff from Italian universities – predominantly from the Department of Agriculture of the Mediterranean University (34 full and associate professors, 3 permanent researchers and 4 fixed-term type B researchers) – belonging to the scientific-disciplinary sectors AGRI-01/A, AGRI-02/A, AGRI-03/A, AGRI-03/B, AGRI-03/C, AGRI-04/A, AGRI-04/B, AGRI-04/C, AGRI-05/A, AGRI-05/B, AGRI-06/A, AGRI-06/B, AGRI-07/A, AGRI-08/A, AGRI-09/B and BIOS-01/C, together with 4 academic staff and researchers working at foreign universities and research centres, with advanced expertise in: 1) the study of the microbiome and its impact on plant growth and health; 2) forest resource management and the hydrology of forest soils in the post-fire phase; 3) participatory development and economic assessment of EU policies on forests, biodiversity and bioenergy; 4) agroecology, ecosystem services in olive growing, soil biodiversity, nutrient cycling and organic farming. Collaboration with academic staff and researchers outside the Board, from the same Department or from other Universities and research bodies, makes it possible to draw on further specific expertise, including through the appointment of co-tutors for doctoral candidates engaged in specialist fields of research. The main themes addressed in the programme of study are: - Agronomy, tree crop science, agricultural chemistry and genetics: soil-plant-atmosphere relationships, water use efficiency, adaptation of herbaceous and tree crops to abiotic stresses, polycultural systems

	and agrobiodiversity, genetic improvement, sustainable agriculture, soil fertility and health, plant physiology and the recycling of agro-industrial biomass. - Economics, appraisal and agri-food and forest policy: economic, managerial and appraisal analyses along the supply chains of the primary sector (food and non-food) and methodologies for assessing environmental, economic and social sustainability. - Water and land planning: management and quality of water resources in agriculture, irrigation, rural landscape planning, soil protection, hydrology, GIS and remote sensing, buildings and settlements for rural areas and the agro-industry. - Silviculture, forest ecology and forest operations: ecology and sustainable management of forests, growth modelling, impact of climate change, wildfire risk and management, processing technologies and wood-based products. - Crop protection: plant pathogens and arthropods of agricultural, food and forest interest, plant-pathogen/insect interactions, beneficial microorganisms and insects, the plant microbiome and sustainable control strategies. - Food technology and microbiology: selection of microorganisms for bioremediation and for the improvement of foods and beverages, optimisation of processes and packaging, food preservation and safety, novel foods, shelf life and nutraceutical compounds. - Mechanics and mechanisation of biosystems: engineering approaches and precision applications for the agricultural, food and forest sectors, including plant for energy production, conversion and saving in agro-industrial systems. - Animal science: characterisation of feedstuffs, feed/animal interaction, effects of diets on productive performance and on product quality, evaluation of alternative feedstuffs. - Biodiversity of vascular flora and vegetation, including the monitoring of vegetation and habitats. The research activities underpinning the theses are carried out in the laboratories and the experimental farm of the Department of Agriculture, supplemented by periods of mobility at national and/or foreign universities and research centres with which the members of the Academic Board have established scientific collaborations, thereby strengthening the international dimension of the programme.
Educational objectives	The principal objective of the SAAF doctoral programme is the development of advanced training pathways, aimed at graduates in scientific and technological disciplines, designed to provide the basic theoretical and practical skills, the analytical and experimental methodologies, the problem-solving capacity and the ability to communicate scientific results, with the aim of improving the efficiency, quality and sustainability of production processes in the agri-food and forest sectors. These pathways, which follow on from second-cycle master's level education, are conceived dynamically so as to train professionals capable of responding to the needs of production systems and to the demand for research, proposing solutions in a range of social and territorial contexts, with particular reference to the Mediterranean area. The doctoral programme aims first and foremost to provide a sound preparation for research in the various disciplinary fields concerned, through the acquisition of the tools and methodologies proper to the scientific approach, which may be applied in institutions carrying out basic and/or applied research (Universities and Research Centres, both public and private). Considerable attention is also devoted to the acquisition of professional skills that are useful outside the university system as well, in public bodies and in large, medium-sized and small enterprises operating in the agri-food and forest sectors, potentially interested in introducing technological innovations and in applying research results within their own production processes. Consistently with the European principles for innovative doctoral training and with the objectives of the 2030 Agenda for Sustainable Development, the programme promotes an interdisciplinary and international research environment, fostering the capacity for critical analysis and independent action. With specific reference to the systems typical of the Mediterranean environment, the programme further aims to: enhance knowledge of the physical, chemical and biological processes of agricultural, livestock, food and forest systems; develop sustainable production systems and products according to the principles of the circular economy; analyse sustainable business models for the production, promotion and marketing of quality products in a global economy; test innovative and participatory organisational and management models in support of rural development and of inner and marginal areas; promote process and product innovations in agri-food processing; and investigate the effects of climate change in the agro-forestry sphere, developing tools to counter hydrogeological instability and soil degradation. In particular, the programme trains researchers able to: - independently develop lines of research addressing significant scientific problems; - devise and propose research projects, both public and private, at local, national and international level; - identify research needs and their scientific, social and economic relevance; - transfer knowledge by presenting research results in national and international contexts and by carrying out teaching activities;

	e) develop networking skills with academic and private partners in the relevant sector; f) apply interdisciplinary approaches deriving from the study of the various components of agri-food and forest biosystems; g) work towards scientific qualification and productivity, which are essential for career opportunities in research bodies and in other spheres; h) transfer research results to potential public and private stakeholders; i) communicate and disseminate scientific culture at national and international level. The objectives of the programme are consistent with the Italian National Recovery and Resilience Plan (PNRR), in particular with Mission 2 “Green revolution and ecological transition” and Mission 4 “Education and Research”. Finally, the doctoral programme seeks to enable candidates to acquire the ability to produce research outputs in the form of scientific articles for high-profile international journals (indexed in Web of Science and/or Scopus), book chapters and popular science contributions, which are necessary in order to disseminate knowledge within the framework of the third mission, with particular attention to the local area.
Expected career and employment opportunities	The skills acquired by SAAF doctoral graduates make it possible to enhance, from both an agrotechnical and a socio-economic perspective, territorial resources and the activities connected with them, working towards the development of traditional and innovative production integrated with environmental protection and food safety. Such skills are particularly strategic for the agri-food and forest systems of the Mediterranean area, which are called upon to combine quality, typicality and territorial identity with economic, environmental and social sustainability, in a context marked by climate change, water scarcity, soil degradation processes and the need to support inner and marginal areas. The qualification allows entry not only into public and private research bodies, but also into the technical and managerial staff of organisations operating in the primary production and environmental management sectors, as well as into the management of processing companies. The agri-food sector is indeed a driving force for the national economy, with a positive growth trend: in order to sustain quality production, it is essential to have professionals capable of providing solutions to a range of problems and of planning research and development projects within company settings as well. Similarly, in the forestry and land planning spheres, demand is growing for advanced expertise in the sustainable and multifunctional management of woodlands and territories. In line with what is envisaged by comparable doctoral programmes with a Mediterranean vocation, the fields of employment include in particular: - Basic and applied research at universities, research centres and the research and development units of companies and enterprises, in Italy and abroad, including European and international agencies and bodies in the sector (for example the European Food Safety Authority – EFSA); - Consultancy, training and technical assistance services for enterprises and associations of producers and livestock farmers; - The design and implementation of development plans for enterprises and supply chains and the definition of innovative management models for public and private bodies and associations; - Land and environmental planning aimed at the rational enhancement of resources, the protection of soil and water resources and the management of hydrogeological risk; - The enhancement and certification of the quality and typicality of raw materials and products (for example designation of origin products), in support of the economy of agricultural and livestock districts; - The management and enhancement of forest and wildlife resources, of parks and protected areas, as well as agro-bioenergy development centres; - Agri-food enterprises engaged in production, processing and import-export, protection consortia, certification bodies, and bodies and non-governmental organisations oriented towards sustainable development. In terms of professional classifications, SAAF doctoral graduates fall within the intellectual, scientific and highly specialised professions, with reference to the profile of specialist in the life sciences in the agricultural, food, forest and environmental spheres, and are further entitled to practise as self-employed professionals upon registration with the Register of Agronomists and Foresters. Consistently with the objectives of the PNRR (Mission 2 – Green revolution and ecological transition) and with the principles of the circular economy, the programme prepares professionals able to facilitate the transfer of research results to the production system. Finally, the training pathways aim to stimulate the entrepreneurial spirit of doctoral candidates, encouraging them to create new enterprises with a high technological innovation content and to exploit the ideas developed during the doctorate, including through patenting and the development of spin-offs and start-ups.