

Attachment n 7

| PHD PROGRAMME IN ECONOMICS, STATISTICS AND SUSTAINABILITY | |
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| Total Number of Scholarships | <p>n. 2 standard scholarships</p> <p>n. 3 scholarships based on DM 118 (Investimento 4.1 generici)</p> <p>n. 2 scholarships based on DM 118 (Investimento 4.1. P.A.)</p> <p>n. 3 scholarships based on DM 117 (Investimento 3.4)</p> <p>n. 1 scholarship dedicated to Italian research Entities (CMCC – Centro Euro-Mediterraneo sui Cambiamenti Climatici)</p> <p>n. 2 scholarships for to permanent corporate employees</p> |
| Application Deadline | 31 July 2023 |
| Requirements for standard scholarships | <p>Candidates applying for standard scholarships must declare they are aware that the PhD Programme includes at least <u>3 months to be spent abroad</u> (maximum 18) and must <u>submit a research proposal</u> (of at least 3,000 characters).</p> |
| Requirements for scholarships based on DM 118 (Investimento 4.1 generici) | <p>Candidates applying for the scholarships based on the topics of “Green revolution and Ecological Transition” must declare they are aware that the PhD Programme includes <u>6 months to be spent in a firm and 6 months to be spent abroad</u>. They must also submit a research proposal (of at least 3,000 characters).</p> <p>Concerning the <u>first scholarship</u>, related to the ‘<i>Evaluation of economic and environmental performance of the waste cycle in Campania. Focus on the province of Avellino</i>’, given the steadily growing amount of waste produced and the difficult transition from a linear growth model to a circular economic model, the PhD candidate will have to tackle economic and environmental performance in the waste cycle, with a focus on the region of Campania. Overall Italy disposes of less than one third of the urban waste produced in landfills and recycles over 40%. Significant differences however emerge among Italian regions. Campania represents a peculiar case, as after the 2008-2009 waste emergency, it featured a strong bottom-up response on part of the citizenship, who engaged in separate waste collection activities. This research project aims to evaluate the progress made with respect to the European targets over the last years, from an economic and environmental point of view, identifying potential areas for improvement and offering policy indications in comparative terms with respect to the other areas of Campania (provinces and municipalities) and to</p> |

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| | <p>the other Italian regions.</p> <p>Concerning the <u>second scholarship</u>, focusing on the ‘<i>Long-run analysis of the effects of climate change on the agricultural sector in Italy</i>’, the PhD candidate will tackle the effects of climate change on agriculture in Italy. According to a report by CMCC, the impact of the climate crisis on the Italian economy will involve especially the primary sector. Italian agriculture plays a significant role for several sectors of the national economy, including for instance the agri-food industry and hospitality. Moreover, Italian products represent a significant share (above 80%) of the consumption of final primary goods on part of national households. For this reason, every change in the prices and quantities of agricultural products is associated to an impact on the habits and wellbeing of citizens. Based on the above, the aim of this research project is to study how climate change in Italy has affected crops and how this has impacted the habits of the Italians over the last decades (in terms of purchasing behaviours and diets). To this regard, the research project will employ long-run time series (starting from 1861) and sophisticated econometric instruments, with which the PhD candidate will familiarise during the three years of the programme.</p> <p>Concerning the <u>third scholarship</u>, tackling ‘<i>The Role of Blue Economy in the process of Ecological Transition. The Future of the Maritime Italian Sector</i>’, the PhD candidate will study the role of Blue Economy with respect to the ecological transition. About 90% of global trade routes travel across the seas, implying that “without ships half of the world’s population would starve to death, while the other half would freeze to death”. Moreover, in this period maritime transport, which never stopped, plays a key role as it provides the population with the necessary supplies, including food, energy, raw materials, medicines, and many consumer goods. If on the one hand it is crucial that the sector of maritime transport continue to grow, on the other hand it is necessary to take into account the environmental impact of the productive and economic activities related to the sector. In the 2008-2018 decade, CO2 emissions from maritime transport decreased by 20%, but much is yet to be done. Based on the above, this research project aims to investigate the alignment of the maritime transport sector to the principles of the Blue Economy. The acquisition of advanced econometrics skills during the three years of the PhD programme will allow the candidate to produce accurate forecasts on the ‘ecological’ future of Italian ports.</p> |
| <p>Requirements for scholarships based on DM 118 (Investimento 4.1</p> | <p>Candidates applying for the scholarships based on the topics of related to DM 118 (Investimento 4.1 P.A.) must declare they are aware that the PhD Programme includes</p> |

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| <p>P.A.)</p> | <p><u>6 months to be spent in a firm and 6 months to be spent abroad.</u> They must also submit a research proposal (of at least 3,000 characters).</p> <p>Concerning the <u>first scholarship</u>, related to the ‘<i>Digital Transition in knowledge and information management processes</i>’, the candidate will aim to contribute the literature on knowledge management and information management processes. In the digital era, the transition towards advanced technologies has had a significant impact on knowledge management within organisations. The growing availability of digital instruments, the large amounts of detailed data and the evolution of collaboration practices have made it crucial to understand how the digital transition affects knowledge management processes. The present project aims to explore in depth the impact of the digital transition on the processes related to innovation and knowledge. Through the analysis of new digital technologies (e.g. Artificial intelligence, big data analytics, blockchain, metaverse) and of the challenges and opportunities they bring along, the goal is to develop new models and strategies to improve the efficiency and competitiveness of organisations, identify the positive aspects and the challenges that arise from this transition. The project will employ a combination of research methods including literature reviews, case studies and surveys.</p> <p>Concerning the <u>second scholarship</u>, tackling the ‘<i>Adoption of digital technologies in the processes related to sustainability</i>’, the candidate will contribute the knowledge on sustainability management processes through the use of enabling technologies. Sustainability management has become a central topic for organisations, while enabling technologies such as the Internet of Things (IoS), Artificial Intelligence (AI), blockchain and the metaverse, offer new opportunities to tackle environmental, social and economic challenges. This project aims to understand how these technologies may be adopted effectively to promote sustainability and develop model and strategies that may facilitate the sustainable transition of organisations. The ultimate goals of this work are to analyse the impact of enabling technologies on sustainability, investigating how enabling technologies impact the dimensions of sustainability, and to examine the positive aspects related to the adoption of these technologies, including improvements in resource management, in the efficiency and effectiveness of processes, in the reduction of waste and in sustainable innovation. The project will employ a combination of research methods, including conceptual, qualitative and quantitative approaches.</p> |
| <p>Requirements for scholarships based on DM 117 (Investimento 3.4)</p> | <p>Candidates applying for scholarships based on DM 117 (Investimento 3.4) must declare they are aware that the PhD Programme includes <u>6 months to be spent in a firm</u></p> |

and 6 months to be spent abroad. They must also submit a research proposal (of at least 3,000 characters).

The research topics that will be tackled in the PhD programme are the following:

Concerning the **first scholarship**, related to the ‘*Cycles of Production and Provision of Logistic and Sustainable Transport Services*’, the project aims to increase firm-level knowledge on Research and Development (R&D) processes and delves into how to apply this knowledge to the cycles of production and provision of logistics and sustainable transport services. An analysis of the literature on the topic will allow to identify the key models and methods employed for the evaluation of R&D projects. The principles included in the Frascati Manual will allow to outline a methodology for the statistical measurement of research activities, based on the guidelines adopted in the member states of the Organisation for Economic Development and Cooperation (OECD). The principles contained in the Oslo Manual moreover will allow to define a strategy for the evaluation of innovation projects in the sector of logistics and transport, based on the area of application (product/services, processes, technologies, markets), on cause-effect relations (grassroot innovation, key innovation, user-driven innovation) and on the extent of novelty (incremental or radical innovation).

Concerning the **second scholarship**, covering the ‘*Ecological Transition in the Logistics and Transport Sector*’, the candidate will analyse from an economic perspective the processes of prototyping, production, distribution management, as well as logistic and commercial channels, internationalisation and protection of intellectual property rights. The main areas of application include the production of means and commercial units for own use or local traffic, involvement in the distributional channel, handling of bureaucratic procedures, obligations and solutions for exporting the units worldwide. The use of qualitative and quantitative research methods will allow to run a technical and economic analysis for the firms that decide to develop innovation products in the *Green & Blue* field or that mean to buy/rent integrated solutions. Finally, an analysis of the target customers will allow to identify suitable strategy to be adopted by individual firms within the supply chain.

Concerning the **third scholarship**, related to ‘*Integrated and Intermodal Transport and Logistics Systems*’, the candidate will analyse integrated and intermodal transport and logistics systems. To reach this aim, individual logistic services (such as storage and picking) and individual transport services (e.g. last mile) will be analysed from a technical and economic perspective, considering also the problem of target customers. Market analysis and suitable statistical methods will allow to

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| | <p>characterise the economic context, the reference activity sector and the behaviour of target customers. Identifying a marketing mix strategy will allow to: 1) select the technical characteristics of the product/service, highlighting the elements of strength and the characteristics of design and production, 2) to establish the price of the product/service and in comparison with that of the products available in the market 3) to identify the marketing strategies, comparing alternative channels and instruments 4) devise distribution activities of the product/service to the customer.</p> |
| <p>Requirements for the scholarship dedicated to Italian research Entities (CMCC – Centro Euro-Mediterraneo sui Cambiamenti Climatici)</p> | <p>Candidates applying for the scholarship dedicated to Italian research Entities (CMCC) must declare they are aware that the PhD programme includes <u>6 moths in the firm and 6 months abroad</u>. Moreover, they must submit a research project (of at least 3,000 characters).</p> <p>Research Topic: <i>The impact of climate change on health</i></p> <p>The research activity that will be carried out within the PhD programme is in line with the National Plan for complementary investments (PNC) – 1.4: Promotion and Funding of Applied Research with Multidisciplinary Approaches in Specific Areas of Intervention (health, environment, biodiversity, climate), whose goal is to measure the impact of climate change on health, using different adjustment and mitigation scenarios. The general goal of PNC is in brief to foster the achievement of the international targets of sustainable development, mitigation and adaptation to climate change in Italian cities, promoting a health and equity centred approach in the design of policies and interventions at the local level, prioritising evidence-based measures associated to the larger direct and indirect benefits in terms of health, which allow to reduce simultaneously social and gender inequalities. Specifically, the research activity will focus on the development of innovative approaches to monitor direct and indirect health co-benefits associated to the introduction of mitigation interventions. The activity will involve interactions with experts on climate, epidemiology, economics and statistics to sum up the direct and indirect impacts of climate change through indicators developed based on the state of the art, considering several factors, (climatic, epidemiological and economic). These indicators will represent the basis to evaluate climate risks for health and promote actions aimed at increasing societal equity, health and wellbeing in the urban context.</p> |
| <p>Requirements for scholarships for to permanent corporate employees</p> | <p>Candidates applying for scholarships for permanent corporate employees <u>are not obliged to spend 3 months abroad</u>. However, they need to submit a research project (of at least 3,000 characters).</p> <p>Concerning the <u>first scholarship</u> for the permanent employees of AGILAE srl, covering ‘<i>Innovative and Sustainable Models of Business Design</i>’, the research project</p> |

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| | <p>intends to analyse the start-up, planning and execution phases of activities aimed at identifying innovative and sustainable business design models. The systemic integration of methodologies and technologies will make it possible to automate business design services, using a series of standardised processes, with the support of predictive analysis technologies that allow to digitise and automate management processes. Furthermore, using qualitative and quantitative research methodologies, the project aims to achieve four objectives: 1) analyse current business models and redefine them to generate value for customers; 2) precisely define the target customers, evaluating problems and identifying solutions; 3) increase the profitability of existing business models by monitoring, analysing and improving all business processes; 4) define the logics through which an organisation creates, acquires and distributes value at a systemic level and in a sustainable way, minimising environmental impacts and maximising social benefits and the regeneration of ecosystems.</p> <p>Concerning the second scholarship for permanent employees of TDELIVERY s.r.l., related to ‘<i>Digital and Sustainable Innovation and in the processes of Green & Blue Logistics</i>’, the research project intends to analyse the impact of digital and sustainable innovation on <i>Green & Blue</i> logistics and transport processes. The design of evaluation systems will allow to measure the environmental impact of individual products/services during each phase of its life cycle, considering energy consumption, raw materials, emissions, waste production and discharges. The definition of circular and sustainable business models will support the company in pursuing the sustainable development goals (SDGs) and improve its ESG rating. The adoption of enabling technologies will improve the traceability and transparency of the products and services offered. The use of qualitative and quantitative research methodologies will allow to analyse the economic context, the reference sector of logistics and transport activities and the impact of the <i>Green & Blue</i> transition on the behaviour of the other players in the supply chain.</p> |
| Programme Duration | Three Years |
| Coordinator | Prof. Massimiliano Agovino |
| Scientific Sectors related to the programme’s topics | SECS-P/01; SECS-P/02; SECS-P/12, AGR/01; SECS-P/11; SECS-S/03; SECS-S/06; ING-IND/35. |
| Teaching goals | The PhD Programme aims to train, enabling them to carry out operational and scientific research work, at the national and international level, on topics related to economics, statistics and sustainable development. The variety of subjects taught, that |

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| | <p>include statistics, econometrics, economic theory, applied economics, finance and sustainability, aims to reinforce the background of the candidates, first of all in a perspective of amplitude. Nowadays economists and statisticians are urged to possess transversal knowledge, even more so when it comes to tackling topics, such as sustainability, that are by their own nature wide. Before a specific focus in the second and third year on economic, environmental, food or social sustainability, candidates are required to explore these issues and their transversal nature. As a specific goal of this programme, candidates are supposed to learn how to focus their research on a specific field – both in terms of scientific literature and of methodology – building on the knowledge acquired earlier.</p> <p>The first year is devoted to training, which provides candidates with a cultural background of notions, research topics and suitable quantitative methods that allow them to engage in the current scientific debate and to develop new research lines, with their own added value, on the topics tackled in the programme during the next two years.</p> <p>The first year involves 116 hours of standard teaching and 46 hours of ‘other teaching activities’ (seminars, lab and research activities, interdisciplinary, multidisciplinary and transdisciplinary training). During the second year, the candidates are required to start their research projects, exploiting the earlier knowledge acquired during the first-year courses, a period abroad and participation to seminars. Moreover, in order to promote the growth of PhD candidates as members of the scientific community, a series of meetings will be held, aiming to stimulate confrontation among candidates, scholars and experts (10 hours from the second year). The meetings are labelled Brown Bag Lunches and consist in a series of encounters aiming to tackle topics of current interest for candidates that work in the field of applied economics, applied mathematics, economic statistics and sustainability. The Brown Bag Lunches focus on the most practical aspects of research, may concern discussions on methods, data and research software, conceptual ideas or fieldwork strategies. Finally, the third year is structured so as to ensure that the candidates have enough time to work full time on their final dissertations.</p> |
| <p>Application Requirements</p> | <p>One of the following Qualifications is required:</p> <ul style="list-style-type: none"> - <i>Laurea Specialistica</i> or <i>Laurea Magistrale</i> as per D.M. 509/1999 and subsequent modifications and integrations; - <i>Laurea</i> or <i>Diploma di Laurea</i> obtained under earlier teaching regulations (lasting at least four years); - Equivalent Academic Qualifications obtained from foreign universities. <p>In the case of academic qualifications obtained abroad, if the</p> |

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| | <p>qualification is not declared equivalent to the Italian qualification required, admission to the selection is subject to the qualification's recognition, for the sole purpose of admission to the selection, on part of the Selection Board.</p> |
| <p>Evaluation of Qualifications</p> | <p>The Evaluation of Qualifications will assign at most forty (40) points, divided as follows:</p> <ol style="list-style-type: none"> 1) MSc Diploma: up to 5 points 2) Brief Research Project: up to 10 points 3) CV (e.g. final grade, GPA): up to 15 points 4) Other qualifications (e.g. Master Diplomas in line with the topics of the programme, recommendation letter/letters): up to 10 points. <p>Candidates are invited to submit the documents indicated above, with special consideration to the MSc dissertation (which may as well be a draft) and to a certificate listing the exams passed at the moment of application submission.</p> <p>Academic qualifications must be obtained within October 31st 2023.</p> <p>Candidates scoring with a score of at least 20/40 on academic qualifications are admitted to the oral interview.</p> |
| <p>Evaluation of the Research Project (if required)</p> | <p><u>All candidates</u> Will have to submit a brief and synthetic research project, to be attached to their application, under penalty of exclusion from the selection. Specifically, candidates applying for standard scholarships, scholarships based on DM 117, scholarships based on DM 118, scholarship dedicated to Italian research Entities and scholarships for to permanent corporate employees, are required to submit a research project of at least 3,000 characters.</p> <p>Moreover, students applying for scholarships based on DM 117, scholarships based on DM 118, scholarship dedicated to Italian research Entities and scholarships for to permanent corporate employees, will have to submit a research project in line with the topics indicated above (under sections "Requirements for scholarships based on DM 117", "Requirements for scholarships based on DM 118", Requirements for scholarships based on DM 117" and "Requirements for the scholarship dedicated to Italian research Entities (CMCC – Centro Euro-Mediterraneo sui Cambiamenti Climatici)" and "Requiremetn for scholarships for to permanent corporate employees").</p> |
| <p>Interview</p> | <p>The oral interview will cover the following subjects: Microeconomics, Macroeconomics, Finance, Statistics, Sustainability</p> <p>The interview will assign at most sixty (60) points.</p> <p>A candidate will pass the interview if her score equals at least</p> |

30/60. Excellent knowledge of foreign language must moreover be shown.

The interview will take place on September 12th 2023 at 10:00 am, at the department of Economic and Legal Studies of the University of Naples Parthenope, in Via Generale Parisi 13, 5th floor, room 510.