



# PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 40th cycle

**THEMATIC Research Field: THE UTILITY FUNCTION OF SOCIETAL AND ENVIRONMENTAL IMPACT IN THE FINANCIAL SECTOR: COGNITIVE ELEMENTS AND AI TOOLS FOR SELECTING IMPACT INVESTMENTS**

<b>Monthly net income of PhDscholarship (max 36 months)</b>
<b>€ 1500.0</b>
In case of a change of the welfare rates during the three-year period, the amount could be modified.

<b>Context of the research activity</b>	
<b>Motivation and objectives of the research in this field</b>	<p>The doctoral program aims to examine the intersection between impact finance, individual behaviors, and the application of artificial intelligence (AI) in impact investment decisionmaking processes. It focuses on analyzing the motivations and cognitive logics that drive financial managers in adopting impact investment strategies and the role of AI in supporting such decision-making processes. Additionally, it aims to analyze new leadership contexts in the finance world, integrating profiles of social and environmental impact, and the relationship between individuals and AI tools in impact decision-making processes.</p> <p>The primary objective is to analyze the social and/or environmental impact utility logic that characterizes investment selection in a finance/investment-related context. It will examine investors' cognitive profiles in the context of impact investments, analyzing the influence of AI introduction on the selection and management of social and environmental impacts of investment funds, and thus the utility of impact managers based on technology. Special attention will be devoted to comparing financial managers who use AI tools to evaluate impact investments and those who do not.</p> <p>The doctoral proposal aims to identify answers to the following research questions: How do antecedent factors</p>



	<p>influence impact investment choices? At what stage of the decisionmaking process do new screening and measurement technologies, such as AI-based ESG ratings, become part of investors' decision-making processes? How do individuals (managers) relate to AI infrastructures in impact finance contexts? What is the role of AI in generating impact in impact investment decision-making processes? What are the behavioral and cognitive implications of sustainable finance in adopting generative impact approaches in investment behavior?</p>
<p><b>Methods and techniques that will be developed and used to carry out the research</b></p>	<p>The doctoral program will adopt an interdisciplinary approach, combining qualitative and quantitative methodologies. Analyses will be conducted on the cognitive dimensions of investment fund managers who use and do not use AI, their relationship with the technological tool, in-depth interviews with financial managers, and comparative analyses between AI-supported investment strategies and those based on human decisions. The scope of the methodology involves the doctoral candidate's involvement in the investment processes of Venture Capital, Private Equity, and Infrastructure Funds operating in the European Union. Additionally, it is envisaged that the resource involved in this doctoral scholarship can map public characteristics of "closed" investment funds through available secondary sources, with the aim of being able to conduct descriptive/phenomenological observation activities and, depending on data availability, econometric analyses.</p>
<p><b>Educational objectives</b></p>	<ul style="list-style-type: none"> <li>a) Acquire knowledge on the interaction between individuals and technological tools aimed at guiding investment choices necessary for social progress;</li> <li>b) Develop research skills to explore solutions necessary for advancements in investment choices increasingly in line with sustainable development;</li> <li>c) Apply the understanding of the impact concept to real-world cases in the finance world;</li> </ul>
<p><b>Job opportunities</b></p>	<p>Financial institutions are increasingly seeking specialized financial analysts in this field, capable of evaluating and advising on investment strategies that generate social and</p>



	<p>environmental impact. Simultaneously, the increasingly widespread introduction of AI tools in the financial sector has led to a demand for artificial intelligence experts who can develop and implement AI solutions for financial data analysis and impact investment selection. This has created a new role for strategic consultants who assist organizations in understanding and adopting generative impact approaches. Therefore, the doctoral program, with its research-in-action approach, aims to prepare the involved resource to potentially assume an active role in Investment Funds, performing roles as ESG and impact experts in perfect synchronization with the potential and limitations expected from the use of AI tools. Finally, there is a growing opportunity for academic researchers to contribute to knowledge in the field of impact finance and artificial intelligence by conducting empirical studies and developing new theoretical models on this emerging topic.</p>
<b>Composition of the research group</b>	<p>1 Full Professors 1 Associated Professors 1 Assistant Professors 2 PhD Students</p>
<b>Name of the research directors</b>	<p>Mario Calderini, Irene Bengo, Leonardo Boni</p>

<b>Contacts</b>
<p>irene.bengo@polimi.it; leonardo.boni@polimi.it</p>

<b>Additional support - Financial aid per PhD student per year (gross amount)</b>	
<b>Housing - Foreign Students</b>	--
<b>Housing - Out-of-town residents (more than 80Km out of Milano)</b>	--

<b>Scholarship Increase for a period abroad</b>	
<b>Amount monthly</b>	750.0 €
<b>By number of months</b>	6

<b>Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information</b>
<p>Involvement in the educational and project activities of the group, assistance and turorships, computer equipment, workstation at the Department of Management Engineering.</p>



- Involvement in projects: "For the overall development of their capabilities, PhD candidates will work on synergical projects to favour empirical data collection and network development for their career. Projects will give candidates the opportunity to work in group (peers and other senior professors)".
- Teaching and tutoring: "If coherent with the development of their doctoral program, the PhD candidate will have the opportunity to be involved in: teaching activities, tutoring to master students, tutoring to PhD candidates for administrative processes".

**Funding for educational activities: 6.100,00 Euros for three years.**