

Data Sheet B

Scholarships financed by PNRR (National Recovery and Resilience Plan) funds pursuant to DM (Ministerial Decree) No. 117 of 02.03.2023

Mission 4, Component 2 'From Research to Enterprise', Investment 3.3 'Introduction of innovative PhDs that addresses the innovation needs of enterprises and promote the recruitment of researchers in enterprises'

Available posts pursuant to DM 117/2023 within the Management PhD 39th cycle: 2

Scholarship No. 1

1 post with scholarship for the following reserved research topic:

'The Development of Artificial Intelligence for I-Crawler'.

Scholarship co-funded by:

Italiacamp S.r.l.

General research objectives:

Artificial intelligence is the *key enabling technology* upon which this Innovative PhD promoted by Italiacamp S.r.l. in collaboration with the Luiss Guido Carli University is based. Its main object is to study and develop this specific field of research, which examines the programming and design of systems aimed at endowing machines with one or more traits considered typically human. The candidate's activity will be set in the context of the enterprise reality involved with concrete participation in this project strand, rather than working through involvement managed directly by Italiacamp S.r.l. and pertaining to the indicated area.

Consistency with the objectives of the PNRR:

This PhD research fits into the broad intervention area of digital transition as identified by the Next Generation EU. More specifically, the digital pillar in the PNRR contains, among other things, support for research and development (R&D) and the adoption of enabling technologies on the part of businesses, especially small and medium-sized ones. This is emphasised even more clearly in the definition of the strategic axes around which all 6 Missions of the PNRR evolve. The first pillar, which is of interest for this specific investment, is the 'Digitisation and innovation of processes, products, and services', which is a decisive factor for the country's transformation. Italy and its productive fabric are lagging behind seriously in this field. Therefore, the aim is to reduce this gap by enabling enterprises to invest in digital technologies, infrastructures, and processes, which are essential for improving Italian and European competitiveness. This project aims to reverse the national trend and increase the demand for innovation, as also envisaged in the objectives of Mission 4 'Education and Research' of the PNRR. Investing in products and services, but above all investing in highly qualified human capital in the digital-technology sector, is what will create a virtuous system where collaboration between universities and businesses will be the enabling factor. This system will enable us to compete with our European partners and overcome the structural and organisational problems blocking the sector in our country, thus creating a strong and deep-rooted culture of innovation, which is the ultimate goal of these innovative PhD projects, and of the measure itself.

Description of the Project:

The reference macro-project is called 'I-Crawler' and it relates to the intelligence platform bearing the same name, which was designed and built by Italiacamp S.r.l. to scout for enterprises, innovative projects, and highly qualifying Open Learning paths to support companies, start-ups, investors, and institutions. This tool is useful for:

- ♦ creating the conditions for innovation to emerge more and better, by scanning a deep database of organisations, in search of investment business and open innovation initiatives. It is also useful for competitor benchmarking activities and when searching for potential prospects (clients or possible business partners).
- ♦ enhancing the quality of education through the exploration of "open" educational paths offered by universities and research institutions, with a specific focus on innovation topics. It is also useful for defining long-life and large-life learning paths for individuals within organizations, on an international level, and with zero cost solutions.

The scouting activity is then followed by the ranking of the best realities within the realms of the research in progress. The Artificial Intelligence engine 'Daphne' constantly records every act and choice made by users within the application, thus learning from previous experiences and channelling the output to the different search keys, according to an agreed and consistent pattern. In a technological and economic context characterised by increasingly invasive applications and an undefined use of artificial intelligence, in fields ranging from information to healthcare, and even art, Italiacamp S.r.l.'s challenge, however, is to place human professional expertise alongside the algorithm. In fact, within I-Crawler, the user continues to retain an important role, not only in the search, but also in the output, because the platform does not only return the information that is most respectful of a series of qualitative-quantitative parameters, but also allows the user to find and

select organisations that generate positive impacts for the community with their innovations. I-Crawler stems from Italiacamp S.r.l.'s experience in the emergence and development of social innovation through Calls for Ideas, the implementation of the Portal of Ideas platform and the numerous business and funding training offers.

Compulsory months of attendance abroad:

The visiting period for PHD students shall last at least 6 months (maximum 12) in a location to be specified by the start of the programme (by December 2023).

Compulsory months of attendance in companies:

Italiacamp S.r.l. (minimum 6 months - maximum 12 months).

Scholarship No. 2

1 post with scholarship for the following reserved research topic:

'Artificial Intelligence for Impact Management'.

Scholarship co-funded by:

Italiacamp S.r.l.

General research objectives:

This PhD topic utilizes a strand of research that aims at using artificial intelligence (the key enable technology identified) processes and methods to support one of the thematic areas peculiar to Italiacamp S.r.l. : impact, more specifically developing frameworks and tools for impact evaluation and management.

Consistency with the objectives of the PNRR:

PhD research will strengthen the commitment already made by business and universities to establish a virtuous R&D ecosystem of constant exchange, growth, and collaboration. Such ecosystems between universities and businesses are fundamental to increase the country's economic growth potential by fostering transition towards a knowledge-based development model, which is also characterized by resilience and sustainable growth, as referred to also in the objectives of Mission 4 of the PNRR. This project aims to reverse the national trend and increase demand for innovation, as also referred to in the objectives of Mission 4 'Education and Research' of the PNRR. Investing in products and services, but above all investing in highly qualified human capital in the digital-technology sector, is what will create a virtuous system where collaboration between universities and businesses will be the enabling factor. This system will enable us to compete with our European partners and overcome the structural and organisational problems blocking the sector in our country, thus creating a strong and deep-rooted culture of innovation, which is the ultimate goal of these innovative PhD projects, and of the measure itself.

Design details:

For ten years, Italiacamp S.r.l. has been promoting the paradigm at the basis of impact economics, in order to foster a new approach that considers value both as what emerges from traditional economic-financial reporting and as the intangible, yet real, change that each organisation generates for communities, territories and stakeholders. Impact, in fact, is defined as the positive change that each organisation generates for the stakeholders and the geographic areas involved. Assessing impact makes it possible to bring out the shared and intangible value linked to projects, activities, and actions, combining innovation needs with stakeholder expectations, local needs, and strategic objectives. This is a subject that is constantly evolving and developing, since to date there are no standardised and universally recognised evaluation methodologies. There are more than one hundred frameworks used internationally, forty of which are the preferred ones. For this reason, since its inception, Italiacamp S.r.l. has developed a continuous action research activity aimed at defining a framework for ex-post evaluation and for generated impact reporting. At the moment, therefore, the organisation has its own evaluation model with which it supports client organisations in their evaluation processes. Together with the ex-post evaluation framework, Italiacamp S.r.l. is developing its own research and action activity to automate and streamline the evaluation process, making it not only digitised but also continuous and capable of supporting organisations:

- in the ex-ante identification of impact objectives to be achieved;
- in the continuous monitoring process;
- in ex-post evaluation and reporting.

Therefore, on the basis of input information, the tool should be able to develop through an artificial intelligence system:

- ◆ an initial assessment concerning the organization's readiness level about sustainability / impact topics.

- ♦ a projective scenario of the expected potential impacts, in the light of a dataset built on benchmark data and information, attributing specific target KPIs to each action under evaluation and identifying the expected quantitative and monetary value;
- ♦ an integration of this evaluation process with major sustainability reporting systems.

It should also make it possible to update and monitor the resulting values and facilitate the development of reporting output, when required by the user.

This process is part of the Research and Development activity outlined in the Italiacamp 23-25 Strategic Plan, which aims to develop a digital platform of integrated services for sustainability and impact management, supporting interested organizations, particularly SMEs.

This development involves collaboration with other specialized entities on the subject, with which Italiacamp has already established partnerships since 2022.

The candidate, therefore, will be included in the start-up process, which will see the establishment of an inter-organisational working group for the co-development of the tool.

Compulsory months of attendance abroad:

The visiting period for PHD students shall last at least 6 months (maximum 12) in a location to be specified by the start of the programme (by December 2023).

Months of compulsory attendance in the enterprise:

Italiacamp S.r.l. (minimum 6 months - maximum 12 months).