



PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 38th cycle

**THEMATIC Research Field: SUSTAINABLE AND CIRCULAR BUSINESS MODELS FOR THE
FASHION, LUXURY, AND DESIGN MILANESE ECO-SYSTEM**

Monthly net income of PhDscholarship (max 36 months)
€ 1450.0
In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity	
Motivation and objectives of the research in this field	<p>The fashion, luxury, and design system represents international excellence in the Milan and Lombardy area. It is a highly competitive ecosystem, based on both large and small-size firms, a strong connection to the territory, the construction of networks between companies and production subsystems, and the ability to integrate codifiable and transferable knowledge with tacit and contextual expertise. It is a system capable of triggering processes of innovation and hybridization of models for the creation and distribution of value, with respect to which Milan represents a privileged stage. In this context, it is essential to facilitate the transition towards new business models, based on supply chains guided by sustainability and circularity principles, both for the implementation of sustainable, traceable, and transparent product development processes, and for the redefinition of distribution strategies and enhancement of products and brands. Upstream, the product development processes - with specific characteristics for the fashion, luxury and design supply chain - must look at the hybridization of consolidated industrial and artisan standards with new models, able to interpret and integrate the potential of digital technologies. Downstream, traditional retailing must evolve towards a multi-platform and omnichannel logic, with important effects on localization and territorial enhancement strategies, and attention to the trade in new and second-hand products with a focus on sustainability. The present research will contribute to the development</p>



	<p>and dissemination of a new industrial paradigm in the fashion, luxury, and design system, based on the principles of circularity, environmental sustainability, and social inclusion. It will advance new strategies and tools to support firms in innovating product development processes, business models, distribution systems, and enhancing products, services, and relationships with customers and society, driven by sustainability and supported by new technologies. In particular, the research has the following objectives: 1) Helping companies in understanding their maturity level in terms of application of sustainable practices and innovative technologies, providing them with tools for self-assessment and definition of a roadmap. 2) Proactively supporting fashion and luxury companies of the entire supply chain in the creation of new sustainable business models; 3) Accelerating the transition of consumers and society at large towards more sustainable consumer models in terms of use/recycle, waste limitation, preference to short supply chains, use of RFID for traceability, focus on rental of personal luxury goods and shared economy models, no End of Life of goods. 4) Supporting companies in the process of training and placement of highly qualified Sustainability experts and in assessing the cultural impact of products, also in terms of gender and social inclusion with dedicated analyses</p>
<p>Methods and techniques that will be developed and used to carry out the research</p>	<p>The following methodologies will be applied in the research project: 1) literature review: Execution of an extensive literature search and patent search, encompassing survey of industry adoption of best practices, with the aim of creating libraries or databases of sustainable materials, production processes, and industrial paradigms. 2) Maturity models: development of maturity models to measure the current level of adoption of sustainable practices both at company and supply chain level allowing firms to assess their current positioning and to define a roadmap to enhance their sustainable practices. 3) Fostering innovative forms of collaboration: Creation of a Sustainable Luxury Smart Manufacturing and Retailing Platform by developing Extended Enterprises supported by digital tools, where</p>



	<p>large customers, suppliers, startups, SMEs, retailers, and technology partners can share ideas, solutions, competencies and data for the development of new products through a sustainable value chain. 4) Development of training programs: Development of courses and programs (targeting firms and professionals along the entire value chain) aimed at transferring the skills required to create, diffuse, and maintain sustainable/circular business models, and at avoiding delays and failures due to socio-cultural motivations (including ethical and inclusion issues). Mapping and strengthening relationships among firms, certification bodies, and final customers through the development and diffusion of a practical guide and best practices to eco-sustainable labeling and the related requisite implementation skills, to avoid green washin.</p>
<p>Educational objectives</p>	<p>In the context of Piano Nazionale di Ripresa e Resilienza (PNRR), this scholarship promotes the competence required by the challenges of sustainability in the fashion and luxury sector, with specific focus on creating a Circular Economy model. At the end of the PhD program, the candidate will develop the following skills:- Literature search skills: Ability to carry out an extensive literature review, and to use the results to support applied research: based on the outcomes of the literature review, the research group will support applied research through laboratories and infrastructures for prototyping and testing new materials or production processes by cross-disciplinary teams. - Research Design skills: e.g. Ability to design and carry out a Societal analysis of citizens needs and critical requirements: survey- and interview-based analysis of citizens awareness of, and interest in the adoption of sustainable practices by fashion and luxury firms- Organizational skills, e.g. organizing Hackathons with students and industry experts to develop groundbreaking circular economy models, or organizing awards and competitions for innovative ideas and startups in sustainable fashion and luxury. Educational designer skills, e.g. developing Training programs for Fashion supply chain actors (raw materials suppliers,</p>



	<p>façonists/outsourcers, logistics service providers; Training programs for Retail (store managers / sales reps / merchandisers / visual merchandisers); training programs for designers, with particular emphasis on new digital technologies disrupting the product development processes.</p>
<p>Job opportunities</p>	<p>The first area of employment is connected with the development of the widest library of sustainable materials, processes and business models, with significantly reduced impact vis-à-vis traditional materials and processes: the number of companies that may be interested in accessing either directly or indirectly such a database is incredibly wide: large fashion-luxury brands, independent designers, suppliers along the supply chain (eg. Textile companies, tanneries, packaging suppliers, labs working on the development of new materials, or startups proposing their innovative materials. At a more strategic level, the expertise developed in the PhD can be exploited in a consultancy job, helping fashion and luxury firms develop innovative and sustainable retailing strategies and formats aimed at regenerating the urban landscape, enhancing cultural heritage (e.g., use of digitized historical archives), and harmonizing different forms of physical/digital retailing and hospitality spaces. A further area of interest is related with the goal of developing and executing creative formats for cultural diffusion, such as educational video-games, digital Apps, a possible dedicated website, MOOCs, physical/digital expositions, and experiential labs where customers interact with professionals in watching, repairing and making objects. These activities will be aimed at: (a) enhancing end-consumers awareness, appreciation, and involvement in sustainability and the circular economy, gender parity, inclusion, and the preservation of heritage-related assets; (b) showcasing manual work and revitalizing the pride of craftsmanship, in particular among younger generations, attracting them to educational initiatives to develop related skills and employability.</p>
<p>Composition of the research group</p>	<p>7 Full Professors 8 Associated Professors 11 Assistant Professors 2 PhD Students</p>



Name of the research directors	Prof. Alessandro Brun, Prof.ssa Valeria Iannilli
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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	725.0 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
<p>Funding for educational activities: 4.900,00 Euros for three years.</p> <p>Teaching assistantship: There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations. Desk availability: shared use Computer availability: individual use</p>