



PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 38th cycle

PARTENARIATO PNRR Research Field: SHORT FOOD SUPPLY CHAINS AND SUSTAINABLE PERFORMANCES

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

Short Food Supply Chains (SFSCs) are considered as possible alternatives to long global food supply chains. In literature, SFSCs are often associated to Alternative Food Networks, which can adopt various organizational structures. SFSC models are described according to the multidimensional concept of proximity, which implies not only the geographical closeness between the point of production and the point of consumption, but also the type of relationship among supply chain actors (relational proximity) and the degree of information sharing upstream and downstream (information proximity).

SFSC models might include also collaborative networks for food access and distribution at urban scale as well as connecting urban with rural areas, leveraging innovative private and public procurement strategies. For example, municipalities in multiple cities worldwide are promoting the introduction of sustainable, locally sourced products in the menus of school canteens through public procurement tenders.

The three elements of proximity mentioned above can lead to different sustainability impacts. Indeed, sustainability emerges as strongly linked to SFSCs. However, even though SFSCs are considered as sustainable alternatives to global and unsustainable food chains, the actual sustainability of those “shorter” food supply chains often lacks true evidence.

Therefore, methods and instruments to properly measure the sustainability performances and impacts of the



	<p>different models of SFSC are needed by adopting a supply chain perspective. There is a growing attention from public entities and agrifood companies on measuring sustainability performances and international standards for measurement linked to the Sustainable Development Goals of the Agenda 2030 of United Nations have been introduced. However, companies still face challenges in collecting and sharing reliable and precise data from the different and multiple actors of the food supply chains.</p> <p>The PhD research project is aimed to identify and analyse existing models of Short Food Supply Chains (SFSC) and Alternative Food Networks (AFN), in Italy and abroad, highlighting patterns of commonalities and differences as well as their strengths and weaknesses in relation to sustainability. Moreover, the research will analyse and assess innovative sustainable private and public procurement strategies promoting SFSCs and AFNs. The research will analyze existing methods and instruments for sustainability performance assessment to finally develop a practical methodology for the definition and implementation of Sustainability Performance Management Systems (SPMS) in SFSCs.</p>
Methods and techniques that will be developed and used to carry out the research	<p>After reviewing scientific and grey literature, the PhD candidate will conduct the research by means of multiple research methods. The candidate will develop case studies to analyze and classify existing models of SFSCs and AFNs. Based on case studies, the candidate will investigate also private and public procurement strategies promoting SFSCs and AFNs and existing methods and instruments for sustainability performance measurement. Finally, the candidate will develop a practical methodology for the definition and implementation of SPMS with an application on selected SFSCs.</p>
Educational objectives	<p>The involved PhD student will learn (i) to understand and classify different models of SFSCs and AFNs; (ii) to assess the sustainability impacts of those supply chains through performance measurement systems; iii) to provide guidelines to agrifood actors for the implementation of the SFSCs and SPMS; (iv) to interact</p>



	with public and private stakeholders for research and policy purposes.
Job opportunities	Upon PhD completion, the candidate will be able to conduct empirical research activities in interdisciplinary groups engaged with sustainability-oriented transformation, also playing team leadership roles. Public sector agencies and international organizations engaged with policy design and assessment are also a prospect employer as well as consulting organizations that advise agri-food companies and authorities on sustainable innovation.
Composition of the research group	6 Full Professors 1 Associated Professors 3 Assistant Professors 5 PhD Students
Name of the research directors	Proff. F. Caniato, V. Leon Bravo

Contacts
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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
The PhD candidate will have the opportunity to attend courses on Management Engineering research methods, sustainability-oriented innovation and agri-food sustainability at Politecnico di Milano and other Universities and research centres. He/she will be supervised by the research director through frequent meetings, and will receive feedbacks on his/her intermediate results during regular meetings with the Doctorate board and scientific conferences. The candidate will be involved in some teaching and communication activities, which are seen as a major opportunity to practice with dissemination of own and other relevant research results. He/she will be offered a desk at the DIG building. The Food Sustainability Lab research projects that are



related to the PhD research topics include PNRR's ONFOODS research foundation and Food Sustainability Observatory initiatives (https://www.osservatori.net/it_it/osservatori/food-sustainability).

The research group cooperates with several academic groups and research centres, and various public, private and non-profit stakeholders, such as the Dunning Centre for International Business network, CIRAD Montpellier, Laurier Centre for Sustainable Food Systems at the Wilfrid Laurier University in Waterloo, Canada; the National Research Institute on Agronomy (INRA); Cardiff University; Wageningen University, Roskilde University, Fondazione Banco Alimentare, the Milan Urban Food Policy Pact network.

CUP: D43C22003060001

Decreto Direttoriale Avviso:

D.D. 341 del 15/03/2022 Avviso pubblico per la presentazione di Proposte di intervento per la creazione di "Partenariati estesi alle università, ai centri di ricerca, alle aziende per il finanziamento di progetti di ricerca di base" - nell'ambito del Piano Nazionale di Ripresa e Resilienza, Missione 4 "Istruzione e ricerca" - Componente 2 "Dalla ricerca all'impresa" - Investimento 1.3, finanziato dall'Unione europea - NextGenerationEU

Decreto di concessione: D.D. 1550 del 11/10/2022