



PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 38th cycle

PARTENARIATO PNRR Research Field: PLATFORMIZATION OF CAPITAL PROJECT SUPPLY CHAINS

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

Modularisation and open architecture solutions for asset design (e.g., machinery, satellite) and the digitalisation of project life cycle processes are powerful enablers of new business models and supply chain configurations to foster:

- Volume scale-up of orders of magnitude (x10)
- Product-service system flexibility and mass-customisation
- Cost efficiency and reduced project lead times through enhanced learning
- Better risk allocation and overall project de-risking
- Generation of new revenue streams from the reusability of solutions and applications (HW and SW)
- Refurbishing and remanufacturing of core subsystems and parts of end-of-life assets enabling circular supply chains in ETO businesses.
- Benefits deliver to owners, users and citizens
- Servitisation throughout the asset life cycle, from design to manufacturing, from in-service operations to decommissioning
- New forms of co-innovation and co-development among supply chain actors

Platformization is a process of growing interest in many sectors and is strongly anchored in software and business studies.

It is conceived as the penetration of the infrastructures, economic processes, and governmental frameworks of



	platforms in different economic sectors and spheres of life. In the context of the present project, the potential of platformization is explored in the domain of capital project supply chains. The space industry will be taken as primary empirical setting.
Methods and techniques that will be developed and used to carry out the research	<p>By adopting a mixed method research approach, platformization is investigated and further developed from both value creation and project configuration perspectives.</p> <p>In particular, the project scope entails the following elements:</p> <ul style="list-style-type: none"> - The main features of a new ecosystem built around the platform model, made of heterogeneous players with varied interests and potential value-added contributions expected from them; - The enablement of new interconnections and transactions among the abovementioned players will flow through the platform and result in revenue enhancement and/or cost-cutting. - Forms of modularisation and standardisation of the components of the project management governance, system and the project supply network structure - Identification and modelling of project performance drivers affected by a platform business model - Analysis of benefits delivered to different stakeholders at different times - Economic and financial analysis of capital projects under a platform business model - Identification, assessment, and treatment of major risks and opportunities triggered by the transition from traditional to platform-based capital projects organisation - Role of platformization in building resilient capital project supply chains
Educational objectives	<p>The research is multidisciplinary in nature: the candidate will develop advanced research skills in the areas of complex projects and program management, system engineering, and business model innovation. She/he will learn how to design and conduct a research project, adopting the proper methodologies for data collection and analysis, and to present and publish results in both</p>



	academic and practitioner outlets.
Job opportunities	The successful completion of the PhD program will open several job opportunities in both academia and companies, in research, consulting and managerial roles. The candidate will develop distinctive knowledge to master the key managerial activities and decisions in the New Space Economy arena.
Composition of the research group	2 Full Professors 2 Associated Professors 2 Assistant Professors 6 PhD Students
Name of the research directors	Proff. Paolo Trucco and Giorgio Locatelli

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
<p>Funding for educational activities: 5.700,00 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</p> <p>CUP: D43C22003120001</p> <p>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 -</p>



Investimento 1.3, finanziato dall'Unione europea - NextGenerationEU

Decreto di concessione: D.D. 1551 del 11/10/2022