POLITECNICO DI MILANO

# PhD in INGEGNERIA GESTIONALE / MANAGEMENT ENGINEERING - 41st cycle

## THEMATIC Research Field: INTERNATIONAL COMPETITIVENESS AND STRATEGIC AUTONOMY FOR GREEN TRANSITION. EXPERIENCES LEARNT FROM THE EV INDUSTRY IN CHINA

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

| Context of the research activity | |
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| **Motivation and objectives of the research in this field** | The European Commission has recently unveiled a €1.8 billion initiative to enhance the competitiveness of the EU automotive sector and support the transition to sustainable mobility. A key priority within this initiative is to strengthen the EU's position in the electric vehicle (EV) industry and secure a robust, competitive supply chain for critical battery raw materials. Currently, the global EV market is led by Chinese companies, which have rapidly outpaced their US and EU counterparts. Their advantage lies not only in early and substantial investment in battery supply chains but also in technological innovation (e.g. their vehicle software —capable of seamlessly integrating and coordinating mechanical and electrical systems). The ongoing international expansion of Chinese EV firms may significantly influence the EU's future competitiveness in the sector and the related green transition. For European firms and policymakers to respond effectively, they need to understand how Chinese multinational enterprises (MNEs) operate, particularly how they negotiate foreign market entry and achieve value creation and value capture abroad.<br>While international business scholarship has addressed the governance structures adopted by Chinese MNEs during internationalisation, much less attention has been paid to understanding how these firms build and sustain their competitiveness and innovation at home—and how these dynamics are translated across borders. |

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| | This project aims to investigate the historical development and competitive emergence of the Chinese EV industry. It will explore how competitiveness and innovation is developed and sustained, not merely at the firm level, but through the broader configuration of resources and actors. Specifically, the research seeks to move beyond a firm-centric perspective by adopting a holistic view that considers the interplay between capital (e.g., software, infrastructure), labour (e.g., engineering talent, management expertise), land (e.g., industrial parks, production sites) and critical raw materials (e.g., graphite, lithium, cobalt) in shaping industrial competitiveness and innovation.<br>The project will be part of the Chair in SCIENCE DIPLOMACY FOR RESILIENT GLOBAL VALUE CHAINS IN CLIMATE CHANGE MITIGATION TECHNOLOGIES – in case the projects (submitted jointly by Politecnico di Milano and HEC Montreal) will be approved by The Fonds de recherche du Québec. |
| **Methods and techniques that will be developed and used to carry out the research** | To examine how competitiveness and innovation in the Chinese electric vehicle (EV) industry are produced, negotiated, and replicated internationally through dynamic interactions among firms, states, technologies, and resource infrastructures, the project will adopt multi-method research design, integrating qualitative and quantitative techniques.<br>On the qualitative side, the project may draw on semi-structured interviews, document and media analysis, and participant observation (where feasible) to capture how firms and other actors navigate foreign market entry, respond to institutional and technological pressures, and coordinate across domestic and international settings. These techniques will help uncover actors' interpretations, strategies, and adaptive behaviours.<br>To support cross-case comparisons and explore how combinations of factors shape internationalisation outcomes, the project may employ Qualitative Comparative Analysis (QCA). QCA is particularly useful for identifying causal complexity and the interaction of multiple conditions—such as firm capabilities, policy environments, and technological standards—that lead to |

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| | different forms of value creation and value capture abroad.<br>The project also considers the potential use of Social Network Analysis (SNA) to examine the relational structures through which firms coordinate with state agencies, suppliers, technology partners, and local institutions. SNA can help visualise evolving actor networks in both home and host contexts and analyse their influence on firm-level decisions and strategic positioning. |
| **Educational objectives** | The doctoral candidate will develop a strong interdisciplinary profile at the intersection of international business, global strategy, and technological change, acquiring conceptual and analytical tools to study the transformation of global production systems. The project will offer training in both established (e.g. statistic and econometric modelling) and innovative research methods, including comparative case studies, QCA, and experimental design — preparing the candidate to handle complex empirical challenges. Additional educational goals include: (1) improving academic writing and publishing skills through paper development and conference participation; (2) developing familiarity with policy discourse on industrial strategy, globalization, and strategic autonomy; and (3) fostering collaboration within a network of international scholars (e.g. network IBEGIN - International Business, Economic Geography, and Innovation) and practitioners. Overall, the project aims to produce a scholar equipped for both academic and applied research careers. |
| **Job opportunities** | The project will prepare the doctoral candidate for a variety of career paths in academia, international organizations, research institutes, policy advisory bodies, and the private sector. The candidate will gain expertise in topics that are increasingly central to both academic and policy debates. Thanks to the interdisciplinary nature of the research, the candidate will be able to position themselves competitively in postdoctoral programs and tenure-track positions in international business, international strategy, international management, or |

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| | international political economy. At the same time, the applied dimension of the project —especially its relevance to policy and business strategy —will make the candidate attractive to think tanks, international institutions (e.g., OECD, UNCTAD), consultancy and multinational firms seeking analysts who understand global supply chain dynamics and global knowledge and innovation networks in times of transition. |
| **Composition of the research group** | 4 Full Professors<br>3 Associated Professors<br>2 Assistant Professors<br>6 PhD Students |
| **Name of the research directors** | L. Piscitello, C. Luise, M. Casson |

| **Contacts** |
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| lucia.piscitello@polimi.it; c.luise@henley.ac.uk |

| **Additional support - Financial aid per PhD student per year (gross amount)** | |
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| **Housing - Foreign Students** | -- |
| **Housing - Out-of-town residents** | -- |

| **Scholarship Increase for a period abroad** | |
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| **Amount monthly** | 750.0 € |
| **By number of months** | 6 |

| **Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information** |
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| The PhD candidate will be actively involved in the educational and academic life of the department. As part of their training, they will carry out teaching assistantship activities for up to 40 hours, which may include support in lectures, student mentoring, and exam supervision. These activities are designed to enhance the candidate’s ability to communicate complex ideas, structure learning processes, and engage in academic dialogue — key skills for a future academic or professional career. The candidate will be provided with a personal desk and will work in a shared office with other doctoral students, facilitating daily interaction, idea exchange, and peer support.<br>The candidate is expected to take part in international summer schools and workshops, which offer intensive training on research methods and emerging themes relevant to the project. These experiences will strengthen both methodological skills and international visibility.<br>Moreover, the candidate will spend a research period abroad. As this is a Dual PhD with Henley Business School (co-supervisor Cristian Luise) the candidate will spend one year there. |

Finally, the candidate will present their research at international academic conferences, gaining valuable feedback from experts, increasing the visibility of their work, and building professional networks.
For the overall development of their capabilities, PhD candidates will work on sinergical projects to favour empirical data collection and network development for their career. Projects will give candidates the opportunity to work in groups (peers and other senior professors).
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.**
At the end of the programme, the candidate will obtain a Double Degree PhD title awarded by Henley Business School and Politecnico di Milano. As part of a double degree programme, this implies that the candidate meets all the training requirements at both universities. A full-time engagement in research activities during a four-year period is required.