ICN PhD Research Proposals 2026–2027

This document presents a curated selection of PhD research proposals offered by ICN faculty and partner institutions for the 2026–2027 recruitment cycle. Each proposal is presented in a concise format to enable prospective candidates to identify topics aligned with their interests. For each project, the document provides the project title, a short scientific context, and the name(s) of the potential supervisor(s). Candidates may contact the relevant supervisor(s) to discuss alignment, refine the research direction, and clarify methodological expectations.

Work, Organisations, and Society

01 Investigating Fully Remote Work Experiences

Description: Fully remote work represents a fundamental shift beyond hybrid work and virtual teams, as organisations operate without permanent physical offices. This project explores how fully remote arrangements shape employees' experiences in terms of well-being, social connection, communication, and productivity. By examining individual and organisational dynamics in digitally mediated environments, the research aims to contribute to emerging debates on new forms of work organisation and their implications for sustainable performance and inclusion.

Potential supervisor: Jean-François Stich

02 CSR Tensions and Individual Responses

Description: Corporate Social Responsibility (CSR) initiatives frequently involve tensions between social, environmental, and economic objectives. This project examines how individuals perceive and interpret these tensions and how such perceptions shape attitudes, sensemaking processes, and work-related behaviours. Adopting an individual-level perspective, the research contributes to understanding how organisational CSR strategies translate into psychological and behavioural outcomes within organisations.

Potential supervisor : Nicolas Raineri

03 Ideological Contracts and Individual Responses to CSR

Description: Beyond formal employment relationships, individuals may develop ideological expectations regarding organisational values and social responsibility. This project explores how CSR initiatives contribute to the formation of such ideological contracts and how perceived misalignments between organisational practices and values affect individuals' attitudes and behaviours. The research sheds light on the role of CSR in shaping the quality and stability of individual–organisation relationships.

Potential supervisor : Nicolas Raineri

04 Gender, Social Capital, and Justice in Precarious Work Contexts

Description: This project examines how gender shapes access to social capital, perceptions of justice, and adaptive strategies in precarious and institutionally constrained work contexts. Focusing in particular on migrant women entrepreneurs, the research analyses how social networks are mobilised, sustained, or depleted under conditions of vulnerability. Drawing on organisational behaviour, social capital, and gender perspectives, the project adopts a comparative approach across regional contexts.

Potential supervisors: Aïcha Oumessaoud

Sustainability, Biodiversity, and ESG Reporting

05 Improving Biodiversity Disclosure and Assurance under European Reporting Requirements

Description: Biodiversity has become a critical dimension of corporate sustainability reporting, driven by recent European regulations such as the CSRD and ESRS. Despite these developments, biodiversity disclosures often remain qualitative and weakly assured, limiting their usefulness for decision-makers. Anchored within the ICN Chair on Biodiversity & ESG Reporting**,** this research directly supports the ESG Reporting Section mission to bridge regulatory intent and implementation. This PhD examines how more credible, auditable biodiversity indicators and assurance practices can be developed, and investigates whether higher-quality, assured disclosures affect financing conditions and market responses in biodiversity-relevant sectors.

Potential supervisors: Hakim Ben Othman, Khaled Hussainey

Markets, Finance, and Financial Stability

06 Detecting Bubbles in Technological Asset Price Processes: AI Stocks and Cryptocurrencies

Description: Technological assets such as AI-related stocks and cryptocurrencies exhibit highly volatile price dynamics that may reflect speculative bubbles. This project analyses whether these assets follow standard diffusion processes or bubble-driven dynamics characterised by built-in instabilities. The research further explores methods to estimate potential bubble collapse timing and to identify the micro- and macro-economic determinants underlying bubble formation.

Potential supervisors: Messaoud Chibane, Brahim Gaies

07 Machine Learning for Algorithmic Trading

Description: Financial markets generate vast, high-dimensional data across hundreds or thousands of assets, where standard econometric models often struggle with non-linearities, cross-asset dependencies, and regime shifts. This project investigates how modern machine learning—especially embedding-based representations—can scale to large asset universes while improving generalisation. It will integrate causal or invariant learning to reduce reliance on fragile correlations, and structured ranking/decision layers to translate predictions into transparent portfolio choices under realistic frictions such as transaction costs and liquidity constraints.

Potential supervisor: Nicolas Huck

08 Financial Instability and Climate Risks

Description: This project examines how physical and transition climate risks propagate into macro-financial instability. It focuses on identifying transmission channels linking climate shocks, climate-policy uncertainty, and environmental news to systemic risk. The project is intended to be refined with the doctoral candidate, including the choice of data and econometric strategy.

Potential supervisor : Brahim Gaies

09 Financialization of AI, Bubbles and Crashes

Description: AI is increasingly "financialised", with growing speculative attention and rapid valuation shifts across AI-linked assets. This project investigates whether AI-related markets display bubble dynamics comparable to historical episodes (e.g., the dot-com boom), and which behavioural

mechanisms (sentiment, herding, narratives) amplify mispricing and crash risk. The empirical design will be co-developed with the doctoral candidate.

Potential supervisor : Brahim Gaies

10 Techno-Feudalism and Financial Market Turbulence

Description: Digital platforms and market concentration are reshaping value creation through rents, control of infrastructures, and asymmetric power—often labelled "techno-feudalism" in critical political economy debates. This project analyses how platform dominance and power concentration translate into new forms of financial turbulence and systemic fragility. It combines political economy and financial economics, with the empirical approach defined jointly with the doctoral candidate.

Potential supervisor : Brahim Gaies

11 Financial Fragility and Inequality

Description: Rising inequality may both fuel and result from financial fragility, through leverage, credit allocation, asset-price cycles, and uneven resilience to shocks. This project studies the two-way relationship between income/wealth inequality and financial instability, linking distributional dynamics to crisis vulnerability and macroeconomic resilience. It will use macro-financial theory and econometric evidence, with the exact design co-developed with the doctoral candidate.

Potential supervisor : Brahim Gaies

Economics, Public Policy, and Strategic Resources

12 Essays on the Causal Analysis of Policy Interventions

Description: Policymakers shape economies through reforms, labour-market regulation, and sector-specific measures, but interventions can also generate unintended consequences. This PhD project focuses on identifying and quantifying causal effects of policy interventions using modern applied econometric designs, with an emphasis on recent advances in synthetic control and difference-in-differences methods (including staggered adoption settings). The specific applications and data sources will be defined with the doctoral candidate.

Potential supervisor: Volker Seiler

13 Essays on the Economic Analysis of the Market for Rare Earth Elements

Description: Rare earth elements are critical inputs for low-carbon technologies (e.g., electric vehicles, wind turbines) and for consumer electronics and defence applications, yet supply risks and market concentration raise major economic and strategic questions. This PhD project analyses the economics of the rare earth elements market, with possible directions including market contestability under uncertainty and sunk costs, (dis)equilibrium modelling of supply and demand, cobweb dynamics, and time-series modelling of prices (including stochastic price dynamics). The precise research questions and empirical strategy will be refined with the doctoral candidate.

Potential supervisor: Volker Seiler

Strategy, Supply Chains, and Circular Economy

14 Sustainable Performance, Resilience, and Efficiency Measurement Systems

Description : Supply chains are increasingly exposed to climate change, geopolitical disruptions, evolving sustainability regulations, and rapid digital transformation. Despite this, performance, sustainability, and resilience are often assessed separately, limiting their usefulness for strategic and policy decisions. This PhD will develop integrated performance measurement and benchmarking systems for supply chains that jointly capture efficiency, sustainability, and resilience. The research will apply Data Envelopment Analysis (DEA), a method for evaluating the relative efficiency of comparable systems, alongside economic, environmental, and social indicators. It will analyze how supply chains respond to shocks and manage trade-offs across performance dimensions. The project will also examine how overlapping public policies shape efficiency, resilience, and adaptation outcomes. The aim is to support more informed decision-making for the design of resilient and sustainable supply chains.

Potential supervisor : Isotilia COSTA-MELO

15 Governance of Circular Global Value Chains

Description: Circular economy strategies (repair, reuse, remanufacturing, recycling) are increasingly promoted, yet remain difficult to implement at scale within globally dispersed value chains. This PhD examines how firms can govern circular activities across global value chains, where asset specificity, uncertainty, and coordination costs are often high. Using transaction cost theory, the project will analyse which governance modes (market, relational, captive, hierarchical, etc.) best support different circular activities, and how "shift parameters" (capabilities, regulation, stakeholder pressure) accelerate the transition from linear to circular systems.

Potential supervisor: Tilo Halaszovich

Digital Innovation, AI, and Service Design

16 Designing Immersive Service Experiences: The Role of AI and Interactive Technologies

Description: Advances in artificial intelligence and interactive technologies are transforming the design of service experiences across customer journeys. This project investigates how AI-enabled immersive services influence customer engagement, emotions, and value creation, while also addressing challenges related to trust, inclusion, and responsible design. The research aims to inform human-centred approaches to integrating immersive technologies before, during, and after service encounters.

Potential supervisor : Shuyi Hao

17 Nature-inspired Information Systems Policy

Description: Biomimicry is increasingly framed as a strategic lever for sustainability and industrial renewal, yet its translation into information systems (IS) policy and organisational practice remains under-developed. This project studies how bio-inspired principles (decentralisation, feedback loops, adaptive behaviour) can be codified into IS standards, policies, and innovation ecosystems, and what institutional barriers prevent adoption. It combines IS theory with institutional and knowledge-transfer perspectives to explain how nature-based knowledge becomes actionable digital architectures—and how regions and organisations can build capability to turn biodiversity into innovation and development outcomes.

Potential supervisor: Laura Recuero Virto, Peter Saba