

# PhD Research Scholar Position -Department of Business and Management Science

Company: NHH Norwegian School of Economics

Location: Norway / Bergen

Discipline: Business and Management Science

Employment Type: Temporary position for four years

Posted: 13/02/2025

Contact Person: If you wish to apply for this position, please specify that you saw it on AKADEUS.

# PhD Research Scholar position - Department of Business and Management Science

## About NHH

**NHH Norwegian School of Economics** is one of the leading business schools in Europe. We have an internationally recognised research environment and collaborate with 195 universities and business schools worldwide. NHH is the first choice for students who want to study business administration in Norway. Our activities are characterised by high quality, strong ethical standards, and a collective drive for common goals.

In close partnership with the business community and society, we generate and disseminate new knowledge and create value for a sustainable future. NHH is located in the city of Bergen and has around 3,750 students and 455 employees.

## The PhD specialisation

NHH is pleased to announce a vacancy at the Department of Business and Management Science within the Horizon Marie Skłodowska-Curie Doctoral Network on "Ports as Energy Transition Hubs (Potent)". The candidate admitted to the PhD programme will receive the title of PhD Research Scholar.

The Department of Business and Management Science is responsible for a specialisation in the NHH PhD programme. The specialisation has two tracks:

## **Business Economics**

- Dissertation on a topic in business economics, industrial organisation, public finance, asset management, risk analysis, shipping economics, or the economics of natural resources
- Core courses in econometrics, microeconomics, scientific methods
- Elective courses in economics, finance, or optimisation

## **Management Science**

- Dissertation on a topic in logistics, operations management, utilisation of natural resources, shipping, predictive modelling, or climate risk
- Core courses in optimisation, microeconomics, scientific methods
- Elective courses in operations research, optimisation, statistics, data science

Elements from the two tracks can be combined.

For more information about the Department of Business and Management Science and its research profile, **visit the department's website**.

# Start date: August 2025

# The PhD programme

The **PhD programme at NHH** is a four-year fully-funded programme, which combines an intensive course component with research and relevant work experience, preparing the school's graduates for scholarly positions at recognised international institutions and positions in knowledge-intensive institutions and firms outside of academia. Former PhD graduates have been hired by renowned institutions such as Harvard University, The University of Sydney's Business School, University of Amsterdam, Tilburg University, Hanken School of Economics, Norwegian universities and business schools, as well as in the government, banking, finance and consulting industries.

The PhD research scholars will be included in a highly stimulating and rewarding research environment, working closely with faculty members and other PhD research scholars at the school. PhD research scholars participate actively in faculty and research seminars, as well as in workshops. NHH also provides funding for research stays abroad to build a wider network and strengthen the research of the PhD research scholar. As part of the position, the PhD research scholars allocate 25% of their time to teaching and/or research assistance responsibilities. They also receive pedagogical training. The place of work is in Bergen at NHH, where the PhD research scholars will have their own office space at their department.

The PhD programme gives preference to applicants who address research problems that fit the research interests of the department and available resources for supervision. As the school aspires gender balance and diversity, female applicants will be given preference if applicants are otherwise equally qualified.

The annual salary for the PhD research scholar position will be NOK 550 000 (equivalent to approximately EUR 47 050 or USD 48 500) pr. August 2025. For particularly well-qualified applicants, a higher salary may be considered. Thereafter annual adjustment of minimum 3%. The salary ensures a fair standard of living in Norway and is subject to Norwegian taxes and benefits, including public health care benefits and pension savings.

The city of Bergen offers a mild coastal climate and hosts rich opportunities for culture and outdoor activities, as well as a family-friendly environment. To explore the city, **go to visitnorway.com**.

## **Application requirements**

#### General requirements:

Applicants must meet **the eligibility requirements** for the PhD programme. You are required to upload the following documents with your application in Jobbnorge:

- Certificate of a Master of science degree or equivalent (please include transcripts of grades). You need to have completed your master's degree prior to the starting date for the position. If you have not completed your degree when applying for the position, please attach an overview of the courses and grades that you have completed so far
- Certificate of a Bachelor's degree or equivalent (please include transcripts of grades)
- Other relevant certificates or transcripts (e.g. courses completed at the PhD level)
- If the issuing authority of grades and degrees does not use the ECTS grading scale, please include an official description of the applied grading scale system
- Statement of purpose describing your motivation for applying this position (250-300 words)
- A research proposal (2000-4000 words). The research proposal should describe the aims, research questions, and motivation of the proposed research. Please note that your research proposal is tentative and often needs adjustments after your acceptance into the programme
- Curriculum vitae
- A list of all publications and/or other documented research activities

Please upload the documents in separate files, not combined in one single file.

## **Specific requirements:**

The Department of Business and Management Science requires you to demonstrate both an adequate level of academic skills and an adequate level of English language proficiency (unless you are exempt). We accept the following tests:

- GMAT or GRE tests to measure your academic skills
- TOEFL, IELTS or PTE Academic to measure your English language proficiency

When applying, you are required to upload a copy of your unofficial test scores in Jobbnorge before the deadline. If you are shortlisted, NHH will ask you to give us access to your official test scores without delay.

Exemptions:

- You are waived from the GMAT or GRE tests if you hold a qualifying master's degree from a Nordic institution
- You are waived from TOEFL, IELTS or PTE Academic tests if you are a native English speaker, if you have a qualifying master's degree from a Nordic institution or if you have a qualifying master's degree where the language of tuition was English

For more detailed information about the tests and their minimum scores, please visit our webpage: **Admission to the PhD programme** | NHH. You may also contact us at **phd@nhh.no** 

## Letters of recommendation and contact details of references:

Letters of recommendation and/or contact details of references may strengthen your application, but they are not mandatory. If you choose to include letters of recommendation, the references should send their letter of recommendation in PDF format directly to <u>hr-phd@nhh.no</u> by latest **17 March 2025**. Contact details of references may be included in Jobbnorge when you apply.

## **General information**

For more information on the PhD programme and the submission procedure, please consult the **NHH PHD website**. Incomplete applications will not be considered.

Please note that applicants for the PhD research scholar position do not need to apply separately for admission to the PhD programme.

The state labour force shall reflect the diversity of Norwegian society to the greatest extent possible. People with immigrant backgrounds and people with disabilities are encouraged to apply for the position.

In accordance with §25 (2) of the Freedom of Information Act, note that the list of applicants may be made public even if the applicant has requested not to have his/her name entered on the list of applicants. The applicant will be notified if his/her request is not respected.

For questions and inquiries about the NHH PhD programme, please contact phd@nhh.no.

Applications must be submitted through the Jobbnorge online portal. To open the application, please click 'Apply for this job'. For English version, go to the menu at the top right side.

# Application deadline: 17 March 2025

# Additional information

The Ports as Energy Transition Hubs (POTENT) Marie Skłodowska-Curie Actions Doctoral Network is looking for 15 qualified PhD candidates interested in the field of Energy Infrastructure, Maritime Economics, Ports, and Data Science. The primary objective of the POTENT Network, led by Copenhagen Business School, is to investigate how ports can support and accelerate the clean energy transition in Europe. The research will focus on:

- Identifying gaps in renewable energy, green fuel infrastructure, and technologies to address these gaps, especially integration of digital technologies to optimize energy use, improve efficiency, and integrate renewables
- Considering the systemic aspects of integrated energy ports, including the implications of integrating ports into electricity grids, and the socioeconomic and regulatory aspects of port development
- Investigating the governance and business model challenges and opportunities that ports face in the energy transition and exploring how they can create and capture value, manage stakeholder relationships, and make decisions that align with the energy transition goals

This research project provides a fantastic opportunity for researchers interested in the energy transition. It aims to integrate knowledge of engineering (e.g., mechanical and electrical engineering) and social sciences (economics, sociology and anthropology) in a doctoral training programme across 8 European research institutions and 15 industry actors. The POTENT consortium brings together a multidisciplinary research team from across Europe to train experts in port energy systems and develop key skills to deliver a just and sustainable energy transition. The energy transition of our ports is being rapidly acknowledged as a crucial tool as Europe undergoes the energy transition to climate neutrality and energy security.

The Marie Sklodowska-Curie Doctoral Network aims to increase mobility for students and therefore will only accept students who have not lived more than 12 of the last 36 months in the country to which they apply. Please keep this rule in mind as you submit your applications.

# Project hosted at NHH (DC14)

This Doctoral Candidate will be based at **Norwegian School of Economics** working with **Julio Cesar Goez** and **Haiying Jia** as project leads and will focus on the topics of port system electrification, hydrogen production. You will be applying methods such as system dynamics, multicriteria decision making, scenario planning, data analytics, investment optimization and forecasting as you work on your project. The successful candidate will be seconded with Copenhagen Business School (Denmark) as well as DNV (Norway) and the Suez Channel Authorities (Egypt) during the project.

You will be working on a project called **"Business models and value chains for the energy transition in transport"**. During this project you will:

- Investigate the problem of 'two sided markets' (one needs investments both in port for charging, for instance and in vessels)
- Further research on co-investments and path dependence. One idea is that a path starts with two ports and vessels traveling between them, and then subsequent investments follow: if such a sequence is important, can it motivate the starting point itself?

The energy transition presents opportunities and challenges to ports, which increasingly must adapt to pressure and external requirements and adopt new strategies and innovative approaches for creating value for key stakeholders and society, and for capturing part of that value. At the same time, ports to varying degrees have the ability (knowledge, power, services, relationships) to deploy resources for facilitating the energy transition. Particularly, ports can leverage their central locational assets (e.g. land, traffic accessibility, terminal infrastructures, industrial clusters, energy infrastructures, and access to the broader hinterland) in new combinations to facilitate the decarbonization of shipping and other hard-to-abate sectors.

During your studies you will deliver:

- A DCM tool/Framework to evaluate policies and investment opportunities on directions that can deliver large emissions reductions over time
- Advise for ports on how to imitate large changes
- A paper on Decarbonization of local coastal ferry transport by electrification and hydrogen
- A paper on Modeling interactions in electricity, gas and hydrogen markets
- A paper on the role of ports in the development and integration to the grid of offshore wind capacity

## Other PhD positions in the network

You can find application links to each of these positions on potentmsca.cbs.dk or at the

host university's job site.

# DC1

Facilitators of the clean energy transition: Port governance and business model innovation - Based at Copenhagen Business School, this DC will work with Henrik Sornn-Friese and Michele Acciaro on port governance, business model innovation, institutional entrepreneurship, and clean energy transition.

# DC2

"Socio-economic aspects of energy port transition"- Based at Copenhagen Business School, this DC will work with Tooraj Jamasb and Christine Brandstätt on the topic of infrastructure development, public acceptance, economic regulation, and innovation dynamics.

# DC3

"Energy Ports in System and Network Perspective"- Based at Copenhagen Business School, this DC will work with Henrik Sornn-Friese and Tooraj Jamasb on the topics of energy technology systems, renewable energy supply chain, and environmental impact assessment.

## DC4

"Smart ports (digitalization) and systems integration between ports and energy systems"-Based at Chalmers University of Technology, this DC will work with Sonia Yeh and Paul Pop on the topics of digitalization transformation risk, SoS integration and complexity management, and energy-efficient digitalization.

## DC5

"Integrated Analysis of E-Fuel Policy, Infrastructure, and Energy Resilience in Maritime Transitions"- Based at Chalmers University of Technology, this DC will work with Sonia Yeh and Selma Brynolf on the topics of maritime policy analysis, e-fuel supply chain dynamics, electrification, and energy resilience.

## DC6

"Electrified Ports and Grid Dynamics: Synthetic Grids, Impact Methodologies, and Real-World Case Analyses"- Based at Chalmers University of Technology this DC will work with Sonia Yeh and Anh Tuan Le on the topics of synthetic grid dynamics and constraints, e-fuel production, and electrified ports.

# DC7

"Green Maritime fuel transition taking into account risk and uncertainty"- Based at The Technical University of Denmark this DC will work with Marie Münster and Josef Oehmen on the topics of infrastructure adaptability and scalability, PtX technologies, de-risking strategies, and flexibility assessment.

## DC8

"Optimizing Port Operations through Edge Computing and AI-Enhanced Digital Infrastructure"- Based at The Technical University of Denmark this DC will work with Paul Pop and Sonia Yeh on the topics of IoT integration edge computing, energy management, and digital security.

## DC9

"Governance structures and strategies to foster the clean energy transition"- Based at Kühne Logistics University this DC will work with Gordon Wilmsmeier and Johannes Meuer on the topics of governance structures, low-carbon management and strategies, electrification, hydrogen operations, infrastructure life cycles, policy impact assessment.

#### DC10

"Low and zero emission fuels port geographies"- Based at Kühne Logistics University this DC will work with Gordon Wilmsmeier and Hanno Friedrich on the topics of global shipping networks, port system transformation, and hydrogen value chains.

## DC11

"Digital technologies for getting insights into urban energy dynamics and port-city interactions"- Based at the Norwegian University of Science and Technology this DC will work with Niki Gaitani and Henrik Madsen on the topics of urban building energy modeling, energy systems dynamics and port-city interactions.

## DC12

"Market design, and tariff structures for unlocking flexibility in harbors"- Based at the Norwegian University of Science and Technology this DC will work with Anne Neumann and Henrik Madsen on the topics of grid flexibility functions and impact assessment, tariff design, and sector coupling.

## DC13

"Assessing stakeholders urban-port relationships and sustainable management strategies through circular approaches and emerging business models"- Based at World Maritime University this DC will work with Fabio Ballini and Alessandro Schönborn on the topics of circular economy, port-city integration, business models, emerging market strategies, and life cycle assessment.

## DC15

"Port governance for energy ports under the sustainable energy transition"- Based at Kedge Business School this DC will work with Jason Monios and Pierre Cariou on the topics of governance and business model adaptation in the transition of ports from fossil fuels to sustainable energy.

# Apply for this job

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