

Maritime Careers Fair 2024

University-Industry Collaborations in the Blue Economy Sector

Nelson F. Coelho

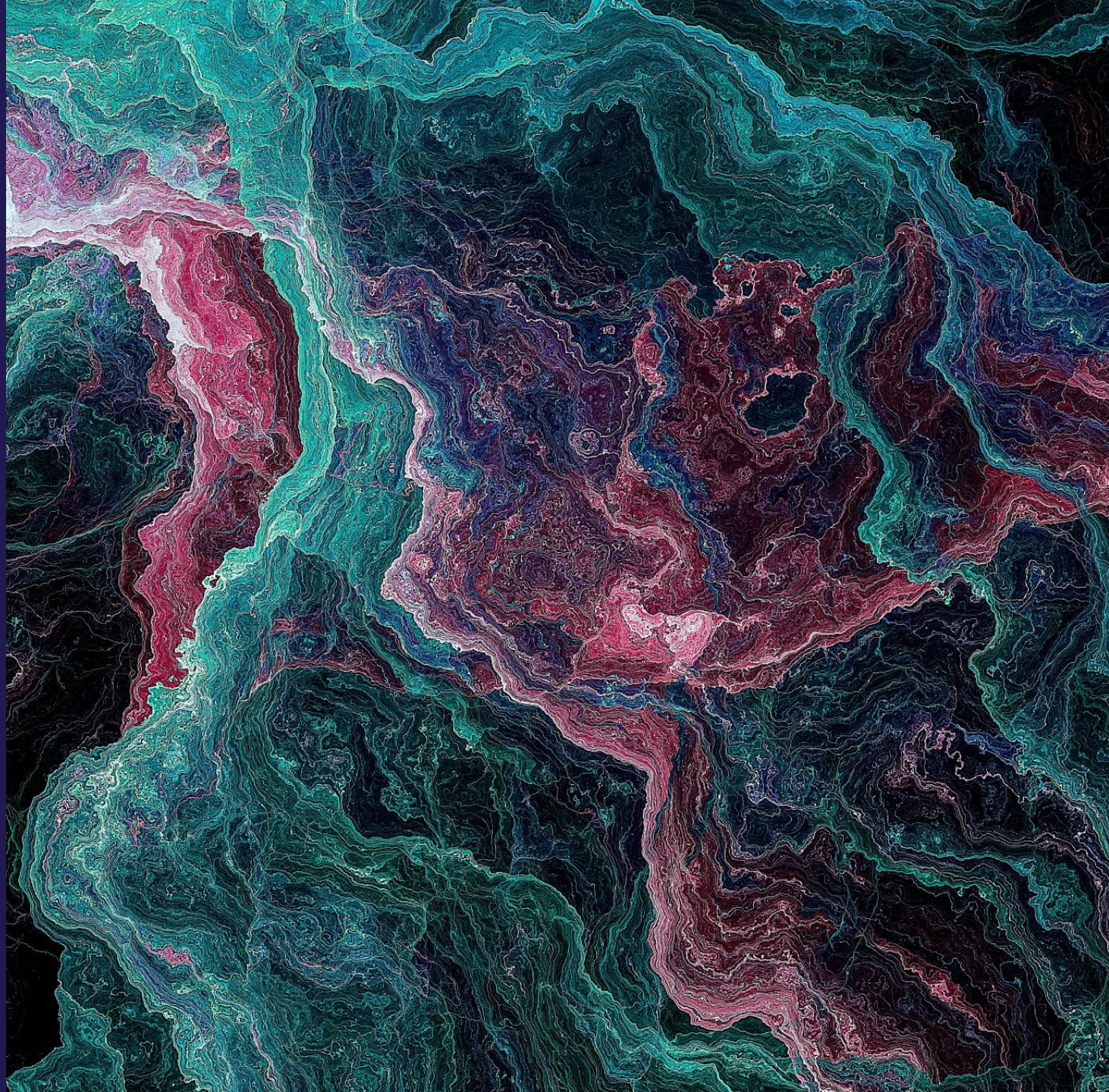
Centre for Blue Governance



AALBORG
UNIVERSITY

What is a UIC?

- ▶ University–industry collaborations (UIC) refer to the interaction between any parts of the higher educational system and industry aiming mainly to **encourage knowledge and technology exchange**.
- ▶ UICs are characterized by **three critical features** that shape their nature and performance:
 - ▶ first, they are populated by **people from different professions** (academics and industry practitioners);
 - ▶ second, the **collaboration is between individuals** and not organisations;
 - ▶ third, the collaborators are **members of differing organisations**

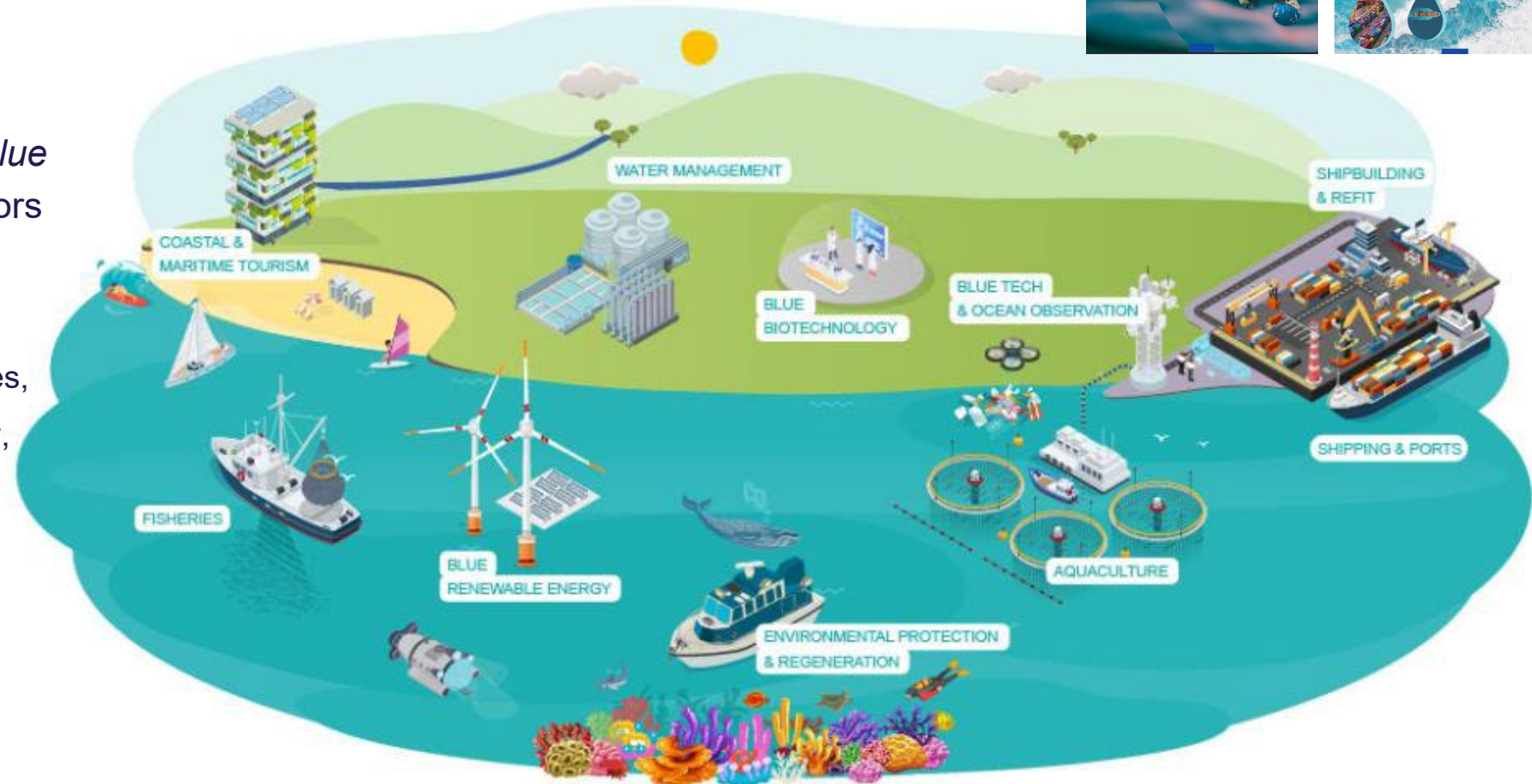


The Blue Economy



▶ According to the EU: *the Blue Economy* established sectors include:

- ▶ Marine living resources,
- ▶ Marine non-living resources,
- ▶ Marine Renewable energy,
- ▶ Port activities,
- ▶ Shipbuilding and repair,
- ▶ Maritime transport and
- ▶ Coastal tourism



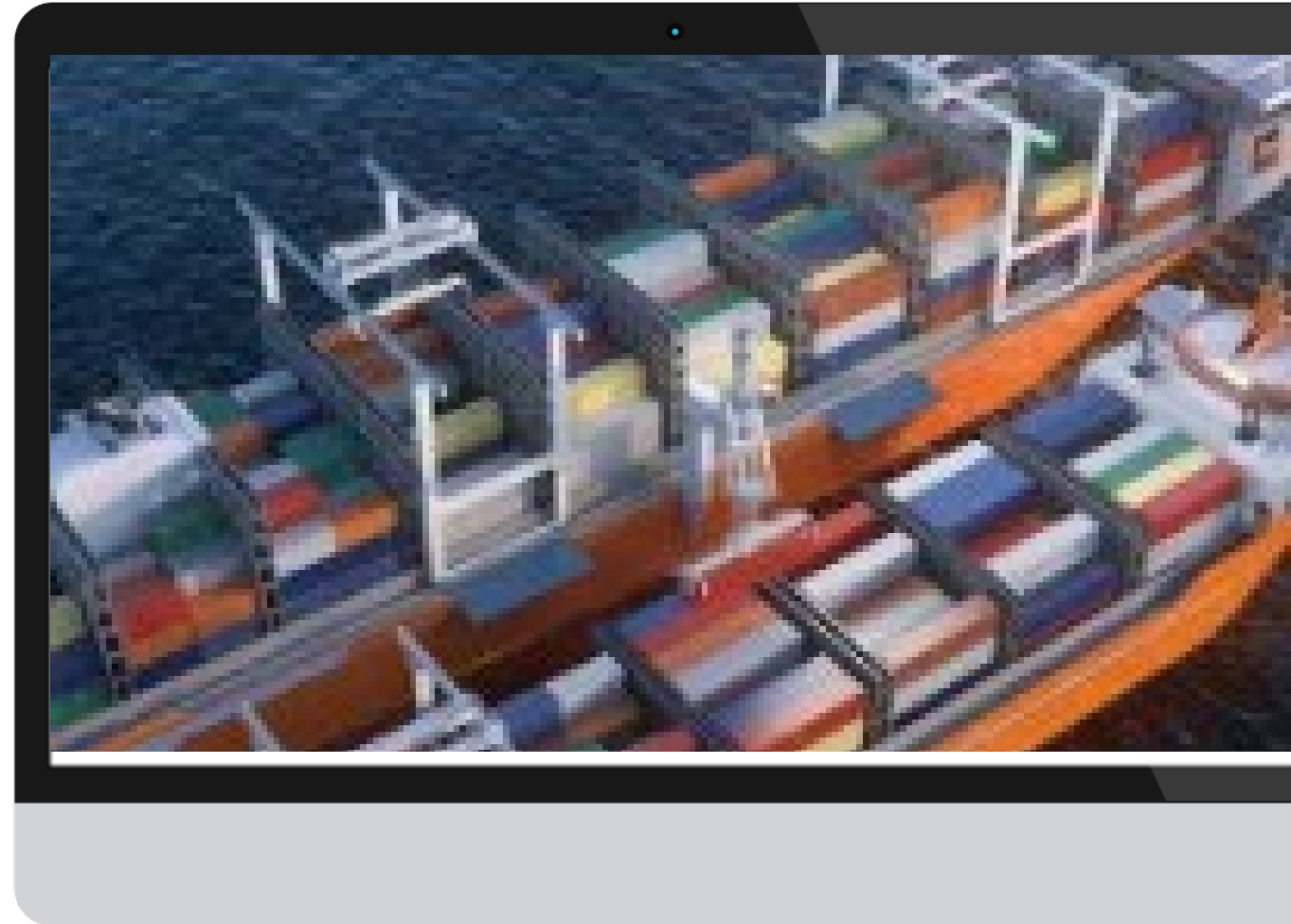
My Research Group



- Interdisciplinary research group at the Department of Planning (Technical Faculty)
 - Staff trained in the fields of Anthropology, Sociology, Human Development, Economy, Law, Politics, International Relations...
 - Close relationship and partnerships with DCEA: Danish Centre for Environmental Assessment
- Governance: the study of decision-making processes (in the various blue economy sectors)
- CBG's 3 core research strings:
 - *Institutional Dynamics*
 - *Coastal Communities*
 - *Democratic Participation*
- Ongoing international projects at CBG:
 - *ECOTIP: Arctic biodiversity change and its consequences:*
 - *SEAwise: Shaping Ecosystem Based Fisheries Management*
 - *MARINE SABRES: MARINE Systems Approaches for Biodiversity Resilience and Ecosystem Sustainability*
 - *OBAMA-NEXT: Observing and Mapping Marine Ecosystems – Next Generation Tools*
 - *PERMAGOV: Multi-layer governance performance of marine policies*

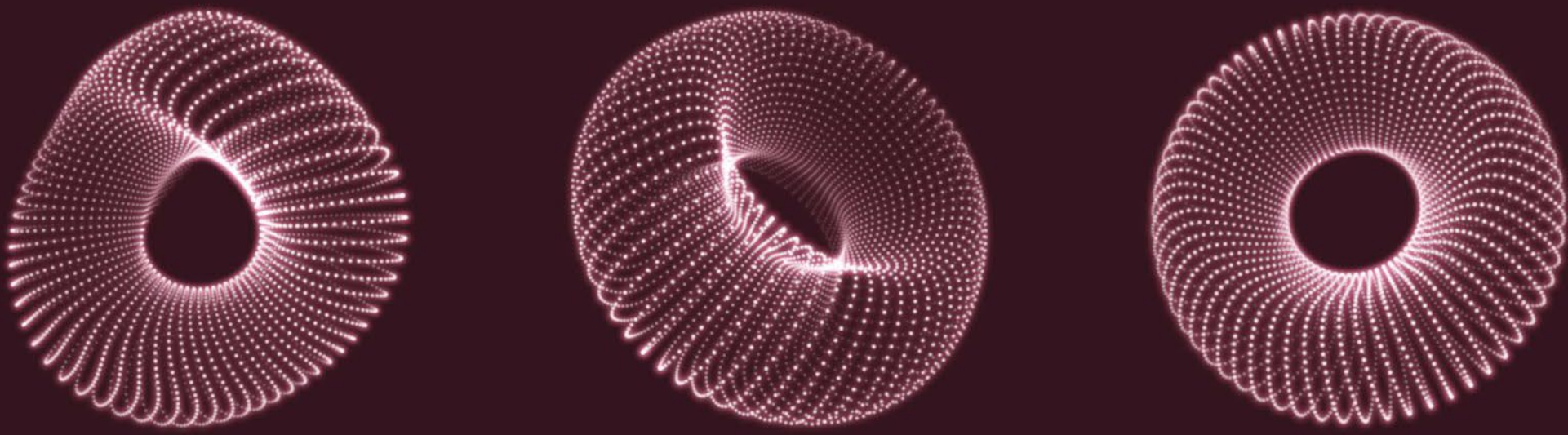
Ex. of IUC with AAU/PLAN/CBG

- EU-funded Horizon Europe project
- RIA - Research and Innovation action
- H2020-EU.3.4. - SOCIETAL CHALLENGES - Smart, Green And Integrated Transport
- MG-2-6-2019 - Moving freight by Water: Sustainable Infrastructure and Innovative Vessels
- Funding obtained: EUR 7,5M / DKK 56M
- 12 industry and academic partners from 4 countries (Norway, Denmark, Finland and Germany)
- *AEGIS: Advanced, Efficient and Green Intermodal Systems*
- **Outcome:** a new waterborne transport system for Europe that leverages developments in autonomous navigation and cargo handling in short-sea and inland waterways, prompting the redevelopment of small and medium enterprise ports

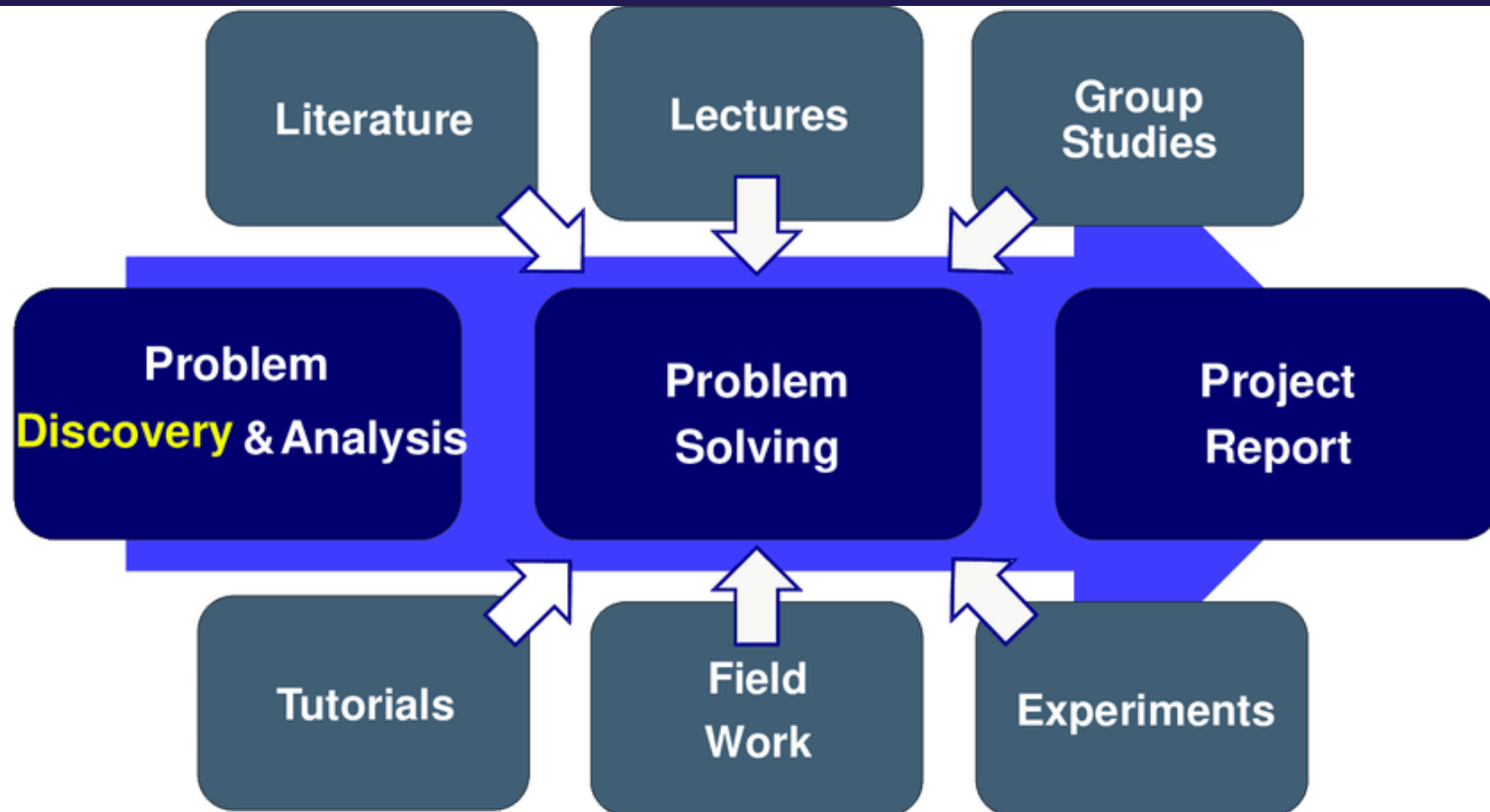




**INTEGRATION OF RESEARCH INTO
EDUCATION**



AAU Problem-Based Learning model



AALBORG UNIVERSITET

7. semester
Techno-anthropology
Rendsburggade 14
9000 Aalborg
<http://tnb.aau.dk>

Title: Stevedoring 2.0 - A situated analysis on the future of stevedoring

Theme: Technological transformations

Participants:



Supervisors:

Supervisor 1: Nelson Coelho



Keystrokes:

106133

Pages:

45

Date of delivery:

14. januar 2022

Abstract

This project investigates how stevedoring, which means "to load or unload something", is being affected in the transition from manual to automated dockwork in Denmark.

This has led to the following problem formulation:

"How is stevedoring in Danish ports affected in the transition to automation?"

Furthermore, this project examines three different ports in Denmark to get insights into the complexity that this transition encapsulates. Derived from a lack of a theoretical framework, this project has taken departure from Clarke's situational analysis to let the empirical data highlight the present condition of the transition to automation in Denmark.

Finally, the project discusses how the transition of automation and non-scalability play a vital role in the future of ports in general.

Project period:

Autumn 2021

*Project group:*4

x
🔍

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STUDENT THESIS
Enabling Low Carbon Transitions in the Maritime Sector-Integrating Green Ammonia
 Gandhi, Urja Kaushik
 By-, Energi- og Mijjøplanlægning, Kandidat; Alle semestre; 4. semester
 2023

[🔗](#) [🌟](#) [⋮](#)
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STUDENT THESIS
Mors Ø - Maritime Center and Oyster Restaurant
 Pedersen, Lasse Midtgaard; Friis, Lasse Haaning; Thorn, Aske Eg
 Arkitektur (cand.polyt.), Kandidat; Alle semestre; 4. semester
 2021

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- 3

STUDENT THESIS
Protection of Electrical Power Systems in Maritime Applications: Analysis of Directional Overcurrent Protection Methods
 Hansen, Mikkel Hingeberg
 Energiteknik, Kandidat; Alle semestre; 4. semester
 2021

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STUDENT THESIS
Predictive Interfaces to Support Maritime Search and Rescue Operations with Drone Swarms
 Alsen, Jonas Grann; Nielsen, Rasmus Egholm; Boisen, Magnus Tolderlund
 Software, Kandidat; Alle semestre; 4. semester
 2021

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STUDENT THESIS
Human Swarm Interface with Predictive AI for Onsite Incident Commander in Maritime Search and Rescue Operations
 Jensen, Alexander Haarbye; Lundbo, Lasse; Rønsholt, Lukas
 Software, Kandidat; Alle semestre; 4. semester
 2021

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Welcome to AAU Student Projects

On Aalborg University's student project portal you can find and download publicly available master's theses and further education programmes (EVU) master's projects from the entire university — from 2008 onwards.

In addition, current AAU students and staff can find and download professional bachelor, bachelor and semester projects by logging in with their AAU-Username.

Confidential student projects are inherently private and unavailable.

Student projects from before 2008 are available in printed format at Aalborg University Library. You can find and request them in Primo, or you can browse through them in the basement at Kroghstræde 3 in Aalborg.

AAU Student Projects is a frequently used source of information at the university with lots of inspiration for future project work in all areas of study at Aalborg University.

Contact us

If you have any questions about AAU Student Projects or Aalborg University's research registration, dissemination and analysis, please feel free to contact us:

VBN-Team
 Email: vbn@aub.aau.dk

Study programmes

Show projects related to active study programmes at AAU:

- Aalborg University Business School
- AAU Energy
- Department of Architecture, Design and Media Technology
- Department of Sustainability and Planning
- Department of Built Environment
- Department of Computer Science
- Department of Electronic Systems
- Department of Chemistry and Bioscience
- Department of Communication and Psychology
- Department of Culture and Learning
- Department for Mathematics
- Department of Materials and Production
- Department of Health Science and Technology
- Department of Political Science
- Department of Sociology and Social Work
- Department of Law
- Department of Clinical Medicine

The "industrial PhD"

- ▶ Industrial PhD projects create commercial benefits for companies, strengthen universities' relationships with the industry and allow students to see their research applied in real life.
- ▶ Collaboration between a private company, a university and an Industrial PhD student.
- ▶ Co-financing the company's expenses for the student's salary and travel activities as well as the university's expenses for the project.
- ▶ Examples of ongoing collaborations:
 - ▶ With Danish Coastal Authority
 - ▶ *Climate Justice in Coastal Adaptation Planning*
 - ▶ With DFDS
 - ▶ *Sustainable Transport Ecosystems: Autonomous ships as an enabler for green and innovative business models*



UIC with AAU: what's in it for you?

🔹 For students

- Exposure to real problems in the blue economy
- Collaboration with potential employers
- Developing competences in a professional setting
- Work with emerging industrial sectors
- Broader dissemination of results

🔹 For companies

- Being part of *international* research projects
- Creating networks and relationships with other industrial partners
- Train potential future employees with new skills
- Influence the research agenda of students and study programs
- Access to new data and cutting edge research



nelsonfc@plan.aau.dk