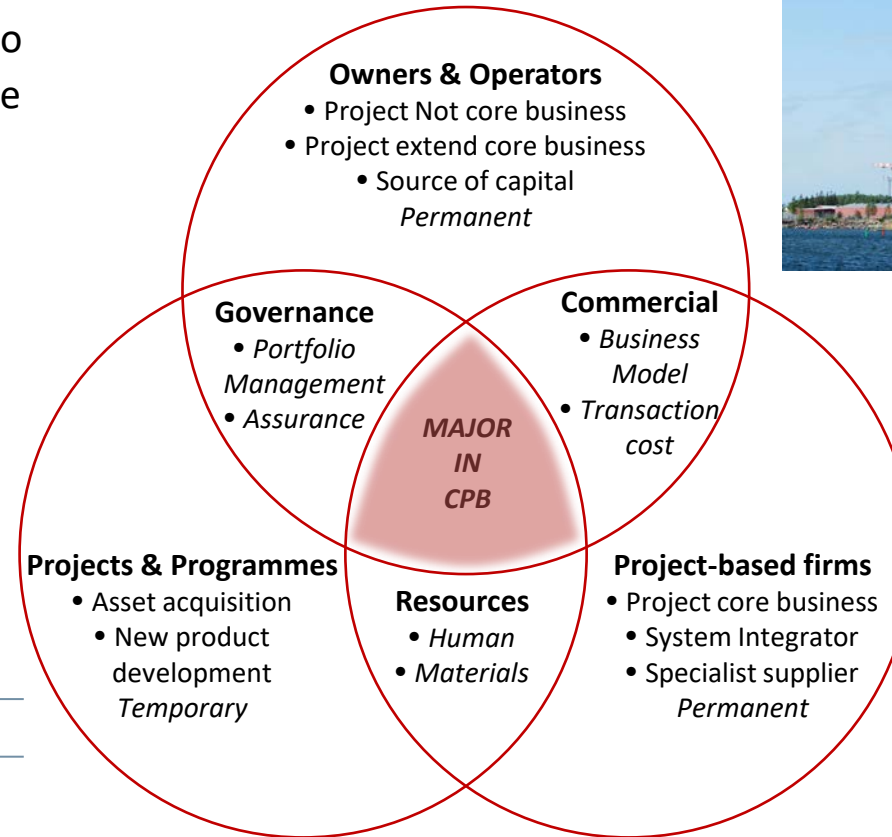


Complex Projects Business (CPB)

The Major in **Complex Projects Business** introduces students to the Project Ecology, developing a holistic background about the **selection, planning, financing, and delivery of complex projects**. It dives into the Business of Project-based Firms and their interfaces with Owners & Operators. Students will learn how to deal with stakeholders, cost and benefit evaluation, project risks, governance, technology and operations-related decisions along the project and asset lifecycle in different sectors

Complex Projects Lab (ING-IND/17)	10
Project Management (ING-IND/17)	5
Financing Complex Projects (ING-IND/35)	10
Knowledge Management in Infrastructure Projects (ICAR/11)	
International Markets and European Institutions (SECS-P/02)	
Industrial Asset Management (ING-IND/17)	
Technology Risk Governance (ING-IND/17)	



Adapted from (Winch, 2014)



Complex Projects Lab

Expected Learning Outcomes

The key aim of this Lab is enabling students to translate into practice theory and methods introduced in the other courses of this Major, in particular:

- Understand the nature of complex project business and the project ecology
- Identify stakeholders, their roles, expectations and interrelationships
- Discuss the scope of a project, its degrees of freedom and constraints developing cost and time estimations
- Identify and quantify the risks and formulate a risk management strategy
- Propose appropriate financial arrangements consistent with the economics, risk and stakeholders
- Discuss sustainability and ethical aspects
- Interpret projects success according to different, stakeholders and timeframes
- Formulate an appropriate project delivery model
- Effectively communicate the aforementioned points to internal and external stakeholders

Professors

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Learning Experience

The laboratory is based on interactions with managers & guest academics.

Managers working in different settings will present their organisation's role in the context of complex projects. They will also present to students real and pseudo-real scenarios asking the students to elaborate appropriate responses.

Guest academics will present special lectures focused on topics highly relevant for the project ecology (e.g. embedding flexibility, Mental Health)

Small case studies enable students working in informal groups to analyse the case, propose a series of actions, present and discuss them in the class. These cases will be constrained on classroom sessions receiving formative feedback.

A major case study will be developed as a group work. The case will deal with a complex project, such as the Turin–Lyon high-speed railway, Messina's bridge, Sizewell C nuclear power plant. Students will impersonate a consultancy team engaged by a stakeholder (e.g. Italian government, the main contractor, NGO, Banks), scrutinise the projects, provide a strategy for action and present the findings. The outcome of this case will be assessed.

Examples of involved companies

Saipem, Maire Tecnimont, Jacobs, Enel, Leonardo, ThalesAleniaSpace, Bain & Co