

## **Start-up Lab in the Circular Economy Environment**

**cfu:** 6 (48 hours of lessons, 28 online )

**Time:** 02nd Semester from 17th March to 31st May 2025 (presence: 25-31 May 2025)

**Students:** master students (economics and engineering)

### **Contents:**

At the end of the program, students should be able to create and develop an entrepreneurial project starting from a product idea in the circular economy environment. Students will master the tools to prototype a product, evaluate a project by integrating economic and circularity goals and present it to different types of investors.

Main contents of the course:

- Starting from an immersive innovation challenge in the context of circular economy aimed at nurturing entrepreneurial mindsets and empowering students to think outside the box, generate unique ideas, and explore innovative solutions to real-world problems
- Experiment with prototyping techniques and make a prototype using 3D print, useful to support the start-up presentation
- Prepare a business plan for a start-up company and develop an effective pitch presentation for potential investors/partners
- Determine and outline the financial needs of the start-up and evaluate the optimal start-up funding options from different types of investors
- Educate students on new critical issues to develop a holistic view of the issue and its impact at various levels of a new company

### **Syllabus of the program:**

#### 1) Start-Up Environment (lecturer: LIUC + others)

1. New companies overview and start-ups: identification of the peculiar characteristics
2. Definition and start-up stages
3. Factors of success and scaleup
4. Business model and peculiar elements of a startup

#### 2) New trends in start-ups (lecturer: others)

1. Digital start-ups, Social Ventures, Lean start-ups
2. Green and sustainable start-ups: Product design, process design and business model strategies for CE.
  1. Resource cycles: slowing, closing, and narrowing loops.
  2. The comparison between linear and cyclical approaches for the development of products and systems.
  3. Circular product design strategies.

#### 3) How to frame the environment: Applying intelligence to start-up (lecturer: LIUC + others)

1. Build an image and communicate with clients and stakeholders
  2. Market Intelligence
  3. Competitor Intelligence
  4. Technology Intelligence
- 4) Alternative legal forms, administrative conditions and governance (lecturer: others)
1. Intellectual Property protection
  2. Team management and decision processes
- 5) Start-Up Value (lecturer: others+ external speaker- presence)
1. Startup KPIs
  2. Startup valuation
- 6) Start-up Financing (lecturer: LIUC and others – presence)
1. The cycle of financing
  2. Funding types and negotiation
  3. Type of investors
- 7) Business plan (lecturer: others – presence + external speaker)
1. Objectives, structure, business plan process including examples
  2. Main challenges and errors of start-up business plan
- 8) Using prototyping techniques such as 3D to support startup businesses (lecturer: LIUC presence)
- 9) Mentorship with companies (focus on Circular Economy and Italian excellences)
- 10) Elevator pitch (lecturer: all presence+ external speaker- presence)
1. How to structure a pitch
  2. Case studies: Famous pitches
  3. Pitch building discussion
- 11) Visit a place of innovation (or workshop), situated in Milan such as incubators, accelerators or VC offices
- 12) Final project submission and presentation

**Learning and teachings methods and expected learning/training outcomes:**

The course adopts a mix of teaching methods, where each method and technique are applied to maximize students' engagement and learning. The classical lectures are useful to frame theories, followed by a discussion of real cases and scientific articles. Learning is further complemented by exercises that help the students to face real business problems.

**Final exam:** group works and final presentation