

Empowering youth skill in the Mediterranean agrifood sector: how to be innovative in a world that changes continuously

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Abstract

The historical moment we are experiencing is putting us in front of an important fact: nowadays a vertical type education must be placed side by side with a more horizontal one. Hence the design of a first level Master in Open Innovation & Youth Entrepreneurship in the Mediterranean Agrifood Sector by the University of Bari and Ciheam Bari, which started as a short course and which has become a structured path in the framework of higher education integrated at an ecosystem level (research, enterprises, organization). The master is based on a new methodological approach, in continuous evolution thanks to the feedback of the participants (students, companies and researchers), based on learning by doing and applied in all phases of the course. During the course, students from Mediterranean area and Africa learn to solve complex project challenges by experimenting with the problem-solving methodologies of Design Thinking and Lean Startup; they come in contact with users with an in-depth phase of qualitative research; they design in an agile way by building prototypes to make ideas concrete and "fail" to improve them systematically. Companies involved in the Master have the opportunity to collaborate with researchers and startups to apply new perspectives. The goal is to create a new generation of innovation managers and generate innovation culture in companies and startups by improving collaboration between different functions and enabling people's creative confidence.

Why a Master in Open Innovation and Youth Entrepreneurship in the Mediterranean Agrifood Sector?

CIHEAM Bari in collaboration with the University of Bari proposes to improve and expand its educational and training opportunities, organizing a Master which aims to transfer knowledge and skills on the entrepreneurial culture to young innovators of the agro-food sector in the Mediterranean area.

The need to create this Master was born because the innovation capability of Mediterranean countries, and in particular those of the southern shore of the Mediterranean, is very low: most of them are ranked between the 60th and the 127th position of the Global Innovation Index 2020; mainly due to the low capacity of private investment which hardly finances innovation processes with limited public support.

In the first level Master in Open Innovation and Youth Entrepreneurship in the Mediterranean Agrifood Sector the goal is to train innovation experts able to develop new products and services starting from real problems of the market. The economic context outlined in recent years is increasingly placing companies in front of unpredictable scenarios, characterized by constant change, innovation, complexity, and above all by a strong uncertainty. In this context, the success achieved by startups, agile realities inclined to adapt to changes and unforeseen events, shows us how approaching the modern business world with a "startup mindset" allows us to offer high impact solutions that find space on the market and do not succumb to competition.

But what does it mean to have a startup mindset?

In a global framework so exposed to changes, due to the market and the speed of digital transformation, the ability to anticipate these changes and prepare for possible future scenarios becomes crucial for a business. The last few years have shown how rapid changes cause big problems for companies based on very detailed future planning and stability: the key to face these problems must be found in adaptability,

antifragility, agility, the ability to learn from mistakes, but above all in the use of new cultural and organizational models at the basis of the startup approach.

More and more organizations are looking for people who have this mindset and can implement certain methodologies that are typical of the startup environment in already existing companies. Whether you want to launch an innovative project, revolutionize your business or enter a company with an entrepreneurial attitude, having a startup mindset becomes essential to make the uncertainty and turbulence that govern the market an opportunity to acquire new skills, experiment and test new business ideas in an agile and lean way, without too much waste of time and resources.

Learning how to launch a startup is not only important for a principle of self-entrepreneurship but it is a mindset that even more established companies are beginning to seek. The COVID-19 has made even more explicit how the reality we live is characterized by a "VUCA" paradigm where Volatility, Uncertainty, Complexity and Ambiguity are now the norm. Eric Ries, the author of 'The Startup Way: How Entrepreneurial Management Transforms Culture and Drives Growth', talks about the Marketplace of Uncertainty explaining his experience:

"I think most business leaders recognize that the everyday challenges of executing their core business leave little time and energy for harnessing and testing new ideas [...] I've had the privilege of meeting thousands of managers around the world in the past few years. Over and over again, I see their incredible anxiety about the unpredictability of the world they live in. The most common concerns I hear:

- Globalization and the rise of new global competitors
- "Software eating the world" and the way automation and IT seem to destroy the competitive "moats" companies have been able to set up around their products and services in the past

- The increasing speed of technological change and consumer preference
- The ridiculous number of new potential high-growth startups that are entering every industry—even if most of them flame out.

And those are just examples of the external sources of uncertainty that face today's managers. Increasingly, today's managers are also under pressure to create more uncertainty themselves: by launching new innovative products, seeking new sources of growth, or entering new markets."

One way to resist this ever-changing scenario is to start learning from startups on how to be more agile. The challenge for companies? Developing a new culture and stimulating an environment based on entrepreneurship and new models of management and leadership: this is what we call Intrapreneurship. An intrapreneur is a person who is goal-oriented and not only focused towards the accomplishment of his/her tasks. Motivated, proactive, who generates innovative ideas and projects. The difference with the entrepreneur is that the intrapreneur is the professional who works within the company, but with an entrepreneurial mindset. A person capable of reacting positively to new challenges, proposing solutions and committing to their realization, without being afraid of failure. In practice, this is the "lean startup" method applied to business processes.

These people know how to learn from mistakes, iterate and pivot quickly. The concept of failure does not only apply to business but also in the world of research : it is a step that needs to be taken into account. As Eileen Parkes, an early-career researcher at Queen's University Belfast (UK), describes in an article entitled 'Scientific progress is built on failure':

"Failure is something that all scientists experience — but it's hard to tell, looking at our shiny conferences, polished presentations and glossy journals. Yet the whole point of science is that it is cutting edge. Comfortable science is an oxymoron. If we want to make new discoveries, that means

taking a leap in the dark — a leap we might not take if we're too afraid to fail."

The innovation manager in the Agrifood sector

How is the figure of professionals linked to the Agrifood world evolving? What do companies in this sector need to innovate?

The focus of this programme is to empower the younger generations and improve their employability opportunities by promoting their active involvement in the economic development of their regions. The course will enhance innovation skills in order to make them able to: enhance entrepreneurial culture, contribute to the design and implementation of innovative projects (development of new products/services, adoption of new production processes, access to new markets) within existing enterprises and organizations, launch new business initiatives (start-ups) with a role in the development of the business idea and its implementation, provide consultancy services to promote knowledge transfer.

The first level Master

The historical moment we are experiencing is putting us in front of an important fact: nowadays a vertical type education must be placed side by side with a more horizontal one. Hence the creation of this first level Master in Open Innovation & Youth Entrepreneurship in the Mediterranean Agrifood Sector, which started in 2019 as an Advanced Specialization Course of the CIHEAM Bari and which turned in 2020 into a structured path in the framework of higher education integrated at an ecosystem level (research, enterprises, organization) in collaboration with the University of Bari.

The master is based on a new methodological approach, in continuous evolution thanks to the feedback of the participants (students, companies and all the experts involved) based on learning by doing approach applied in all phases of the course. Students have the chance to enrich their educational background and they are able to

combine their vertical skills with a new, more horizontal, practical and market-oriented mindset. The aim of the Master is to align people with different cultural, academic and working backgrounds, in order to prepare the teams for interdisciplinary work. With this Master, CIHEAM Bari is able to combine highly specialized training on Agrifood issues with a type of training oriented to the development of soft skills that are highly valued by companies that make real innovation.

During the course, students from the Mediterranean area and Africa learn how to solve challenges of real companies by experimenting with Design Thinking and Lean Startup approach to involve people and potential users during the process. Students are accompanied through the creation, prototype development, and enhancement of innovative entrepreneurship ideas (new products/services, adoption of new production processes, development of new markets) in the agri-food field, from production chain to food consumption, health aspects and circular economy. In fact, one of the most important training blocks of the Master's course is the project work, based on Open Innovation Design Thinking.

The Structure of the Master

The structure of the Master's Modules has been designed to provide an overview of the concepts related to the world of entrepreneurship and agile approaches to business, and to deepen issues related to the Agrifood sector.

During the 2021 edition, the Master was delivered in blended mode: online Modules and Project Work in presence. The remote part, born as an obligation due to Covid-19, was useful both for the level of involvement of the students and for the interaction inside the groups. These forms of online interaction are sought by companies that truly innovate already at the recruitment stage, and in line with what is happening now, in the world of work, as many companies require the ability to know how to use digital collaboration platforms. This kind of interaction did not make students regret face-to-face collaboration; on the contrary, it allowed them to be very focused and

productive in carrying out their work thanks to the constant presence of coaches and teachers in a form of synergic collaboration. These forms of coaches, who are also present in companies implementing this goal-oriented digital collaboration system, are an essential guide for building a fruitful working relationship mindset also online.

The 6 online Modules are structured with parts dedicated to frontal teaching and parts dedicated to practical application in workshops. The user centered approach of Design Thinking has been used also by coaches to design the new edition of the Master, in which students' participation and feedback were crucial.

Mauro Rego, Senior Interface and Service designer, in his article entitled 'Designing Learning Environments. Some reflections on designing better learning experiences', says that

"Designing a Learning Environment is a project just like any other design project. It takes time and the details have to be carefully designed so that the overall experience is pleasant for the host and for the attendees."

The 6 Modules

1. **Startup & Entrepreneurial Mindset:**

This module explains how to build an ecosystem and to support the birth and growth of startups. Learning how to launch a startup is not only important for a principle of self-entrepreneurship but it is a mindset that, even more consolidated, companies are starting to look for.

2. **Business Model Design for continuous innovation:**

In this module students will learn how to make a business desirable for customers, financially viable for stakeholders, and feasible. They will learn how to build a strong and profitable business model capable of competing in an ever-changing market. Thanks to Business

Model Design Approaches students will learn how to design rapid prototypes to test and iterate business concepts.

3. **Agile Methods & Change Management:**

Innovation is not just technology, research, and a successful business model. There is another fundamental element: how people work within companies that truly innovate. Thanks to this module it will be possible to understand how Change Management and Agile methodologies can make organizations more competitive.

4. **Innovation in Agri Food:**

The Agrifood sector has experienced a revolution in recent years in which technology and sustainability are playing a key role. In this module, students will try to understand how this world is evolving along the entire supply chain (from farm to fork). The study of the main future trends that will impact this world is crucial. Students will have to find solutions that not only take consumers into account in the human centered approach but also evaluate their impact on the planet in a centric approach.

5. **Social Innovation for local community:**

this module is here to explore how design for social innovation can enable local communities, enterprises and social actors to activate innovation processes, aimed at experimenting with sustainable solutions for local development. Designing this transition means revisiting models of value production and new forms of collaboration and sustainability. To be truly impactful, this value must first be designed from a service perspective and measured trying to understand how it was distributed over the intervention areas.

6. **Communication & Marketing for Startup:**

in this module the importance of communicating the value of products and services related to food will be analyzed. How to build a strategy, how to communicate it effectively, but above all,

how digital marketing can help startups and companies to validate their markets. Building and communicating the corporate Food Identity, using storytelling techniques to effectively communicate products and services, identifying the most effective marketing and communication strategies thus becoming a strong competitive advantage for companies.

In-between these modules, there are moments dedicated to **Personal Empowerment**, to help students develop an awareness of their approach to work and guide them in the empowerment of their personal and soft skills. Also, to help students arrive prepared for project work, exercises on **Team Building** were included during the training. One of the main reasons for startups' failure is not motivating the right way and the right team. For this, providing the necessary tools to build a solid and aware team is one of our main purposes since the success of ideas passes from the success of people.

The Design Thinking and Lean Startup Project Work

After these Modules, there is an entire period of Internship/Project Work. This is the moment in which students will create an innovative solution starting from a specific challenge launched by the company, in collaboration with internal staff, using the Design Thinking and Lean Startup approaches. The goal of the Project Work is to provide tools to students to develop Open Innovation processes in order to create new products and services starting from the real needs of already existing companies. There are business problems that companies cannot solve with the classical business tools at their disposal. That's why they turn to innovation managers who use a startup mindset to solve these problems. Thanks to approaches such as Design Thinking and Lean Startup, companies are able to interact directly with final customers and succeed in creating new products and services that people really need. These are the fundamental steps to create Open Innovation situations.

“Open Innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology. Open Innovation combines internal and external ideas into architectures and systems whose requirements are defined by a business model¹.”

To do this, students will be divided into multidisciplinary teams and will apply two mindsets such as Design Thinking and Lean Startup[1]. Design Thinking is very useful in the part of customer discovery and problem/solution fit, where the context is analyzed, insights are collected and possible solutions are developed; it will then generate an MVP (Minimum Viable Product), a version of a new product/service not developed in detail, but containing all the essential features promised in the project's Value Proposition. At this stage the Lean Startup approach becomes fundamental, a very valuable ally for testing this potential solution in an agile way with continuous feedback to improve the product/market/fit part.

The role of companies in the Master

The Project Work in Design Thinking of the last edition of the Master was carried out in collaboration with three companies who gave three different challenges to three different teams of students. The companies decided to focus their challenges also according to the resources available within the teams: having students from specific countries increases the opportunities to create innovative solutions for specific people in a specific context. Having an Ethiopian student to answering to a challenge about teff, a typical Ethiopian food, and its many potential uses, or having a Kenyan student to answering to a challenge about creating a shopping fertilizer experience in Kenya, helps to understand the people for whom the solutions are built and to respect the contexts and cultures in which they operate.

The close collaboration with companies and the participation of students in the real challenges

¹ Henry Chesbrough, Open Innovation: The New Imperative (2003)

that these companies launched, required a great work of synergy and coordination by the coaches to achieve qualitatively important and satisfactory results for both companies and students. The innovation coach is a professional figure who supports the future innovation manager (students), and helps companies that want to make real innovation to develop new products and services.

Regarding the participation of companies in the Master's, we have foreseen two types of involvement: interventions of startups in the inspirational phase; and a more operational one of big companies, within the Project Work in Design Thinking. The interaction with the startups was very engaged by the students, who had the opportunity to interact with Q&A sessions with examples of real projects and people who are revolutionizing the Agrifood sector. It emerged that students need to deal with existing realities in order to give value to what they studied during the didactic Modules. The interaction with the Project Work companies was much deeper and more structured. The companies have launched challenges, each to their own team of students, and accompanied them with weekly follow up meetings throughout a three-months duration to maintain a constant synergy relationship with the team. The students proved to be professional in carrying out an entrepreneurial project by acting as if they were external teams of innovation experts who work with companies, creating real examples of Open Innovation.

This Master of CIHEAM Bari is one of the tools for building a Mediterranean innovation ecosystem and is based on the qualification and strengthening of the synergies of various players: young people, entrepreneurs, companies, researchers and policy-makers. It is an innovation laboratory, part of an integrated system that involves innovation support organizations (ISO, incubators, accelerators, etc.), universities and research organizations, business organizations, which together contribute to the change of the Mediterranean entrepreneurial system.

Donato Macario is an innovation consultant and coach graduated in Strategic Design at Politecnico di Milano with experiences in Open Innovation

and startup creation. His mission is to spread innovation in companies and organizations, building together new services and experiences accessing opportunities offered by Design Thinking, Digital Transformations, Lean Startup and Trend watching. For CIHEAM Bari he deals with the design of programs and masters to support Startup and Open Innovation initiatives.

Giuseppina Miuli is a graduate in Economics and Strategies for International Markets in Bari and she has different experiences of study and work abroad. She approached Design Thinking during her university career, took part in the previous 2-month edition of the CIHEAM Bari Master as a student and now helps students as a tutor in the Master in Open Innovation & Youth Entrepreneurship in the Mediterranean Agrifood Sector of CIHEAM Bari and of the University of Bari.

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