





Innovation & Entrepreneurship Program in Manufacturing 2022 - 2023

EIT Manufacturing Doctoral School



Awareness and Orientation track

Year 1: How to develop a business idea April – December 2022







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At a glance

Duration

April – December (27 weeks)



On-site 3 on-site events in EU



Credits 15 ECTS





















Global manufacturing innovation will be led by Europe

EIT Manufacturing's mission is to bring European manufacturing actors together in innovation ecosystems that add unique value to European products, processes and services and inspire the creation of globally competitive and sustainable manufacturing.

The European Institute of Innovation and Technology (EIT) is an EU body created in 2008 to strengthen Europe's ability to innovate. Today it is Europe's largest innovation ecosystem with over 2,000 partners.

The EIT supports the development of dynamic, long-term thematic partnerships (Knowledge and Innovation

Communities, EIT KICs) among companies, research and higher education institutions, to face specific societal challenges. Together with their leading partners across Europe, the EIT Community offers a wide range of innovation and entrepreneurship activities:

Entrepreneurial education courses, business creation and acceleration services and innovation-driven research projects. The EIT Community helps innovators turn their best ideas into cutting-edge products, services and jobs for Europe.

Unique EIT model highlights:

• Provides access to a community that powers innovators through the entire innovation journey, from education to lab to market.

• Embraces disruptive and incremental innovation and embeds entrepreneurial education activities in its innovation activities.

Business-oriented with strong focus on financial sustainability.

• Delivers a pan-European network strongly anchored in local innovation ecosystems.





EIT Manufacturing is an Innovation Community within the European Institute of Innovation & Technology (EIT) that connects the leading manufacturing actors in Europe. Fueled by a strong interdisciplinary and trusted community, we will add unique value to European products, processes and services - and inspire the creation of globally competitive and sustainable manufacturing.

EIT Manufacturing's approach is designed to immediately and forcefully address specific economic and societal challenges, leveraging opportunities to maximise the impact for successful European manufacturing.

Our vision is that global manufacturing innovation is led by Europe.

Our mission is to accelerate faster innovation with the potential to improve everyday life globally, help meet Europe's ambitious climate goals, and ensure that its workforce is ready for tomorrow's challenges.

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Co-funded by the

European Union

Program description





Awareness and orientation track

The Innovation and Entrepreneurship Program at the EIT Manufacturing Doctoral School allows Manufacturing PhD students to gain and develop the skills and capabilities needed to valorize their expertise and research in the market. The "Awareness and orientation track" of the Innovation & Entrepreneurship Program is meant for PhD students who do not intend to start an entrepreneurial or intrapreneurial project in the short term but want to learn what steps should be taken, in order to be able to use that knowledge in the future. The track consists of two one-year programs: In year 1 the participant starts with learning "How to develop a business idea", and in year 2 the participant continues exploring "How to validate a business idea and how to prepare for a launch".

Year 1 program: How to develop a business idea



During the first year, the PhD student will go through three different phases that will guide him/her in the development of a business idea.

Self-discovery (April-May)

Explore their own/team potential and define the ecosystem that would fit best when they are ready to start an entrepreneurial or intrapreneurial manufacturing project.

Market exploration (May-July)

Explore the market for societal, economic and environmental problems that can be solved by the manufacturing research.

Ideation (Sept-Dec)

Develop a solution that solves the problem(s) they have discovered, for the benefit of the sector and society.

Year 2 program: How to validate a business idea and prepare for a launch



In the second year, the PhD student will go through two different phases prepare for the launch of the business idea that has been developed in the first-year program.

Validation and iteration (April-July)

First, they will learn how to validate their value proposition, solution, and related business model in the market through the use of lean experimentation techniques.

Pre-launch strategy (Sept-Dec)

Then, they will build their plans and materials to prepare for the launch of their business project. Teams with a feasible project at the end of this phase can apply to the Business Creation Pillar of EIT Manufacturing to continue the incubation and realization of their entrepreneurial project.

Since PhD students in the Awareness and orientation track are not yet planning to start an entrepreneurial or intrapreneurial project, the validation, iteration, and pre- launch activities will be applied on an existing startup or corporate entrepreneurship project, creating an open innovation relationship with the manufacturing business.

- You now are reading the brochure on the year 2 program -





Methodology





The methodology of the Innovation and Entrepreneurship Program in both years is based on Design Thinking principles. The five phases, from empathizing to testing, according to the Stanford d.School methodology, are reflected in our program. In addition, we have added two more phases to our roadmap: self-discovery and pre-launch. Within those phases, business creation methodologies are complemented with manufacturing scientific and technological knowledge and practice. Manufacturing mentors are also assigned to the students/teams to support them along the innovation process. This makes our program unique, all-embracing and specifically manufacturing focused.

All learning sessions will be taught in a two-hour format and will always be preceded by some resources to be studied before. Then, after 'class', your instructor will give you an action plan in which you apply the learning objectives on your entrepreneurial or intrapreneurial manufacturing project. If you still do not have a business project, you will be asked to reflect how you could valorize your research project in the future. The same instructor will meet up with each of the participants some days after the session for a mentoring session, during which questions can be asked related to the learning objectives and the results of the action plan will be reviewed.

Instructors and experts:

All our instructors and mentors are business and academic experts connected to the world of manufacturing, innovation, and business design. The following expert disciplines have been included in this program:

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Udi	

Green Manufacturing Expert



Pitch Evaluator - Expert from business incubator / accelerator



Legal Expert





Product Designer



Financial Expert

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Lean Coach



Brand Designer



Investment Expert



UX Designer



Sales Expert



Communication and Storytelling Expert



Strategic Design Expert



Calendar 2022

Awareness and orientation track –

How to validate a business idea and prepare for a launch



Validation and iteration (April-July)

Pre-launch strategy (Sept-Dec)

gy On-site event

	April
21 - 22	Welcome ceremony I&E Program
21	I&E team building activity
22	Seminar: intro to validation and iteration phase
22	Seminar: business concept and blueprint
25 - 29	Meetings with startups hat we'll innovate with

June

03	Pitch round: presenting increments sprint 1
06	Start sprint 2 lean experimentation
10	Webinar: prototyping design constraints and industrial feasibility
17	Webinar: green manufacturing
20	Start sprint 3 lean experimentation
30	Pitch round: presenting increments sprint 2 and 3
	Innovation Mentorship

September

16	Webinar: building your product demo
23	Webinar: product roadmap
30	Webinar: designing a brand
	Innovation Mentorship

	November
04	Webinar: how to develop your investor deck
11	Webinar: pitching and storytelling II
	Innovation Mentorship

Innovation focus in 2022: GREEN Manufacturing

May

02 - 06	Defining business concept
06	Webinar: pitching and storytelling
09 - 13	Defining business concept
13	Webinar: validation and lean experimentation techniques
16	Start Open Innovation Program
16 - 20	Prototyping Bootcamp
23	Start sprint 1 lean experimentation
	Innovation Mentorship

July

04	Start sprint 4 lean experimentation
11-13	Summer School
11-12	Hackathon event
12	Presentation of validation results
13	Pitch round: presenting increments sprint 4
13	Closure validation phase and Summer School

October

07	Webinar: how to develop your sales plan
14	Webinar: how to develop your organization plan and project GANNT
21	Webinar: how to deal with legal issues
28	Webinar: how to develop your financial plan
	Innovation Mentorship

December

01-02	Winter School
01	Opening Demo Day Open Innovation Programme
01	Pitch event (and submission of investor deck)
01	Networking event
02	Closure



Syllabus: April - May



Validation and iteration (April-July) Pre-launch strategy (Sept-Dec)

On-site event

April	
21 - 22	Welcome ceremony I&E Program
21	I&E team building activity
22	Seminar: intro validation and iteration phase
22	Seminar: business concept and blueprint
25 - 29	Meetings with startups that we'll innovate with

May 02 - 06 Defining business concept 06 Webinar: pitching and storytelling 09 - 13Defining business concept 13 Webinar: validation and lean experimentation techniques 16 Start Open Innovation Program 16 - 20 Prototyping Bootcamp 23 Start sprint 1 lean experimentation Innovation Mentorship

Welcome Ceremony I&E Program (on-site)

The official two-day opening of the I&E program at EIT Manufacturing in Paris: participants of all four tracks will kick-off with a program introduction, two seminars and a team building.

Seminar: intro validation and iteration phase

Introduction to the first phase of this track by the program leader. There will also be an explanation of the meaning of market validation and lean experimentation principles based on the Lean Startup method.

Seminar: business concept and blueprint

A workshop with a business design expert in which participants are going to learn about how to structure a business idea into a business concept that will be ready for the validation process. This structure will be based on the business blueprint tool.

I&E team building

The welcome event will be closed with a team building activity to create bonding among the different participants of the I&E Program.

Meetings with startups that we'll innovate with

During this week, the participants will meet up with existing startups or corporate ventures with which they are going to innovate. They will work out and validate a business idea which will result in an Open Innovation project.

Defining Business Concept

For two weeks, the participants will consolidate and structure the business concept into a business blueprint, ready for the validation process.

Webinar: pitching and storytelling

In this online workshop, the participants will practice pitching with a communication and storytelling expert, preparing for the three pitch rounds that will be organized during the validation phase.

Webinar: validation and lean experimentation techniques

The participants will get an introduction during this online session from a Lean Experimentation Expert, who will explain how to carry out a market validation process according to Lean Startup techniques.

Start Open Innovation Program – Prototyping Bootcamp

After having defined the business concept, and a couple of introductory Webinars, the participants will start the Open Innovation Program with the week-long online Prototyping Bootcamp. In this Bootcamp, the participants will learn how to visualize their business concept in order to be able to start the week after with the validation process, testing these visuals and the related business model. The validation process consists of four different sprints of two weeks each, in which the lean experimentation stages will be carried out, guided by a Lean Coach.

Innovation Mentorship

After the webinars the participants have the opportunity of question and answer mentorship sessions, after completing their homework.





Syllabus: June - July

Validation and iteration (April-July) Pre-launch strategy (Sept-Dec)

On-site event

Innovation focus in 2022: GREEN Manufacturing

	June	
03	Pitch round: presenting increments sprint 1	
06	Start sprint 2 lean experimentation	
10	Webinar: prototyping design constraints and industrial feasibility	
17	Webinar: green manufacturing	
20	Start sprint 3 lean experimentation	
30	Pitch round: presenting increments sprint 2 and 3	
	Innovation Mentorship	

Start sprint 1, 2, 3, 4

The participants will start each sprint with an online session with a lean coach who guides them in determining the test objectives for the lean experiments that will be carried out. At the end of each sprint, the participants will meet again with the lean coach to review the test results.

Pitch rounds: presenting increments

During an online event at the end of sprint 1, 3 and 4, the participants will present the latest status of their business concept, having applied the iterations based on the validation process. Each pitch round will be moderated by a Pitch Evaluator, an expert from a business incubator or accelerator.

Webinar: prototyping design constraints and industrial feasibility

An academic expert will guide the participants in defining the different design constraints industry and manufacturing cause, in order to obtain a feasible solution design and to consider the constraints into the validation process.

Webinar: green manufacturing

An academic expert will immerse participants in the importance of green manufacturing, a top priority theme from EIT-M

Innovation Mentorship

After the webinars the participants have the opportunity of question and answer mentorship sessions, after completing their homework.

Closure event validation and iteration phase (on-site)

During the closure of the two-week Summer School program within the year 1 program, the closure event of the validation and iteration phase will be organized at the same venue in Bratislava. This to let the participants of the year 1 program see what their colleague researchers are doing one year later in the I&E Program. The closure event consists of the following parts:

Presentation of validation results

Participants will present the results are of the four sprints through which they have been testing their business concept in the market.

Pitch round: presenting increments sprint 4

A last pitch event before the summer break in which participants will present the latest status of their business concept, having applied the iterations based on the validation process. This pitch round will be moderated by a Pitch Evaluator, an expert from a business incubator or accelerator.

Hackathon event

The participants of the OI / Venture Building program will also participate at the Hackathon event that forms part of the Year 1 Summer School, to create networking and synergy effects among the two talent pools.





Syllabus: September - October



Validation and iteration (April-July) Pre-launch strategy (Sept-Dec)

On-site event

 September

 16
 Webinar: building your product demo

 23
 Webinar: product roadmap

 30
 Webinar: designing a brand

 Innovation Mentorship

Webinar: building your product demo

An online workshop in which the participants will learn how to build a product demo in video format that includes a clear user story line and that shows how the different user problems have been solved through functions and features. Input will be received from both product and UX Design experts.

Webinar: product roadmap

The Prototyping Bootcamp, the various iterations during the validation phase and the product demo have resulted into a series of user stories and backlog that have to be translated into a detailed product roadmap. With a Product Designer, the participants will learn how to develop this roadmap.

Webinar: designing a brand

In every solution design it's of utmost importance to integrate an adequate brand design. With a brand designer, participants will learn in this online session what elements and principles should be considered to develop a strong brand.

Innovation Mentorship

After the webinars the participants have the opportunity of question and answer mentorship sessions, after completing their homework.

Webinar: how to develop your sales plan

In this online workshop, the participants will learn from a sales expert how to develop a successful sales plan with typical elements, such as inbound / outbound funnel, lead nurturing, list building, sales Projection, and sales metrics and KPIs.

Webinar: how to develop your organization plan and project GANNT

In this online session, a strategic designer will help the participants to write their organizational and operation plan, with a special look at the development of a detailed GANNT chart.

Webinar: how to deal with legal issues

The development of an entrepreneurial project has a lot of legal implications. In the year 1 program the participants learned about how to protect their business idea. In this online workshop, a legal expert will guide the participants into a broader legal framework that has to be taken into account when launching a business.

Webinar: how to develop your financial plan

In this online workshop, a financial expert will elaborate on the principal financial statements, ratios and metrics that should be considered in the development of an adequate financial plan.

Innovation Mentorship

After the webinars the participants have the opportunity of question and answer mentorship sessions, after completing their homework.

	October
07	Webinar: how to develop your sales plan
14	Webinar: how to develop your organization plan and project GANNT
21	Webinar: how to deal with legal issues
28	Webinar: how to develop your financial plan
	Innovation Mentorship



Syllabus: November - December





	November
04	Webinar: how to develop your investor deck
11	Webinar: pitching and storytelling II
	Innovation Mentorship

Webinar: how to develop your investor deck

In this online session, the participants will learn from an investment specialist how to develop an investor deck that will convince any business angel or investor to participate in the entrepreneurial project.

Webinar: pitching and storytelling II

After the online workshop on pitching in the validation phase, the participants will get an extra training on how to communicate and convince their audience of their unique business concept. The Webinar will prepare the participants for the Demo Day in the beginning of December.

Innovation Mentorship

After the webinars the participants have the opportunity of question and answer mentorship sessions, after completing their homework.

Opening Demo Day OI / Venture Building Program (on-site)

At the end of the two-week Winter School program in Grenoble, as part of the year 1 program, the Demo Day of the Ol/ Venture Building Program will be organized at the same venue. This will let the participants of the year 1 program see how their colleague researchers finish the I&E Program at the end of year 2. The Demo Day consists of the following parts:

Pitch event

A broad audience consisting of all stakeholders of the EIT Manufacturing ecosystem, including companies and investors, will enjoy the final presentations of the two-years I&E Program, in this case listening to the projects that have been developed in the Venture Building Program. For this event, an investor deck has to be submitted by the participants and will be shared with interested stakeholders (of course after signing a non-disclosure agreement).

Networking event and closure OI/ Venture Building Program

The host partner university of the Winter School will organize a network event in which the participants of the year 2 program will be able to connect with companies and other stakeholders from the manufacturing ecosystem. At the end of this event, both the Winter School and the closure event of the Venture Building Program will be officially ended.

December		
01-02	Winter School	
01	Opening Demo Day Open Innovation Programme	
01	Pitch event	
01	Networking event	
02	Closure	



Apply now





Requirements

• You are either a PhD student, researcher, professional in a manufacturing field, or interested in developing business ideas involving manufacturing.

• You do not need to have the intention to develop an entrepreneurial or intrapreneurial project for the Awareness and orientation track. Your learning experience will be connected with your PhD research or manufacturing interests.

• You have to attend the entire program to obtain the 15 ECTS.

• If you are an EIT Manufacturing Doctoral School student, to obtain the EIT Label Certificate you must collect an additional 15 ECTS in the I&E Program.

• You must have developed a business concept in year 1 of the EIT Manufacturing I&E Program or through an alternative way.

Selection and intake assessment

Applications will be accepted until the 15th of March. In the second half of March, a selection and intake assessment will take place, with the aim to define your entrepreneurial capacity and intentions. You could be invited to an online interview, if needed.





European Union

Partner Universities





Arts et Metiers is a higher education engineering school in France with 8 Education and Research Campuses, 14 research laboratories and 3 institutes. Arts et Metiers develops teaching and research activities with a focus on five strategically chosen fields: Future of manufacturing, Mobility, Energy, Health Technology and Construction.



Grenoble INP is the Institute of Engineering of Univ. Grenoble Alpes, which is one of the ten French Research and Innovation intensive Universities (IDEX label) and also one of the four French Institutes of Artificial Intelligence (MIAI).



FEUP FACULDADE DE ENGENHARIA

FEUP is currently one of Portugal's oldest and most prestigious teaching and research institutions in engineering and related fields, with a reputation that is justified by the wide range of high quality training that FEUP offers in all its degrees. In addition, FEUP's modern building complex, inaugurated in 2000, at Polo II (Asprela) of the University of Porto, has become an important "incubator" for innovation and knowledge, fuelled by the impressive work done by the research centres that it hosts, and their proximity to the business and social milieu.



Mondragon University is a non-profit cooperative private university in the Basque Country, officially established and recognised in 1997. It is part of Mondragon Corporation. Committed since its foundation to quality education and studies with a practical focus, they give great importance to the comprehensive training of their students.



The Czech Technical University in Prague (CTU) is one of the biggest and oldest technical universities in Europe and currently the major technical university in the Czech Republic, with approx. 1,700 members of academic staff. CTU currently has eight faculties and about 16,000 students. It is represented in EIT Manufacturing projects by two of its units — The Czech Institute of Informatics, Robotics, and Cybernetics (CIIRC), and the Faculty of Mechanical Engineering.

S T U

SLOVAK UNIVERSITY OF TECHNOLOGY IN BRATISLAVA

Slovak University of Technology in Bratislava (STUBA) is the largest and most significant technical university in Slovakia. It is a modern EU educational and research institution, founded in 1937. STUBA consists of 7 faculties: Civil Engineering, Mechanical Engineering, Electrical Engineering and Information Technology, Chemical and Food Technology, Architecture, Materials Science, and Technology, Informatics, as well as one institute – Management. The studies are performed at 3 levels. In the area of scientific and research activities, STUBA successfully joins European Union programs.



University of Tartu is Estonia's leading centre of research and training. It preserves the culture of the Estonian people and spearheads the country's reputation in research and provision of higher education. UT belongs to the top 1.2% of world's best universities and is among the best universities of New Europe (EU13). The institutes of Technology and Computer Science at UT offer international Masters and Doctoral programmes in Robotics and Computer Engineering, Copmuter Science and Security and Cloud Computing. Industry collaboration focuses on Intelligent Materials and Systems, AI and Robotics, Mobility Solutions, and Business Process Analytics.





A word from EIT Manufacturing





Paola Fantini Education Director EIT Manufacturing

In the EIT Manufacturing education programs, students will gain the capabilities, opportunities, and support from the network to become real entrepreneurs and change makers, to pursue the career they want to take. They will learn to question the status-quo, identify challenges and opportunities, mobilize energies, develop, and promote innovative solutions. They will become skilled at dialoguing, reasoning, and negotiating with peers and other stakeholders, in addition to acquiring excellent technical and business competences.



Lucia Ramundo Master and PhD Program Manager

Our programs allow students to become experts in innovative manufacturing fields from both the technological and business and management side. We develop their leadership, creativity and all soft skills needed to navigate the complex industrial landscape while also taking into account the needs of society.

Program developed in collaboration with:



Henri Mennens innpulse Innovation Consulting

The Innovation and Entrepreneurship Program at the EIT Manufacturing Doctoral School lets participants valorize their knowledge, research findings, and related market insights. For a period of two years, we offer them a roadmap that will help them to find out how to develop an entrepreneurial or intrapreneurial project during the Doctoral School or afterwards. The program has the latest insights on business design, innovation, and entrepreneurship, provided by awesome experts from the business and academic field.













Making innovation happen!



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EIT Manufacturing is an Innovation Community within the European Institute of Innovation & Technology (EIT) that connects the leading manufacturing actors in Europe. Fueled by a strong interdisciplinary and trusted community, we will add unique value to European products, processes, services – and inspire the creation of globally competitive and sustainable manufacturing.

Keep up with the latest on:

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