



# The Future of Manufacturing: people, sustainability and technology as drivers for innovation



**27.Jun - 28.Jun 2022**

**Cod. Z10-22**

**Mod.:**

Face-to-face

**Edition**

2022

**Activity type**

Summer course

**Date**

27.Jun - 28.Jun 2022

**Location**

Miramar Palace

**Languages**

English

**Academic Validity**

20 hours

**Organising Committee**



Fundación  
BBVA



## Description

Europe is the birthplace of industrial production, which continues to power the region's prosperity, which is a main driver of innovation, job creation and growth. The manufacturing industry is key to Europe's economic, social, and environmental sustainability and a strong, innovative industrial sector is essential to ensuring prosperity and meeting EU goals for the economy, society, and the environment.

The future of manufacturing will be shaped by people, and it is necessary to explore ways to keep people at the centre of the industry's digital and green transformation and tackling questions such as:

- What will the **future of work** look like, and how will it feel for those involved?
- How can we ensure that the **human-centered** transformation is also a **green transformation**?
- What new **skills** will the manufacturing sector need to succeed in the future, and how can the existing skills gap be bridged?
- How can we create a more **diverse workforce**, attracting and inspiring more people to join and take leadership roles in the sector? And how do we ensure that older generations of employees are inspired and equipped with the needed skills for shaping the future of manufacturing?

This Summer Course will provide a broader view of the future of manufacturing, and will give the opportunity to discuss current challenges, current applications, while also critically considering how relevant is the need for a more sustainable, inclusive, digital and green vision of the manufacturing processes, for fostering the economic growth and prosperity in the European industrial landscape. The course will bring together knowledge and experiences of Spanish (with a special focus in the Basque Country), French and Portuguese organizations bridging transformative innovation to address the previously mentioned challenges in four different areas:

- **Low Environmental Footprint Systems & Circular Economy for Green Manufacturing:** using new technology to minimise use of resources, energy, and material in production systems enables new circular business models.
- **Human-machine Co-working for Socially Sustainable Manufacturing:** fostering the smart use of automation
- **Flexible Production Systems for Competitive Manufacturing:** emerging technologies enable almost limitless flexibility in product design and production, allowing full customisation.
- **Digital & Collaborative Solutions for Innovative Manufacturing Ecosystems:** collaboration and business on digital platforms and value networks enables companies to create new and highly efficient value-chains.

This course is organized by the West node of EIT Manufacturing (CLC-West), part of the European Institute of Innovation & Technology (EIT) which brings together more than 70 organizations (universities, research institutes and businesses) into one powerful innovation ecosystem. The ecosystem aims at adding unique value to European products, processes and services and inspire the creation of globally competitive and sustainable manufacturing. This action is framed into the activities of the EIT Manufacturing Basque Hub, supported by the Basque Government under the Type 3 actions of the ELKARTEK program.

## Objectives

Reflect on how to address the challenges of the future of manufacturing from an innovative and sustainable perspective.

Learn from concrete examples of innovation, education and business creation strategies to empower the European industrial sector and foster the growth and sustainability of the European societies, with a special focus on the Basque context but also including examples and good practices from Spain, France and Portugal.

Share views on what we can expect in the future of the manufacturing sector and which actions or methodological approaches should be implemented from a regional perspective to contribute for a climate-neutral Europe in 2050 by the European industry.

To raise awareness on the opportunities for fostering innovation, education and business creation in the Spanish (with a special focus in the Basque Country), French and Portuguese areas coming from EIT

Manufacturing, as part of the European Institute of Innovation and Technology.

**Course specific contributors**



# Program

27-06-2022

08:45 - 09:15	Registration and delivery of materials
09:15 - 09:30	Presentation by the Director of the activity <b>Javier González Gómez</b>   EIT Manufacturing West, S.L. - Education Developer <b>Antoni Pijoan</b>   EIT Manufacturing West, S.L. - Managing Director
09:30 - 10:00	“Moonshot thinking - the art of facing the impossible through disruptive innovation” <b>Teresa Hernández</b>   EIT Manufacturing - Innovation Manager
10:00 - 10:30	“People centric innovation in manufacturing - the way for creating impact” <b>Brice Byron</b>   FIVES GROUP - Innovation and Engineering Director <b>Joseph McIntyre</b>   TECNALIA - Head of Medical Robotics
10:30 - 11:00	Open discussion
11:00 - 11:30	Break
11:30 - 12:00	“The entrepreneur's journey in manufacturing: from idea to success” <b>Gala Maturana</b>   EIT Manufacturing - Business Creation Manager
12:00 - 12:30	“The value of the teams: a key step for business creation” <b>Ibon Iribarren Aristizabal</b>   LINQ - Managing Director <b>Emil Johansson</b>   ADAXIS - CEO
12:30 - 13:00	Open Discussion
13:00 - 13:15	Synthesis
13:15 - 15:30	Lunch Break (Networking)
15:30 - 15:45	Presentation by the Director of the activity <b>Javier González Gómez</b>   EIT Manufacturing - Education Developer
15:45 - 16:30	Round table: “Manufacturing from a regional perspective: cross-border collaboration for addressing the future challenges” <b>Antoni Pijoan</b>   EIT Manufacturing West, S.L. - Managing Director (Moderator) <b>Rikardo Bueno Zabalo</b>   BRTA - Basque Research and Technology Alliance - Managing Director <b>Anne Keroue</b>   Aerospace Valley - Innovation Projects Manager <b>Vasco Teles</b>   INESC TEC - EITM Portuguese RIS Hub Coordinator
16:30 - 17:00	Open Discussion
17:00 - 17:15	Synthesis

## 28-06-2022

09:00 - 09:15	Registration
09:15 - 09:30	Presentation by the Director of the activity <b>Antoni Pijoan</b>   EIT Manufacturing West, S.L. - Managing Director
09:30 - 10:00	“Connecting industry and academia: the Teaching and Learning Factories paradigm” <b>Javier González Gómez</b>   EIT Manufacturing - Education Developer
10:00 - 10:30	“Can the Industry 4.0 revolution have the sustainability at the centre? Education is the driver.” <b>José Coelho Rodrigues</b>   INESC TEC - Researcher
10:30 - 11:00	Open discussion
11:00 - 11:30	Break
11:30 - 12:00	“Upskilling and Reskilling: transform the talent into impact” <b>Javier González Gómez</b>   EIT Manufacturing - Education Developer
12:00 - 12:30	“How to shape the workforce transformation in the digital era? A life-long learning perspective.” <b>Javier Mendibil</b>   TECNALIA - Innovation Researcher
12:30 - 13:00	Open dicussion
13:00 - 13:30	Synthesis

## Directed by



### **Javier González Gómez**

EIT Manufacturing West, S.L.

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Javier González, with more than 15 years of international experience in innovation management, is responsible for the development and promotion of the EIT Manufacturing Education pillar programmes in the countries represented by the Western regional node: Spain, France and Portugal. Bachelor degree in Environmental Sciences (Autonomous University of Madrid, 2003) and Master in International Business Management (2006). After his training and professional experiences in Germany and Italy and working more than 12 years in the RTD consultancy sector in Spain, he joined EIT Manufacturing as Education Developer in CLC West. He has experience in Project management, entrepreneurship promotion, and strategic management of disruptive technological issues. During his career, he has provided consultancy services, for SMEs, multinational companies and Public Administrations, including the support for the preparation, submission and management of projects in EU, national and regional funded programmes. He has provided support for the management of more than 100 EU-funded projects in programmes like FP7, H2020, LIFE+, ERASMUS+...etc., also collaborating actively as WP leader in different initiatives.

## Teachers



### **Rikardo Bueno Zabalo**

BRTA - Basque research and Technology Alliance

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Rikardo Bueno is currently the CEO of the Basque Research & Technology Alliance (BRTA) and member of the Supervisory Board of EIT Manufacturing. Previously, he has developed his professional career in the Research and Technology sector, holding several executive positions in TECNALIA, as Director of International Business Development, Director of Advanced Manufacturing Area and Programmes Director. He has been member of the EFFRA board until 2019 and holds a PhD in Industrial Engineering.



### **Brice Byron**

Brice Byron holds currently the position of Global Collaborative Innovation Manager within Fives Group. He is also co-founder and president of ANANKÉ, a french company aiming at giving industrialists the opportunity to include the energy transition in their strategies while boosting the innovation/competitiveness combination. He also has large experience in industrial companies as Cinetic SAS (Fives Group) as Director of Engineering and Innovation and ASSYSTEM with different management positions . He holds a degree in Aeronautical Engineering.



### **José Coelho Rodrigues**

José Coelho Rodrigues is a Senior Researcher in the field of technology and innovation management in INESC-TEC. He also currently develops teaching activities within the University of Porto in the field of Management of Technology (Masters in Innovation Economics and Management, 2nd semester) and supervising master dissertations. He has previously taught courses as Assistant Professor for Engineering in the University of Porto. He holds a PhD in Engineering and Industrial Management and a degree in Engineering.



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**Teresa Hernández**

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Industrial engineer at the Polytechnic University of Madrid (2005). THNKer (2015). DDP (2018). After more than 12 years of international career developed in Spain, Milan and London working in innovation consultancy, Teresa joined EIT Manufacturing in 2020 as Innovation manager of CLC West. Previously, she worked at Altran and Barrabés, as Innovation Manager and Innovation Director respectively, commercializing and managing a broad range of innovation projects and programs.



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**Ibon Iribarren Aristizabal**

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Ibon Iribarren is the Managing Director of LINQ, a start-up company born in 2018 with the aim of contributing to zero defects in different manufacturing industries. Previously, he developed his professional career in the industrial sector, holding different managerial positions in ETXE-TAR, as Deputy Managing Director, Director of Customer Service and Sales Director for North America & UK or Purchasing Director. He holds a Master Degree in Business Administration and a degree in Industrial Engineering.



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**Emil Johansson**

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Emil Johansson is the CEO and co-founder of the French-Swedish startup ADAXIS. ADAXIS is building software with the aim to revolutionize the manufacturing industry by making it effortless to use robotic arms as flexible 3D printers for plastics, composites, metals, and concrete parts. He has an extensive background working with additive manufacturing at RISE Research Institutes of Sweden. He has coordinated both national and international research projects with a main focus on development of new innovative 3D printing technologies. He holds an Engineer's degree in Chemical Engineering.



**Anne Keroue**

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AEROSPACE VALLEY Project Manager Jan. 2020 - Until now, Bordeaux Innovation projects management in Industry 5.0 WEISS TECHNIK Technical Expertise Manager and Supply Chain and Purchasing Manager Oct. 2016 - Jun. 2019, Bordeaux and Paris Management of a team of 6 experts in the service department Management of 3 storekeepers and 2 purchasing assistants Technical monitoring, cost and financial reporting for the department Suppliers' and subcontractors' management LINAMAR MONTUPET Project Leader and Quality Engineer Jan. 2014 - Aug. 2016, Northern Ireland Liaison with the customers on new products relating to drawings, specifications, requirements, planning and costs Root cause analysis and problem solving PFMEA, Control plan, Flow chart and work instructions Conduction of internal audits and involvement in the TS16949 audits MAX-BERGMANN ZENTRUM Biomaterials Research Assistant Aug. 2012 - Aug. 2013, Germany Biomimetic mineralization of gelatin by Electrophoresis for the fabrication of hydroxylapatite and calcium carbonate biomaterials. EDUCATION French-German Double Degree in Engineering - DRESDEN UNIVERSITY OF TECHNOLOGY, Germany - ARTS ET METIERS ParisTech, Metz and Paris



**Gala Maturana**

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Gala Maturana has 13 years of experience in Project Management and Business Development internationally in the Consulting and Engineering sector as well as vast experience dealing with public and private entities in developing countries such as: Uzbekistan, Georgia, India, Bangladesh, Sri Lanka, Cambodia, Lao PDR, Vietnam and The Philippines. She also has 10 years of experience in developing capacity building plans and delivering training courses for commercial teams. She has sound knowledge of working with international Financing Institution such as the Asian Development Bank, the World Bank, The European Commission and EIB. Moreover, she holds a certification of Professional Certified Professional Coach by the International Coaching Federation and has more than 7 years of experience coaching Senior managers in Corporate environments as well as in Start-Ups.



**Joseph McIntyre**

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Doctor in Neurosciences Computational (1990) by the Massachusetts Institute of Technology (MIT), BS in Engineering (1982) and Biology (1983) by the California Institute of Technology (Caltech). Dr.

McIntyre has authored or co-authored over 100 articles published in international journals that have attracted over 2500 citations. His work centers on the analysis of human sensorimotor skills and the transfer of bio-inspired control schemes to the robotics domain. He has been one of a handful of investigators to successfully use the weightless environment of orbital space flight to explore the workings of the human nervous system both to better understand the challenges faced by astronauts and to better understand normal and pathological multi-sensory processing on Earth. Prof. McIntyre has a solid background in engineering sciences (B.S. Caltech), Neurobiology (B.S. Caltech) and Computational Neuroscience (Ph.D. MIT). He prides himself as being an effective bridge for cross-disciplinary research between these domains. He has worked at the CNRS and the College de France, in Paris, and was named as “Ikerbasque Research Professor” in Spain. He currently acts as Director of the Medical Robotics group, Tecnalia Health Division.



### **Javier Mendibil**

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Javier Mendibil is a Senior Researcher in TECNALIA specialising in the areas of innovation and team management. He is Co-founder of the Team Academy Euskadi initiative for the design and development of training and development programmes for innovative leadership and entrepreneurship competences aimed at students, entrepreneurs and companies. He has experience in coordination of R&D&I projects at regional and European level; participation in networking, technology transfer and innovation culture projects aimed at groups of SMEs in collaboration with administrations and other agents. He has been also evaluator of innovation projects within the Euskadi+innova initiative of the SPRI, for the Department of Industry of the Basque Government. Since 2008 is coach of entrepreneurial teams in training programmes. Specialist in learning methodologies, team leadership, coaching and team facilitation and with extensive experience in the design of learning processes related to the start-up of new businesses and innovations. He has also experience in agile methodologies (lean management) for team and project management. He holds a degree in Industrial Engineering.



### **Antoni Pijoan**

EIT Manufacturing West, S.L.

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Bachelor Degree in Physics Science at the University of Barcelona (1994) and Industrial Engineer at the Polytechnic University of Catalonia/University of Aberdeen (1998). MBA (2008). After more than 20 years of international career developed in Spain, France, UK, Germany and USA working in consultancy and project management, Antoni joined EIT Manufacturing in 2019 as Interim Director of Business Creation and finally Director of CLC West. Previously he worked at Tecnalia and its LTP Tecnalia Ventures promoting, selecting (conducting due diligences) and mentoring new tech-based Business Opportunities, and leading technology transfer projects. He had participated in different governing bodies such as Nobatek (RTO in Southern France), EIT InnoEnergy and EIT Health.



## **Vasco Teles**

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Vasco Teles is a Senior Researcher and Consultant in Digital Strategy in INESC-TEC. He is also the EIT Manufacturing RIS Hub Leader in Portugal. His business and scientific experience evolved in the areas of strategy, digitalisation, roadmapping, technology exploitation, or public policy at national and European levels, where he developed many projects and was invited as expert to others in reference organisations. He holds a Ph.D in Engineering Design and Advanced Manufacturing and a Degree in Computing and Telecommunications.

# Registration fees

<b>FACE-TO-FACE</b>	<b>UNTIL 27-06-2022</b>
General	75,00 EUR
<a href="#">Reduced fee regular</a>	64,00 EUR
<a href="#">Registration exemptions</a>	53,00 EUR

## **Place**

### **Miramar Palace**

Pº de Miraconcha nº 48. Donostia / San Sebastián

Gipuzkoa