



# EIT Manufacturing Regional Innovation Scheme

Boosting innovation ecosystems across Europe



Co-funded by the  
European Union



## EIT Manufacturing - Making Innovation Happen!

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 more than 2,400 partners.

The EIT supports the development of dynamic, long-term thematic partnerships among companies, and research and higher education institutions, who form Knowledge and Innovation Communities (KIC) to face specific societal challenges.

Together with its leading partners across Europe, the EIT Community offers a wide range of innovation and entrepreneurship activities, including 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.

**EIT Manufacturing is a knowledge and innovation community within the European Institute of Innovation and Technology that connects leading manufacturing actors in Europe.**

**Fueled by a strong interdisciplinary and trusted community, EIT Manufacturing adds unique value to European manufacturing products, processes and services.**

What makes the EIT model unique:

- 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.
- Takes a business-oriented approach, with a strong focus on financial sustainability.
- Delivers a pan-European network strongly anchored in local innovation ecosystems.

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

Our vision is to become the leading European innovation community for manufacturing.

Our mission is to connect manufacturing players by promoting talent and entrepreneurship to accelerate sustainable innovation in Europe.



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# EIT Manufacturing RIS Activities

- |   |   |   |
|---|---|---|
| 2020  | 2021  | 2022  |
| <h3>2020-2021 Topics</h3> <ul style="list-style-type: none"> <li>▪ Collaborative robots</li> <li>▪ Additive manufacturing</li> <li>▪ Waste-free manufacturing</li> <li>▪ Teaching and Learning Factories</li> </ul> | <ul style="list-style-type: none"> <li>▪ Digital transformation</li> <li>▪ STEM (Science, Technology, Engineering, Mathematics)</li> <li>▪ Programmes to engage society and pupils</li> <li>▪ Industry 4.0</li> </ul> | <h3>2022 Topics</h3> <ul style="list-style-type: none"> <li>▪ Circular economy</li> <li>▪ Smart manufacturing ecosystems</li> <li>▪ Robotics and Artificial Intelligence (AI)</li> <li>▪ Green and digital twin transition</li> </ul> |

## What is the Regional Innovation Scheme (RIS)?

**Boosting innovation in RIS countries**

EIT Regional Innovation Scheme (RIS) enables the transfer of good practices and know-how using the EIT's unique approach to boosting innovation across the entire continent.

### EIT Regional Innovation Scheme

The EIT Regional Innovation Scheme was introduced in 2014 to advance the innovation performance of more countries and their regions across Europe, especially countries with moderate or modest innovation scores as defined by the European Innovation Scoreboard.

Since its establishment, the EIT RIS, which is steered by the EIT and implemented by its Knowledge and Innovation Communities, has led to a significant expansion of EIT Community activities, reaching more countries and regions across Europe and contributing to a pan-European spread of EIT Community engagement opportunities and networks.

### Eligible countries to take part in the EIT RIS (2021-2024):

**EU Member States:** Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Spain.

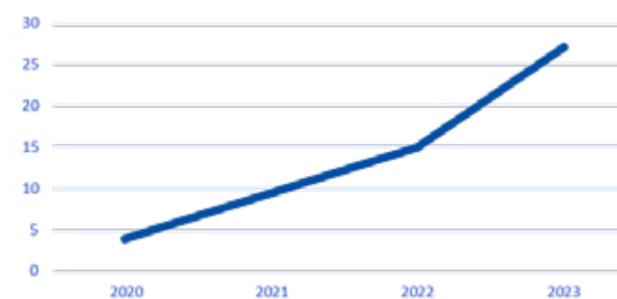
**Horizon Europe Associated Countries:** Montenegro, Republic of North Macedonia, Serbia, Türkiye, Ukraine.

**Outermost Regions:** Guadeloupe, French Guiana, Réunion, Martinique, Mayotte and Saint-Martin (France), the Azores and Madeira (Portugal), and the Canary Islands (Spain).

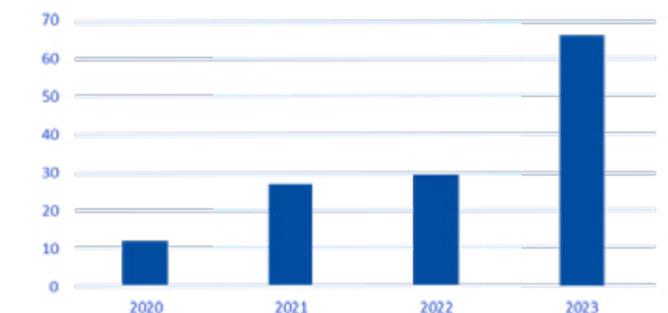
### EIT Manufacturing RIS 2020-2022 Highlights

|  |  |   |
|--|--|---|
| <h2>57</h2> <p>Teaching &amp; Learning Factories implemented engaging more than 1,600 participants</p> | <h2>23</h2> <p>Marketed innovations</p>                    | <h2>32</h2> <p>Startups created in RIS-eligible countries</p> |
| <h2>168</h2> <p>Supported startups/SMEs</p>  | <h2>&gt;75</h2> <p>Memorandums of Understanding signed</p> | <h2>20</h2> <p>Success stories</p>                            |
| <h2>&gt;13,800</h2> <p>Individuals, teachers and pupils engaged from 14 countries</p>                  |  |   |

Number of proposals for RIS activities



Number of organisations participating in RIS proposals





## EIT Manufacturing RIS Hubs

The main mission of the EIT Manufacturing RIS Hubs, established in 2020, is to act as a contact point for EIT Manufacturing in RIS-eligible countries in order to support local manufacturing innovators, mobilise and internationalise their networks and promote know-how transfer.

Another important goal is to increase the participation of local stakeholders in EIT Manufacturing activities by attracting new partners and increasing the awareness of EIT Manufacturing among business, industry, research and academia, which leads to the enhancement of capabilities, technologies and skills.



## Supporting startups and SMEs

Within the EIT Manufacturing Regional Innovation Scheme, a variety of programmes aimed at supporting SMEs are executed, either directly by the KIC itself or in collaboration with its partners. These programmes are aimed at bolstering local startups and SMEs, facilitating the acceleration of both green and digital transformations within the manufacturing sector across EIT RIS-eligible countries.

Projects operating within the RIS Business Creation segment play a pivotal role in enhancing the digital transformation capabilities of manufacturing SMEs located in RIS-eligible countries. Additionally, various activities provide essential support to manufacturing SMEs and startups during their digital transformation in the post-crisis transition period, fostering their engagement in networks for digitalised manufacturing as vital supply-chain partners. Furthermore, RIS projects make significant contributions to nurturing the growth of local ecosystems within the RIS-eligible countries.

### Results





## Supporting the development of new skills and training



The overall goal of this programme is to encourage young students in RIS-eligible countries to consider a career in manufacturing, aiming to ensure a well-qualified future workforce. The proportion of students opting to study STEM (Science, Technology, Engineering, Mathematics) and technical subjects is currently low, despite a substantial demand for engineers. Activities within this segment are tailored towards specific target demographics, such as young women, and are designed to address the unique requirements and challenges within the RIS-eligible countries.

These projects engage a considerable number of students and educators, allowing them to learn about robotics and digitalisation in manufacturing during ad-hoc workshops, seminars, and summer schools, with the help of Smart Manufacturing Demonstrators.

### Achievements

|  |  |   |
|--|--|---|
| 2020   | 2021   | 2022  |
| <b>&gt;1,000</b><br>Students and teachers involved from 12 different high schools in 5 RIS countries | <b>&gt;2,500</b><br>Students and teachers involved | <b>&gt;14,000</b><br>Students and teachers involved |

### Teaching and Learning Factories

Teaching and Learning Factories (TLFs) integrate practical experiences into academic and technical training. Teaching Factories support SMEs by exposing them to Industry 4.0 technologies and research methods. The interaction is a two-way process where factory practitioners teach students, and students and faculty educate practitioners.

This collaboration occurs online with regular sessions and ongoing engagement. Relevant technology providers can join **Teaching Factories** to provide potential solutions to corresponding challenges, which are addressed during these projects.

The concept of a **Learning Factory** involves establishing facilities within universities that mirror those found in manufacturing settings. Individuals from both academia and industry can engage in tailored courses aimed at integrating manufacturing trends, concepts, and knowledge into the academic sphere. Moreover, relevant technology providers have the opportunity to collaborate on Learning Factory projects, assisting in the development of cutting-edge Learning Factory facilities.

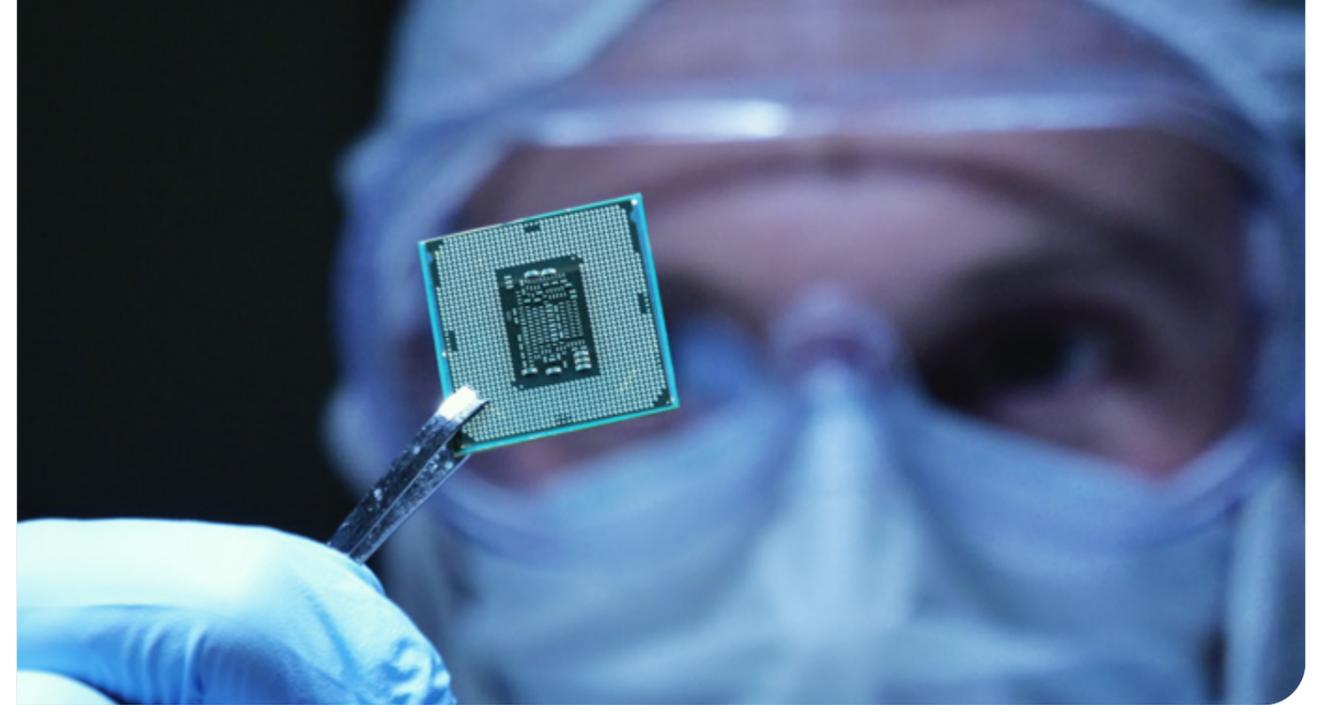
### Achievements

|   |   |   |
|---|---|---|
| 2020  | 2021  | 2022  |
| <b>&gt;100</b><br>Participants in (non-degree) education and training | <b>14</b><br>Teaching and Learning Factories implemented in EIT RIS countries | <b>&gt;100</b><br>EIT RIS participants in (non-degree) education and training |
|   | <b>13</b><br>Teaching and Learning Factories implemented                      | <b>&gt;500</b><br>Participants in (non-degree) education and training         |
|   | <b>30</b><br>Teaching and Learning Factory projects implemented               |   |

## Evolution of RIS Innovation

In the annual EVO-R RIS initiative, EIT Manufacturing attracts, selects, and supports teams/entities coming from EIT RIS-eligible countries in adopting solutions that have already been developed for European and global markets.

This initiative extends both financial assistance and in-kind support to the chosen teams. Selected applicants can benefit from up to € 30,000 in financial support. Participating teams receive personalised sessions with renowned experts, who provide insights and helpful tips on grant administration and business development.



## Achievements

2021

14

Market innovations

24

Supported startups

6

Startups created

2022

55

Supported startups

14

Startups created

*"The EVO-R programme has been an amazing opportunity, which not only helped us speed up our development time by at least six months, but also has been a lifeline in this very difficult stage for the company. Through the project, we have been able to refine our idea and plan the next stages of development."*

– **Marian Todorov**, Chief Operating Officer at TAMtech Aero and EVO-R participant in 2021

## Supporting innovative solutions

### Circular Economy

Circular economy projects within the Regional Innovation Scheme aim to develop smart technologies for green and circular manufacturing, as well as to accelerate the twin green-digital transition by eliminating design obstacles. These initiatives intend to facilitate the shift towards a circular economy in manufacturing within the EIT RIS-eligible countries. Key areas include achieving zero-defect manufacturing, zero-waste manufacturing, and virtualisation/dematerialisation. Activities in this segment also focus on the simplification of the design phase for parts to be processed using additive manufacturing techniques. The objectives of circular economy projects are to make the solutions socially and environmentally sustainable, while simultaneously reducing costs and generating value.

### Artificial Intelligence

The integration of Artificial Intelligence (AI) into the activities of the Regional Innovation Scheme presents a promising opportunity. This involves undertaking projects aimed at bolstering innovative solutions centred around AI within the manufacturing sector. The activities are designed to help stakeholders from EIT RIS-eligible countries enhance their innovation capabilities through the application of AI in key areas: forecasting the demand for products and pricing, predictive maintenance and product optimisation. Notably, particular emphasis is placed on AI applications encompassing quality control, management, monitoring, customer service, personalisation, and maintenance.



## Supporting RIS entrepreneurs

### EIT Jumpstarter

The EIT Jumpstarter stands as one of the most renowned European pre-accelerator programmes for individual entrepreneurs with an early-stage business idea. This initiative involves collaboration between EIT Manufacturing and other Knowledge and Innovation Communities. Throughout the programme, aspiring entrepreneurs receive valuable coaching and assistance in shaping their business ideas and pitching them effectively to potential customers or investors. Moreover, participants also compete for a cash prize.

### Achievements

2020 - 2022

**>100**  
Individuals trained from 15 RIS-eligible countries

**13**  
Startups created

**>30**  
Individuals financially supported

**9**  
Winners of monetary prizes

### LEADERS

LEADERS is a competition designed to support and highlight the best female innovators from EIT RIS-eligible countries who are playing a leading role in developing solutions that address manufacturing-related challenges, which have a strong financial, environmental or societal impact.

2021 - 2022

**60**  
Trained individuals from 19 RIS countries

**6**  
Winners of monetary prizes



## FOSTER – establishing relationships with authorities in RIS-eligible countries

The FOSTER activity is specifically designed to establish relationships with regional or national authorities from EIT RIS-eligible countries. The objective is to pave the way for developing fruitful collaborations between EIT Manufacturing and regional and national authorities, including exploring possibilities for attracting co-funding. FOSTER also aims to identify EU instruments that can benefit SMEs, startups and companies in RIS-eligible countries, and it aims to combine them with national financing schemes.

Since the deployment of FOSTER in 2021, several Memorandums of Understanding have been signed with, amongst others, the Deputy Prime Minister and Minister of Economy of the Republic of Slovakia, the Romanian Ministry of Research and Innovation, as well as Innovation Clusters from Slovakia. Meetings with ministers and high-level officials from several other RIS countries took place in order to discuss possibilities for collaboration. The first joint implementation of an activity between a Federal Ministry and EIT Manufacturing has already taken place.

The EIT Manufacturing RIS Team provides authorities with Best Practice Classes on Innovation Policy.

The Best Practice Classes on Innovation Policy provide tailor-made training for authorities to identify specific needs and bottlenecks in their region or country. Developed in close cooperation with the appropriate authorities, this training aims to support regional or national officials in better understanding obstacles and opportunities to creating effective innovation policies on European, national and regional levels.

Trainers from EIT RIS-eligible countries, as well as institutions such as the European Commission's Joint Research Centre (JRC), were invited to the first edition of the Best Practice Classes in 2021. They spoke about strategies to overcome challenges to innovation policies in their countries. They followed a holistic approach to the terms "innovation" and "innovation policy", and explored different angles for improving innovation policies, starting with strategies and methodologies on topics such as funding instruments, digitalisation and green technologies.



## EIT Jumpstarter winner triumphs at Manufacturing Days

ArcLub One, a former winner of the “Manufacturing” category of the EIT Jumpstarter, won the first place at the EIT Manufacturing BoostUp! RIS competition in the “Create” category during the Manufacturing Days 2021. The Slovenian startup’s unique system provides innovative and sustainable cooling and lubrication in CNC machines.



## Success Stories

The EIT Manufacturing Innovation Challenge, created and implemented by the EIT Manufacturing RIS Hub in Croatia, brought together big companies and small startup teams to create solutions for different challenges posed by industry. It fostered open innovation, knowledge transfer and new ideas.

The programme engaged four companies from four sectors (pharma, food, foundry, digital solutions) who were willing to present manufacturing challenges to the wider community and invite external innovators to propose solutions. During the programme, their representatives were in close contact with the startup teams and shared relevant know-how needed to complete the tasks. A total of 23 startup teams applied to the programme and 12 were selected to compete.

The Faculty of Mechanical Engineering of the University of Ljubljana, acting as the EIT Manufacturing RIS Hub Slovenia, organised the traditional Summer School of Mechanical Engineering for the seventh time in a row, which took place from 18 to 21 August 2020. The Summer School of Mechanical Engineering attracted 82 participants, from the sixth grade of primary school to the last years of secondary school (children from ages 11 to 18). The summer school promoted EIT Manufacturing activities and served nine different workshops, on energy, mechatronics, design, hydraulics, aviation, 3D printing, etc.

*“Podravka applied to the Innovation Challenge because we always aim to improve, innovate and attract young and modern talents who apply new ways of working and solving problems. We also wanted to get closer to academia and to use the resources we have here in Croatia to bring our manufacturing to a new level!”*

– **Manuel Brković**  
Supply Chain Director  
Podravka





## The EIT Manufacturing RIS Team



*"The green and digital transformation is a great opportunity for the EIT RIS area and for EIT Manufacturing! We are looking for projects focusing on this transition – drawing on the talents and businesses in EIT RIS-eligible countries, and bringing together the competencies of the most innovative organisations in the EIT RIS area. We aspire to have "innovation champions" coming out of these projects.*

*These organisations will in turn become role models for even more innovators from the RIS-eligible countries, and eventually enhance innovation capacity on a wider scale."*

**Konstantinos Georgoulas**  
Director of EU Affairs and RIS  
EIT Manufacturing

# Making innovation happen!

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EIT Manufacturing is an innovation community within the European Institute of Innovation and Technology – that connects the leading manufacturing actors in Europe.

Fueled by a strong interdisciplinary and trusted community, we add unique value to European products, processes, services – and inspire the creation of globally competitive and sustainable manufacturing.

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