



# Call for Proposals for Activities to be executed in 2023

# Guidelines for the Call Version 1.2

EIT Manufacturing

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**Note:** These Guidelines are based on the current set of requirements by EIT. They are subject to change when new requirements are defined or existing requirements are changed.

#### Version History:

	History of changes						
Version	Publication date	Change	Page				
1.0	09.02.2022	Initial published version					
1.1	23.02.2022	Definition for 'contracted young companies' included under section 4.2	7				
		Amendment of Table 1: Open call timeline					
		Amendment of section 3.1 1st stage submission					
		Adding section 5.1 'Legal and financial provisions'	9				
		Correction of inconsistency under section 6.3.3. ('Please note: for Education proposals, the fields that should be fulfilled and submitted during the first stage are')	24				
		Replacement of the initially referenced Call Thematic by the Call Thematic: "Smart technologies for circular and green manufacturing"under section 6.4.2.5	44				
		Update in the definition of Activity Partner under section 6.11 Glossary	57				
1.2	11.03.2022	Correction of the definition for 'Activity Partner' included under section 4.2	7				
		Update in the definition of Activity Partner under section 6.11 Glossary	57				

# 1 Foreword

EIT Manufacturing will put Europe at the centre of a global revolution and boost manufacturing innovation in Europe by connecting people with skills, technologies with markets, and innovators with investors. Technological progress is now exponential, and it is changing the industrial, social and competitive landscape faster than ever before. Our aim is not only to adapt to this revolution, but to lead it. To do so, we need to overcome value network fragmentation and bring stakeholders together. We need to make better use of our knowledge and our strengths to create value and deploy agile mechanisms to accelerate and steer innovation, shaping the future role of manufacturing in our society.

With the needs, concerns and ideas of economy and society at its core, the mission of EIT Manufacturing is to empower its partners and stakeholders to fundamentally transform the manufacturing system and meet the global demands of present and future generations. In 2021, EIT Manufacturing has successfully concluded its second operational year; its first year under the Horizon Europe programme. In 2022, EIT Manufacturing will be launching its third Call for Proposals (for Activities to be executed starting in 2023) always keeping in mind and building upon the experiences and lessons learnt from previous years. Our goal is to drive the community one step further in the achievement of its long-term goals.

Activities of EIT Manufacturing are aimed towards achieving the strategic objectives of the KIC. The programmes are the instruments to implement the activities of EIT Manufacturing.

Proposals addressing the Call 2023 will be solicited through an open and transparent call process open to all Partners of EIT Manufacturing, i.e. Members and their Linked Third Parties, Activity Partners, but also open to non-Partner (external) organizations, including SMEs and Start-ups, that can bring added-value to them. This document describes the goals and the process of the call, as well as an outline of how an ambitious, convincing and integrated portfolio of Activities will be selected. **The chosen Activities will start in 2023**.

# 2 Principles and Call Thematics

This call requests proposals for activities in the Areas of:

- Innovation
- Education
- Regional Innovation Scheme (RIS)

All proposals should align with EIT Manufacturing's overall vision, mission, and set of KPIs.

Proposals should clearly define targets for added value, business impact or societal impact.

EIT Manufacturing used in its previous Calls for Proposals the below listed defined Flagships to guide the efforts towards high potential innovation, education and entrepreneurship:

- Human-machine co-working for socially sustainable manufacturing
- Flexible production systems for competitive manufacturing
- Low environmental footprint systems & circular economy for Green manufacturing
- Digital & collaborative solutions for innovative manufacturing ecosystems

This year, as a result of Shapeit, our stakeholder consultation process, specific Call Thematics have been identified, serving as priorities and focus areas for our Flagships. The 2023 Call Thematics represent a renewed point of view of the flagships. An opportunity to involve cutting edge startups in our projects, a technical focus to develop learning paths and a guide for innovative activities.Detailed explanation of the 2023 Call Thematics are provided in section 6.1 below.

In order to ensure alignment of proposals with EIT Manufacturing Strategic objectives, the following 2023 Call Thematics have been defined, further illustrated in Figure 1:

- Automation for human-centered factories
- Collaborative robots and solutions for flexible manufacturing
- Smart technologies for circular and green manufacturing
- AI and digital twins for manufacturing systems

\_. Innovation ---Automation for **Collaborative robots** and solutions for human-centered flexible manufacturing factories Flexible Humanmachine production co-working system Education Shapeit RIS **Digital &** Low collaborative environmental solutions footprint Smart Al and digital technologies for twins for circular and green manufacturing manufacturing systems **Business** Creation

Figure 1. Flagships and corresponding 2023 Call Thematics of EIT Manufacturing

Proposals should contribute to at least one of EIT Manufacturing's 2023 Call Thematics.

Each Activity of EIT Manufacturing should be executed by an **entrepreneurial team** consisting of Partners of EIT Manufacturing, i.e. Members and their Linked Third Parties and Activity Partners. **Non-Partner organisations** can also participate and will be assigned the Activity Partner status (see glossary) if the activity proposal they aim to participate in is selected for funding.

Teams can also include Linked Third Parties (LTPs) of member organisations (e.g. daughter companies).

The entrepreneurial teams should represent, at least two different Co-Location Centres (CLCs), preferably combining education, business, and R&D background, ensuring integration of the Knowledge Triangle. Consortia shall take careful consideration when forming teams with regards to the number of participating organisations and the additional coordination complexity the larger a consortium is. A well defined rationale is required to balance out between partners' competences and coordination especially for the anticipated project duration.

The total maximum EIT funding per year in the Call 2023 for **all organizations participating in the Call** (i.e. EIT Manufacturing Member, including its Linked Third Parties (LTPs), Activity Partner, non-Partner organization) is € 1,500,000.

At most, the following number of LTPs of a Member may receive funding:

- Members being large enterprises, research institutes and universities: 5
- Members being mid-sized companies: 2

Please take this into account when creating the proposals.

Non-Partner organisations can also be included in teams by **sub-contracting** (using best-value-formoney selection processes according to EIT procurement policy). Please be aware that sub-contractors need to be selected via a documented procurement process that strictly applies best-value-for-money principles. Involving SMEs or start-ups is particularly relevant for Innovation Activities.

The **duration of Activities** should be planned for one to two years (depending on the Area and Segment selected – for details, see the descriptions in section 6). One to two stage-gate reviews will be performed by EIT Manufacturing in order to thoroughly monitor and assess the progress and performance of the Activities. Activities which are underperforming during their planned duration may be subject to rescoping or discontinuation.

Tangible outputs are expected to be achieved already in the first year, such as contribution to KPIs, proven and substantiated go-to-market results, financial sustainability etc.

**Organisations that are not yet partners of EIT Manufacturing** can express their interest to participate in proposals by registering ->here. When the registration is approved by EIT Manufacturing, the organisation can be selected in the proposal form, and also budget can be defined for them. In case a proposal is accepted, all external organisations involved will become Activity Partners (see Glossary).

One organisation participating in the activity proposal consortium must take the lead partner role, acting as **Activity Leader** of the overall Activity. The Activity Leader is responsible for deliverables and impact of the overall Activity.

At least one of the consortium partners shall be the **Business Owner** expected to exploit the tangible and non tangible (in the case of software, IP, knowledge etc) outcome of the activity. Each Activity can have several Business Owners. Consortium partners will have to agree who will have this role based on the anticipated exploitation approach.

In Innovation activities, the Business Owner is the organisation that launches to the market and commercializes, i.e. brings proof of traction from potential customers, packages the output of the activity ("product owner"), and brings it to the market, either as part of the activity or shortly thereafter. Examples of organisations that can take this role include: a technology integrator, a service provider, an SME, a spin-off startup that will be created as an outcome of the Activity, or a business line/unit of a corporation taking part of the activity consortium.

In Education activities, the Business Owner is the organization that knows the unmet needs of the target groups (i.e., students, professionals, executives); that takes the lead and represents the consortium in bringing the education products and services to the learners and to the customers. For Education proposals, the Business Owner could be any type of organization delivering education and training.

The Business Owner would typically also be responsible for, or at least representing the consortium with reference to, the activity's contribution to the financial sustainability of EIT Manufacturing, if offered as part of the activity proposal.

Final grant recipients must comply with the Intellectual Propoerty Right (IPR) rules as per the Model Grant Agreement (MGA) Article 16 and the communication, dissemination and visibility rules in line with Article 17 of the MGA.

To follow the impact of the Activities' outputs' selected for funding, formal ex-post impact assessment is to be carried out within at least five years after the end of the implementation of the Activities

# 3 Proposal Structure and Submission Procedure

The Call will be executed in two stages: a <u>1<sup>st</sup> stage submission</u> (deadline **23:59 CET**, **11 March**, **2022**) and a <u>2<sup>nd</sup> stage submission</sub> (deadline **23:59 CET**, **29 April**, **2022**).</u>

### Note: Proposals not submitted for the 1<sup>st</sup> stage cannot be accepted for the 2<sup>nd</sup> stage.

Information submitted in the 1<sup>st</sup> stage may be edited for the final submission. Note that the overview budget as submitted in Tab 3 of the proposal template shall be non-editable during the 2<sup>nd</sup> stage, but retained for reference only. Instead, the final Activity Budget needs to be specified in Tab 5 of the proposal template.

An Activity proposal should have:

- a definition of the added value and business/societal impact traced with KPIs, e.g. creating a new Start-up, launching innovation on the market, etc (see Annex, sections 6.9 and 6.10 for the list of KPIs);
- one or more clearly defined deliverables;
- a strong partner commitment and a European dimension involving multiple partners from at least 2 CLCs
- a communication and dissemination plan on how to communicate the results of the Activity proposal, following EIT co-branding guidelines.

Prior to applying to the call, activity proposals should:

- ensure that they fulfill the eligibility criteria for this open call (see section 4.2);
- clearly and carefully define the acute and real manufacturing problems that need to be solved and how they will address them;
- ensure that at least one business owner is part of the consortium and will drive the proposed activity for go-to-market, commercialization plan and business plan;
- propose a pathway on how to contribute to the financial sustainability of EIT Manufacturing if it is successful on the market;
- carefully address EIT performance KPIs;
- consider and address gender balance and diversity, knowledge triangle integration as well as social and environmental sustainability;
- clearly specify which actions are taken to achieve knowledge triangle integration, gender balance and diversity and sustainability to be in line with the European Union's objectives;
- if applicable, lead to clear outputs and commercial exploitation: new marketed products/services/ processes, or startups creation, within 1-2 years after project completion;
- have a clear commercialization strategy of the project outputs, indicating close cooperation with the customers/citizens, potential financial returns from the project and potential contribution of the project towards achieving the KIC's financial sustainability;
- have sufficient genericity to be scalable in the future;
- clearly state the knowledge and technologies the solution builds on and that the activity will further develop and improve.

The inclusion of partners solely for dissemination or project management purposes should only be done exceptionally and if justified by unique elements brought by the partner in those domains.

The involvement of EIT Manufacturing partners or external organisations from RIS countries is not a prerequisite but will be positively considered. RIS beneficiaries are supported to establish a long-term engagement with the partnership and to link the local ecosystem to pan-European Innovation. The EIT RIS eligible countries are described **here**.

# 3.1 1<sup>st</sup> stage submission

Proposals have to be submitted through the online submission tool available at EIT Manufacturing's Intranet, which will be available starting from **9<sup>th</sup> February 2022**. To access the submission system, applicants should log in to (or register at) the EIT Manufacturing Intranet at http://plaza.eitmanufacturing.eu/. The "Call for Proposals 2023 – Submission System" from "Call for

Proposals" at the top menu bar should be selected, or a click on the respective button in the dashboard. When filling out the template, applicants should refer to the help information provided in the template next to each field.

Not all information required for the 2<sup>nd</sup> stage is required for the 1<sup>st</sup> stage. For the 1<sup>st</sup> stage, concise project sketches are expected. Regarding <u>1<sup>st</sup> stage submission, specific requirements in each Pillar's separate chapter in section 6 are described</u> in more details.

The composition of the applying Consortia does not have to be finalised at the 1<sup>st</sup> stage submission, partnership can be modified and organisations can be added in the 2<sup>nd</sup> stage before submitting the full proposals.

The 1<sup>st</sup> stage proposals can be submitted when all Tabs of the submission form in compliance with the pillar-specific requirements are filled and the click on "Check and Save" in the respective tabs was successful.

#### Please note:

! Applicants may receive feedback and recommendations regarding the related formal aspects, strategic fit, and not comments related to the content of the proposal. The feedback is expected to be provided by 28<sup>th</sup> March 2022.

! English is the official language for this Open Call. Submissions done in any other language will not be evaluated. English is also the only official language during the whole execution of EIT Manufacturing activities. This means any requested submission of deliverable or KPI will be done in English in order to be eligible.

# 3.2 2<sup>nd</sup> stage submission

The 2<sup>nd</sup> stage of the call will open on 14<sup>th</sup> March when the full proposal should be prepared and submitted until 29<sup>th</sup> April, 23.59 CET. Proposals sent after 29<sup>th</sup> April will not be accepted.

For the 2<sup>nd</sup> stage submission, the following key points are expected:

- All the information requested on the tabs that is not already provided in the 1<sup>st</sup> stage. There
  will also be the possibility to modify and improve the information provided in the 1<sup>st</sup> stage
  version in the submission template.
- Please note that the selected 2023 Call Thematic that the activity addresses should not change in this stage.

# 4 Proposal Submission and Selection

# 4.1 Open call publication and timeline

The Open Call will be launched on 9<sup>th</sup> of February 2022, following the two processes that have been summarized in Section 3. After receiving the submitted proposals of the 1<sup>st</sup> stage (deadline: 11<sup>th</sup> March 2022), feedback to the Applicants may be provided, if needed, by 28<sup>th</sup> March 2022. The full proposal is expected to be submitted by 29<sup>th</sup> April 2022. After this date, proposals will not be accepted.

The full compliance with the set eligibility criteria and pillar-specific mandatory requirements may be already ensured in the 1st stage and must be ensured in the 2nd stage submission at the latest. If full compliance has not been reached in the 1st stage, Applicants may be notified in the feedback provided. However, it is the sole responsibility of the Applicant to remove or address potential non-compliance issues before submitting the full proposal - even if no feedback was received - in the 2nd stage. Otherwise, the proposal will be rejected after the closure of the 2nd stage.

! Proposals not submitted before the specified deadline in accordance with the above procedure will not be regarded as having been received by EIT Manufacturing. Applicants who failed to submit a proposal, and who believe that such a failure was due to a fault in the submission system, may send a

complaint by email at: CfPSupport@eitmanufacturing.eu\_within 3 working days after call closure explaining the circumstances of their case and attaching a copy of all parts of the proposal.

The final proposals will be evaluated by independent external expert reviewers. By **11<sup>th</sup> July** all applicants will be informed whether their proposal was shortlisted and will receive feedback from the evaluation process.

Please note: there will be no possibility of reworking the final proposal. All shortcomings identified by the reviewers will reflect into the evaluation and ranking of the proposal without any possibility for improvements.

The open call timeline is summarized in the following table.

9 February 2022	1 <sup>st</sup> stage opening
11 March 2022 23:59 CEST	1 <sup>st</sup> stage closed
28 March 2022	Possible feedback from Pillar Directors
14 March 2022	2 <sup>nd</sup> stage opening
29 April 2022 23:59 CEST	Submission deadline for full proposals (2 <sup>nd</sup> stage closed)
27 May 2022	External expert review completed
17 June 2022	External expert consensus meetings completed
24 June 2022	MT decision on proposals to be potentially included in Business Plan
1 July 2022	Notification to applicants about the final selection results
11 July 2022	Final feedback with evaluation comments for all submitted proposals, as well as revision requests for all succesful proposals, available (MT decision result, review comments, correction requests)
15 August 2022	Proposals to be updated to include MT review comments and revision requests
30 September 2022	Submission of Draft Business Plan 2023-2025 to the EIT
1st January 2023	Selected activity proposals are starting

#### Table 1: Open call timeline

# 4.2 Eligibility criteria

As described in section 3, there are several criteria that the activity proposals should comply with for the stage 2 submission. Along with the information provided in section 3 above, the list of eligibility criteria, applicable to all proposals, includes:

- **Call Thematic selection:** A proposal must contribute to at least one of EIT Manufacturing's 2023 Call Thematics.
- Partnership composition: At least 50% of the participants should be EIT Manufacturing Partners (Members, LTPs, Activity Partners<sup>1</sup>, contracted young companies<sup>2</sup> by the date of the closing of the Call, I.e 29 April 2022).
- Eligible participants: From EU Member States or Horizon Europe (HE) Associated Country.
- Consortium composition: Partners should come from at least 2 CLCs

<sup>1</sup> This includes those entities who participated as Activity Partners in EITM projects during the operational years 2020, 2021, and/or 2022.

<sup>2</sup> A contracted young company is any company (start-up, scale-up, SME) who is under support contract with EITM BC-pillar on April 29th, have been under support contract in the 5 months preceding April 29th or any company where EITM or Manufacturing SASU own any share related securities (shares, warrants, options, or convertible loans). • **Proposal project duration**: The proposal has a duration of 1 or 2 years.

! Please note that in addition to the above-listed eligibility criteria, further mandatory requirements have been defined at Pillar/Segment level in section 6 below.

# 4.3 Eligible costs

Details to the individual cost types can be found directly in the system via the help which is available for every data field. For detailed description of eligible costs, please consult with Article 6 of the Annotated Model Grant Agreement, available on the **website** of EIT Manufacturing. The list of cost types follows.

- Personnel cost
- Subcontracting
- Travel
- Depreciation
- Other goods, works and services
- Internally invoiced goods and services
- Financial support to third parties (incl. prizes). For detailed description, please consult with Article 6.2 Financial support to third parties of the Annotated Model Grant Agreement.

# 5 Review Process, Evaluation criteria and Scoring

All submitted proposals will be treated **equally** and 4-5 independent experts are expected to evaluate them **fairly and impartially** on their merits, irrespective of their origin or the identity of the applicants. The judgment statements will be against the official evaluation criteria and the call or topic the proposal addressed and nothing else. The independent experts are expected to treat the evaluation process with **confidentiality**.

The activity proposals should adhere to the Call Guidelines.

For the 1<sup>st</sup> stage, feedback may be provided as described in Section 3.1. No proposals at this stage will be rejected. Feedback and recommendations provided for the proposals concern mainly the formal aspects and strategic fit and not the proposal content. However, Applicants are responsible for the fulfillment of all requirements.

For the 2<sup>nd</sup> stage, the review of the activity proposals will be conducted by a panel of independent external experts selected by EIT Manufacturing. They will mainly assess:

- Technical content, excellence and relevance of the proposals;
- Go-to-market strategy and convincing value proposition;
- Credibility and consistency of the financial forecast
- The setup of the consortium to fulfill the task;
- The time plan including the deliverables;
- Financial contribution to EIT Manufacturing;
- Resources and costs.

The <u>evaluation criteria</u> and the subsections that will be considered in each evaluation criterion are summarized as follows:

#### Excellence and Strategic Fit:

- Strategic Objectives and Flagships/2023 Call Thematics
- EIT Manufacturing portfolio Strategic Fit
- Knowledge Triangle Integration aspect
- EU dimension: pan-European character and geographical diversity
- Evaluating the gender balance, and diversity of the proposal

#### Impact:

- High innovation potential
- Competitive advantage
- Business model and exploitation
- Commercialisation strategy
- Market Evaluation
- Go-to-Market strategy
- Credibility of financial sustainability contribution
- Ambition and credibility of the KPI defined targets

#### Quality and efficiency of Implementation:

- Technical Evaluation
- Consortium and general risk aspects
- Resources, planning and budget

Independent experts score each award **criterion and sub-criteria** on a scale from 0 to 5 (half point scores may be given):

- 0 Proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.
- 1 Poor. The criterion is inadequately addressed or there are serious inherent weaknesses.
- 2 Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.
- 3 Good. The proposal addresses the criterion well, but a number of shortcomings are present.
- 4 Very good. The proposal addresses the criterion very well, but a small number of shortcomings are present.
- 5 Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

The average value of the sub-criteria scores gives the final criterion score (rounded value according to the scoring rule described above). The thresholds and weights for the selected criteria are summarized in the tables included under each Area separately.

For innovation activities, please refer to the scoring table on page 15

For education activities, please refer to the scoring table on page 23

For RIS activities, please refer to the scoring table on page 47.

The results of the independent expert review will be guiding the Management Team of EIT Manufacturing when making the decision on which activity proposals will be finally selected. The selected proposals shall form a well-balanced and ambitious portfolio matching expected available budget and strategic expectations of the EIT Manufacturing management. Proposers will be informed of the outcome in the feedback tab on Plaza (Tab 6) of the proposal.

# 5.1 Legal and financial provisions

In accordance with Article 30 of the Horizon Europe Regulation, an applicant may request an evaluation review if it considers that the applicable evaluation procedure has not been correctly applied to its proposal.

Only the procedural aspects of an evaluation may be the subject of a request for an evaluation review. The evaluation of the merits of a proposal shall not be the subject of an evaluation review. Applicants must base their complaint on the information included in the letter addressed to them stating the grounds on which the decision was taken, possibly with reference to the conditions and criteria laid down in the present Call for Proposals.

A request for redress, from the Applicant may be submitted to office@eitmanufacturing.eu and copied (CC) to the respective pillar mailbox indicated in paragraph 6.5 within 30 days of the date on which EIT Manufacturing informs the Applicant of the evaluation results.

To be admissible, a complaint must:

- relate to a specific proposal;
- be received within 30 days after the communication of evaluation results;
- be submitted in writing;
- be the submitted by the Activity Leader of the original proposal.

For further information, please consult with the 'PROPOSAL EVALUATION AND REDRESS POLICY' available on the website of EIT Manufacturing.

# 6 Annex

# 6.1 Call Thematics

In the previous calls EIT Manufacturing used the flagships to guide our efforts in Innovation, Education, and Business Creation towards high potential innovation and entrepreneurship.

This year, a stakeholder consultation process, called Shapeit, was initiated for the first time to ask the manufacturing community (members and non-members of EIT Manufacturing) to generate call thematics, evaluate them quantitatively and select them through social voting. All the Call Thematics were also mapped against EIT Manufacturing's strategic objectives to ensure even coverage of these.

The final selection of the Call Thematics for 2023 is:

- Automation for human-centered factories
- Collaborative robots and solutions for flexible manufacturing
- Smart technologies for circular and green manufacturing
- Al and digital twins for manufacturing systems

They represent a renewed point of view of the flagships. An opportunity to involve cutting edge startups in our projects, a technical focus to develop learning paths and a guide for innovative activities.

# 6.1.1 Thematic #1 - Automation for human-centered factories

Automation systems are being designed and developed so that they can recognise the users, remember their capabilities, skills and preferences, and adapt accordingly. **Humans** and **machines** are therefore, taking advantage of each other's strengths, **having a symbiotic relationship for enhancing the capabilities, skills and quality of their work**. The result is more flexible, inclusive and safe workplaces, as well as better working conditions and increased productivity and improved quality. But, above all, this means increased worker satisfaction and well-being, more empowered and engaged workers and increased interest towards factory work as a career, attracting young talented people.<sup>3</sup>

Human centred factories deals with 5 types of operators<sup>1</sup>:

- Augmented and virtual operator
- Social and collaborative operator
- Super strong operator
- One-of-a-kind operator
- Healthy and motivated operator

# 6.1.2 Thematic #2- Collaborative robots and solutions for flexible manufacturing

Proposals under this thematic should foster a more **adaptable factory** where the introduction of new products increases **flexibility**, reduces the cost to **reconfigure the shopfloor** and enable seamless **cooperation of robots with machinery and operators**.

The proposed solutions should increase the global competitiveness of manufacturing companies and have the potentiality to be a catalyst for the implementation of remanufacturing strategies. Example of technologies that can address the challenges under this thematic:

- Cooperating robots
- Cognitive machinery
- Sensors and flexible tool
- Advanced material processing

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<sup>3</sup> http://www.ace-factories.eu/wp-content/uploads/ACE-Factories-White-Paper.pdf

# 6.1.3 Thematic #3- Smart technologies for circular and green manufacturing

Goal is to provide and to adapt innovative tools, manufacturing processes or sustainable materials to enhance the transition towards decarbonisation and/or a circular approach for manufacturing industires in compliance with the Green Deal strategy. This thematic is in line with the European initiatives "Green Deal" and "Fit for 55". The European Green Deal is a set of policy initiatives by the European Commission with the overarching aim of making the European Union climate neutral in 2050. Fit for 55 is the plan to reduce greenhouse gas emissions by 55% by 2030.

Beside the importance of the topic itself, the development of a circular business model will be a critical aspect in Thematic 3.

# 6.1.4 Thematic #4 - AI and digital twins for manufacturing systems

In this thematic we want to transform the manufacturing industry through **advanced analytics tools** for processing the vast amounts of manufacturing data generated. At the same time, we are looking for virtual representation of a physical object or line (digital twin) that can leverage AI to improve and support i.e. decision-making, predective maintenance or supervision of a process.

Examples of use cases are:

- Equipment maintenance
- Product design
- Dynamic production planning and control
- Inline quality check
- Machine tending/supervising

# 6.2 Innovation Activities

Innovation is production or adoption, assimilation and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services and markets; development of new methods of production; establishment of new management systems. It is both a process and an outcome.

The EIT Manufacturing community is looking for Innovation Activities based on a feasible and proven technology, that can provide a desirable new solution (product/service/process) to address users' needs and will lead to a viable business in the next 1-2 years; the focus is on breakthrough innovation (radical, disruptive or transformative) that has reached sufficient maturity and needs an extra push for the business to become reality. Proposers should focus on products and services with real economic, environmental, and societal impacts. All activities in EIT Manufacturing are expected to be carried out with an open innovation mindset

### Innovation CfP 2023 key information and Call Thematics

The proposal shall be aligned with at least one of the 4 Call Thematics:

- 1. Automation for human-centered factories
- 2. Collaborative robots and solutions for flexible manufacturing
- 3. Smart technologies for circular and green manufacturing
- 4. Al and digital twins for manufacturing systems

For a detailed description of the thematic, please refer to section 6.1.

**Eligibility criteria**: The guidelines described in section 4.2 are applicable. Additionally, innovation specific mandatory requirements are described in Section 6.2.1 below.

**Review Process, Evaluation Criteria and Scoring**: The guidelines described in section 5 are applicable Additionally, the innovation specific evaluation criteria are described in section 6.2.2

#### 6.2.1 Innovation specific mandarory requirements

**Eligibility criteria and innovation specific mandatory requirements will be checked at the time of 2<sup>nd</sup> stage proposal submission**. In line with Horizon Europe rules, proposals that do not meet all the eligibility criteria and the innovation specific mandatory requirements at the time of 2<sup>nd</sup> stage proposal submission will be deemed ineligible and will not be evaluated.

**!** The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the following mandatory requirements apply to Innovation proposals:

- Maximum proposal budget 1.3 M€ (1 year KAVA) or 2 M€ (2 years KAVA)
- Minimum 30% of the total KAVA budget has to be co-funded. In case of 2 years KAVA, the 30% co-funding ratio must be respected for each year.
- Consortium should include at least a technology provider / system integrator and two application end users
- Consortium should have at least one identified business owner with at least 2 identified and described use cases to prove the solution has sufficient genericity to be scalable in the future
- The starting point for the innovation activity proposal should be a technology at TRL 6 or higher. (Technology demonstrated in industrially relevant environment) (Consortium should provide a short description and justification on TRL level. Please refer to 5.2.9 for a more precise definition of Technology Readiness Level)
- Reach at least TRL = 8 (system complete and qualified) for the proposed innovation at the end of the KAVA.
- At least MRL = 4 (small scale stakeholder campaign) (Consortium should provide a short description and justification on MRL level. Please refer to section 6.2.7 for a more precise definition of Market Readiness Level)
- At least reach MRL = 6 (proof of traction) for the proposed innovation at the end of the project.
- Communication & Dissemination plan in place. DELIVERABLE expect date: before end of M6
- Business plan in place. DELIVERABLE expect date: before end of M6
- Financial sustainability agreement in place. DELIVERABLE expect date: before end of M12
- Commercialisation strategy & plan in place. DELIVERABLE expect date: before end of M12
- Marketing video in place. OUTPUT expect date: before end of the KAVA.
- Innovation Tested. KPI expect date: before end of M6.
- Innovation launched on the market or Start-ups created. KPI expected date: before end of the project.
- Innovation Activity Declaration uploaded (declaration annex available in PLAZA, 2023 Call for Proposals)

#### 6.2.2 Innovation specific evaluation criteria

The criteria of evaluation are excellence and strategic fit, impact, and implementation. Excellence and strategic fit consist of a general evaluation of the project including gender, diversity, knowledge triangle integration and alignment with EIT Strategic Agenda and Objectives. The Impact criteria focuses on market analysis, business model and exploitation, considering also the the consistency with EIT Financial Sustainability requirements. The Implementation criteria focusses on technical evaluation, budget and resource planning aspects of the project.

Overall, an Innovation project must present 1) high innovation potential, 2) proven market projection and 3) clear competetive advantage.

! The EIT Manufacturing general guidelines (section 5) should be respected. In addition, the guidelines below should also be followed.

- Excellence and strategic fit:
  - Provide a description of the team proposed for the project (with **roles**, **responsibilities** and **gender**). The diversity and the gender balancing of the consortium should be in line with EU objectivies. Provide a description of the achivement of the **business owner** (e.g. product commercialized during the last 3 years) and highlight if a start-up or an SME is part of the consortium or if a start-up is going to be created. The involvement of startups and entrepreneurs in the project is highly recommended, with special focus in startups of the portfolio of EIT Manufacturing. for more information, reach the BC Manager of your region.
  - Describe the innovativeness of the solution, specifying the innovation potential and the excellence of the idea behind the project.
  - Describe how the project supports EIT Manufacturing vision for the future of Manufacturing in Europe 2030 (refer to "Fixing our Future" paper available in the information section of the call)

In addition, to promote the integration of **education aspect**, it will be evaluated positively if the consortium is able to:

- Define one or more MSc thesis topics aligned with the activity workplan and scope to be delivered by the EITM Master School students during the activity at the premises of a company and for the duration of 30 ECTS (1ECTS=25 hours inside the company and for the thesis elaboration). An agreement with the EITM Master School, the student university and the student will be signed. If the EITM Master School students are not available, the partner can host either students from the universities of the partnership or from the EITM university partners. The host partner should estimate a cost of 10.000€ for 0.5 FTE.
- Host one or more Doctoral School PhD students at company premises for a minimum of 15 ECTS (1ECTS=25 hours inside the company and for the thesis elaboration) to work on research thesis topics aligned with the activity workplan and scope. An agreement with the EITM Doctoral School, the student university and the student will be signed. If the EITM Doctoral School students are not available, the consortium can host either students from the universities of the partnership or from the EITM university partners. The host partner should estimate a cost of 5.000€ for 0.25 FTE.
- Create at least 1 learning path following the learning content guidelines in annex A Education Pillar Basic Concepts and Glossary

#### Impact:

- Indicate the manufacturing problem addressed by the consortium and describe how the innovation developed will solve it.
- Idenfity positive impacts on society, inclusivity and innovation ecosystems.
- Describe the direct and indirect environmental impact of the innovation developed by the consortium. Consider all potential impact, not only in the use cases identified but in the entiry value chain.
- Describe the **revenue projection over the 5 years after the end of** project and the project **contribution to EIT Manufacturing Financial Sustainability**. This aspect will be evaluted with a business oriented and ROI approach. Also clearly mention the market assumptions that will be tested during the project and how market traction will be achieved.

- In addition, to promote **RIS** aspect (to have a full definition of RIS please have a look at Annex 6.4), will be evaluated positively the consortium able to:
  - Involve of RIS partners.
  - Implement the solution in RIS countries.

#### Implementation:

- Prove technical maturity of the solution, both from a TRL and MRL point of view.
- Describe the workplan, the main milestones and the correspondent budget allocated to achieve them.
- Identify and describe **key technical risks** (e.g. low integration of some components, intellectual property issues, etc.) and related risk management (Risk Likelihood, Risk Impact and Risk Mitigation)

The evaluation of the activity proposals will be conducted by external independent technical experts and business evaluators considering the evaluation criteria for the innovation activities, as described in section 5. In addition to the general evaulation criteria, proposals should ensure addressing the aspects described above. The average value of the sub-criteria scores gives the final criterion score (rounded value according to the scoring rule described above).

The thresholds and weights for the selected criteria are summarized in the following table.

	Score scale	Threshold	Weight
Excellence and Strategic fit	0-5	3	20
Implementation	0-5	3	30
Impact	0-5	3.5	50

Table 2: Evaluation score table for Innovation proposals

# 6.2.3 Duration and Funding

The following limitations in terms of duration and funding are considered as mandatory requirement (see section 2) while the consistency of duration and budget allocated in relation to the workplan will be evaluated into the implementation dimension (see above)

- Duration: 12 or 24 months
- Project Budget: 1.3 M€ (12 months) or 2 M€ (24 months)

Unlike previous call, it will be not necessary to submit the proposal for a second year in case of 24 months project application. Nevertheless, in case of 2-year project, the Innovation team will assess the deliverables and outputs generated during the first year and if the expectations are not fully satisfied the second year of the project will be discontinued.

# 6.2.4 Proposal content – 1<sup>st</sup> Stage

The call is organized in 2 stages, namely 1<sup>st</sup> stage and 2<sup>nd</sup> stage. The submission form will not change from the first to the second stage and the applicant will have the opportunity to fill in the form without any restriction during the 1<sup>st</sup> stage.

However, for the **1<sup>st</sup> stage** of the call (from 9<sup>th</sup> February to 11<sup>th</sup> March) it is **mandatory** for the Innovation proposal to have at least the following information fulfilled and submitted:

• <u>Activity Overview</u>: Activity Description, Title and Acronym (TABO), Keywords (TABO), Activity Purpose (TAB2), Pitch Deck (TAB3)

- <u>Consortium description</u>: *Involved Partner* (TAB1) and *Role of partners* (TAB2)
- <u>Strategic alignment</u>: *Link to Call Thematic* (TAB2)
- Impact: Expected Outcomes and Impact (TAB2) and Identified Use Cases (TAB3)
- Implementation: Project duration (TABO)
- <u>Exploitation</u>: Outlook beyond project funding (TAB2) and Partner(s) responsible for Financial Sustainability Contribution (TAB4)

The information provided at the 1<sup>st</sup> stage will be checked by the innovation team to plan for the evaluation stage and to see if the topics were addressed before. Feedback will be limited to formal aspects. In addition, the innovation team can provide support in finding extra internal or external partners to complete the consortium. Before proceeding with the 2nd stage, we strongly recommend assessing your proposal using the checklist presented in the Innovation Activity Declaration (available in PLAZA, 2023 Call for Proposals)

# 6.2.5 Proposal content – 2<sup>st</sup> Stage

The **2<sup>nd</sup> stage** will open on 14th March when the full proposal should be prepared and submitted until 29<sup>th</sup> April. Proposals sent after 29<sup>th</sup> April will not be accepted.

Within the Innovation pillar, the consortium shall explore all opportunities of exploitation with all partners: they are requested to present a coherent and convincing go-to market view and a pathway for contribution to the Financial Sustainability Mechanism.

It is very important that Innovation activities can prove that advanced enabling technologies are creating significant value for potential customers by helping them address unmet needs in a new and desirable way so that they are willing to adopt and purchase the proposed solutions. These solutions should be commercializable through a dedicated and adapted business approach.

# 6.2.6 Support for Environmental Technology Verification

Environmental Technology Verification (ETV) is a tool designed to help innovative environmental technologies access the market. It consists of the verification, on a voluntary basis, of the functional and environmental performance of a technology by qualified third parties, through tests of controlled quality.

The end product is an ETV Statement of Verification published on the ETV website and used in businessto-business relations. This enables technology owners to document the reliability of their claims and differentiate from competitors, and it helps technology purchasers identify innovations that suit their needs.

ETV is implemented by accredited Verification Bodies in three technology areas (other areas will also be considered in the near future):

• Water treatment and monitoring (e.g., monitoring water quality, treatment of drinking water and wastewater)

• Materials, waste and resources (e.g., separation and sorting of solid waste, recycling of materials, endof-life products and chemicals, biomass-based products)

• Energy (e.g., renewable energy, energy generated from waste, energy efficiency)

Technologies can be proposed for verification if they are ready for market (TRL 7 to 9, exceptionally 6) and if they present an innovative aspect and environmental added value in comparison with relevant alternatives on the market.

Interested technology developers are invited to contact one of the 12 accredited Verification Bodies early enough in their development project to plan for the verification procedure and tests in good time and thereby save costs.

Additional information and contact details: https://ec.europa.eu/environment/ecoap/etv\_en

You can budget a maximum of € 75,000 subcontracting costs to take your proposed technology through this verification process.

## 6.2.7 TRL and MRL

In the EU framework program H2020 a definition of the **Technology Readiness Level (TRL)** was given. The primary purpose of using technology readiness levels is to help in making decisions concerning the development and transition of technology.

Table	3.	TRI	and	MRI
IUDIC	••	INL	unu	IVINL

	TRL	Development stage completed	Development stage definition			
	1	Basic principles observed				
	2	Technology concept formulated	Basic scientific engineering principles observed and reported; paper concept; no analysis or testing completed; no design history			
R&D	3	Experimental proof of concept	<ul> <li>a) Technology concept and/or application formulated</li> <li>b) Concept and functionality proven by analysis or reference to features common with /to existing technology</li> <li>c) No design history; essentially a paper study not involving physical models but may include R&amp;D experimentation</li> </ul>			
4 Technology validated in lab Concept design or novel features of design is validated by a physical model, a system mock up of		Concept design or novel features of design is validated by a physical model, a system mock up or dummy and functionally tested in a laboratory environment; no design history,; no environmental tests; reliability testing is performed on key parts or components in a testing laboratory prior to prototype construction				
	5 Technology validated in relevent environment (industrially relevent testing environment)		<ul> <li>a) Prototype is built and put through functional tests in relevant testing environments; tests are carried out without integration into a broader system</li> <li>b) The extend to which application requirements are met are assessed and potential benefits and risks are demonstrated</li> </ul>			
	6	Technology demonstrated in relevant environment (industrially relevant testing environment)	Prototype system verified; prototype system/model being produced and demonstrated with full interface and function test performed in a relevant testing environment			
Innovation	energianal environment evaluation program is actual intended environment, but not installed or exerciting reliability to		Meets all requirements of TRL 6; designed and built as production unit (or full scale prototype) and put through a qualification program in actual intended environment, but not installed or operating; reliability testing limited to demonstrating that prototype function and performance criteria can be met in the intended operating condition and external environment			
Ē	8 System complete and qualified Meets all the requirements of TRL 7; designed and bult as production unit (or full scale pro-		Meets all the requirements of TRL 7; designed and bult as production unit (or full scale prototype) and integrated into intended operation system or environment with full interface and functional test performed			
	9	Actual system proven in operational environment (competitive manufacturing)	Meets all the requirements of TRL 8; system/model proven and ready for full commercial deployment; actual system/model being successfully deployed for end users			

Keep in mind that "technology" refers to the entire new solution to be developed and not to its individual sub-components; each sub-component may have a different TRL level, and it is also necessary to **consider the level of integration of these components in the workplan and risk-analysis**, especially if the 2 technological components have not been tested together nor integrated before.<sup>4</sup>

Just as technology must be prepared for entry into the market, support systems and processes must be implemented before a product can be sold or a successful service be offered, and customers must be ready, or enabled to be ready, to acquire and use technology.

The **Market Readiness Levels (MRL)** were developed under the EU H2020 research program, alongside the Technical Readiness Levels.

For innovation proposals, it is required an initial MRL=4 at least i.e., testing campaign has been performed successfully with at least one stakeholder. Combining with TRL=6, this means that the potential solution has been tested in a relevant industrial environment by at least one external end user interested in the solution. At the end of the project, the MRL should reach 6 at least, i.e., proof of traction has been achieved by having sales and paying customers. Combining with TRL=8, the full system is complete, qualified, and sold to its first customers at the end of the project.

<sup>&</sup>lt;sup>4</sup> TRL to SRL: The Concept of Systems Readiness Levels, B. Sauser, D. Verma, J. Ramirez-Marquez, R. Gove, Conference on Systems Engineering Research, Los Angeles, CA, April 7-8, 2006



Figure 2: How to measure MRL and MRL levels

# 6.3 Education Activities

The Education Pillar aims at fully contribute to the EIT Manufacturing Strategic Agenda and its anticipated impact. Education focuses on humans: engage, connect and empower them to become the backbone of a strong European Manufacturing Innovation Community; a propserous and inclusive society.

Education is key to pursue the strategic objectives of EIT Manufacturing: **SO1** Competitive manufacturing skills and social sustainability; **SO2** Powerful manufacturing innovation ecosystems; **SO3** Globally competitive and resilient manufacturing; **SO4** Environmentally sustainable manufacturing; **SO5** Manufacturing fit for the digital age; and to contribute to the Strategic Development Goals (SDGs)

Furthermore, Education contributes in supporting business and innovation along Digitalization, Green transition, increase of Resilience, and other relevant trajectories in Manufacturing.

The Education activities of EIT Manufacturing are structured along three Programs: I) **Empower**, to develop EIT Labelled journey for students and professionals; II) **Connect and Transform** to create the infrastructures and the learning experiences that enable individuals and organizations to network, skill, upskill and reskill within the Manufacturing Innovation Community; III) **Engage** to reach out to pupils, youngsters, society at large and other industries to create reciprocal awareness, attraction and involvement to manufacturing. These three programs, which progress in synergy and alignment with the innovation, business creation and RIS activities, are structured in 7 segments (divided in different topics) addressing individuals, enterprises and schools, as illustrated in Figure 3.

#### FIGURE 3: Overview of Education Programmes, Segments, and Topics

Empower	Connect & Transform	Engage
<ul> <li>1.1 EIT Labelled Master Programmes (*)</li> <li>1.2 EIT Labelled Doctoral Programmes (*)</li> <li>1.10 Flexy Enhance</li> <li>Flexy Enhance</li> <li>1.6 Pioneering Learning Journeys</li> <li>Summer School 2023</li> <li>Doctoral School 2023</li> <li>Spring/summer programme 2023</li> <li>Autumn/winter programme 2023</li> </ul>	<ul> <li>1.4 Skills – driven learning</li> <li>Skills for Manufacturing Call Thematics</li> <li>Innovation &amp; Entrepreneurial skills for Mfg</li> <li>Circular Manufacturing</li> <li>1.3 Education &amp; training for transforming organizations</li> <li>Education for Tranforming Organizations</li> </ul>	<ul> <li>1.7 Engage Pupils, Society and Other Sectors</li> <li>Pupils &amp; Youngsters</li> <li>Women in manufacturing</li> <li>Biomanufacturing engagement</li> </ul>

The activities in 2020 and 2021 have created the educational assets and launched the education and training programs. During 2022 the aim has been to integrate the programs in order to accompany individuals and organizations throughout their life and transformation journeys. The focus for 2023-2024 will be to scale up the results of the activities and multiply the impact of the same by turning the results of the activities into assets that can be re-used, commercialized and distributed within a wide number of learners or companies. Education activities must make use of highly innovative education and training solutions; and exploit and build on available assets, resources, programs, networks and collaborations developed in the previous years (Please refer to **Annex A. Education Pillar Basic Concepts and Glossary** for further information on current assets)

EIT Manufacturing has set very ambitious objectives in the Strategic Agenda, and the phase 2023-24 is really crucial a) to scale up and ensure that KPIs such as the number of EIT Labelled Master & PhD graduates, the number of individuals upskilled or re-skilled, can reach the targets and b) to demonstrated that a win-win business collaboration can be established with the partners to ensure both benefits for them and for the manufacturing community, and the financial sustainability of KIC, so that it can continue to pursue its mission beyond the EIT Funding.

In order to ensure that these expectations for the period 2023-24 are fulfilled, the call guidelines, depending on the individual Programme, Segment, and Topic, request minimum KPIs targets and business agreements (FS).

Program	Segment/ Topic	Description of the call	Partnership	Duration	Funding Cap	Target groups	Specific features
EMPOWER	1.1 EIT Labelled Masters 1.2 EIT	Not included in the call.					
	Labelled PhD 1.10 EITM Labelled Flexy Enhance Programme	Possibilities to join the pr Equip learners with entrepreneurial and sustainability skills & verticals on advanced technology application	3-6 Partners from at least 3 different countries The consortium must include: - 1 business school/ Academy - at least 1 manufacturing industrial partner	duration 1 or 2 years, training duration 6 to 18	Several Proposals can be approved. Max 300 k€ per year (max 10k€ per learner)	manufacturing employees and professionals	Demonstrated commitment of minimum 3 companies to host minimum 20 internships (1 per learner) Demonstrated commitment of companies or individuals to undertake the program (min 20 learners)
EMPOWER	1.6 Pioneering Learning Journeys	.6 Pioneering entrepreneurship, earning advanced studies	5-10 partners, min. 1 – max 3 partners from the EITM Master School consortium and min. 1 partner from RIS Countries,	The Activity	Summer School for 2023: only 1 proposal is expected to be funded Doctoral	EITM Labelled Master and Doctoral School students + external	Innovative didactic methods.
			w/iii riin	School programmes: two proposals will be funded in total (one per programme section)	participants, including professionals and researchers	Involvement of I&E education experts.	
CONNECT & TRANSFORM	Skills for EITM Manufacturing Thematics	Learning journeys aiming at developing specific skills for employees, professionals, long life learners, VET Students focusing on technical areas of EIT Manufacturing thematics, with a component of I&E	3-6 Partners from at least 3 different countries. The consortium must include at least 1 end user (manufacturing company).	1 or 2 years	be approved.	Manufacturing employees and professionals, long- life-learners or VET Students	Instructional designer must be involved in the Activity. The workplan must ensure the rollout of the training to a wide number of learners (additional to the pilots)

#### Table 4: Overview of the call with reference to the Education programs and segments

Program	Segment/ Topic	Description of the call	Partnership	Duration	Funding Cap	Target groups	Specific features
	learning - I&E	Complete digital learning program consisting of different modules or learning paths covering the stages that go from the manufacturing innovation to the commercialization of a product/service	Min 4 partners from at least 3 different countries The consortium must include: - At least 1 university-TTO (Technology Transfer Office) - 1 business school -1 incubator / Accelerator	2 years	berundeu	manufacturing employees and professionals, long- life-learners, students	Modular training Hands on activity and final evaluation Each module/learning path should correspond to 1 ECTs
CONNECT & TRANSFORM	1.4 Skill driven learning - Circular Manufacturing	Didactic game or Interactive learning for creating awareness and develop basic skills in Circular Economy in the manufacturing environment.	<ul> <li>3-6 partners from at least</li> <li>3 different countries</li> <li>The consortium must include: <ul> <li>Partner with proven</li> <li>experience in didactical</li> <li>games/interactive learning</li> <li>at least 1 end user</li> <li>(manufacturing company)</li> <li>Business owner able to produce and sale the</li> </ul> </li> </ul>	1 year	be funded	manufacturing workers/operators on the shopfloor	Based on meaningful manufacturing use cases à minimum 3 use cases from different manufacturing sectors Marketable final product
CONNECT	1.3 Education for Transforming Organizations	Consulting and training program for (S)MEs to upskill several roles towards a transition (digital, green, resilience),	3-6 Partners from at least 3 different countries The consortium should include: - 1 business school/ Academy that plays the role of business owner	years to	Several proposal can be approved 300k€ per year (max 10k per learner)	SMEs	Preliminary engagement of 6-10 manufacturing (S)MEs committed to undertake the trajectory and expose to training at 2 people per working area/competence area/hierarchy.
ENGAGE	1.7 Programs to engage Society and Pupils - Pupils	Activities for creating awareness about manufacturing and stimulate creativity and passion to attract the pupils and youngsters to manufacturing education, training and jobs	Min. 2 partners from at least 2 different CLCs. Involvement of relevant networks is encouraged	1 year	200 6	Pupils, Young people, girls, diverse/ disadvantaged groups, other sectors, society	Preliminary engagement of teachers, community/network coordinators. Collaboration with other entities and networks is encouraged. 20 to 30% co-funding on top of EIT Manufacturing funding will be positively evaluated.
	1.7 Programs to engage Society and Pupils - Women in Manufacturing	Leadership program for students and professional women that supports them developing leadership skills for the manufacturing industry.	Min 2 partners Organization with experience in delivering leadership programs	1 year	Only 1 proposal will be funded 250k€ 20% co- funding	Master and PhD Women Students and Professional/employee Women	Involvement of a women association or network The duration of the program should cover from 2 weeks to 3 months with active involvement of each

Program	Segment/ Topic	Description of the call	Partnership	Duration	Funding Cap	Target groups	Specific features
	to engage Society and Pupils - Bio-	and reduce the skill gap in manufacturing	3-6 Partners from at least 3 different countries 1 university/ RTO with strong competences in the field	1 year	DCTUTUCU	Bio-manufacturing companies/employees	Involvement of at least 2 biomanufacturing enterprises as use cases (target of the training)

# 6.3.1 Education specific mandatory requirements

Additional to the eligibility criteria described in section 4.2, the following education specific mandatory requirements apply for education proposals:

- Respect minimum KPI targets according to the specific segments
- Proposals should address ONLY the target group(s) specified in the segment they are applying to. Proposals focused on different target groups to those specified will not be eligible
- Hardware and software should be easily accessible to a wide share of users, this can be ensured by using open-access software or hardware (not limited or bounded to proprietary software or hardware) or by using hardware that can be bought from different sellers or providers with price below €1.000 and software that has free access license for each learner for at least 6 months (also applicable for not academic users/students). For the training in segment Pioneering Learning Journeys it is acceptable to use commercial SW as far as there is an academic license.
- Results of the project should not include non-commercial license (e.g., content that has been modified under Creative Commons License CC BY-NC, CC BY-NC-SA)
- Financial sustainability strategy should be in place (not mandatory for Engage segment)
- Follow the specific partnership requirements indicated for each segment
- Instructional designer must be involved in the development of the Activity, can be involved as partner (or partner competencies) or as external resources (when applicable), a detailed C.V or Company reference should be attached to the proposal. (not applicable for Pioneering Learning Journeys segment)
- Proposals producing digital nuggets, should commit and accept to sign the Digital Content Agreement
- Overarching learning outcomes and type of final assessment must be defined in proposal phase
- All education activities should integrate an innovation and business perspective in every education activity. This requirement can be addressed by incorporating in the education activity learning outcomes in line with the EntreComp framework EntreComp A Practical Guide EN.pdf (entrecompeurope.eu), connected to relevant enabling technologies, manufacturing applications, and eventually business models.

The composition of the Consortia should comply with the specific requirements of each segment or topic. Manufacturing enterprises have to belong to NACE cat. C Manufacturing. The Business Owner shall have a record of commercialization in the same segments/targets. The Instructional designer should be a real professional in the specific job, which is different from teaching.

For segment specific criteria please refer to the special conditions of each of the segments.

Eligibility criteria and education specific mandatory requirements will formally be checked at the time of 2<sup>nd</sup> stage proposal submission. Proposals not meeting the eligibility criteria and education specific mandatory requirements will be deemed ineligible and will not be evaluated.

In addition, the following deliverables and outputs presence are mandatory requirements to Education proposals:

- Dissemination and communication material (logo, flyer, factsheet and footage video) as an output in place
- Communication and Dissemination plan as a deliverable in place
- Rollout & scalability plan, that includes the period after the funding as a deliverable/output in place (not applicable for Pioneering Learning Journeys Segment)
- Financial sustainability agreement as a deliverable in place (not mandatory for Engage topics)

## 6.3.2 Education specific evaluation criteria

In line with the general evaluation criteria of section 5, Education proposals will be evaluated based on the following evaluation criteria:

**Excellence and strategic Fit:** Alignment with EITM strategic objectives, requirements, policies (including RIS, gender diversity and inclusion, Knowledge Triangle Integration)

- How significant is the way the proposal address one (or more) of the EITM strategic objectives, the Manufacturing flagships/thematics, and the specific call segment?
- How well is the activity is aligned with the EITM policies (gender, RIS, communication) and does it integrate the Knowledge Triangle?
- Does the proposal clearly identify its competitive advantage over existing solutions/programs/ initiatives?

**Impact and Education & Training Effectiveness:** Effective education, skilling, up-skilling, reskilling, engaging of relevant target groups, identification of value proposition, scalability of the results, innovativeness of training and education solutions. Integration with EITM Education infrastructure and content: Skills.move, the Digital Nuggets DNs, the Teaching & Learning Factories T&LFs networks, the YML network, or other initiatives and funding programs. Contribution to EITM assets and Financial Sustainability

- How effectively does the proposal satisfy the relevant needs and overcome the barriers of the clearly identified target group(s) (individuals and organizations)?
- To what extent does the proposal contribute to increase the number of the EIT Manufacturing students/trainees or community members benefitting from education and training (beyond mandatory KPIs)?
- How much does the proposal enrich, leverage and promote the EITM educational infrastructures and learning content (Skills.move, Teaching Factories, Learning Factories, EIT Labelled Master and PhD)?
- How significantly does the proposal contribute to the EITM Financial Sustainability?

Implementation Quality and credibility of the workplan.

- Does the team have the expertise, capacity and reach required to carry out the activity? In particular, does the consortium include a business owner that has directly involved the target group and instructional designer (when applicable) ?
- Are work plan, milestones, output, deliverables, KPIs, well defined, credible, realistic, adequate and evenly distributed for what the Activity wants to achieve?
- Does the budget cover all expect costs for the planned Activity and the "value for money" appropriate?

The evaluation of the activity proposals will be conducted by external independent technical experts and business evaluators considering the evaluation criteria for the education activities, as described in

section <u>5</u>. In addition to the general evaulation criteria, proposals should ensure addressing the aspects described above. The average value of the sub-criteria scores gives the final criterion score (rounded value according to the scoring rule described above).

The thresholds and weights for the selected criteria are summarized in the following table.

	Score scale	Threshold	Weight
Excellence and Strategic fit	0-5	3	30
Implementation	0-5	3	30
Impact	0-5	3	40

Table 5: Evaluation score table for Education proposals

# 6.3.3 Call 1<sup>st</sup> and 2<sup>nd</sup> Stages

The Education Activities are requested to provide some initial information during the first stage of the call.

## The first stage feedback will be limited to :

The high-level assessment on the alignment with the call guidelines, and suitability and value added with reference to the portfolio of EITM education and training (e.g., avoidance of duplication with previously supported activities).

**Please note:** for Education proposals, the fields that should be fulfilled and submitted during the first stage are:

- Activity Title, Leader (TAB 1 Contacts)
- Consortium (TAB 1 Contacts)
- Activity Purpose (TAB 2 Activity Overview)
- Role of Partners (TAB 2 Activity Overview)
- KPIs (TAB 2 Activity Overview)
- Specific Education proposals questions (TAB 3 Activity Specific Info)
- Budget Overview (TAB 3 Activity Specific Info)
- Contribution to Financial Sustainability (TAB 4 Sustainability)

This information will be used for elaborating the feedback and the recommendations for the 2nd stage of the call.

# 6.3.4 Financial Sustainability for Education Activities

The Activities under the Education Pillar are requested to contribute to the mission and objectives of our Community, also by generating revenues streams that can help the KIC to become financially sustainable, while at the same time generating value for the partners proposing and executing the activities.

The use and collective enhancement of the EIT Manufacturing infrastructure with relevant and engaging digital content, the creation, promotion and delivering of unique Teaching and Learning Factories experiences facilitate generating win-win situations.

The education activities follow two Business Mechanisms to handle commercialization and revenues:

1) Digital Content Agreement in which the Partners license EITM to commercialize the digital learning content developed in developed in the Education Activities. Therefore, through Skills.move

2) Revenue Shares Agreement in which the Partners commit to give EIT Manufacturing a share of the revenues generated by the commercialization of the results (sales of training, workshops, transformation programs, didactic games, etc.) of the education activities by the Business Owner(s).

In particular for the Pioneering Learning Journeys proposals, as described in chapter 6.3.5.2, a participation fee is requested to be paid by the participants (or their sponsors) directly to EITM. In such case the tuition fee should be chosen as financial sustainability mechanism in the submission form.

All Education proposals should have a sound and clear Business/financial sustainability mechanism. Only proposals under the "Engage Segment" with a high impact may not foresee a FS mechanism., but co-funding (please see specific requirements for each topic).

Depending on the segment and the main expected results, the proposals should apply at least one of the FS Mechanism listed in table 6.

FS Mechanism	Applicable to and expected results	Main Conditions
Digital Content Agreement	All activities developing digital content (nuggets) - Nuggets and learning paths (digital training)	EITM exploits the content through Skills.move, partners can choose between the following models: - Full Skills.move (previously full GLP): Exclusive rights for EITM, royalties of 30% of revenues to partners - Light Skills.move (previously light GLP): non-exclusive right for EITM, no royalties *Refer to chapter XX of Annex YY for further information
Revenue Shares	Activities delivering blended training - Nuggets and learning paths (digital training) - In presence/hands on training	Exploitation of the results after the funding is based on: - Asynchronous training through Skills.move (A) - In presence training delivered by the partners (B) Revenues are composed of A (access to digital content) + B (in presence/hands on training)
Revenue Shares	Activities developing products - Marketable product (not applicable for learning paths, courses, workshops)	Exploitation of the results after the funding is based on the sales of the final product by the business owner - Business owner should be identified in the proposal phase and its core business must be aligned with the sales of the product - Revenue shared with EITM to be negotiated together with the consortium
Revenue Shares	Flexy Enhance Program	Exploitation of the results after the funding is based on the tuition fee of the flexy enhance program sold by the business owner - Business owner should be identified in proposal phase and its core business must be aligned with the sales of the program (e.g., Academies) - Revenue shared with EITM to be negotiated together with by the consortium
Revenue Shares	Activities under Education for Transforming Organizations - Transformation and training service for SMEs	Exploitation of the results after the funding is based on the sales of the Transformation program to SMEs by the business owner should be identified in proposal phase and its core business must be aligned with the sales of the service - Revenue shared with EITM to be negotiated together with the consortium - Access to Skills.move learning paths is covered by the revenue shares

Table 6: Financial Sustainability Mechanisms for Education proposals

FS Mechanism	Applicable to and expected results	expected Main Conditions	
Revenue	Activities delivering in	Exploitation of the results after the funding is based on:	
Shares	presence workshops (1.4 Skill Driven Learning) - 100% in presence training	<ul> <li>100% in presence training (no asynchronous training through Skills.move)</li> <li>Business owner should be identified in proposal phase and its core business must be aligned with the sales of training</li> <li>Revenue shared with EITM to be negotiated together with the consortium</li> </ul>	

# 6.3.5 Education Segments

## 6.3.5.1 EIT Manufacturing Labelled Flexy Enhance

Highly qualifying personalized learning for employees and professionals.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should also be followed.

**Purpose:** The aim is to equip learners with entrepreneurial and sustainability skills & verticals on advanced technology application

**Target:** manufacturing employees and professionals (with minimum 3 years of working experience in manufacturing)

Scope: (EITM labelled) personalized learning with final assessment and certification

Duration: project duration 1 or 2 years, training duration 6 to 18 months

#### Partnership:

- 3-6 Partners from at least 3 different countries
- The consortium should include:
  - 1 business school/ Academy that will have the role of business owner and therefore is structure for offering this service
  - At least 1 manufacturing industrial partner (NACE cat. C Manufacturing)
  - Business owner should be able to demonstrate that the commercialization of the results of the project are within its core business (segment specific eligibility criteria)

Funding cap: 300k€ per year (max 10k per learner) Special conditions:

- Demonstrated commitment of minimum 3 companies to host minimum 20 internships (1 per learner)
- Demonstrated commitment of companies or individuals to undertake the program (min 20 learners)
- Minimum Number of ECTS per learner  $\rightarrow$  12 ECTs
- Marketing & commercialization plan (as a deliverable/output) in place

KPI Code	KPI Name	Minimum Target	
EITHE08.1	# of participants in non-labelled education and training	30 per year	
EITHE08.2	# of participants in non-labelled education and training in RIS Countries	30% of EITHE08.1	
KIC.G03	# of digital nuggets created	Optional	
KIC.G04	# of digital nuggets consumed	Optional	
KIC.G05	# of Learning Paths Created	Optional	
KIC.E01	# of badges issued to document and testify the achievement of a learning outcome	18 per year	

Financial sustainability: Digital Content Agreement, Revenue Shares

## 6.3.5.2 Pioneering Learning Journeys

Innovative added value modules for EIT Labelled Master and Doctoral School programs, and open to selected external participants, mainly aiming at developing I&E and sustainability competences.

The specific guidelines for each sub-segment, a short presentation of the Master School and a presentation of Doctoral School programme are provided in **ANNEX B** - **Pioneering Learning Journeys Details**. These annexes allow the applicants to understand the context, where the selected Innovative added value modules will be delivered and to provide additional info, such as the expected Overarching Learning Outcomes (OLOs).

For the Master School one module is expected: Summer School for 2023

For **Doctoral School,** the call covers two modules, which will be integrated with the annual entrepreneurship programme provided by EIT Manufacturing: Spring/Summer 2023 (January – August); Autumn/Winter 2023 (August-December)

Proposals under the segment Pioneering Learning Journeys must target specifically <u>only one of the</u> <u>following sub-segments:</u>

- a) Master School- Summer School 2023
- b1) Doctoral School Annual Programme-Spring/Summer 2023 (January August)

b2) Doctoral School Annual Programme- Autumn/Winter 2022 (August-December)

### a) Summer School for EIT Manufacturing Master School programmes - 2023

**Purpose:** equip learners with Innovation and entrepreneurial skills and capabilities (see OLO table in Appendix document for Master and Doctoral School programmes - MASTER programme section) **Target:** Master of Science students, professionals

**Scope:** (EIT labelled) Master of Science I&E Summer School for EITM students and for external students and professionals.

This Summer School is a mandatory activity of the EITM Master School programmes. It focuses on teaching innovation and entrepreneurship to the students in the context of manufacturing and its related societal challenges, such as, but not limited to, the four EITM flagships. It must include a strong usage of industrial challenges and innovative technologies to allow the students to practice on real business environment. The programme must include a social and networking programme as well, to develop professional network of students.

For more info about the EITM Master School and its related OLOs, please have a look to Appendix document for Master and Doctoral School programmes.

**Manufacturing focus:** <u>HUMAN, RESILIENT & SUSTAINABLE Manufacturing</u>. The activities must focus in the context of Industry 5.0 framework (See EU Commission: https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/industry-50\_en).

**Duration:** the activity will last 1 year, with the summer school duration of min 16 days, with at least 10 working week days in presence (5 ECTS equivalent, where 1 ECTS=25 hours, including both study in classroom and study time outside classroom) to be delivered in summer 2023. The format can be in a raw of three weeks or inside a period of 6 weeks. More than one location is allowed for the activities on site.

#### Partnership:

- 5-10 Partners (Uni, RTO, Ind) from minimum 2 CLCs
- min. 1 max 3 partners from EITM Master School partner universities,
- min. 1 partner from RIS Countries

The selected proposal will be a new KAVA and it will include EITM personnel at zero cost, to define fees and alignment of the programme with the EITM strategic agenda and KPIs and to support marketing and communication activities.

For more details, please refer to ANNEX B - Pioneering Learning Journeys Details.

Funding: Funding range is 200k€ - 300k€, with 20% of budget reserved to partners from RIS Countries.

Special conditions: for detailed conditions please refer to ANNEX B - Pioneering Learning Journeys Details

- Only 1 proposal is expected to be funded.
- Min number of students:
  - expected 140 from EITM Master School, with free access to all activities and paid accommodation.
  - Min. 60 external students, with special attention to women and RIS students' involvement. A students recruitment plan and a selection committee must be proposed for the selection of the external students (while applications will be managed through a centralized SW provided by EITM). External students pay a participation fee and also travel and accommodation expenses. The students recruitment plan must include specific actions to attract women and RIS students, besides fee discounts.
- Communication & Dissemination plan (as a deliverable/output) in place

KPIs:

KPI (	Code	KPI Name	Minimum Target
EITHE	E08.1	# of participants in non-labelled education and training	180
EITHE	E08.2	# of participants in non-labelled education and training in RIS countries	20

**Financial Sustainability:** The Summer School is available for free to the EITM Master School students, completing their first year of studies.

The consortium must propose a tuition fee or another financial mechanism, where students are not allowed to pay, to ensure the Summer School financial sustainability. The final fee, including special fees for women, RIS students and universities will be agreed with the EITM Master School head. In the financial sustainability tab of the submission system the proposed main fee for the Summer School must be included.

### b) Doctoral School annual programme - 2023

In this paragraph the Doctoral annual programme, which is the overall framework that encompasses the two topics b1 and b2), is shortly introduced.

**Purpose:** equip learners with Innovation and entrepreneurial skills and capabilities (see OLO table in Appendix document for Master and Doctoral School programmes - Doctoral programme section). The call focus on the innovation aspects of the annual programme.

Target: PhD students, professionals

**Scope:** (EIT labelled) Doctoral School I&E annual programme for EITM students and for external students and professionals. The Doctoral School Programme is organized in two sessions: one in Spring/Summer 2023 (January – August) a second one in Autumn/Winter 2023 (August-December).

IMPORTANT: All the sessions are integrated into a wider Entrepreneurship Programme coordinated by the EITM Doctoral School. Each session delivers specific activities and host some of the Entrepreneurship Programme activities. For this reason each proposal must include a **co-creation session** at the beginning of the activity, **in January 2023**, in order the full I&E programme can be successfully designed and the full year activities calendar communicated to the students by end of January 2023.

**Manufacturing focus:** <u>HUMAN, RESILIENT & SUSTAINABLE Manufacturing</u>. The activities of the two sections must focus in the context of Industry 5.0 framework (See EU Commission: https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/industry-50\_en).

**Duration: Each** funded project activity will last in total one year to allow planning, delivery, review, dissemination of the results and activity reporting.

#### Partnership:

- 3-8 Partners (Uni, RTO, Ind)
- Min. 1 and max. 3 partners from the EITM Doctoral School consortium
- min. 1 partner from RIS Countries

List of EITM Doctoral School partner universities is available at Doctoral School web page: <u>EIT</u> <u>Manufacturing Doctoral School – EIT manufacturing.</u>

#### Funding:

• Max 130.000 € per programme section (Spring/Summer 2023 and Autumn/Winter 2023), with 20% of budget reserved to RIS Countries.

#### Special conditions:

- Min number of students:
  - expected 20 students from EITM Doctoral School, with free access to mandatory activities
    - Min. 20 external students per each activity (summer/winter school) and min. 20 external students for group of activities (webinars), with special attention to women and RIS students involvement. A students recruitment plan and a selection committee must be proposed for the selection of the external students (while applications will be managed through a centralized SW provided by EITM). External students pay a participation fee and also travel and accommodation expenses. The students recruitment plan must include specific actions to attract women and RIS students, besides fee discounts.
- Marketing, Communication & Dissemination plan (as an a deliverable/output) in place

#### KPIs:

KPI Code	KPI Name	Minimum Target
EITHE08.1	# of participants in non-labelled education and training	40
EITHE08.2	# of participants in non-labelled education and training in RIS countries	30

**Financial sustainability:** the Doctoral School programme is available for free to the EITM Doctoral School students up to 30 ECTS. EITM Doctoral School students grants free access to one of the Summer/Winter School activities. For the second one they get special discounted tuition fee.

The consortium must propose inside the proposal a participation fee range for each activity or group of them, in case, for instance, of series of webinar, to ensure the programme financial sustainability. The final fee, including special fees for women, RIS students and universities and for EITM Doctoral School students (only elective courses) will be agreed with the EITM Doctoral School head. In the financial sustainability tab of the submission system the average main fee for the on-site activities (summer/winter schools) must be included.

### b1) Spring/summer 2023 programme (6,5 ECTs)

The Spring/summer 2023 programme includes a series of webinars, and a summer school in relation to the Manufacturing focus above. It will host some of the entrepreneurship programme activities

coordinated by EITM Doctoral School, already included into the ECTS of the programme. For this reason the proposal must consider logistic expenses and coordination for the entrepreneurship sessions as well.

The programme must focus on delivery of Innovation training in line with the Manufacturing focus listed above. The programme must cover the following OLOs (see annex 2 for OLO definition): OLO1, OLO4, OLO5, OLO6.

Specific details in ANNEX B - Pioneering Learning Journeys Details chapter 1.2.1

# b2) Autumn/winter 2023 programme (5,5 ECTS)

The Autumn/Winter 2023 programme includes a series of webinars and a winter school in relation to the Manufacturing focus above. It will host some of the entrepreneurship programme activities coordinated by EITM Doctoral School, already included into the ECTS of the programme. For this reason the proposal must consider logistic expenses and coordination for the entrepreneurship sessions as well.

Proposals must focus on delivery of Innovation training in line with the Manufacturing focus listed above. The programme must cover the following OLOs (see annex 2 for OLO definition): OLO1, OLO4, OLO5, OLO6.

Specific details in ANNEX B - Pioneering Learning Journeys Details chapter 1.2.2

## 6.3.5.3 Skill Driven Learning

This segment refers to the creation and delivery of learning experiences, according to the paradigm of active learning, targeting the development of selected skills. These learning experiences can be based on digital nuggets and learning paths (see annex Learning Content Guidelines and Education Pillar Infrastructure); Teaching Factories; Learning Factories; VR/AR, simulation and games/gamification. Skills-driven learning should have a clear identification of the target groups, entry level comptencies, learning outcomes, final assessment of the competencies aquired.

# Skills for EIT Manufacturing Thematics

Learning journeys enabled by digital content, Teaching Factories experiences, hands on activities in Learning Factories and blended learning aiming at developing specific skills for employees, professionals, long life learners, VET Students focusig on technical areas of EIT Manufactuing thematics.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

**Purpose:** Upskilling and reskilling of current workforce in manufacturing: support leaners in the development of the needed technical skills

Target: manufacturing employees and professionals, long-life-learners, VET Students Scope: Skill-driven learning with final assessment of the achievement and certification

Duration: 1 or 2 years

Partnership:

- 3-6 Partners from at least 3 different countries
- The consortium should include at least 1 end user (manufacturing company).

Funding cap: 400k€ per year Special conditions:

- Follow learning content guidelines
- Instructional designer must be involved in the Activity. To be involved as partner (or partner competencies) or as external resources. Please include in the submission

form the CV or company reference of the instructional designer as supporting documentation (only PDF format accepted)

- Instructions for the trainers should be included as an output (digital) or a deliverable (train the trainers).
- The workplan must include and ensure the rollout of the training to a wide number of learners (additional to the pilots)
- Involvement of SMEs as end users is preferred
- Commercialization and marketing plan (as a deliverable/output) in place

KPIs:

KPI Code	KPI Name	Minimum Target
EITHE08.1	# of participants in non-labelled education and training	100 1 <sup>st</sup> year 300 2 <sup>nd</sup> year
EITHE08.2	# of participants in non-labelled education and training in RIS countries	30% of EITHE08.1
KIC.G03	# of digital nuggets created	50
KIC.G04	# of digital nuggets consumed	1000 1st year 3000 2nd year
KIC.G05	# of Learning Paths Created	3
KIC.E01	# of badges issued to document and testify the achievement of a learning outcome	80% of participants
KIC.E02	# of educational products launched (not nuggets, nor pathways, nor workshops)	Optional
KIC.R01	# of teaching and learning factories projects implemented in EIT RIS countries	Optional

Financial sustainability: Digital Content Agreement, Revenue Shares

#### Innovation and Entrepreneurship Skills for Manufacturing

Complete digital learning program consisting of different modules or learning paths covering the stages that go from the **manufacturing** innovation to the commercialization of a product/service, focusing in 3 main areas: idea generation, entrepreneurship (startup creation) and intrapreneurship (corporate innovation)

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be followed.

**Purpose:** Support learners to develop the competencies (knowledge and skills) to transform innovations into products and services in the manufacturing sector. The course should be developed taking into consideration the 3 main focus areas mentioned above and include topics such as: experimentation and ideation, market research and stakeholder definition, value proposition definition, minimum viable product, business model and business plan development, financial planning, roadmap implementation, IP management, pitching etc.

As well the program should support the development of transversal skills : leadership, problem solving, negotiation, team work, networking, others

The course should emphasize in the specific requirement of innovation and entrepreneurship in the manufacturing sector.

Target: manufacturing employees and professionals, long-life-learners, students

Scope: Skill-driven learning with final assessment of the achievement and certification Duration: 2 years

Partnership:

- Min 4 partners from at least 3 different countries
- The consortium should include:
  - o At least 1 university-TTO (Technology Transfer Office)
  - o 1 business school
  - o 1 incubator / Accelerator

# Funding cap: 350k€ per year Special conditions:

- Modular training: comprehensive set of composable but self-standing digital learning paths, easily adaptable to the learners needs (for example entry an advanced levels).
- Hands on activity and final evaluation
- Each module/learning path should correspond to 1 ECTs
- Reference to open-source European content, as far as they have the correct licenses
- Instructional designer must be involved in the Activity. To be involved as partner (or partner competencies) or as external resources. Please include in the submission form the CV or company reference of the instructional designer as supporting documentation (only PDF format accepted)
- Marketing & commercialization plan (as a deliverable/output) in place

Only 1 proposal will be included in EIT Manufacturing Business plan to be funded under this subsegment

#### KPIs:

KPI Code	KPI Name	Minimum Target
EITHE08.1	# of participants in non-labelled education and training	50 1 <sup>st</sup> year 100 2 <sup>nd</sup> year
EITHE08.2	# of participants in non-labelled education and training in RIS countries	30% of EITHE08.1
KIC.G03	# of digital nuggets created	30 nuggets per module
KIC.G04	# of digital nuggets consumed	1500 1st year 3000 2nd year
KIC.G05	# of Learning Paths Created	8
KIC.E01	# of badges issued to document and testify the achievement of a learning outcome	80% of participants

Financial sustainability: Digital Content Agreement, Revenue Shares

# Circular Manufacturing

Didactic game or Interactive learning for creating awareness and develop basic skills in Circular Economy in the manufacturing environment.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should also be followed.

Purpose: Increase the awareness about avoidable waste and opportunities of recycling, reusing, upcycling etc. Fostering behaviour for a more sustainable manufacturing in the shopfloor. Target: manufacturing workers/operators on the shopfloor Scope: game or skill-driven learning Duration: 1 year

Partnership:

- 3-6 partners from at least 3 different countries
- The consortium should include:
  - Partner with proven experience in didactical games development in case of the game; Instructional designer in case of interactive learning. Please include in the submission form the CV or company reference as supporting documentation (only PDF format accepted)
  - o at least 1 end user (manufacturing company)
  - o Business owner able to produce and sale the product

#### Funding cap: 300k€ Special conditions:

- Based on meaningful manufacturing use cases → minimum 3 use cases from different manufacturing sectors
- Marketable final product: the final result of the project should be a final product, not a proof of concept or prototype
- Entertaining and interactive user experience
- Marketing & commercialization plan (as a deliverable/output) in place
- Business owner should be able to demonstrate that the commercialization of the results of the project are within its core business (segment specific eligibility criteria)

Only 1 proposal will be included in EIT Manufacturing Business plan to be funded under this subsegment

KPIs:
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KPI Code	KPI Name	Minimum Target
EITHE08.1	# of participants in non-labelled education and training	50
EITHE08.2	# of participants in non-labelled education and training in RIS countries	30% of EITHE08.1
KIC.G03	# of digital nuggets created	5, for learning content
KIC.G04	# of digital nuggets consumed	250, for learning content
KIC.G05	# of Learning Paths Created	1, for learning content
KIC.E01	# of badges issued to document and testify the achievement of a learning outcome	Optional
KIC.E02	# of educational products launched (not nuggets, nor pathways, nor workshops)	1, for game

Financial sustainability: Digital Content Agreement, Revenue Shares

# 6.3.5.4 Education for Transforming Organizations

Consulting and training programs for (S)MEs created and delivered with the support of industrial associations, cluster or other Network partners trusted by the companies. The role of the Network partner is essential to facilitate the match between learning needs and education and training provision.

Overall these activities should accompanies groups of (S)MEs willing to prepare their Human Capital for a transition (digital, green, resilience, technological): from an initial assessment of the skill gaps, to the co-design of a roadmap; the assignment of training paths to the employees; the delivery; the final evaluation and assessment.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should also be followed.

**Purpose:** support SMEs in preparing for a transition (digital, green, technological, etc.) through education

Target: groups of SMEs (university students are not accepted as testers or in piloting activities) Scope: Transition program that includes initial skill assessment, co-design of the roadmap, development and assignment of learning content and learning paths, evaluation or final assessment and certification

**Duration:** max 2 years to deliver cycles of 5-9 months training **Partnership:** 

- 3-6 Partners from at least 3 different countries
- The consortium should include 1 business school/ Academy that will have the role of business owner and that therefore can deliver the program after the end of the activity.
- The consortium should include 2 manufacturing enterprises.



Funding cap: 300k€ per year (max 10k per learner) Special conditions:

- Preliminary engagement of 6 -10 manufacturing (S)MEs committed to undertake the trajectory and expose to training at least 2 people per working area/competence area/hierarchy.
- Complete training & transformation program executed during the activity funding with final assessment and best practices defined
- One of the final outputs of the activity should be a "Transformation and training service" that can be sold as package to SMEs by the business owner after the end of the activity.
- Involvement of industrial associations/network partners is suggested
- A pre-assessment or initial assessment of the involved SMEs and the co-design of the roadmap is mandatory
- Marketing & commercialization plan (as a deliverable/output) in place

#### KPIs:

KPI Code	KPI Name	Minimum Target
EITHE08.1	# of participants in non-labelled education and training	40 1 <sup>st</sup> year 100 2 <sup>nd</sup> Year
EITHE08.2	# of participants in non-labelled education and training in RIS countries	30% of EITHE08.1
KIC.G03	# of digital nuggets created	Optional
KIC.G04	# of digital nuggets consumed	Optional
KIC.G05	# of Learning Paths Created	Optional
KIC.E01	# of badges issued to document and testify the achievement of a learning outcome	80% of participants

Financial sustainability: Digital Content Agreement, Revenue Shares

#### 6.3.5.5 Programs to engage Society and Pupils

This segment aims at attracting a wider share of the population to use their talents and play an active role and exert more innovation and entrepreneurial skills in manufacturing. It addresses target groups of future potential workers, such as pupils, youngster or employees in other sectors, or groups that are underrepresented and/or have specific needs, such as women. The segment aims at conveying a positive and realistic perspective on advanced manufacturing, digital, green, producing a positive impact on the environment and society. It aims at exposing the target groups to learning experiences that help them to develop basic manufacturing, innovation and entrepreneurship-related skills.

### **Pupils and Youngsters**

Activities that create awareness about manufacturing and stimulate creativity and passion in the young generations, and specific groups of diverse and disadvantaged people to improve the reputation of manufacturing and/or attract them to manufacturing education, training and jobs. Proposed activities should leverage on existing initiatives and networks, with a wide outreach and/or valuable impact, and bring an EIT-M specific and recognizable value added.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

Purpose: create awareness about manufacturing and stimulate creativity and passion to attract the pupils and youngsters to manufacturing education, training and jobs
Target: Pupils, Young people, girls, diverse/ disadvantaged groups
Scope: creativeness, STEM, digital and green skills
Duration: 1year

#### Partnership:

- Min 2 partners
- Involvement of relevant Networks operating with teachers is encouraged

**Funding cap:** 200k€ per activity; 20% to 30% co-funding is encouraged (not included in funding cap) **Special conditions:** 

- Preliminary engagement of teachers or representative/coordinator of the target groups
  - Synergies with other initiatives with the same target group are encouraged

KPIs:

KPI Code	KPI Name	Minimum Target
EITHE08.1	# of participants in non-labelled education and training	25
EITHE08.2	# of participants in non-labelled education and training in RIS countries	30% of EITHE08.1
KIC.G03	# of digital nuggets created	Optional
KIC.G04	# of digital nuggets consumed	Optional
KIC.G05	# of Learning Paths Created	Optional
KIC.E02	# of educational products launched (not nuggets, nor pathways, nor workshops) $^1$	Optional
KIC.E04	# of teachers involved in engage programmes	25
KIC.E05	# of pupils/target people involved in engage programmes	500

<sup>1</sup> Products developed under this topic should be ready to be used and accessible to pupils or schools by the end of the activity

**Financial sustainability:** Proposals with a high impact may not foresee a FS mechanism, but it is encouraged that engaged entities and networks support the activity with a 20-30% of co-funding (on top of funding cap)

# Women in Manufacturing

EIT Manufacturing is committed to increase gender balance in manufacturing. By strengthening the leadership and entrepreneurial skills of women already in the sector, the glass ceiling can be overcome, more positive role models can be created, and more women can be attracted to the sector.

! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

**Purpose:** Leadership program for students and professional women that supports them developing leadership skills for the manufacturing industry.

Target: Master and PhD Women Students and Professional/employee Women Scope: Workshops, blended/hybrid learning, coaching and mentoring Duration: 1 year

# Partnership:

- Min 2 partners
- Organization with experience in delivering leadership programs

**Funding cap:** 250k€; 20% to 30% co-funding is encouraged (not included in funding cap) **Special conditions:** 

- Involvement of a women association or network
- The duration of the program should be from 2 weeks to 3 months with active involvement of each individual of a minimum of 25 hours
- Initial and final assessment of the leadership competencies
- Only 1 proposal will be included in EIT Manufacturing Business plan to be funded under this sub-segment

KPIs:

KPI Code	KPI Name	Minimum Target
EITHE08.1	# of participants in non-labelled education and training	120
EITHE08.2	# of participants in non-labelled education and training in RIS countries	30% of EITHE08.1
KIC.G03	# of digital nuggets created	Optional
KIC.G04	# of digital nuggets consumed	Optional
KIC.G05	# of Learning Paths Created	Optional
KIC.E04	# of teachers involved in engage programmes	Optional
KIC.E05	# of pupils/target people involved in engage programmes	150

**Financial sustainability:** Proposals with a high impact may not foresee a FS mechanism, but it is encouraged that engaged entities and networks support the activity with a 20-30% co-funding (on top if funding cap)

#### **Bio-Manufacturing engagement**

The Covid-19 crisis revealed the relevance of the challenges of biomanufacturing in Europe. The network and expertise of EIT Manufacturing jointly with those of the health community can contribute to strengthen the biomanufacturing sector to make the health system more powerful and and resilient. This segment concerns the creation and delivery of learning experiences for the biomanufacturing workers to develop skills related to the manufacturing thematic, customized on the specific sectorial needs.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

**Purpose:** Engage other sectors and reduce the skill gap in manufacturing competencies through training programs

**Target:** Bio-manufacturing companies/employees

**Scope:** Skill-driven learning with final assessment of the achievement and certification **Duration:** 1 year

#### Partnership:

- 3-6 Partners from at least 3 different countries
- 1 university/RTO with strong competences in the field

#### Funding cap: 300k€

Special conditions:

- Only 1 proposal will be included in EIT Manufacturing Business plan to be funded for under this sub-segment
- Involvement of at least 2 biomanufacturing enterprises as use cases (target of the training)

KP	ls:

KPI Code	KPI Name	Minimum Target
EITHE08.1	# of participants in non-labelled education and training	50
EITHE08.2	# of participants in non-labelled education and training in RIS countries	30% of EITHE08.1
KIC.G03	# of digital nuggets created	10
KIC.G04	# of digital nuggets consumed	500
KIC.G05	# of Learning Paths Created	1

Financial sustainability: Digital Content Agreement, Revenue shares

#### 6.3.6 Workplan timeline for the Activities

In order to ensure an aligned timeline among the activities and a proper scaleup/roll out of the same, proposals should include the following phases and expected results in the workplan (depending on the segment), following the propose timeline. Results can be express either in the workplan or as outputs or deliverables. The deadline is specified in the expected results, while each of the boxes indicates whether the item is applicable for the specific segment/topic.

Table 7: Workplar	i timeline for	Education	proposals
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Phases	Description	Expected Results (to be included as outputs or inside deliverables)	FIEX FIRME	Stills for the name	Circular Mills	18 For	Transformington's	Pupilsand ers	Nonenin	Bio station
ssment	During the first stages of the Activity, it should be foreseen an analysis for the needs identification at	<ul> <li>Market research and value proposition refinement (to be included in the marketing and commercialization plan) by M3</li> </ul>	~	~	~	~	~	~	~	~
Initial assessment	individual and company level (when applicable). According to this results a	- Program/training outline (including main learning outcomes) <b>by M5</b>	~	~	~	~	~	~	~	*
	first outline of the training should be put in place	- Skill gap assessment results by M5	~	~			~			
		<ul> <li>Learning journey (co-created with companies and/or individuals) by M6</li> </ul>	~	~	~		~			~
t		- Co-design of the roadmap with the companies <b>by M6</b>	~				~			
d developmer	After the initial assessment the development and course design should start, the development phase (including the initial assessment) should not last more than 60% of the total duration of the project for 1- year activities and 40% for 2- year activities	<ul> <li>Learning content analysis (identify what content is already available in EITM infrastructure and the one to be developed) by M6</li> </ul>	*	*			~	~		
Course/Product design and development		- Course Syllabus or learning content story board (at nuggets level - including specific learning outcomes) or product concept outline <b>by M6</b>	¥	¥	¥	¥	¥	¥	¥	*
Course/Pro		- 1st release of the learning content / product prototype (Peer review performed) <b>By 1/2 project duration</b>	For nuggets	~	~	~	~	For nuggets	For nuggets	~
Ũ		- 2nd Release ready for pilots 1M after peer review	For nuggets	~	~	~	~	For nuggets	For nuggets	~
		<ul> <li>Final publication or launch (ready for Rollout/ Scale up)</li> <li>By 2/3 project duration</li> </ul>	~	~	~	~	~	~	~	~
	The delivery of the training/ education programs/solutions should be the main focus of the activities.	- Pilots delivery (input for nugget adaptation, lessons learnt) <b>1M after peer review</b>	For nuggets	¥	v	v	¥	¥	For nuggets	¥
Delivery	The proposals should foresee not only a pilot phase but also a rollout of the training to a wider audience, including a plan for further scale up after the activity ends. Additionally, the delivery should include a <b>final</b> <b>assessment</b> for evaluating the achievement of the learning outcomes in case of individual learners and transformation status in case of companies	- Roll out and Scale up (delivery to wide audience); final deliverable scalability plan Starting in 2/3 of the project duration, finishing by end of the project	¥	¥	¥	¥	¥	¥	¥	×
		- Program implementation and learner/company certification (after final assessment) <b>By end of the project</b>	×	×	~	~	~	~	~	¥

## 6.4 Regional Innovation Scheme (RIS) Activities

The EIT Manufacturing RIS aims at widening participation in the KIC's activities, as well as increasing the impact of EIT Manufacturing in EIT RIS countries. The EIT RIS has been designed as a two-way interaction scheme. By sharing its good practice related to Knowledge Triangle Integration and increasing its activities in EIT RIS eligible countries, EIT Manufacturing welcomes activities for further developing business skills, talent, cooperation opportunities in education, currently untapped entrepreneurial potential, accessing markets and business, customers for innovative ventures, innovation, knowledge, know-how and technology transfer possibilities, additional testbeds for applications of innovative solutions as well as supporting access to co-funding options provided by EU, regional and national support schemes.

Therefore, EIT Manufacturing RIS aims towards engaging local stakeholders —individuals (notably students, researchers) and entities (e.g. start-ups, scale-ups, universities, research labs, NGOs, regions and cities)—in EIT Manufacturing activities. The call for 2023 includes education, innovation and business creation RIS activities.

All RIS activities should receive broad publicity on local and regional levels by raising awareness of the brand of EIT Manufacturing and the KTI model, through the collaboration and interlinking of leading entities from higher education, research and business areas. Synergies with regional/national or Horizon Europe programmes are strongly recommended.

Unless otherwise stated, the EIT Manufacturing RIS activities have, in general, the same eligibility criteria with the other activities. However, in all cases, proposals for EIT Manufacturing RIS activities need to demonstrate their contribution to enhancing the innovation capacity of EIT RIS countries and regions. For example, by:

- ١. Having enhanced participation of organisations from EIT RIS countries;
- 11. Involving relevant stakeholders from EIT RIS countries in EIT Manufacturing activities;
- III. Executing pilot implementations and demonstrators in EIT RIS countries;
- IV. Having enhanced, specific impact to EIT RIS countries;
- V. Deploying activities in EIT RIS countries and regions where EIT Manufacturing has limited or no presence yet

Proposals should target one of the following segments, that are illustrated in Figure 4.

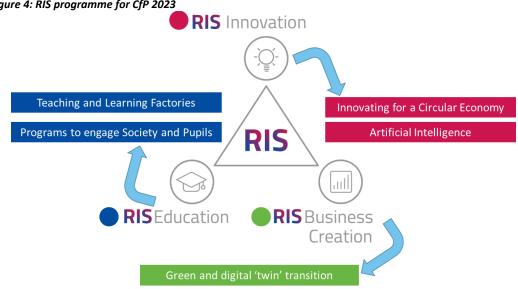


Figure 4: RIS programme for CfP 2023

#### 6.4.1 RIS CfP2023 key information

Proposal structure and Submission: The guidelines described in section 3 are applicable .

Proposal Submission and Selection: The guidelines described in section 4 are applicable.

**Eligibility criteria**: The guidelines described in section 4.2 are applicable. Additionally, RIS specific conditions are described in each RIS segment (section 6.4.2).

**Review Process, Evaluation Criteria and Scoring**: The guidelines described in section 5 are applicable. Additionally, the RIS specific evaluation criteria are described in section 6.4.3.

#### 6.4.2 RIS activities segments

#### 6.4.2.1 Teaching and Learning Factories in EIT RIS countries

**Purpose:** Teaching and Learning Factories are powerful tools to integrate practical experiences into technical and academic training but as well as to reskill and upskill workforce in RIS countries.

**Topic Description:** Proposed activities should at first aim on **raising awareness and demonstrating the concepts of Teaching and Learning factories in EIT RIS countries**, creating, installing and further developing teaching and learning factories in EIT RIS countries and eventually implementing TLF projects. Future networking activities and integration models with existing and future academic programs and with the GLP should be examined. Furthermore, activities focusing on improving the methodology and didactics of teaching and learning factories, taking into account any relevant characteristics in EIT RIS countries are highly recommended. It is expected that the projects address at least one of the indicated Call Thematics. Proposal activities are encouraged to involve external participants (especially manufacturing companies and SMEs) from EIT RIS countries as activity partners. This call topic is for **RIS education activities**.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

**Duration:** project duration 1 or 2 years, training duration at least 6 months per year.

#### Partnership:

- Recommended number of partners: 3-6 from at least 3 different countries.
- The consortium should include:
  - Universities/ RTOs that could have the role(s) of business owner providing the training/ education service in the future. Business owner(s) should be able to demonstrate the commercialization of the activity results (e.g. nuggets, training material, etc.). It is highly recommended that the business owner comes from a RIS eligible country.
  - o At least 1 manufacturing industrial partner.

Expected budget per activity per year: 200k€. Co-funding is not required.

#### Financial Sustainability Mechanisms:

A financial sustainability mechanism is required to be described in this RIS Proposal activity. The recommended mechanisms are:

- Consulting and services.
- Tuition fees.
- Revenue Sharing of courses, badges, certificates.

- Specific conditions and documents:
- The guidelines offered in this section should be given first importance, except from the general guidelines from EIT Manufacturing. However, it is strongly recommended to the applicants to check the guidelines described in section 6.3 from Education Pillar, for additional mandatory requirements.
- Communication and Dissemination plan (as a deliverable/output) in place.

KPI code	Short Description	Target per year
EITHE08.1	# of participants (80% of the target coming from RIS countries)	At least 20
KIC.R01	# of teaching and learning factories projects implemented in EIT RIS countries	At least 3
EITHE07.4	#Graduates from EIT labelled MSc/PhD programmes	Optional
EITHE07.5	#Sum of students enrolled in EIT labelled MSc and PhD	Optional
EITHE09.1	# Students and graduates from EIT labelled MSc and PhD programmes who joined start-ups	Optional
KIC.G03	# of digital nuggets created	Optional
KIC.G04	# of digital nuggets consumed	Optional
KIC.G05	# of learning paths created	Optional
KIC.E01	# Badges issued to document and testify the achievement of a learning outcome	Optional

#### Recommended KPIs\*:

\*The list of KPIs is recommended but the proposers are free to select the most appropriate KPIs for their proposal. The above KPIs are based on the guidelines 2021-2022 received from EIT and might be amended when the updated guidelines for KPIs will be available.

#### 6.4.2.2 Programs to engage Society and Pupils in EIT RIS countries

**Purpose:** Awareness about manufacturing in early ages is crucial for the future of manufacturing as a whole, as well as for the availability of future workforce. Young students, e.g. in secondary schools, should be aware about innovation on manufacturing, digitalized manufacturing, green manufacturing, but also about career opportunities within the context of modern manufacturing.

**Topic Description:** Proposed activities should create a realistic and positive image of manufacturing and encourage young students in RIS countries to consider a career in manufacturing and therefore help ensuring a future with available and well qualified workforce for European manufacturing. Orientation on the thematics is desirable, but not mandatory. Proposals targeting specific groups (e.g. young women to learn about and consider a career in manufacturing) are welcome. Proposals are expected to show that they are well aware of specific requirements and challenges in RIS countries and clearly demonstrate the capability to reach a large number of relevant stakeholders in RIS countries. Activities are further encouraged to deploy engagement activities in countries where EIT Manufacturing has limited or no presence yet. Large geographical coverage is desired. Projects are encouraged to carry out targeted information campaigns and networking events in RIS countries in order to promote opportunities provided by EIT Manufacturing, and trigger and facilitate industry involvement in educational programmes/projects domestically and internationally, with special emphasis in RIS area. This call topic is for **RIS Education activities**.

Duration: project duration 1 or 2 years, training duration at least 6 months per year.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

#### Partnership:

- Recommended number of partners: 3-6 from at least 3 different countries
- The consortium should include:

- O Universities/ RTOs that could have the role(s) of business owner providing the training/ education service in the future. Business owner(s) should be able to demonstrate the commercialization of the activity results (e.g. nuggets, training material, etc. It is highly recommended that the business owner comes from a RIS eligible country.
- o 1 manufacturing industrial partner.

**Expected budget per activity per year:** 150k€. Co-funding is not required.

#### Financial Sustainability Mechanisms:

A financial sustainability mechanism is required to be described in this RIS Proposal activity. The recommended mechanisms are:

- Consulting and services;
- Tuition fees;
- Revenue Sharing of courses, badges, certificates.

#### Specific conditions and documents:

- The guidelines offered in this section should be given first importance, except from the general guidelines from EIT Manufacturing. However, it is strongly recommended to the applicants to check the guidelines described in section 6.3 from Education Pillar, for additional mandatory requirements.
- Communication and Dissemination plan (as a deliverable/output) in place.

KPI code	Short Description	Target per year
EITHE08.1	# of participants (80% of the target coming from RIS countries)	At least 20
KIC.E04	# of teachers involved in engage programmes	At least 30
KIC.E05	# of pupils/target people involved in engage programmes	At least 400
EITHE07.4	#Graduates from EIT labelled MSc/PhD programmes	Optional
EITHE07.5	#Sum of students enrolled in EIT labelled MSc and PhD programmes in year N	Optional
EITHE09.1	# Students and graduates from EIT labelled MSc and PhD programmes who joined start-ups	Optional
KIC.G03	# of digital nuggets created	Optional
KIC.G04	# of digital nuggets consumed	Optional
KIC.G05	# of learning paths created	Optional
KIC.E01	# Badges issued to document and testify the achievement of a learning outcome	Optional
KIC.E06	# of Master/PhD students applications	Optional
KIC.E07	# of Master/PhD students enrolled	Optional

#### Recommended KPIs\*:

\*The list of KPIs is recommended but the proposers are free to select the most appropriate KPIs for their proposal. The above KPIs are based on the guidelines 2021-2022 received from EIT and might be amended when the updated guidelines for KPIs will be available. The full description of the KPIs is presented in sections 6.9 and 6.10.

#### 6.4.2.3 Artificial Intelligence at EIT RIS

**Purpose:** This call is for projects aiming to support innovative solutions relevant to the Call Thematic "Al and digital twins for manufacturing systems", with special focus –although not restricted- on applying Artificial Intelligence in manufacturing.

**Topic Description:** Artificial Intelligence is an emerging and, in some cases, greenfield opportunity and the activities here aim to support stakeholders in EIT RIS countries to enhance their innovation capacity. Some technical challenges and topics to be considered for projects under this segment are digital twins for virtual commissioning, AI for predictive maintenance and production optimization, forecast the demand for products and pricing, machine learning & machine vision, data security and analytics, focusing on applications such as quality control, management, monitoring, customer care, personalization and maintenance. Proposals should identify who will be the potential customers. Applicants should identify which local/regional parameters expect to address with their innovative solutions, as well as the industrial sectors that will be addressed. The economic, environmental and societal impact of the relevant activities in EIT RIS area should be clearly identified. **This call topic is for RIS Innovation activities**.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

Duration: project duration 1 or 2 years.

#### Partnership:

- The specific call is eligible only for organizations coming from EIT RIS Countries.
- Recommended number of partners: 3-6 from at least 3 different countries.
- The consortium should include:
  - At least 1 manufacturing industrial partner.
    - One or more partner (s) that will have the role of business owner and therefore is structure for offering this service. Business owner should be able to demonstrate that the commercialization of the results of the project are within its core business (segment specific eligibility criteria). The business owner(s) should be identified from the proposal stage. The business owner(s) should be either a University/ RTO or a business organisation.

Expected budget per activity per year: 400k€. Co-funding rate for this segment is 30%.

#### Financial Sustainability Mechanisms:

A financial sustainability mechanism is required to be described in this RIS Proposal activity. The recommended mechanisms are:

- Consulting and services;
- Revenue sharing of courses, badges, certificates;
- Product and service revenue shares.

#### Specific conditions and documents:

- The guidelines offered in this section should be given first importance. However, it is strongly recommended to the applicants to check the guidelines described in section 6.2 from Innovation Pillar, for additional mandatory requirements.
- Marketing/commercialization/business plan (as a deliverable/output) in place.
- Communication and Dissemination plan (as a deliverable/output) in place.

#### Recommended KPIs\*:

KPI code	Short Description	Target per year
EITHE02.1	#Number of all innovations introduced on the market during the KAVA duration or within 3 years after completion.	At least 1
EITHE23.1	#Number of innovation testbed established.	At least 1
EITHE01.1	#Number of innovative products, services and processes resulting from innovative projects.	At least 1

EITHE03.1	#Number of start-ups and scale-ups supported by KICs for at least 2 months in year N	Optional
EITHE04.1	#Number of start-ups established in year N as a result / based on the output(s) of KAVA(s), or start-ups created for the purpose of an innovation project to organise and support the development of an asset (but not later than 3 years after the completion of KAVA)	Optional

\*The list of KPIs is recommended but the proposers are free to select the most appropriate KPIs for their proposal. The above KPIs are based on the guidelines 2021-2022 received from EIT and might be amended when the updated guidelines for KPIs will be available. The full description of the KPIs is presented in sections 6.9 and 6.10.

#### 6.4.2.4 Innovating for a Circular Economy at EIT RIS

**Purpose:** This segment is for projects aiming to develop innovative solutions relevant to the Call Thematic "Smart technologies for circular and green manufacturing" in EIT RIS countries.

**Topic Description:** This activity aims to support especially the transition to Circular Economy in manufacturing in EIT RIS countries, focusing on aspects like zero-defect manufacturing, zero-waste manufacturing, virtualization/dematerialisation, remanufacturing, preventive maintenance, and tackling specific characteristics, obstacles, but also opportunities found in EIT RIS. Proposals should identify who will be the potential customers. The economic, environmental and societal impact of the relevant activities in EIT RIS area should be clearly identified. This call topic is for RIS innovation activities.

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

Duration: project duration 1 or 2 years.

#### Partnership:

- The specific call is eligible **only for organizations** coming from **EIT RIS Countries**.
- Recommended number of partners: 3-6 from at least 3 different countries
- The consortium should include:
  - o At least 1 manufacturing industrial partner.
  - One or more partner (s) that will have the role of business owner and therefore is structure for offering this service. **Business owner** should be able to demonstrate that the commercialization of the results of the project are within its core business (segment specific eligibility criteria). The business owner(s) should be identified from the proposal stage. The business owner(s) should be either a University/ RTO or a business organisation.

**Expected budget per activity per year:** 400k€. Co-funding rate for this segment is 30%.

#### Financial Sustainability Mechanisms:

A financial sustainability mechanism is required to be described in this RIS Proposal activity. The recommended mechanisms are:

- Consulting and services;
- Revenue sharing of courses, badges, certificates;
- Product and service revenue shares.

#### Specific conditions and documents:

- The guidelines offered in this section should be given first importance. However, it is strongly recommended to the applicants to check the guidelines described in section 6.2 from Innovation Pillar, for additional mandatory requirements.
- Marketing/commercialization/business plan (as an a deliverable/output) in place.
- Communication and Dissemination plan (as an a deliverable/output) in place.

Recommended KPIs*:					
KPI code	Short Description	Target per Year			
EITHE02.1	#Number of all innovations introduced on the market during the KAVA duration or within 3 years after completion.	At least 1			
EITHE23.1	#Number of innovation testbed established.	At least 1			
EITHE01.1	#Number of innovative products, services and processes resulting from innovative projects.	At least 1			
EITHE03.1	#Number of start-ups and scale-ups supported by KICs for at least 2 months in year N.	Optional			
EITHE04.1	#Number of start-ups established in year N as a result / based on the output(s) of KAVA(s), or start-ups created for the purpose of an innovation project to organise and support the development of an asset (but not later than 3 years after the completion of KAVA)	Optional			

\*The list of KPIs is recommended but the proposers are free to select the most appropriate KPIs for their proposal. The above KPIs are based on the guidelines 2021-2022 received from EIT and might be amended when the updated guidelines for KPIs will be available. The full description of the KPIs is presented in sections 6.9 and 6.10.

#### 6.4.2.5 Green and digital 'twin' transition for SMEs at EIT RIS countries

**Purpose:** This call is for projects aiming to support innovative solutions relevant to the Call Thematic "Smart technologies for circular and green manufacturing", with special focus –although not restrictedon green and digital solutions for SMEs through organizing piloting activities for applying innovation towards:

- I. creating clear environmental benefits (e.g. reduction of CO2 emissions, adapting green solutions, etc.);
- II. increasing productivity, innovation capacity, resilience and sustainability;
- III. making the jobs of the **humans** working in the manufacturing and construction sectors more attractive and safer, and point the way to opportunities for upskilling;
- IV. creating new business models, sustainable-by-design advanced materials and technologies enabling the switch to decarbonisation in all major emitting industrial sectors, including green digital technologies;
- V. applying enhanced data collection, encouraging digital culture and improved collaboration between the stakeholders.

**Topic Description:** The activity should demonstrate how EIT Manufacturing can, in practice, help local players to cover needs such as green and digital transformation piloting activities for SMEs. The activities can include green innovation and business creation aspects, but the main focus should be towards the latter as they could mostly support business creation through twin transition. Most of the participants are expected to be from business (e.g. service/technology providers, SMEs and end users) and the others from research (Universities and RTOS).

The proposed RIS activities may include education and training, innovation and business creation aspects. However, they are expected to mostly address business creation aspects though business transformation (twin transition).

# ! The EIT Manufacturing general guidelines (section 4.2) should be respected. In addition, the guidelines below should be also followed.

**Duration:** project duration 1 or 2 years. **Partnership:** 

- Recommended number of partners: 3-4 from at least 3 different countries
- The consortium should include:

- o At least 1 business partner.
- One or more partner (s) that will have the role of business owner and therefore is identified for offering this service. Business owner should be able to demonstrate that the commercialization of the results of the project are within its core business (segment specific eligibility criteria). The business owner(s) should be identified from the proposal stage. The business owner(s) should be either a University/ RTO or a business organisation.

<u>External partners involvement</u>: The involvement of a substantial number of external RIS organisations is expected through an open call executed in the beginning of the activity implementation. The recommended number of external participants (mainly SMEs and startups) are 10-15 from at least 6 different RIS eligible countries. The selectrd applicants will be supported by the consortium in their "green and digital" twin transition with relevant services, as well as relevant funding. The number of external participants is expected to be included also in the relevant KPIs. Individuals from these organisations are expected the be addressed through the relevant KPIs as well.

**Expected budget per activity per year:** 400k€. Any co-funding rate for this segment is not required. However, co-funding will be positively evaluated.

#### Financial Sustainability Mechanisms:

A financial sustainability mechanism is required to be described in this RIS Proposal activity. The recommended mechanisms are:

- Consulting and services;
- Revenue sharing of courses, badges, certificates;
- Product and service revenue shares.
- Equity shares

Specific conditions and documents:

- Marketing/commercialization/business plan (as an a deliverable/output) in place.
- Communication and Dissemination plan (as an a deliverable/output) in place.

#### Recommended KPIs\*:

KPI code	Short Description	Target per Year
EITHE02.1	#Number of all innovations introduced on the market during the KAVA duration or within 3 years after completion.	At least 1
EITHE23.1	#Number of innovation testbed established.	At least 1
EITHE01.1	#Number of innovative products, services and processes resulting from innovative projects.	At least 1
EITHE03.1	#Number of start-ups and scale-ups supported by KICs for at least 2 months in year N.	At least 15
EITHE04.1	#Number of start-ups established in year N as a result / based on the output(s) of KAVA(s), or start-ups created for the purpose of an innovation project to organise and support the development of an asset (but not later than 3 years after the completion of KAVA)	Optional

\*The list of KPIs is recommended but the proposers are free to select the most appropriate KPIs for their proposal. The above KPIs are based on the guidelines 2021-2022 received from EIT and might be amended when the updated guidelines for KPIs will be available. The full description of the KPIs is presented in sections 6.9 and 6.10.

#### 6.4.2.6 RIS CfP 2023 at a glance

The available RIS activities in CfP 2023 are summarised in the Table 8 below.

Segment	Short description	Partnership	Expected participants	Duration	Expected KAVA budget per year	Key features
Teaching and Learning Factories in EIT RIS countries	Establish and operate TLFs in EIT RIS counties.	Min. 3 core partners from at least 2 different CLCs.	Manufacturing companies, universities, individuals (students and industrial workforce)	1-2 years.	200k.	Involvement of external participants from EIT RIS counties is encouraged.
Programs to engage Society and Pupils in EIT RIS countries	Increasing awareness and attracting young people to manufacturing.	Min. 3 core partners from at least 2 different CLCs.	Manufacturing companies, universities, individuals (students and industrial workforce)	1-2 years.	150k.	Involvement of external participants from EIT RIS counties is encouraged. Large geographical coverage is expected.
Al at EIT RIS	Innovations relevant to the Call Thematic "AI and digital twins for manufacturing systems" for applying AI technology in RIS countries.	Min. 3 core partners from at least 2 different CLCs.	Manufacturing companies, Universities, RTOs.	1-2 years.	400k. Co- funding rate is 30%.	The specific call is only for organizations coming from EIT RIS eligible Countries.
Innovating for Circular Economy at EIT RIS countries	Activities aiming to promote innovative solutions relevant to the Call Thematic "Smart technologies for circular and green manufacturing".	Min. 3 core partners from at least 2 different CLCs.	Manufacturing companies, Universities, RTOs.	1-2 years.	400k. Co- funding rate is 30%.	The specific call is only for organizations coming from EIT RIS eligible Countries.
Green and digital 'twin' transition for SMEs	Activities applying green and digital solutions on SMEs through organizing piloting activities.	Min. 3 core partners from at least 2 different CLCs.	Business partners, Manufacturing companies, Universities, RTOs, external organisations (mainly SMEs and startups).	1-2 years.	<u>4</u> 500k.	The involvement of a substantial number of external RIS organisations is expected.

Table 8: Overview of available RIS activities

#### 6.4.3 Evaluation Criteria and process

RIS proposals will be reviewed following <u>mostly the criteria stated in section 5 as well as the relevant</u> <u>criteria and requirements stated above under Education and Innovation according to the nature of the</u> <u>activity</u> (See sections 6.2, 6.3). In all cases, the following **RIS related aspects** will in addition be looked at:

- Is the proposed project going to engage in its activities a significant number of partners and/or activity partners from RIS countries?
- Is the proposed project going to address a good number of RIS countries? Does the proposal clearly describe the benefits for stakeholders in RIS countries and/or regions?
- Does the proposal convince that it will strongly contribute to the advancement of the innovation performance of RIS countries?
- Does the proposal include appropriate communication measures to increase the impact of the activity and brand recognition of EIT, EIT RIS and EIT Manufacturing and how well are they described?

The evaluation of the activity proposals will be conducted by external independent technical experts and business evaluators considering the evaluation criteria for RIS activities, as these described in section 5. In addition on the aspects to be considered, the experts should ensure that the activities are addressing the RIS aspects appropriately as these are discussed above. The average value of the subcriteria scores gives the final criterion score (rounded value according to the scoring rule described above). The thresholds and weights for the selected criteria are summarized in the following table.

	Score scale	Threshold	Weight
Excellence and Strategic fit	0-5	3	20
Implementation	0-5	3	28
Impact	0-5	4	32
RIS	0-5	4	20

#### Table 9: Evaluation score table for RIS proposals

#### 6.4.4 RIS countries

EIT RIS eligible countries for CfP2023 can be found here.

It is also noted that, as shown in the above link, Italy and Spain are EIT RIS eligible countries. Therefore, organisations from Italy and Spain are welcome to apply for EIT RIS activities. However, since EIT Manufacturing has CLCs in Italy and Spain, indicating possible good presence, it is strongly recommended in this case to have a good number of EIT RIS eligible countries involved in relevant RIS proposals and avoid having activities dedicated solely on Italy and Spain.

### 6.5 Guidance and Support

Requests for clarifications on the Call content, as well as for support for matchmaking and devising proposals, can be addressed to:

- Innovation : Xavier Baillard, innovation@eitmanufacturing.eu
- Education: Carolina Torregrosa G., carolina.torregrosa.gallo@@eitmanufacturing.eu
- RIS: Panagiota Tsarouchi, ris@eitmanufacturing.eu

Questions related to the overall Call process, EIT definitions and requirements can be addressed to

CfPSupport@eitmanufacturing.eu

### 6.6 Financial Aspects

For *Innovation Activities*, project teams have to provide own contributions to **co-fund** 30% of the total eligible KAVA costs of the activity.

For *Education Activities*, no co-funding is expected. EIT Manufacturing will fund 100% of the eligible KAVA costs of Education Activities for all types of organzations.

For *RIS Activities*, the same funding rules apply based on the type of activity and the expected co-fund rates are summarised in the RIS Activities segment (see section 6.4.2).

EIT Manufacturing aims to generate a return on investment for the Activities it funds, in order to gradually achieve **financial sustainability** and independence from EIT funding in the longer term. Therefore proposals are required to suggest and quantify a mechanism to contribute to the financial sustainability of EIT Manufacturing in case of succesful outcomes (e.g. products or services succesfully launched in the market as a result of the activities etc.). Mechanisms may include licensing deals,

sharing of revenue or paying a fixed sum, equity shares in start-ups created by Innovation Activities and/or supported by Business Creation Actitivities, tuition fees for education programmes (in particular professional education), or other mechanisms being relevant to the activities content and consortia interests. The financial contribution will aim to reflect the active participation of EIT Manufacturing in the successful achievement of the project.

# 6.7 General comments to be taken into consideration in elaborating the proposals

All proposals should review the feedback to the first stage submission and expand/elaborate the proposal accordingly. Changes to budget, partner composition, and project scope are possible.

Note that the overview budget as submitted in tab 3 is for the final call not editable any more, but retained for reference only. The final Activity budget needs to be specified in tab 5.

## 6.8 Participation of Organisations not associated to Horizon Europe Programme

Organisations from countries not associated to the Horizon Europe programme may participate in proposals under the provison that funding for them will be dependent on the agreements reached under Horizon Europe.

## 6.9 EIT Core Key Performance Indicators (KPIs)

The table below lists the updated KPIs as recently defined by EIT. Note that this may not be the final list. Changes will be implemented in the submission system when available and an update to this document published on the intranet. "Year N" below refers to the operational year for the proposals of the call, in this case 2023. Each proposal should only indicate the applicable KPIs defined for their Area (leftmost column).

Latest in the second stage , proposals should be also associated with relevant KIC specific KPIs.

<u>Table 10. EIT Core KPIs:</u> List of KPIs as defined by EIT for which a target number can be specified (further KPIs will have to be measured as part of Activity reporting). Please note that targets for RIS KPIs should additionally also be included in the target for the "parent" KPI.

KPI Code	Area	KPI Title	KPI Definition	Data and Supporting documents required per achievement
EITHEO1.1	Innovation	Innovations designed or tested	Number of innovative products, services and processes resulting from innovative projects that (1) filed for some form of intellectual property protection (i.e. patents, trademarks, registered designs, copyrights), or innovative products / services that have progressed towards commercialisation, defined as one or more of: progress by at least one technology or manufacturing readiness level (TRL/MRL); prototype / proof of concept / beta version developed; product / service / model piloted; or (2) innovative products	<ul> <li>Structured data</li> <li>Type of intellectual property right: patent; trademark; registered design; utility model; other</li> <li>Application title</li> <li>Application reference</li> <li>Application date</li> <li>IPR owner</li> <li>Country of the IPR owner</li> <li>Does the IPR owner take part in the HEI Capacity Building Initiative (HEI CBI)?</li> </ul>

			tested through testbeds or other innovative platforms.	<ul> <li>IPR status: Has the IPR protection been awarded?</li> <li>IPR Award reference if any</li> <li>Reference to a specific KIC value-added activity (KAVA)</li> <li>Technology Readiness Level</li> <li>No supporting evidence required</li> </ul>
EITHE23.1	Innovation	Innovation testbeds established	Test-beds used to test innovation products/services to be reported by country. A testbed is defined as a platform for conducting rigorous, transparent and replicable testing of scientific theories, computational tools and new technologies. It is used to describe experimental research and new product development platforms and environments. Testbeds can be identified and counted, testbed activities can be observed and measured, e.g. through contracts between testbed hosts and their users. Innovation testbed is a general term encompassing other terms used to indicate environments to test innovations, such as demonstrators, living labs, sandboxes and others	<ul> <li>Structured data</li> <li>Number of testbeds established</li> <li>Country where the testbed was established</li> <li>No supporting evidence required.</li> </ul>
EITHEO2.1	Innovation	Innovations launched on the market	Number of innovations introduced on the market during the KAVA duration or within 3 years after completion. Innovations include new or significantly improved products (goods or services) and processes sold. Innovations introduced on the market must be directly linked with the KAVA (as anticipated in the commercialisation strategy) and reported in the year when they reached the first revenue (but not later than three years after completion of the KAVA). Markets to be defined per country (incl. RIS countries). Open access innovations to be counted as part of the main KPI but not under the sub-KPI.	Structured data: •Name of the innovation •Country of the company that launched the innovation •Market (country/countries where the innovation is sold - countries separated by semicolon ";") •Was the innovation launched on the market as part of the HEI CBI? •Total revenue from the innovations launched on the market for the reported year in EUR. For open access innovations only: number of confirmed users. Supporting evidence: •Description of a product or process with specified performance characteristics/ physical parameters/ functionalities demonstrating novelty (new or significant improvement) of the product/process.
EITHEO2.4	Innovation	Innovations launched on the market with revenue >10k	Number of innovations introduced on the market during the KAVA duration or within 3 years after completion with a sales revenue of at least 10 000 EUR documented. Innovations include new or significantly improved products (goods or services) and processes sold. Innovations	Structured data: •Name of the innovation •Country of the company that launched the innovation •Market (country/countries where the innovation is sold) •Was the innovation launched on the market as part of the HEI CBI?

EITHEO3.1	Innovation	Start-ups and scale-ups supported by KIC	introduced on the market must be directly linked with the KAVA (as anticipated in the commercialisation strategy) and reported in the year when they reached the first revenue (but not later than three years after completion of the KAVA). Markets to be defined per country (incl. RIS countries). Open access innovations to be counted as part of the main KPI but not under the sub-KPI Number of start-ups and scale-ups supported by KICs for at least 2 months in year N, provided the KIC's services contribute to the company's growth (including potential growth). Examples of such services are mentoring, consultancy on access to finance and markets, product / service marketing, legal advice, internationalisation, matchmaking, etc. Business matchmaking is a method to identify and connect (match) companies and people with common business interests, complementary services, expertise, technologies or business strengths. The goal is to create cooperative connections and realize business opportunities that mutually benefit both parties. The services should be provided for a total period of at least two months. Start-ups and scale-ups will be reported by country of registration of the venture.	<ul> <li>Total revenue from the innovations launched on the market for the reported year in EUR. For open access innovations only: number of confirmed users.</li> <li>Supporting evidence: <ul> <li>Description of a product or process with specified performance characteristics/ physical parameters/ functionalities demonstrating novelty (new or significant improvement) of the product/process.</li> <li>Declaration demonstrating link with a specific KIC KAVA (indication of the specific output of KIC KAVA(s)) and financial proof of the KAVA investment in the innovation development.</li> <li>Documented proof such as invoices or online sales record demonstrating that the purchases are totalling at least 10 000 EUR by customers.</li> </ul> </li> <li>Structured data: <ul> <li>Company name, website, registration number, country of registration, gender of the CEO / owner,</li> <li>Was the company supported through the HEI CBI?</li> </ul> </li> <li>Supporting evidence: not required</li> </ul>
EITHEO4.1	Innovation	Start-ups created	Number of start-ups established in year N as a result / based on the output(s) of KAVA(s), or start-ups created for the purpose of an innovation project to organise and support the development of an asset (but not later than three years after the completion of KAVA).	Structured data: •Company name •Company website •Company registration number •Country of the company registration •Gender of the company CEO/owner •Was the company created through the HEI CB Initiative? Supporting evidence: not required

EITHE04.4	Innovation	Start-ups	Number of start-ups established in	Structured data:
		created with revenue >10k	year N as a result / based on the output(s) of KAVA(s), or start-ups created for the purpose of an innovation project to organise and support the development of an asset (but not later than three years after the completion of KAVA) having a financial transaction of at least 10 000 EUR for a service/product (result of the KIC KAVA) sold to customers.	<ul> <li>Company name</li> <li>Company vebsite</li> <li>Company registration number</li> <li>Country of the company registration</li> <li>Gender of the company CEO/owner</li> <li>Was the company created through the HEI CB Initiative?</li> <li>Supporting evidence: <ul> <li>Registration certificate of a start-up established in year N</li> <li>Description of the start-up and its core business</li> <li>Document such as an invoice or an online sales record certifying financial transactions of at least 10 000 EUR for a service/product (result of the KIC KAVA) sold to customers.</li> </ul> </li> </ul>
EITHEO5.1	Education	Start-ups created by students enrolled and graduates from EIT-labelled MSc and PhD programmes	Number of start-ups established in year N by students enrolled and graduates from EIT labelled MSc and PhD programmes. To be eligible, a start-up should be created during EIT labelled programme (by students) or within 3 years from the graduation (by graduates).	Structured data: • Company name • Company website • Company registration number • Country of the company registration • Name and gender of the student who created the company • Was the labelled programme delivered through the HEI CBI? Supporting evidence: • Registration certificate of a start-up established in year N • Description of the start-up and its core business
				• Document such as an invoice or an online sales record certifying the first financial transaction for a service/product sold to a customer.
EITHEO6.1	Business Creation	Investment attracted by KIC- supported start- ups and scale-ups	Total EUR amount of private and public capital attracted within year N by supported start-ups / scale-ups (per country) that have received KIC business creation services support of total duration of at least two months, within a maximum of three years following the last received KIC KAVA support activity.	Structured data: •Investment amount •Company name •Company registration number •Country of the company registration •Gender of the CEO/owner •Was the start-up/scale-up supported through the HEI CB Initiative? Total amount of KIC support received (if applicable). •Year in which the last support was received
				Supporting evidence: Declaration of the start-up/scale-up proving the amount of the investment, type of investment, source of income by type (public/private). In case the investment was attracted from public source, it should be specified (e.g.

	1			for a fit (for stand for da) if a south t
				from EU Structural Funds). If possible,
				links to further evidence (e.g. website) should be included.
EITHE07.4	Education	Graduates	Sum of graduates from EIT labelled	Structured data:
ETTHEO7.4	EUUCATION	from EIT	Masters and EIT labelled PhD	•Student name
		labelled	programmes in year N	•Student gender
		MSc/PhD	programmes in year w	•Student country of origin
		programmes		•Student country of residence
		programmes		•Student or graduate?
				•Education programme reference
				Higher Education Institution
				•Education programme type
				•Were the EIT labelled programmes
				developed as part of the HEI CBI?
				•Did the student join a start-up?
				Supporting evidence: not required
EITHE07.5	Education	Students	Sum of students enrolled in EIT	Structured data:
		enrolled in EIT	labelled MSc and PhD	•Student name
		labelled	programmes in year N.	•Student gender
		MSc/PhD		• Student country of origin
		programmes		<ul><li>Student country of residence</li><li>Student or graduate?</li></ul>
				•Education programme reference
				Higher Education Institution
				•Education programme type
				•Were the EIT labelled programmes
				developed as part of the HEI CBI?
				•Did the student join a start-up?
				Supporting evidence: not requried
EITHE08.1	Education	Participants in	Number of successful participants in	Structured data (submitted by
		non-labelled	EIT professional development	uploading the Excel template):
		education and	courses, online training courses and	•List of successful participants incl.
		training	other education/training activities	names, gender, country of origin,
			delivered or in a process of delivery	country of residence, education
			(by country and type of programme),	programme/HEI, country of education
			including data on country of	delivered
			citizenship and gender.	•Education programme reference
			Only participants, who successfully	•Higher Education Institution (if
			finished the programme, shall be counted. For this KPI, only those	<ul><li>applicable)</li><li>Are the training/education delivered</li></ul>
			education and training activities	through the HEI CBI?
			which have clearly defined learning	
			outcomes, and which carry out	Additional supporting evidence: not
			competency assessment method are	
			applicable.	required
EITHE09.1	Education	Students and	Not reported separately, inferred	Structured data:
		graduates from	from EITHE07.4 and EITHE07.5.	•Student name
		EIT labelled		•Student gender
		MSc and PhD		•Student country of origin
		programmes		• Student country of residence
		who joined		•Student or graduate?
		start-ups		•Education programme reference
				Higher Education Institution
				•Education programme type
				•Were the EIT labelled programmes
				developed as part of the HEI CBI?
				•Did the student join a start-up?

			Supporting evidence: not requried
EITHE13.1	Success stories presented by KICs to the EIT	10 high-quality success stories per year. The success stories should follow EIT respective guidelines and should be accepted by EIT, including eligible nominees for the EIT awards. For the KPIs related to the success stories, the EIT will carry out the internal verification process of the received success stories, innovation in action and promising & newsworthy stories following the procedure specified in the guidance	Structured Data: •Name of the success story •Country of success story Supporting evidence: Data needs to be provided in the EIT success story template
EITHE14.1	Good practices and lessons learnt identified and codified	note. Number of good practices and lessons learnt identified and codified. Good practice is a practice that has been proven to work well and produce good results and is therefore recommended as a model. Lessons learnt are an analysis / record of a learning process in the development, implementation and follow-up of an innovative approach, process or activity.	Structured data: •type •title •short description Supporting evidence: not required
		Lessons learnt are often a by-product of identifying and validating good practices.	
EITHE15.1	Results, good practices and lessons learnt disseminated	Number of results, good practices and lessons learnt disseminated. Good practice is a practice that has been proven to work well and produce good results and is therefore recommended as a model. Lessons learnt are an analysis / record of a learning process in the development, implementation and follow-up of an innovative approach, process or activity. Lessons learnt are often a by-product of identifying and validating good practices.	Structured data: • type • title • website links showing the dissemination • Link to the EC IT dissemination platforms such as Horizon Results Platform (europa.eu) • Is the result which is disseminated related to the HEI CBI? Supporting evidence: not required
		Result is what is generated during the activity implementation. This may include, for example, know- how, innovative solutions, algorithms, proof of feasibility, new business models, start-ups, policy recommendations guidelines, prototypes, demonstrators,	

		databases, trained researchers, new infrastructures, networks, etc.	
EITHE17.1	Dissemination and communicatio n activities of the KIC and # people reached through these activities	Number of dissemination and communication activities of the KIC and # people reached through these activities.	Structured data: •Website/social media and # of visits/views •Disseminated/communication material title and # downloads •Physical event title and number of its participants •Was the communication/dissemination part of the HEI CBI?
			Supporting evidence: not required

# 6.10 KIC-specific Key Performance Indicators (KPIs), as relevant for proposals to this call

Code	Area	KPI Title	KPI Definition	Evidence requirements
KIC.EO1	Education	# Badges issued to document and testify the achievement of a learning outcome in EIT Manufacturing education programmes, not including EIT-labelled Master and PhD	Badges indicate a learning outcome of a learning path is documented with a learning certification (=badge) in year N. A learning path consists of a combination of nuggets and/or other learning modules, created to bring a learner from an initial to a final competence level, that's evaluated with a final assessment	List of certificates provided including: names, contact details (e-mail address), gender and country of citizenship, indication of the educational programme, acceptance of privacy policy/consent to data collection and sharing with EIT. The list is to be confirmed by the KIC Education Director. Source for such list are the enrollments at Skills.move and in physical classes, i.e. the information requirements must be recorded when registering for training courses.
KIC.E02	Education	Number of educational products launched	EIT Manufacturing aims at creating education products which consists of a physical or digital/printable KIT that can be used to enable learning experiences such games, experiments or workshops (no nuggets, nor learning paths). This indicator measures the number of educational products which are offered to learners or schools or universities and what. Applicable to Education proposals.	Educational products launched should be communicated to the Education Director by the activity leader proof of offering the product to market by the business owner. Proof of concepts or prototypes are not accepted. A business owner in charge of the commercialization and distribution of the product should be identified.
KIC.EO4	Education	Number of teachers involved in engage programmes	EIT Manufacturing aims at attracting pupils and youngsters to manufacturing, also through the engagement and collaboration with teachers. This indicator measures the number of teachers taking part in any engage project or	Participating teachers has to register on one of the EIT platforms, or issue an official certificate/letter of the participation to the initiative upon request of the activity leader. They have to state the number of pupils involved.

Table 11: KIC-specific KPIs

			using one of the educational products created by EIT Manufacturing. Applicable to Education proposals.	
KIC.E05	Education	Number of pupils/target people involved in engage programmes	EIT Manufacturing aims at attracting and empowering pupils and target groups to manufacturing (e.g., girls, or migrants), through the engagement programs. This indicator measures the number of participants taking part in any engage project or using one of the educational products created by EIT Manufacturing. Applicable to Education proposals.	Participating teachers has to register on one of the EIT platforms, or issue an official certificate/letter of the participation to the initiative upon request of the activity leader. They have to state the number of pupils involved.
KIC.G03	Education / Innovation/ RIS	Number of digital nuggets created	EIT Manufacturing aims at creating digital content in small units to address the education needs of target groups. This indicator measure every educational module that can be delivered digitally via Skills.move having a learning time between 5 and 30 min. Applicable to proposals in all Areas.	The nuggets are uploaded in Skills.move and the Digital Content agreement is signed, the related information is inserted in Annex 1 of the Digital Content Agreement
KIC.G04	Education / Innovation/ RIS	Number of digital nuggets consumed	The EIT Manufacturing aims that at developing manufacturing competencies through the consumption of digital nuggets. This indicator measures the nuggets that are accessed and used on Skills.move by users. Applicable to proposals in all Areas.	The indicator is measured through Skills.move
KIC.G05	Education/ Innovation/ RIS	Number of learning paths created	This KPI's objective is to measure the number of learning paths created. A learning path is the aggregation of 3 or more digital nuggets and addresses at least one competency. Learning paths can combine nuggets developed during the project as well as nuggets developed by other KAVA in the previous years or in the running one.	The learning counted must be created in Skills.move and quality check must be approved by EITM
KIC.B01	Business Creation	# of Manufacturing clients introduced to start-ups and SMEs, through the KIC Activity	This KPI's objective is to supervise the commercial activity generated through the KIC activity. It is defined by the number of Manufacturing clients that the KIC Activity introduced to	Formal signed declaration of honor from Coordinator, showing for the portfolio's companies: - the list of Manufacturing clients that were introduced (presented) to portfolio' companies - the material proof of such

			its portfolio's companies, in	introductions, consisting of Minutes of
			order to allow those portfolio's companies to discuss clients' needs and develop business	meetings between the portfolio company and the Manufacturing client. Such Minutes must show the topics that were discussed in the and the actions that both parties (portfolio
			Be aware, this is not about match-making event. It is about driving a dedicated meeting between a portfolio	company and Manufacturing client) agree upon to develop business
			company and Manufacturing clients to have a specific and deep discussion about clients' needs, solution	
			proposal, and business opportunity	
KIC.B02	Business Creation	# of deals (business transactions) initiated by startups and SMEs, through the KIC Activity	This KPI's objective is to supervise the commercial activity generated through the KIC activity. It is defined by the number of deals	Formal signed declaration of honor from Coordinator, showing for the portfolio's companies: - the list of deals that were initiated by the portfolio companies thanks to the
			(business transactions) that the portfolio's companies initiated thanks to the support of the KIC Activity, in order to develop the	KIC Activity support. Those need to be in discussion or concluded (successfully or not) - the proof of deals initiation, consisting of signed documents
			business of the portfolio companies Deals can be proposal /	between the portfolio company and the Manufacturing client. Those signed documents must show the business cases that were discussed
			agreement of : 1- Proof of Concept (PoC), 2-Product joint development, 3- Product joint commercialization, 4- Sales.	and the actions that both parties (portfolio company and Manufacturing client) agree upon to develop business
KIC.B03	Business Creation	# of "Qualified Business Analysis" delivered, through the KIC Activity	This KPI's objective is to supervise the Business critical thinking that must be promoted through the KIC activity. It is defined by the number of "Qualified Business Analysis" that were	Formal signed declaration of honor from Coordinator, showing the list of "Qualified Business Analysis", with those Analysis proposed in attached documents
			built and shared through the KIC activity	
			The list of types of Business Analysis is as follow: Market studies, Product and/or technology roadmap definition, Business Plan, Transformation Plan, Go To Market (marketing and	
			commercialization) document, Go to Financing document	
			A Business Analysis is qualified, only if the EITM / Business Creation team (under Business Creation Director supervision) reviewed and accepted the analysis	

KIC.B04	Business	# Business Creation	This KPI's objective is to	Formal signed declaration of honor
	Creation	reputation building events	supervise the intensive and	from Coordinator, showing
		organized through the KIC	efficient	list of events led or co-led by KIC
		Activity	communication/networking	Activity. For each event information
			works that are essential to	about:
			raise awareness and position	- where / when / attendees
			EITM as a key Leader in	- topics of Business Creation
			driving Business Creation in	presented
			Europe.	- representative of Business Creation
				team
			It is defined by the number	
			of events that the KIC	
			Activity led or co-led to	
			promote EIT Manufacturing /	
			Business Creation awareness	
			and reputation. Those events	
			are with the presence of	
			Business Creation team	
			representative.	
KIC.R01	<b>RIS Activities</b>	# of teaching and learning	Number of projects using or	This KPI will measure the number of
		factories projects	creating teaching and	Teaching & Learning Factories projects
		implemented in EIT RIS	learning factories in RIS.	implemented in EIT RIS countries.
		countries	Please note that one project	Evidence required: Signed declaration
			is defined as one different	listing the projects and reporting the
			case/ problem addressed.	requested KPI.
			Applicable to all KAVAs since	
			TLFs in RIS may also come up	
			from the EDU pillar. The core	
			EIT KPIs for RIS are also	
			measured, considering all	
			pillars.	

## 6.11 Glossary

The glossary defines the meaning of some key terms used in the context of EIT.

The glossary defines the meaning of some key terms used in the context of ETT.	
Activity	Everything that EIT Manufacturing does is organized into Activities. Each Activity belongs to one Segment, each Segment to one Area. Each Activity should contribute to the integration of the knowledge triangle of higher education, research and innovation, including the establishment, administrative and coordination activities of the KICs, and contributing to the overall objectives of the EIT
Activity Partner	This is a partnership status under which an organization may participate to specific activities of EIT Manufacturing without becoming a Member of EIT Manufacturing Association. Organizations that participate in a succesful activity proposal and are not EIT Manufacturing Members (or their LTPs) will become Activity Partners. This partnership status is limited to the duration of the activity(ies) these organizations participate in. For each year of activity partner yearly fee (10,000 EUR). Activity Partners are not entitled to register any Linked Third Parties (LTPs) even if the LTP criteria are met (i.e. corporate conglomerate, daughter companies).
Area	EIT defines a number of areas in which it operates: Education; Innovation and Research; Entrepreneurship; Communication, Dissemination and Outreach; Regional Innovation Scheme; and Management and Coordination.
Business Plan	The document specifying the detailed plan of EIT Manufacturing for the upcoming year. It consists of a main body text and a number of annexes describing the Activities in detail. On the basis of the draft Business Plan submitted in September (and some other criteria) EIT decides on the budget available to EIT Manufacturing in the following year. The Business Plan will then be adjusted to match the assigned budget and forms the basis for the internal project agreements of EIT Manufacturing with its partners.

Co-funding	KAVA funding from other than EIT financial contribution sources, in particular partners own investments and national or regional public funding programmes.
Deliverable	It is the tangible document, medium, or other artefact encapsulating the quantifiable outputs (e.g. products, services) created by a KAVA in pursuit of a specific objective and defined in the Business Plan for each specific KAVA. Deliverables represent the outputs in a format that can be uploaded on Duna submission tool at the time of reporting. Not all outputs need to be translated into a deliverable. A deliverable shall be chosen in a way that can represent a proof of the KAVA's proper implementation. A minimum of one deliverable shall be planned per KAVA. Core KIC documents (plans and reports that support KIC work) are part of the KIC planning and monitoring process and should not be listed as deliverables of KAVAs. Examples: comparative studies, market analysis reports; handbook and training tools; innovative education and training modules; described new curricula and qualifications; product technical documentation; results of client's satisfactory survey or testing; e-learning modules manuals and statistics of attendance; documentation about seminars, workshops, conferences, online forums, newsletters etc.
KIC	"Knowledge and Innovation Community" – EIT Manufacturing is one of now eight KICs that operates under the regulations of EIT.
KAVA	"KIC Added Value Activity". This terminology is kept for historical reasons: up to 2020, each Activity consisted of a KAVA part and a KCA contribution. The KAVA part was the project that is executed and funded by the team of partners to achieve the goals of EIT Manufacturing. For the Call 2023, "KAVA" and "Activity" are used interchangeably.
KTI	Knowledge triangle integration. The concept refers to activities that integrates education, innovation and business creation aspects
Nuggets	Nuggets are short (<30 min) learning content units to be delivered online via our Guided Learning Platform. Each nugget addresses at least one competency and may have different formats (pdf, video, html, simulation,). For more information refer to Annex_A Education Pillar Basic Concepts and Glossary.
Output	It is what is directly produced or supplied through the KIC activities. In the context of the EIT, outputs may refer to the concrete technology, product, service, method, design, concept, methodology, approach, graduates, etc. created by a KAVA. Some outputs are monitored as KPIs. Examples: new products or processes, transformation of existing products, innovative education and training modules, new curricula and qualifications, e-learning modules, guidance material for new approaches and methodologies, testbeds and experimental facilities, prototypes, patents, publications, etc.
RIS (Regional Innovation Scheme)	The EIT RIS (Regional Innovation Scheme) is designed to share good practices and experience emerging from the EIT Community's activities, as well as to widen participation in KIC activities. Therefore, the aim of the EIT RIS is to help disseminate the knowledge and know-how of the EIT Community and widen participation in the KICs across Europe. The EIT RIS focuses on countries with limited or no participation in the EIT Community's activities, where innovation capacity is moderate or modest and which otherwise would not be able to benefit from the experience gained by the KICs.
Segment	Each Area has a number of series. For the Area Education these are for example the Fle-Enhance, Pioneering Learning Journest, Skill-Driven Learning, Education for Transforming Organizations, and Programmes to engage Society and Pupils