Call 2022 – Draft Thematic Areas

Flagships

Flagship - Human-machine co-working for socially sustainable manufacturing

Human-machine co-working is a lever to use in a view to maximize job openness to all workers' by removing language, disability, age, gender barriers and maximize workers' well-being & motivation.

Diverse technologies delivering physical and/or cognitive assistance should facilitate attractivity and facilitate employment hence social sustainability within the manufacturing section which is EIT Manufacturing key strategic objective.

Flagship - Flexible production systems for competitive manufacturing

Proposal under this flagship should foster adaptable & versatile production lines or process chains to manufacture small batches, mass customization, Make-to-Order products, personalized and/or smart products. Through flexibility (e.g. reconfigurable production cells and mounting chains), the systems proposed shall also be crisis-resilient and help minimize failures/downtimes & interruption times, maintenance impact or procurement/shipping interruptions.

The lever to achieve this objective is to implement any kind of system, process, work organisation, technology that will make a production chain more flexible, more adaptable to produce diverse products adapting quickly to market condition and changes hence increase manufacturing competivity which is a Key EIT Manufacturing startegic objective.

Flagship - Low environmental footprint systems & circular economy for Green manufacturing

Proposal under this flagship should minimize energy/raw materials/natural resources consumption and/or GHG/pollutants emissions of manufacturing systems as first lever. The scope includes also as second lever any solution that can contribute to a circular economy. (e.g. waste recycling, de-manufacturing i.e. product disassembly for reusing or recycling purpose, re-manufacturing i.e. new products manufacturing from reused or repaired parts). The scope can also includes logistical, control & maintenance systems for manufacturing production systems.

Flagship - Digital & collaborative solutions for innovative manufacturing ecosystems

Collaborative solutions could consist in: digital sharing solutions (e.g. data or knowledge sharing based on Artificial Intelligence, platforms, cloud, etc.) ; physical sharing solutions (e.g. human workforce or production resources sharing) ; digital & physical hybrid solutions (e.g. IoT, CPS, etc.) ; any other solutions based on new organizations within value networks* Innovative manufacturing ecosystems should foster business/co-creation and enhance efficiency throughout the manufacturing value networks* while preserving EU sovereignty & establishing EU standards on data. The solutions proposed could also enable resilience by allowing quick reconfigurations inside manufacturing value networks*.

*Value networks refer to actors of the manufacturing value chain, business partners and service providers working hand in hand in a new organization to enhance manufacturing collaborations.

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.[1]

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 in Figure 3) that is has reached maturity and needs an extra push for the business to become reality.
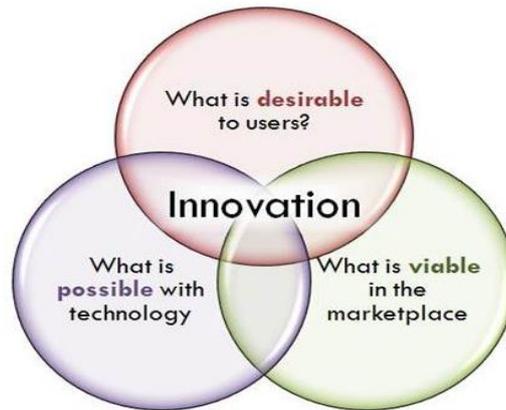

Figure 4: innovation components for success

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.

The proposal shall be aligned with at least one of the four EIT Manufacturing flagships with the following restrictions (applicable only to innovation):

- **Human-machine co-working for socially sustainable manufacturing:**
Robots only or mere automation solutions without positive impact on human work will be out of scope
- **Flexible production systems for competitive manufacturing**
Additive manufacturing or 3D printing solutions can be considered but shall not constitute the core aspect to achieve production system flexibility. Proposal focusing only at improving 3D printing solution will be out of scope.
- **Low environmental footprint systems & circular economy for Green manufacturing**
Zero-defect solutions will be out of scope
- **Digital & collaborative solutions for innovative manufacturing ecosystems**

The aim of the Call 2022 is to develop both the technical integration and the business maturity level of entrepreneurial projects. On the second aspect, it means increasing the market traction and robustness of the proposed solutions for scaling, to ensure or increase adoption within manufacturers as end users.
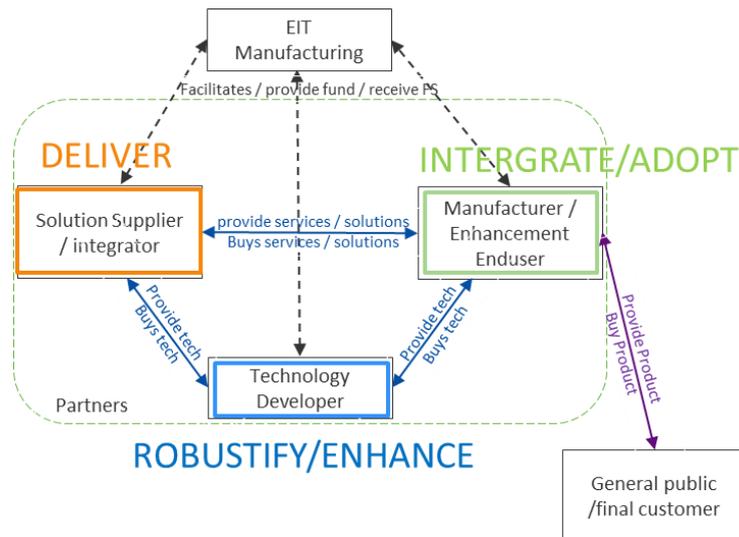
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[1] Crossan & Apaydin, 2010, p. 1155

Fgure 5: Schematic overview of the manufacturing ecosystem

Prior to applying to the call, innovation activity proposals should…

…clearly define the acute and real manufacturing problems that need to be solved and how they will address them

…have clearly IDENTIFIED SEVERAL USE CASES, ideally in different industrial sectors, to show the genericity of the solutions

…have novel technology-based solutions (products or services) that are robust and market-ready i.e. they can lead to commercial exploitation WITHIN ONE YEAR of project completion

…provide development and system INTEGRATION for ONSITE implementation of NEW SYSTEMS / SERVICES for manufacturing enhancement.

…ensure that technology brick providers, system integrator or service providers and application end users are part of the consortium team

…contribute to the financial sustainability of EIT Manufacturing…
…carefully address EIT performance KPIs

…translate innovation findings into learning nuggets and associated learning path with an evaluation nugget during the project

… clearly specify which actions that are taken to achieve knowledge triangle integration, gender balance and diversity and sustainability to be in line with the European Union's objectives

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 optimum way so that they are willing to adopt and purchase theproposed solutions.. These solutions should be commercializable through dedicated and adapted business approach. In addition, the proposal should contribute to the financial sustainability mechanisim of EIT Manufacturing.

Examples of enabling technologies are shown below, but the list should not limit the activity proposals to explore only new enabling technologies.

Fig 6. Examples of enabling technologies

Agile manufacturing technologies	Additive Manufacturing	Collaborative Robots	Connectivity 5G & Internet of Things	Blockchain & Cybersecurity
Bio-inspired Manufacturing	Blockchain & Cybersecurity	Advanced Materials	Digital Platforms	Digital Twins & VR/AR

EIT will invest in highly motivated and entrepreneurial teams that run their Activity like a real venture and who are committed to deliver commercial products and services with breakthrough potential. The call offers funding for innovation activities in the DEVELOP programme .

DEVELOP INNOVATION activities should result in the increase in Market Readiness Level (MRL) AND Technology Readiness Level (TRL), Integration Readiness Level (IRL) and associated System Readiness Level (SRL). The requirement is that the project is already quite mature and has reached:

- at least TRL = 6 (technology demonstrated in industrially relevant environment) for the majority of components and at least IRL = 3 to 4 corresponding to a SRL = 3 (System Development and Demonstration)
- AND at least MRL = 4-5 (market testing campaign done on small/large scale early adopters).
- Technology Readiness Level (TRL)[2] ,Integration Readiness Level (IRL) and System Readiness Level (SRL)[3]

The TRL scale only evaluates the maturity of an individual technology. In the case of a complex multi-component system which involves different technologies, it is necessary to assess the level and risk of integration of these components. The Integration Readiness Level (IRL) is introduced to describe the integration maturity of a developing technology with another technology, developing or mature; this index considers not only physical properties of integration, such as interfaces or standards, but also interaction, compatibility, reliability, quality, performance, and consistent ontology when two components are being integrated.

IRL	Definition
7	The integration of technologies has been *verified and validated* with sufficient detail to be actionable.
6	The integrating technologies can *accept, translate, and structure information* for its intended application.
5	There is sufficient *control* between technologies necessary to establish, manage, and terminate the integration.
4	There is sufficient detail in the *quality and assurance* of the integration between technologies.
3	There is *compatibility* (i.e. common language) between technologies to orderly and efficiently integrate and interact.
2	is the one of the components with the lowest value TRL. It is expected that the Activity will address this gap and increase the lowest TRL component to a higher level and this should be written within the scope of work. If not addressed, it should be clearly mentioned the reasons and how the corresponding risks will be mitigated during the project.

You should bring the new product, process, or service to the market, taking them from a minimum TRL = 6 to TRL = 7 -9 depending on the starting point. |
| 1 | An interface (i.e. physical connection) between technologies has been identified with sufficient detail to allow characterization of the relationship. |

Table 1: Integration Readiness Levels

[2] https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

[3] 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

Firstly, the overall system should be sub-divided into its main components and the TRL of each individual component is to be evaluated. The overall TRL for the whole system usually corresponds to components with the lowest value TRL; the expectation is that most components have a TRL = 6 or higher with a clear highlight on increasing the other lower TRL components and their integration to achieve at the end of the project >= SRL 4.

It is expected that the Activity will address this gap and increase the lowest TRL component to a higher level and this should be written within the scope of work. The reasons should be clearly mentioned and how the related risks will be mitigated during the project.

For a more thorough evaluation, the IRL between 2 components and their associated technologies should be estimated. Finally, the global SRL for the whole system is assessed; the 5 SRLs are shown in Table 2 as well as a guideline for corresponding TRL – IRL – TRL in the case of 2 components.

The Activity is expected to bring the new product, process, or service to the market, taking them to at least TRL = 7 -9, IRL = 4-5 and SRL = 4.

SRL	Name	TRL – IRL – TRL guideline	Definition
5	Operations & Support	9 – 7 – 9	Execute a support program that meets operational support performance requirements and sustains the system in the most cost-effective manor over its total life cycle.
4	Production & Development	8 – 7 – 8	Achieve operational capability that satisfies mission needs.
3	System Development & Demonstration	7 – 7 – 7	Develop a system or increment of capability; reduce integration and manufacturing risk; ensure operational supportability; reduce logistics footprint; implement human systems integration; design for producibility; ensure affordability and protection of critical program information; and demonstrate system integration, interoperability, safety, and utility.
2	Technology Development	4 – 2 – 4	Reduce technology risks and determine appropriate set of technologies to integrate into a full system.
1	Concept Refinement	1 – 1 – 1	Refine initial concept. Develop system/technology development strategy

Table 2: System Readiness Levels

Market Readiness Level (MRL)

As the outcome of the Activity, a minimum MRL = 6 should be reached i.e., proof of traction should be achieved. The proposal shall include business plans and describe the contribution of the Activity to the Financial Sustainability Mechanism from the EIT Manufacturing. Risks shall be identified as well as proposals to reduce or mitigate them.

Figure 7: Example of Market Readiness Level Scale

The summary of the Innovation DEVELOP call overview is given in the following table:

Description	Partnerships	Duration	KAVA budget	Specific features
Collaborative Activities that accelerate commercia-lization and market traction of products, processes and/or services	• 3 – 6 partners • ≥ 2 CLCs • technology brick providers, system integrator and application end users	12 months	Maximum 1.3 M€ total funding per project (including minimum 30% co-funding from the applicants)	• At least 2 END USERS for the innovative solution from different profiles (Corporate of different sectors, Corporate versus SME, RIS origin versus non-RIS etc.) with associated use cases adaptations •Pitch canvas and business model canvas required to apply for the call • A business responsible should be assigned in the proposal • Learning nugget creation and video footage required as deliverables • Market traction (MRL=6) or higher expected at the end

There will be 2 stage-gate reviews, one at mid-year and the second one at the end of the year when the final report must be submitted. 12-month duration projects with a clear market focus are strongly recommended and preferred for the call. The deliverables of an innovation Activity shall include:

- Commercialization and scaling strategy

- Business plan

- Proof of market traction or higher MRL achieved (e.g. solution's adoption by new users / customers)
- Technical report describing how higher TRL/SRL was achieved and the technical specifications of the product
- Dissemination potential: Creation of both a Nugget and a video footage (describing the goal of the project, team members, outcomes and results, commercial and other benefits, etc.)
- Overview of the next steps (e.g. creation of a spin-off to exploit the outcome)

Within the Develop Innovation segment, activities will aim at finalising or improving integration of different components of high TRL, addressing and raising the TRL of the component with the lowest one and ensuring market traction of the new solution (e.g. by deploying it to new industrial sectors or new customers). The objective will be to ensure that outcome of activities can reach market at the end of the project. The consortium will be required to have technology brick provider(s), system integrator(s) and application end users. Careful consideration will be made to the exploiting parties and potential business owners of the project outcome.

Education Activities

The Education Pillar aims at fully contribute to the EIT-M 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 Manufacturing skills and talents; SO2 Manufacturing Innovation Ecosystems; SO3 Digitalisation of Manufacturing; SO4 Customer-driven Manufacturing; SO5 Socially Sustinable Manufacturing; SO6 Environmentally Sustainable Manufacturing; and to contribute to the Strategic Development Goals (SDGs)

Furthermore, Education plays a role in supporting business and innovation along the four EIT Manufacturing Flagships, including priority topics such as Digitalization, Green transition, and increase of Resilience.

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 8 segments addressing individuals, enterprises and schools, as illustrated in Figure 1.

Empower	• EIT Labelled Master programs	NOT INCLUDED
	• EIT Labelled Doctoral programs	NOT INCLUDED
	• **EITM Labelled Flexy Enhance**	**CALL 2022 segment 1.9**
Connect & Transform	• **Skill-driven Learning (GLP, T&LFs, VR/AR)**	**CALL 2022 segment 1.4**
	• **Pioneering Learning Journeys**	**CALL 2022 segment 1.6**
	• **Education for transforming organizations**	**CALL 2022 segment 1.3**
Engage	• **Engage Society and Pupils**	**CALL 2022 segment 1.7**
	• Cross-Industry Engagement	NOT INCLUDED

Figure 1 EITM Education programs and segments addressed by the Call 2022

Table 2 below provides an overview of the call with reference to the Education programs and segments. The activities in 2020 and 2021 have created the educational assets and launched the education and training programs. The strategy for 2022 –2023 is to integrate the programs in order to accompany individuals and organizations along their life and transformation journeys: to turn the results of the activity into assets that can be re-used and expanded to multiply the impact; to search for highly innovative education and training solutions; to exploit available resoues, networks and collaborations. **The new calls launched for 2022-23** are expected to build on the assets and infrastructures created in 2020 and to strengthen and expand the programs launhced in 2021.

Table 2. EDUCATION call overview

Program	Segment	Description of the call	Partnership	Duration	Expected KAVA budget	Target groups	Specific features
EMPOWER	1.1 EIT Labelled Masters 1.2 EIT Labelled PhD	Not included in the call. Possibilities to join the programs in 2021 or 2022					
EMPOWER	**1.9 EITM Labelled Flexy Enhance Programme**	equip learners I&E skills + sustainability + verticals on advanced technology applications Individual learning trajectories (includes industrial internship, GLP, T&LFs)	3-6 Partners (Uni, RTO, Ind), at least 3 countries representing different working cultures	The Activity will run for max 2 years[1].	Several Proposals can be approved, max 250 euro per activity (max 10k per learner)	Employees and professionals	Demonstrated engagement of min10 companies to host internship and to enroll overall min 10 employees/professionals. Check list 1.0, 1.9 Additional submission form 1.9.
CONNECT & TRANSFORM	**1.4 Skill-driven learning**	Learning paths for students, employees, long life learners	Min. 3 partners from at least 2 different CLCs. Involvement of industrial partner	The Activity will run for max 1 year.	Several Proposals can be approved. 100 -250 k€ funding per Activity	Companies, professionals, executives or students.	Engagement of the target groups. Check list 1.0, 1.4 Additional submission form 1.4.
CONNECT & TRANSFORM	**1.6 Pioneering Learning Journeys**	Courses focus on innovation, entrepreneurship, advanced studies in mfgt (includes GLP, T&LFNs)	**Summer School for 2022:** 5-10 partners, min. 1 partners from the EITM Master School consortium and min. 1 partner from RIS Countries min 2 CLCs **Doctoral School programmes:** 3-6 Partners, min. 2 partners from the EITM Doctoral School consortium and min. 1 partner from RIS Countries, min 2 CLCs	The Activity will run for 1 year.	**Summer School for 2022:** only 1 proposal will be funded **Doctoral School programmes:** two proposals will be funded in total (one per programme section)	EITM Labelled Master and Doctoral School students + external participants, including professionals and researchers	Innovative didactic methods. Involvement of I&E education experts. Preliminary engagement of external paying participants. Check list 1.0, 1.6 Additional submission form 1.6.

CONNECT & TRANSFORM	**1.3 Education for Transforming Organizations**	Consulting and training trajectory for (S)MEs companies to upskill several roles towards the transformation (digital, green, resilience)	3-6 Partners (1/3 industry) at least 3 countries, representing different working cultures. Mandatory involvement of industrial associations or similar entities.	The Activity will run for max 2 years[2] to deliver cycles of 5-9 months training.	Several proposal can be approved 100-250 k€ funding per Activity	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. Check list 1.0, 1.3 Additional submission form 1.3.
ENGAGE	**1.7 Programs to engage Society and Pupils**	Engage pupils and youngster	Min. 2 partners from at least 2 different CLCs. Involvement of relevant networks is encouraged	The Activity will run for 1 year.	Several Proposals can be approved; 100-150 k€ funding per Activity	Pupils, Young people, girls,	Preliminary engagement of teachers. Check list 1.0, 1.7 Additional submission form 1.7.
ENGAGE	Programs to engage other sectors	Not included in the call. Some activities running through XKIC projects					

1.1.1 EITM Labelled Enhance Flexy

Highly qualifying personalized learning for employees and professionals

Target: manufacturing employees and professionals
Purpose: equip learners with entrepreneurial skills & sustainability + verticals on advanced technology application
Scope: (EIT labelled) personalized learning with final certification
Channels: GLP, hands-on activities, industrial internship, cross-organizational teamwork, coaching.
Duration: max 2 years (to deliver 12-18 months training)
Partnership: 3-6 Partners (Uni, RTO, Ind), at least 3 countries, representing different working cultures
Funding: max 250 euro per activity (max 10k per learner).
Special conditions: Demonstrated engagement of min10 companies to host internship and to enroll overall min 10 employees/professionals.
 KPIs:

- EITHE08.1   Training and mentoring activities (non-labelled EIT training activities) - # of participants
- EITHE08.2 Training and mentoring activities (non-labelled EIT training activities) - # of participants in RIS
- EITHE11.1 Financial Sustainability (Revenues)
- KIC.G03 # Digital nuggets created
- KIC.G04 # Digital nuggets consumed
- KIC.E01 # Badges issued to document and testify the achievement of a learning outcome

- KIC.R01 # of teaching and learning factories projects implemented in EIT RIS countries

Check list 1.0
Check list 1.9
Additional submission template 1.9

1.1.2   Skills-driven Learning

Short learning paths aiming at developing specific skills for students, employees, long life learners

Target: manufacturing employees and professionals, long-life-learners, students
Purpose: support leaners in the development of the needed skills
Scope: skill-driven learning with micro- certification
Channels: GLP, T&LFNs, blended courses
Duration : 1 year
Partnership : Min. 3 partners from at least 2 different CLCs. Involvement of industrial partner.
Funding: 100 -250 k€ per Activity

Special conditions:
KPIs:

- EITHE08.1   Training and mentoring activities (non-labelled EIT training activities) - # of participants
- EITHE08.2   Training and mentoring activities (non-labelled EIT training activities) - # of participants in RIS
- EITHE11.1   Financial Sustainability (Revenues)
- KIC.G03 # Digital nuggets created
- KIC.G04 # Digital nuggets consumed
- KIC.E01 # Badges issued to document and testify the achievement of a learning outcome
- KIC.E02 Number of educational products launched (not nuggets, nor part of pathways)
- KIC.R01 # of teaching and learning factories projects implemented in EIT RIS countries

Check list 1.0
Check list 1.4
Additional submission template 1.4

1.1.3   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.
A short presentation of the Master School is provided in ANNEX 1. A presentation of Doctoral School programme is provided in ANNEX 2. 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 2022
For Doctoral School the annual I&E programme is the target of the call. This programme is organized in two modules:
-    Spring/Summer 2022 (January – July)
-    Autumn/Winter 2022 (August-December)

Proposal must target specifically only one of the following sub-segments:

-    Summer School for 2022
-    Doctoral School programme for either
    o   Spring/Summer 2022 (January – July)
    - or

1.1.3.1   Summer School for EITM Master School programmes - 2022

Target: Master of Science students, professionals
Purpose: equip learners with Innovation and entrepreneurial skills and capabilities (see OLO table in ANNEX1 for MASTER programme)
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 ANNEX1.
Channels: hands-on activities, innovative pedagogical approaches, industrial challenges and training, cross-organizational teamwork, coaching.
Duration: the activity will last 1 year, with the summer school duration of min 16 days (5ECTS equivalent, where 1 ECTS=25 hours, including both study in classroom and study time outside classroom) to be delivered in summer 2022. The format can be in a raw of three weeks or inside a period of 6 weeks.
Partnership: 5-10 Partners (Uni, RTO, Ind), min. 1 partner from EITM Master School partner universities, min. 1 partner from RIS Countries, min 2 CLCs. 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.
Funding: Max 350.000 euro, with 10% of budget reserved to partners from RIS Countries. 1 proposal only will be funded. External organizations and professional not associated to EITM can join either as external partners, willing to pay the affiliation fee to EIT Manufacturing for year 2022, or as subcontractors. Overall, in the case of subcontracting collaboration choice, external experts about I&E education can register into the Education I&E expert portal:
 https://plaza.eitmanufacturing.eu/PROMISE/PRIVATE/FORMS/form.aspx?guid=5EB71D55-07D2-4278-9339-E135FEDEA9C5
Special conditions:
Logistic: EITM Master students accommodations paid by the grant; travels to/from summer school location(s) are excluded. External students must organize travel and accommodation by themselves. Organizer must organize EITM Master students accommodation and provide support to find accommodation to other external students. Travel expenses (not accommodation expenses) during summer school (for instance for company visits and social activities) are under organizers responsibility and are covered by the grant for all students.
Partnership: Demonstrated engagement and active participation (teaching, networking, provide industrial challenges etc.) of minimum 3 companies and 3 external I&E experts (both professionals and companies are allowed). An educational I&E expert must be appointed as supervisor (Programme Coordinator) of the Summer School programme. This role can be done by a consortium partner or by an external expert, eventually through subcontracting. In this second case the consortium must present the criteria for the educational I&E supervisor selection. A students evaluation committee made of Scientific and Industrial representative expert in I&E must be establish as well for students OLOs evaluation (see also Quality review special conditions).
Pedagogical approach: Learning by Doing approach is required with strong focus on all OLOs (see annex 1), manufacturing societal challenge systemic view and business exploitation projects, based on real industrial challenges, provided by industries. Pedagogical approaches and experts from different fields are welcome (art, game, sport, makers, press, influencers etc.), but the students must be able to contextualize their new skills and capabilities inside manufacturing sector and associated societal challenges. Inclusion of T&L factories and networking opportunities with industries are also strongly encouraged. Students must be allowed to get reflection tools and time about their new skills and capabilities.

<u>Digital Learning:</u> Digital learning content modules development to be provided to the students before the starting of the Summer School for a knowledge common baseline or to be used during the summer school activities is also encouraged. The resulting material will be included into the EITM GLP for future re-use, and treated according to GLP guidelines.

<u>Number of students:</u> Min number of students:

- expected 120 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. External students pay a participation fee and also travel and accommodation expenses. Fees have be proposed by the specific consortium and listed into the financial sustainability fields. Special fee conditions must be allowed to women and RIS students.

<u>Communication & Dissemination:</u> a communication and dissemination plan must be provided for the programme, including the active participation of the participating students, I&E experts, industrial partners, teachers and other stakeholders. Participants success stories are encouraged to be collected and highlighted during the communication campaign. The communication and dissemination will be supported by EITM Doctoral School office.

<u>Quality review:</u> specific quality review plan of the whole summer school organization and programme must be included into the proposal.

Evaluation of students OLOs achievement and activity quality review by the learners and teachers must be included. A students evaluation committee made of Scientific and Industrial representative expert in I&E, overall where the Summer School Programme Coordinator is not an I&E expert must be appointed.

<u>Financial sustainability:</u> 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 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 Doctoral School head. In the financial sustainability tab of the submission system the proposed main fee for the Summer School must be included.

KPIs:

- EITHE08.1 Training and mentoring activities (non-labelled EIT training activities) - # of participants
- EITHE08.2 Training and mentoring activities (non-labelled EIT training activities) - # of participants in RIS
- EITHE11.1 Financial Sustainability (Revenues)

1.1.3.2   Doctoral School annual programme - 2022

Target: PhD students, professionals
Purpose: equip learners with Innovation and entrepreneurial skills and capabilities (see OLO table in ANNEX2 for Doctoral programme)
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 2022 (January – July) and a second one in Autumn/Winter 2022 (August-December).
Spring/summer 2021 programme (15 ECTs)
-       Delivery time: January – July 2022
-       It can be done either in presence or online. If the consortium choose the option "in presence", a risk plan must address a detailed alternative in case the COVID-19 situation won't allow to have the programme as planned.
-       Welcome by January/March: online, or the consortium can include it during the seminar.
-       Seminar (eventually on line) plus one or more webinar series = 5 ECTS in total, + hackathons (2 ECTS) focused on a single topic with several challenges – 1 or 2 days events) – (EITM to propose some examples)
-       Summer school + Venture basic – 7 ECTS in total
-       Mentorship by industrial partners – networking activity series (1 ECTS)
-       Industrial Doctorate positions call – to "recruit" industries for PhD positions and secondments
-       Social and networking programme must be included, on top to mandatory networking activities with industries

The programme must focus on delivery of Innovation and Entrepreneurship training in line with at least one of the EIT Manufacturing flagships and their main societal challenges objectives. The programme must cover at minimum the following OLOs (see annex 2 for OLO definition): OLO2, OLO3, OLO4, OLO6.

Autumn/winter programme (15 ECTS):

- Delivery time: August – December 2022
- It can be done either in presence or online, if the consortium chooses the option "in presence", a risk plan must address a detailed plan in case the COVID-19 situation won't allow to have the programme as planned.
- Winter school topic guidelines + Venture advanced (7 ECTS)
- Webminar (5 ECTS) + Hackathon (2 ECTS focused on a single topic with several challenges – 1 or 2 days events)
- Mentorship + Networking events series by industrial partners (1 ECTS)
- Closing graduation ceremony for distribution of EIT label certificates. The consortium can include it either at the end of the winter school or during the last in presence activity.
- Industrial Doctorate positions call – to "recruit" industries for PhD positions and secondments
- Social and networking programme must be included, on top to mandatory networking activities with industries

The programme must focus on delivery Innovation and Entrepreneurship training in line with at least one of the EIT Manufacturing flagships and their main societal challenges objectives.

The programme must cover at minimum the following OLOs (see annex 2 for OLO definition): OLO1, OLO2, OLO4, OLO5, OLO7.

Channels: hands-on activities, innovative pedagogical approaches, industrial challenges and training, cross-organizational teamwork, coaching.

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

The Doctoral School Programme is organized in two sessions: one in Spring/Summer 2022 (January – July) and a second one in Autumn/Winter 2022 (August-December). The proposals must target one of the programme sections only, meaning either Spring/Summer 2022 (January – July) or Autumn/Winter 2022 (August-December). Each programme section must deliver 15 ECTS, where 1 ECTS is the equivalence of 25 hours, including both study in classroom and study time outside classroom.

Partnership: 3-6 Partners (Uni, RTO, Ind), min. 2 partners from the EITM Doctoral School consortium and min. 1 partner from RIS Countries, min 2 CLCs. List of EITM Doctoral School partner universities is available at Doctoral School web page: EIT Manufacturing Doctoral School – EIT manufacturing.

The selected proposals will be two new KAVA and they will include EITM personnel at zero cost, to define fees and alignment of the programme with the EITM strategic agenda and KPIs and support for marketing and communication activities

Funding: Max 100.000 euro per programme section, with 30% of budget reserved to RIS Countries. 2 proposals will be funded, 1 per each programme section (meaning 1 proposal for Spring/Summer 2022 (January – July) programme and 1 proposal for Autumn/Winter 2022 (August-December) programme). Only EITM core and associated partners, with their LTP, can join consortia. Other organizations and professional not associated to EITM can join as subcontractors and they can register into the Education I&E expert portal: https://plaza.eitmanufacturing.eu/PROMISE/PRIVATE/FORMS/form.aspx?guid=5EB71D55-07D2-4278-9339-E135FEDEA9C5

Special conditions:

Logistic: Either Summer School or Winter school must be located in RIS Countries. Other activities can be located at consortium choice. Organizers are not responsible for providing travel, participants will arrange their own travel to/from the location and the accommodation expenses. Only travels for the Summer/Winter school programme execution are eligible by the grant, including travels for networking sessions, company visits and social programme. The same rules are valid for other kind of programme activities along the year round, such as seminars, venture programme etc.. In any case, for onsite activities, such as summer/winter school, the consortium must provide logistic

coordination, including support for finding accommodation, on site working space for courses, projects and hands-on activities, site visits, social programme etc.

Partnership: Demonstrated engagement and active involvement (teaching, networking, provide industrial challenges etc.) of minimum 3 companies and 3 external I&E experts (both professionals and companies are allowed). An educational I&E expert must be appointed as supervisor of the programme. This role can be done by a consortium partner or by an external expert, through subcontracting. In this second case the consortium must present the criteria for the educational I&E supervisor selection. A students evaluation committee made of Scientific and Industrial representative expert in I&E must be establish as well for students OLOs evaluation (see also Quality review special conditions).

Programme: Specific activities for women leadership and entrepreneurship are welcome, overall inside the venture programme.

Pedagogical approach: Learning by Doing approach is required with strong focus on all OLOs, manufacturing societal challenge systemic view and business exploitation projects. Venture Programme must focus on turning research ideas into business and startups. Novel pedagogical approaches and experts from different fields are welcome (art, game, sport, makers, press, influencers etc.), but the students must be able to contextualize their new skills and capabilities inside manufacturing sector, associated societal challenges and entrepreneurship. Inclusion of T&L factories projects are also strongly encouraged.

Students must be allowed to get reflection tools and time about their new skills and capabilities.

Digital learning: blended activities are allowed. Digital learning content modules development to be provided to the students before the start of specific activities for a knowledge common baseline or during the programme activities is also encouraged. The resulting material will be included into the EITM GLP for future re-use, and treated according to GLP guidelines.

Number of students: Min number of students:
- expected 50 students from EITM Doctoral School, with free access to mandatory activities
- Min. 20 external students per activity/group of activities, with special attention to women and RIS students involvement. External students pay a participation fee and also travel and accommodation expenses. Fees have be proposed by the specific consortium and listed into the financial sustainability fields. Special fee conditions must be allowed to women and RIS students.

Communication & Dissemination: a communication and dissemination plan must be provided for the programme, including the active participation of the participating students, I&E experts, industrial partners, teachers and other stakeholders. Participants success stories are encouraged to be collected and highlighted during the communication campaign. The communication and dissemination will be coordinated with the EITM Doctoral School office.

Quality review: specific quality review plan of the programme must be included into the proposal, at activity/group of activities level.

Evaluation of the students OLO achievements during and at the end of the programme must be accessed by students and teachers. A students evaluation committee made of Scientific and Industrial representative expert in I&E, overall where the Programme Coordinator is not an I&E expert must be appointed.

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 tuition 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 full programme must be included.

KPIs:

- EITHE08.1 Training and mentoring activities (non-labelled EIT training activities) - # of participants
- EITHE08.2 Training and mentoring activities (non-labelled EIT training activities) - # of participants in RIS
- EITHE11.1 Financial Sustainability (Revenues)

Check list 1.0
Check list 1.6
Additional submission template 1.6

1.1.4 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. In this segment, each company should involve at least 30% of the employees in at least one learning path.

Target: groups of (S)MEs
Purpose: support SMEs in preparing transitions (digital, green, technological, etc.) through education
Scope: initial skill assessment, roadmap, learning paths, evaluation and final assessment and certification
Channels: GLP, T&LFNs, blended courses
Duration : max 2 years to deliver cycles of 5-9 months training
Partnership : 3-6 Partners (1/3 industry) at least 3 countries, representing different working cultures. Involvement of industrial associations/network partners.
Funding: 100 -250 k€ per Activity
Special conditions: 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.

KPIs:

- EITHE08.1 Training and mentoring activities (non-labelled EIT training activities) - # of participants
- EITHE08.2 Training and mentoring activities (non-labelled EIT training activities) - # of participants in RIS
- EITHE11.1 Financial Sustainability (Revenues)
- KIC.G03 # Digital nuggets created
- KIC.G04 # Digital nuggets consumed
- KIC.E01 # Badges issued to document and testify the achievement of a learning outcome
- KIC.R01 # of teaching and learning factories projects implemented in EIT RIS countries

Check list 1.0
Check list 1.3
Additional submission template 1.3

1.1.5 Programs to engage Society and Pupils

Engage Pupils, Young people, girls, diverse/ disadvantaged groups

Activities that create awareness about manufacturing and stimulate creativity and passion in the young generations, and specific groups of diverse and disadvantaged people to 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.

Target: Pupils, Young people, girls, diverse/ disadvantaged groups
Purpose: create awareness about manufacturing and stimulate creativity and passion to attract the target group to
manufacturing education, training and jobs

Scope: creativeness, STEM, digital skills

Channels: GLP, T&LFNs, educational products, other

Duration: 1 year

Partnership: Min. 2 partners from at least 2 different CLCs, Involvement of relevant Networks operating with teachers is encouraged.

Funding : Projects should be in the range of 100 to 150 k€ per activity

Special conditions: Preliminary engagement of teachers.

 KPIs:

- EITHE08.1 Training and mentoring activities (non-labelled EIT training activities) - # of participants
- EITHE08.2 Training and mentoring activities (non-labelled EIT training activities) - # of participants in RIS
- EITHE11.1 Financial Sustainability (Revenues)
- KIC.G03 # Digital nuggets created
- KIC.G04 # Digital nuggets consumed
- KIC.E01 # Badges issued to document and testify the achievement of a learning outcome

Check list 1.0

Check list 1.7

Additional submission template 1.7

Business Creation Activities

EIT Manufacturing is looking for Business Creation Activities that are focused on developing and implementing programs that adress on one hand Startups and Scaleups (CREATE and ACCELERATE) and on the other hand small, medium, intermediate companies (TRANSFORM) needs. The activities cover all 5 CLCs (including the RIS countries attcahed to those CLCs).

2022 guidelines are mainly a continuation of 2021 guidelines. The contents have not changed, but 2020 and 2021 Calls show clearly the need to have more FOCUS, QUALITY and REASONABLE PAYBACK (FS mechanism) regarding the proposals submitted to the pillar

Business Creation provides a large spectrum of services support (business development, access to finance, business specfic expertise.) to develop technology-based European high growth ambitious companies (Gazelles). To respect and fullfill its mission, the pillar must focus on business. The pillar is not for improving technology maturity. Having a sound business case to survive in a competitive environment is a "non negotiable" entry criteria for activities in this pillar.

Regarding activty duration:

- For 1 Year Activity : situation unchanged

- For 1 +1 Year Activity : a mid-term assessment for GO / No GO is required. For this reason the activity needs to provide:

    o Budget expenses breakdown per year

    o Intermediate KPI targets achievement at mid-term (end of the year)

In Business creation, KPIs are important element to ensure performance of activities. There are in a limited numbers and must be correctly documented to ensure "Value for Money" delivered to the community. In overall, KPIs are connected to 4 dimensions: Quantity, Quality, Financial impacts, Societal impacts. Proposals should make sure to contribute appropriately in a realtistic but ambitious way.

Table 3 below provides a summary of the 2020 Business Creation calls.

Table 3. BUSINESS CREATION call overview

Type of call/category	Description	Partnership	Duration	Expected KAVA budget	Participants	Specific features
"Create"	Launch new European high-growth manufacturing businesses.	2-4 partners from at least 2 different CLCs. Network Partners can access at no EIT Funding.	The Activity will run for 1 year or 1+1 year. Potential extension to following years.	0,5M€ max for each Activity. Several Proposals can be approved	50 through min 2 calls/year. Program duration: 6 months min	This activity purpose is to address the early-stage needs: Young entrepreneurs to create startups, Spin – offs, startups (< 2 years old, low commercial revenues)
"Accelerate"	Accelerate and scale up promising European companies (start-ups and SMEs)	2-4 core partners from at least 2 different CLCs. Network Partners can access at no EIT Funding.	The Activity will run for 1 year or 1+1 year. Potential extension to following years.	0,5M€ max for each Activity. Several Proposals can be approved	50 through min 2 calls/year. Program duration: 6 months min	This activity purpose is to address the scaling up needs: Go To Market, Growth

"Transform"	Transforming existing manufacturing companies in Europe, by adopting new technologies and business models	2-4 core partners from at least 2 different CLCs. Network Partners can access at no EIT Funding.	The Activity will run for 1 year. Potential extension to following years.	0,5M€ max for each Activity. Several Proposals can be approved	50 through min 2 calls/year. Program duration: 6 months min	This activity purpose is to support SMEs, intermediate and larger industrial companies in their transformation

Activity proposals should be aligned with one of the following business creation programmes:

1.1.6 "Create" Programme

The objective of this Programme is to launch the next generation of European high-growth manufacturing businesses. .

This activity purpose is to address the early-stage needs : Young entrepreneurs to create startups, Spin –offs, startups (< 2 years old, low commercial revenues).

It should be run by organizations, such as Incubators and Accelerators. Ideally, it provides in a structured way following services:

- Scouting of the most promising early stage projects / startups
- Operational support to startups in their early stage (e.g. hosting)
- Coaching and mentoring, notably with defining and executing a clear business plan building
- Supporting early stages in their business development: introduction to potential customers, intiation of business deals

he programme should support 30 early stages projects / startups (Ready to Go to Market, not innovative projects which are already financed under the Innovation pillar) starting in 2021 and the concept should be scalable for the following years. Participants will become part of the EIT ecosystem

Deliverables:

It is highly recommended to limit the Deliverables to maximum of 10.

The deliverables enumerated below are strongly recommended and can be complemented with other Deliverables that the Proposers consider valuable and necessary:
- SWOT assessment of companies/projects selected into the programme
- Product / technology ideation or development report
- Commercial activities engagement report
- Mentoring & Consulting report
- Report of social impact from the KIC activity

Notes: All the reports are a consolidated view at portfolio level of the companies/entrepreneurs supported through the KIC activity.

1.1.7 "Accelerate" Programme

The objective of this Programme is to accelerate and scale up promising European manufacturing technology companies.

This activity purpose is to address the scaling up needs: Go To Market, Growth. It should be run by organizations, such as Accelerators, and Corporate Venture funds.

Ideally, it provides in a structured way following services:
- Scouting of the most promising sacleups (e.g. hosting)
- Supporting product development roadmap definition and execution

- Supporting business development: introduction to potential customers, intiation of business deals, access to new markets/industries
- Supporting Access To Finance needs from scaleups, by connecting them with relevant investors

The programme should support **30 scaleups** starting in 2021 and the concept should be scalable for the following years. Participants will become part of the EIT ecosystem.

Deliverables:

It is highly recommended to limit the Deliverables to maximum of 10.

The deliverables enumerated below are strongly recommended and can be complemented with other Deliverables that the Proposers consider valuable and necessary:
- Technology/Product development plan,
- Technology/Product commercialization report,
- Revenues generation plan,
- Access to Finance report
- Report of social impact from the KIC activity

Notes: All the reports are a consolidated view at portfolio level of the companies/entrepreneurs supported through the KIC activity.

1.1.8 "Transform" Programme

The objective of this Programme is transforming existing manufacturing companies in Europe, by fostering adoption of new technologies and business models. The programme targets manufacturing companies, providers and integrators of solutions in the manufacturing value chain.

This activity purpose is to support SMEs, intermediate and larger industrial companies in their transformation. It should be run by organizations, such as SMEs association and Industrial Business Units.

Ideally, it provides in a structured way following services:
- Clarification of the tranformation needs
- Connecting SMEs / intermediate companies with appropriate "mature" innovative startups (not solution to test concepts, but mature solution to roll-out and scaleup in companies to generate transformation and benefits at scale)
- Supporting exectution of the transformation, with change management support
- Overseeing revenues generated via the transformation, in order to ensure a "fair" payback to EIT Manufacturing
- Supporting Access To Finance needs for Transformation programs, by leveraging regional and national financing mechanisms

The programme should support 20 companies starting in 2021 and the concept should be scalable for the following years. Participants at the programme will become part of the EIT ecosystem.

Deliverables:

It is highly recommended to limit the Deliverables to maximum of 10.

The deliverables enumerated below are strongly recommended and can be complemented with other Deliverables that the Proposers consider valuable and necessary:
- Report of advanced and scaleup solutions designed or implemented for transformation
- Report of Transformation business cases (benefits vs resources needed)
- Report of Transformation implementation, including the execution planning
- Plan of revenues generated from companies transformation (1-3 / 1-5 years)
- Report of social impact from the KIC activity

Notes: All the reports are a consolidated view at portfolio level of the companies/entrepreneurs supported through the KIC activity.

1.2 Regional Innovation Scheme (RIS) Activities

The EIT Manufacturing RIS area aims at widening participation in its 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 practise related to Knowledge Triangle Integration and increasing its activities in EIT RIS eligible countries, EIT Manufacturing will also gain access to productive inputs, business skills, talent, cooperation opportunities in education, markets and business, currently untapped entrepreneurial potential, customers for innovative ventures, innovation, knowledge, know-how and technology transfer possibilities, additional testbeds for applications of innovative solutions as well as access to co-funding options provided by EU, regional and national support schemes.

In this call, EIT Manufacturing RIS will address the main Action Line I: Engaging local players in KIC activities, expecting to engage local players—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 2022 includes education, innovation and business creation RIS activities.

All the activities under this action line 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 RIS countries and regions. For example, by:
i)   Having enhanced participation of organisations from EIT RIS countries;
ii)   Involving relevant stakeholders from EIT RIS countries in EIT Manufacturing projects;
iii)   Executing pilot implementations and demonstrators in EIT RIS countries
iv)   Having enhanced 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.

1.2.1   Teaching and Learning Factories in EIT RIS countries.

Teaching and Learning Factories are powerful tools to integrate practical experiences into technical and academic training.

Proposed activities should at first aim on raising awareness and demonstrating the concepts of Teaching and Learning factories in EIT RIS countries, and eventually at creating, installing and further developing teaching and learning factories in EIT RIS countries. Future networking activities and integration models with existing and future academic programs and with the GLP should be examined.

Furthermore, we encourage activities with focus on improving the methodology and didactics of teaching and learning factories, taking into account any relevant characteristics in EIT RIS countries. It is expected that the projects address at least one of our flagships.

Activities are encouraged to involve external participants from EIT RIS countries as activity partners.

This call topic is for education RIS activities. Expected budget per activity: 250k.

1.2.2   Programs to engage Society and Pupils in EIT RIS countries.

Awareness about manufacturing in early ages will be crucial for the image of the manufacturing sector as a whole as well for the supply of future workforce. Young students, e.g. in secondary schools, should be aware about the challenges for manufacturing (e.g. digitalization), but also about career opportunities and the technological advancement of manufacturing.

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.

Orientation on the four flagships is desirable, but not mandatory. We also accept proposals with a strictly local impact or targetting specific groups (i.e. females).

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 education RIS activities. Expected budget per activity: 200k.

1.2.3   Innovating for a Circular Economy at EIT RIS

This call is for projects aiming to develop innovative solutions relevant to the Flagship "Low environmental footprint systems & circular economy for Green manufacturing" in EIT RIS countries.

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, 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.

The specific call is eligible only for organizations coming from EIT RIS Countries.

This call topic is for innovation RIS activities. Expected budget per activity: 300k.

1.2.4   Artificial Intelligence at EIT RIS

This call is for projects aiming to support innovative solutions relevant to the Flagship "Digital & collaborative solutions for innovative manufacturing ecosystems", with special focus –although not restricted- on applying Artificial Intelligence in manufacturing.

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, increase their offerings and reach new markets. 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.

The specific call is eligible only for organizations coming from EIT RIS Countries.

This call topic is for innovation RIS activities. Expected budget per activity: 300k.

1.2.5   Evolution of research results – Innovation

The aim of this activity will be to set up a Competition to attract, select and support teams/entities coming from EIT RIS countries towards bringing to the market solutions that have been developed within the context of other H2020, Horizon Europe or national/regional programmes.

The activity should foresee financial support to the selected candidates to market their product, as well as in-kind support (e.g. join running Business Creation Programs). In all cases, financial returns towards the Financial Sustainability (FS) of EIT Manufacturing should be pursued.

Increased dissemination is expected towards increasing EIT Manufacturing's visibility in EIT RIS countries. Gender balance should be promoted.

The proposers will have to develop and run the competition, in collaboration with EIT Manufacturing HQ RIS. Consortia of 2-4 partners are expected.

The involvement of a substantial number of external RIS organisations (during the activity implementation and through the competition) is expected.

This call topic is for innovation RIS activities. Expected budget of the activity: 700k.

1.2.6 Digital Transformation for manufacturing at EIT RIS countries

This call is for an activity that will facilitate cooperation of entities in RIS (esp. SMEs) with existing high-technology infrastructures (e.g. DIHs, KET centres, etc) towards:

i)   Developing, demonstrating and/or enhacing innovative solutions;

ii)   facilitating manufacturing companies and professionals in EIT RIS countries to advance through their participation in EIT Manufacturing actitivites, where digital skills are developed, utilized and broadened;

iii)   supporting entrepreneurship and intrapreneurship for professionals based on the latest innovation trends and processes of new digital business opportunities for manufacturing.

The activity should demonstrate how EIT Manufacturing can in practice help local players to cover needs such as digital transformation in manufacturing.

The involvement of a substantial number of external RIS organisations (during the activity implementation and through an open call) is expected.

The proposed RIS activities may include education, innovation and business creation aspects. Expected budget of the activity: 350k.

*Activities in the segement described in 6.5.6 above can include education, innovation and business creation aspects, but we consider that they could mostly support business creation (transform) and, thus, the business creation criteria apply.

Table 4. RIS call overview

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.	1-2 years.	Expected budget per activity: ~250k/year	Manufacturing companies, universities, individuals (students and industrial workforce).	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.	1-2 years.	Expected budget per activity: ~200k/year	Students, individuals, stakeholders.	Large geographical coverage is desired.

Innovating for Circular Economy at EIT RIS	Activities aiming to promote innovative solutions relevant to the Flagship "Low environmental footprint systems & circular economy for Green manufacturing"" in EIT RIS countries.	Min. 3 core partners from at least 2 different CLCs.	1 year.	Expected budget per activity: ~300k.	Manufacturing companies, Universities, RTOs.	The specific call is eligible only for organizations coming from EIT RIS Countries.
AI at EIT RIS	Innovations relevant to the Flagship "Digital & collaborative solutions for innovative manufacturing ecosystems", with special focus – although not restricted- on applying Artificial Intelligence in manufacturing.	Min. 3 core partners from at least 2 different CLCs.	1 year.	Expected budget per activity: ~300k.	Manufacturing companies, Universities, RTOs.	**A sectorial focus (1-2 industrial sectors) is advised, but not required.** **The specific call is eligible only for organizations coming from EIT RIS Countries.**
Evolution of research results – Innovation	Set up a competition to attract, select and support entities from EIT RIS countries towards bringing to the market solutions that have been developed within the context of other H2020/HEurope or national/regional programmes.	Suggested consortium of 2-4 core partners.	1 year. Extension probable.	Estimated budget 700k, including the grants to external participants. 1 activity is foreseen.	Manufacturing companies, Universities, RTOs.	The involvement of a substantial number of external RIS organisations (during the activity implementation and through the competition) is expected.
Digital Transformation for manufacturing at EIT RIS countries	Facilitate cooperation of entities in RIS (esp. SMEs) with existing high-technology infrastructures towards innovative solutions.	Min. 3 core partners from at least 2 different CLCs.	1 year. Extension probable.	Estimated budget 350k, including the grants to external participants. 1 activity is foreseen.	Manufacturing companies, Universities, RTOs.	The involvement of a substantial number of external RIS organisations (during the activity implementation and through an open call) is expected.