



TEACHING FACTORIES COMPETITION ON GREEN MANUFACTURING

Call for Expression of Interest FOR UNIVERSITIES/VET SCHOOLS

Foreword

EIT Manufacturing partnership is a Knowledge Innovation Community supported by the European Institute of Innovation and Technology to Strengthen and increase the competitiveness of Europe's manufacturing.

PART 1 - INTRODUCTION AND DESCRIPTION OF THE TEACHING FACTORIES COMPETITION 2022

Teaching Factories Competition (hereinafter, "Competition", or "Initiative") is an initiative of advanced training dedicated to university students and Vocational Education and Training (VET) students promoted by EIT Manufacturing (hereinafter, "EITM").

The Teaching Factory Competition will run in 2022 as a lighthouse Initiative of EIT Manufacturing Education. The main objective is to promote the use of the Teaching Factories educational methodology, by giving visibility to the benefits of academia-business collaborations in a context of manufacturing innovation.

The initiative aims at

- allowing companies to learn about and experience the benefits of using advanced knowledge and methods taught in the Universities to improve their processes/products, as well as addressing manufacturing challenges through the application of the Teaching Factories paradigm and framework.
- allowing university and VET students to test their competences by applying them to real industrial problems and challenges, improving their preparation for their future work (Challenge-Based Learning).
- offering teachers and industrial mentors an opportunity to support the students in generating solutions in a collaborative environment facilitated by the Teaching Factories methodology.



This collaboration framework allows participating companies to benefit from solutions and ideas to solve their problems and challenges, to make their manufacturing greener.

1.1 DESCRIPTION OF THE INITIATIVE

The activities of the Initiative are mainly carried out by teams of students from Universities and VET Schools competent in the fields related to green manufacturing described (hereinafter, “Solver Teams”). They will work in groups to analyse and propose solutions to the problems or objectives of exploration of industrial opportunities presented by the participating companies (of hereinafter, “Challenges”). Solver Teams will be supported by professional mentors from the companies proposing the challenges (hereinafter, “Mentors”).

Specifically, by way of example, we mean:

- **Challenges:** corporate objectives related to the enhancement of specific industrial processes to improve business performance. For the Initiative in 2022, “Green manufacturing” will be the main topic to frame the challenges of the companies.
- **Activities:** use of methodologies and techniques from various disciplines relevant for the theme of this year challenges. Specifically, the Activities may involve Solver Teams in the execution of the following tasks: analysis of the Challenge with the company and Mentor (objectives and expected results); analysis and evaluation of the quantity and quality of available data/resources; virtual visit to company production plant to observe the production process, machinery involved, challenge context; analysis of the production processes involved; requirements analysis; data analysis; feedback and reporting to companies and organizers; production of suggested solution and guidelines for the specific problem/challenge addressed.

1.2 CONDUCT OF THE COMPETITION

The Teaching Factories Competition requires groups of Solver Teams to work in parallel over the course of approximately eight (8) weeks to carry out the Activities **on up to five (5) Challenges**. For each Challenge, there will be one or more dedicated Solver Teams, which will work independently, albeit assisted by one or more Industrial Mentors (coming from the Companies proposing the selected challenges) and Teachers (coming from the participating Universities/VET Schools) who will support them in carrying out the Activities and in the production of a final package (Report + Pitch PPT + Supporting documents) containing solutions for the enhancement of industrial processes of the assigned company (hereinafter, “Results”).

The **Industrial challenges** will be selected through a call for Industrial Companies. Interested companies will be invited to submit an application with a description of the challenge, according to the submission form available in <https://eitmanufacturing.submittable.com/>



Solver Teams will be selected and appointed by interested Universities and VET Schools. These organizations will be invited to submit an Expression of Interest with a proposal of **up to two (2) Solver Teams composed by five (5) students**, according to the requirements described in this document.

In cooperation with the selected organizations (Companies, Universities and VET Schools), EIT Manufacturing will coordinate the assignment of the Teams to each industrial challenge for the implementation of the competition.

The working language of the Teaching Factories Competition will be **English**.

1.3 SCHEDULE OF THE COMPETITION

The Competition will be organized according to the following indicative schedule:

- **31-March – 13 April:** Evaluation, communication of the results to the selected Organizations / Universities, configuration of the Solver Teams, Assignment of Challenges and Preparatory actions (webinars) [dates to be defined]
- **28th April 2022:** kick-off event with institutional presentations, presentations of the Challenges and optimization objectives to the Solver Teams by the selected companies. (Online event)
- **from 25 of April to 20 June 2022:** approximately 8 weeks in which the Teams will carry out the challenge solving activities independently, in collaboration with the selected companies, assisted by expert Mentors and Teachers. The activities to be carried out during the 8 weeks may differ according to the type of Challenge assigned. In total, it is estimated that the Competition will engage the students for approximately 32 hours in 8 weeks (approximately 4 hours per week), including kick-off meeting, final event, business meetings, virtual visits, group, and individual activities.
- **20 June 2022:** Deadline for delivery of the results package (Report, PPT Pitch and Supporting documents) for assessment by an evaluation committee composed by members of the Companies proposing the challenges, Universities and VET organizations participating.
- **from 20 June to 15 September 2022:** Assessment of the results by an evaluation committee composed by EITM and members of the Companies proposing the challenges. Selection of the best solving proposal for each challenge to be invited to participate in the final competition and Award ceremony.
- **From 15 September 2022:** Pitching sessions for each individual challenge by Solver Teams assigned and selection of the winning team for participating in the Final pitching session in the Award Ceremony.
- **October/November 2022:** final event with presentation of the Results by the Solver Teams invited to participate (without confidential content) to a Jury composed by selected experts from



EITM during an event open to the public with awards to the best performing Teams in a Pitching Session. (Online event)

At the end of the Teaching Factories Competition, EIT Manufacturing will follow-up to facilitate the continuation of the collaboration between engaged companies and students to further mature the Results and proceed to their enhancement.

1.4 EVALUATION OF RESULTS AND AWARDING OF TEAMS

A Panel of experts composed by EIT Manufacturing Staff and Representatives of the challenge owners will evaluate the Results presented by each Challenge Solver Team and will formulate an initial ranking based on the following criteria:

- Criterion 1: ability to carry out the Activities as planned (from 0 to 5 points).
- Criterion 2: completeness and maturity of the results produced (from 0 to 5 points).
- Criterion 3: innovativeness of the results produced (from 0 to 5 points).
- Criterion 4: fit for purpose and potential business impact of the results produced (from 0 to 5 points).
- Criterion 5: effectiveness of the presentation of the Results in the pitching session (from 0 to 10 points).

In the case of a tied score, the Solver group with the highest score on criterion 1 and, subsequently, on the following criteria, will prevail.

The best performing Solver Team for each challenge (5 teams) will be invited to participate in the Final and Awards Event to be celebrated in October/November 2022, where they will present the results of their activities in a pitching session and compete for the final prize. During this event, a Jury composed by 5 members appointed by EIT Manufacturing will select the best performing teams for the final prizes.

According to the mentioned criteria, the best performing Solver teams will be awarded according to the following categories:

- **Individual challenges:** 1.000€ for the best performing Solver Team and access to the Final pitching session in the Award Ceremony
- **Final Pitching session:** 2.000€ for the 1st ranked, 1.000€ for the 2nd ranked and 500€ for the 3rd ranked
- **Special mention:** 500€ to be assigned for recognizing an outstanding performing team according to the Jury's consideration (e.g., special involvement of the team in the initiative, originality in the delivery of the results, quality of the presentation...etc.)

Prizes will be assigned to the Solver Team as a whole. To all Solver Team participants who complete the Teaching Factories Competition, EIT Manufacturing will deliver a certificate of participation in the initiative.



PART 2 - EXPRESSION OF INTEREST

2.1 ENTITIES ADDRESSED BY THIS CALL FOR EXPRESSION OF INTEREST

This Call for Expression of Interest is addressed to Universities and to VET (Secondary or Tertiary) Schools with interest in the activities of the EIT Manufacturing Community.

To be eligible for participation, Universities and VET must be a “legal entity”. A “legal entity” means any natural or legal person created and recognised as such under national law, EU law or international law, which has legal personality and which may, acting in its own name, exercise rights and be subject to obligations, or an entity without legal personality.

Participating entities must register in the EU Participant Register before submitting their application, in order to obtain a participant identification code (PIC)¹.

To be eligible for participation, Universities and VET Schools must be established in one of the Horizon Europe eligible countries².

Universities and VET Schools interested in participating should commit to the delivery of the following tasks:

- Appoint one or several internal representative(s) teachers of the University/VET Centre for the solver teams support actions in the Teaching Factories Competition. One of the appointed representatives should be designed the main point of contact of the institution with the EIT Manufacturing staff in charge of the organization of the Competition.
- Promote the initiative within their institution, with the support of EIT Manufacturing, and motivate the students for the participation in the Teaching Factories Competition. Universities and VET Schools will select the students and create the teams (up to 2 teams composed by 5 students) which will work in solving the challenges proposed by the companies and assigned to them. Universities and VET Schools will have **five (5) weeks** from the call opening to submit their Expressions of Interest.
- Participation in the Kick-off event and Award ceremony representing the institution, delivering short presentations of their institution and teams activities Templates and guidance will be provided accordingly by EIT Manufacturing

¹ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/participant-register>

² For list of countries eligible for funding and eligible for participation, please refer to the Horizon Europe (HORIZON) Programme Guide – https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf



- Provide tutorship to the student teams in the challenge during the estimated 8 weeks solving phase. The frequency and logistics will be agreed with the teams, but generally could be part of the regular activities of the students during the last months of the course 2021/2022 (April-June) and beginning of the course 2022/2023 (September-November), so that Professors could link and align the university courses with the Teaching Factories Competition, as an extra resource for providing real examples, guidance and solving questions regarding the industrial processes concerned in the challenges.
- Participate in the TFC coordination meetings with EIT Manufacturing to provide feedback about the competition development and discuss any potential topic with the coordination Team. Meetings will be organized online, and dates will be agreed with the participants to allow a smooth coordination of the agendas.
- Collaborate in the promotion and dissemination actions of the initiative within their institutions. Guidance, materials, and support on this topic will be provided by EIT Manufacturing.
- Provide a final summary about the participation of the institution in the initiative, highlighting the potential benefits and main results obtained during the competition. This information will be provided as a short report or by answering a questionnaire which will be provided by EIT Manufacturing.
- On a voluntary basis, commit with EITM, the participating universities, VET Schools and companies, on the follow-up of the initiative and explore the potential of the results of the initiative and future actions to be organized by EIT Manufacturing for the promotion and uptake of the Teaching Factories Methodology and Framework.

2.2 SELECTION OF THE EXPRESSIONS OF INTEREST FROM EDUCATIONAL INSTITUTIONS (UNIVERSITIES + VET)

This Expression of Interest is aimed at selecting up to twenty (20) Solver Teams from Universities and VET institutions which will participate and propose (up to 2) teams of students from each institution (5 members/team) to have access to the Teaching Factories Competition as Solver Teams.

Educational Institutions interested in participating in the Teaching Factories Competition must fill in the application form available in the Teaching Factories Competition submission site: (<https://eitmanufacturing.submittable.com/>) and submit it by Day **6th April 2022 at 12.00 pm - Central European time**.

Applications received after the deadline indicated above or whose form is not complete in any part indicated as mandatory will be considered inadmissible, even if the different or non-presentation or the delay in submitting the application to participate in this procedure are due to cases of force. major, unpredictable events or third-party actions.



In any case, EIT Manufacturing reserves the right to modify, suspend, extend, revoke this procedure at any time or not to follow it up, if, at its sole discretion, it detects the need or opportunity.

A Selection Committee will select the Expressions of Interest eligible to participate in the Teaching Factories Competition. This Committee will be composed of EIT Manufacturing internal staff.

The eligibility criteria used by the Selection Committee for the selection of University and VET Schools are as follows:

1. Motivation and resources committed to participate (from 0 to 5 points)
2. Thematic coverage: alignment of the course(s) of the committed Teacher(s) with the challenge theme (from 0 to 5 points)
3. Number of teachers and teams committed (from 0 to 5 points)
4. Previous experience with challenge-based learning (from 0 to 5 points)

The following rubric will be used to award scores to an application. Half marks may be given.

Score	Description
0	The application 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 application broadly addresses the criterion, but there are significant weaknesses.
3	Good. The application addresses the criterion well, but a number of shortcomings are present.
4	Very good. The application addresses the criterion very well, but a small number of shortcomings are present.
5	Excellent. The application successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

Eligibility requirements for participation of the students in the Teaching Factories Competition as part of a Solver team are:

- A. be enrolled at the University/VET Organization as a student
- B. be enrolled at least in in the 3rd year of course in the Universities or at least the 2nd year in VET Schools and not having obtained the final degree at the moment of closing the call. Last year students (last course 2021/2022) can be enrolled if they commit to participate in the Award Ceremony in October/November 2022.

To be considered eligible, applications should achieve a minimum score of twelve (12) points. Once the ranking has been drawn up, the Selection Committee will select the Universities and VET Schools that will obtain the best scores to reach a number of 20 Solver Teams.



During the evaluation period indicated in Section 1.3 “Schedule of the competition”, selected universities and VET Schools will receive an email communication regarding the results of the selection process, the student teams selected and their allocation to the proposed industrial challenges.

Within three (3) days of receiving this communication, the selected institutions must confirm their participation in the initiative by e-mail to tfcompetition@eitmanufacturing.eu. In the absence of such confirmation, EIT Manufacturing will propose participation in the Initiative to the candidate institution in the next position in the ranking.

At the end of the process, the names of the selected institutions will be published on the Teaching Factories Competition web page.

2.3 APPEAL PROCEDURE

Applicants may appeal the selection decision only on grounds of human or technical errors. A request for redress from the applicant and addressed to EIT Manufacturing’s CEO may be submitted in writing through the initiative contact email address (tfcompetition@eitmanufacturing.eu) within three (3) days of the date on which EIT Manufacturing informs the applicant of the evaluation results.

Please note that redress on the evaluation points contained in the technical judgment of the evaluators is not admissible.

An EIT Manufacturing Appeal Committee will examine the request and provide an opinion on possible technical or human errors in the evaluation process and not on the merits of the proposal. Based on this opinion, a decision will be taken by EIT Manufacturing, and the applicant will be notified in writing.



PART 3 - OTHER TERMS AND CONDITIONS

3.1 EXCLUSION CRITERIA

Applicants will be excluded from participating in the call if they are in any of the situations of exclusion defined in Article 136 of the EU Financial Regulation³.

Applicants will be excluded from award if, in the course of the award procedure, they fall under any of the situations defined in Article 141 of the EU Financial Regulation.

3.2 LOGOS AND TRADEMARKS OF THE UNIVERSITIES/VET SCHOOLS PARTICIPATING

The Universities/VET Schools participating in the Teaching Factories Competition grant EIT Manufacturing and its subsidiaries (e.g. CLCs) a free and non-exclusive license to use their brand solely for the promotion, dissemination of information, organisation, management and completion of the Teaching Factories Competition. Similarly, EIT Manufacturing grants participating Universities/VET Schools a free and non-exclusive license to use their brand solely for the promotion, dissemination of information, organisation, management and completion of the Teaching Factories Competition. Licensing contracts may be put in place in accordance with the above stipulations.

The Universities/VET Schools and EIT Manufacturing mutually acknowledge and accept that the respective trademarks are and remain the exclusive property of their respective owners and that no provision of this Notice is intended to confer any rights on such trademarks, outside the provisions of the previous paragraph. Therefore, the participating Universities/VET Schools and EIT Manufacturing will not be able to assign, sublicense or otherwise dispose of the trademarks of others, without prior written consent.

Participating Universities/VET Schools will send their brands to tfcompetition@eitmanufacturing.eu not later than 13 April 2022 in vector format or in image format other than vector with at least 300 dpi.

3.3 CONFIDENTIALITY

The Selected Universities, VET Schools and Solver Teams undertake to use any Confidential Information shared by the companies solely for the purposes of Challenges and the Teaching Factories Competition. Confidential information shall mean data and/or information that is proprietary to or possessed by the companies and not generally known to the public or that has not yet been revealed, whether in tangible or intangible form, whenever and however disclosed and might also be included in the application form.

³ Regulation (EU, Euratom) No 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union and amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014 and repealing Regulation (EU, Euratom) No 966/2012.



Some data and information in the application form (e.g. Type and organization name, website URL, brief description of the institution and links with manufacturing and green manufacturing thematics) will not be considered confidential and may be freely disclosed in connection with the promotion needs of the Teaching Factories Competition.

The Selected Universities, VET Schools and Solver Teams also agree to (i) not disclose Confidential Information that is contained in the Results in any way and in any form, without prior written authorization of the company concerned; and (ii) not to use it for purposes other than those strictly necessary for participation in the Teaching Factories Competition.

Confidential Information may be shared among EIT Manufacturing and its subsidiaries (e.g. CLCs) solely for the purposes of the call and the Teaching Factories Competition. EIT Manufacturing undertakes to impose this confidentiality obligation on its employees and the employees of its subsidiaries and its collaborators, as well as on all subjects who, by virtue of participating in the Teaching Factories Competition as Solver or members of the Selection Committees or Jury, will take knowledge of or may have access to such confidential data and information. A model NDA that will be signed between the participating companies, the Universities/VET and the Solver teams can be found in the Initiative website (<https://www.eitmanufacturing.eu/news-media/calls/teaching-factories-competition-green-manufacturing/>)

This confidentiality bond remains for three (3) years from the start date of the Competition.

3.4 INTELLECTUAL PROPERTY

The intellectual property rights in the Results of the Challenges will be property of the participating companies in the respective Challenges, without prejudice to the moral rights of the Solver Teams to be recognized as authors, creators or inventors. Nothing in this Notice shall operate to assign or transfer any other Intellectual Property Rights from the companies to the Solver teams or the Universities/VET or vice-versa. For the avoidance of any doubt, all patents, trade secrets, information, know-how, inventions, technology, data and other intellectual property rights owned by the participants prior to the participation in the Teaching Factories competition shall remain the sole property of the respective participant.

By participating in the Teaching Factories Competition, companies in any case authorize Solver Teams to:

- mention their participation in the Initiative, making express reference to the name of the Challenge and to the company for which they carried out the Activities;
- use part of the Results (not containing confidential material, to be agreed) to make public presentations during events, courses and initiatives related to the Challenge, for educational and dissemination purposes, at the end of the Initiative.

Participants (be it companies, Universities/VET or Solver teams) agree to respect the provisions of Article 16 regarding intellectual property rights, background and results and access rights and rights of use of the



Grant Agreement signed by EIT and EIT Manufacturing. A link to the Model Grant Agreement is provided further below⁴.

3.5 COMMUNICATION/ DISSEMINATION OF RESULTS

Participants (be it companies, Universities/VET or Solver teams) agree to respect the provisions of Article 17 regarding Communication, dissemination and visibility of the Grant Agreement signed by EIT and EIT Manufacturing. A link to the Model Grant Agreement is provided further below⁵.

Participants (be it companies, Universities/VET or Solver teams) agree that EIT Manufacturing and its subsidiaries can disseminate, publish and make use of non-confidential information regarding the results of the Challenges or the Teaching Factories Competition in order to promote the activities of EIT Manufacturing or establish reports or other necessary documents for EIT.

The companies will allow Solver Teams to present at the final event of the Teaching Factories Competition, which will be open to the public, and during other public events related to the initiative, some non-confidential information and data regarding the Challenge, the Activities carried out, and the Results produced. Such information and data will be agreed in advance between the company and Solver.

3.6 ABSENCE OF GUARANTEES. EXEMPTION OF LIABILITY

The Results are presented by the Solver Teams and accepted by the company "as is". Neither EIT Manufacturing nor the Solver Teams make any representations or warranties that the Results (i) are of a particular technical quality; (ii) are fit for a particular purpose; (iii) do not violate the rights of third parties or juridically protected subjective positions.

Neither EIT Manufacturing nor the Solver Teams assume any responsibility for the correctness, validity, originality, and quality of the Results.

The participating companies expressly exempt EIT Manufacturing and the Solver Teams from any direct, indirect, incidental, consequential, punitive, or moral damage resulting from participation in the Teaching Factories Competition or from the use of the Results.

The participating institutions (Universities and VET Schools), by submitting their candidacy, expressly exonerate EIT Manufacturing and companies from any direct, indirect, incidental, consequential, punitive, or moral damage resulting from participation in the Initiative or from the use of the Results.

⁴ https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/agr-contr/general-mga_horizon-euratom_en.pdf

⁵ https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/agr-contr/general-mga_horizon-euratom_en.pdf



3.7 PROCESSING OF PERSONAL DATA

EIT Manufacturing ensures that any processing of personal data shall be performed in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation).

You have the right to access, rectify or delete your personal data. You can also object to their processing. To exercise these rights, please contact us at dpo@eitmanufacturing.eu. The collected personal data will be used solely for the procedure and assessment of the call applications and the management, completion, organisation, dissemination of information and publicity of the Teaching Factories Competition. The data controller is EIT Manufacturing and/or its subsidiaries. To view the privacy statement regarding the Teaching Factories Competition, please refer to the initiative website (<https://www.eitmanufacturing.eu/news-media/calls/teaching-factories-competition-green-manufacturing/>).

Solver Teams agree that EIT Manufacturing may publish their image in any form of media (print, websites, videos, animations, and similar ones) for the sole purpose of promoting and advertising the Initiative. EIT Manufacturing undertakes not to use any image in such a way that it may harm or prejudice personal dignity or in any case for purposes other than those indicated therein and / or contrary to the law.

3.8 FINANCIAL CONTRIBUTIONS AND TREATMENT OF PRIZES

No financial contributions of EIT Manufacturing are foreseen for the selected institutions in the framework of this call for Expression of Interest.

As described in Part I, prizes will be assigned to those Solver Teams selected by the corresponding juries according to the defined categories.

The prizes will be paid in one instalment after the Teaching Factories Competition Awards ceremony by bank transfer, provided that all the requested documents, outlined in the notification informing about the results, have been submitted. For the purpose of the payments, the prize-winners will be asked to provide the necessary administrative documents (e.g. copy of ID Card, bank account details...) in due time.

3.9 APPLICABLE LAW

The present call is governed by the applicable Union law (i.e. the EIT Regulation, the EU Financial Regulation and the Horizon Europe Regulation) and is complemented, where necessary, by the law of France.

The participating entities agree to observe the obligations set forth for the beneficiaries in the Grant Agreement signed between the EIT and EIT Manufacturing and which will also be mentioned in the



various contracts to be signed (i.e. subgrant, NDAs.). A link to the Model Grant Agreement is provided further below⁶.

⁶ https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/agr-contr/general-mga_horizon-euratom_en.pdf



ANNEX 1 – SUMMARY OF CHANGES

Version	Date	Change
Initial version	02.03.2022	Call published
V2	16.03.2022	Extension of the call deadline from 30 March 2022 to 6 April 2022