OPEN CALL
Green Manufacturing: Demonstrating technologies to fight Climate Change [DEMO4GREEN]
EIT Manufacturing RIS Activity

Table ofContents

Version	Main changes
1.0 – 07/07/2022	Clarified English language as eligibility requirement and not eligibility of DEMO4Green partners for funding Clarified redress procedure Clarified the possibility for EITM, or expert appointed by it, to observe evaluation procedure Updated Table 2 "Evaluation Score Grid" Updated evaluation deadline, specified evaluation procedure and evaluators selection Added applicable law article
2.0 – 28/07/2022	Postpone of call deadline to 29/08/2022

1.Context

The Green Manufacturing concept is one of the policy areas of the European Green Deal . The European Green Deal[1] is a package of policy initiatives, which aims to set the EU on the path to a green transition. The main objective of the European Green Deal is to achieve climate neutrality by 2050. It emphasizes the need for a holistic, cross-sectoral approach integrating the impact of the digital transition. The green transition and the digital transition might seem like two distinct issues, but they are twin challenges: neither can succeed without the other. And, they are both equally important for Europe's future.

In this framework the transformation of manufacturing production systems towards sustainability (e.g. circular manufacturing system) with digital technologies is essential and it requires involvement of both solution providers and market technology adopters.

Demo4Green "Green Manufacturing: Demonstrating technologies to fight Climate Change" is an European project co financed by EIT Manufacturing Regional and Innovation Scheme **Pillar**[2] aiming at spreading the demonstration of digital technologies to reduce the carbon footprint of industry, in existing high-technology infrastructures of EIT Regional Innovation Scheme eligible countries[3]. The consortium is composed by eight partners located in Portugal, Greece, Czech Republic, Spain, Lithuania, Estonia, Italy and Poland: Laboratory for Manufacturing Systems and Automation, University of Patras [GR]; Czech Technical University in Prague [CZ]; Tecnalia [ES]; INESC TEC - Institute for Systems and Computer Engineering, Technology and Science [PT]; Intechcentras [LT]; University of Tartu [EE]; MADE Competence Center I4.0 [IT]; Siec Badawcza Łukasiewicz - Przemyslowy Instytut Automatyki i Pomiarow PIAP [PL].

The present document is an open call to support *small medium enterprises (SME), start up and scale up* established in RIS Countries to set up 8 demo projects in Demo4Green Teaching and Learning Factory premises (TLF) to demonstrate market ready solution to support green transition of manufacturing industry The application must be submitted in the platform https://www.f6s.com/demo4green-green-manufacturing2/apply

2.Objectives

The objective of DEMO4Green open call is to demonstrate how digital technologies can improve both manufacturing processes (e.g. reducing the use of resources) and products (e.g. longer life-cycle), thus contributing to the reduction of industrial carbon footprint and green transition. The open call will finance eight demonstrations, one in each RIS country of consortium partners' TLFs of the consortium partners.

The call aims at identifying innovative solutions to support green transition of manufacturing industry in DEMO4Green Teaching and Learning Factory facilities addressing one of the following domains:

[1] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en/
[2] https://www.eitmanufacturing.eu/what-we-do/regional-innovation-scheme-ris/
[3] https://eit.europa.eu/our-activities/eit-regional-innovation-scheme

a) Reduction in the consumption of raw materials
b) reduction in the consumption of energy
c) reduction in the consumption of water
d) reduction of waste
e) increase in the use of renewable natural resources
f) increase in waste valorization
g) Other relevant domain

3.DEMO4Green Teaching and Learning Factories support

In addition to the financial support, the beneficiaries of the open call will receive an ad hoc support by DEMO4Green Teaching and Learning Factory to demonstrate their demo including:

1. **Demo workplan development**, based on DEMO4Green methodology defining a checklist to monitor technical, organization, logistics aspects;
2. **Demo implementation support**, including ideas management and materialization, access to infrastructure, demonstration workshops, ecosystem services (e.g. organization of business to business meeting);
3. **Access to infrastructure,** whether appropriate;
4. **Coaching activities,** such as business and technology roadmap development, financing, IP strategy (also after the end of the demo project);
5. **Skills development,** accessing free online learning path developed by DEMO4Green describing how to implement a demonstrator aligning with sustainability, circular economy and digitalization and how to define a methodology for the demo implementation roadmap to market.

Attachment 1 – Demo4green testing and learning factories support services and technology asset provides detailed overview of services and technical asset available at DEMO4Green Teaching and Learning Factory.

4.Eligibility – DEMO Project activities

DEMO4Green is targeting market oriented solution starting from TRL6 to TRL8[4], that is having a system prototype in operational environment ready. The following activities, to be implemented in DEMO4Green Teaching and Learning Factory, are eligible:

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

- **Test before invest activities** to implement and demonstrate the digital solution to solve sustainability challenges in one of the DEMO4Green Testing and Experimentation Facilities benefitting from DEMO4Green TLFs as indicated in Attach. 1) by developing, as an example but not limited to testbeds, demonstration workshops with end user and requirements validation (e.g. market, usability, technology)
- **Communication** of activities and results by creating promotional material (e.g. video, brochure). All communication activities must be aligned with EIT Manufacturing

5.Eligibility – Who can apply

Small Medium Enterprises[5]" including industrial companies, technology providers, start ups, scale ups and spin off, are eligible to apply the open call either as single entity or in consortium. The beneficiaries must be legally established in a **EITM RIS Country**[6]; however to ensure that demo projects will be implemented in the 8 Demo4Green Teaching and Learning Factory premises (TLF), evaluation process will take into account the geographical coverage of beneficiaries within DEMO4Green Teaching and Learning Factories Countries (Greece, Czech Republic, Spain, Portugal, Lithuania, Estonia, Italy, Poland), to ensure that one demo per TLFs Country is implemented, in coherence with project goals (see Section 2 – "Objectives"). DEMO4Green partner consortium are not eligible for financial support of the present call.

6. Eligibility - Budget, type of costs, reporting

The financial support is in the form of **10.000€ lump sum** per project**:** 50% of the amount is released as prepayment at the starting date of the demo project activities, 50% at the end of the project, upon project completion and evaluation of the mandatory deliverables (Table 1).

TABLE 1 DEMO4Green open call: mandatory deliverable

DELIVERABLE TITLE	DESCRIPTION	DEADLINE
D01 – DEMO implementation plan	Report describing requirements, workplan, timeline and expected results of demonstrators	Week 2
D02 – DEMO market roadmap	Report describing demonstration activities performed, achieved results, KPIs and go to market plan	Month 2
D03 – Dissemination plan	Report including performed communication activities, promotional material released	Month 2

[5] https://ec.europa.eu/growth/smes/sme-definition_en

[6] Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Montenegro, Republic of North Macedonia, Serbia, Turkey, Ukraine, Guadeloupe, French Guiana, Réunion, Martinique, Mayotte and Saint-Martin (France), the Azores and Madeira (Portugal), and the Canary Islands (Spain).

The financial support could be used to cover the following indicative cost types, strictly related to the implementation of the selected demos:

- Personnel costs related to the implementation of the demo
- Travel costs
- Equipment
- Other costs (e.g. dissemination, consumables, videos)

7Eligibility – Language

The proposal must be submitted in English

8. Deadline

DEMO4Green call timeline is summarized below
Call opening : 13/06/2022 – h. 13.00 CET
Call deadline 29/08/2022 – h. 17.00 CET
Evaluation: 13/08/2022 – 10/09/2022
Demo implementation : 01/10/2022 – 30/11/2022
Evaluation of Demo results: 15/12/2022

The proposal must be submitted in the platform https://www.f6s.com/demo4green-green-manufacturing2/apply

9.Evaluation

Proposals will be evaluated basing on the following criteria:

1. **Excellence and Innovation:** The relevance to DEMO4Green objectives and scope, including complementarity to the project's technical areas of specialization (i.e., in terms of its Scientific and Technological Excellence).
2. **Impact**, including Industrial relevance and Business strategy: Its impact on the RIS manufacturing industry sustainable strategy, goals and objectives, ability to create business opportunities (e.g. market innovation, startup creation) in RIS Countries
3. **Quality and efficiency of the implementation:** The ability of the third party to implement the experiments and/or integrate its new services, on the basis of the team and company profile. The ability to reach project outcomes and results and deploy RIS TLFs accordingly.

Evaluation scores will be awarded for each of the criteria up to 5, whereas

1 (Fail): Proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.
2 (Poor): The criterion is addressed in an inadequate manner, or there are serious inherent weaknesses.
3 (Fair): While the proposal broadly addresses the criterion, there are significant weaknesses.

4 (Good): The proposal addresses the criterion well, although improvements would be necessary.
5 (Excellent): The proposal successfully addresses all relevant aspects of the criterion in question.

The overall threshold, applying to the sum of the three **individual scores is 10,** out of a grand total of 15 whereas the minimum threshold per each criterium is 3. If two or more proposals are tied with the same overall score, priority will be given to proposals who has received an higher score in the third criterion "Quality and efficiency of the implementation", then the second "Impact".

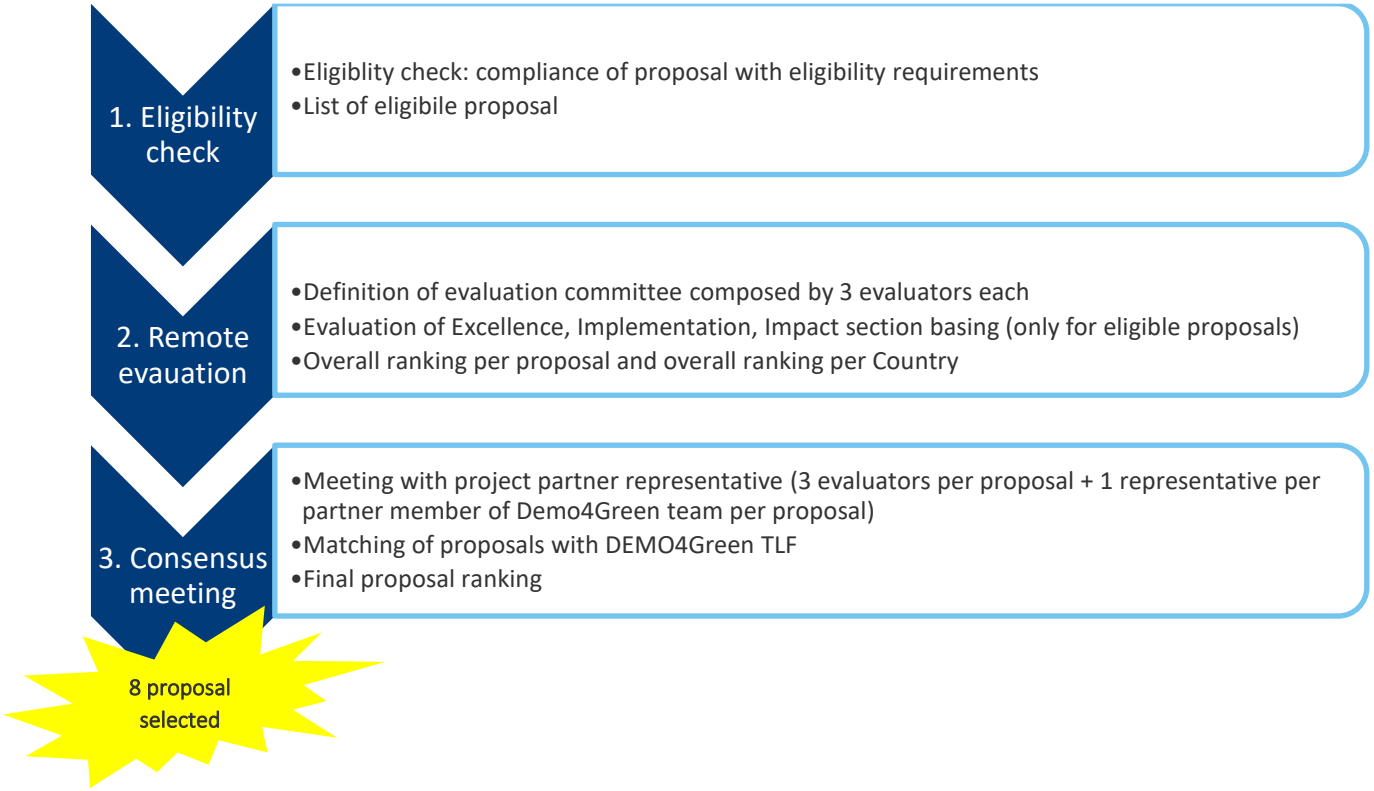
TABLE 2 Evaluation score grid

Criteria	Minimum threshold	Priority in case of ex aequo
EXCELLENCE. The relevance to DEMO4GREEN objectives and scope, including complementarity to the project's sustainability areas and domain of DEMO4GREEN.	3	1
IMPACT. The societal, environmental, business impact of the proposed solution.	3	2
IMPLEMENTATION. The capacity, expertise and experience of participant, the ability to implement the experiments and/or integrate its new services, on the basis of the team and company profile.	3	3

The evaluation is run in three phases:

1. **Eligibility check**, to identify those proposals that do not accomplish the general eligibility criteria;
2. **Remote evaluation**: where the experts gives a score for each evaluation criterion, with explanatory comments preparing an 'evaluation report (IER)' ;
3. **Consensus meeting**: to agree on a common position, including comments and scores identifying the final proposal rank

Figure 1 DEMO4Green proposal evaluation criteria



An internal committee composed by independent and impartial experts project partners' representative will be in charge of the evaluation.
The selection of experts is performed by an internal Committee composed by DEMO4Green partners, evaluating expert CVs as indicated in Table 3. Profile are ranked basing on the following scores:

- Maximum score: 15
- Minimum threshold for evaluators selection: 10
- Minimum score per each evaluation criteria: 3

Table 3 Evaluators selection criteria

EVALUATION CRITERIA	SCORES[7]	MINIMUM THRESHOLD
1.Technical and scientific expertise in Demo4Green sustainability objectives[8]	1 - 5	3
2. Working proficiency in English	1 - 5	3
3.Experience and knowledge in Teaching and Learning Factory, Test Before Invest methodologies	1 - 5	3
4.Experience in R&D project management	1 - 5	3

The 24 evaluators will carry out their activities free of charge. EITM agrees to hold MADE harmless from any claims made by the professionals and mentors.

EIT Manufacturing (or independent experts appointed by it), as granting authority, might attend and observe the selection procedures (including full access to information and documentation related to the process, if requested). Applicants may have recourse to redress if they have grounds to believe that their application has been adversely affected by apparent shortcomings in the evaluation process or the eligibility check of their proposal. A request for redress from the applicant and addressed to may be submitted in writing to info@made-cc.eu , within five days of the date on which EIT Manufacturing informs the applicant of the evaluation results.

10. Exclusion criteria

The following exclusion criteria, accordingly to art 136 of Regulation (EU, EURATOM) 2018/1046 of the European Parliament and of the Council of 18 July 2018 will apply

a. the person or entity is bankrupt, subject to insolvency or winding-up procedures, its assets are being administered by a liquidator or by a court, it is in an arrangement with creditors, its business activities are suspended, or it is in any analogous situation arising from a similar procedure provided for under Union or national law;
b. it has been established by a final judgment or a final administrative decision that the person or entity is in breach of its obligations relating to the payment of taxes or social security contributions in accordance with the applicable law;
c. it has been established by a final judgment or a final administrative decision that the person or entity is guilty of grave professional misconduct by having violated applicable

[7] 1 (Fail): Profile fails to address the criterion or cannot be assessed due to missing or incomplete information; 2 (Poor): The expertise criterion is addressed in an inadequate manner, or there are serious inherent weaknesses; 3 (Fair): While the profile broadly addresses the expertise criterion, there are significant weaknesses; 4 (Good): The profile addresses the expertise criterion well, although improvements would be necessary; 5 (Excellent): The profile successfully addresses all relevant aspects of the expertise criterion in question.
[8] a) reduction in the consumption of raw materials; b) reduction in the consumption of energy; c) reduction in the consumption of water; d) reduction of waste; e) increase in the use of renewable natural resources; f) increase in waste valorisation; g) Other sustainability topic

laws or regulations or ethical standards of the profession to which the person or entity belongs, or by having engaged in any wrongful conduct which has an impact on its professional credibility where such conduct denotes wrongful intent or gross negligence;

d. fraud, within the meaning of Article 3 of Directive (EU) 2017/1371 of the European Parliament and of the Council (1) and Article 1 of the Convention on the protection of the European Communities' financial interests, drawn up by the Council Act of 26 July 1995 (2);
e. corruption, as defined in Article 4(2) of Directive (EU) 2017/1371 or active corruption within the meaning of Article 3 of the Convention on the fight against corruption involving officials of the European Communities or officials of Member States of the European Union, drawn up by the Council Act of 26 May 1997 (3), or conduct referred to in Article 2(1) of Council Framework Decision 2003/568/JHA (4), or corruption as defined in other applicable laws;
f. conduct related to a criminal organisation as referred to in Article 2 of Council Framework Decision 2008/841/JHA (5);

Selected beneficiaries will be asked to sign a declaration of honor and comply with EU contractual provision regarding conflict of interest, confidentiality and security, ethics, visibility and EU acknowledge, specific rules for carrying out action, information, record-keeping also apply to the third parties.

11. Confidentiality

The applications submitted in DEMO4Green open call are handled under confidentiality. By applying to the call, the applicants consent to accessing, keeping, and using their data by DEMO4Green partners for the purposes of the call. Applicants retain full and exclusive ownership of their prior information and intellectual property rights. Detailed information will follow in the Grant Agreement

12. GDPR

The 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).
The terms and definitions referred to in this article, such as, by way of example but not limited to: "Data Subject", "Data Controller", "Data Processor", "Processing", "Personal Data", etc. are referring to the definitions included in art. 4 of the GDPR.
The Data Controller are: DEMO4Green partners as indicated above.
Pursuant to and for the purposes of Articles 24 and 37 of the GDPR, MADE S.C. a R.L. has appointed its Data Protection Officer that the Data Subjects can contact, at any time, for questions relating to: (i) the processing of their Personal Data carried out by MADE itself, and (ii) the exercise of their rights, at the following e-mail: privacy@made-cc.eu.

The Personal data shall be processed solely for the following purposes: (a) procedure and assessment of the call applications and the management, completion, organisation, communications of information and Personal Data towards Data Subjects and among DEMO4Green partners; (b) performance of contracts or to take steps at the request of the Data Subject prior to entering into a contract; (c) compliance with legal obligations; (d) establishment, exercise or defence of legal claims or whenever courts are acting in their judicial capacity (e) the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller; (f) manage the data collected in order to inform the Data Subjects about DEMO4Green partners' communications, events, projects and newsletters.

The legal basis underlying the purposes set forth in let. (a),(b), (c) and (e) are those referred to in art. 6, paragraph 1, letter b) and c), and e) of the GDPR.

The Legal basis underlying the purpose set forth in let. (f) is that referred to in Art. 6, paragraph 1, let. a) of the GDPR. The legal basis underlying the purpose referred to let. (d) is that referred to in art. 6, paragraph 1, letter f), i.e. the processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party.

The provision of the Personal Data by the Data Subjects is necessary in order to apply the DEMO4Green open call. Failure to provide personal data, or their incorrect provision, could make it impossible the evaluation of the application.

The consent to the processing of Personal Data for the purposes referred to in let. (f) above is optional, and therefore not mandatory. The Data subject shall have the right to withdraw his or her consent at any time. The withdrawal of consent shall not affect the lawfulness of processing based on consent before its withdrawal.

In accordance with the provisions of art. 5, paragraph 1, let. e) of the GDPR, Persona Data will be processed for a period of time not exceeding the achievement of the purposes referred to the DEMO4Green Project or for a further period of time in accordance with the applicable law. The processing of Personal Data may take place both in an analogic and/or in an electronic form; in any case, the processing of Personal Data shall take place in compliance with the principles set out in art. 5 of the GDPR, with methods aimed at guaranteeing the security and confidentiality of personal data as provided by art. 32 of the GDPR.

Such Personal Data will be processed by subjects who will act as Data Processors pursuant to art. 28 of the GDPR, and/or by natural persons as authorized/appointed, who shall act under the direct authority of the Data Controllers and/or respectively the Data Processors, as required by art. 29 of the GDPR. By way of example -but not limited to-, the categories of Data Processors to whom the Personal Data may be disclosed to:

- companies, entities and natural persons who provide services for the management and maintenance of IT system, telecommunications networks and software applications used by the members of the Consortium;
- companies, organizations and natural persons who provide IT services such as management of newsletter services, management and maintenance of the website;
- freelancers, professional firms or consultants in the context of the provision of consultancy services;
- competent authorities for the fulfilment of legal and financial obligations and/or provisions of public entities, upon their request

The Data Subject has the right to obtain the access to the Personal Data and the right of rectification or cancellation of the latter, or, if the case, the restriction of the processing or the portability of the Personal Data, or to oppose to the processing, as set forth in the GDPR. Where the processing of Personal Data is based on the consent of the Data Subject, the latter has the right to revoke said consent at any time, without prejudice to the processing of Personal Data carried out up to the time of revocation.
The rights of the Data Subjects are fully regulated by Art. 15 and following of the GDPR.
Any instances of the Data Subjects to exercise those rights can be directed to MADE's Data Protection Officer as identified above.
Data Subjects who believe that the processing of their Personal Data is in violation of the provisions of the GDPR have the right to lodge a complaint with the Supervisory Authority, as specified by art. 77 of the GDPR, or to take the appropriate judicial actions pursuant to art. 79 of the GDPR.

13. 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 relevant national law. The participants agree to observe the obligations set forth for the recipients of funding in the Grant Agreement signed between the EIT and EIT Manufacturing and more particularly Articles 12 (conflict of interest), 13 (confidentiality and security), 14 (ethics), 17.2 (visibility), 18 (specific rules for carrying out action), 19 (information) and 20 (record-keeping) also apply to the third parties receiving the support (recipients). The participants must also ensure that the bodies mentioned in Article 25 (e.g. granting authority, OLAF, Court of Auditors (ECA), etc.) can exercise their rights also towards the recipients of funding. The Model Grant Agreement can be found here.

ATTACHMENT 1 – DEMO4GREEN TEACHING AND LEARNING FACTORIES SUPPORT SERVICES AND TECHNOLOGY ASSET

TEACHING FACTORY	SUPPORT SERVICES PROVIDED	TECHNOLOGY ASSET
☐ Laboratory for Manufacturing Systems and Automation, University of Patras [GR] https://lms.mech.upatras.gr/	• Ideas management and materialisation • Demonstration workshops • Teaching Factory	☐ *Additive Manufacturing -3D Printing: Additive manufacturing (AM) is defined as" the process of joining materials to make objects from 3D model data, usually layer upon layer, as opposed to subtractive manufacturing methodologies, such as traditional machining".* ☐ *Modelling Simulation and Digital Twin: Analytical simulation and modeling of manufacturing processes is based on knowledge of the underlying process physics and is validated by experimental results in order to advance the optimization of unit processes. A Digital Twin is a virtual model of a process, product or service that is being paired with the physical entity, enabling the analysis of data, system monitoring and prediction of problems before they occur through the use of IoT, Artificial Intelligence, machine learning etc.* ☐ *Hybrid Manufacturing: Hybrid-AM manufacturing is defined as the combination of an AM process linked to another non-AM process, usually subtractive, performed by the same machine tool. A usual hybrid manufacturing machine tool consist of a CNC milling machine and a DED head which is interchangeable with the machine spindle.* ☐ *Zero Defect Manufacturing: In production lines consisting of multi-process chains, defects are difficult to be detected. The concept of Zero-Defect Manufacturing (ZDM) has emerged as an attempt to reduce the variability during the production processes and therefore to achieve better, more sustainable production systems. Zero-defect refers to the ability of minimizing the defect products coming out of a production line, reducing in this way the production costs, production time, the required raw materials and other resources. LMS can offer training in zero defect*

		Manufacturing with application in Laser Welding, Resistance Spot Welding and Milling manufacturing processes."
☐ Czech Technical University in Prague [CZ] *Please indicate website:*	• Ideas management and materialisation • Contract research • Provision of infrastructure • Demonstration workshops	☐ Distributed production based on a multi-agent platform containing industrial robots and a conveyor. Interface OPC UA to the PLC and to the individual machines in the production line. MQTT client to provide data to an upper-layer system. Automatic planner of the production sequence considering existing production resources and available material. ☐ Simulation environment Tecnomatix Process Simulate, virtual commissioning. Possibility to perform virtual commissioning of the production line from a Siemens PLCsim Advanced PLC simulator and from an above-laying manufacturing execution system over OPC UA interface. ☐ Energy consumption measurement of the individual robots measured at their inlet, and data obtained from the robots such as positions and torques at the individual robot joints. Packaging of the data for the packages to be sent over MQTT to a database. ☐ IoT Platform for getting the data from the process. Open interface for creating applications above the database that can perform advanced analytics and diagnostics of the process.
☐ Tecnalia [ES] *https://www.tecnalia.com/en/scopes-of-action/smart-manufacturing:*	• Ideas management and materialisation • Provision of infrastructure • Demonstration workshops • Diagnostic of viability • Advice on the implementation methodology • Expert advice on Analytics and Artificial Intelligence in industrial processes	The technology asset is an online toolbox that facilitates the optimisation of key performance indicators (energy, resource use, quality, production) in industrial processes through the use of data-driven models and machine learning algorithms.

☐ Industry and Innovation Lab of INESC TEC (iiLab)
https://www.inesctec.pt/en/laboratories/iilab-industry-and-innovation-lab
	• Ideas management
	• Innovation management
	• Contract research
	• Provision of infrastructure
	• Demonstration workshops OK
	• Other: please specify
	• Training room : innovation laboratory to support the development of ideas for new products or services.
	• services that aggregates the pre-incubation of new business projects, or startups in the proof-of-concept phase, with a strong technological development component.
	• Advisory Expert Services on International partnerships
	  ○ manufacture or distribute your products
	  ○ access new markets
	  ○ find the technology you need to drive innovation in your business
	  ○ cooperate in research and development projects
	• Advisory Expert Services on international growth
	  ○ how to export your products or services to new markets
	  ○ the best way to finance your plans for growth
	  ○ how to protect your intellectual property assets in another country
	• Advisory Expert Services and support for business innovation
	  ○ information on innovation-related policies, legislation and support programmes
	  ○ links with local innovation stakeholders
		Robotics, Digital twin, Modelling and simulation , Industrial cyber-physical systems (Industrial Internet of Things, IIoT), Artificial Intelligence, AR/VR
		
		Innovation and Technology Management.
		Policy and Technology Entrepreneurship.

	○ information about access to local sources of funding/support	
☐ Intechcentras [LT] https://intechcentras.lt/?lang=en	• Innovation advisory service • Ideas management and materialisation • Demonstration workshops • Digital Services Providers Networking • Support of activities regarding the 4th Industrial Revolution „Industry 4.0” • Provision of engineering and management consultations • Solutions for production efficiency and productivity increase application	
☐ University of Tartu [LT] *Please indicate website:* *https://www.ut.ee*	• Concept and business model design and validation • Provision of infrastructure • Demonstration workshops	Educational robots, laptops, tablets, 3D printers (different type), laser cutters, CNC machines. Virtual Reality lab, multimedia labs etc. and a lot of other equipment and labs. Also we have some initiatives and support mechanism for university start-ups etc.
☐ MADE [IT] *http://www.made-cc.eu/*	• Ideas management and materialisation • Access to infrastructure • Demonstration workshop	Multimedia room, experience immersive virtual reality (CAVE); Wearable tools for Virtual Reality (HMD, visors …); Numerical Simulation software; Modeling software; Integrated mini-line for the production of an oil&gas valve; AGV for the intralogistics; Pick to light systems; Digital LEAN; Digital twin; Collaborative Robots; AGVs; Workstation dedicated to assisted assembly; Wearable sensors (e.g. Hololens); Mini-line for product tracking; Digital signature; Additive printer (metallic, powder, polymeric); Tomograph; Internal and external surface finishing equipment; Energy-saving demonstrator;

		Mini-line for brakes' production; Production line simulator; Industrial plant under cyberattack; cobot under cyber attack

Siec Badawcza Łukasiewicz - Przemyslowy Instytut Automatyki i Pomiarow PIAP [PL]
Please indicate website:
https://piap.lukasiewicz.gov.pl/en//
	• Ideas management and materialisation
	  ○ Research and development services
	  ○ Engineering services
	• Supporting services
	  ○ Product lifecycle management
	  ○ Technical feasibility studies
	• Contract research
	• Provision of infrastructure
	• Demonstration workshops
	• Other: please specify
	  ○ Testing and validation
	  ○ Training
	  ○ Conference center with 3 lecture rooms
		Industrial robotics (stationary and mobile base mounted manipulators and robotic stations, eg. robotic station for applying seals, robotic station for operation of presses to sleeves forming), modelling and simulation (eg. simulator for industrial manipulators/cobots), cyber-physical systems and Artificial Intelligence (autonomous mobile platforms, sensors, etc.) VR/AR (eg. Oculus Rift, HTC Vive), rapid-prototyping/3D printing equipment and production machinery park, laboratory for device testing (environmental operating conditions, resistance to electromagnetic disturbances and vibrations), mechanical workshop - several machines and CNC centers with the possibility of very precise processing, e.g. for performing models and prototypes of machines, devices and components for them
		
		Results of research and application projects for commercial clients, eg. Research-Didactic Robotized Cell for Welding Technologies – with KUKA KRC16 robot, DKP 2-axis positioner and Fronius welding set (TPS family); possibility of remote access through Web camera.
		VET systems in the area of advanced manufacturing (automation, robotization) - results of R&D projects (eg. Erasmus +): online platforms with eLearning systems and teaching materials, e.g. https://coled.moodle.pl