

**MANUFACTURING INDUSTRY'S NOVEL DIGITALISATION VALUE CHAINS
FOR CONNECTING MACHINES WITH PEOPLE, PROCESS, AND TECHNOLOGY**



MIND 4 MACHINES

**1ST OPEN CALL
LAUNCH EVENT**

WEBINAR, 27.04.2022



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 101005711

MIND4MACHINES OBJECTIVES



Facilitate cross-border and cross-sectoral Collaboration in «smart ICT Technologies for manufacturing industry»

Support the entire digitalisation value chain from IoT to Big Data, Cloud Computing, Artificial Intelligence, Blockchain, Cybersecurity, etc.

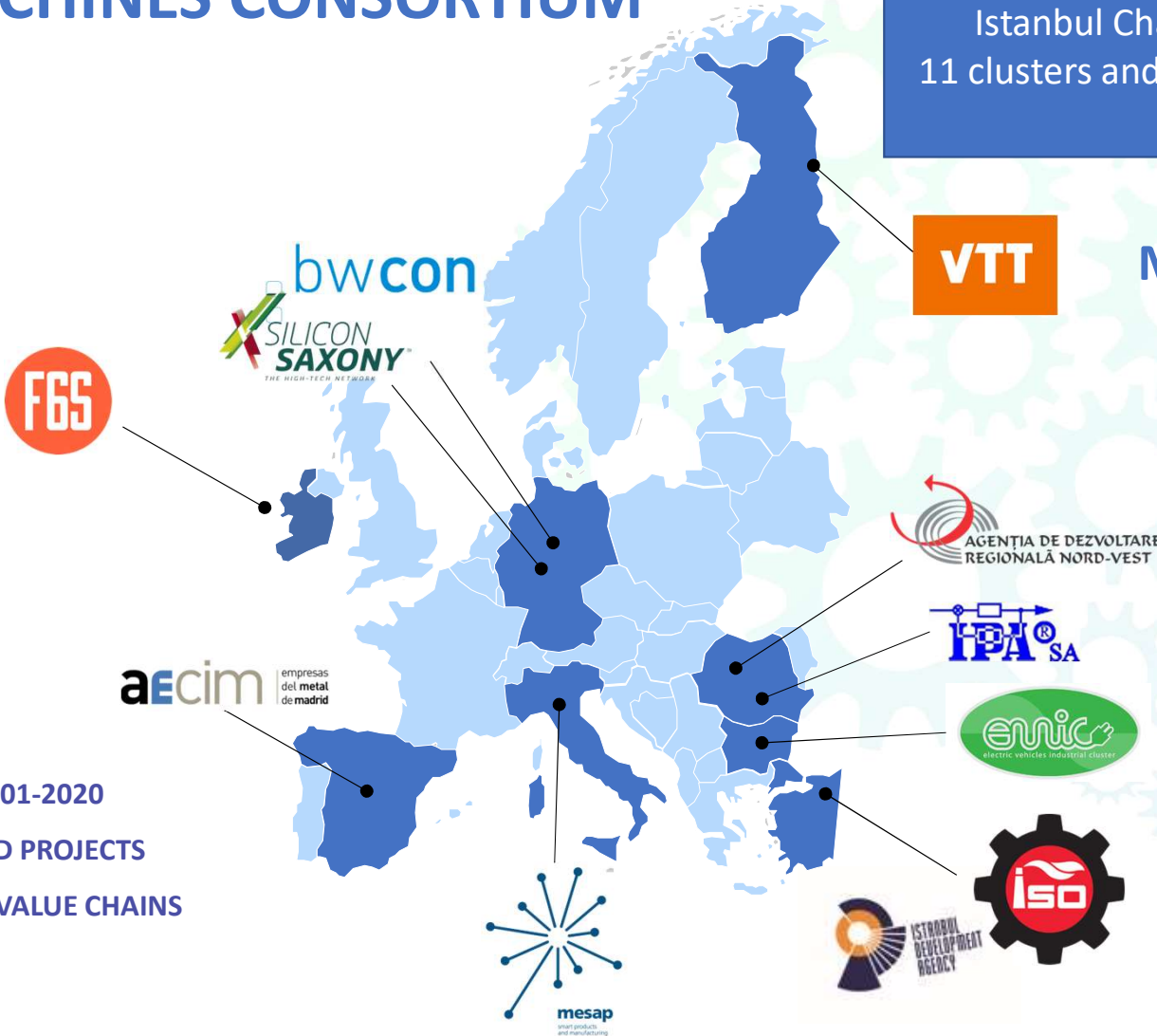
Financially support startups and SMEs developing Industry 4.0 solutions for the manufacturing sector.

Accelerate the market up-take of solutions to support sustainable, climate-neutral and intelligent manufacturing, within the context of the European Green Deal



MIND4MACHINES CONSORTIUM

MIND4MACHINES consortium, led by Istanbul Chamber of Industry (ICI) Turkey + 11 clusters and business supporting organisations from 8 countries



MIND4MACHINES REGIONS

- TR10 İstanbul [TURKEY]
- DE11 Stuttgart + DED2 Dresden [GERMANY]
- ES30 Madrid [SPAIN]
- RO11 North-West, RO31 South Muntenia, RO32 Bucharest-Ilfov [ROMANIA]
- ITC1 Piemonte [ITALY]
- BG41 Yugozapaden [BULGARIA]
- FI1B Helsinki-Uusimaa [FINLAND]
- IE06 Eastern and Midland [IRELAND]

H2020 INNOSUP-01-2020
CLUSTER FACILITATED PROJECTS
FOR NEW INDUSTRIAL VALUE CHAINS



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MIND4MACHINES APPROACH

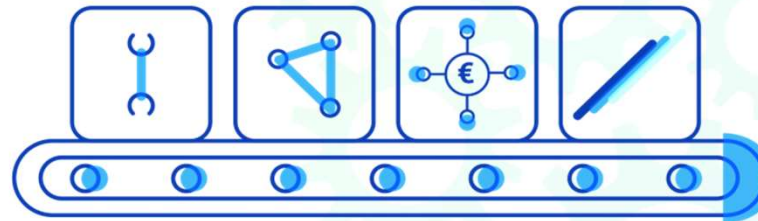


Manufacturing SMEs



+

Technology Provider SMEs/startups



Tools

ICT
Solutions

Funding
Accelerate



Digitalised and sustainable

SMEs



M4M Support

- ✓ Investment Readiness Level (IRL) Self-Assessment
- ✓ Open Innovation Platform
- ✓ Open Calls
- ✓ Acceleration Programs



OPEN CALLS



3.3 M EUR as Financial Support to SMEs

**2 Open Calls- 1.65 M EUR each
Fund at least 55 SMEs directly through
collaborative projects
Support more than 110 companies**

<https://mind4machines.eu/open-calls/>



OBJECTIVE OF THE MIND4MACHINES CALL



Fund **development, testing, validation and market uptake of Industry 4.0 solutions**, to support **digitalisation of value chains** and raise **efficiency and competitiveness of manufacturing industry**.



SPECIFIC OBJECTIVES OF THE CALL



- **Digitalise information and integrate systems** at all stages of product development and utilization (including logistics and supply).
- Integrate **autonomous systems** into the manufacturing environment.
- **Promote excellence**, eliminating defects in processes and products.
- **Produce efficiently** by means of all resources.
- Enable **manufacturing servitisation**.
- Facilitate **mass customisation** allowing every product to be unique and custom-made.
- Enable **more agile and flexible approaches in line with Industry 4.0 and Logistics 4.0**.
- Create **energy and resource efficiency** and nurturing more **sustainable value networks**.



INDUSTRY CHALLENGES TO BE TACKLED



- ❖ flexible manufacturing systems (FMS)
- ❖ predictive maintenance
- ❖ resource efficiency
- ❖ energy efficiency
- ❖ smart packaging
- ❖ decision support systems
- ❖ security and safety
- ❖ smart logistics
- ❖ supply chain management



INDUSTRY 4.0. TOPICS



The proposed solutions are expected to use technologies that generate/support **digitalization**:

- IoT (Internet of Things): including IIoT, sensors, digital signal processing
- Big data and analytics
- Advanced Analytics and artificial intelligence (AI), including RPA and DMA
- Advanced Robotics
- Digital Twin
- Blockchain
- Cloud computing
- Cybersecurity



FUNDING SCHEMES



INNOVATION SUPPORT – [TRL 5-7] Testing & delivering Industry 4.0 solutions

GO-TO-MARKET SUPPORT – [TRL 8-9] Innovative solutions demonstration & scalability



Objective

- Development of innovative ICT based solutions for manufacturing industry

- Validation & growth of the digital solutions on the industry market



Budget Allocated

- EUR 1 020 000

- EUR 630 000



Budget Budget per

- **Project Budget**
 - **Individual applicant** up to EUR 60 000
 - **Multiple applicants:** up to EUR 120 000
 - **Industry partner/s :** Up to 20% of the project budget (if SME)

- **Project Budget**
 - **Individual applicant** up to EUR 30 000
 - **Multiple applicants:** up to EUR 60 000
 - **Industry partner/s:** up to 20% of the project budget (if SME)



Duration

- 6-9 months

- 6-9 months



TRL – TECHNOLOGY READINESS LEVELS



TRL	Definition
TRL 5	Laboratory Testing of Integrated/ Semi-Integrated System: System Component and/or process validation is achieved in a relevant environment.
TRL 6	Prototype System Verified: System/process prototype demonstration in an operational environment (beta prototype system level).
TRL 7	Integrated Pilot System Demonstrated: System/process prototype demonstration in an operational environment (integrated pilot system level).
TRL 8	System Incorporated in Commercial Design: Actual system/process completed and qualified through test and demonstration (pre-commercial demonstration).
TRL 9	System Proven and Ready for Full Commercial Deployment: Actual system proven through successful operations in operating environment, and ready for full commercial deployment

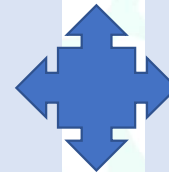


WHO CAN APPLY?



APPLICANT(S)

- **Smart digital technology developers (SMEs) from the ICT sector**, working in Industry 4.0 topics
- **Producers of machinery, tools, and robots** for use in the manufacturing industry.



INDUSTRY PARTNER(S)

From the manufacturing industry -
Category C NACE Code:

- **SME**, eligible for funding
- **Large industry**, not eligible for funding (attached Letter of Intent)

Projects can be submitted;

- Individually by a **technology provider** applicant (ICT or machinery/robotics)
- In partnership by **multiple technology providers** SMEs for complex solutions for each option cooperation with at least one industry partner is compulsory



WHO CAN APPLY?



- ! Project applications can be submitted **only by SMEs.**
- ! All applicants [technology supplier applicant/s, industry partner] must be registered in the EU27 Member States or in Horizon2020 Associated Countries.
- ! **Cross-border partnerships are strongly encouraged.**



APPLICATION SCHEME



ELIGIBLE PROJECT ACTIVITIES



<p>Applicant</p> <p>Call scheme</p>	<p>Innovation Support Scheme</p> <p>Industry 4.0 solution development and testing related activities.</p>	<p>Go-to-Market Scheme</p> <p>Market and client's engagement related activities linked to an Industry 4.0 solution and/or product.</p>
<p>Applicants (technology providers)</p>	<ul style="list-style-type: none"> • Prototyping • Testing, experimentation • Demonstration and pilot • MVP building • Validation of the results • Training the industry partner using the solution 	<ul style="list-style-type: none"> • Demonstration in real environment • Training the industry partner using the solution • MVP building • Technical consultancy • Market related consultancy • Market replication • Scalability consultancy • Promotion costs of the innovative product/ activities to engage customers
<p>Role of the Industry Partner</p>	<ul style="list-style-type: none"> • Collaboration for solution testing and utilisation • Collaboration for validation of the results 	<ul style="list-style-type: none"> • Collaboration for product testing • Collaboration for validation of the product/ service



APPLICATION FORM



Public information of the proposal	<ul style="list-style-type: none"> ➤ Proposal NAME and Acronym ➤ Abstract ➤ Financial Scheme ➤ Type of proposal
Administrative data	<ul style="list-style-type: none"> ● Applicant(s) and Industry partner(s)
EXCELLENCE	<ul style="list-style-type: none"> ● Objective of the project, challenges addressed ● Details of the Industry 4.0 solution ● Innovation component
IMPACT	<ul style="list-style-type: none"> ● Market addresses, competition ● Expected impact on beneficiary partner/industry ● Digitalisation impact ● Regional impact
IMPLEMENTATION	<ul style="list-style-type: none"> ● Activities work plan ● Associated risks ● Financial details ● Team involved
Horizontal criteria	<ul style="list-style-type: none"> ● Environment ● Social ● Equal opportunities
Self-declarations	<ul style="list-style-type: none"> ● Financial liability ● Conflict of interest
Ethics and IPR	<ul style="list-style-type: none"> ● Ethics and IPR
Attachments	<ul style="list-style-type: none"> ● Annex 2- Administrative data for multiple applicants/ partners (if applicable) ● Annex 3– Letter of Intent from large company (if applicable) ● Annex 4 – Activities and Budget [compulsory] ● Annex 5 – Resources [compulsory]

Registration on F6S Platform
Contact data



Online Application
<https://www.f6s.com/m4m-open-call-1/apply>

! An SME (applicant or industry partner) can participate to only one proposal in one Open Call



PLATFORM for ELECTRONIC SUBMISSION



The proposal is submitted in a single stage through the online platform, following the indicated steps:

REGISTER on the F6S platform (if not registered before)

ACCESS the online application form and fill the questions at: <https://www.f6s.com/m4m-open-call-1/apply> or M4M link.

ACCEPT Terms & Conditions - Applicants will accept with a click the terms and conditions located in the application form which state that they are willing to participate in the programme and that information contained within this application form has been reported truthfully will not be eligible.

UPLOAD the compulsory Annex 4 and Annex 5 as pdf files

UPLOAD if the case, Annex 2 and 3 as pdf

SUBMIT - Once the Proposal is completed, click "Submit".

The Call will be closed on 29 June 2022 17:00 CET

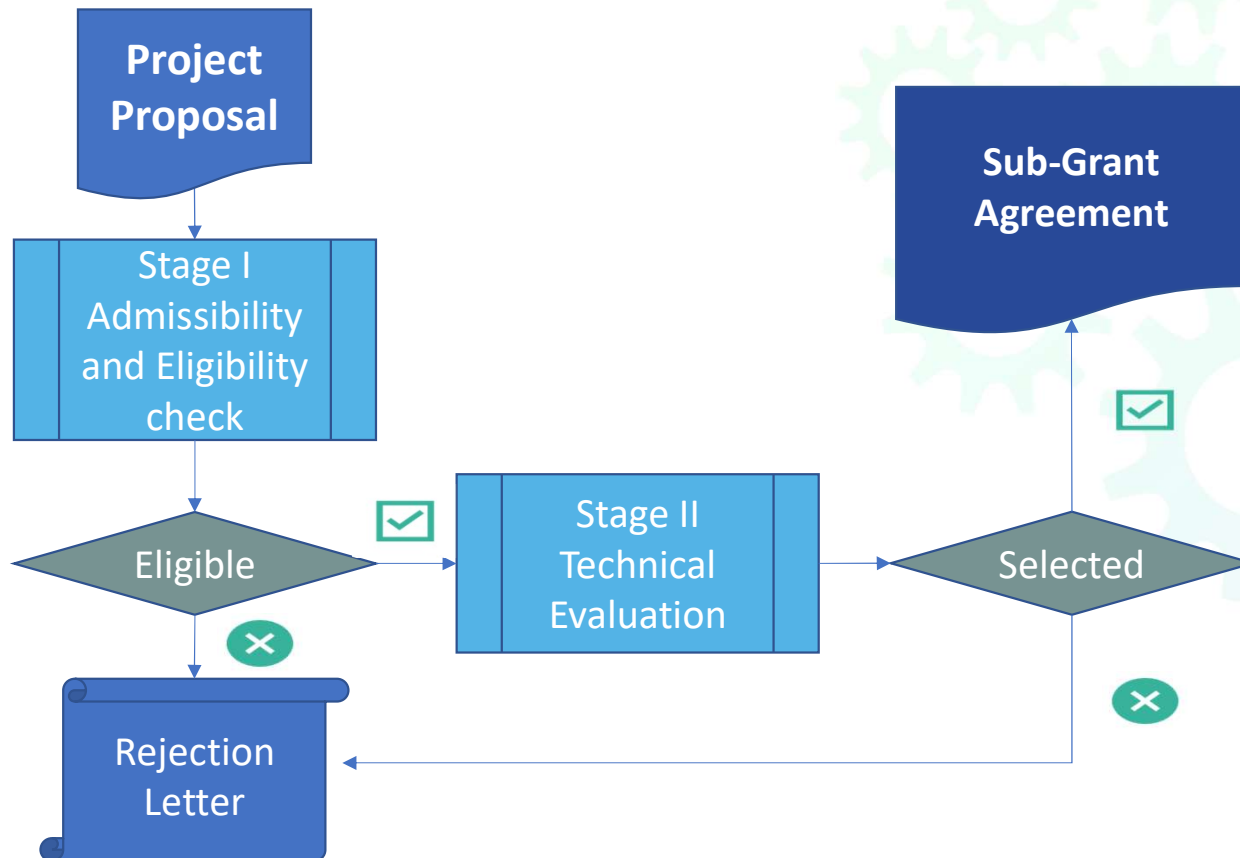
After the deadline, no additions or corrections to received proposals will be admitted.



EVALUATION AND SELECTION



< 2 MONTHS >



STAGE I- Admissibility and Eligibility check- **Admissibility and Eligibility Panel** reviews all applications received until the deadline. Failure to comply will be notified in maximum 5 days from the closing of the call.

STAGE II- Technical Evaluation- **Evaluation Panel** will score the proposals according to the Evaluation Grid.



STAGE 1 – ADMISSIBILITY AND ELIGIBILITY CHECK



- **Legal status** : the MIND4MACHINES Open Call is addressed only to legally established and registered SMEs (including Startups), according to the criteria set by the EU regulated definitions
- **Location of headquarter and subsidiaries**: all applicants [technology supplier applicant/s, industry partner] must be registered in the EU27 Member States or in Horizon 2020 Associated Countries
- **Field of activity**: the MIND4MACHINES Open Call is addressed to **SMEs applicants** acting as Industry 4.0 technology service providers **(A)** for an end-user partner from the **manufacturing industry (B)**, as a clear industrial application is expected involving a final customer / end user.
 - (A) The eligible applicant/s, applying individual or in partnership, is/are SMEs** working in Industry 4.0 fields for industrial applications and processes such as:
 - ✓ **Smart digital technology developers from the ICT sector**, working in Industry 4.0 topics
 - or/ and
 - ✓ **Producers of machinery, tools and robots (as technology provider)** for the use of the manufacturing industry.
 - (B) The eligible end-user Industry partner**: At least 1 end-user (SME or large industry) representing a manufacturing case, activity corresponding to a NACE Code from Category C
- **Other eligibility criteria**: on-line submission using MIND4MACHINES/ F6S Platform; fit the deadline; English language; unique proposal, maximum amount requested per applicant / per project; exclusion of the SMEs that are under liquidation, conflict of interest, double funding.



STAGE 2 – TECHNICAL EVALUATION



M4M partners + external evaluators

EVALUATION GRID

Evaluation Criteria	Description	Score	Threshold
1). Excellence	1.1. Concept and /vision 1.2. Technology and innovation	0 – 25	15
2). Impact	2.1 Impact for the manufacturing industry 2.2. Technological, economic, commercial 2.3. Geographical, Regional	0 – 30	15
3). Implementation	3.1. Work plan 3.2. Team & resources	0 – 25	15
Horizontal criteria	Environment, equal opportunities, social Impact	0 – 15	5
Cross-border partnerships		0 – 5	
TOTAL SCORE		0 – 100	

SCORE	DESCRIPTION
FAIL 0 – 5	The Application fully fails to address the criterion under examination or cannot be judged due to missing or incomplete information.
POOR 6-10	The criterion is addressed in an inadequate manner, or there are serious inherent weaknesses that will impede success.
FAIR 11 - 14	While the Application broadly addresses the criterion, there are significant weaknesses that would hinder the project implementation.
GOOD 15 - 18	The Application addresses the criterion well, although improvements would be necessary and various details are missing on implementation.
VERY GOOD 19 - 22	The Application addresses the criterion very well, although certain improvements are still possible and some particular details are missing.
EXCELLENT 23 – 25/30*	The Application successfully addresses all relevant aspects of the criterion in question. Any shortcomings are minor.

30 is the maximum score only for the Impact



KEY DATES



Key Dates for MIND4MACHINES 1st Open Call of Proposals	
Launch of the 1st Open Call	27/04/2022
Deadline of the 1st Open Call	29/06/2022, 17:00 CET
Evaluation of the applications	30/06/2022 - 29/08/2022
Announcement of the final beneficiaries	01/09/2022
Contracting procedure of the Sub-Grant Agreements	01/09/2022 - 30/09/2022
Start date and sub-projects duration	03/10/2022 up to 30/06/2023



CONTRACTING PROCEDURE



< 2 MONTHS >

Eligibility check validation of the winner SMEs

Sub-Grant Agreement (S-GA)

between the MIND4MACHINES consortium represented by its coordinator (ICI) and all applicant/partner all applicant(s)/partner(s) entitled to receive EU grants, to be considered hereafter *Sub-Grantees*.

Implementation period: **6- 9 months**

Consortium Agreement [+ IPR addressed]

concluded between sub-project partners, in case the consortium is composed of several partners (including or not a beneficiary industry SME).



IMPLEMENTATION OF SUB-PROJECTS



< 6- 9 MONTHS >

- Implementation of the **Working Plan** described in the winning proposal
- The payment for the services/ experiments will be linked to the accomplishment and approval by MIND4MACHINES Consortium of the **defined KPIs and deliverables**.
- The transfer of the awarded financial contribution will be given in two batches, based on KPIs (milestones & deliverables) validated after the submission of an **interim report (40% payment)** and a **final report (60% final payment)**, following the Working Plan described in the winning proposal.

+ MIND4MACHINES Accelerators:

- business and innovation trainings and coaching based on an agreed calendar and topics.
- Innovation and Go-to-Market –Accelerator based on IRL self assessment results





THANK YOU !



Stay connected!

- Website: <https://mind4machines.eu/>
- Social media

#mind4machines.eu



<https://twitter.com/Mind4Machines>

<https://www.linkedin.com/company/mind4machines/>

[MIND4MACHINES Youtube channel](#)

MIND4MACHINES Help Desk
<https://www.f6s.com/m4m-open-call-1/discuss>

