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MAS4AI

D7.2 – Dissemination & communication activities – Initial version

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Contributors:	LMS
Reviewers:	Kosmas Alexopoulos
Approved by:	
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Executive Summary

This deliverable provides the outcomes related to the dissemination and communication activities of the MAS4AI project as conducted within the first 12 months of its lifetime.

This document discusses on the following:

- plan for disseminating and communicating the activities and outcomes of the MAS4AI project to the wider public
- the communication material and channels
- the dissemination and communication log, keeping track of the project activities
- the status of dissemination and communication activities as conducted by the entire MAS4AI consortium
- the KPIs set for quantifying the dissemination and communication activities of the project

Document History			
Version	Date	Contributors	Description
0.1	31.08.2021	LMS	Outline
0.9	29.09.2021	LMS	Full draft
1.0	7.10.2021	LMS	Final draft integrating consortium's feedback/comments

Table of Contents

Executive Summary.....	2
List of Figures and Tables.....	5
1 Introduction.....	6
1.1 The project in a nutshell	6
1.2 Deliverable scope.....	6
1.3 Document structure.....	6
2 Dissemination and Communication plan	7
2.1 Strategy.....	7
2.2 Target audiences.....	10
2.3 Tools and channels.....	13
2.4 Communication Material	14
2.4.1 Graphic identity	14
2.4.2 Public website.....	14
2.4.3 Social media	16
2.4.4 Project leaflet.....	17
2.4.5 Brochure.....	19
2.4.6 Project poster.....	20
2.4.7 Newsletter.....	21
3 Dissemination and communication activities KPIs.....	23
4 List of Dissemination and Communication activities undertaken.....	25
4.1 Scientific publications	25
4.2 Dissemination and communication activities.....	25
4.3 Lectures.....	25
4.4 PhD, Master, and bachelor thesis.....	25
4.5 Videos and newsletters.....	26

4.6	Liaison with other projects	26
4.7	Joint events with other projects	28
5	Conclusions	29

List of Figures and Tables

List of figures

FIGURE 1: MAS4AI DISSEMINATION MAIN STEPS	8
FIGURE 2: INTERNAL LOG OF DISSEMINATION ACTIVITIES.....	10
FIGURE 3: PROJECT GRAPHIC IDENTITY	14
FIGURE 4: MAS4AI PROJECT PORTAL.....	14
FIGURE 5: MAP OF COUNTRIES (IN BLUE) FROM WHERE MAS4AI PORTAL VISITORS COME FROM.....	16
FIGURE 6: MAS4AI PRESENCE ON LINKEDIN AND TWITTER.....	17
FIGURE 7: MAS4AI LEAFLET	18
FIGURE 8: MAS4AI BROCHURE	19
FIGURE 9: MAS4AI POSTER.....	20
FIGURE 10: MAS4AI 1ST NEWSLETTER	21
FIGURE 11: 2 ND & 3 RD MAS4AI NEWSLETTER	22

List of tables

TABLE 1: MAS4AI TARGET AUDIENCES	11
TABLE 2: DISSEMINATION TOOLS AND CHANNELS	13
TABLE 3: PUBLIC PORTAL ANALYTICS.....	15
TABLE 4: TWITTER STATISTICS	16
TABLE 5: LINKEDIN STATISTICS	16
TABLE 6: YOUTUBE STATISTICS.....	17
TABLE 7: LIST OF DISSEMINATION/COMMUNICATION METRICS.....	23
TABLE 8: METRICS BASELINE AS DEFINED IN THE DOA.....	24
TABLE 9: AI-MAN CLUSTER PROJECTS.....	26

1 Introduction

1.1 The project in a nutshell

The European research and innovation project MAS4AI started on October 1st, 2020 with a term of three (3) years. The MAS4AI aims to develop and test a distributed multi-agent system (MAS) architecture for enabling autonomous and modular production systems leveraging artificial intelligence (AI) technologies for human assistance in production. This architecture is expected to contribute to the hyper-agility of European factories. In particular, the aforementioned will be achieved via the following objectives:

- Development of the MAS4AI MAS
- Development of agents:
 - o using knowledge-based representation
 - o for hierarchical planning of production processes
 - o using model-based machine learning approaches
- System testing and validation targeting a TRL 5 to 6.

1.2 Deliverable scope

This deliverable aims to present the plan for dissemination and communication activities to be followed by the consortium members during the project lifetime. The plan recognizes the participation of all partners in the dissemination of the project activities and communication of its results to the relevant interested parties towards promoting the MAS4AI objectives.

1.3 Document structure

The document is compartmented into 5 sections. In section 1 a short introduction to the project and the objectives of the deliverable is provided. Then follows section 2 with the dissemination and communication plan, the tools as well as the target audiences. Afterwards and in section 3, the list of dissemination and communication activities undertaken so far is presented. Finally, section 4 lists the KPIs for assessing the dissemination and communication activities of the project and section 5 provides some concluding remarks.

2 Dissemination and Communication plan

2.1 Strategy

The objective of the dissemination activities inside the MAS4AI project is to provide the appropriate dissemination means and support for the effective communication of the results of the project.

On top of dissemination activities, that mostly focus on project results, communication activities have a wider scope, aiming to promote both the project as well as its results to a multitude of audiences, including the media and the public, informing the society accordingly and show the benefits of the research. Broad communication actions will be undertaken to promote the project's objectives, activities, and findings clearly and understandably for citizens and civil society at large.

Furthermore, and to maximize the expected impact outlined in the work programme, the dissemination and communication activities in MAS4AI target the following:

- Raise awareness around the project.
- Communicate research findings and stimulate ongoing interest in the work of MAS4AI
- Lay the foundations for the establishment and reinforcement of a wide network of potential users (customers).
- Spur further research and innovation in European Manufacturing companies by telling success stories from the project.
- Promote synergies with academic/industrial actors beyond the project's community, to demonstrate the advances for manufacturing excellence in Europe.

The MAS4AI dissemination strategy includes the following main steps (Figure 1):

Dissemination Analysis

- **Activity selection:** The first step is the selection of a suitable event to disseminate the project, its mission, and its enabling solutions.
- **Audience identification:** After the activity has been selected it is important to identify the audience that should be targeted with dissemination activities. This is highly important since it will guide the selection of the appropriate means to communicate with the audience. There are different types of audiences or groups of interest that could be interested in the developments of MAS4AI. The external audience may include academic members and industry while the internal audience may include students or teams/units of the MAS4AI companies.

- **Material/knowledge to be communicated:** The MAS4AI content and knowledge to be communicated are closely related to the project’s goal and objectives. They should be specified following the activity selected, the different groups of interest identified and the progress of the project.
- **Communication channels selection:** Dissemination activities will focus on the use of various and complementary communication channels to achieved wider outreach such as websites, publication of papers, newsletters, and face to face or virtual contacts through meetings and targeted dissemination events, conferences, and exhibitions. These events should be public and timely advertised to convey a large audience. COVID19 restrictions are expected to hinder dissemination activities. Nevertheless, particular focus will be paid to compensating for the dissemination of the project through virtual tools and events.

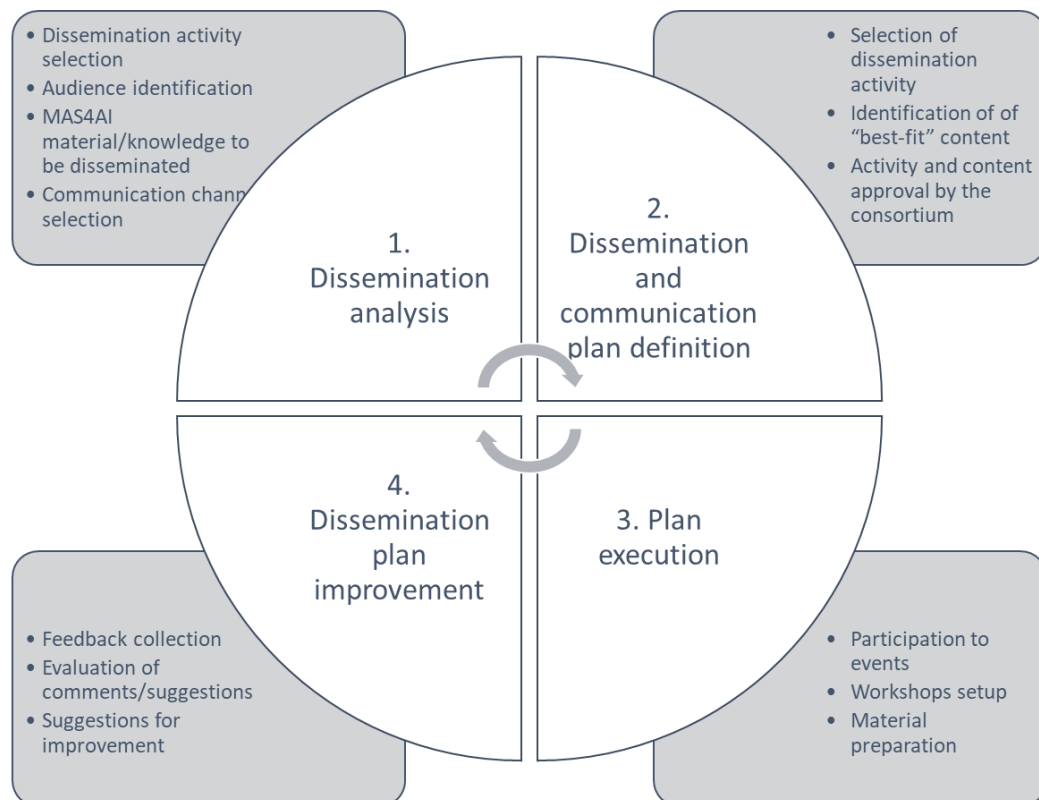


Figure 1: MAS4AI dissemination main steps

Dissemination & communication plan definition

- **Selection of dissemination activity:** The opportunities have significantly been limited by the COVID19 pandemic along with national and enterprise-specific regulations and

restrictions. Nevertheless, the identification of a suitable dissemination event is of paramount importance and dependent on the ecosystem of each partner. Thus, the entire consortium is expected to contribute to the selection and suggestion of potential dissemination activities.

- **Identification of best-fit content:** Depending on the activity selected, different material should be communicated depending on the type of event and audience targeting to attract high interest and support further dissemination activities.
- **Activity and content approval by the consortium:** The content and material selected for dissemination to the wider public will need to get approval from the consortium partners and ensure there is no conflict of interest or any sensitive information communicated to the wider public.

Plan execution

The execution of the activities implements all the activities described in the Dissemination plan. For each dissemination activity, a main leader/key partner is identified for leading the preparation and execution of the activity. From the beginning of the project dissemination phase and in coordination with the exploitation objectives all project partners must contribute to the execution of the activities depending on their field of expertise and interests, conducting the following and/or additional steps:

- Participation to event
- Workshop's setup
- Material preparation

Dissemination plan improvement

An important aspect of the dissemination plan is its constant evaluation and improvement based on the achieved impact to the wider public and towards achieving the project dissemination targets. Hence, following a dissemination activity the below steps should be completed:

- **Feedback collection:** feedback should be provided by the partner(s) that have performed the activity.
- **Evaluation of feedback:** The comments received, and interest attracted as assessed from the feedback provided, should be taken into consideration, and linked to the content communicated.
- **Suggestions for improvement:** Afterwards, the evaluation of the feedback should contribute to the improvement of the dissemination plan, starting from the content itself

up to setting new action plan for disseminating better the project vision, objectives, and results. The dissemination elements (goals, audience, messages etc.) that are identified are monitored and updated regularly also by utilizing the feedback from dissemination activities. This ensures that the activities will have a considerable impact.

Towards collecting and monitoring the performed and planned dissemination activities a google sheet was created (Figure 2) for keeping track of the activities, including:

- The current and foreseen scientific publications
- Dissemination/communication planned and executed activities
 - Lectures
 - PhD, Master, and bachelor thesis
 - Videos and newsletters
 - Information on the connection to other projects
- Content for social media

No	Responsible Partner(s)	Title	Title of the journal or the conference	Abstract	Expected date or year of publication	Status
1	Collaborative	MAS4AI architecture	IICIM	TBD	31/12/2021	Pending
2	LMS	Smart agent system for planning and control of painting shop		To be submitted	31/12/2021	pending
3	DFKI	Simultaneous Production and AGV Scheduling using Multi-Agent Deep Reinforcement Learning	CIRP CMS	Increasing demand for customized products in the wake of the 4th Industrial Revolution is placing ever increasing demands on the flexibility of manufacturing systems. Furthermore, the increasing usage of automated guided vehicles (AGV) adds another layer of flexibility and also complexity to the overall production system. The resulting Flexible Job Shop Scheduling Problem (FJSSP), including the coordination of the AGVs, is NP-hard and therefore hard to optimize. To address this problem, a Reinforcement Learning Multi Agent (MARL) system is proposed, in which job scheduling and vehicle planning is done cooperatively. This concept is described and prototypically implemented.	2021	Submitted
4						
5						
6						
7						
8						
9						
10						
11						

Figure 2: Internal log of dissemination activities

2.2 Target audiences

To structure the dissemination activities in the dissemination plan and to be able to analyze the impact of dissemination on a comparable basis a more accurate division of the target audience has been developed. The key identified target audiences are presented in the following table.

Table 1: MAS4AI Target audiences

Type of audience	Motivations
Academic and research community	<p>This group targets all research communities interested in the MAS4AI project’s developments, results, and innovation, which can be beneficial for their research activities.</p> <p>Scientific contributions of MAS4AI are particularly interesting for researchers working in the field of artificial intelligence, agents, smart manufacturing, industry 4.0, distributed and self-adaptable production systems, cyber-physical systems, scheduling, asset administration shell and production optimization using machine learning techniques.</p>
The industrial sector, Professional Associations (wider audience)	<p>A key objective of MAS4AI dissemination is to address and trigger the active involvement of industrial and user communities. MAS4AI is of utmost relevance for organizations in various industry verticals. MAS4AI has already attracted stakeholders from various industrial sectors whose potential for MAS4AI results exploitation will be analyzed especially in the frame of elaboration of the exploitation plan.</p> <p>At the end of the project, MAS4AI’s dissemination impact can be analysed and elaborated to evaluate which industrial segments are the most prominent to be addressed. This will bring important information for further exploitation of MAS4AI project results by consortium partners after the end of this project.</p>
Wider public	<p>The wider public should be aware of MAS4AI scope and objectives, owing to the innovative character of the developed technologies.</p>
EU Technology platforms	<p>MAS4AI is going to generate results that are going to be forwarded to the European technology platform (ETP) Manufacture for supporting their road-mapping activities. Moreover, MAS4AI plans to participate in events organized by the European Factories of the Future Research Association (EFFRA) to communicate to a mainly industrial group the relevance and impact of MAS4AI technology to the industry.</p>

<p>EU or national, regional projects working on a similar domain</p>	<p>The participation of project partners in other relevant projects offers the opportunity for the establishment of quick links among parties through common participants.</p>
<p>Internal audience</p>	<p>Ensuring effective internal communication and dissemination among the Consortium partners represents an important key success element for the MAS4AI.</p> <p>Partners’ organizations are important for dissemination for two reasons. First, they are potential users of MAS4AI project results themselves and second they represent “influencers” because of their huge impact on the associated industrial sectors.</p> <p>Particularly MAS4AI consortium partners comprise important market players in various segments and thus constitutes a natural channel for the dissemination of the project and its results to other potential customers. In this respect, the dissemination activities rely on the effort and the possibility of each partner in exploiting opportunities to present the project and its result. Therefore, it is important to communicate information about the MAS4AI project and its results to partners’ management, consultants, and people responsible for their marketing and sales. Additionally, it is necessary to encourage them to share this information further with their customers and business partners.</p> <p>The internal communication strategy also pursues the objective to maintain all partners fully informed about planning, work in progress and existing or potential problems. Besides the requested EC and Internal reporting, all partners are invited to actively communicate with WP Leaders about technical progress and issues, as well as WP Leaders are invited to keep PC and PM updated about the activities. All partners are invited to inform PM and PC of any Administrative and Legal issues arising. PM and PC are at the partners' disposal respectively for any technical and administrative information/issue.</p>

2.3 Tools and channels

MAS4AI focus will be to ensure awareness across both scientific and industrial communities. Non-confidential results will be periodically diffused using traditional communication channels, to create a constant and continuous information flow towards the potential market. Furthermore, MAS4AI’s project results have been and will be communicated through an appropriate set of channels that are summarised in the following table.

Table 2: Dissemination tools and channels

<i>Dissemination tools and channels</i>	Digital	Physical
<i>Printed materials: newsletter, flyer, presentations, handbook</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Target publications in scientific magazines</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Project’s events (not yet planned but suggested: one after 18 months and one at the end of the project)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Other AI, AAS, multi-agent systems, smart manufacturing-related conferences and events</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>A business interest group (clustering)</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Synergies with ongoing initiatives (clustering)</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Seminars/Grants (education and training)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>MAS4AI website</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>External websites (partner websites, etc.)</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.4 Communication Material

2.4.1 Graphic identity

The logo or project graphic has been created (Figure 3). The project logo has been in all materials and project-related documents and used in all printed/online project-related promotional materials.



Figure 3: Project graphic identity

2.4.2 Public website

The MAS4AI public website has been developed in M01 and reported in D7.1. The portal is intended for promoting the project and its activities to people all around the globe. Access to the public portal is provided by the link:

<http://mas4ai.eu/>

The public portal is useful for the dissemination of the knowledge of the project or publishing news and information about the project and its beneficiaries.

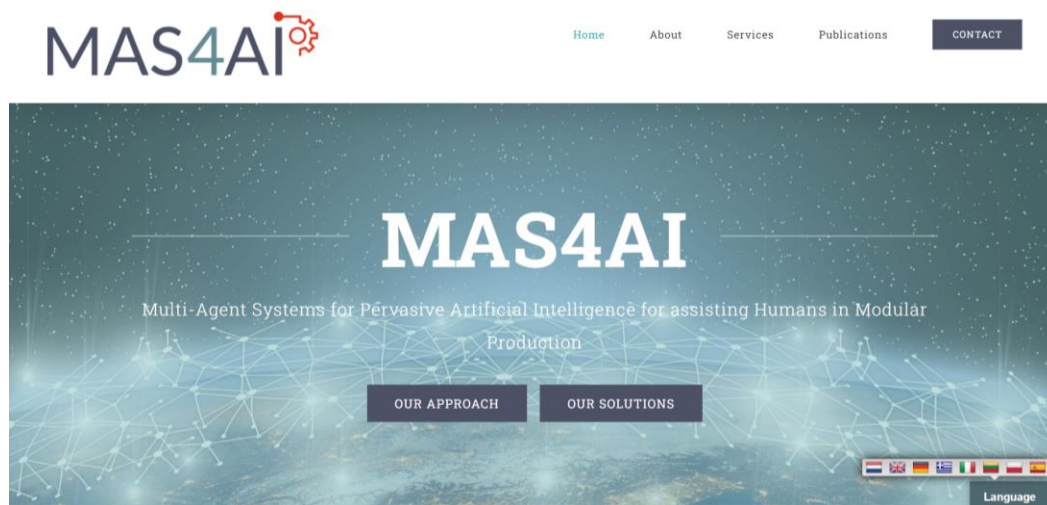


Figure 4: MAS4AI project portal

MAS4AI portal activity (01/10/2020 – 27/9/2021)

Google Analytics has been used to monitor the activity in MAS4AI public portal¹. Using Google Analytics, the following numbers have been recorded:

Table 3: Public portal analytics

Performance measure		Value	
<i>Sessions</i>		981	
<i>Users</i>		600	
<i>Pageviews</i>		2,202	
<i>Avg. Session Duration</i>		2m 33s	
<i>Bounce Rate</i>		57.70%	
<i>New visitors</i>		-	
<i>Countries/Location</i>			
<i>No</i>	<i>Country</i>	<i>No</i>	<i>Users</i>
1.	Germany	112	18.54%
2.	United States	111	18.38%
3.	Greece	82	13.58%
4.	Spain	64	10.60%
5.	Netherlands	53	8.77%
6.	Italy	22	3.64%
7.	France	21	3.48%
8.	Finland	14	2.32%
9.	China	11	1.82%

¹ The activity reported involves only the MAS4AI public portal however it does not exclude the activity of project partners when visiting the public portal.

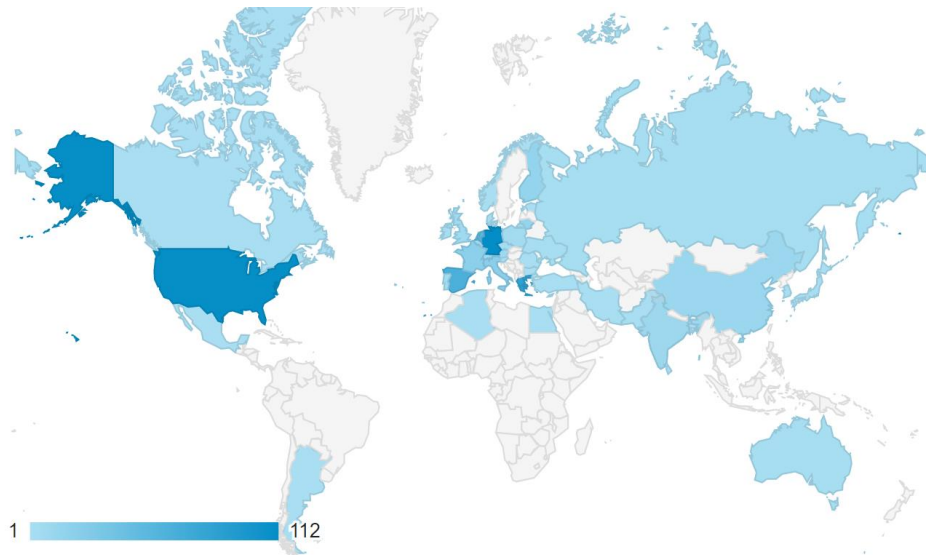


Figure 5: Map of countries (in blue) from where MAS4AI portal visitors come from.

2.4.3 Social media

MAS4AI has active profiles in LinkedIn and Twitter (Figure 6), to promote MAS4AI activities to users of those media, achieving wider outreach. Furthermore, the following tables (Table 4, Table 5, Table 6) are presented extensive statistics regarding the social media of the project.

Table 4: Twitter statistics

Twitter	
<i>Followers</i>	30
<i>Following</i>	31
<i>Tweets</i>	24

Table 5: LinkedIn statistics

LinkedIn	
<i>Connections</i>	13

<i>Followers</i>	15
<i>Posts</i>	1

Table 6: YouTube statistics

YouTube	
<i>Subscribers</i>	2
<i>Videos</i>	0

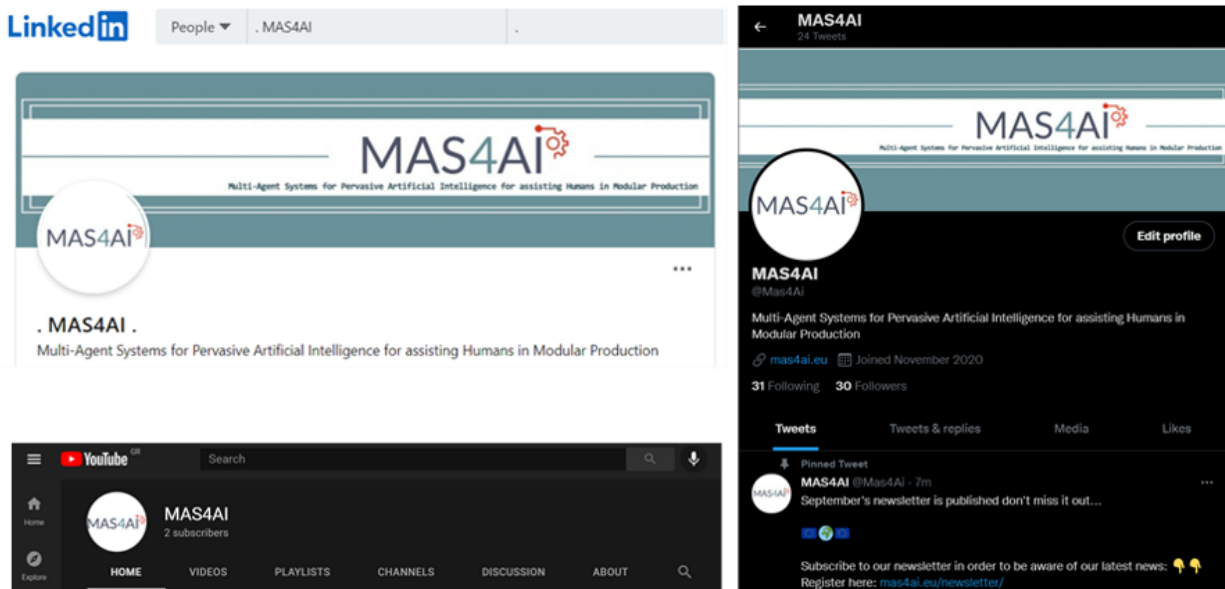



Figure 6: MAS4AI presence on LinkedIn and Twitter.

2.4.4 Project leaflet

A project leaflet (Figure 7) has been prepared that communicates key facts for the objective, structure etc. of the project. The leaflet is publicly available on the portal and will be printed in high-quality paper in several copies to be provided to people interest in MAS4AI during events that MAS4AI participates.



Multi-Agent Systems for Pervasive Artificial Intelligence for assisting Humans in Modular Production

Concept

The overall **MAS4AI** concept and methodology is based on a number of ready to use and emerging technologies in the area of industrial AI and Industry 4.0 as well the intelligent integration of technologies.

AI core techniques based on:


- ❖ Symbolic modelling
- ❖ Machine learning
- ❖ Combination of AI methods



Architecture

- ❖ Control logic decentralization enables the modularization of production and shortens the reconfiguration time for new products.
- ❖ Integrated networks use common language for machine-to-machine communication.
- ❖ Clear specification of interfaces to realize the Plug & Produce concept and the future development of smart factories.

<https://mas4ai.eu>



Multi-Agent Systems for Pervasive Artificial Intelligence for assisting Humans in Modular Production


Project

MAS4AI aims at developing and testing a distributed and interoperable AI architecture based on multi-agent technology that contributes to hyper-agility of European factories though modular and flexible production while at the same time keeps the humans in control of the AI technology and creating impact by spreading the technology over large groups of European manufacturing companies.


Who we are




Contact Us


Mas4Ai


MAS4AI


MAS4AI



This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 767561

<https://mas4ai.eu>

Figure 7: MAS4AI leaflet

2.4.5 Brochure

A single page brochure (Figure 8) has been created, presenting a short description as well as dissemination and communication activities regarding the MAS4AI project.



MAS4AI 

Multi-Agent Systems for Pervasive Artificial Intelligence for assisting Humans in Modular Production

Description

MAS4AI aims at developing a distributed and interoperable AI multi-agent system & guidelines for the realization of autonomous modular production and human assistance.

Objectives

Development of a Multi-Agent-System for distributing AI components in different hierarchy layers, including the following:

- AI agents using knowledge-based representation
- AI Agents for hierarchical planning of production processes
- Model-based Machine Learning (ML) AI agents

Benefits of the solutions

- Unified distributed multi-agent system for safe and highly reactive AI solutions
- Integration of low threshold AI software applications from diverse AI developers

Leading to:

- ✓ The lead time of representative parts is expected to be reduced by 20%
- ✓ Reduction of production costs
- ✓ Reduce the time needed for operations by at least 15%.

Clustering activities

➢ *ICT-38*

AI-MAN is the cluster of projects funded under the ICT-38-2020 Call with a focus on integrating state-of-the-art AI technologies in the manufacturing domain.

The cluster will support knowledge sharing, networking, joint dissemination & communication, and promotion of each project's activities and results. The other projects in the AI-MAN cluster are:

✓ AI-PROFICIENT	✓ knowlEdge
✓ ASSISTANT	✓ STAR
✓ COALA	✓ TEAMING.AI
✓ EU-Japan.AI	✓ XMANAI

➢ *ICT-48*

Four European networks of AI excellence centres are working on aspects of trustworthy AI funded under the H2020-ICT-48-2020 Call. Synergy is pursued with existing initiatives and networks, such as:

- the Confederation of Laboratories for AI Research in Europe (CLAIRE)
- the network of digital innovation hubs in AI,
- the European Laboratory for Learning and Intelligent Systems (ELLIS)
- the European AI Association
- related public-private partnerships (BDVA and euRobotics)

Contact us

www.mas4ai.eu

info@mas4ai.eu

Social Media

MAS4AI

[@MAS4AI](#)

MAS4AI H2020 Project

Acknowledgement


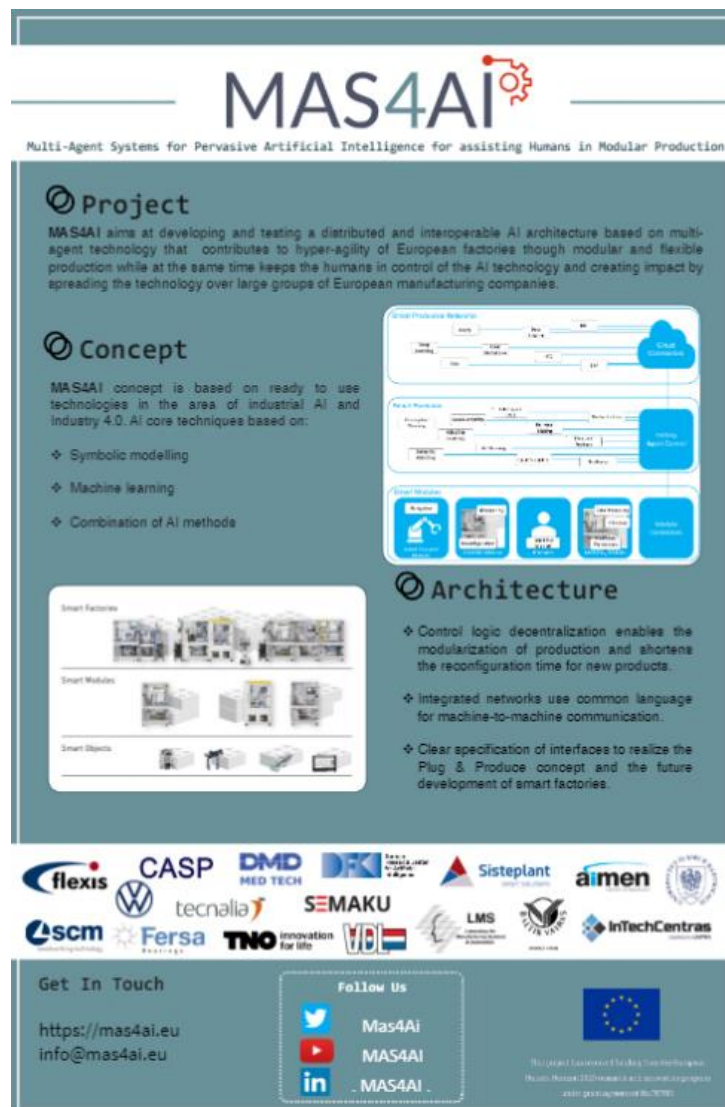
 This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957338

Figure 8: MAS4AI Brochure

2.4.6 Project poster

A poster (Figure 9) of 60x90 cm size has been designed as a generic communication material and is available through the MAS4AI public portal. It presents the project’s vision, objectives, use cases and expected impact, as well as the consortium members, and the contact details.



The poster features the MAS4AI logo at the top, followed by the subtitle "Multi-Agent Systems for Pervasive Artificial Intelligence for assisting Humans in Modular Production".

Project
MAS4AI aims at developing and testing a distributed and interoperable AI architecture based on multi-agent technology that contributes to hyper-agility of European factories through modular and flexible production while at the same time keeps the humans in control of the AI technology and creating impact by spreading the technology over large groups of European manufacturing companies.

Concept
MAS4AI concept is based on ready to use technologies in the area of industrial AI and Industry 4.0. AI core techniques based on:

- Symbolic modelling
- Machine learning
- Combination of AI methods

Architecture

- Control logic decentralization enables the modularization of production and shortens the reconfiguration time for new products.
- Integrated networks use common language for machine-to-machine communication.
- Clear specification of interfaces to realize the Plug & Produce concept and the future development of smart factories.

The poster also includes a diagram of the architecture showing "Smart Production Networks", "Smart Production", and "Smart Machines". Below this, there are images of "Smart Factories", "Smart Modules", and "Smart Objects".

At the bottom, there is a row of logos for consortium members: flexis, CASP, DMD MED TECH, DEK, Sisteplant, aimen, scm, Fersa, TNO, VDL, LMS, and InTechCentras. The bottom right corner features the "Follow Us" section with social media icons for Twitter (Mas4AI), YouTube (MAS4AI), and LinkedIn (MAS4AI), along with the European Union flag and a small text block.

Figure 9: MAS4AI poster

2.4.7 Newsletter

Project newsletters (Figure 10, Figure 11), released every 3 months, will enable the consortium to update the project community with the latest project activities and results. Furthermore, a newsletter mechanism has been implemented on the website of the project, where thirty-eight (38) people have already subscribed.

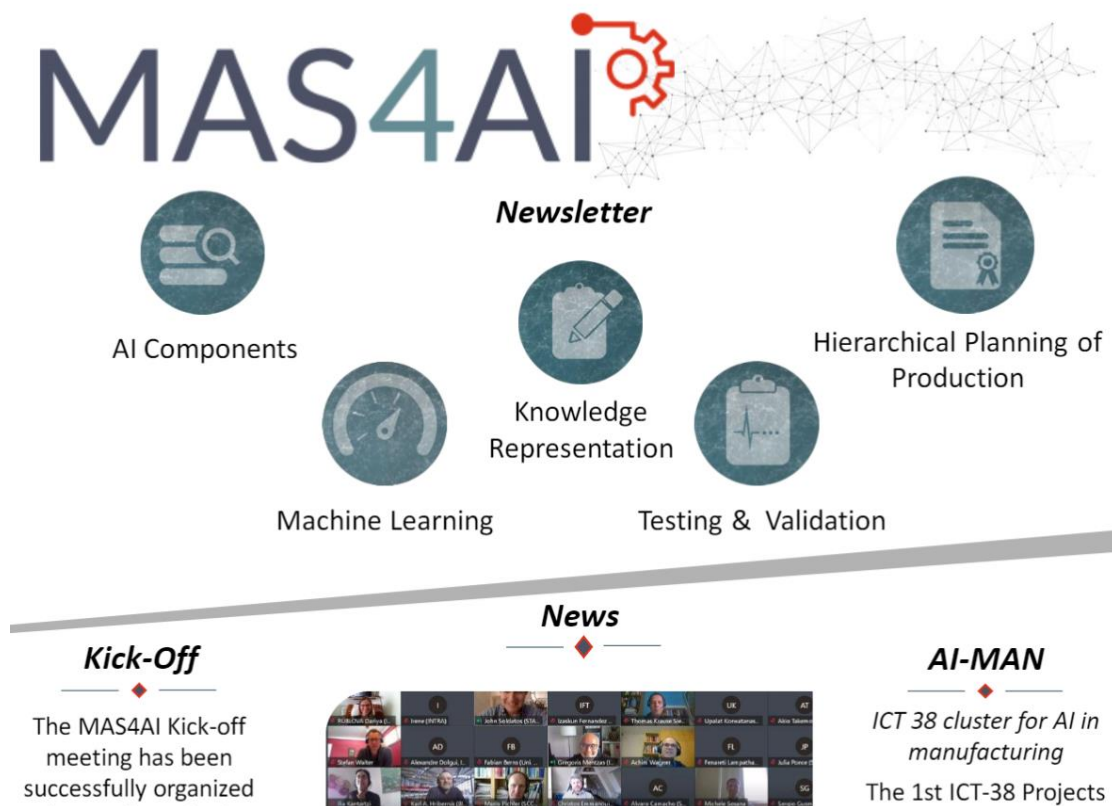


Figure 10: MAS4AI 1st newsletter

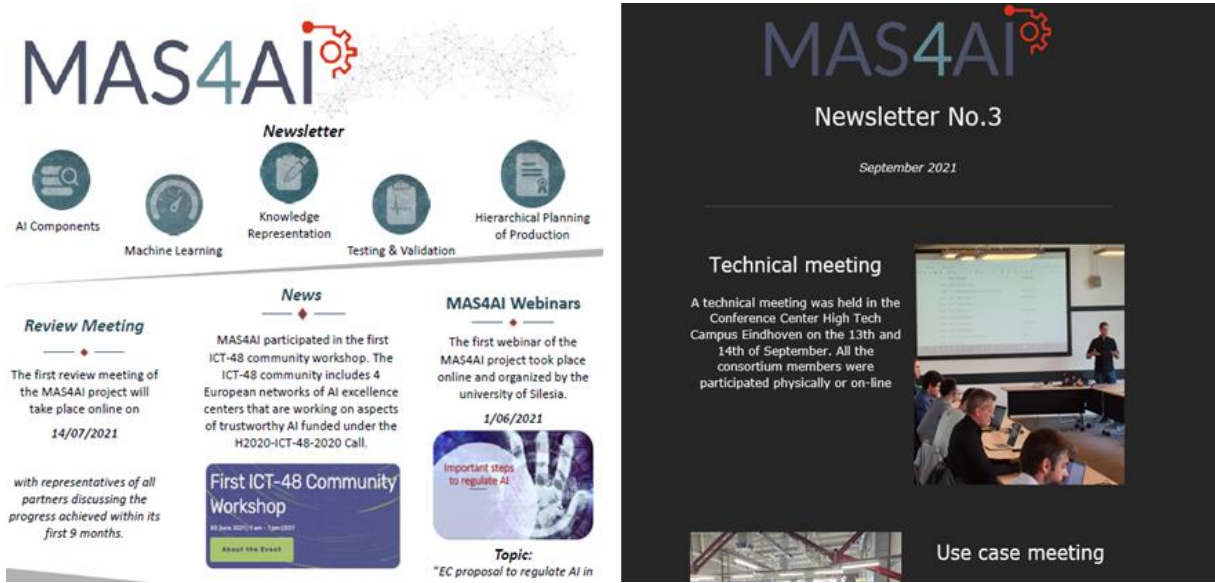


Figure 11: 2nd & 3rd MAS4AI newsletter

3 Dissemination and communication activities KPIs

The following table defines a list of measurable objectives and the associated metrics to the success of several dissemination activities.

Table 7: List of dissemination/communication metrics

Activity	Measurable Objective
Publications	<p>The number of scientific publications prepared by MAS4AI partners. The target according to the DoA is:</p> <ul style="list-style-type: none"> • 12 publications in journals and leading conferences • -10 publications in conferences (on top of the 12 above)
Events	<ul style="list-style-type: none"> • Percentage of the audience that has shown interest in the project after the event (can be measured by collecting business cards). • Size of the audience attending events where MAS4AI will be as a speaker. • Feedback obtained from the audience (can be measured by emails received or follow-up activities). • The number of MAS4AI leaflets distributed.
Social Media	<ul style="list-style-type: none"> • Twitter <ul style="list-style-type: none"> ○ Number of twits from/to MAS4AI ○ The number of followers. • LinkedIn <ul style="list-style-type: none"> ○ The number of discussions. <p>The number of members in the MAS4AI group in LinkedIn.</p>
Portal	<ul style="list-style-type: none"> • The number of visitors and unique visitors to the portal. • The number of page views to the portal. • Demographics of portal visitors (countries).
Clustering (collaboration with other projects)	<ul style="list-style-type: none"> • Number of involvements in the organization/participation in joint research forums with other national/international projects • Instances of participation in EU and cluster meetings
Newsletter	<ul style="list-style-type: none"> • Number downloads from the portal • The number of emails sent with the newsletter.

In line with the MAS4AI DoA, the baseline values for the main KPIs are provided. These stand as follows:

Table 8: Metrics baseline as defined in the DoA

Dissemination Channel	Estimated target
Publications	16
Events	20
Presentation in Conferences	20
Fairs	15

4 List of Dissemination and Communication activities undertaken

4.1 Scientific publications

No	Activity type	Title	Date	Place	Author	Status of submission, publication	Permanent identifiers ² (if available)	Is open access provided to this publication ³
1	Conference paper	Simultaneous Production and AGV Scheduling using Multi-Agent Deep Reinforcement Learning	2021	54th CIRP CMS	DFKI	Accepted	-	-

4.2 Dissemination and communication activities

No	Activity type	Title	Date	Place	Beneficiary	Size of audience
1	-	-	-	-	-	-

4.3 Lectures

-

4.4 PhD, Master, and bachelor thesis

-

² A permanent identifier should be a persistent link to the published version full text if open access or abstract if article is pay per view) or to the final manuscript accepted for publication (link to article in repository)

³ Open Access is defined as free of charge access for anyone via Internet. Please answer "yes" if the open access to the publication is already established and also if the embargo period for open access is not yet over but you intend to establish open access afterwards.

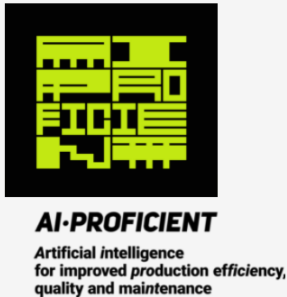

4.5 Videos and newsletters

No	Activity type	Title	Date	Place	Beneficiary	Size of audience
1	Newsletter	#1 Newsletter	06/2021	Online		Medium
2	Newsletter	#2 Newsletter	07/2021	Online		Medium
3	Newsletter	#3 Newsletter	09/2021	Online		Medium




4.6 Liaison with other projects

MAS4AI is one of the funding members of the AI-MAN cluster. The AI-MAN cluster consists of 9 projects from ICT-38 call. AI-MAN aims to support the transfer of skills and know-how. The ICT-38 cluster includes 9 projects as illustrated in Table 9.

Table 9: AI-MAN cluster projects

	<p>AI-PROFICIENT aims to increase the positive impact of AI technology on the manufacturing process as a whole while keeping the human in a central position, assuming supervisory (human-on-the-loop) and executive (human-in-command) roles. By identifying the effective means for human-machine interaction, the project will assist Europe’s manufacturing and process industry to improve production planning and execution.</p>
	<p>ASSISTANT aims to develop breakthrough solutions for the manufacturing industry, using artificial intelligence to optimize production systems. One of the keystones of ASSISTANT is the creation of intelligent digital twins. By combining machine learning, optimization, simulation, and domain models, ASSISTANT develops tools and solutions providing all required information to help production managers design production lines, plan production, and improve machine settings for effective and sustainable decisions that guarantee product quality and safety.</p>

	<p>COALA will provide a solution for cognitive assistance that consists of a composition of trustworthy AI components with a voice-enabled digital intelligent assistant as an interface. The solution will support workers that need to use analytics tools and new workers that perform on-the-job training. Complementary to the technology, and education and training concept that focuses on building blue-collar worker competencies in human-AI collaboration will be developed. The COALA solution will transform how workers perform their jobs and allows companies to maintain or increase the quality of their production processes and their products.</p>
	<p>EU-Japan.AI aims to support cooperation between the EU and Japan in areas relevant for AI-driven innovation in manufacturing and digital industrial platforms. The high impact will be based on using an online platform to enhance knowledge and information exchange between all the area-relevant stakeholders. Related to this, the cooperation between the involved parties will be strengthened and be transformed into a long-lasting partnership, enabled by the long-term strategy.</p>
	<p>knowlEdge aims to develop a new generation of AI models (semi-automated knowledge discovery) and data management tools, and combine them with other technologies, tools and services (digital twin, DSS, etc.), to support humans to make decisions, collaborate better with AI systems, and fuse (human-AI) knowledge. The project's main aim is to boost industries towards agile and flexible strategies, able to respond to the fast-changing customers' needs, and at the same time to optimise their processes and quality control mechanisms.</p>
	<p>STAR aims to research, develop, validate and make available to the community leading-edge AI technologies including explainable AI, active learning systems, simulated reality systems, human-centric digital twins, advanced reinforcement learning techniques and cyber-defence mechanisms, thus becoming a catalyst for the deployment of advanced AI systems in the manufacturing shop-floor.</p>

	<p>TEAMING.AI aims to overcome the lack of flexibility as a limiting factor of current Industry 4.0 while ensuring the role of the human being in the future industrial scenario using a human-centred AI collaboration.</p>
	<p>MAS4AI aims at developing and testing a distributed and interoperable AI architecture based on multi-agents technology in such a way that it contributes to hyper-agility of European factories through modular and flexible production while at the same time keeps the humans in control of the AI technology and creating impact by spreading the technology over large groups of European manufacturing companies.</p>
	<p>XMANAI aims at placing the indisputable power of Explainable AI at the service of manufacturing and human progress, carving out a “human-centric”, trustful approach that is respectful of European values and principles, and adopting the mentality that “our AI is only as good as we are”. XMANAI, demonstrated in 4 real-life manufacturing cases, will help the manufacturing value chain to shift towards the amplifying AI era by coupling (hybrid and graph) AI “glass box” models that are explainable to a “human-in-the-loop” and produce value-based explanations, with complex AI assets (data and models) management-sharing-security technologies to multiply the latent data value in a trusted manner, and targeted manufacturing apps to solve concrete manufacturing problems with high impact.”</p>

4.7 Joint events with other projects

No	Activity type	Title	Date	Place	Beneficiary	Size of audience
1.	Workshop	1 st workshop of AI-MAN cluster	2021	Online	AI-MAN cluster	Medium

5 Conclusions

This deliverable presents the MAS4AI dissemination and communication plan describing the steps that need to be followed by the consortium partners to promote the MAS4AI knowledge, vision and outcomes to the wider public, facilitating their exploitation. The project consortium will continuously be working on the described dissemination plan and towards achieving or surpassing the targeted KPIs. Finally, the dissemination plan will be checked and revised if needed in the following dissemination deliverables.