# PLAN FOR COLLABORATION WITH OTHER I4MS PROJECTS AND DIHS ON THE ACTIVITIES DONE AND THE PLANS FOR THE NEXT PERIOD

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# PLAN FOR COLLABORATION WITH OTHER I4MS PROJECTS AND DIHS ON THE ACTIVITIES DONE AND THE PLANS FOR THE NEXT PERIOD

## Deliverable D7.7

**Consisting of**

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| 15 | VYSOKA SKOLA BANSKA - TECHNICKA UNIVERZITA OSTRAVA | IT4I | Czech Republic |
| 16 | INSOMNIA CONSULTING SOCIEDAD LIMITADA | Insomnia | Spain |
| 17 | STAM SRL | STAM | Italy |
| 18 | DEUTSCHES FORSCHUNGSZENTRUM FUR KUNSTLICHE INTELLIGENZ GMBH | DFKI | Germany |
| 19 | LINZ CENTER OF MECHATRONICS GMBH | LCM | Austria |

| 20 | HANNING ELEKTRO-WERKE GMBH & CO.KG | HANNING | Germany |
|---|---|---|---|
| 21 | CATMARINE SRL | CATMARINE | Italy |
| 22 | CENTRO DI RICERCHE EUROPEO DI TECNOLOGIE DESIGN E MATERIALI | CETMA | Italy |
| 23 | SKA POLSKA SP (ZOO) | SKA | Poland |
| 24 | PRIVREDNO DRUSTVO ZA PRUZANJE USLUGA ISTRAZIVANJE I RAZVOJ NISSATECH INNOVATION CENTRE DOO | NISSA | Serbia |
| 25 | ZANNINI-SPA | ZAN | Italy |
| 26 | FERRAM STROJIRNA SRO | FERRAM | Czech Republic |
| 27 | HYDAL ALUMINIUM PROFILER AS | Hydal | Norway |
| 28 | NABLADOT SL | Nabladot | Nabladot |
| 29 | ENDEF ENGINEERING SL | ENDEF | Spain |
| 30 | DSS CONSULTING INFORMATIKAI ES TANACSADO KFT | DSS | Hungary |
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| 32 | COOPERLAT SOCIETA COOPERATIVA AGRICOLA | Trevalli | Italy |
| 33 | MACHINEERING GMBH & CO KG | machineering | Germany |
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[1] Integers correspond to submitted versions

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## LIST OF ABBREVIATIONS AND DEFINITIONS

| DoA | Description of Action |
|---|---|
| EC | European Commission |
| H2020 | Horizon 2020 |
| GA | Grant Agreement |
| CA | Consortium Agreement |
| KPI | Key Performance Indicator |
| FSTP | Financial Support to Third Parties |
| IA | Innovation Action |
| CSA | Coordination and Support Action |
| IAs | Innovation Actions |
| DIH | Digital Innovation Hub |

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# 1. INTRODUCTION

This document has been elaborated by the I4MS CSA with the input and support of the IAs. The objective is to provide information about the activities already developed, present the results of the work during done the CSA implementation. The selection of activities was defined in the Joint Engagement plan during the first months of the project, always aiming at improving the performance and the impact of the I4MS initiative and all the projects of the third phase (AMable, CloudiFacturing, L4MS and MIDIH and the CSA, I4MSGo).

A first deliverable was submitted in December 2017 with a description of the type of activities that could conform the Joint Engagement plan and a first tentative working plan. A second deliverable submitted in August 2018 presented the first activities jointly undertaken by I4MS under the same brand and the next steps to keep working on the action plan. This deliverable is as an update of the second one. It contains the actions that have been carried out under each activity. Also, the experience of having worked together for almost 18 months has allowed to adjust or concretise certain activities and now we have the possibility to evaluate the performance of our collaboration based on the results of proposed KPIs.

During the whole implementation of this activity the Innovation Actions have guided the CSA in finding the most interesting activities, leaving aside those not being considered as a priority. Even if the Joint Engagement plan for collaboration with the IAs and DIHs offers a framework of possible collaboration opportunities, the IAs and the CSA, during the monthly follow up calls, share their points of view, suggest and recommend other types of joint or supporting activities that may arise to tackle certain needs or specific questions. Thus, collaboration opportunities might also grow while projects are being implemented.

The most important goals of this activity have been always the optimisation of synergies between I4MS and the IAs avoiding unnecessary overlaps and duplication of efforts, gaining on visibility of I4MS IAs, the initiative itself and I4MS technologies as a whole, by promoting a program to support IAs and DIHs across Europe. Also, it has been the rationale behind this activity to create operational links with other DSM ecosystems for sharing best practices and common audiences.

The updated version of the Plan for collaboration with other I4MS projects and DIHs includes information about the activities that have been organised to maximise the I4MS impact during the last 18 months of the CSA activities, 1st September 2018 and 15th February 2020.

# 2. METHODOLOGY

This section describes the methodology followed for updating the Joint Engagement Plan and the follow-up of the activities being developed. During the project's implementation the IAs and the CSA have been collaborating in some specific activities running form the 1st September 2018 to 15 February 2020, that are now being reported in this deliverable.

The elaboration of this report has been done using the minutes of the monthly calls, the information shared on the project website about news and events, the CSA own reporting mechanisms, the I4MS community contents and the information about public events.

An initial working plan was set up for the first 3 months, the activities to be performed were agreed during the monthly calls with the Innovation Actions. Other opportunities arose from the different CSA

activities and events where project partners and other key players of the ecosystem (such as FIWARE, EFFRA…) are involved.

The main communication channels have been the exchange of emails, monthly calls, events with joint participation where Innovation Actions and the CSA took the opportunity to discuss future activities. This last point has allowed an organic collaboration, also the interaction with the European Commission and the opportunity to collaborate in organising the participation of the I4MS initiative in European events has facilitated the interaction among IAs and the CSA, and other the DIHs initiatives.

# 3. JOINT ACTIVITIES BETWEEN IAS AND THE CSA

This section describes the activities in which the IAs and the CSA have decided to cooperate by creating collaboration links and setting up an action plan to carry them out. The activities identified will leverage on the cooperation with related ecosystems and initiatives and have been planned following the opportunities arisen at EU and partners' level.

## 3.1. Events

In order to make the most out of the participation in events, during each monthly call the CSA is informing about the EU upcoming events in order to plan a joint participation if possible and identify events of common interest. Moreover, the connections among all projects done via other members of the ecosystem or project partners have been the main driver of joint participation in events.

The events where IAs and CSA activities where presented by the CSA or the CSA together with IAs are:

- **Digital Technologies for Smart Factories (JOINTS 4.0). 26th September 2018.** The Digital Technologies for Smart Factories conference on the 26th of September in O Porriño showcased the achievements and advanced technological solutions related to digitalisation, connectivity, monitoring and intelligent sensorisation in the industrial environment.
  The workshop was in front of companies in the automotive, auxiliary, metal-mechanic and general industry sectors, as well as media.

**Figure 1:** Mayte Carracedo presenting I4MS during the joints 4.0 project meeting.

- **IoT Solutions World Congress Barcelona, (16-18 October 2018).** IoT Barcelona is considered "the largest IoT event in the world to get inspired with new ideas, solutions and people[2]". Since its first edition the event has become the global reference for industrial IoT and the place to set up new partnerships, with 16250 visitors from 120 countries. I4MS took advantage of the dimensions and importance of the event in order to achieve its objectives of the I4MS dissemination strategy. To this end, the I4MS CSA participated with one-to-one meetings, presence in ACCIO Boot hand (Catalan Agency for Business Competitiveness) with a series of tours that enabled the connection with regional SMEs.

- **Barcelona Industry Week. 16th-18th October 2018.** Barcelona Industry Week was celebrated from the 16th to the 18th of October and was important due to the synergy of local innovative and industrial organisations that were present during the 3 days that the event lasted. The Industry 4.0 was the basis of the conferences. I4MS participated in Barcelona Industry Week with a presentation of the initiative and its future Open Calls. Also, L4MS and AMable, thanks to the I4MS initiative, was able to explain its plans and Open Calls. Taking advantage of the event, one-to-one meetings were developed.

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[2] IoT Barcelona, 2018, https://www.iotsworldcongress.com/. Accessed 29th January 2019

**Figure 2:** Ulrich Thombansen and Mayte Carracedo presenting during the Barcelona Industry Week.

- **European Week of Regions and Cities. 11th October 2018. E**uropean Week of Regions and Cities conference was an annual 4 days event where is showcased the "capacity of cities and regions to create growth and jobs, implement European Union cohesion policy, and prove the importance of the local and regional level for good European governance[3]". I4MS was present and introduced the Open Calls and the collaboration mechanisms within the IAs to support DIHs.

- **APTE Annual Event. 22 November 2018.** APTE Annual Event consists in an event that take place annually and is organised by APTE (Asociación de Parques Científicos y Tecnológicos de España), "with the aim of knowing the situation in which we are now and what are the next milestones and challenges to achieve. Taking as a frame of reference the European strategy for the digitisation of industry "Digitizing the European industry" and the Spanish Initiative "Industry Connected 4.0" which aims to develop differential competitive levers and the creation of appropriate conditions to promote the competitiveness of Spanish companies, thus building the Spanish model for the industry of the future[4]". I4MS CSA presented Funding opportunities for the digitisation of industry (XVI International Conference APTE)

- **DIHs Annual event, 27-28 November 2018. T**he Digital Innovation Hubs Annual Event was set up with the aim of reinforcing the capacity of DIH to support European companies in their digital transformation. SMEs, start-ups, research and technology organisations, DIHs and policy-makers from all around Europe joined this world class event. The presence of Mariya Gabriel, European Commissioner for Digital Economy and Society, and Jadwiga Emilewicz, Minister of entrepreneurship and technology Poland, rewarded the effort made, whilst participating and endorsing it in many phases of the event. They took a main role in the Disruptors Awards prize awarding session. In numbers, the DIH Annual Event congregated around 30 representatives of EU member states, 60 speakers (experts in their respective fields) and around 400 attendees. It also allowed 12 Application Experiments to showcase their developments.

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[3] European Week of Regions and Cities, 2019, https://europa.eu/regions-and-cities/. Accessed 30th January 2019

[4] XVI Conferencia Internacional Apte, 2018, https://www.apte.org/xvi-conferencia-internacional-de-apte. Accessed 29th January 2019

**I4MS CSA was the coordinator of the event, together with the Polish Ministry of Technology and DG CONNECT, European Commission. The active participation of I4MS IAs and beneficiaries was during the following activities:**

*Participation #1: I4MS Panel* "SUCCESS STORIES FROM SUPPORTED SMES" & Disruptors Awards Prize

**Where:** DIH annual Event 2018 (Warsaw, Poland)

**When:** 28/11/2018 - 11:45 - 13:00

**Description**:  This session aimed to present examples of SMEs having received financial support from different funding mechanisms and technological support from DIHs for their digital transformation. They shared how this opportunity helped them grow and the importance of having worked in an international environment. The panel enabled participants to learn about the challenges and barriers faced by SMEs and learn how DIHs could address them through their various services.

*Moderator: Merete Nørby, International chief consultant, MADE*

- Luis Pérez, Nabladot, Spain (CloudiFacturing, I4MS)
- Andreas Ocklenburg; cloudSME, Germany (cloudSME, I4MS)
- Clara García, COMPASSIS, Spain (Fortissimo, I4MS)
- Stefan Meulesteen, Montr BV, Netherlands (Tetramax, SAE)
- Cyril Chabert, WEGOTO, France (FED4SAE, SAE)



**Figure 3:** From left to right: Sanyu Karani, FBOX CEO, Mariya Gabriel, European Commissioner for Digital Economy and Clara García, representative from the SME COMPASSIS winner of the 1st Disruptors Awards.

*Participation #2: I4MS Panel* "Forthcoming Open Calls for SMEs"

**When:** 28/11/2018 - 16:00

**Description**: This session aimed to present the various funding opportunities and other supporting measures available within SAE, I4MS and other initiatives. A short presentation was also given about the plans for I4MS funding opportunities under the next Multi-Annual Financial Framework Programme.

**Speakers on behalf I4MS:**

Mayte Carracedo, FundingBox, I4MS-GO

**Participation #3:** *I4MS WorkShop* "Workshop for SMEs: I4MS Bootcamp"

**When:** 28/11/2018 -14:00

**Description**: Offer SMEs, mid-caps and start-ups information on how to attract additional funds from private or public sources, tips to build a winning pitch, tricks to work with corporates and attract investors. This session will be organised in the framework of the I4MS Acceleration Programme and offered in streaming to all beneficiaries of I4MS experiments.



**Figure 4:** Participants in the Workshop for SMEs organised during the DIHs Annual event.

- **ICT Event Vienna, 4th-6th December 2018.** Co-organised by the European Commission and the Austrian Presidency of the Council of the European Union, took place in Vienna. This research and innovation event attracted 4800 visitors and focused on the European Union's priorities in the digital transformation of society and industry.



**Figure 5:** Booth of SAE and I4MS during the ICT event in Vienna.

I4MS CSA and CloudiFacturing participated with a networking session coordinated together with SAE, its name was "From experiment to market: SAE & I4MS support in cascade funding projects". Also, CloudiFacturing brought one beneficiary of an Application Experiments, LCM, to have the vision of a participant in I4MS calls and give their vision on the initiative. Before it,

a brief explanation of I4MS was done with its fields and Open Calls. Also, I4MS CSA and again CloudiFacturing and some of the DIHs having supported SMEs were present in the Booth.

- **EU Industry Days, local event organised by the DIH HUB4ManuVal 13th of February 2019**, as a side event of the European Commission program EU Industry Week. These conferences were about the Industry 4.0 and digitisation in Europe, specially, the main topic was "Opportunities for innovation and digitization of the Valencian industry". I4MS CSA presented the Open Calls of the IAs and how SMEs can participate. A testimonial of the past beneficiary of I4MS was presented as a way to incentivise the participation of other local SMEs.

- **Mobile World Congress**. **25th – 28th February 2019.** The largest mobile event in the world, bringing together the latest innovations and leading-edge technology from more than 2,400 leading companies, with a highly-rated conference programme assembling today's visionaries to explore the hottest topics influencing the industry[5]". Also, daily sessions on 2019 Open Calls were displayed at the MWCB stand. Every day, at 11:15, one of the active Innovation Actions under I4MS umbrella were invited to give a pitch of 15 minutes of their projects. L4MS and CloudiFacturing answered the call. MIDIH and AMable were no able to do so, and instead overall presentations of I4MS were given to an ad hoc audience.

Moreover, in order to foster networking, and some one-to-one meetings, between Tech Providers and Corporates the engagement event Tech4Corporates was designed and executed. Also, supported with an important communication campaign and 20 Mobile World Congress tickets given away. This was done to facilitate the contact by outsiders with the ecosystem and present I4MS in a more targeted and direct way, taking advantage of MWC being one of the partners of the project. Details can be found in Deliverable 5.6.
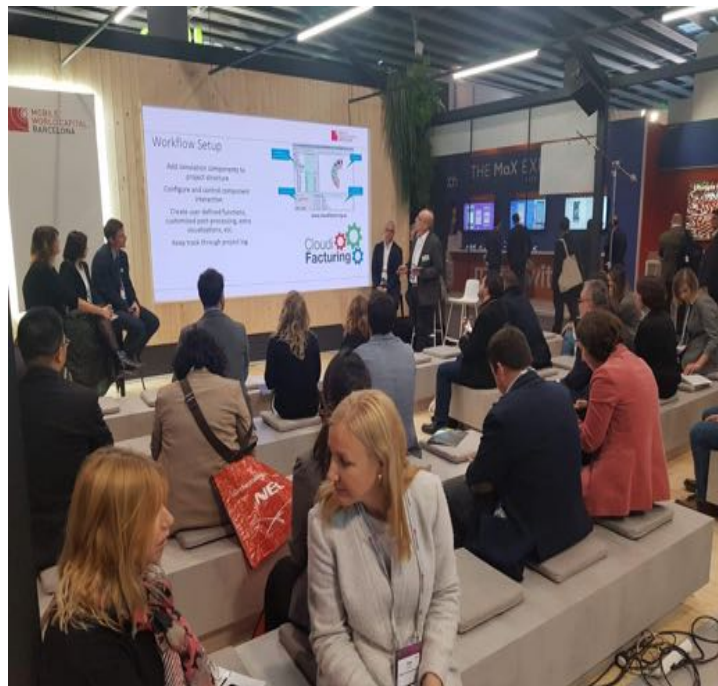


**Figure 5:** Picture during CloudiFacturing presentation in the Tech4Corporates event.

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[5] Mobile World Congress, 2019, https://www.mwcbarcelona.com/attend-mwc/. Accessed 24th January 2019

- **4 Years From Now (4YFN) is a side event of the Mobile World Congress. 25th-28th February 2019.** 4YFN is the start-up business platform of MWCapital that enables start-ups, investors and corporations to connect and launch new ventures together. I4MS CSA took profit of this event with a great number of attendants to disseminate information about the initiative, opportunities and future Open Calls. Interested firms were able to go to the European Projects booth to find information about the I4MS initiative.



**Figure 6:** Booth of I4MS during the MWC 2019.

- **Hannover Messe 2019, 1st-5th April 2019**. I4MS CSA was present there within the FIWARE booth, information about the Open Calls was distributed. MIDIH and CloudiFacturing also had presence in the event with a booth and information sessions organised by their projects.

- **EU Cluster Conference 2019. 15 May 2019.** The 6th edition of the European Cluster Conference brought together 400 cluster policy-makers, cluster managers and other stakeholders. The event was organised by the European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs under the Romanian Presidency of the Council of the EU and I4MS CSA presented the training catalogue and the Open Calls of the Innovation Actions.



**Figure 7:** I4MS leaflets and brochures handed out during the EU cluster conference 2019 held in Romania.

- **Manufacturing Performance Days: Ecosystems supporting digital transformation of industry. 5th June 2019.** During the event it was discussed the need to join effort in boosting digitalisation of manufacturing. The importance of collaborating in the development of digital technologies in manufacturing was one of the topics raised. Examples of company led ecosystems and of relevant European initiatives were presented, among them I4MS and all the IAs. Digital Innovation Hubs, platforms, robotics and digitalisation pathways were highlighted.  On behalf of I4MS CSA, Ali Muhammad, coordinator of L4MS made a presentation on *"How do EU Innovation Programs support regional Digital Innovation Hubs -that help local manufacturers?"*



**Figure 8:** Agenda of the event held in Tampere: Manufacturing Performance Days



**Figure 9:** Ali Muhammad, coordinator of L4MS, during the presentation of the Manufacturing Performance Days.

- **IoT Week Aarhus. 21st June 2019.** During this workshops, Sanyu Karani, CEO of FundingBox, presented I4MS 2019 funding opportunities in the EU manufacturing sector, specially aimed to SMEs. This was done by providing assistants with information, guidance, success cases and live Q&A to facilitate possible applicants to successfully apply to the Innovation Actions' funding. During the event Juan Manuel Jauregui (MWC head of EU projects, I4MS and L4MS) presented in detail the calls of L4MS, Antonio J. Jara (CEO, Hop Ubiquitous) and Nenad Glogoric (Duavnet) talked about their experience being beneficiaries of I4MS.

Figure 10: Sanyu Karani, CEO of FundingBox, presenting I4MS funding opportunities during the IOT week.

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- **Grand Est 360º Strasbourg. 27th June 2019.** I4MS CSA participated in a panel discussion focused on Digital Innovation Hub. The objective was to cross experience from Digital Innovation Hubs in Europe and to explore how the future European funding can be linked to the DIH. I4MS CSA presented the Open Calls and the work done to plug it with the DIHs.
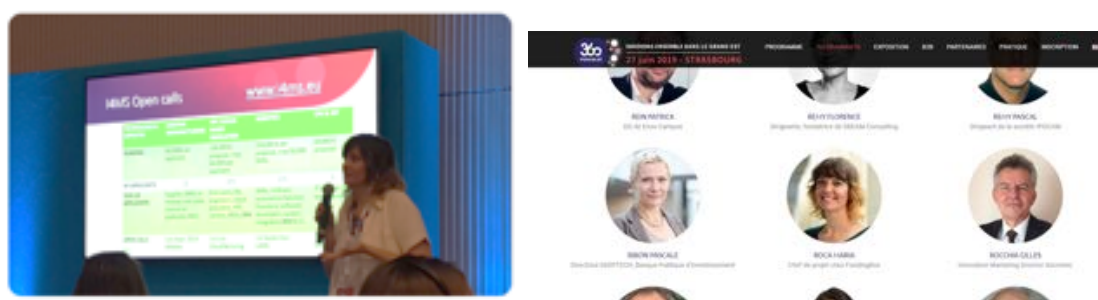


Figure 11: Maria Roca presenting I4MS Open Calls during the 360º Grand Est event

- **ICT proposers´ day. AI for manufacturing and Digital Innovation Hubs: I4MS. 19 September 2019.** This event provided an excellent opportunity to present and discuss the main outcomes of I4MS phase 3 and how next phases can contribute to improve the digital transformation of SMEs. During the event the I4MS CSA presented some success cases from the SMEs that have benefited of the support offered by the Innovation Action through Open Calls.
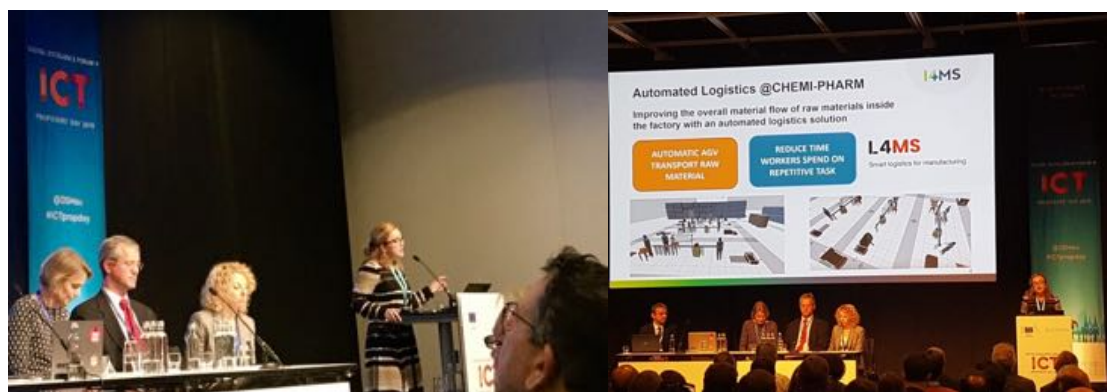


Figure 12: Mayte Carracedo presenting during the ICT proposers' day the main outcomes of I4MS phase 3.

- **Smart Business Festival in Bratislava. 24th September 2019.** I4MS and CloudiFacturing presented the Open Calls and best practices when it comes to funding digital transformation

experiments. The event took place in Bratislava, Slovak Republic, it was strategic in order to promote the Open Calls in this EU area given the low number of participants from the Eastern European countries.



**Figure 13:** Maria Roca presenting I4MS Open Calls during the Smart Business Festival in Bratislava.

- **Manufuture-side event 2nd October 2019.** Opportunities for SMEs in Horizon 2020. During the event several European initiatives, among them I4MS projects, offer technological and financial support to manufacturing SMEs and mid-caps to experiment with ICT and other enabling technologies. Hundreds of experiments have been realised and new Open Calls are to come. Innovative technology suppliers also participate in these experiments, where they can mature their existing technologies and ultimately open new markets and services. L4MS and AMable presented in more detail their Open Calls.



**Figure 14:** Merete Norby presenting I4MS CSA during the Manufuture side event.

- **Smart Business Festival Czech Republic. 23rd October 2019.** The festival was opened by Deputy Prime Minister for Economy and Minister of Industry and Trade of the Czech Republic. Mayte Carracedo, from FundingBox, introduced the I4MS Initiative and other examples of financing the development of digital innovation in Europe. Cascading funding helps small and medium-sized businesses take advantage of technologies that would otherwise be unavailable to them. E.g. I4MS financed Estonian companies to buy a robot that helped them improve their production process.

**Figure 15:** Mayte presenting during the Smart Business Festival the funding opportunities within I4MS.

Tomáš Karásek, from IT4Innovations of the National Supercomputing Center of VŠB-TUO Ostrava, representing CloudiFacturing, spoke about support within the CloudiFacturing project - the way to higher competitiveness of European companies. The idea behind the National Supercomputing Center is to enable small and medium-sized businesses to optimise their technologies and processes using CloudiFacturing.



**Figure 16:** Tomáš Karásek, presenting CloudiFacturing achievements.

- **Innovation and Manufacturing Brokerage event. 7th November 2019.** The Innovation & Manufacturing Brokerage Event (IMB 2019), attended by relevant representatives of the industry, academia, research and public authorities, provided a platform for the presentation of new R&D&i opportunities in Europe for sustainable, efficient and future manufacturing. Knowledge exchange and the definition of new innovation projects will be outstanding features of the event. During the first day, upcoming challenges for manufacturing in Europe were introduced and discussed, as well as information on the opportunities for Smart Manufacturing in H2020 and on the new instruments supporting cooperation in Europe. On the second day, a brokerage event on the Horizon 2020 call for proposals focused on Smart Manufacturing was presented and where I4MS informed about opportunities and results of the current Innovation actions.

**Figure 17:** Agenda of the Innovation & Manufacturing Brokerage event held in Santiago.

- **Stakeholders forum 2019. 13ᵗʰ -15ᵗʰ November 2019.** This year's Digitising European Industry Stakeholders Forum, DEIForum2019, gathered 624 attendees, 50 panellists and 15 stands and over 1800 tweets shared Europe's vision on: "Artificial Intelligence and Digital Innovation Hubs - beyond 2020". I4MS was represented in a stand and also in the different panel session where example of successful application experiments supported by the Innovation Actions participated giving their vision.

  I4MS, as an important part of the efforts to support the digitisation of the manufacturing industry, has been present and been particularly active in DEIForum2019.



**Figure 18:** Mayte. Carracedo moderating the panel of SMEs and DIHs during the session"Digital Innovation Hubs - Success Stories".

During these days, Ms Mayte Carracedo, coordinator of the CSA for I4MS, leaded a panel discussion composed of DIHs and SMEs on how to involve more SMEs in digital transformation, during the Parallel Session "Digital Innovation Hubs - success stories". I4MS has also announced the winner of the 2019 edition of the I4MS Disruptors Awards: Elaphe Propulsion Technologies.

**Figure 19:** Left to right: Antonio Gomez from Nabladot (finalist), Mayte Carracedo(I4MS), Luka Ambrozic (winner), Matthias Kuom (EC), Ralf de la Haye from HANNING ELEKTRO-WERKE (finalist), and Alessandro Canepa from i-Deal (finalist).

## 3.2.    Communication & Dissemination activities

Communication and dissemination activities are an important part of all projects funded under H2020, the objective is to maximise the impact of all the IAs and the CSA with the available resources and means of communication. In this line, the CSA, as part of the clustering activities (activities devoted to offer support to the I4MS Innovation Actions) has counted with the participation of the IAs to populate the I4MS website, community and social media.

Also, as a CSA with a key role in maximising the impact of the IAs messages and Open Calls, the CSA has supported all IAs in that direction. Below, the key figures on the activities performed have been included, for detailed information check deliverables 6.2 and 2.12 of the CSA.

### 3.2.1. Website

The IAs and the CSA have been collaborating in order to populate the I4MS website with information of the ongoing activities, highlighting the information on the Open Calls, funded projects, contributing with articles about their projects, news and crosslinking all websites.

From 1st September 2018 to 15th February the following content that has been added to the I4MS website with the contributions of the Innovation Actions is:

- Events: 39 new events;
- News: 28 new pieces of information related to the IAs and I4MS activities;
- Experiments: 55 new experiments have been uploaded to the I4MS website from the last Open Calls of HORSE, ReconCell, L4MS, AMable, MIDIH and CloudiFacturing.
- Information about Open Calls: 5 different Open Calls have been announced through the I4MS website.
- Catalogue and map of DIHs and CC: 20 new DIHs have been added to the catalogue. 4 of the existing ones updated their profiles (detailed information in D.210 of the CSA).

As a novelty, a new section will be included to present the marketplaces and platforms of the IAs. The descriptions will include the information of the brochure and also the presentations that the IAs will elaborate for the webinar on marketplaces that will take place on the 12th February.

### 3.2.2. I4MS Community

The project members of the IAs have been invited to join the I4MS community to share their own content. The I4MS shares regularly information about the Open Calls, events and information about important reports or results of EU initiatives linked to the digitisations of the European Industry as a way to attract users to the IAs marketplaces and websites.

Moreover, the I4MS CSA tries to encourage the participation of the I4MS IAs and application experiments to share their experiences and expertise with the other members in the community by doing interviews to I4MS beneficiaries and articles. IAs contribute by proposing application experiments or other stakeholders to be interviewed and showcase their solutions as insipiration for others. During the period running from 1st September 2018 to 15th February 2019 I4MS CSA has shared 169 pieces of news including information about Open Calls, events, trends related to the I4MS technologies of the Innovation actions, success stories and I4MS achievements.



**Figure 20:** Example of best practice of an application experiment shared in the I4MS community.
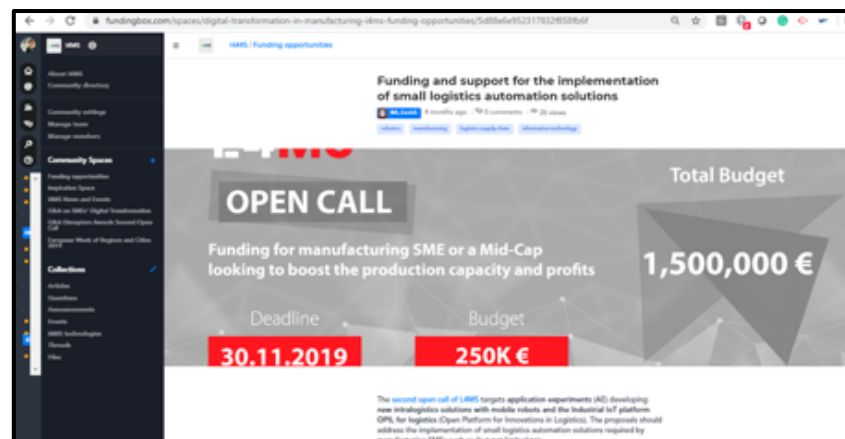


**Figure 21:** Example of information shared about the Open Calls.

Another interesting activitiy organised within the I4MS community has been the Questions and Answers of the different I4MS Open Call. After the webinars it is of much interest to organise a Q&A session to solve doubts to potential applicants. I4MS CSA has supported IAs in organising 13 Q&A session, the support goes from creating the event in eventbrite, hosting it in GoToMeeting, disseminating to writing summaries after each session making them available in the I4MS Community for all the potential applicants that were unable to attend.



**Figure 22:** Screenshot of the Q&A session about the L4MS Open Call organised within the I4MS community.

Another mission as CSA is to communicate and disseminate project results, in that sense is of interest the opportunity that the community brings in terms of interacting with **potential users of the marketplaces developed during the course of the project.** With the aim of further supporting IAs in the dissemination of their results, we have created a collection within the I4MS community about marketplaces called I4MS technologies. A collection is a group of pieces of information that offer content related to a specific area or topic.
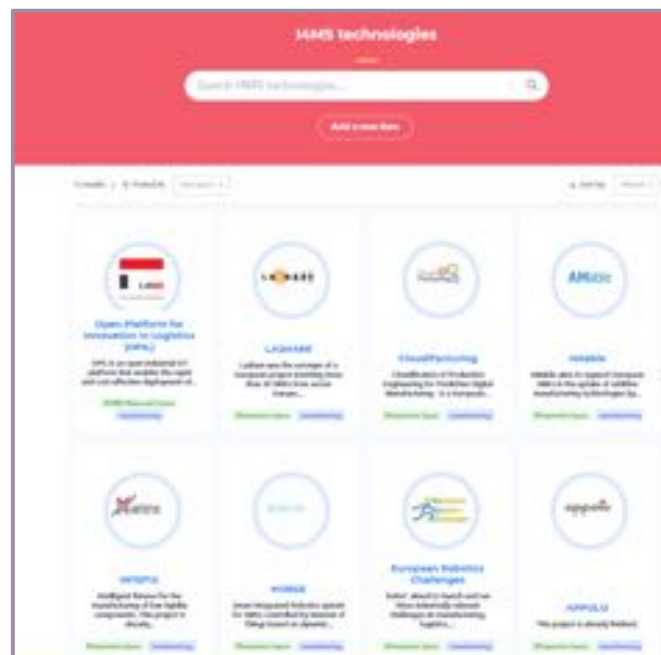


**Figure 23:** Screenshot of the collection with information about marketplaces and technologies.

### 3.2.3. Social networks

The joint communication and dissemination activities are reinforced by sending press toolkits with ready to share posts to be distributed via each social media and key messages and also about typical cross-dissemination activities.

The main goals for the I4MS Twitter account are to create brand awareness and spread the word about I4MS initiative and its related activities. In that sense, between 1$^{st}$ September 2018 and 31$^{st}$ January 2020 the initiative has reached a total number of 1,108,632 impressions, 10,224 interactions.

The tweets published per initiative are as follow:

- CloudiFacturing: 27
- AMable: 19

- L4MS: 34
- MIDIH: 15



**Figure 24:** Screenshot of twitter communications.

The I4MS LinkedIn account has one main objective: divulge the I4MS initiative to a broader audience. To reach that goal, is necessary to reinforce the I4MS brand by echoing marketing content already created. With that goal in mind, a strategy has been created to communicate the main achievements of I4MS Go project and also interesting information for our audience like Open Calls, participation in Trade Shows and events, and Awards.

The total number of impressions during the last 18 months (1st September 2018 to 31st January 2020) has been 160,157.

The posts shared per Innovation Actions has been the following:

- CloudiFacturing: 44
- AMable: 19
- MIDIH: 14
- Reconcell: 3
- Fortissimo: 4
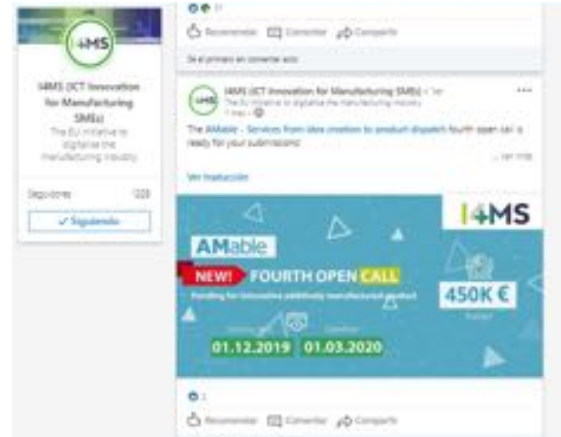
NOTE THAT IN THE CASE OF RECONCELL AND FORTISSIMO, THE POSTS ARE LOW BECAUSE THE INNOVATION ACTIONS ENDED IN 2018.

### 3.2.4. Public dissemination materials

I4MS newsletters, leaflets and brochures have been elaborated with the support of the IAs by identifying best practices, sharing information on Open Calls, services provided and any other type of information that might be relevant for this type of materials[6].

Since September 2018, 5 newsletters have been published in September and December 2018, March, July and November 2019. The last newsletter will be sent in February 2020.



**Figure 26:** I4MS newsletter of December 2018.

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[6] Detailed information about the procedures to elaborate communication and dissemination materials together with IAs included in the D3.10 of the I4MS CSA.

Regarding the communication materials, during these 18 months the I4MS CSA together with all Innovation Actions and Application Experiments has produced the following publications:

1. **Communication materials linked to the DIHs Annual Event in Warsaw:** Information on the application exeriments shortlisted, summary of the AEs that participated in the DIHs annual event having a booth and other materials related to the event.

2. **I4MS Tech for Corporates:** brochure created for the MWC 2019 where I4MS technologies are presented and examples of how to use them and benefit from them.

Figure 27: Information about the shortlisted candidates of the 1st disruptors awards.



**Figure 28:** Brochure created for the MWC 2019 with the objective to explain how IAs' techs can be used.

3. **I4MS new brochure:** this is the main tool to disseminate and communicate about the I4MS initiative.

**Figure 29:** I4MS new brochure.

4. **Stakeholders forum materials:** marketplaces summary to be distributed to the participants.



**Figure 30:** I4MS IAs marketplaces information.

### 3.2.5. Marketing campaigns

38 mail marketing campaigns have been launched to promote the Open Calls, encourage the participation in webinars and foster the participation of SMEs in the IAs OC with an average opening rate of 44%

A special campaign in LinkedIn was launched during the Tech4Corporates event to attract participants and raise awareness about I4MS activities with an opening rate of 65%.
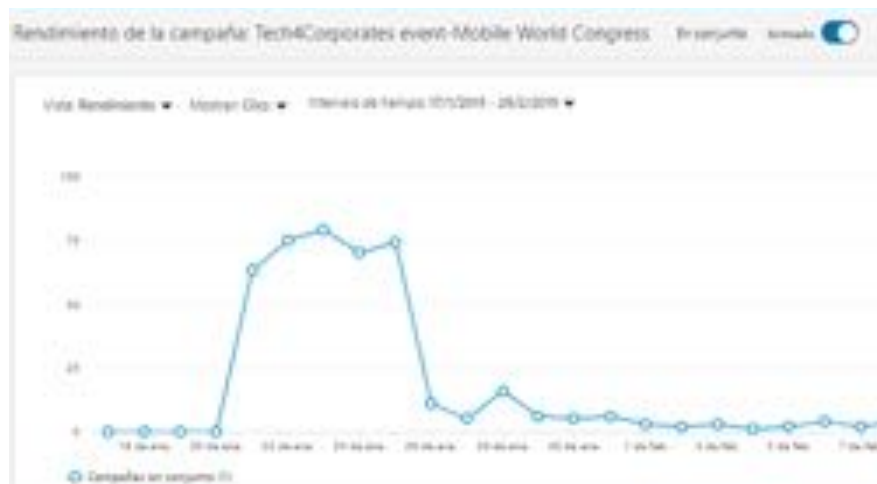


**Figure 31:** LinkedIn campaign to attract audience to the Tech4Corporates event.

Other marketing campaigns (LinkedIn and AdWords) have been launched to support each of the Open Calls that reached thousands of people via email, Twitter and LinkedIn (detailed information on D6.2 of the CSA).

## 3.3.    Open Calls

One of the main objectives of the CSA is to support IAs in the Open Calls dissemination and communication. IAs share regularly information about the Open Calls' requirements, deadlines, services availability and eligibility conditions. In this framework below there is a description of all activities that have been jointly carried out related to the Open Calls:

- Organisation of webinars, that means that the CSA creates a microsite for the event and a registration page. I4MS CSA also sends detailed information about the webinar before it takes place and set-ups the meeting in the GoToMeeting tool that puts at the IAs disposal. 13 webinars and Questions and Answers sessions during 1st Sept 2018 and 31st Jan 2020 have been organised jointly by the CSA and IAs.

Figure 33: Screenshot of the banner created to promote the CloudiFacturing Open Call.

- Elaboration of **targeted press releases** for each Open Call. The I4MS CSA elaborated a first press release that is shared with the Innovation Actions for its approval and is sent to a professional agency in charge of sending out the press releases to the relevant media in Europe. Those press-releases are also offered to the communication departments of the projects to use it as an own resource. The detailed press releases impact published between 1st September 2018 to 31st January 2020 are included below:
  - o **MIDIH Open Calls:** distribution reach of 6,562,913 impacts in more than 7 countries (Spain, Germany, Italy, France, Belgium, Switzerland, Netherlands, etc.), valued at 115,834€.
  - o **CloudiFacturing Open Calls:** distribution reach of 7,548,957 impacts[**] in more than 7 countries (Spain, Germany, Italy, France, Belgium, Switzerland, Netherlands, etc.), valued at 154,198€.
  - o **AMable Open Calls:** distribution reach of 19,352,767 impacts in more than 7 countries (Spain, Germany, Italy, France, Belgium, Switzerland, Netherlands, etc.), valued at 449,166€.
  - o **L4MS Open Calls:** distribution reach of 9,377,816 impacts in more than 7 countries (Spain, Germany, Italy, France, Belgium, Switzerland, Netherlands, etc.).

- **Learning from the experience of IAs,** during calls with the IAs, all project leaders share their experiences on how to attract end-users to participate in the Open Calls and their vision on how the number of applicants could be increased in countries where low participation rate have been registered.
- **Open Call dissemination activities info session:** during the monthly call of September the CSA shared with the IAs all the activities that has implemented in order to promote each of the Open Calls. The CSA also shared the reporting files to facilitate each IAs the use of the data in their reports.

## 3.4. Access to platforms and infrastructure

Following the discussions with the Innovation Actions, in March 2019 it was agreed that the dissemination of the marketplaces and platform should start at the end of the year, since the projects were still working on the setup and the technologies needed to be tested by the AEs. There will be a

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[**] Number of potential recipients of the information published.

specific website section introducing the marketplaces and a webinar is planned for the 12th of February in order to generate deal-flow.

In April 2019, during the clustering calls with the IAs, the leaders of the marketplaces of Fortissimo 2, Guy Londsdale, and cloudSME's Andreas Ocklenburg, projects were invited to share their experiences with their project platforms and have the opportunity to know more on how to encourage the use of the marketplaces and creation of deal-flow. The main takeaway messages were to start with the marketing strategy from the beginning of the project, build trust with potential customers by providing examples of other SMEs having used the services and look at DIHs as multipliers (full details in the minutes of the 6th call with the IAs in Annex 1).

Moreover, the I4MS CSA via the Regional Advisory Board brought to the discussion how regions could take advantage of the learnings, results of application experiments and Innovation Actions expertise. The main objective is to contact regions and offer them information about the role of I4MS solutions for SMEs and look for collaboration mechanisms to facilitate to regional SMEs benefitting from the outcomes of I4MS. The main driver of this activity has been always to explore the role of regions in making I4MS available for their SMEs.
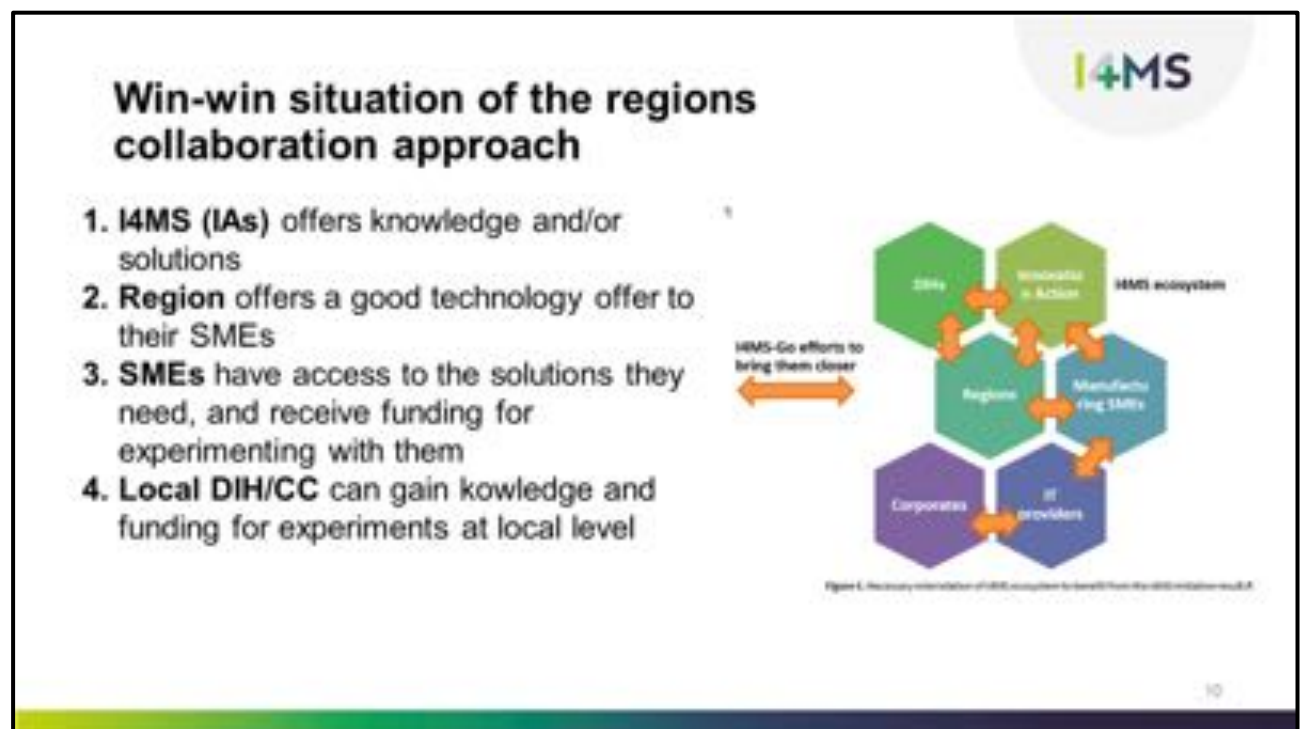


**Figure 34:** Approach followed to contact regions as potential customers of IAs marketplaces and platforms.

In this framework, and as reported in the previous deliverable, L4MS and I4MS CSA have achieved a first use case of connection between an I4MS IA and a non-beneficiary region (La Rioja, Spain) through an agreement to become a regional satellite node[7]. So far, a delegation of SMEs from La Rioja has travelled to VTT premises to meet the researchers responsible of developing the L4MS platform and get acquainted on how OPIL can contribute to improve their daily operations. Our intention now is to connect with other regions in Europe that can join the project through this role or similar roles and therefore have access to the tech solutions and the knowledge developed by the IAs.

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[7] Regional satellite nodes: Regions can take profit from the solutions developed (platforms, marketplaces) in L4MS and also the possibility for them to fund experiments or hire project experts to offer technical expertise in elaborating regional funds and supporting structures for the digital transformation of SMEs.

This activity has been presented to the IAs, the I4MS CSA has offered this possibility to the other IAs doing the contact and connections with regions. Currently the I4MS CSA has contacted 43 regions and has organised bilateral calls and participated in events of networks of regions such as Vanguard, European Regions Research Innovation Network (ERRIN) and during the Working Groups of DIHs organised by the EC (all details in section 3.8. self-sustainability plan).

## 3.5.    Maturity assessment and technological support

The CSA has estimated that more than 1,000 SMEs and mid-caps have been reached since the beginning of the CSA via the I4MS community or present in events such as Mobile World Congress, FIWARE Summit, ICT proposers' day, Working Groups of DIHs and other local events targeting potential beneficiaries of the Open Calls of the opportunities related to the application of experiments and the type of services offered by DIH and the IAs.

Moreover, IAs have undertaken also their own communication and dissemination activities in order to promote the technological support offered by their projects.

During the review meeting of I4MS CSA, October 2019, the EC proposed to explore among the IAs, the possibility to offer technological support and advice to AEs from two or more different projects. This topic was brought to the discussion during the monthly meeting in November 2019. During the discussion IAs expressed the challenges of launching such activity, being mainly legal and liability constraints linked to the performance of the AEs.

In June 2019, this topic was raised again and IAs discussed the possibility to have a common Open Call to several IAs in order to create a synergy between the different technologies. Again, the difficulties in setting up such a collaboration scheme was highlighted by all the IAs, specially from the legal and financial point of view.

An example of the synergies that could be created via a joint Open Call is that Additive Manufacturing is a key driver for industry today with many opportunities for SMEs. The interaction with SMEs in the AMable project has shown two areas where technological support is most needed: a) support related to the design and construction of parts that can be printed and provide an economic benefit and b) support in logistics for handling of parts in a flexible and individual process chain from print to finishing. The Open Calls of AMable currently ask for "innovative products that need AM to become alive". The proposals on "best practice application experiments" often focus on printability and variability of the parts where challenges to post processing and the connected handling comes more and more into focus. Based on this observation, the two projects AMable and L4MS started a discussion on how to launch a joint Open Call.

Both projects, AMable and L4MS see a clear benefit of the envisioned collaboration as it connects two main areas of competence. Until today, rules have not been fully set. However, the aim is to fund two projects under this joint call that deal with "Challenge to the production of an additively manufactured part where advanced logistics and adaptive process chains contribute to technical and economic success". Based on this challenge, a key requirement is to have experts from both domains in the experimentation teams. From the administrative perspective however, a single entity will have to implement the action. Based on this understanding, the consortia plan to build a joint team that deals with the support of the experiments while each of the selected projects will be contracted by one of the projects. In practical terms that means that there could be one guide for applicants, parallel submission to both projects, evaluation by both projects, agreement between both projects and the

commission on the proposal selection. Discussion is still undergoing since there a lot of challenges that need to be considered, such as the funding threshold, liability, timeline and management of the Open Call.

## 3.6.    Brokerage and matchmaking

Based on the CSA and IAs experience having identified brokerage and matchmaking activities as the key to success in attracting SMEs, specific activities have been designed in joint events such as the annual event of DIHs 2018, IoT Summit, Mobile World Congress 2019 and Stakeholder Forum 2019 among others.

The brokerage and matchmaking activities were not only aimed to promote the I4MS Open Calls among SMEs, redirect them to most suitable Open Call but also to find stakeholders interested in the IAs products and services.

Especially remarkable in this context was the 2018 edition of the DIHs Annual Event organised by I4MS CSA. The event brought together SMEs, start-ups, RTOs, DIHs and policy-makers from all around Europe with the objective of reinforcing the capacity of DIHs to support Start-ups and SMEs in their digital transformation.

Hereby a complete overview of all activities undertaken:

| EVENTS SELECTED | DURATION | EXPLANATION |
|---|---|---|
| IoT Solutions World Congress - Barcelona | 16/10/2018 - 18/10/2018 | a)   One-to-one Meetings with SMEs<br><br>Target:   SMEs   and   firms   interested   in   I4MS technologies.<br><br>Where: ACCIO Booth (Barcelona, Spain).<br><br>Description: One-to-one meetings developed with attendants because of the presence of I4MS during IoT Solutions World Congress Barcelona.<br><br><br>b)   Tours ACCIO<br><br>Target: two groups of 10 attendants selected by ACCIO (Catalan Agency for Business Competitiveness). |
| DIH Annual Event - Warsaw | 26 - 28/11/2018 | a)   I4MS Booth Presentation of Open Calls and marketplaces<br><br>Through this activity, I4MS CSA has made itself known to relevant who were not aware of the existence of the |

| | | |
|---|---|---|
| | | initiative specially in Poland where the participation rates are not as higher as in other EU countries. **b) I4MS Workshop** Name: "Workshop for SMEs: I4MS Bootcamp" Where: DIH annual Event 2018 (Warsaw, Poland) When: 28/11/2018 -14:00 Description: Offer SMEs, mid-caps and start-ups information on how to attract additional funds from private or public sources, tips to build a winning pitch, tricks to work with corporates and attract investors. |
| **Mobile World Congress - Barcelona** | 25/02/2019 - 28/02/2019 | **25/02/2019** <br><br> a) **L4MS Open Call Pitch.** <br> b) **2 ACCIÓ Tours** - 15 minutes presentation of I4MS and funding opportunities to regional SMEs, interested industry 4.0 developments. <br><br> **26/02/2019** <br><br> a) **I4MS Open Call Pitch.** <br> b) **2 ACCIÓ Tours** <br><br> **27/02/2019** <br><br> a) **I4MS Open Call Pitch.** <br> b) **Tech4Corporate Event.** Around 50-60 people attended the I4MS main event at the stage of Mobile World Capital in MWC19. Participation from L4MS, ReconCell, Fortissimo and CloudiFacturing. <br> c) **2 ACCIÓ Tours** <br><br> **28/02/2019** <br><br> a) **I4MS Open Call Pitch & CloudiFacturing presentation.** |
| **MADE Anniversary Conference - Copenhague** | 22/05/2019 | A booth to present I4MS funding opportunities to MADE members (SMEs) and stakeholders attending the event. |

| Strasbourg KET 360 - Strasbourg | 27/06/2019 | One-To-one meetings: EU Brokerage Event to meet stakeholders interested in Innovation Management. |
|---|---|---|
| **European Week of Regions and Cities- Brussels** | 8/10/2019 | **Role of regions promoting digital transformation of SMEs: the case of I4MS & SAE.** I4MS CSA coordinator, Ms Mayte Carracedo, opened the session and provided an overview of the Project assets, presenting the IAs marketplaces and inviting Regions to collaborate in supporting SMEs using the knowledge of I4MS.<br><br>After the session of presentation, the audience was distributed in different groups to discuss about the use of marketplaces, the dissemination of this tools at regional level, the participation in Open Calls and how to leverage on the experience of the funded AEs. |
| **Innovation & Manufacturing Brokerage Event 2019 - Santiago de Compostela** | 6-7/11/2019 | **Innovation & Manufacturing Brokerage Event 2019**. Presentation of L4MS Open Call. |
| **DEI Stakeholders Forum Annual Event-Madrid** | 13 – 15/11/2019 | **I4MS Booth:** I4MS participated in the exposition with a full booth, with Videos, printed material, interviews, one on one contacts and Photo Shootings to display and showcase all I4MS action including the available opportunities and marketplaces. |
| **MADE Fall Event - Copenhague** | 20/11/2019 | Presentation of I4MS IAs' marketplaces and community at MADE member event about Smart Manufacturing. Audience: about 150 key actors attending MADE event, mostly SMEs. |
| **Mobile World Congress Barcelona** | 25/02/2020 | Presentation of the IAs marketplaces during the MWC 2020 followed by a stand-up snack to allow one-to-one interactions with the audience. |

**Table 1:** Table of brokerage and matchmaking events.

Also, the alliance with intermediary bodies such as chambers of commerce, industrial associations and similar entities has significantly contributed in attracting traffic and redirecting it to IAs. These contacts have been mainly done participating in events and also through the EEN nodes located in each region.

## 3.7. Access to finance

Based on the activities described in the plan for collaboration with other I4MS projects the objective of this activity is to share information on other funding sources to offer SMEs and mid-caps a wider range of funding opportunities to facilitate their digital transformation. The importance of communicating the availability of funds for SMEs can facilitate the uptake of digital enabling technologies and contributing to the sustainability of the actions under the I4MS initiative. In this direction the following information has been shared from the beginning of the I4MS CSA:

- More than 55 funding opportunities news have been published in the I4MS community.
- The CSA organised two rounds of the Acceleration programme targeting the best-in class experiments identified by the IAs where SMEs received training on public and private funding opportunities.



**Figure 35:** Overview of the topics covered during the I4MS Acceleration programme.

- **Webinar on private investments** offered by Ms. Anne Lebreton-Wolf, ambassador of I4MS Initiative. She shared her experience as an active Business Angel and innovation expert with a focus on selection criteria and key factors of success to get private investments.

**Figure 36:** Picture of the webinar organised in the I4MS community about private funding.

- **Corporate contacts and opportunities:** the CSA sent to the IAs individual emails on 5 collaboration opportunities to work with corporates and find new ventures that can be of interest for the AEs having benefitted from I4MS funding.
- **Loans and other public funding mechanisms:** the I4MS CSA has contacted with ENISA, a Spanish public company dedicated to the financing of viable and innovative business projects of Spanish SMEs through loans. ENISA financing lines are designed for small and medium-sized Spanish companies with innovation projects or transformative growth. Some of the projects having received the I4MS-SAE label with Spanish participants were presented to the entity in order to organise bilateral calls with those AEs that could apply to this type of loans.

## 3.8.    Self-sustainability plan

The support of I4MS CSA to the IAs in terms of sustainability has been done, from one side to generate deal-flow and interest in the marketplaces/platforms and from the other to look for additional funding opportunities for their application experiments.

### 3.8.1. Promotion of marketplaces

Here below the events where the marketplaces and platforms of the Innovation Actions have been presented to different stakeholders:

1. **6th WG of DIHs DIGITAL INNOVATION HUBS WORKING GROUP MEETING ON DIGITAL TOOLS AND MARKETPLACES (03/04/2019, BRUSSELS)**

I4MS CSA was in charge of organising this event, therefore all IAs were invited to present their marketplaces, also the regions that are currently collaborating with I4MS presented how regions could take advantage of I4MS marketplaces and the available funding schemes at regional level.

During the event, different discussion-groups explored how existing marketplaces and solutions could be re-used. Some suggested merging all the information collected by all hubs and encourage new projects to use the existing marketplaces. Participants highlighted that to incentivise digital transformation, regions often use vouchers, while awareness raising could be done by industry associations, incubators, IT providers or SMEs with a successful digital transformation experience, who could act as ambassadors for DIHs.

The event was structured into two different sessions, the first one to present the supply side, the marketplaces available and the second one to present the regional players to foster companies' demand for digital transformation as a way to encourage the demand.

During the first session the solutions that can help SMEs with their digital transformation developed by EU funded Innovation Actions were presented. This session aimed at informing DIHs about the available tools and solutions, so that DIHs can take on the role of distributors and extend their range of services.

The second session explored how regional grants or voucher schemes can be used to support new Application Experiments, re-using existing marketplaces or encourage SMEs to connect with highly knowledgeable service providers. The objective of this session was to help regions optimise the overall mobilisation of their European Structural and Investment Funds (ESIF and in particular ERDF).

The most interesting case was the one presented y La Rioja, Spain and L4MS. Due to their size and lack of infrastructure, La Rioja does not have a Competence Centre, its smaller size allows them to be more flexible and closer to their companies. The regions aim to play the role of orchestrator; they know their companies' needs and can therefore help them get in touch with the appropriate competence centre in their neighbouring regions. They are currently cooperating with I4MS and L4MS exploring the possibility to replicate the L4MS Open Call with regional funds (through the means of innovation vouchers). So far, the connection done with I4MS and L4MS has allowed the creation of an innovation voucher also the possibility to visit the premises of some research centres involved in L4MS to know more about the technologies and decide if they want to participate in the Open Calls.



**Figure 37:** Slide presented by La Rioja representative to show the collaboration scheme with L4MS

## 2. WORKSHOP WITH REGIONS OF THE ICT WORKING GROUP OF ERRIN (04.04.2019, Brussels)

The main objective of the ICT Work Group within ERRIN is to create a platform where it is possible to create or discuss ICT projects, topics and opportunities for interregional cooperation in the ICT area. The aim is to gain an overview and knowledge about the ICT areas and supporting facilities in the EU framework programs - with a focus on Horizon 2020.

During the event I4MS and the possibility for regions to sponsor I4MS Marketplaces was discussed. The example of the collaboration with L4MS and the Region of La Rioja in Spain through the voucher mechanism was presented. Also, GAIN brought one SMEs having successfully participated in I4MS to present their experience and the impact of their participation. This SMES, ECOMT, was supported by the project Fortissimo and by the RTO CESGA located in Galicia.

The collaboration opportunities presented to collaborate with I4MS were:

1. **RECEIVE** direct information on the funding opportunities available to inform SMEs in your region.
2. **INVITE INNOVATIVE SMEs** in your region to become a best practice example (manufacturing SMEs with result-driven breakthrough innovations) and take part actively in the I4MS activities.
3. **GAIN VISIBILITY** by being featured as a supportive partner in the website and I4MS online community.
4. **PARTICIPATE** in events having a preferential role (speaker, success story, best practice).
5. **EXPLORE** collaboration opportunities with the I4MS projects to raise awareness on the use of specific technologies having as example La Rioja and L4MS (study visits to competence centres, Open Calls using IAs infrastructure).



**Figure 38:** Image of ECOMT presentation of their experience during ERRIN ICT Working Group.

**Figure 40:** Agenda of the I4MS CSA participation in the Vanguard meeting.

## 3. VANGUARD PILOT MONI-TORING MEETING. 1 OCTOBER 2019.

Vanguard Initiative regions has as primary objective contributing to the economic development and employment of our member regions through inter-regional collaboration and joint investments, for this reason I4MS CSA presented the initiative, the opportunities for the Regions to be actively involved, the marketplaces of the Innovation Actions and the funding opportunities.

## 4. EUROPEAN WEEK OF REGIONS AND CITIES. ROLE OF REGIONS PROMOTING DIGITAL TRANSFORMATION OF SMES: THE CASE OF I4MS & SAE. (8 OCTOBER 2019, Brussels)

I4MS & SAE initiatives have supported the implementation of a number of marketplaces and services aiming to stimulate digital innovation in SMEs. In this framework, the I4MS-Go Project (CSA) has been exploring various possibilities for enhancing the sustainability and increasing the impact in regions of the aforementioned marketplaces and services. This session served to both present some of the possibilities explored so far and to analyse and discuss them further. Regions, the Commission, marketplaces, DIH and other stakeholders contributed to the discussion with interesting presentations.

I4MS CSA coordinator, Ms Mayte Carracedo, opened the session and provided an overview of the project's actions and services, such as the online community, awards and agreements with regions. She also presented the I4MS initiative, with special focus on the marketplaces in place at the moment. Mr Max Lemke highlighted the important role regions will play in the Digital Europe programme, as well as the need for regional investment and DIH initiatives to support the digital transformation of SMEs.

**Figure 39:** Max Lemke presenting during the I4MS event in the EWRC.

The Director of the Galicia Innovation Agency, Ms Patricia Argerey, presented her region's approach to digitisation and the mechanisms currently being implemented. The event counted with the participation of EIT Manufacturing CEO, Mr Klaus Beetz, informing how EIT Manufacturing is supporting the uptake of advanced technologies by SMEs and that knowledge, research, industry and investors are collaborating to generate new markets.

Vanguard Initiative, represented by Mr Sergio Gusmeroli, who highlighted the role of regions in facilitating access to digital technologies, explaining how this is approached and encouraged within the Vanguard Initiative. The last speaker, Mr Andrés Gómez, from the Galicia Supercomputing Centre, presented success stories of SMEs making use of the marketplace FORTISSIMO, funded by I4MS. He focused on how SMEs can be supported in identifying the most suitable technologies for their digital transformation and subsequently improve their competitiveness.



**Figure 40:** Quote and picture from Sergio Gusmeroli presentation during the EWRC.

With the content of the presentations in mind, speakers and attendants split into four groups and further discussed possible ways of increasing the impact of I4MS and SAE initiatives in regions as a way to help SMEs in their digital transformation. Every group focused on a specific topic:

- What can your region gain from I4MS & SAE?
- The use of regional Open Calls to bring digital innovation closer to SMEs.
- How can a successful experiment be replicated in my region? The Fortissimo use cases.

- How can marketplaces better communicate with regions?

### 3.8.2. I4MS – SAE label and connection with regions

#### I4MS-SAE label creation

The I4MS and SAE initiatives have joined their effort to select successful Application Experiments (AEs) from both initiatives, providing them with an official recognition of the quality of the AE. The I4MS-SAE label is granted to AEs and consecutively to participating companies which were accepted for funding through the financial support for third parties (FSTP) mechanism and that have successfully completed the support programme offered by the Innovation Actions (IAs).

The aim of this label is to allow the SMEs that participated in the labelled experiments to prove the excellence of their experiment when requesting further support to regional governments, but also to national funding bodies and Digital Innovation Hubs (DIHs). The I4MS-SAE Label recognises the value of the AEs and helps other funding bodies to get access to the best innovators who have a connection to the specific region. Ultimately, the goal is to give visibility to strong and well-performed AEs at regional level to inspire other SMEs to start adopting digital transformations.

In order to organise the work related to the I4MS-SAE label implementation, different calls have been organised bilaterally with the previous SAE CSA, led by Rainer Günzler, and two more with all IAs under I4MS and SAE. The first step was to create a questionnaire to learn more about the evaluation process of SMEs, their capability to evaluate their performance and the approach to be followed when awarding AEs with the I4MS—SAE label.

According to the results of the survey sent to I4MS and SAE IAs, there was interest in creating this label. Also, the survey revealed the high number of AEs that cannot access to IAs funds, more than 200 AEs from both I4MS and SAE were above the threshold but could not be funded.



**Would your IA be willing to implement the I4MS-SAE label?**

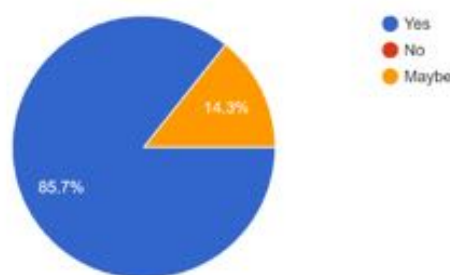7 responses

- Yes
- No
- Maybe

14.3%

85.7%

**Figure 41:** Responses of the SAE and I4MS IAs regarding the creation of a common label.

The I4MS CSA elaborated a background document shared with the IAs in order to establish the rationale, the criteria to award the I4MS-SAE label and the next steps. With the feedback of the IAs the criteria under which the label is awarded were selected considering the performance of the AEs and the ambition (all details are included in D 2.13 of the I4MS CSA)
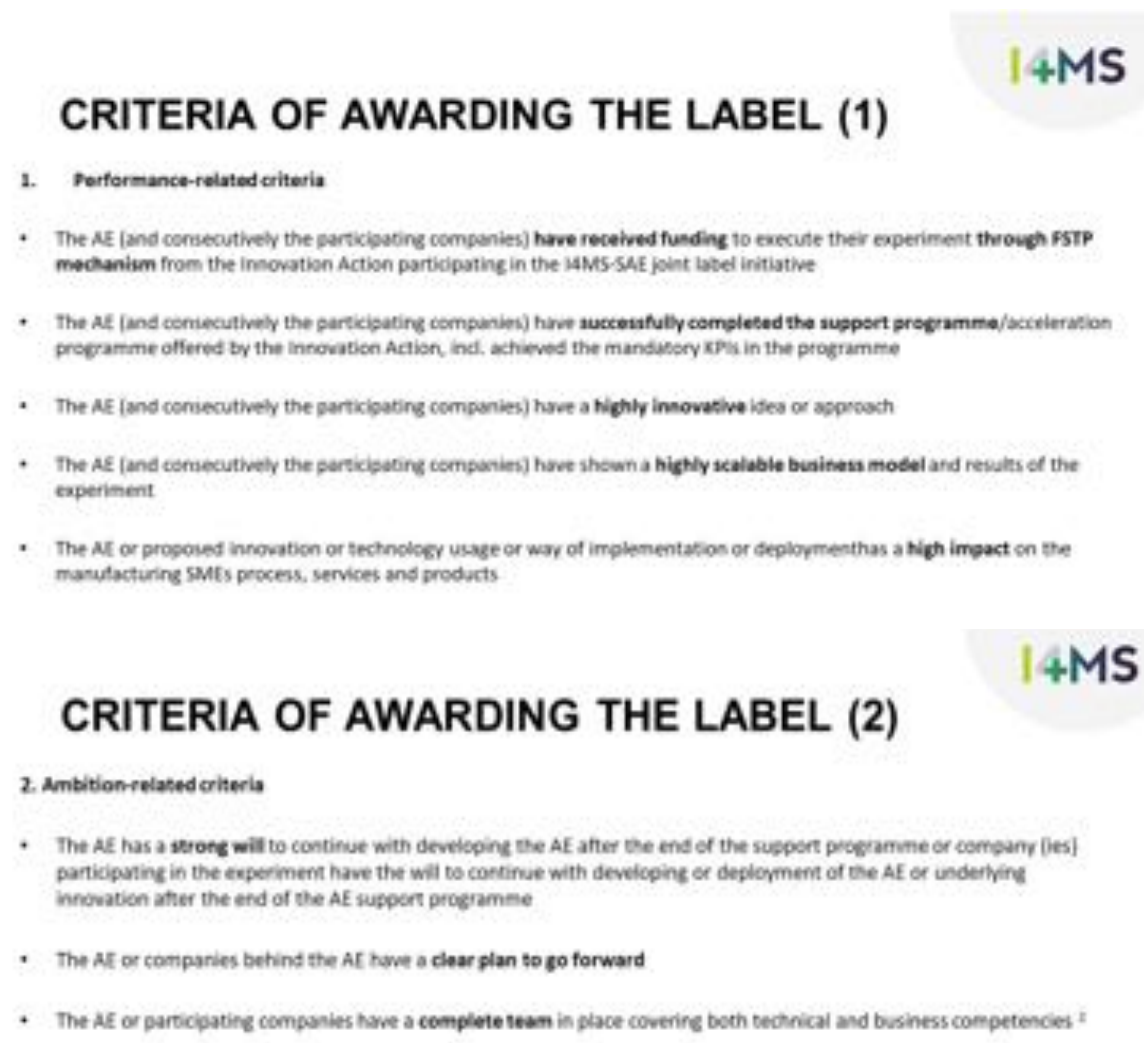
## CRITERIA OF AWARDING THE LABEL (1)

1.   Performance-related criteria

*   The AE (and consecutively the participating companies) **have received funding** to execute their experiment **through FSTP mechanism** from the Innovation Action participating in the I4MS-SAE joint label initiative

*   The AE (and consecutively the participating companies) have **successfully completed the support programme**/acceleration programme offered by the Innovation Action, incl. achieved the mandatory KPIs in the programme

*   The AE (and consecutively the participating companies) have a **highly innovative** idea or approach

*   The AE (and consecutively the participating companies) have shown a **highly scalable business model** and results of the experiment

*   The AE or proposed innovation or technology usage or way of implementation or deploymenthas a **high impact** on the manufacturing SMEs process, services and products

## CRITERIA OF AWARDING THE LABEL (2)

2. Ambition-related criteria

*   The AE has a **strong will** to continue with developing the AE after the end of the support programme or company (ies) participating in the experiment have the will to continue with developing or deployment of the AE or underlying innovation after the end of the AE support programme

*   The AE or companies behind the AE have a **clear plan to go forward**

*   The AE or participating companies have a **complete team** in place covering both technical and business competencies [2]

**Figure 42.** Criteria proposed by the I4MS CSA to awards the AEs with the label.

### I4MS-SAE label identity

The I4MS-SAE label was designed and approved by the IAs and all companies selected by the IAs received a personalised certificate together with a guidelines for SMEs on how to use this label.

**Figure 43:** I4MS-SAE label and certificates for SMEs.

In I4MS, the companies having received the label are the following:

- Procalçado - Produtora de Componentes Para Calçado S.A from the Northern Region of Portugal, Experiment HAMlet from project L4MS

- EWEN - SOLUÇÕES GLOBAIS EM ENERGIA E AMBIENTE, LDA from the Northern Region of Portugal, Experiment HAMlet from project L4MS

- UAB FACTOBOTICS from Vilnius, Lithuania, Experiment Ohts4ls from L4MS

- Panevėžio mechatronikos centras, from Aukštaitija, Lithuania, Experiment Ohts4ls from project L4MS

- UAB Devold Aukštaitija, Lithuania, Experiment Ohts4ls from project L4MS

- Hanning Elektro Werke, from Nordrhein-Westfalen, Germany, Experiment "OPTIMIZING DESIGN AND PRODUCTION OF ELECTRIC DRIVES" from project CloudiFacturing

- Linz Center of Mechatronics, from Upper Austria, Experiment "OPTIMIZING DESIGN AND PRODUCTION OF ELECTRIC DRIVES" from project CloudiFacturing

- Endef, from Aragon, Spain, Experiment "OPTIMIZING SOLAR PANEL PRODUCTION" from project CloudiFacturing

- Nabladot, from Aragon, Spain, Experiment "OPTIMIZING SOLAR PANEL PRODUCTION" from project CloudiFacturing

- CloudSigma, from Zürich, Switzerland, Experiment "OPTIMIZING SOLAR PANEL PRODUCTION" from project CloudiFacturing
- i-Deal, from Piemonte, Italy, Experiment CAPSUIe from project CloudiFacturing
- TroTusTex, from North East Romania, Experiment CAPSUIe from project CloudiFacturing
- MangoGem from Brussels, Belgium, Experiment MARINA from project MIDIH
- Paufex from Prešov, Slovakia, Experiment IoTandCI from project MIDIH
- Research Studiosv from Salzburg, Austria, Experiment AWEAR from project MIDIH
- Eneo Tecnologia from Basque Country, Experiment MIDAS from project MIDIH
- Infinite Foundry from the Northern Region of Portugal Experiment Robo-OptimAI from project MIDIH
- Topofab from Eastern Romania, Experiment SASSHPPE from project AMable
- Productos Climax from Catalunya, Spain, Experiment SASSHPPE from project AMable
- ELVEZ from Central Slovenia, Experiment "Assembly of Automotive Lights" from project Reconcell
- HOP Ubiquitous from Murcia, Spain, Experiment "Mounting PCBs on a backplate" from project Reconcell

**Contact with Regions**

In order to bring I4MS funded projects closer to the regions and present the labelled AEs in order to explore possible funding schemes at regions level, I4MS has included in the description of the Application Experiments the country and regions of the participating SMEs. This information is accessible via the I4MS website, also the CSA with the feedback of the IAs created an excel sheet to facilitate the follow-up of the activities with each of the regions where AEs have been implemented, taking special attention to the regions where awarded SMEs are located.



**Figure 44:** List of regions of the AEs and follow-up tool.

The I4MS CSA has reached 44 Regions via the Regional Advisory Board, the Vanguard Initiative, the Supportive Partners programme and direct contact.

31 regions have received the information of the AEs funded in their region and more than 10 bilateral calls have been organised to present the I4MS label, IAs marketplaces and explore additional regional funds for I4MS experiments.

Thanks to all the actions described above, several collaboration opportunities have arisen:

- In some regions there are already existing mechanisms offering advantages to those SMEs having received support to I4MS such as Murcia and Aragon.
- There are regions that are currently supporting their SMEs in participating in I4MS cascade funding opportunities, increasing the chances of the participating SMEs to receiving additional support from their regional government, for instance Aragon, Murcia, and Andalusia.
- The Basque country (Spain), Catalunya (Spain), Ile de France (France) and Estonia are interested in receiving further information form the AEs implemented by their local SMEs in order to help them in finding additional funding sources.
- Interviewed regions are interested in increasing the offer of the IAs marketplaces by inviting their regional SMEs to join.

All these opportunities were presented to the Innovation Actions, the agreement was that IAs will send this information to their beneficiary SMEs in order to help them in finding additional funds.

A MoU was developed together with the Regional Advisory Board in order to follow-up the activities foreseen in I4MS Go with regions. Up to date, 4 MoUs have been signed by Galicia (Spain), Murcia (Spain), West Romania (Romania) and Pilsen (Czech Republic), formalising the cooperation between I4MS and EU regions and 7 more are interested in knowing more about the AEs implemented in their region and take some actions to increase the visibility of their regional SMEs. All MoUs are available in D5.10 - Regional Advisory Board (final composition).

### Synergies with other initiatives

MIDIH is exploring together with I4MS Go the possibility to reinforce the connection with the other I4MS innovation actions by launching an Open Call for I4MS labelled projects. An award would be given to the labelled projects from the other innovation actions for executing a MVP with the architecture of MIDIH. The shortlisted candidates from the Open Call would receive 3.000€ for travel costs to present their MVP to a jury. The awarded AEs will then receive up to 7.000€ to further develop their MVP.

## 3.9. Skills creation

I4MS CSA has led the creation of a Training Catalogue including the training offer of the IAs and DIHs working in the 4 technology domains of I4MS: robotics, HPC and cloud-based simulation, CPS and IoT and additive manufacturing.

The I4MS training catalogue collects all the training offer available and specifically aims to help SMEs to identify the right DIH for their upskilling programmes for digital transformation. The I4MS Training Catalogue supplies a wide range of training programs aimed at upgrading the skills of workers in the manufacturing industry. The main objective, together with the IAs, has been to create a common

repository where interested parties can find information about in-demand digital skills and training materials. Having this online catalogue helps SMEs and Mid-Caps in Europe to determine where and how to plan their skills and competence upgrades.

Each training programme published in the online catalogue provides a summary of the technology covered, the training techniques applied, the channels used to provide the training, the phase of the technology absorption cycle it targets, the profile of the target audience, the duration, the minimum instruction level required, and an overview of the content of the training. It is a one-stop shop for a general view of the training and upskilling programmes that I4MS and DIHs are offering to the European manufacturing sector.



**Figure 45:** Screenshot of the training search engine and example of an entry.

The online training catalogue displays the different training programmes offered by the DIHs and the I4MS projects with a link to the official website and a contact email for further information. The Read More call-to-action button takes the user to a complete information page. The platform provides functionality for performing training searches, which is complemented by a filter structure that allows the scope to be narrowed based on different criteria within the description and the prospective capacity.

Key data related to the training catalogue:



**Figure 46:** Key figures of the training catalogue.

Also, during the DIHs Annual event held in Warsaw I4MS CSA organised a workshop together with representative of all IAs, MIDIH, AMable, CloudiFacturing, L4MS and BeinCPPS (IAs active during phase II) for DIHs on training for SMEs.

Anne-Marie Sassen, Deputy head of Unit, Technologies and Systems for Digitising Industry Unit, DG CONNECT, European Commission presented very important figures: 90 % of jobs require basic digital skills, ICT generated the 3,7% of-total employment, 600,000 vacancies for ICT specialists. 40% companies trying to recruit IT specialist face difficulties. The EC has put 1 of 10 new actions in new skills agenda for Europe. Actions will support pilot projects to provide cross –border traineeships for up to 6,000 students in 2018-2020 and 700 million Euro to support gaining advanced digital skills for the deployment of AI, HPC, and CPS via long term courses for students and working people, job placements and short-term training courses for small businesses.

The discussions covered the type of skills needed and who should be providing training to adapt the EU workforce to the new competences required. Educational institutions were pointed out as important part of delivering specific trainings and identifying key challenges of the workforce.

The needs of SMEs differ depending on their industry related expertise. The AMable project stated that there are qualifications that should be developed following a modular approach designed according to the industry needs, having in common flexible learning approach and constantly updated It is important that at EU level the different levels of training are recognised to allow the mobility of the workforce, but also for employing other country nationals. Following the experience of the Innovation Actions presenting at the workshop, there is a lack of entrepreneurial skills in SMEs because they are very much focused on operational management of the organisation, soft skills and ICT skills should be a must in all SMEs.

Susanne Kuehrer coordinator of the MIDIH project talked about their 9 competence centers working with SMEs and academia, having created a pan-European network of regional manufacturing DIHs. Rita Gomes Bola from the AMable project pointed out that is important to seek synergies. As each

project within I4MS is for different applications and focused on a different technology vertical, competition is not an issue, therefore, by connecting hubs the offer is also increased.

Responding to the question what can be the role of DIHs in providing the necessary skills, the panellists agreed on the following conclusions:

- DIHs and competence centers could deliver trainings, since they have access to the latest technologies and are attached to key research centres that own this knowledge.
- DIHs should act as one- stop- shops providing access to advanced digital solutions and training solutions to adopt innovations.
- The role of hubs should be to redirect customers to other hubs and vice versa instead of trying to cover all technological verticals.
- DIHs should disseminate knowledge, ideas and projects via different channels, trying to create networking mechanisms to foster and facilitate connection among them.



**Figure 47:** Agenda DIHs Annual event session on DIHs and training for SMEs.

## 3.10. Measuring performance and impact

The CSA together with the IAs will identify a set of performance indicators to evaluate the impact and significance of the joint engagement plan.

List of proposed indicators from the beginning of the CSA (September 2017):

| INDICATORS | TARGET | ACHIEVED | ACTIVITIES TO REACH THE TARGET |
|---|---|---|---|
| **Nº of events with the participation of the IAs and CSA** | 18 events | 25 | - Look for opportunities of joint participation in events organised by the EC;<br>- Organise joint workshop during international events. |
| **Nº of potential beneficiaries reached through communication and dissemination activities** | 1 Million | 1,027,300 | - Events with joint participation;<br>- Events targeting SMEs;<br>- Press releases about Open Calls;<br>- Impacts in social media;<br>- SMEs members of the I4MS community. |
| **Nº of SMEs asking for information about the funding opportunities offered by IAs** | At least x3 times the number of AEs supported by the IAs | 47 supported experiments (47*3= 141)<br><br>SMEs reach 1,000 | - Queries received by SMEs (online and offline);<br>- Participants in webinars;<br>- Participants in Q&A sessions. |
| **Nº of applicants in Open Calls** | At least x2 times the number of AEs supported by the IAs | 172* application forms received (47*2= 94) | - Number of submitted application forms.<br>   *(third OC AMable not included, second OC L4MS not included) |
| **Nº of matchmaking activities organised during joint events** | At least 5 | 10 | - Parallel activities during joint events to match end-users with IAs technological support offer. |
| **Nº of joint activities to leverage additional funds (public or private)** | At least 4 | 55 articles<br><br>1 public webinar<br><br>3 private webinars for best-in class AEs | - Share information about the existence of private or public funding opportunities.<br>- Organisation of informative sessions, brochures, articles or webinars. |
| **Nº of joint activities related to the role of Region** | At least 4 | | - Informative sessions with Regions.<br>- Incentivise the use of ESIF funds to replicate I4MS model.<br>- Raise awareness events targeting regional authorities. |

| in digital transformation | | | | 51 |
|---|---|---|---|---|
| **Nº of joint activities related to skills creation** | At least 2 | 1 joint training catalogue<br><br>1 event | - Elaboration of a joint catalogue of trainings.<br>- Events related to skills in digital transformation. | |

**Table 2** shows the indicators proposed and the achievements. The indicators were identified considering the activities and the type of collaborations included in the collaboration plan.

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# 4. JOINT ACTIVITIES BETWEEN IAS, THE CSA AND THE DIH NOT LINKED TO THE IAS

The Digital Innovation Hubs (DIH) are a pillar of the Digitising European Industry Strategy and play a key role in facilitating access to digital competence at regional level. Fostering digital transformation of the European industry will significantly contribute to boost competitiveness and facilitate the access to key enabling ICT technologies by SMEs and mid-caps.

The European Commission wants to ensure that every region in Europe has at least one DIH by 2020, making digital innovation accessible at a working distance to any company. However, the deployment of DIH has been unequal in Western and Eastern countries. To this end and since November 2018 new CSA supporting DIHs in different technological verticals, such as DIH², RODINE and other CSAs aiming at creating a pan-European network of DIHs such DIHNET.EU or IOT network of DIHS have emerged to support the set-up of new DIHs and support existing DIHs in delivering services to SMEs.

I4MS has contributed to enlarge the DIHs ecosystem and try to have presence in DIHs related events to show the role of IAs in supporting DIHs. However, since January 2019, the I4MS community space devoted to DIHs has been moved to the DIHNET.EU community, in order to not duplicate efforts.

This section gathers the information of the synergies created among the ongoing IAs, CSAs working in creating a pan-European network of DIHs and I4MS CSA.

It is worth mentioning that IAs are also making an effort in contacting DIHs outside the I4MS ecosystem, for instance, the IA CloudiFacturing has built up a contact to the Greece DIH LMS to elaborate if the project has some potential interface to the activities in the project SERENA from LMS.
Both project coordinators had a first exchange of information in a WebEx meeting to see if there is a mutual interest to collaborate in the future. The fruitful discussion will be continued after more of the experiment results are available.

In CloudiFacturing, the DIH IT4Innovations National Supercomputing Center, a research institute of VSB – Technical University of Ostrava, together with the Moravian-Silesian Innovation Centre Ostrava have decided to share their know-how through the setting up of the Digital Innovation Hub Ostrava. Digitalisation is increasingly regarded as one of the keys to ensure the future competitiveness of enterprises, including small and medium-sized ones. The Hub will help companies primarily based in the Moravian-Silesian Region to identify, and potentially even meet their needs in the field of digitalisation.

Insomnia is a Business Accelerator, Incubator and Digital Hub located in Valencia, Spain, working to improve innovation in the region of Valencia and support SMEs, and in particular industrial SMEs, to uptake the use of ICT and face the challenges of digitisation.

They work with both public and private entities: municipalities, local and regional governments but also different regional Chambers of Commerce, which allow them to be in contact with local SMEs, exchange with them on innovation and digitisation and give these advices when needed. Recently they have organised events on "Digitalization, industrialization, I+D+i: financing opportunities and challenges" in various regional Chambers of Commerce in Spain.

Our main sectors of activity are: Innovation, Digitisation, Industry, Logistics, FinTech, InsurTech, Smart Cities, Mobility, etc.

The main services they provide are the following ones:

- As a Digital Innovation Hub (DIH), we support manufacturing SMEs to promote their uptake of ICTs.
- In the framework of the Fintech Digital Program, we support SMEs and start-ups in the development of technologies and innovative projects in the Fintech field.
- In the framework of the Insurtech Digital Program, we support SMEs and start-ups developing technologies and innovative projects in the Insurtech field.
- Industry 4.0 Digital Program: support for SMEs and start-ups developing technologies and innovative projects in the Industry 4.0 field.
- Digital Immersion Program: Training Program addressed at CEO and Executives from SMEs to help them face the challenges of the digitisation and industrialisation.
- Digital Training School: Digital assessment for companies learning code.
- Access to finance and H2020 support: support for SMEs to access public, private and EU finance to carry out innovative and tech projects.
- Puertos 4.0: digitisation of 15 Spanish ports.

STAM, another DIH from CloudiFacturing, is an active member and constantly exchanges information and promote with the following Competence Centers and Incubators: SIIT, START 4.0, Polo SOSIA, Polo TRANSIT. Moreover, STAM has fostered the collaboration with the competence centers certified by the Italian ministry of economic development even outside the Liguria region and in particular several cooperation's are ongoing with the Cyber 4.0 CC (Lazio region) and the BI-REX CC (Emilia Romagna region).

Periodically STAM has workshops and events with non-institutional communities such as PEEKABOO (Lazio and Lombardia regions), the biggest European Startup Community, and UniSMART, the accelerator of the University of Padua (Veneto Region). Last, but not least, STAM has its second biggest office (the one in the Sardinia region) at the Open Campus facility, where STAM is part of a lively community of entrepreneurs, SMEs, researches and industrial players.

## 4.1.     Events, brokerage and matchmaking

The participation in events targeting DIHs or other of potential interest aiming at sharing experiences and know-how, explore possibilities of collaboration organising technologies related events, disseminate the IAs Open Calls across the network of DIH outside the I4MS ecosystem.

Events where joint participation of DIHs and members of the I4MS initiate was possible:

- **Digital Innovation Hubs Day (GAIN). 5th October 2018.** The "Agencia Gallega de Innovación" organised the Digital Innovation Hubs Day the 5th of October 2017 in order to build the basis to promote the process of creating HUBS in Galicia. Presentation about the third phase of the I4MS initiative, focusing in how I4MS supports the DIHs, presenting the Open Calls and L4MS.

- **RIOHUB Partners Meeting. 9<sup>th</sup> October 2018.** RIOHUB Partners Meeting was celebrated in Logroño, La rioja Region (Spain), where some partners meet. I4MS attended the meeting and made a short presentation of the European outlook about DIH.
- **European Week of Regions and cities: workshop on co-design DIHs in new member States. 11th October 2018**, Brussels. In the context of "Smart Factories in New EU Member States" project, 34 potential Digital Innovation Hubs (DIHs) from the EU13 Member States received training on how to develop a sustainable DIH in their region and I4MS presented success stories and how the initiative can contribute to development of DIHs. The session will utilise highly participatory approach based on design thinking and co-creation methodologies to identify and validate recommendations for policymakers at the regional, national and EU level on how to set up DIHs in less digitised regions.



**Figure 48:** Mayte Carracedo's presentation during the Smart Factories in New EU Member States event.

- **BARCELONA INDUSTRY WEEK**, 16-18 October 2018 in Barcelona. **Digital innovation hubs. A challenging European initiative. How to make things happen Will be jointly organised with I4MS. The** goal of this session was to strengthen the concept in Southern Europe and promote the generation of networking between different groups.
- **V ClusterFY Interregional Seminar. 24<sup>th</sup> October 2018.** The V ClusterFY Interregional Seminar, organised by University of Castilla-La Mancha, was focused on the interregional cooperation, industry 4.0, cluster regional policies, KETs, and Smart Specialisation. I4MS participated in the Seminar and took part with a Presentation of the initiative. The Presentation introduced the role of DIHs and then explained I4MS initiative in depth.
- **DIHs Annual event**, 27-28 November 2018. The event brought together SMEs, start-ups, RTOs, DIHs and policy-makers from all around Europe with the objective of reinforcing the capacity of DIHs to support start-ups and SMEs in their digital transformation. All Innovation Actions under I4MS showed their contributions to the EU strategy for digitisation and Application Experiments were invited to actively participate.
- **NORDIH- The Norwegian Digital Innovation Hub Expert Workshop. 21th-23<sup>rd</sup> January 2019**. I4MS participated in the NORDIH Expert Workshop 2019 in Norway and did a presentation about the "Opportunities for DIHs within I4MS".
- **Smart Anything Everywhere DIH day. 14<sup>th</sup> May 2019.** The event took place in Stuttgart, Germany, brought together more than 70 representatives from European Digital Innovation Hubs (DIHs). In several interactive "share and learn" sessions they presented the concepts,

impacts and further plans of their individual initiatives and discussed experiences and future cooperation possibilities. Chairman Max Lemke (DG CNECT, European Commission) set out the European Context and Perspective of the DIH community. Key note speaker Peter Mendler (Ministry of Economic Affairs, Baden-Württemberg) expressed the desire for concerted actions and a sustainable network supporting the digital transformation of the regional, national and European industry. During the event the I4MS CSA brought to the discussion different topics related to the cascade funding offered by the Innovation Actions and the activities that CSA can lead to facilitate the sustainability of the Innovation Actions results, marketplaces and platforms. The conclusions of the event where published here.



**Figure 49:** Mayte Carracedo and Max Lemke presenting during the DIHs Day in Stuttgart.

- **Smart Europe Consultations- EC workshop. 24 June 2019.** The event served to discuss the needs, trends and visions for Digital Transformation and the deployment of digital technologies by SMEs in different application domains. The interactive workshop focused on emerging research and technology fields through a Technology Radar to fuel digitisation, as well as the needs and barriers for a broad and successful implementation by SMEs. The main focus was on the evolution of the SAE Initiative with the contributions from the I4MS CSA in order to provide:
    − improved (future) offers to SMEs in terms of 'test before invest',
    − innovation support and skilling/training,
    − closer collaboration amongst the EU-wide network of supporting Digital Innovation Hubs (DIHs).

Figure 50: Mayte Carracedo presenting the I4MS lessons learned during the SAE workshop.

- **7th Meeting of the Working Group on DIHs. 1st July 2019.** The seventh meeting of the Working Group on Digital Innovation Hubs held in Brussels on the 1st of July 2019, was dedicated to (i) discussing elements of the implementation of Digital Europe (DEP) with regard to Digital Innovation Hubs (DIHs). Panel discussions turned to the topic of how to develop a dynamic and supporting collaboration within a European DIH network and how to make the collaboration among different initiatives (DIHs, IAs, etc) operational. The speakers presented their view from the position of innovation actions, the use of Coordination and Support Actions (CSAs) as I4MS and SAE to evolve the EU network, the challenges and opportunities for DIHs and regional DIH networks, as well as results of the work on business models to support collaboration.



Figure 51: Pictures of the workshop during the 7th WG of DIHs.

## 4.2. Communication and Dissemination activities

DIHs that were part of the I4MS online community have been invited to join the dihnet.eu community to cross-link, cross-post, promote articles published in the IAs and DIH website, blogs of other sources of information. FundingBox, coordinator of I4MS CSA, is also in charge of managing the community of DIHNET.EU, therefore a lot of activities have been organised in the framework of DIHNET.EU and supported by the I4MS team.

The most active DIH in I4MS ecosystem have been invited to share their experiences and success stories in the DIHNET.EU community as a way to inspire the work and provide know-how about the work of DIH. I4MS has always contributed to give visibility to the DIHs work by sharing videos, articles and post from other DIHs project of advanced manufacturing initiatives supporting SMEs.



**Figure 52:** Example of how to gain visibility and promote the activities of the DIHs.



**Figure 53:** Example of information shared related to other DIHs projects and initiatives.

The catalogue of DIH included in the I4MS website, gathers the information of the DIHs created with the support or under the sponsorship of I4MS during Phase II and also those actively participating in the IAs. With the aim of giving visibility to the DIH working within the I4MS technologies, the I4MS CSA has updated 3 times the catalogue and included 22 new DIHs in the last update (September 2019). This information was also used to include an updated map of DIHs and their main technological expertise.

**Figure 54:** Screenshot of the DIHs map included in the i4ms brochure of September 2019 and the map of DIHs in I4MS website.

Moreover, the I4MS CSA and DIHNET.EU organised a webinar on how to benefit from the online community as a tool to communicate with the DIHs ecosystem and offer an example about the role that online communities can have in delivering DIHs services.



**Figure 55:** Screenshot of webinar organised on community building by FBox jointly with dihnet.eu.

## 4.3.     Open Calls

The information related to the IAs Open Calls is distributed in a common basis among the DIH network to attract SMEs and invite DIH to participate in those calls targeting DIH such as CloudiFacturing. The result of this activity will be the generation of an information flow related to the funding opportunities available managed by the different IAs and DIHs.

The list of events where Open Calls where presented to DIHs can be found in section 3.1.

Moreover, the I4MS CSA created an activity called Supportive partners Programme to extend its network and to support DIHs to make an impact in the digitisation of the European manufacturing industry. Currently out of the 43 Supportive partners 26 are DIHs. Supportive partners receive every

month ready to share information about the I4MS initiative, including Open Calls, events and webinars. Moreover, we have offered the possibility to Supportive partners to organise info-days on I4MS funding opportunities.
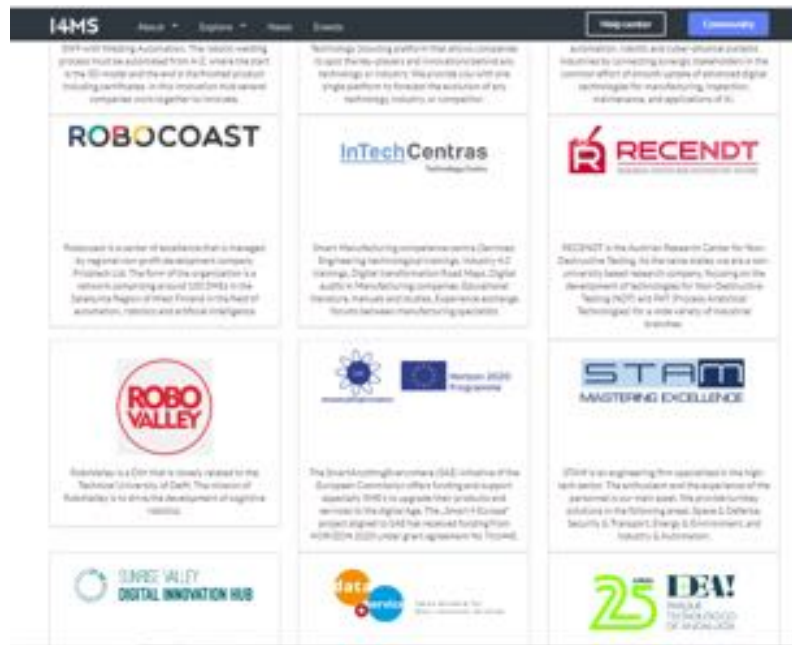


**Figure 56:** Screenshot of supportive partners section in the I4MS website.

## 4.4.	Access to platforms and infrastructure, maturity assessment and technological support.

IAs will invite DIHs based on different access levels, models and cooperation activities to use their marketplaces. The I4MS CSA has organised several events and webinars to present how DIHs can benefit from IAs platforms.

In this framework L4MS have agreements with several DIHs that will act as Satellite Nodes[8]. This model could be extended to other DIHs and replicated by the I4MS Innovation Actions. Being a Satellite Node gives DIHs access to the tech solutions and the knowledge developed by the IAs.

In the case of MIDIH, DIHs have been invited to test the platform and contribute with ideas to its development.

The upcoming Marketplace emGORA, outcome of the CloudiFacturing project, will be accessible and fully functional by end of the year 2020 - a real commercial setup is planned not before April 2021.

The five DIHs that are involved in CloudiFacturing are crucial distributing and communication points for the initiation of value chains - especially for the Marketplace. The CloudiFacturing project will also

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[8] Satellite nodes: Organisations, DIHs, Competence Centres can take profit from the solutions developed (platforms, marketplaces) in L4MS and also the possibility for them to fund experiments or hire project experts to offer technical expertise in elaborating regional funds and supporting structures for the digital transformation of SMEs.

approach other DIHs in the aim to integrate them into the marketplace and to build trustable relationships by offering interactive workshops, webinars, etc.

In addition, CloudiFacturing will build a pan-European network of trained marketplace experts, located in or associated with a regional DIH. Those experts should be able to show ISVs, consultants and manufacturing companies in their region, how to earn money with the services, offered by the marketplace.

The results of the Innovation Actions Open Calls where DIHs have played an active role during the application experiment implementation could contribute to shed light on how DIHs can deliver services to SMEs.

Due to the new EU projects approved focusing in the set-up of the pan-European network of DIHs, I4MS CSA has had a collaborative role with DIHNET.EU. DIHNET.EU tackles with much more detail this topic and has activities to facilitate the access to platforms and collaboration mechanism among DIHs.

It is worth mentioning the organisation, by the I4MS CSA, of the 6th Working Group of DIHs where all IAs platforms were presented and examples of collaboration discussed during the workshop's session

## 4.5.     Access to finance and self-sustainability plan

The plans of IAs to provide access to finance to DIH range from Open Calls targeting DIHs to matching experiments to private and public funding sources. This activity is directly linked to the one that has been planned with the IAs, therefore some content might be shared with the DIHs in order to provide examples and information about the additional funding opportunities that could be used to facilitate digital transformation of SMEs in the different EU countries.

Moreover, as stated in the previous section, I4MS is supporting the dissemination of activities from other EU initiatives such as DIHNET.EU where specific activities related to this topic are launch. See the example below:



**Figure 57:** Example of activity organised by dihnet.eu related to sustainability of DIHs.

## 4.6.     Skills creation

This activity has been focused on collating information on training activities offered by the DIH in order to be included in the online catalogue of trainings available in the I4MS website. In order to gather the maximum number of starting trainings an exhaustive campaign on reaching DIHs was set up. A total amount of 267 DIHs were contacted in order to extract their trainings. Two follow ups were also

delivered. The list of participants was based up on the European Commission DIH search engine on selected technologies.

DIHs were also contacted as information nodes in order to reach other EU projects to add their trainings, and SMEs to make use of the catalogue to seize the work of others DIHs (detailed information can be found in D3.14 of the I4MS CSA).



**Figure 58:** Screenshot of I4MS brochure where countries with DIHs having contributed to the training catalogue are shown.

## 4.7.    Measuring performance and impact

The CSA together with the IAs will identify potential indicators to follow-up the growth and performance of the collaboration activities between I4MS and the DIHs.

The activities listed in the right column have been monitored to gather the information and the data to evaluate if the target is achieved.

| INDICATORS | TARGET | REACHED | ACTIVITIES TO REACH THE TARGET |
|---|---|---|---|
| **Nº of events with the participation of the IAs, CSA and DIHs** | 4 events | 8 | - Look for opportunities of joint participation in events organised by the EC;<br>- Organise joint workshop during international events. |
| **Nº of DIHs asking for information about the funding opportunities offered by IAs** | At least x2 times the number of AEs supported by the IAs | 250 DIHs (47 AEs funded*2= 94) | - Queries received by DIHs (online and offline);<br>- Participants in webinars;<br>- Participants in Q&A sessions ;<br>- Members in the DIHs space within I4Ms community. |

| Nº of DIHs taking active participation in the I4MS platform | At least 100 | This KPI cannot be measured since the DIHs part of the I4MS community are now in DIHNET.EU | - DIHs being interviewed or sharing content in the I4MS platform.<br>- DIHs disseminating information about I4MS activities.<br>- DIHs sharing information in the I4Ms catalogue of DIHs. |
| Nº of joint activities related to skills creation | At least 1 | 1 | - Collaboration in the joint catalogue of trainings. |

**Table 3** Indicators to measure the collaboration among IAs, I4MS CSA and DIHs

# 5. INTERNAL COMMUNICATION

The internal communication tool has been mainly emailing and telephone. Also, the clustering calls have been key to coordinate the work among all the Innovation Actions and the CSA.

## 5.1. Clustering calls

The main mean of communication with IAs have been the monthly calls, it was the fora to discuss the advancements of the Joint Engagement plan and define the strategies to be followed. 16th clustering calls have been organised since the beginning of I4MS CSA, plus different bilateral call to discuss about each of the Open Calls and offer support in the dissemination and communication activities. The minutes of the clustering calls organised during the last 18 months are attached in Annex 1.

# 6. CONCLUSIONS

I4MS partners, Innovation actions together with the CSA, have worked on the detailed activities to maximise the synergies and avoiding overlapping across ecosystems. Consequently, it will contribute to promote a joint approach and branding of I4MS, making possible a bigger recognition of the initiative outside the ecosystem and among end-users.

The creation of this Joint Engagement plan has fostered the creation of cross-border collaborations across IAs leading to a greater cooperation in dissemination and communication activities and in relevant topics of common interest such as the involvement of regions, the use of shared resources and other innovation driven activities. In addition, these collaborations have contributed to inform SMEs and mid-caps to access to a higher number of digitisation opportunities offering access to wider knowledge network and facilities (represented by the Competence centres within the project) and to larger offer of specialised services (innovation support services).

The agreement with the IAs after the stocktaking exercise developed during the three firsts months of the CSA allowed the creation of a comprehensive list of activities in which all IAs of the phase 3 and the CSA could collaborate. The efforts of the CSA and the IAs in communicating, responding and contributing whenever is possible to the request of the EC and those of this collaboration plan, shows the importance of this exercise as way to facilitate and endeavour the creation of cross-projects collaboration activities.

Some of the learnings of the I4MS CSA third phase has been that the Financial Support to Third Parties offered to SMEs and Mid-caps within I4MS allows SMEs to access high-quality infrastructures, demonstrators and testing facilities in advanced digital technologies, improving their capacity in the use of these technologies.

However, there are still barriers and limitations for SMEs to apply, such as the lack of internal resources to be devoted to the implementation of the Application experiments, the difficulties for SMEs to spot the right funding opportunities to tackle their challenges, and the lack of knowledge on the advantages that I4MS technologies can bring to their daily business operations.

Innovation Actions have demonstrated to be high added value vehicles to test digital innovations and to wide-spread the use of advanced manufacturing technologies among SMEs and mid-caps, but the potential synergies in the different technology areas to generate cross-cutting innovation workflows within the Application experiments should be further exploited, to better represent the whole industrial landscape of the EU.

The involvement of the application experiments in events and communications activities, such as the Disruptors Awards ceremony, has been very much appreciated by the participating SMEs and mid-caps. The Disruptors Awards contest is a competition that aims to award the most innovative experiments funded under I4MS, illustrating a company's ability to innovate and implement ICT technologies to meet its business needs in the fields of: Additive Manufacturing, Cyber Physical Systems, Internet of Things, Robotics, High-Performance Computing and Laser Technologies.

The opportunities of international networking, such as the DIHs Annual Event in Warsaw and the Mobile World Congress in 2019, as well as the visibility given to success stories through videos and interviews, contributed to make SMEs and mid-caps active members of the I4MS ecosystem, and

highlighted the benefits of using I4MS technologies to tackle real industrial challenges. Participation in regional and local events are key to reach manufacturing SMEs and mid-caps, while world-class events are a good opportunity to increase visibility, but chances of reaching a critical mass of visitors and foster business opportunities is often blurred by the presence of big companies and their power of attraction.

The cooperation between European policymakers, Member States and regions is crucial, as well as other stakeholders such as industry, research, private investors. The alignment among all policy levels should be focused on facilitating the full uptake of digital innovation offered by I4MS, investing in the further deployment of digital technologies, and matching the technology providers with actors who can provide access to financing to go to the market.

Special emphasis has been put on strengthening European SMEs and mid-caps' staff by offering training solutions on the different technologies, and creating a catalogue of advanced training to re-skill workers and raise awareness about the benefits of I4MS digital innovations.

We can conclude that the collaboration between the I4MS CSA and the IAs has been successful and we would like to thank all efforts of the 4 I4MS Phase 3 projects: MIDIH, AMable, CloudiFacturing and L4MS for their commitment towards the activities proposed, their willingness to collaborate and their responses to all the queries we posed them. After 30 months of joint work we just want to say:

THANK YOU!