Dissemination plan and Report (initial version)

Deliverable 7.2

MULTI-METHOD WORKSPACE FOR HIGHLY SCALABLE PRODUCTION LINES

Project identifier	MUWO
Project title	Multi-method workspace for highly scalable production lines
Document version	1.0
Planned delivery date	M18 (July 2022)
Actual delivery date	M19
Document title	Dissemination plan and Report (initial version)
Work Package	WP 7
Abstract	This deliverable presents the key target groups in the project's dissemination activities, as well as the channels through which they will be reached. An initial plan is presented with the activities that the partners plan to carry out.
Keywords	Dissemination, communication, conference, publication, trade fair, audience

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Executive summary

MUWO is a project that aims to solve real problems in the industry and, in order to reach the end users as well as to expand the knowledge applied in the project, it is important to perform communication and dissemination activities to promote and publicize it.

Before conducting these activities, it is necessary to ask ourselves a series of questions that will allow us to better define the communication and dissemination strategy and be more effective in promoting the project: what do we want to communicate, what for, to whom, where and how are we going to do it, and when we intend do it.

This leads to the definition of the audience to which the activities we perform will be targeted and is susceptible to receive the information we want to communicate. Each target group will receive a different message according to their role. Expected audiences include the scientific community and the manufacturing and aviation industries, as well as current and future partners' customers, users of the digital twin and even model factories.

To reach these groups, participation in conferences and trade and business fairs, the publication of scientific articles and articles in specialized magazines, and the publication of news and advances related to the project both on MUWO's website and partners' websites, including the creation of promotional videos or leaflets, are proposed.

Finally, the activities in which partners plan to participate are presented, this being an initial activity plan that will evolve as the project progresses and new opportunities for dissemination are found.

Partner contributions record

#	Entity	Contributor on Phase 1	Date of Contribution1	Contributor on Phase 2	Date of Contribution2
1	Accuro	X	14/07/2022		
2	ACD	X	26/07/2022		
3	Alpata	X	04/08/2022		
4	Evosoft				
5	Inovasyon	X	26/07/2022		
6	ISEP	X	20/07/2022		
7	Progim	X	04/08/2022		
8	SisTrade	X	18/07/2022		

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Changes record

Version	Date	Entity	Description of Changes
0.1	17/06/2022	Accuro	Document template creation
0.2	14/07/2022	Accuro	Added Communication and dissemination strategy and initial inputs in sections 2.1, 2.2 and 3
0.3	18/07/2022	Sistrade	Added contributions to sections 2.1, 2.2.1, 2.2.4 and communication and dissemination activity plan
0.4	20/07/2022	ISEP	Added contributions to sections 2.1, 2.2.1, 2.2.2, Communication and dissemination activity plan, and developed a Google form to monitor dissemination activities.
0.5	26/07/2022	ACD, Inovasyon	Added contributions to sections 2.1 and 3
0.6	03/08/2022	Accuro	Added communication channels' descriptions
0.7	04/08/2022	Progim	Added contributions to section 2.1
0.8	04/08/2022	Alpata	Added contributions to sections 2.1 and 3
0.8.1	04/08/2022	ISEP	Clarified their inputs in section 2.1
1.0	05/08/2022	Accuro	Final editing and formatting

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1. Introduction

The project *Multi-method Workspace for highly scalable production lines* (MUWO) is a Smart Engineering project that aims to increase the efficiency of manufacturing processes that use different manufacturing methods with different degrees of automation and digitalization, and that undergo changes in batch sizes over the time. By creating a platform that allows the combination of processes and subprocesses, the creation of smart production plans and the monitoring of equipment, it aims to provide a solution to a problem widely faced in small industries where large investments in cutting-edge equipment are not possible.

MUWO aims to be an exploitable solution that allows the end user to solve their problems. To reach this point, it is necessary to have a good communication and dissemination strategy that allows to communicate the results of the project in an effective way, not only to the scientific community and specialized public, but also to the media and the society.

1.1. Document objectives and scope

This document is intended as a guide to help partners to promote and give visibility to the project and its results, which will allow to widen the contact network of the project, both in terms of academic contacts to share knowledge as well as potential stakeholders.

This document sets out the keys to developing a good communication and dissemination strategy. A series of activities such as publication of academic articles, participation in congresses or activity in social media, to be taken into account on order to achieve the objectives are presented.

1.2. Document structure

The body of the document is composed of two main sections: Section 1.2 *Communication and dissemination strategy* contains the strategic communication and dissemination plan to be followed to increase project's visibility in society, presenting the target audience of the consortium and the dissemination channels to get to them; and Section 3 *Communication and dissemination plan* gathers information about the planned communication and dissemination activities that will be performed by project partners and their target groups.

Finally, a Google form to keep track of all dissemination and communication activities performed throughout the project is presented in Section 4. This will allow project partners to evaluate the efficiency of their dissemination and communication campaigns and their impact on the project.

2. Communication and dissemination strategy

Although it may not seem as relevant as other tasks of the project, such as technological development, it is important to create a strong dissemination and communication strategy for the project that allows to promote the project, its goals and results while introducing new knowledge to the project and partners, and build a network of contacts that allow the exploitation of the results in the future, or even its evolution to adapt to other types of industries not currently covered by the proposed pilots and expand its market.

This is the ultimate goal of the project: to provide a solution to a real problem faced in the industry. If the solution being developed is not made known we would have failed, even if the technological objectives are achieved, because we would not be really providing a solution to the problem.

Therefore, this section develops the communication and dissemination strategy that the consortium will follow to successfully disseminate the results of the project among the target groups. This strategy will be dynamic, i.e., it will evolve as the project progresses and as new target groups, communication channels and new ways of attracting the desired attention are identified.

In order to develop this plan, we pose the following questions:

1. **What** do we want to communicate? It will be necessary to determine what we want to communicate at the different stages of the project and according to the event's audience. It will not be the same to make a presentation aimed at the scientific community, where it will be of interest what technologies are being developed and how, as to the industry, where it may be more important to communicate the capabilities and limitations of the proposed solution. Similarly, the content of the activity will not be the same at the beginning of the project when it is still in the definition phase, as at the end when results are already available.

2. **What for?** This question connects with the partial and final objectives of communication and dissemination. The aim of these kind of activities is to achieve greater visibility of the project, but the purpose of the activity must be defined: commercial, sharing knowledge with other experts in the field, raising awareness in society, etc.

3. **To whom?** This question defines the different audiences of interest, a key element in the dissemination plan. The target audience of the communication will be the different audiences that will be determined to be of interest for the project. It will be necessary to adapt the messages and the specific language and meanings to each one of them.

4. **Where?** This is the channels through which communication will take place: peer-reviewed articles, press, social networks, conferences, websites, commercials, etc. It is crucially important to involve the media with specific messages for each channel and media, and, at the same time, engage and involve the receiver. The competence of the media and communication channels' messages that reach the audience must be considered, and try to differentiate ourselves to capture them, with a specific message for each channel.

5. **When** are these activities going to take place? A work pan that outlines when the dissemination activities take place should be defined. This serves as a reference to prepare

the activity concerned and to assess the impact it may have on the project. This work plan does not necessarily have to be immovable; it can be designed in an evolutionary wat from the beginning of the project until its conclusion, and even consider actions after the end of the project.

In the following sections, the target audience of the project, the kind of message that will be sent to each target group and the means to reach them are defined, allowing to define the future lines of action of the partners in order to promote the project.

2.1. Target groups

Based on the MUWO project goals and identified target groups, a list of stakeholders that will be included in the current dissemination plan has been defined.

Table 1. Target audience of the dissemination and communication activities

Target audience	Dissemination message
Current Sistrade Clients	New product and service, Equipment Health Monitoring System and quality correlation, that works as a direct add-on to Sistrade's ERP. If the client already has access to Sistrade's ERP, he can also have access to these two new products that are directly and seamless integrated with the ERP solution. Advantages: • EHMS provides sensor data monitoring in real-time and with historical data, a predictive maintenance algorithm integration, and event management (alerts and warnings). It also provides look-ahead AI-driven prognosis information on sensor data. • Quality correlation, an AI algorithm as-a-service, to infer the root causes of product quality non-conformities.
Future Sistrade Clients	Sistrade has industry customers in more than 20 countries, where the results of the project could be presented and deployed. Also, SISTRADE participates as an exhibitor in many trade fairs in different countries, where the visitors are Industry directors and managers, and where SISTRADE can present and disseminate the results of the project. EHMS should not only allow a correlation with Sistrade's ERP but also an evolution of the product, with future updates and new services planned. EHMS is planned to also provided sensor data monitoring with real-time/historical analysis, a predictive maintenance algorithm integration, and event management features.

Target audience	Dissemination message
Scientific community	Interaction with the scientific community is always important, both to learn about new advances and to share opinions with colleagues. For this reason, scientific papers on energy scheduler and predictive maintenance applied to the PT pilot will be published. In addition, the presentation of papers in conferences for the scientific/academic audience within the same topics will be done.
Manufacturing industry	The manufacturing industry is the end user of MUWO platform. Hence it plays a crucial role in the dissemination activities. It will be of particular importance for them to understand how it works and how can it help them to reduce costs, optimize production planning and energy usage or perform predictive maintenance of their equipment by using different technologies. The best way to present the information to this groups is through demonstrations and visual, tangible results that really show them that MUWO can solve their problems. An important aspect when deciding on the purchase of a product is its usability. They should see that, after a short period following the implementation phase in a discrete type of production, the results are displayed on dashboards and KPIs designed specifically for the end user, presenting the information in a visual and easily understandable way.
Digital twin users	Among the users of the platform there is a specific group: those who will use the digital twin. For them it will also be important to demonstrate how it works. In this demonstration, a process including machine, robot arm and AMR (mobile robot) will be modeled, combining real data with the process for its execution in the shop-floor.
Aviation industry Cluster	The solutions developed at the Alp Aviation plant, where the Muwo project's Turkish use case scenario is implemented, will be demonstrated to other aviation industry companies through field visits. As a result of field visits, separate visits will also be planned for interested aviation industry companies and analyses and screenings will be made.
Model Factories	Model factories give trainings about Lean transformations and Digital transformations to the SME's. So they will have

Target audience	Dissemination message
	opportunities to reach the target companies for giving training about Muwo project outputs.

2.2. Channels

Once the target groups to whom the dissemination activities will be aimed have been defined, it is necessary to define which channels will be used and why, as not all channels have the same reach and target the same audience.

In the following subsections, of some dissemination channels that are going to be used are presented.

2.2.1. Conferences and public events

A significant part of the dissemination activities is the direct interaction with people specialized in the area of knowledge of MUWO and the potential parties interested in its acquisition in the future. This is why participation in congresses, conferences, seminars, workshops, industrial and business fairs, etc. will be key for the dissemination of the project's goals and outputs.

In the last two years, the organization of this type of events drastically decreased due to the health emergency caused by COVID-19. However, its activity has gradually resumed by organizing online events where it is also possible to interact with other attendees and speakers. Recently, events where it is possible to attend in person have started to be organized again, and a hybrid model has emerged in which it is possible to attend both in person and online, broadening the possibilities of attending.

For Sistrade, one of the main dissemination events was Sistrade's S-Day, where the focus was the presentation of Sistrade's product portfolio, along with the developments in the R&D Projects (including MUWO) to both clients and prospects. Regarding Muwo, positive feedback was received, with interest from some companies, especially monitoring and prediction-wise of the production lines. Although the project was in the first third of its timespan it captured the attention of the event visitors.

ISEP will present the results of the project in scientific conferences such as the International Conference on Soft Computing Models in Industrial and Environmental Applications (SOCO), the International Conference of Energy and Environment Research (ICEER) or the International Conference on Intelligent Systems Applications to Power Systems (ISAP).

Accuro, for its part, will participate in Industry 4.0 events where Accuro will showcase the project's demonstrators, either in pre-recorded or live demonstrations. In 2021, the Digital Innovation Hub Industry 4.0 held the 1st Burgos Industry 4.0 Technological Meeting, which will be held again in October 2022 due to the success of its first edition and will foreseeably continue to be held annually. Accuro plans to participate in the 2023 edition with the demonstrator of the Spanish use case, allowing attendees to see for themselves how it works and establish contact with companies interested in the product.

2.2.2. Publications in journals

Besides the participation in conferences and congresses, one of the most common ways to disseminate results in the scientific and academic community is the publication of articles in scientific journals. Therefore, ISEP, as an academic organization, will consider writing and publishing scientific articles in peer-reviewed journals such as *Energy reports*, *Energy*, *Transactions on industrial Informatics*, *Energies* and *Applied sciences*. Efforts will be made to make this publications Open Access, allowing any interested party to access them, and thus widening the audience they may have; in fact, some of the aforementioned journals are Open Access.

In addition, articles in digital magazines specializing in Industry 4.0, Smart Manufacturing and technologies will be written in order to promote the project among the general public and industrial associations, rather than the academic community.

2.2.3. Websites and social networks presence

Sistrade has an external website for the R&D Department, always updated with Sistrade's latest news about the projects (it can be accessed here). Muwo has a dedicated page, displaying the project's summary, objectives and partners (accessed here). Sistrade's LinkedIn and Twitter are also a focus of attention, with constant post flow from the marketing team, targeting both customers and prospects.

In the same way as Sistrade, Accuro will publish posts on its blog (access here) announcing the events in which Accuro participates and project progress.

Publications on the project website (https://muwo.accuro.es/) will be made on a regular basis to keep subscribers and visitors updated with news about the project, the technologies used or similar projects. At least one publication per month will be considered. In order to distribute the work of writing the publications among all partners, different alternatives will be considered, such as rotating the tasks of writing the publications each month among partners, so that at the end of the year each partner will have written at least one post. In addition, the dissemination activities in which the consortium foresees to participate and the promotional materials described in section 2.2.4 will be published.

Finally, the most important news about the project will also be published in the partners' LinkedIn and / or Twitter accounts with the hashtag #Itea3Muwo.

2.2.4. Multimedia content and dissemination material

The dissemination channels mentioned previously will be mainly used in the dissemination activities. But the activity itself is as important as the complementary material and the promotional material that can be used in them. Therefore, we propose the elaboration of promotional videos explaining the objectives of MUWO, the expected results and the technologies that will be used and developed to achieve them.

In addition, brochures and leaflets that can be handed to the contacts made in these activities will be designed. These brochures and leaflets will have similar content to the video bit in

writing and easily understandable by a varied public, and will have the contact information of the project, to be able to contact in case of doubts, suggestions or even to acquire MUWO platform.

This material will also be published on the project's website and publicly available to all its visitors.

2.2.5. Newsletter

It is being considered the creation of a newsletter to be sent to the project's website subscribers and to the customers of the consortium. The content of the newsletter would consist of news about the evolution of the project (achievements, new sort-term objectives, new use cases and end users, demonstration, participation in and organization of events, etc.), as well as news related to projects related to MUWO, Smart Manufacturing and Industry 4.0 or new applications of the technologies used in the project. The content would be similar to that of MUWO's website, but more succinct and readable, and with links to the website to read the publications in their entirety.

3. Communication and dissemination plan

Considering the above information, the consortium plans to realize the following communication and dissemination activities throughout the project:

Table 2. Activity plan

Type of activity	Description	Approximate date	Partners involved
Trade fair	Exhibition of MUWO demonstrator at the III Burgos Industry 4.0 Technology Meeting	Q4 2023	Accuro
Trade fair	Sistrade Industry Conference in Porto. We will use this event to present the MUWO project to national and international business representatives. It is planned to already have an early version of the MUWO platform, giving the users the possibility of interacting with the platform and, at the same time, providing us with valuable feedback.	September 2022	Sistrade
Conference	Presentation of the Muwo predictive algorithm by ISEP at ICEER 2022	September 2022	ISEP
Industry fair	WIN Eurosia, demonstration of MUWO outputs attending Industry 4.0 conferences	Q3 2023	ACD, Inovasyon
Site visit	Manufacturing Industry, Clusters of Alp Aviation	Q3 2023	Alpata

As an evolutionary approach is followed in the creation of the dissemination plan, it is likely that as the project progresses, activities that were not initially planned will be added to the

activity plan. Therefore, Table 2 will be progressively updated with new activities of different types.

4. Monitoring

In addition to having a communication and dissemination plan to efficiently disseminate and promote the project among the project's multiple target audiences, it is important to monitor the activities that have been carried out in this domain in order to evaluate their effectiveness and the impact they have had on the project, which may be key in the project's exploitation phase.

In order to collect this information and monitor it, a Google form that partners should fill in each time they perform an activity of this type has been developed, whether it is included in the plan proposed in Section 3 or not. This form can be accessed through the following link: https://forms.gle/XLi2VbMfbfrJw64r9.

The Dissemination activity report form is divided in three main sections.

The first section, shown in Figure 1, is meant to provide general information about the activity, such as the title of the activity, the kind of activity (congress, workshop, publication in a scientific journal, a post in the website, etc.), when it took place and where (if applicable). Also, it is of interest to see which partners were involved in it, as we can participate in these events individually or collaborate in the same event.
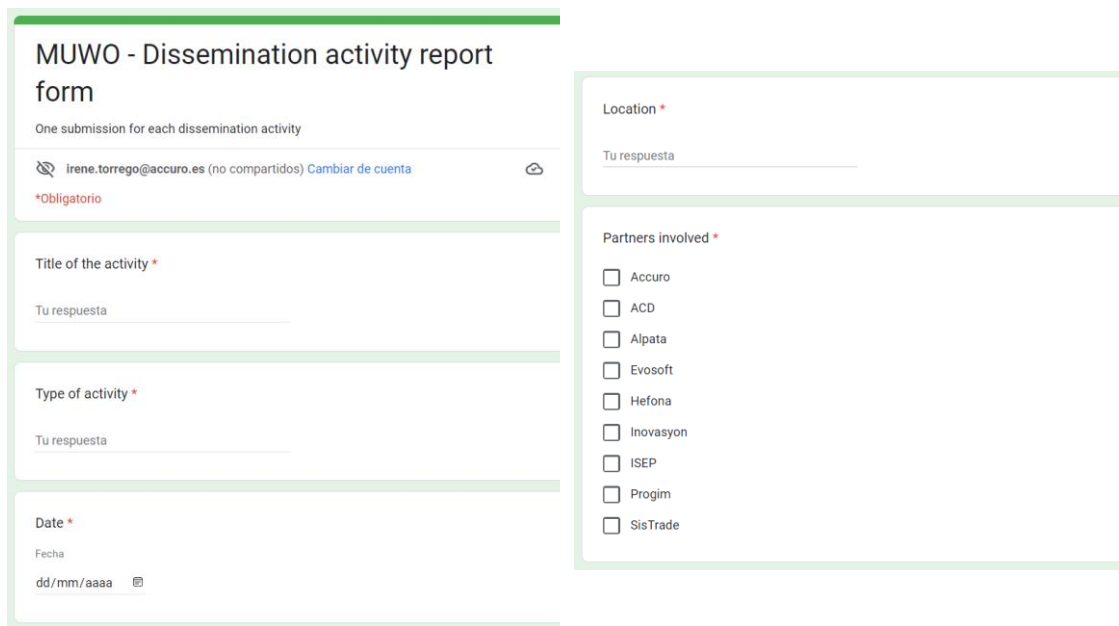

Figure 1. Activity report form - Main page and general information

After completing the first section, partners are asked about the details of the activity (Figure 2); this is, if they gave a conference, what did they present, if they published an article, what was it about, etc. They can support the description of the activity with any kind of material such as links to website posts, scientific articles, figures presented in congresses or workshops, or even multimedia content created for the event.

Public

Figure 2. Activity report form - Activity description

Finally, the third section is meant to monitor the audience of the event and the contacts reached. This will be very useful for identifying possible links to other projects that are using similar technologies or have similar goals and create synergies with them, identify potential customers of MUWO solution,

Figure 3. Activity report form - Target audience and contacts reached

5. References

There are no sources in the current document.