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Deliverable D1.3

Final report on community engagement strategy and results

Work Package 1

Engage and explore

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EXECUTIVE SUMMARY

During the initial project phase until March 2024, the short-term objectives outlined in the community engagement report were successfully achieved by the EARASHI consortium. Key achievements include surpassing application targets for the two open calls, with over 40 project submissions for each call and 10 projects ultimately selected. Additionally, efforts to generate interest in human-centric manufacturing practices resulted in significant engagement, including over 400 views across eight technical webinars covering diverse topics like mixed-reality technologies, inclusive design, and cybersecurity.

Stakeholder engagement was a priority, with dissemination efforts reaching SMEs and industry stakeholders through tailored communications and partnerships with organizations like EFFRA and VDMA. The project also collaborated extensively with R&D communities and fostering organizations, leveraging platforms and tools developed by stakeholders to support open calls winners. The EARASHI project strategically engaged with sister projects and the advisory boards to amplify outreach and project visibility, utilizing channels such as LinkedIn, Twitter, and newsletters to disseminate opportunities and updates. Future plans include hosting events to showcase project outcomes and further building a community of stakeholders committed to advancing human-centered technologies in manufacturing.

The consortium's successful execution of short-term objectives underscores a robust foundation for continued progress toward long-term goals, positioning EARASHI to foster broader and more connected communities dedicated to advancing inclusive and efficient manufacturing practices.

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0 INTRODUCTION

EARASHI aims to **improve working conditions, trust, and acceptance of collaborative embodied AI in robotic systems**. This will be achieved by supporting industry, especially start-ups and SMEs, in the uptake of advanced digital and eco-responsible technologies (AI, data, and robotics).

The present document constitutes Deliverable D1.3 "F**inal report on community engagement strategy and results**", 18 months after EARASHI Kick Off meeting and follow-up of Deliverable D1.2 "Community engagement strategy and results, first report**".**

The work to build the strategy is **based on the results of the tasks T1.1**. (Mapping of the collaborative embodied AI and human-machine interaction ecosystem at regional/national levels of the partners) **and T6.1** (Communication Plan to raise awareness on the project's scope among the identified target audience and the wider community).

The results of these tasks are available in the following Deliverable:

(i) D1.1: Stakeholders database and mapping of ecosystem
(ii) D6.1: Dissemination and Communication Plan

In order to promote human-centric approaches encouraged in the EARASHI project (such as solutions concerning human factors and user experience, ethics in Robotics, AI, cybersecurity, etc.), the strategy also takes into account the work carried out within the framework of WP2 (Human-centred industry learning paths and didactic material).

The scope of the community engagement strategy within EARASHI project is to:

(i) **create a common understanding between users and technology providers**, as well as
(ii) **favour their interaction to the purpose of improving the uptake of human-centred technologies and solutions**.

To achieve this, it is necessary to identify the key stakeholders within our ecosystems, and to know both the **needs of the manufacturing companies**, and the **solutions proposed by the technological providers**.

More generally, EARASHI aims to generate fruitful exchanges between all types of stakeholders (Start-ups, SMEs, Midcaps, RTO, social partners, workers, managers, and decision makers) in the development and adoption of **smart-innovative solutions to optimize the impact on working conditions and performance**.

The objective is to reach out and engage the main stakeholders, to facilitate the two target groups (end-users and providers) getting to know each other and, potentially, interact to implement the most appropriate solutions. This general objective is broken down into short-term and long-term objectives; measurable targets of engagement metrics are proposed. Short-term objectives are mostly related to the actions that must be taken for the open calls dedicated to EARASHI project (deadlines in May and December 2023).

1 SHORT TERM ACHIEVEMENTS

From the beginning of the project until the end of March 2024, the short-term objectives declared in the first community engagement report (D1.2) were achieved.

Objective	Metrics	Achieved
Get enough applications for the 1st open call	More than 40 submitted projects.	**46 submitted projects** (fully finalized proposals)
Get enough applications for the 2nd open call	More than 40 submitted projects	**46 submitted projects** (fully finalized proposals)
Get enough selected projects at the end of the 2 calls	10 projects selected	**10 selected projects**
Arouse companies' interest in human-centric approaches in manufacturing during the preparation of the open calls	More than 50 views of the technical webinars related to mixed-reality technologies (Flanders Make + Mondragon) + inclusive design + cybersecurity (CEA + Flanders Make + Ikerlan)	**8 webinars with a total of 414 views (see details below)**

2 STAKEHOLDERS ENGAGEMENT

2.1 Events /Webinars

8 webinars with a total of 414 views were performed on different technical approaches linked to the 2 open calls. In these webinars we addressed most of the challenges associated with adopting a human-centric approach in manufacturing.

One of the main challenges is "Technology Integration" and was addressed in our webinars: Manufacturing industries often rely heavily on automated processes and machinery. Integrating human-centric practices requires technologies that can seamlessly collaborate with human workers. This involves investments in robotics, IoT devices, and AI systems that can adapt to human needs and behaviors.

The webinars were disseminated by each partner to their stakeholders according to the D1.1 Stakeholders mapping tool. The stakeholders also disseminated to their SMEs networks.

2.1.1 Webinar: Mixed reality – Deep dive workshop – Using MR to train operators

Date: 02/06/2023

Nb of views: 24

Description:

The discussion, led by Raf Vranken (Flanders Make) revolves around the development and functionality of a flexible application for the HoloLens, aimed at assisting operators in performing assembly tasks through interactive guidance and feedback mechanisms.

Link: https://www.youtube.com/watch?v=KvCe19FyXL0

2.1.2 Webinar: Mixed Reality – Deep Dive workshop – Virtual Reality based simulations of real-life scenarios

Date: 29/06/2023

Nb of participants: 15

Nb of views: 24

Description:

The discussion led by Raf Vranken (Flanders Make) primarily focused on the development and evaluation of a VR application designed for training operators, emphasizing the importance of minimizing lag for a seamless user experience and mentioning potential future studies on user feedback and experiences.

Link: https://www.youtube.com/watch?v=WKWyOP0fPFs

2.1.3 Webinar: The Augmented Operator in the context of Smart Industry

Date: 19/06/2023

Nb of participants: 12

Nb of views: 59

Description:

Oscar Escallada and Luis Berasategi present Mondragon Unibersitatea's implementation and adoption of augmented technologies in industrial settings, particularly focusing on the integration of human operators with advanced digital solutions such as mixed reality, exoskeletons, and collaborative robots. The discussion highlights the challenges and opportunities associated with introducing these technologies on a larger scale,

addressing issues such as user acceptance, training, ergonomics, and the need for cohesive integration with existing systems.

Link: https://www.youtube.com/watch?v=uVGudSGhKKw

2.1.4 Webinar: Human-Centered Industry: An overview and Human Factors

Date: 09/11/2023

Nb of participants: 12

Nb of views: 59

Description:

This webinar discussed the importance of human -centered design and collaboration between technology and the workforce, while also addressing challenges such as humanization, advanced automation, and the transformation of technologies into advanced services in the realm of advanced manufacturing.

Link: https://www.youtube.com/watch?v=Z-9h3ePVfrA

2.1.5 Webinar: Human-Centered Industry: Inclusiveness and Ethics

Date: 15/11/2023

Nb of participants: 10

Nb of views: 33

Description:

The webinar led by Mondragon discusses the importance of human-centered design, inclusiveness, and ethics in Industry 5.0, focusing on accessibility guidelines and ethical considerations for technology in the industrial sector.

Link: https://www.youtube.com/watch?v=Z-9h3ePVfrA

2.1.6 Webinar related to cybersecurity

Date: 19/04/2023

Nb of participants: 11

Nb of views: 42

Description:

The webinar led by CEA, Ikerlan, Flanders make and Aldakin discusses the cybersecurity requirements for projects under European legislation and the EN 303 645 cybersecurity standard for consumer IoT.

Link: https://www.youtube.com/watch?v=_yVQau1wWr0

2.1.7 Webinar related to the Open Call 1

Date: 16/03/2023

Nb of participants: 28

Nb of views: 145

Description: Presentation of the guidelines for the Open Call 1

Link: https://www.youtube.com/watch?v=rqCHT6w1sQQ

2.1.8 Webinar related to the Open Call 2

Date: 16/03/2023

Nb of participants: 10

Nb of views: 57

Description: Presentation of the guidelines for the Open Call 2

Link: https://www.youtube.com/watch?v=nK1lryH8LGU

2.2 Industry

Organizations from the industry, especially SMEs and start-ups are the first beneficiaries of EARASHI so they were targeted first in our communications and the dissemination of EARASHI opportunities (OCs, webinars, posters, etc). The building block owners had a lot of discussions with potential applicants on the 2 open calls and this participated in the dissemination of the project in the industry.

We also used the industry associations which are very active in the industry 5.0 domain to target the companies:

- EFFRA: https://www.effra.eu/
- VDMA : https://www.vdma.org/
- EPOSS : https://www.smart-systems-integration.org/

2.3 R&D community

IRT NanoElec, Fraunhofer, Karlsruhe Institute of Technology (KIT), Forschungszentrum Informatik (FZI) Karlsruhe have promoted EARASHI open calls and webinars through their newsletter and the social media. These research organisations constantly exchange with EARASHI partners and are good dissemination channels.

INEGI had discussions with Porto University about EARASHI open calls and on the future of manufacturing for human centric approaches. They also liaise often with PRODUTECH about manufacturing strategies taking into account AI, data and Robotics.

2.4 Fostering organisations / facilitators

The EARASHI partners liaised a lot with their EDIH partners, local EEN contacts, national contact points and other European Networks:

Digitalis, EDIH-AICS, EDIH Minasmart, EDIH SouthWest, DTA (Digital Transformation Accelerator), EEN Chamber of Commerce IHK, EEN Auvergne Rhône-Alpes Entreprises, European Digital SME Alliance, French NCP

Every time there is a funding, award or collaboration opportunity from these networks, they are shared with ERARASHI partners who share to their members and the open call winner:

- CEA was invited to participate to Auvergne-Rhône-Alpes workshops/webinars on '*Journée Ambition Europe, Recherche et Innovation*' where Financial Support to Third Parties was presented. CEA (on behalf of EARASHI) shared FSTP feedbacks & recommendations and promoted EARASHI open calls.
- French National Contact Point has promoted EARASHI open call 1 & 2 through its national network and mailing.

They are also in close contact with local thematic cluster, which were very good ambassadors of the 2 open calls: CIMES (French cluster for the Creation of Integrated Mechanical Systems), Coboteam (French Cluster in Robotics), Nouvelle Aquitaine Robotic Cluster

2.5 Sister projects

The EARASHI partners who participate in other European projects took the opportunity to disseminate via these sister projects the 2 webinars related to the open calls. The dissemination was done via mailing and social media mainly.

Digifed: http://www.digifed.org/ ou https://www.zabala.fr/projets/digifed/

Silicon Eurocluster: https://www.silicon-europe.eu/projects/silicon-eurocluster/

EuRobotics: https://eu-robotics.net/

AI4EU platform: https://www.ai4europe.eu/open-calls

FED4SAE: https://fed4sae.eu

AI REGIO: https://www.airegio-project.eu/

AI REDGIO 5.0: https://www.airedgio5-0.eu/

Vanguard Initiative: https://www.s3vanguardinitiative.eu/

DIH² : https://www.dih-squared.eu/

Some examples of dissemination:

- Thanks to its collaboration with both FED4SAE and DigiFed projects (H2020, https://cordis.europa.eu/project/id/761708, https://cordis.europa.eu/project/id/872088), EARASHI was in relation with 25 DIHs and EDIHs from 14 European countries to promote its open calls.
- EARASHI open calls were both promoted on AI4EU platform.
- EuRobotics was very active in sharing information about the open calls and the associated webinars.

2.6 Tools and platforms

Some stakeholders developed platform and tools that the application experiments projects can use:

- **RegulAIte**
  - Free tool to learn how to navigate among EU regulations
  - REGULAITE: Erasmus Plus Programme : https://www.kilometrorosso.com/en/services/projects/regulaite-2/
  - Available on www.edapp.com, registration code KIDBYKUQZVE (https://web.edapp.com/course/65a7b7119e0962a4dbb3e2e9)
    - Intellectual property in Robotics and AI
    - Civil liability and AI
    - Product safety
    - AI risk assessemnt
    - AI risk management
    - Personal data protection under the GDPR
    - EU data strategy

- **RoboCompass**
  - *An innovative tool designed to assess the non-technological aspects of responsible robotics (Data-Environement, Human experience, Legal, etc.).*
  - Robotics4eu.eu: https://www.robotics4eu.eu/
  - https://www.robotics4eu.eu/robocompass/

- The **INDUSAC platform** provides companies opportunities to cooperate with international teams of students and researchers from Europe and many other countries as well with finding **free of charge solutions to technology and business challenges**.
  Challenges can be from any business segment – for example: defining customer needs of tomorrow, creating marketing campaigns, developing digital platforms, preparing business plan, performing analyses and many more (more details in the attachment). **More than 300 students and researchers checked over 70 published challenges and more than 10 international teams with over 50 members already started with developing solutions to the challenges.**

2.7 Advisors

The Avisory Board Members are listed in the table below

CORPORATE	Contact	Position
FESTO	Falk Kiehl	Account Manager Digital Business
Pfeiffer Vacuum	Hind Beaujon	Chief Sales Officer
KUKA	David Gallego	Development Engineer - Advanced Robotics
Fagor Automation	Javier Arenas	Innovation Director
FASTEMS	Matti Saarinen	R&D Project and Portfolio Manager
FASTEMS	Teemu Ahonen	Product Manager
Vintiv	Timen Floré	Director
Solystic	Frédéric SANDT	Directeur des Opérations
Basque Research and Technology Alliance (BRTA)	Jon Kepa Gerrikagoitia	Science and Technology Manager
ADVISORY BOARDB Robotics	Lars simora	Operations Manager
Prima Industrie	Gaetano Patrimia	Public Grants & Innovation Projects Innovation Program and IP Manager

The Advisory Board is an important instrument for the consolidation of EARASHI's vision on Human Centricity, AI and tools. Members of the Advisory Board are trusted advisors who offer professional skills and talents at no cost to the EARASHI Project. Each Advisory Board member must be able to share a high-level expertise in a particular vertical business.

The role and objectives of the Advisory Board are as follows:

- the Advisory Board has provided feedback on the implementation of Human Centricity, AI and tools in their respective activities, in direct link with the Building Blocks (BB) and Key Competencies (KC) offered by the EARASHI consortium members;
- the Advisory Board has supported the consortium in the definition of the challenges for the open calls (OC);

- the Advisory Board will receive information about the development achieved by the partners and the Application Experiments (AE): The open call 1 winners and projects were presented to the advisors in 2023 and the open call 2 winners and projects will be presented in September 2024;
- the Advisory Board will provide feedback on the results and outcomes of the AEs.

2.8 Policy makers / public institutions

In the next phase of the project, we will determine the relevant policymakers and public institutions at the European level who are responsible for regulating, and promoting innovation in AI, robotics, and industrial safety.

We will engage them early in the next phase of the project. This will allow us to build relationships, understand their priorities and concerns, and incorporate their feedback into our project design.

We will also clearly communicate on the potential benefits of EARASHI to the policymakers and public institutions. We will emphasize how embodied AI/robotics can enhance safety, productivity, and competitiveness in European industries while ensuring a human-centric approach.

We will demonstrate the potential impact of the project by providing evidence through application experiments results, prototypes. We will show how the technologies can address specific challenges faced by European industries and contribute to economic growth and job creation. We will also monitor and evaluate continuously the progress of EARASHI and its impact on European industries. We will provide regular updates to policymakers and public institutions and solicit their feedback to ensure alignment with their priorities and objectives.

We will also be proactive in addressing regulatory concerns related to safety, privacy, ethics, and liability. Working closely with policymakers and public institutions will ensure that EARASHI complies with relevant regulations and standards.

Finally, we will raise awareness about the societal implications of embodied AI/robotics technologies among policymakers, public institutions, industry stakeholders, and the general public. Educate them about the potential benefits and challenges of these technologies through a workshop or an event.

3 CHANNELS

In the table below are listed the different channels used to disseminate EARASHI opportunities and information.

Linkedin	Link	Nb of followers	Nb of posts
	https://www.linkedin.com/company/earashi-project/	227	100+

Twitter	Link	Nb of followers	Nb of posts
	https://twitter.com/EARASHI2022	87	100+

Website	Link	Nb of visitors

	https://earashi.eu/	306 (April 2024)

	Link	Nb of subscribers
YouTube	https://www.youtube.com/@EARASHIRoboticsChannel	14

Newsletter	Nb of subscribers	% open rate
	187	57%

	Link	Name of journal / website	Partner's name
Publications	https://www.inegi.pt/en/news/inegi-is-taking-digital-technologies-to-the-industry-to-reduce-accidents-at-work/	INEGI Website	INEGI
	https://www.securitymagazine.pt/2023/03/02/inegi-e-parceiro-em-projecto-europeu-focado-na-melhoria-da-seguranca-e-saude-no-trabalho/	Security Magazine	INEGI
	https://www.cecimo.eu/wp-content/uploads/2023/12/Magazine-Fall-2023.pdf	CECIMO Magazine	CECIMO

4 TESTIMONIES

We have started to make videos on which SME open call winners and EARASHI partners testify why they applied or joined the project and what they hope to achieve in the future.

Company name	Type of company	Type of testimony	Link
Bytefabrik	SME open call winner	Video	https://www.linkedin.com/feed/update/urn:li:activity:7179407404063707136
Aldakin	EARASHI partner -RTO	Video	https://www.linkedin.com/feed/update/urn:li:activity:7176172081271705600/
ANT Machines	SME open call winner	Video	Will be published soon on Linkedin

5 LONG TERM ACHIEVEMENTS

Next actions

In the second phase of the project, the objective is to step up by fostering more connected, inclusive, efficient and wider communities. We will activate the existing networks by connecting them to each other and transform the passive stakeholders into active players.

The consortium partners will soon organize a brainstorming to start thinking about the organizations of 2 events (topics, targeted audience)

These events will be dedicated to showcase and explain the results of the funded projects.

Objective	Metrics	Achieved
Explain and communicate the needs / use-cases of manufacturing companies	At least 2 dedicated events	**Will be done at the end of the project**
Explain and communicate the solutions of technology providers	At least 2 dedicated events	**Will be done at the end of the project**
Create a community of users and providers willing to improve together the uptake of human-centred technologies and solutions	More than 300 people registered for workshops/conferences/seminars	**Will be done at the end of the project**