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ARISE

Advanced AI and RobotIcS for autonomous task pErformance

DELIVERABLE

D2.2 - Dissemination material and plan

Document Info

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V1.2	30/04/2024	Finalization and format checking	Eirini Angeli (THL) Anna Tsabanakis (THL)

Table of Contents

Executive Summary

This deliverable, "*D2.2 – Dissemination material and plan",* presents the planned dissemination and communication activities of the ARISE project. The main objective of dissemination material and the dissemination and communication activities is to raise awareness about the project activities, disseminate information in a consistent and coherent manner about the project results and maximise its impact. In turn, the purpose of the dissemination material and plan is to define a roadmap to facilitate the future dissemination of project results and guarantee long-term sustainability of the project.

The Dissemination Plan is a formal planning document laying down the principles for the dissemination and communication strategy to be implemented during and after the project to ensure high visibility and promotion of the project and its results. The plan, which was created in Month 4, serves as the formal guide and strategic roadmap for the project partners regarding how to approach the Dissemination & Communication (D&C) activities of the project. It mostly gives a summary of the goals to be met, the audiences to be reached, the key messages to be created, the instruments and channels to be used, and the procedures to be followed when using project outcomes for commercial purposes. In addition to this, the plan describes in detail the necessary indicators and the processes for tracking the effects of the dissemination activities. Activities related to dissemination and communication will take place concurrently with technical development, allowing them to be in line with project advancement and input obtained.

Throughout the course of the project, the Dissemination Plan will be updated and improved to reflect project advancement and allow for any necessary customization. As a result, throughout the project and beyond, the distribution, communication, and exploitation actions will be regularly observed and assessed.

List of tables

List of figures

1 Introduction

1.1 Project Summary

The project's principal purpose is to introduce a combination of perception and control modules around a reconfigurable robotic manipulator that will enable a step change in the level of automation of complex manipulation tasks. Currently, the 27 EU Member States saw a record 41.4 GW of new solar PV capacity connected to their grids, representing a stunning 47% increase compared to 2021 according to industry group SolarPower Europe. Under its REPowerEU initiative, the EU aims to double solar capacity to 320 GW by 2025 and install 600 GW by 2030. Considering that the shortage of workers is considered one of the most severe bottlenecks that could endanger solar growth, with a predicted gap of 5m workers just in Germany, ARISE aims to realize a robotic platform that focuses on two crucial industrial sectors that can drive the European Green Deal progress, namely Energy and Agriculture. According to the European Parliament, several EU countries faced a severe shortage of labor in their agricultural sectors, at a time when their presence was critical to ensure the harvest of fruit and vegetables. The EC estimates that the available agricultural workforce will shrink by a staggering 28% by 2030. Increasing the autonomy levels of robotic systems is key to boosting the spread and adoption of artificial intelligence technologies and techniques across various European industries, sectors, and domains. ARISE will be driven by these needs, of both sectors, including the practice of Solar Panel installation and maintenance and the harvesting of hydroponic lettuce. The applicability of the ARISE solution in both sectors is equally significant.

Turning to the ARISE solution developed, it will be validated on five highly challenging Use Case Scenarios, including but not limited to, picking up and moving Solar Panels in collaboration with human workers, transplanting delicate lettuce pieces and repairing solar panel back-sheets with silicon-based sealants. This set of scenarios involves extremely diverse requirements in terms of long-sequence task accomplishment, complex, contact rich manipulation and physical Human Robot Interaction.

Concerning the general objective of our project ARISE, it aims to exceed the conventional approaches by developing and integrating two reconfigurable pneumatic-based robotic manipulators mounted on a mobile robotic platform, including a Localisation and Mapping module and a semantic Mapping module as well as novel soft end-effectors with variable stiffness that will allow for a diverse set of manipulation tasks. In addition, a Knowledge Representation framework as well as a Hierarchical Imitation Learning framework will be developed. Finally, ARISE envisages the development of a Human-Interaction conditioned Path and Task planning module enabling reactive robot control and an edge-AI framework for deploying Machine Learning models and computer vision algorithms. A final step will be the development of two demonstrators in solar and hydroponic farms. Dissemination, consequently, will be driven through the whole process of design and development of the ARISE solution, broadcasting the findings to the public and disseminating the business-value characteristics of the implementation of the ARISE solution.

1.2 Scope and Purpose of the Document

The present document was prepared within the Task 2.1 Dissemination and Communication Activities [M1-M48] by TWI Hellas (THL), coordinator of ARISE project. The management and implementation of the DC Plan are overseen by the WP2 Leader, TWI Hellas, which will also be the primary contributor to the planning and organisation of the dissemination activities.

This document will pose as the ultimate Dissemination and Communication (D&C) handbook for the consortium. This way, all ARISE partners will know how to be involved in the dissemination and communication tasks by showing continual support to the project's social media accounts, providing

material, developing scientific publications, participating in events, promoting the project outcomes and following future exploitation practices.

1.3 Structure of the Document

The D2.2 is part of WP2 "Dissemination", active throughout the 4-year duration of the project.

The D2.2 deliverable is linked to the following:

- Task 2.1 (T2.1) Dissemination and Communication Activities [M1-M48]
- Task 2.2 (T2.2) Ethics and Social Acceptance [M1-M48]
- Task 2.3 (T2.3) Exploitation Planning [M7-M48]
- Task 2.4 (T2.4) Impact Analysis and Policy Recommendations [M16-M48]

The following Deliverables related to the communication, dissemination and exploitation of project results will be developed during the ARISE project:

- Deliverable 2.1 (D2.1) Project website and promotional material, already submitted in Month 3
- Deliverable 2.2 (D2.2) Dissemination material and plan, to be submitted in Month 4
- Deliverable 2.3 (D2.3) Exploitation plan, to be submitted in Month 48
- Deliverable 2.4 (D2.4) DEC activities log, to be submitted in Month 48
- Deliverable 2.5 (D2.5) Impact analysis & policy recommendations, to be submitted in Month 48

1.4 Relation to other tasks and deliverables

The document is structured into seven main chapters:

- Chapter 1 – **Introduction:** includes introductory information about the project and the scope of the Dissemination plan.
- Chapter 2 – **Goals of Dissemination and Target Audience:** describes the objectives, target audiences and overall ARISE dissemination and communication plan.
- Chapter 3 – **Dissemination targeted actions:** offers an overview of targeted events, publications and networking activities that ARISE will implement to reach maximum impact.
- Chapter 4 – **Monitoring and Dissemination Reporting:** presents the monitoring and performance assessment of the dissemination and communication activities throughout the project's lifetime.
- Chapter 5 – **Dissemination Guidelines:** explains the dissemination rules the consortium will follow regarding the smooth organisation of communication and dissemination activities.
- Finally, chapter 6 – **Conclusions:** includes the concluding remarks of the deliverable.

2. Dissemination and communication. The ARISE approach.

Dissemination and communication efforts, centered around the key project results developed and the breakthroughs, are crucial to increasing public awareness of the project's ambition towards cutting-edge technology and its potential outcomes. Understanding the difference between the general nature of communication and the targeted purpose of dissemination, ARISE seeks to disseminate project information that is accessible to all while focusing on specific target groups because of their in-depth knowledge of the subject or their curiosity about the project's outcomes, always via the appropriate channels.

2.1 Goals and Objectives of the Dissemination and Communication of ARISE

Therefore, the following goals are to be achieved by the totality of the dissemination and communication efforts:

1. **Communicating to non-experts and the broader public about the benefits of ARISE**

   The basis of all communication activities is to spread general information about the project to everyone using the best-fitting channels to reach people expressing interest in any of the **ARISE** key technologies. Spreading the word about the project could lead to identifying beneficial applications of the **ARISE** ecosystem in the Energy and Agriculture industry.

2. **Building links between consortium members and other stakeholders in the fields of research and business**

   The initiative will present itself as an advancement over the current state-of-the-art. To keep the parties involved in the post-project course of additional research and technical development informed, the consortium will share project progress and results with them. Moreover, by increasing awareness about the value of the project, the agriculture industry will improve the odds of ARISE entering the smart Energy market.

3. **Receiving useful feedback from peers, professionals, and industry players**

   Obtaining feedback on the project's progress and outcomes is crucial, as these valuable insights and significant discoveries may help make informed decisions regarding the project's future.

4. **Enlisting enough end-user organizations within Europe to establish the framework for the best possible utilization of the project's outputs.**

   Since they are the ones who constantly encounter the same problems or feel the effects of those problems, forming a cluster with organizations that share a common objective or engage in related activities in the energy and agriculture sectors can benefit all parties involved.

2.2 Target Audiences

The impact of the ARISE project, which is being produced by the consortium's experts and reinforced by the established ties with the respective target audiences, will be determined by the innovative developments of technologies. The goal of all outreach and communication initiatives is to assist the project's exploitation phase by gathering insightful input and focusing on potential new exploitation ways.

The consortium recognizes that these are crucial activities and must be addressed from day one, therefore, all partners will be actively involved in the definition and implementation of these activities, based on their profiles, core competencies and geographical location.

Table 1 – Planned dissemination & communication actions (what – how – why) based on the identified set of target audience (who)

#	Who? Target Audiences	What? Content	How? Channels & Means of Communication	Why? Reasoning
I.	Project partners and European Commission	Progress reports and updates on project milestones. Internal documentation and resources for effective collaboration.	Intranet project communication and documentation on project website, mailing list, teleconferences, online and printed reports and deliverables. Dedicated project newsletters and webinars.	Ensure seamless collaboration and information sharing among project partners. Demonstrate transparency and accountability to the European Commission.
II.	Primarily Energy and Agriculture companies, secondly manufacturing and maintenance companies	General project information primarily focused on the positive impact of ARISE project, without diving into technical details. Focus on the end users' needs and market opportunities. Case studies demonstrating the application of project outcomes in their industries. Papers outlining the practical benefits and cost savings.	Project website and social media, ARISE participation to industry-specific events, conferences and exhibitions. Participation in webinars and workshops tailored to each sector.	Align the project outcomes with the specific needs and interests of these companies. Provide actionable insights through detailed case studies. Reach a wider audience while raising awareness on end-users' needs.
III.	AI, robotics and HMI technology and service providers	Technical documentation and specifications. Focus on potential adoption of project outcomes into their technologies. Focus on the science and technology of the project and technological developments in the energy and agriculture as well as in the	For larger outreach social media. Also, technology related articles on the project website. Project information at conferences or events, third-party media networks, press releases. Technology-focused webinars and workshops. Collaboration with industry forums and associations. In-person discussions, reports, briefings, and	Enable seamless integration into existing technologies and establishes partnerships for further commercialization.

		manufacturing and maintenance fields. Sharing recommendations, feedback and ideas regarding existing technological updates.	targeted email communication always aiming to protect the confidentiality of the said discussions.	
IV.	Academic and scientific community	Research papers/ publications. Access to datasets for academic research. Detailed information such as knowledge articles on the project website related to Energy, manufacturing, maintenance, and agriculture	Collaboration with academic research networks. Social media campaign and publications on project website. Workshops, publications, information days, training sessions, dedicated promotional materials and demonstrators.	Facilitate academic contributions and advancements. Build the project's credibility within the academic community. Inform researchers about new developments in their sector.
V.	Smart application marketers and investors	Market analysis reports. Investment prospectus highlighting the project's market potential. Interoperability, maintenance and usage available products and services as developed within the project.	Industry conferences/ webinars and investor forums. Dedicated pitch sessions and events, (targeted or funneled emails and arranged meetings. In-person discussions at events or arranged meetings to discuss the beneficial aspects of investing in new technologies that aim to bring about economic and environmental sustainability.	Identify and demonstrate the market viability and potential return on investment. Attract strategic partnerships and investment opportunities.
VI.	Other R&D projects, including national and international initiatives, and innovation hubs	Focus on the AI, robotics and HMI technology partnership and in tangential destinations in Horizon Europe Clusters. Collaborative research opportunities and potential synergies. Joint project proposals, consortium-building resources and financial data based on the project's business plan.	Most of the ARISE channels of choice apply. Project website and all social media, events, workshops and promotional material in all physical events. Participation in collaborative research forums. Online platforms for sharing resources and opportunities.	Enhance the project's impact through potential synergies and collaborations. Attract additional funding and resources for mutual benefit.

VII.	Policy makers, social partners	Focus on recommendations for integration of the project's developments into regulations. Articles on the societal impact and ethical considerations regarding the targeted sectors.	Project Website and promotional material in all physical events. Collaboration with policy-oriented think tanks and related actions. Policy conferences and/or workshops.	Establish a dialogue on ethical and societal implications to be considered. Advocate for the responsible integration of project outcomes into policies.
VIII.	General public, NGOs, civil society groups	Delivering more education-oriented material, explaining the societal benefits. Interactive platforms for public engagement.	Social media campaigns and public forums. YouTube descriptive videos of ARISE. Collaborations with NGOs for outreach programs.	Raise awareness and understanding of the project's societal impact. Encourage public engagement and feedback.

The ARISE project holds significant importance for various stakeholders by addressing real-world challenges, fostering technological innovation, and contributing to the advancement of knowledge in robotics and AI. Below, in details, the importance of the ARISE project for each target audience identified in the above table.

I. Project Partners and European Commission:

Importance:

Demonstrates technological innovation and advancement in robotic manipulation and AI. Aligns with Horizon Europe's goal of fostering breakthrough technologies.

Benefits:

Validates the effectiveness of collaborative efforts in developing cutting-edge robotic solutions. Showcases the project's alignment with the strategic objectives of the European Commission.

II. Primarily Energy and Agriculture Companies, as well as Manufacturing and Maintenance companies:

Importance:

Addresses industry-specific challenges in diverse sectors (primarily within energy and agriculture and secondly within maintenance and manufacturing). Offers solutions for complex manipulation tasks and physical human-robot interaction.

Benefits:

Enhances operational efficiency by introducing reconfigurable robotic manipulators.

Our No.1 target audience encompasses the companies most closely related to Energy and Agriculture as well as to Manufacturing and Maintenance.

III. AI, Robotics, and HMI Technology and Service Providers:

Importance:

Introduces novel technologies in pneumatic-based robotic manipulators, soft end-effectors, and AI frameworks. Presents opportunities for collaboration and integration of ARISE technologies into existing products.

Benefits:
Expands the technological repertoire by incorporating reconfigurable and soft robotics. Opens avenues for technology providers to contribute to or adopt ARISE advancements.

IV. Academic and Scientific Community:
Importance:
Contributes to advancements in robotics, AI, and human-robot interaction. Offers a real-world application of knowledge representation and hierarchical imitation learning.

Benefits:
Facilitates academic research and publications in the field of robotics and AI. Establishes ARISE as a reference project for studying complex manipulation and human-robot collaboration.

Through the consortium's researchers, the technological progress, innovative milestones, and results will be shared with their networks and even reach the wider academia.

V. Smart Application Marketers and Investors:
Importance:
Presents market-ready solutions for diverse applications in solar and hydroponic farms. Showcases the potential for edge-AI deployment and machine learning models in real-world scenarios.

Benefits:
Offers investment opportunities in a project with tangible applications and market potential. Provides insights into emerging technologies for marketers seeking innovative solutions.

VI. Other R&D Projects, Including National and International Initiatives, and Innovation Hubs:
Importance:
ARISE contributes to the global pool of knowledge and technological innovation. Offers opportunities for collaboration and knowledge exchange with other R&D initiatives.

Benefits:
Enhances the technological ecosystem by sharing advancements with other projects. Creates synergies and potential collaborations with international initiatives and innovation hubs. Provides innovative solutions for tasks like solar panel maintenance and lettuce transplantation.

VII. Policy Makers, Social Partners:
Importance:
Aligns with policies promoting technological innovation and sustainability. Addresses societal challenges through the development of robotic solutions for agriculture and clean energy.

Benefits:
Provides a practical example of technology contributing to societal and environmental goals. Offers insights for policymakers on supporting and regulating emerging technologies.

VIII. General Public, NGOs, Civil Society Groups:
Importance:
Demonstrates the positive impact of technology on agriculture and renewable energy. Raises awareness about the potential of robotics in solving real-world challenges.

Benefits:
Engages the public in discussions about the role of technology in addressing environmental and agricultural issues. Provides NGOs with insights into technological solutions for sustainable practices.

These kinds of organizations represent the interests of workers, employees, and employers. They thus are integral to successfully implementing new technology services and products while generally introducing changes in existing working processes. Acknowledging their crucial role, the ARISE consortium will inform these social partners involved in the Energy and Agriculture sector of the project countries to raise awareness and engage them in social dialogue. This way, the goal is to ensure good labor relations, shape policies for working conditions (employment, skills, competitive position of the sector) and the adoption of new technologies, always respecting the work unions' autonomy.

2.3 Dissemination and Communication during strategic project phases

Table 2 - The strategic D&C project phases towards exploitation

D&C Phases	Description
Initial Marketing Phase / Building Project Awareness. – Year 1	Project mission and goals are communicated to target audiences through traditional (event promotion, conference attendance, leafleting, brochures, banners, posters) and online (website, social media channels) media.
First Technological outcomes and Design Phase / Spreading the word on the project technological advancements. – Year 2-3	Establish a network of interested developers and engineers in the research community working on related technologies through online presence and publications as well as conference presentations.
Pilot and Testing phase / Getting Feedback from Target Audiences – Year 3-4	The goal here is to obtain market validation while encouraging participation from the relevant target audiences.
Performance Assessment, Integration and Validation phase / Maximizing Future impact. – Year 4	At this stage, the project focuses once more on market validation, publications, and policy recommendations. It targets the energy, manufacturing and agriculture industries, governmental bodies, and policy discussion groups to achieve maximum future impact.

3.Project Dissemination and Communication

The events, publications, journals, magazines, and networking activities that the ARISE consortium envisages to carry out over the course of its four-year lifespan are outlined in this section below. An internal Excel spreadsheet has been created (uploaded on Box: our common ARISE repository space) to constantly update the targeted dissemination activities and our social media accounts with the partners' activity and advancements related to ARISE.

3.1 Events

ARISE partners will collectively contribute to the project's exposure by participating in various exhibitions, conferences and summits focused on

The targeted events will offer, among others, ARISE consortium the opportunity to:

- broaden networking opportunities that could lead to future partnerships.
- spread knowledge exchange and gain valuable feedback and perspectives from experts in related fields.
- gain visibility and recognition and enhance the project's reputation through participation in reputable events.
- develop new collaborations and identify potential funding sources and investors interested in the project.
- present project outcomes to industry professionals for validation and demonstrate the project's relevance and potential impact in the market.
- engage with end-users and stakeholders to gather valuable feedback and understand user perspectives and needs for further project refinement.
- showcase project technologies and innovations to a broader audience to attract attention from technology providers and potential adopters.
- contribute to the awareness of the broader community and inspire interest and enthusiasm for ARISE's thematic.
- influence policy making towards shaping policies related to clean energy and hydroponic farms.
- gain insights into market trends and potential areas for project application.
- attract attention from media outlets covering events and innovations.
- build a culture of continuous learning and adaptation to the project team's capacity through exposure to diverse perspectives.
- lay the groundwork for the project's sustainability beyond its initial phases.

Table 3 - Targeted Dissemination Events

Targeted Events	Website
RoboSoft IEEE International Conference on Soft Robotics	https://softroboticsconference.org/
IEEE International Conference on Robotics and Automation (ICRA)	https://2024.ieee-icra.org/
International Conference on Intelligent Robots and Systems (IROS)	https://iros2024-abudhabi.org/

IEEE International Conference on Robotics and Automation (ICRA) – 2025, Atlanta - USA	https://www.ieee-ras.org/conferences-workshops/fully-sponsored/icra/past-and-future-venues
IEEE International Conference on Robotics and Automation (ICRA) – 2026, Vienna - Austria	https://www.ieee-ras.org/conferences-workshops/fully-sponsored/icra/past-and-future-venues
IEEE International Conference on Robotics and Automation (ICRA) – 2027, Seoul South Korea	https://www.ieee-ras.org/conferences-workshops/fully-sponsored/icra/past-and-future-venues
IEEE International Conference on Soft Robotics (RoboSoft) – 2025	TBD
IEEE International Conference on Soft Robotics (RoboSoft) – 2026	TBD
IEEE International Conference on Soft Robotics (RoboSoft) – 2027	TBD
Other Proposed Events	**Website**
European Robotics Week	https://eu-robotics.net/call-for-hosts-european-robotics-week-erw-2024-central-event/
ForumforAg Annual conference	https://forumforag.com/events/annual-conference-2024/
AGRITECHNICA exhibition	https://www.agritechnica.com/en/
World Agri-Tech Innovation Summit	https://worldagritechinnovation.com/
Intersolar Europe	https://www.intersolar.de/home
Large Scale Solar Europe	https://lss.solarenergyevents.com/
Solar Solutions International	https://en.solarsolutions.nl/

3.2 Publications

Publicizing the ARISE project's scientific and technological results through journal articles, conference and/ or events presentations (refer to section 3.1 above), and newspaper and magazine articles is a great way to expand the project's outreach.

As part of the open science requirements, partners will make sure that their peer-reviewed scientific publications in trusted repositories are immediately available to the public (either the final peer-reviewed manuscript accepted for publication or the final published peer-reviewed version). ARISE partners will also explore the possibility of publishing their research in Open Research Europe. The European Commission's open access publishing platform is perfect for Horizon Europe recipients to share their findings during or after the project's duration.

The scientific and trade journals and magazines that the ARISE partners can submit their papers and articles to are listed in Tables 4 and 5 below. This is a preliminary and indicative list that will be updated on a regular basis over the course of the project.

Table 4 - Targeted Journals

Targeted Journals	
Soft Robotics journal (Mary Ann Liebert)	IEEE Journal on Robotics and Automation
IEEE/ASME Transaction on Mechatronics	IEEE Transaction on Robotics
IEEE Robotics and Automation Letters	Frontiers in Robotics and AI
Robotics and Autonomous Systems Journal	news and blog "www.cleanenergywire.org"
news and blog "www.theprogressplaybook.com"	
Other Proposed Journals	
Frontiers in Energy Research	Robotics peer-reviewed Open Access journal (MDPI)
Applied Solar Energy (Springer)	Journal of Field Robotics (Wiley)
Renewables: Wind, Water, and Solar Journal (SpringerOpen)	Solar (MDPI)
Solar Energy (Elsevier)	Robotics & Artificial Intelligence Open Access Journals (SpringerOpen)
Journal of Food Science and Technology (Springer)	Computers and Electronics in Agriculture (Elsevier)
The International Journal of Robotics Research (SAGE)	

Table 5 - Targeted Magazines & Newspapers

Targeted Magazines & Newspapers	
Energy Efficiency Journal (Springer)	Energy Engineering
Open Journal for Energy Efficiency	

3.3 Networking

Networking with similar European projects will be targeted to enhance the project's communication and dissemination strategy. With the final aim to maximize the benefits of knowledge sharing and materialize the project's ecosystem of robotic tools, systems, and processes, the objective is to broaden the project's scope and engage interested parties (users and stakeholders).

With the aim to coordinate related aspects such as standardization and regulation activities, the ARISE partners will also establish contact with other consortia operating under the HORIZON-CL4-2023-DIGITAL-EMERGING-01-01 topic and exchange technological insights.

3.4 Key Communication Messages

Key Communication Messages are essential in a dissemination strategy for several reasons, ensuring Consistency, Clarity, Relevance, Differentiation and Impact:

- ARISE project's *Consistency*: ensuring that all communications related to the project convey a unified and consistent message. Consistency helps build trust and credibility among stakeholders.
- ARISE purpose and work carried out described with *Clarity*: conveying the most important information concisely and clearly. Within ARISE we deal with complex technical subjects, so we need to make sure that the audience understands the project's objectives, benefits, and outcomes.
- ARISE *Relevance* with project objectives: pertaining the communication focused on the project's core objectives and value propositions, ensuring that the audience remains engaged and interested in the project's outcomes.
- *Differentiation* of ARISE in comparison to similar initiatives: distinguishing the project from similar initiatives or competitors by highlighting its unique features, benefits, and contributions.
- ARISE *Impact* on the two Targeted-Industry sectors and Widely: crafting communication so as to resonate with the target audience emotionally or intellectually, making them more memorable and impactful.

Within the ARISE project, our primary goal is to craft key communication messages centered around its business value proposition. While our partners are actively involved in researching and delivering technological advancements, we are keen to initiate the dissemination of our business value proposition right from the project's initial phase. Our aim is to reach out to end-users early on, ensuring they are informed about the benefits they stand to gain from our technologies. Sharing our findings widely, maximizing the impact and benefits for all stakeholders involved are some of the benefits we will acquire by all our joint dissemination efforts. Key Communication Messages may be focusing on:

- Innovation of ARISE: emphasizing on how ARISE brings innovative solutions or approaches to address existing challenges or fulfill unmet needs in its industry or domain.
- Impact of ARISE: communicating the potential positive impacts of ARISE, such as increased efficiency, cost savings, improved outcomes, or societal benefits.
- ARISE and its Sustainability: highlighting any sustainable practices or outcomes associated with ARISE, demonstrating a commitment to environmental or social responsibility.
- Competitive Advantage of ARISE: showcasing how ARISE provides a competitive advantage to stakeholders, whether through technological advancements, strategic partnerships, or unique capabilities.
- ARISE and relevant Stakeholders' Benefits: clearly articulating the benefits that stakeholders, including investors, partners, customers, and the community, can expect from ARISE participation or adoption.

With this in mind, we have created some Key Phrases, per targeted industrial application (Energy and Agriculture sectors) and some general Key Messages, that we will guide our dissemination and communication efforts. In addition, some indicative keywords have been given indicatively, highlighting the value proposition of ARISE, to guide our consortium's dissemination and communication strategy.

The Key Messages and are categorized within the following Tables:

Table 6 – Energy sector Key Messages

Energy-related Key Messages
AI-enabled robotics can conduct regular maintenance activities on solar panels, including cleaning and inspections, thereby minimizing the necessity for human involvement, and guaranteeing uninterrupted operation and optimal functionality of solar energy systems.
Optimized Solar Panel Efficiency can be achieved by AI-driven robotics, optimizing the placement, orientation, and cleaning of solar panels, maximizing energy capture from sunlight, and enhancing the overall efficiency of solar energy systems.
Robotics enhanced with AI capabilities enable remote monitoring and diagnostics of solar panel performance, detecting issues such as shading, dirt accumulation, or faulty cells, and enabling prompt maintenance to maintain optimal energy generation.
AI and Robotics optimize energy consumption in buildings and industrial facilities, reducing energy waste and lowering operational costs.
Taking advantage of the AI-driven robotics, solar panels grant businesses increased energy autonomy through on-site electricity generation, diminishing dependence on external energy providers and shielding against fluctuations in energy prices.

Table 7 – Agriculture sector Key messages

Agriculture-related Key Messages
Eco-Friendly Farming Practices with the use of AI and Robotics promote environmentally sustainable solutions, enhancing production and minimizing waste and misuse.
AI and Robotics in Agriculture, achieve profit conservation since the AI-powered monitoring systems can control and provide the necessary feedback leading to significant savings.
Operational efficiency and profitability for farmers and agribusinesses is enhanced with the aid of AI and Robotics, reducing labor costs, and increasing productivity.
Adoption of AI and robotics in agriculture reduces the need for manual labor, lowers production costs, leading to significant cost savings for farmers.
Improved Worker Safety is promoted by AI and Robotics, by automating repetitive and physically demanding tasks like lettuce harvesting and transplanting, enhancing worker safety and reducing the risk of injuries.

Table 8 – General Key Messages

General Key Messages
Innovation for a Greener future with the combination of AI and robotics in agriculture and Green Energy sectors, aiming at a more resilient and sustainable future.
Agriculture and Green Energy revolution using the power of AI & Robotics, promoting environmentally friendly practices, and mitigating the impact of climate change.
Incorporating AI and Robotics into Agriculture and Green Energy aims at enhancing productivity, promoting environmental stewardship, revolutionizing conventional methods, and laying the groundwork for a sustainable future.
AI and Robotics used in the fields of Green Energy and Agriculture ensure efficiency and sustainability, reducing production costs.
Agriculture and Green Energy Optimization with the application of AI and Robotics secures the transition to renewable sources, reducing environmental impact.

Table 9 – Phrases highlighting the Value proposition of ARISE

Highlighting the Value proposition of ARISE				
Refine	Enhance	Employing	Applying	Advancement
Ascent	Boost	Implementing	Deploying	Integration
Amplify	Empower	Putting into action	Operationalizing	Progression

4. Monitoring, Reporting and Evaluation

One of the central purposes of the Dissemination Plan is to establish a monitoring system to measure the success of the dissemination and communication activities in accordance with the objectives defined in subchapter 2.1, *"Dissemination and communication objectives*". The ongoing assessment of dissemination and communication activities will assist the project consortium in measuring the impact of their collective efforts. Additionally, regular monitoring (through a tracking excel spreadsheet uploaded on our common repository: Box) ensures that there will be no deviations from the Dissemination Plan and potential risks may be avoided. A yearly report will summarise the D&C activities undertaken, reflect on the KPIs and adjust the targeted D&C activities.

Different Key Performance Indicators (KPIs) will be employed to effectively monitor and evaluate the communication and dissemination activities. In Table 6, a detailed list of the project KPIs regarding social media, website traffic, events, publications, and promotional material is shown. The set success values of each one of the Dissemination-related points may be revisited and adjusted according to the knowledge gained through the project. Intermediate KPIs have also been set internally to reach the targeted targeted values of the four-years implementation.

Table 10 - Key Performance Indicators (KPIs) and Success Value

Dissemination Channels	Key Performance Indicators (KPIs)	Success Value (end of the project)
ARISE website	Number of visitors	≥ 3600
	Number of page views	≥ 6000
LinkedIn	Number of followers	≥ 400
	Number of posts	≥ 250
	Number of page views	≥ 4400
Twitter	Number of followers	≥ 200
	Number of posts	≥ 200
	Number of impressions	≥ 17,600
Publications	Number of publications (journals, peer-review journals, and conference proceedings)	≥ 9
	Number of articles in magazines/newspapers	≥ 7
Presentations at international conferences	Number of conference presentations	≥ 10
Blog entries	Number of blog entries	≥ 18
Technical Workshops aimed at industry and academia on ARISE advances	Number of workshops	≥ 3
	Number of audience contacts	≥ 30% of the participants

Dissemination Channels	Key Performance Indicators (KPIs)	Success Value (end of the project)
Events attended (up to 25 participants)	Number of events	≥ 3
	Number of audience contacts	≥ 30% of the participants
	Number of participants interested in the project	≥ 20% of the participants
Events attended and/or hosted (25-100 participants)	Number of events	≥ 2
	Number of audience contacts	≥ 25% of the participants
	Number of participants interested in the project	≥ 15% of the participants
Events attended and/or hosted (> 100 participants)	Number of events	≥ 2
	Number of audience contacts	≥ 20% of the participants
	Number of participants interested in the project	≥ 10% of the participants
Promotional material (brochures, leaflets, posters, banners, flyers, newsletters, videos)	Brochures	≥ 1
	Posters	≥ 1
	Banner	≥ 1
	Flyers	≥ 1
	Newsletters	≥ 7
	ARISE video hits	≥ 450

5. Dissemination Guidelines

All consortium partners will review the project's dissemination materials, including publications, presentations, audiovisuals, and articles, to ensure that no partners' intellectual property is in jeopardy or that no private information is disclosed. Dissemination activities will be implemented in line with the procedure described in the Consortium Agreement.

Any planned dissemination activities should be communicated to the consortium as a whole at least thirty days in advance, by all partners. With this advance notice, all partners have thirty days to object or suggest changes if they believe the planned dissemination activity could jeopardize their legitimate interests regarding their background or results, or if it negatively impacts the results' protection. In these situations, the dissemination activity cannot begin until the necessary actions have been taken to protect these rightful interests. The revised dissemination activity can be carried out to inform people about the project's advancements following the review period and the application of the relevant modifications.

The project's logo (with the design and colour palette fully described in the deliverable "D2.1 – Project Website and Promotional Material") or the "ARISE" acronym and the European flag paired with the funding statement, as required per Article "17.2 Visibility - European flag and funding statement," must be included in all dissemination and communication material, including publications, posters, reports, and deliverables.

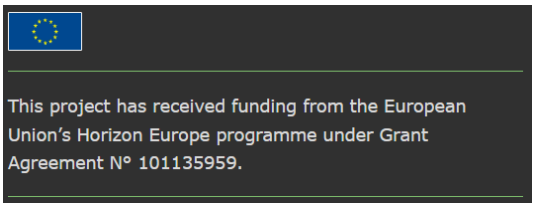

Figure 1 - EU flag and funding statement.

6. Conclusions

Planning beforehand for the dissemination and communication is essential to a project's advancement and eventual success. The planned activities will play a crucial role in facilitating the project's dissemination of its final products and supporting the project's objective of achieving maximum exposure to potential targeted audiences.

The ARISE Dissemination plan seeks to serve as a useful guide that encapsulates all the initiatives that can increase the project's impact and disseminate information and findings attained over the course of its four-year duration. Partners can match the project's goals with tools and activities that cater to the appropriate audiences by reading this document, which provides a comprehensive overview of the project's objectives regarding the diffusion of information.

The present document is intended to function as a dynamic document that will evolve in tandem with the project, incorporating everything from public relations and targeted audience engagement to publication creation and presentation delivery. It will be regularly observed, and the project's evaluation criteria will be based on the specific KPIs.