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DISSEMINATION, ENGAGEMENT AND CAPACITY BUILDING REPORT v1

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Acronyms and Abbreviations

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AGINS	AgroInsurance International
AgMIP	Agricultural Model Intercomparison and Improvement Project
AI	Artificial Intelligence
AKIS	Agricultural Knowledge and Innovation System
ATB	Institut für angewandte Systemtechnik Bremen GmbH
AUTH	Aristotle University of Thessaloniki
DES	Deimos Spain
DME	DEIMOS ENGENHARIA SA
DMK	DMK Deutsches Milchkontor GmbH
DSSC	Data Space Support Centre
EC	European Commission
EC-JRC	European Commission Joint Research Centre
ECPA	European Conference on Precision Agriculture
EGM	Easy Global Market SAS
EGU	European Geosciences Union
EO	Earth Observation
EOSC	European Open Science Cloud
ESA	European Space Agency
EURAC	Accademia Europea di Bolzano (Eurac Research)
Euro GEO	European Group on Earth Observations
EV ILVO	Eigen Vermogen van het Instituut voor Landbouw en Visserij Onderzoek
ExBo	Executive Board
F2F	Farm to Fork
FEU	Farm Europe
FIWARE	Future Internet Ware
ICCS	Institute of Communication and Computer Systems
IGAD	Improving Global Agricultural Data
HE	Horizon Europe
IEEE	Institute of Electrical and Electronics Engineers
IFAPA	Instituto Andaluz de Investigación y Formación Agraria, Pesquera y Alimentaria
Intergeo	International Geodesy and Geoinformation Conference
IoT	Internet of Things
IPR	Intellectual Property Rights

KUVA	Kuva Space Oy
LAI	Leaf Area Index
LUKE	Natural Resources Institute Finland
MIGAL	MIGAL Galilee Research Institute
ML	Machine Learning
NP	Neuropublic SA
OHB DS	OHB Digital Services GmbH, Bremen, Germany
PSNC	Instytut Chemii Bioorganicznej Polskiej Akademii Nauk
R&D	Research and Development
RIL	Research and Innovation Lab
SAR	Synthetic-aperture radar
SDG	Sustainable Development Goal
SME	Small and Mid-size Enterprise
SoM	Social Media
UGent	Universiteit Gent
VITO	Vlaamse Instelling voor Technologische Onderzoek
VRI IES	Foundation "Institute for Environmental Solutions"
VTT	Technical Research Centre of Finland Ltd.
WCCI	World Congress on Computational Intelligence
WODR	Wielkopolski Osrodek Doradztwa Rolniczego w Poznaniu
WP	Work Package

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1 Introduction

1.1 Project overview

ScaleAgData is a response to the call HORIZON-CL6-2022-GOVERNANCE-01-11 Upscaling (real-time) sensor data for EU-wide monitoring of production and agri-environmental conditions. The ScaleAgData project will run from January 2023 till December 2026 and consists of a consortium of twenty-six partners from fourteen countries. The vision of ScaleAgData is two-fold. On one hand it wants to obtain insights in how the complex data streams should be governed and organised (governance call). On the other hand, it aims to develop the data technology needed to scale data collected at the farm level to regional datasets, agri-environmental monitoring and the management of agricultural production.

To do so, ScaleAgData has five objectives:

- Developing innovative approaches for collecting in-situ data and applying data technologies.
- Enabling and promoting data sharing along the entire data value chain.
- Demonstrating how the sensor data can be scaled to agri-environmental data products at the national, regional or European level.
- Demonstrating the benefit of the improved monitoring capacities in a precision farming context.
- Demonstrating the benefit of upscaled regional datasets for the agricultural sector in general.

During its lifecycle, the project will explore seven innovation areas: innovative sensor technology, edge processing, data sharing architecture and data governance, satellite data augmentation, from data assimilation to service development, privacy-preserving technology, and data integration methodologies.

Six Research and Innovation Labs (RIL) have been identified within the project, across various bio-geographical regions of Europe, where different data upscaling and integration models or approaches will be evaluated and demonstrated. The six RILs are: water productivity, crop management, yield monitoring, soil health, grasslands and sustain dairy. Recommendations will be formulated on how such integrated datasets can be capitalized to help national and regional policy making to strengthen both the competitiveness and sustainability of European agriculture.

1.2 Scope of the document

This document aims to report the dissemination, engagement and capacity building activities in M1-M18 and update the previous version of Deliverable D6.1 (Dissemination, exploitation and communication plan). It will be subject to two further revisions in December 2025 and August 2026.

As it builds further on the stakeholder mapping exercise which was already described in D6.1. it aims to encourage cross-learning and the replicability of results, as well as facilitate political and stakeholder acceptance of the tools, products and services developed in ScaleAgData.

The strategy laid out here within will support communication, dissemination and exploitation of project results, monitor the timely and successful completion of the proposed objectives, and maximise impact during and after the project's lifetime. In addition to supporting the overall objectives and work of the ScaleAgData project, it will also assist the different project teams (product/service development or demonstrator related teams) in the elaboration of their own strategy for communication and dissemination.

1.3 Document structure

This document is structured as follows:

- Section 1 provides an overview of the project.
- Section 2 presents a report on the dissemination activities carried out in the first 18 months of the project and an update of the Dissemination, Exploitation and Communication Plan.
- Section 3 is dedicated to stakeholder engagement activities carried out in the first 18 months of the project.
- Section 4 is dedicated to capacity building activities, both those that already took place from month 1 to 18, as well as those in the pipeline.
- Section 5 includes a table summarising the monitoring of the KPIs related to communication, dissemination and capacity building.
- Section 6 presents the conclusions of the document.

1.4 Evolution of the document

Version 1.0 of this document provides a description of the dissemination, stakeholder engagement and capacity building activities which have taken place during the first 18 months of the project as well as those in the pipeline and the status of the related KPIs.

The present version of this document, version 1.1, submitted on 27 January 2025, includes minor changes, taking the comments of the EC and external reviewers on this deliverable into account. In Table 2 it was clarified that participation in the key user communities' event was carried out with presentations during the ordinary sessions of the conference and not in a parallel session. In section 2.2 the reasons were explained as to why it was decided to modify the event table presented in D6.1. In section 2.3 Table 3 was modified to report only publications from the first 18 months. In section 3.1 a brief explanation was provided of the analysis results on stakeholder representation that highlights strengths, areas for improvement, and outlines planned actions for a more balanced approach to research and innovation. Section 5 has also been modified in Activities planning and monitoring where all the activities performed and planned related to dissemination, engagement and capacity building are presented. Finally, section 6 dedicated to KPI monitoring was added, maintaining the table presented in Appendix IV of D5.1.

An updated version of this deliverable, version 2.0, is foreseen for December 2025 (M36), while a third version is foreseen in August 2026 (M44). Additional updates will take place if necessary.

2 Dissemination activities report

Deliverable D.6.1 (Dissemination, Exploitation and Communication plan) which was submitted in June 2023 already describes the strategies for reaching stakeholders, how to create impact and optimize dissemination. It describes the activities necessary for the dissemination of the project and large-scale involvement of stakeholders and highlights the KPIs to monitor the progress and success of the communication and dissemination strategy.

2.1 ScaleAgData communication plan

An overview of the various communication channels, their objectives, targets as well as their status are summarized in Table 1. In the table you can see that the website has been online since 15/06/2023 and is supported by various social media postings on the project as well as on the participation of consortium partners in events. For this, templates have been created for all consortium partners to fill to trigger online postings related to the project. In the table you can also see that since the beginning of 2024 two newsletters have been released and the goal is to release a new newsletter every quarter focussing on a different innovation, as well as providing an update on milestone completions of the project and promote events the project is participating in. Promotional and marketing material have also been created in the shape of slide decks, posters and visuals according to the needs of the consortium. The latter are available on the project Teams workspace for all consortium members to use.

Table 1: Communication channels and materials - update

Communication channel	Objective and description	Target	Comments
ScaleAgData Website	The https://scaleagdata.eu/en site is the primary communication and research dissemination platform for external stakeholders and partners. It targets the public and offers more technical information for relevant stakeholders.	1 (ScaleAgData.eu)	<p>Launched on 15 June 2023 Update with event calendar https://scaleagdata.eu/en/events + events at the home page</p> <p>Update news items: https://scaleagdata.eu/en/news</p> <p>Reports 2023 and 2024 are available. Conclusion: SoM posts & Newsletter generate traffic to home page, news, innovations areas, RILs and our team. An increase in the number of visitors can be achieved by sharing more news on SoM, via Newsitems, based on inputs from the RILs/partners.</p>

Social Media (SoM)	<p>Social media with content specifically designed for these platforms. Most efficient way to follow project progress and updates.</p>	<p>2 SoM channels:</p> <ul style="list-style-type: none"> • X (Twitter): @scale_ag_data • LinkedIn: ScaleAgData 	<p>Set up and regularly used: SoM posts overview available in the Teams workspace as well</p> <p>LinkedIn:</p> <ul style="list-style-type: none"> • 199 followers • most popular post: 1.274 impressions • popular posts: >450 impressions <p>X (Twitter):</p> <ul style="list-style-type: none"> • 82 followers • popular posts: >450 impressions
Newsletter	<p>On the ScaleAgData website there is space provided for news items (milestones, results workshops, webinars) on both the home page (+filter) and the individual RIL pages.</p> <p>By creating news items, we feed our SoM and create the link between SoM and website (visitors).</p> <p>Starting from 2024 and repeated every quarter afterwards until the end of the project, an electronic newsletter will be sent out by email to the consortium members, the external stakeholders' network and interested relevant parties who registered (via our website https://scaleagdata.eu/en/news).</p> <p>This electronic newsletter will be a combination of previously published news items as well as recent news items, use cases.</p> <p>Here, too, the link between newsletter and website will be established. In the website, all the newsletters will also be available in through the "news" tab.</p>	12	<p>2 Newsletters released for first two quarters of 2024.</p> <p>1st Newsletter: Feb 2024</p> <ul style="list-style-type: none"> • https://scaleagdata.eu/en/first-scaleagdata-newsletter-0 • Sent out by email to 49 contacts • Focus on Co-design & development phase, innovative sensor technology and upcoming events <p>2nd Newsletter: May 2024</p> <ul style="list-style-type: none"> • https://scaleagdata.eu/en/second-scaleagdata-newsletter • Sent out by email to 54 contacts • Focus on innovation area 'edge processing' and event calendar

Video	The video will be produced in English and published on YouTube to raise awareness about sustainable European agriculture data sharing. It aims to create engagement and promote uptake after the end of the project.	1	Waiting for more content. Scheduled for 2026.
Promotional and marketing material	It will include brochures, leaflets, roll-up banner, ... We will check the needs of the consortium partners.		We created a slide deck, posters and visuals according to the needs of the consortium
Academic publications	These publications will target experts in academia and research and will be openly accessible online.	17 publications	Ongoing, no publications have been completed yet. The state of progress of the publications is traced in the Table 3.
Press releases, policy briefs, and conference presentations	Press releases following the progress & activities of pilot projects will be regularly published. Policy briefs and conference presentations targeting (local) policymakers will complement academic publications and contribute to the dissemination of results alongside other publications.	6 policy briefs (one for each lab); 17 conference presentations	Ongoing.
White papers	White papers to increase technological awareness of policy makers and regulatory bodies. These white papers will focus on data sharing governance model for trusted & interoperable data space, as well as on business model.	2 (governance model + business model)	No white papers have been submitted yet.
Reports, guidelines, capacity building material	Compilation of guidance and instruction to support policymakers, researchers, and agriculture and forestry stakeholders when using the toolboxes developed by the project. To ensure consistency, legacy, and supervise the stakeholder's involvement.	6 user manuals; 1 replication guidelines report	Waiting for more content

Public Github repositories	Public software repositories where all tools developed by the project will be available for the general public	6 (one for each lab)	Ongoing, not yet published.
Key user communities' events	Organisation of parallel sessions in key user communities' events to foster stakeholder engagement using techniques and approaches from the realm of science communication, such as storytelling. The aim of these workshops is to help understand and secure citizen and political acceptance of the ScaleAgData outputs and solutions.	2	Participation at 1 key community event: 2024 Agroinsurance International Conference . See Table 2 for more details.
RI Labs workshops	Workshops designed to support the development and implementation of pilot projects. The sessions create opportunities to engage with local stakeholders and foster collaboration and co-creation.	12	Within this reporting period, in total 18 co-design workshops (6 of them in parallel sessions within the project KO meeting) have been organised under the WP2 (see D2.1 Section 2.) To this end, we plan to organise six more co-design workshops within the second iteration of the project.
Capacity Building Webinars	These activities are meant to engage different communities in the project activities with the aim to create interest and provide educational content. These activities will contribute to the capacity building on the usage of the developed.	6	Webinar: Virtual Lab Presentation and Live Demo (November 2023) 2 webinars programmed for 2024 Q3.
Project conferences	A final project conference presenting the project's results and intervention/participation in other external conferences.	1	It will be presented at the end of the project in 2026



Figure 1: ScaleAgData website

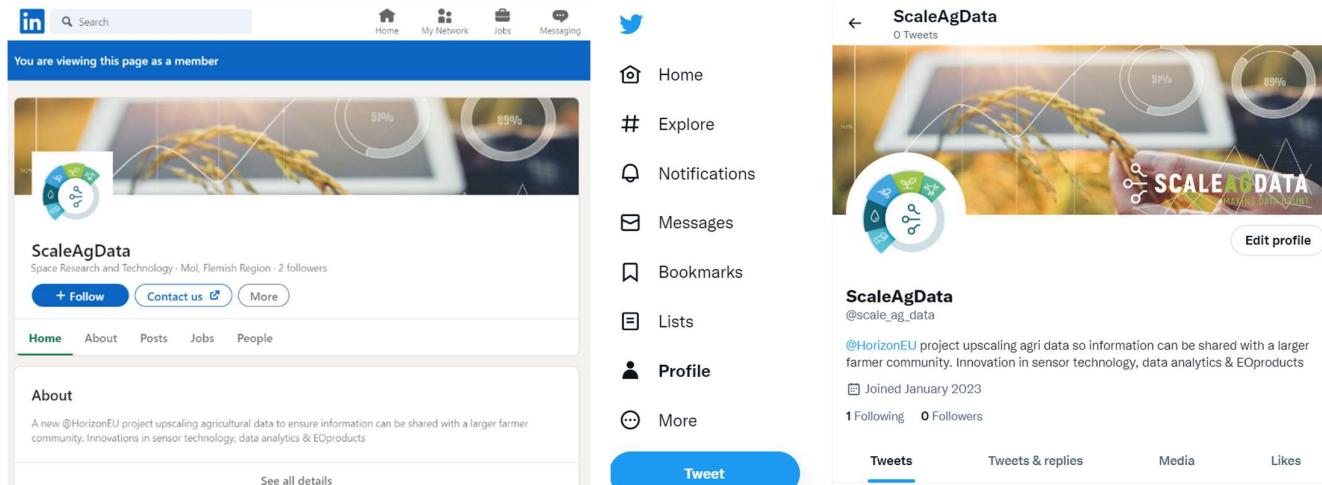


Figure 2: ScaleAgData Social Media channels



Ready to keep you posted!

A year after we officially kicked off the H2020 ScaleAgData project and 6 months after the launch of our [website](#) and social media channels, we're pleased to send you this [first ScaleAgData Newsletter](#).

Every quarter, we'll give this 'digital floor' to our RI Lab, technology partners and, of course, end-users, to share insights and ideas with you.

Stay tuned & don't hesitate to forward this newsletter or invite colleagues to [register](#)!

In this first ScaleAgData Newsletter:

- [2nd milestone: Co-design and development](#)
- [User quote from European Commission](#)
- [Innovative sensor technology](#)
- [Upcoming events](#)

2nd milestone: Co-design and development

The building blocks of ScaleAgData

Through innovative approaches like using hyperspectral sensors and satellite imagery, data sharing, edge computing, privacy-preserving and data integration technologies, ScaleAgData aims to advance smart farming and agro-environmental monitoring.

These advancements will be investigated and implemented in [research and innovation labs](#) (RILs) that specifically address multiple identified challenges in 8 vertical domains:

- [soil productivity](#)
- [soil monitoring](#)
- [crop management](#)
- [soil health](#)
- [environment](#)
- [water](#)

These labs will evaluate and demonstrate diverse models or approaches for scaling up and integrating data. Each approach is customized to its specific deployment economics and varies in maturity levels.



"ScaleAgData significantly contributes to the EU's endeavor to harness Environmental Observations (EO) capacities for the benefit of farmer's sustainability and competitiveness. The use of high-end EO and data technologies are also improving agro-environmental monitoring capabilities and decision making processes"

Franz IMMLER

Head of Sector Environmental Observations
European Commission



Innovation area 1: Innovative sensor technology

To reach ScaleAgData's ambition, many innovations regarding the various aspects of the data stream are needed. Let's introduce you to the first of 7 innovation areas: **'Innovative sensor technology'**, which is related to and applied in different RILs: crop management, soil health and dairy.

Sensors are a quickly evolving area of research. ScaleAgData will work on the development and integration of an innovative sensing approach and aims to eliminate the lack of monitoring instruments and suitable technologies for in-the-field automated detection of pesticides due to technical and cost issues.

The use of compact, cost-effective low power and highly sensitive sensors is the main alternative to be explored.

Another goal is to investigate whether specific conditions could be measured with hyperspectral sensors and reflectance-based techniques, considering the large amount of data, which poses a challenge when transferring the data. A hyperspectral imaging instrument will be customized to accommodate use cases and data collection needs. The instrument's control and data interface will be integrated to support the data collection and edge-computing objectives of the project.

Know Space, a space tech company based in France, is at the forefront of developing cost-reduced EO services. The company's revolutionary hyperspectral cameras, known as **hyperspectral cameras**, will capture **hyperspectral data** by 2027. This continuous data flow automatically integrates into the advanced in-house AI platform, providing continuous, user-ready information within an impressive 1-2 hours of acquisition.

The core of the platform hyperspectral technology, from **Know Space**, is a compact data acquisition capability. It acquires remote sensing, multispectral, and hyperspectral imagery, allowing it to cover a variety of applications. For example, the ability to adjust the spectral range and acquisition time to cost-improved **hyperspectral measurements and signal-to-noise ratios**, reducing its quality, and that provides intrinsic details about vegetation types and conditions. Using the integrated software, **Know Space** will be able to provide highly accurate and near-real-time crop growth analyses and yield forecast to improve food security, growing.



VTT is a leading research, development and innovation partner in Europe. For the ScaleAgData project, VTT develops a **hyperspectral imaging instrument** based on a sensor from Fraunhofer Institute for Interacting. The image is designed for accurate measurements from drones in agricultural applications.

The instrument is based on a large format linear sensor (100,000 pixels) with high spectral resolution, dedicated control electronics, and weather-proof mechanical design. The optical design of the camera enables capturing high-resolution hyperspectral data from large distances and a moving platform. During the second year of the project, the image will be employed in the RILs focusing on **AI-based measurements**.



VTT, the Aristotle University of Thessaloniki, **Know Space**, VTT and **Europa Space** activity contribute to innovation in sensor technology

The Institute for Agricultural and Fisheries Research (ILVO) and the Aristotle University of Thessaloniki (AUTH), as research institutions within the Scale AgLab of the project, will engage in joint experimentation with the advanced Hyperspectral sensor technologies provided by VTT and **Know Space**. The collaborative effort is directed towards evaluating soil health at both local and regional scales, thereby supporting soil-related management strategies. The research activities are experienced in developing and deploying similar local and regional analytical services using multi-band spectral sensor technologies with EO or sensors mounted on UAV and robotic platforms. The ambition of the [ILVO](#) is to leverage the latest advancements in spectral sensor technology - specifically,



Figure 4: Promotional Poster used in ScaleAgData booths

2.2 Dissemination Events

Below table (Table 2) lists all the events in which the consortium partners participated in the first 18 months of the project, the type of activity, target audience as well as the reason for participating in the event.

We decided to update the event table presented in D6.1 (Table 5 of D6.1, event matrix), because we needed to track in more detail the events in which the project participated. In order to optimize communication but also to have a clearer picture of the project's impact internally, we decided to modify the table in order to report, in addition to the name of the event, the type of conference and the date, also the target audience of the event, the reason why we participated in the event and the partner who participated.

In some events, synergies were sought with relevant other initiatives. Examples include a meeting with EU policy advisors within the cluster 6 that also included other HE funded project under the same call (July 2023), but also the EU Agriresearch conference, a meeting focussed on improving the global agricultural data community of practice (June 2023), the EUROGEO workshop (October 2023), the Data4Food2030 synergy event (October 2023), the EC-ESA Joint Earth System Science Initiative (November 2023), the EU Agri-food days (December 2023) and the ESA Science cluster meeting (May 2024).

Other events ScaleAgData participated in focused more on EU and regional policy. Examples included the State of the Union 2023: 'Building Europe in times of uncertainty' (May 2023), the 2023 EU AgriResearch Conference (June 2023), the GeoWeek 2023 (November 2023), the EU Mission Soil Week (November 2023) and the "Denkdag" on precision agriculture with a focus on full-field applications (January 2024).

Sector specific events the consortium participated in included the Krajowe Dni Pola 2023 (May 2023), the AgriTechDag '23: robotica and AI in agrifood (July 2023), AgriTechnica (November 2023) and the 2024 AgroInsurance international conference (June 2024).

Scientific events ScaleAgData participated in included: the International Workshop on Retrieval of Bio- & Geo-physical Parameters from SAR Data for Land Applications (November 2023), the ESA Symposium on Earth Observation for Soil Protection and Restoration (March 2024), the EGU General Assembly (April 2024), the EO 4 AGRICULTURE UNDER PRESSURE 2024 conference (May 2024), the ECPA 2023 Conference on Precision Agriculture (July 2023) and the IEEE-WCCI-2024 conference (June 2024).

Finally, some technology events were also attended such as the FIWARE Global Summit (June 2023), the AgriTechDag '23: robotica and AI in agrifood (July 2023) and Intergeo 2023 (October 2023).

ScaleAgData presentations were held in following international conferences: Improving Global Agricultural Data (IGAD) Community of Practice (June 2023), Data4Food2030 Synergy Event (October 2023), EC-ESA Joint Earth System Science Initiative (November 2023), thinking day on precision agriculture (Jan 2024), EO 4 AGRICULTURE UNDER PRESSURE (May 2024) and in the ESA Science cluster meeting (May 2024).

In a few cases a project specific booth was set-up such as at the Data4Food2030 Synergy Event (October 2023) and at the Geoweb 2023 (November 2023). Specifically for these booths a project poster was designed (see Figure 4).

Table 2: Dissemination events - update

Dissemination Activity Name	What? Type of dissemination activity	Who? Target audience (Choose one or more items)	Why? (max 200 characters)	Status
Data Space Support Centre (DSSC) stakeholder forum	Event/workshop	National and regional initiatives that enable data spaces, Industry (large, SMEs, industry associations), Start-ups Investors, Research institutions, International initiatives (non-European) *, Experts on specific fields, such as cybersecurity or AI, Representatives of national, regional, and city governments, as well as those from the EC., Representatives from a civic society Relevant projects that align with EU funded initiatives.	Engage with other initiatives and stakeholders, share knowledge on Data sharing architecture and data governance; Related to T2.4 (Governance models for the vertical domains of the RILs)	EV ILVO attended on 23/01/2023
Krajowe Dni Pola 2023	Conference	[Policymakers and authorities, national] [Policymakers and authorities, regional or local]	Attendance of technology companies' farmers, food companies, policy makers and	Attended by WODR/PSNC from 3-5 May 2023.

			other stakeholders in the agri-food sector in Poland	
The State of the Union 2023: 'Building Europe in times of uncertainty'	Conference	[EU institutions] [Policymakers and authorities, international] [Policymakers and authorities, national] [Policymakers and authorities, regional or local] [Civil society, international]	Future of European Agriculture: Sustainability, Sufficiency, Security	Attended online from 4-6 May 2023
2023 EU AgriResearch Conference	Conference	Policymakers and authorities, international]; [EU institutions]	Identifying research and innovation priorities to shape the future EU agricultural research and innovation agenda	31/5-1/6 2023
AgriTechDag '23: robotica and AI in agrifood	Workshop/Demonstration	/Industry, business partners]; /Scientists] /Innovators] /Specific end-user communities] /Policymakers and authorities, regional or local]	Connecting with technology companies, developers and suppliers, farmers, food companies, policy makers and other stakeholders in the agri-food sector	ILVO organized, VITO attended on 6/7/2023
FIWARE Global Summit	Conference	[Industry, business partners] [Scientists] [Innovators] [Specific end-user communities] [Software Developers, ICT integrators, Service providers]	Awareness cutting-edge technologies, including Artificial Intelligence, Data Spaces, the IoT-edge-cloud continuum, and robotics.	ATB attended from 12-13/06/2023 and made a presentation in the SmartAgriFood Session

Improving Global Agricultural Data (IGAD) Community of Practice	Meeting	<i>[Scientists] [Innovators] [Specific end-user communities]</i>	Data sharing architecture and data governance	VITO presented on 21-27/06/2023
EURO GEO workshop	Workshop		Satellite data augmentation	VITO & Deimos attended from 2-4/10/2023
Data4Food2030 Synergy Event	Conference	<i>[Scientists] [Innovators] [Specific end-user communities]</i>	platform for the European agri-food community to gather, engage in fruitful discussions, and share knowledge	Project Poster + Booth + presentation on project's 6 RILs that will realize data integration & innovations ;4-5/10/2023
Intergeo 2023	Fair	<i>[Industry,business partners]</i>	Earth Observation and geoprocessing	Attended by OHB from 10-12/10/2023
Geoweek 2023	Conference	<i>[EU institutions]</i>	Area of Horizon Europe projects where projects will have posters (EU request)	Poster prepared for HE booth; 6-10/11/2023
Agritechnica	Trade Fair	<i>[Industry,business partners]</i>	World's leading trade fair for agricultural machinery + Networking	ATB, CNH attended from 12-18/11/2023
International Workshop on Retrieval of Bio- & Geo-physical Parameters from SAR	Workshop	scientists, students, representatives from national, European and international space agencies and value adding industries.	Bio- & Geo-physical Parameters from SAR Data	EURAC and EV ILVO attended from 15-17/11/2023

Data for Land Applications			The workshop will focus on using Synthetic Aperture Radar (SAR) data for land use, classification, and change detection. It will cover applications in agriculture, forestry, soil moisture, hydrology, and snow. Additionally, the workshop aims to define needs for auxiliary data from other remote sensing satellites or ground-based networks	
EU Mission Soil Week	Meeting	[Industry,business partners]; [Policymakers and authorities, international] [Scientists]	Participation in conferences to get insights and connect to Horizon and EC funded projects in the agricultural sector.	ILVO and Farm Europe attended from 20-23/11/2023
EC-ESA Joint Earth System Science Initiative	Workshop	[Scientists] [Innovators] [Specific end-user communities]	showcasing latest ESA and EC funded projects and results, as well as identifying scientific challenges and research needs which could be addressed either through a collaboration of	VITO presented project from 22-24/11/2023

			existing projects or through new ESA and EC activities	
EU Agri-Food Days	Conference	[EU institutions] [Policymakers and authorities, international] [Specific end-user communities]	Engage in conferences to gain insights and network with Horizon and EC-funded projects in the agricultural sector, get to meet farmers and listen to their experiences and feedback on technology (eg; Meeting 8/12 "Agri Digital Conference").	Farm Europe attended from 5-8/12/2023
5th Iberian Meeting of Pastures and Forages	Conference	/Scientists] [/Innovators] [Specific end-user communities]	Grasslands management. Analysis of strategies for food sovereignty and the resilience of landscapes	IFAPA. 17-20 April 2023. Huelva-Loulé (Spain-Portugal)
Thinking day on precision agriculture, with a focus on full-field applications. "Denkdag"	Workshop	Policymakers and authorities, regional or local, Research institutions, Scientists, Universities, experts,	Knowledge sharing among researchers, policy makers, farmers and precision agriculture sector on applications/ tech that can be implemented in the field that can contribute the precision agriculture to support	VITO and ILVO presented on 12-Jan-2024

			sustainability, SDGs, Green Deal/F2F	
ESA Symposium on Earth Observation for Soil Protection and Restoration	Conference	[Scientists] [Innovators] [Specific end-user communities]	Soil health	Auth attended from 6-7 March 2024
EGU General Assembly 24	Meeting	[EU institutions] [Policymakers and authorities, international] [Scientists] [Innovators] [Specific end-user communities]	Earth Observation and Earth application	IFAPA and EURAC attended from 14-19 April 2024
EO 4 AGRICULTURE UNDER PRESSURE 2024	Conference	[Scientists] [Innovators] [Specific end-user communities]	New Missions to Agri-Space, Soil and Crop monitoring, Copernicus uptake for EU Agricultural policies, Crop Yield estimation and Forecasting, Droughts, Pests and other Stressors, Climate Adaptation, Data integration, Lightning Presentations of EC and ESA agriculture projects	VITO+AVR poster presentation on "Improved crop monitoring and yield estimation by integrating satellite and in-situ sensor data" on 15 May, project presentation by VITO on 16 May 2024
ESA Science cluster meeting	Meeting	[Scientists] [Innovators] [Specific end-user communities]	meeting and kick off the ESA Agriculture Science Cluster, fostering FAIR and collaborative data	VITO presented project focused on "in-situ and/or EO data, data sharing and

			sharing across projects	interoperability on 17 May 2024
EUROGEO Working group	Meeting	<i>[Scientists] [Innovators] [Specific end-user communities]</i>	Coordination and cooperation within the EUROGEO Agriculture Action Group	VITO participated on 23 May 2024
XX Congreso de la Asociación Española de Teledetección	Conference	<i>[Scientists] [Innovators] [Specific end-user communities]</i>	Earth Observation technologies and applications	IFAPA participated on 4-7 june 2024
2024 AgroInsurance International Conference	Conference	<i>[Other]: Insurance companies</i>	Showcasing project to Insurance actors. Insight in international agricultural insurance market. Technology solutions in agricultural insurance	Organized by AGINS. VITO presented "Innovative Earth Observation solutions in support of Agricultural Insurance" on 3-5 June 2024. The presentation was not held in a parallel session.

ECPA 2023. The 14th European Conference on Precision Agriculture.	Conference	[Scientists] [Industry]	Showcasing T4.2 and identifying new research outputs	Luke presented work on Digital Twins and participated 2-6 July 2023. Bologna, Italy.
IEEE-WCCI-2024 conference	Conference	[Scientists] [Industry]	Oral Presentation: Enhanced Soil Property Estimations from Earth Observation Data with Differential Evolution-based Multi-Objective TSK Model. Showcasing how the use of hyperspectral remote sensing can be employed to predict soil health indicators, with a case study in the Region of Central Macedonia, one of the areas where the Soil Health RI lab focuses on.	From 30/6/2024 to 4/7/2024 [Ongoing]
AgML Workshop	Meeting	[Scientists] [Industry] [EU institutions] [Policymakers and authorities, international]	Meeting of the "Machine Learning team of the Agricultural Model Intercomparison and Improvement Project (AgMIP)". Presenting T4.2 to receive feedback on methodology and identify collaboration opportunities.	Luke attended 22-24 January 2024. Wageningen, The Netherlands.

Water Accounting Assisted by Remote Sensing for Sustainable Management	Workshop	Policymakers and authorities, regional or local, Research institutions, Scientists, Universities, experts,	Knowledge sharing among researchers, policy makers, farmers and irrigation sector on applications/ tech that can be implemented in the field that can contribute to improve water management	IFAPA presented 29-February. Albacete-Spain
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2.3 Publication

ScaleAgData is a project that fosters innovation, therefore the publication of the goals achieved is one of the natural channels of dissemination. The publications are of various kind, some financed directly by the project, others sponsored by the partners but possible thanks to the collaboration with ScaleAgData.

Below is a table that monitors the status of publications. Since the project is in its initial phase and most of the RILs are still busy with in situ data collection campaigns, we expect an increase in the number of publications in the second half of the project.

Table 3: Publications

Type of publication	Peer review	PID or URL	Title of the publication	Authors	Title of the journal	N.	Publisher	Date	Open Access	License Type
Thesis	No	Link 1	Implementation of a Controller for a Piezo-Actuated Fabry-Perot Interferometer	Juha Rauhala	N/A	-	N/A	1/5/2024	Yes	CC BY-NC-SA
Conference Paper	Yes	eo.csic.es/images/yootheme/aet24/Libro ACTAS XX_AET.pdf	Influencia del estrés hídrico en la productividad de	Muñoz-Gómez MJ, A Andreu, MD Carbonero, A	Teledetección y Cambio Global: Retos y Oportunidades	-	Eds. Isabel Caballero, Gabriel Navarro,	4/6/2024	Yes	CC Atribución-4.0 Internacional.

			los pastizales de dehesa	Blázquez- Carrasco, MP González- Dugo	para un Crecimiento Azul. XX Cong de la Asoc Esp de Teledetección		Luis Barbero y Jesús Gómez- Enri. 2024, Cádiz. ISBN: 978- 84-9828- 941-1				
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3 Engagement Activities report

3.1 Stakeholder engagement

ScaleAgData aims to leverage advanced technologies like sensors, data sharing, edge computing, and satellite imagery. Its focus includes improving soil health, managing grasslands, and other agricultural areas through specialized research and innovation labs in different European biogeographical zones.

ScaleAgData is committed to broad and inclusive stakeholder engagement by establishing a diverse network under task T6.2 (see D6.1 Section 3.2, Section 3.3). This network will enable them to leverage a wide range of expertise and support, thereby increasing the overall success of the project.

Simultaneously, ScaleAgData is developing tailored strategies (outlined in D6.1 section 3.2 Stakeholder Mapping) to engage stakeholders effectively. These strategies consider each stakeholder's specific contributions, activities, and preferred levels of involvement. By leveraging diverse communication channels such as regular meetings, workshops, and targeted demonstrations, our goal is to ensure a transparent exchange of information.

This stakeholder network will initiate discussions on challenges and opportunities across different thematic areas addressed by the project and will actively support the dissemination of project results. In addition, a series of events will be organized during the last two years of the project to foster collaboration and knowledge sharing with identified stakeholders. These events aim to support various project activities, including co-design (WP2), RIL demonstrations and evaluation (WP5), and capacity building (WP6) (please see Table 1, Table 5).

After the interactive stakeholder network was established prior to the first milestone in the first half of 2023 (as described in D6.1 section 3.2, Section 3.3) a first webinar was organized. This event was designed to introduce the ScaleAgData project in a comprehensive way, outline the key elements of the stakeholder network group and facilitate initial discussions on possible collaboration opportunities.

In collaboration with all partners, we conducted a series of activities aimed at updating and expanding our stakeholder list to encompass all project target groups, address innovation areas, and achieve a broad geographical reach. This work was crucial while moving towards the demonstration phase of the project to ensure comprehensive stakeholder engagement and alignment with project objectives.

These activities encompassed:

- Organizing and cleaning up the initial stakeholder list,
- Analysing it to identify gaps in stakeholder representation and participation,

The conducted analyses, showed us that stakeholder representation across innovation domains, RI Labs, and activity types varies, with some areas demonstrating strong engagement while others present opportunities for improvement. Fields like sensor technology, privacy-preserving technology, and data assimilation, along with RI Labs domains such as water, crops, and yield, exhibit robust coverage and active participation. However, areas like edge processing, satellite data augmentation, grassland, dairy, and soil would benefit from increased stakeholder involvement. Similarly, while communication and distribution activities are well-represented, there is potential to enhance participation in exploitation, co-design, rolling plans, and demonstrations. To address these gaps, we plan

activities aimed at strengthening representation and ensuring a more balanced and effective approach to research and innovation.

- Preparing secondary emails and surveys for project partners to invite stakeholders and assess their level of involvement,
- Ensuring continuous updates,
- Making necessary updates to maintain the list's currency as we moved towards the project's demonstration phase.
- Actively collaborate with other relevant WPs.

Looking ahead, we are planning to host the next stakeholder network engagement webinar in October 2024 to share the project's progress with the network and gather valuable feedback. These webinars are essential for fostering interaction within the network (see table 4).

We remain committed to collaboration with European and international actors, including the EC-JRC, the Common European Agriculture Data Space, the Common European Research and Innovation Data Space, the Agricultural Knowledge and Innovation System (AKIS) and the European Open Science Cloud (EOSC), as well as relevant projects such as AgriDataSpace and projects selected under the same call, such as AgriDataValue. These collaborations will play an important role in achieving our project goals and ensuring the effective dissemination and application of our research findings.

Table 4: Stakeholder engagement webinars

Event type	Status	Date	Comments
Online Webinar: Project first stakeholder engagement event.	Delivered	June 2023	The first external stakeholder event took place in June 2023, where the ScaleAgData project was introduced, essential elements of the stakeholder network group were explained, and opportunities for collaboration were discussed
Stakeholder engagement webinars/workshop	Preparation	it is planned to be organised in October 2024	This will be the second specific event to promote collaboration within the network.

4 Capacity building report

4.1 Introduction

The “Exploitation and Capacity building of Products and Services” activities began in month 12 (December 2023), within WP 6 (Impact, Maximization and Outreach), identified as Task 6.3.

The project has defined 6 KPIs for this specific task 4 webinars and 2 workshops.

Two webinars will be dedicated to the involvement of stakeholders (both among partners and those joining the project as users) to strengthen and promote collaboration within the network.

The other two webinars on the other hand will be dedicated to the members of the consortium involved in the RILs. During the first 18 months of work, WP3 and WP4 have developed tools (methods, technologies, services, etc) that will have to be implemented in the RILs. These 2 webinars will be used to develop capabilities within the RILs, so that synergy is created within the consortium and the RILs are trained and enabled to implement, test and validate these tools. One will be entirely dedicated to the Data Technologies, Collection and Architecture part of the project (WP3), the other to the developed products and services (WP4).

The two workshops are dedicated to presenting the results relating to Data Technologies, Collection and Architecture (WP3), Product and service development (WP4), their implementation (tested and validated) in the various RILs and the individual research carried out internally at each RIL. They also aim to train users on the use of the developed sensors/platforms/methodologies as well as collect their feedback.

4.2 Capacity building events

In terms of timing, the webinars and workshops described above will all be carried out starting from Q3 of the second year of the project (2024).

The two webinars dedicated to strengthening capacities within the project will take place (online) in September 2024. The objective of these two webinars will be to disseminate the results of WP3 and WP4 and to exploit those results inside the RILs (as described in section 4.1).

The two webinars dedicated to the involvement of stakeholders will be realised during the third and fourth year of the project. Their aim is to further strengthen and promote collaboration within the network. The basic idea is to use these events to have a more incisive dissemination in the network of users and stakeholders but also to collect their feedback. The workshops will be linked to international events of interest in the network of users and stakeholders, with whom we will collaborate by proposing to include our workshops.

The final structure of the capacity building events should therefore be as follows:

- 2 webinars in September 2024
- 1 webinar and 1 workshop during 2025
- 1 webinar and 1 workshop in 2026.

Table 5: Capacity Building events

Activity	Comment
2 stakeholder engagement webinars/workshops will be organized to further strengthen and promote collaboration within the network.	They will be implemented between the third and fourth year of the project. They will be planned to start from M25.
2 capacity building webinars dedicated to the members of the consortium involved in the RI-Labs with the aim of disseminating the results obtained in the field of Data Technologies, Collection and Architecture - WP3 and Product	Both are being organized with the task leaders of WP3 and WP4 respectively. Both will be built between 11 and 16 September 2024.

and service development - WP4 (one webinar per topic respectively) and implementing them within the various RI-Labs.	
2 workshops in key user community events with the following aims: 1) presenting the results relating to Data Technologies, Collection and Architecture, Product and service development, their implementation (tested and validated) in the various RI-Labs and the individual research carried out internally at each RI-Lab, 2) Train users on the use of the developed sensors/platforms/methodologies 3) collect their feedback.	They will be implemented between the third and fourth year of the project. They will be planned to start from M25.

5 Activities planification and monitoring

To better monitor the work carried out in the field of dissemination, involvement and capacity development we have highlighted all the activities that contribute to the achievement of the objectives in this area of the project.

The following table includes both activities managed and implemented directly by WP6 and those managed and implemented in other WPs but which are closely related to the dissemination, engagement and capacity building objectives of WP6. The aim is to provide a complete overview of all the activities performed during the project that contribute to these objectives.

All the activities in the table assigned to the period prior to the delivery of this document (06/30/2024) were carried out in the marked period. For all those marked in the period following the delivery of this document, the table shows the deadline by which we have planned to carry them out. The table will be reported in the following Dissemination, engagement and capacity building reports (deliverables 6.3 and 6.4) and will be periodically updated.

Table 6: Activities planification

Action	Type	Area	2023 - Q1	2023 - Q2	2023 - Q3	2023 - Q4	2024 - Q1	2024 - Q2	2024 - Q3	2024 - Q4	2025 - Q1	2025 - Q2	2025 - Q3	2025 - Q4	2026 - Q1	2026 - Q2	2026 - Q3	2026 - Q4
Participation in key user communities' events	event	Communication and Dissemination			x		x	x										
Project specific social media channels set up	Social Media Account	Communication and Dissemination	x															
Website is set up	Website	Communication and Dissemination		x														
Newsletter published – 1: innovative sensor technology	Publication	Communication and Dissemination					x											
Newsletter published – 2: edge processing	Publication	Communication and Dissemination						x										

Newsletter published – 3: data sharing architecture and governance	Publication	Communication and Dissemination							x										
Newsletter published – 4: satellite data augmentation	Publication	Communication and Dissemination							x										
Newsletter published – 5: privacy preserving technology	Publication	Communication and Dissemination								x									
Newsletter published – 6: data integration methodologies	Publication	Communication and Dissemination									x								
Newsletter published – 7: from data assimilation to service development	Publication	Communication and Dissemination									x								
Newsletter published – 8: TBD	Publication	Communication and Dissemination										x							
Newsletter published – 9: TBD	Publication	Communication and Dissemination										x							
Newsletter published – 10: TBD	Publication	Communication and Dissemination										x							
Newsletter published – 11: TBD	Publication	Communication and Dissemination										x							
Newsletter published – 12: TBD	Publication	Communication and Dissemination											x						
Youtube video	Video	Communication and Dissemination																	x

Reports, guidelines, capacity building material	Documents	Communication and Dissemination			x														x
Public Github repositories	Web service	Communication and Dissemination							x										
Novel sensors for agricultural production and environmental impact monitoring - Scientific Publication 1	publication	Communication and Dissemination																	x
Novel sensors for agricultural production and environmental impact monitoring - Scientific Publication 2	publication	Communication and Dissemination																	x
Novel sensors for agricultural production and environmental impact monitoring - Conference Presentation 1	event	Communication and Dissemination																	x
Novel sensors for agricultural production and environmental impact monitoring - Conference Presentation 2	event	Communication and Dissemination																	x

Development of a new architecture for sensor data sharing and integration	event / publication	Communication and Dissemination																x
Development of new techniques: 1) to translate sensor data into actionable information; 2) to integrate sensor data in the development of upscaled EO data products; 3) to use those data products in areas where no sensor	publication (7)	Communication and Dissemination																x
Development of sensor data driven smart farming and agri-environmental monitoring data at different spatial scales based on the developed techniques	publication (6)	Communication and Dissemination																x
stakeholder engagement webinars/workshops will be organized to further strengthen and promote collaboration within the network. -1	event / webinars	Fostering Network of Relevant Projects			x													
stakeholder engagement webinars/workshops	event / webinars	Fostering Network of Relevant Projects								x								

will be organized to further strengthen and promote collaboration within the network. -2																		
Webinar: Virtual Lab Presentation and Live Demo	Webinar	Exploitation and Capacity Building			x													
Capacity Building Webinar 1: Internal capacity Building - WP3 to RI-Labs	event / webinars	Exploitation and Capacity Building of Products and Services					x											
Capacity Building Webinar 2: Internal capacity Building - WP4 to Ri-Labs	event / webinars	Exploitation and Capacity Building of Products and Services					x											
Capacity Building Webinar 3: external	event / webinars	Exploitation and Capacity Building of Products and Services								x								
Capacity Building Webinar 4: external	event / webinars	Exploitation and Capacity Building of Products and Services										x						
Workshop 1: external	event / webinars	Exploitation and Capacity Building of Products and Services								x								
Workshop 2: external	event / webinars	Exploitation and Capacity Building of Products and Services										x						
Number of defined governance and business models.	publication	IPR Management, Definition of Business Model and Policy brief															x	

Policy briefs outlining impact of different data products/applications in National and European policies - 1	publication	IPR Management, Definition of Business Model and Policy brief																x
Policy briefs outlining impact of different data products/applications in National and European policies - 2	publication	IPR Management, Definition of Business Model and Policy brief																x
Policy briefs outlining impact of different data products/applications in National and European policies - 3	publication	IPR Management, Definition of Business Model and Policy brief																x
Policy briefs outlining impact of different data products/applications in National and European policies - 4	publication	IPR Management, Definition of Business Model and Policy brief																x
Policy briefs outlining impact of different data products/applications in National and European policies - 5	publication	IPR Management, Definition of Business Model and Policy brief																x
Policy briefs outlining impact of different data products/applications in National and European policies - 6	publication	IPR Management, Definition of Business Model and Policy brief																x

*This table presents an indicative schedule of events, activities and publications. The dates of activities not yet completed will be reviewed periodically and subject to change. This table will be presented again in the following reports updating the activities carried out.

6 KPI Monitoring

Below (Table 7) is the table to monitor the KPIs. Only the KPIs where WP 6 is responsible or involved in are shown. For a complete monitoring of the project KPIs refer to the deliverable D5.1.

Table 7: KPIs monitoring

KPI		Target	Achieved	Status	
Obj.2: Enabling and promoting data sharing along the entire data value chain.	KPI.O4: RILs adopt and demonstrate data sharing best practices. The sensor data is readily available according to the metadata and governance models	Target: 100% of the RI labs	6	7	In progress across all RILs
	KPI.O5: Implementation of a best practice document on the different governance models, with drawbacks and benefits for the different stakeholders.	Target: n.d. (1)	1	1	100%
	KPI.O6: Workshops to highlight the importance of data sharing can be organized.	Target: n.d. (1)	1	1	100%
Obj.4: Demonstrating the benefit of the improved monitoring capacities of the agri-environmental conditions in a precision farming context.	KPI.O8: The improved data products of RILs are used to optimize the services to farmers, providing information or a service that is not feasible with the in-situ sensors alone	Target: ≥ 5 RILs	5	6	In various stages of progress across all RILs

Obj.5 Demonstrating the benefit of upscaled regional datasets for the agricultural sector in general	KPI.O11: Number and feedback of the project's co-engagement activities such as workshops, webinars with national or EU policy makers, or with other liaised projects or initiatives such as the "Partnership of Agriculture of Data"	Target: n.d. (set at 15)	15	12	80%
	KPI.I3: Number of engaged possible users for all SF related data products.	Target: 16	16	12	75%
	KPI.I6: Number of engaged possible users for each soil and crop related data product.	Target: 22	46	22	209%
	KP.D1: Participation in key user communities events (T6.3)	Target: ≥ 2	2	1	50%
Dissemination	KPI.D2: RI Labs workshops (Wider Impact 5)	Target: 12	12	12	100%
	KPI.D3: Capacity Building Webinars (Wider Impact 5)	Target: 6	6	0	0%
	KPI.D4: Project Conferences	Target: 1	1	0	0%

7 Conclusion

The main goal of this dissemination, engagement and capacity building report is to help maximize impact, by outlining engagement with other projects, key institutions and initiatives; by outlining capacity building activities on the usage of the developed services/products amongst the main user communities, as well as providing an overview of communication channels and material that are and can be used to disseminate project findings to stakeholders. It further supports the timely and successful completion of the proposed objectives by monitoring the KPIs.

In the first 18 months of the project, activities took place to map key stakeholders, identify gaps, and target those key stakeholders through various channels. This was done on one hand through the activation and use of various communication channels such as a dedicated project website, the release of quarterly newsletters, and active use of social media to promote our work and activities.

On the other hand, participation and/or presentations in key conferences, meetings, workshops and fairs allowed us to disseminate project results, network with key users and discuss synergies. Finally, the establishment of an interactive stakeholder network facilitated discussions on possible collaboration opportunities. This network will be further exploited during the coming years to share project results.

We anticipate that as more services and products are developed within the project, there will be more contributions the consortium can bring to key international events and conferences, not to mention publications. At the same time, through a dedicated work package within the project focussed on maximizing impact and outreach (WP6), the project will continue to invest in reaching its target users through its established communication and social media channels, its interactive stakeholder network and capacity building events scheduled in the remainder of the project cycle. The latter will be key to providing the stakeholders with a better understanding of products and services applicability for their specific needs.