dinosar

Diagnostic tool that INtegrates
Optical, infrared and SAR data

Plan for the dissemination and exploitation of project results, including communication activities (PDEC)

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Deliverable abstract
The Plan for the dissemination and exploitation of project results, including communication activities (PEDC) will be developed and managed by the WP6 leader (EURONOVIA). This document aims to provide the DINOSAR partners with guidelines on the different communication, dissemination and exploitation activities that are planned throughout the project, their schedule, and the partner responsibilities. The PDEC provides an overview of the communication, dissemination and exploitation strategies, and the planned activities for each targeted group to maximise the impact of DINOSAR. Details are given on activities already led (6 months after the launch of the project), and those that would be implemented during the project lifetime. The monitoring and impact assessment processes are also described.

Revision table

Version	Contributors	Date	Description
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V0.9	Corné van der Sande (eLEAF- coordinator) Andrea Andrea Idrovo (eLEAF)	11/06/2024	General review, feedback, and approval
V1.0	Aude GARSES (Euronovia)	11/06/2024	Final version submitted to PO before submission
V1.1	Aude GARSES (Euronovia)	22/07/2024	Revised version based on DELIVERABLE REVIEW SHEET (DRS) comments

List of acronyms

Acronym	Full name
CA	Consortium Agreement
EC	European Commission
GA	Grant Agreement
IP	Intellectual Property
IPR	Intellectual Property Right
KER	Key Exploitable Result
KTP	Knowledge Transfer Plan
PDEC	Plan for the dissemination and exploitation of project results, including communication activities
TRL	Technology Readiness Level
WP	Work Package

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Executive summary

This document is a deliverable of the DINOSAR project, funded under the European Union's Horizon Europe research and innovation programme under grant agreement No 101129646.

This deliverable is the first version of the Plan for the dissemination and exploitation of project results, including communication activities (PDEC), submitted at M6 as part of Work Package 6 on dissemination, communication, and exploitation. The PEDC is planned to provide the DINOSAR partners with guidelines on the different communication, dissemination and exploitation/knowledge transfer activities that are planned throughout the project, their schedule, partner responsibilities, as well as new and corrective actions that may be necessary to reach the pre-established Key Performance Indicators (KPIs) and to ensure appropriate impact of the action.

More specifically, the PEDC:

- Proposes a dissemination, communication, and exploitation strategy and define the objectives of the actions.
- Identifies the targeted audiences for each objective or main results.
- Lists the channels to be used.
- Presents a schedule of the actions.
- Describes the monitoring and implementation of impact assessment actions (through qualitative and quantitative KPIs).

The document is drafted by Euronovia (WP6 leader) and eLEAF (leader of the knowledge management, transfer, and exploitation of results), with inputs from all partners. The PEDC will be updated during the intermediate and final technical reports.

Introduction

1.1. Definition and terminology

The DINOSAR PEDC is designed based on the knowledge management process which has been implemented from the start of the project and informs communication, dissemination, and exploitation. DINOSAR distinguishes between communication, dissemination, and exploitation (knowledge transfer), in line with the EC definitions below:

Communication is a strategically planned process that starts at the outset of the project and continues throughout its entire lifetime. It is aimed at promoting DINOSAR and its results. It requires strategic and targeted measures for communicating about (i) DINOSAR and (ii) results to a multitude of audiences, including the media, the public and possibly engaging in a two-way exchange. Activities used for communication purposes are for example a public website, social medias, or newsletters.

Dissemination is the public disclosure of the project results by any appropriate means (other than resulting from protection or exploitation of results), including scientific publication in any medium. It is the process of promotion and awareness-raising right from the beginning of a project. It makes research results known to various stakeholder groups (e.g., research peers, industrials and other commercial stakeholders, professional organisations, policymakers) in a targeted way, enabling them to use the results in their own work. This process must be planned and organised at the beginning of each project. Tools and activities used for dissemination purposes are for example a public website, press releases, publications, workshops and webinars, attendance of events such as conferences.

Knowledge transfer and exploitation of results requires several steps including identifying exploitation mechanisms and activities. It focuses on identified end-users to ensure impact and uptake of the results. DINOSAR integrates diverse activities along the project lifetime to enhance the dissemination and exploitation strategy, maximize the expected impact and boost the project sustainability for the continuation of the project after EU-funding. The geographic coverage of the project also provides the foundation for a much broader engagement, and ultimately for the basis upon which to work towards the long-term sustainability of the project findings.

1.2. Roles and responsibilities

Communication and dissemination activities fall under WP6 which is coordinated by Euronovia, with support from all partners who **strongly participate in communication and dissemination activities**, namely by:

- Communicating their activities and disseminating their results to their respective networks, for instance via their own social media accounts and websites.
- Contributing to the content of the DINOSAR social media accounts, website, and bi-annual newsletter.

- Informing the other partners of relevant initiatives, activities, and events they could participate in.
- Keeping track of their communication and dissemination activities by filling in a dedicated reporting table available in the project's document repository (see Annex 4).
- Disseminating results in open access publications, conferences, and other relevant events

1. General rules and procedures

1.1. Communication within the DINOSAR consortium

Communication amongst partners is crucial to exchange up-to-date knowledge and data on ongoing activities in the different WPs. Internal communication will enhance and optimise external communication and dissemination.

Internal communication is ensured through regular exchange of information via e-mail, through the DINOSAR share document platform and during regular meetings, when all partners gather to discuss achievements, upcoming activities, deadlines, and issues arising within the different work packages. For further information, refer to the deliverable 7.1 Inception report.

WP leaders are also presenting main activities progresses during regular monthly meetings.

Communication and dissemination activities are coordinated by Euronovia, with support of eLEAF. **All partners participate in communication and dissemination activities** and monthly regular meetings, namely by:

- Communicating their activities and disseminating their results to their respective networks, on social media and through the production of news for the project website;
- Contributing to the content of the biannual newsletter (articles, interviews);
- Informing other partners of interesting, related initiatives and events they could participate in;
- Keeping track of their communication and dissemination activities by filling in a dedicated reporting table available in the DINOSAR share document platform;
- Disseminating results in open access publications, conferences, and relevant events.

1.2. Use of graphic identity and EU visibility

A **common graphic identity** has been defined to allow for better visibility and recognition as well as branding of the DINOSAR project. Therefore, all communication and dissemination tools and activities must refer to or include:

- The name of the project: DINOSAR
- The **URL of the project's website** : www.dinosarproject.eu
- The **DINOSAR project logo** (different versions to be used depending on the background colour)
- **Information on EU funding** (as defined in Article 17 of the GA):
- Unless the Agency requests or agrees otherwise or unless it is impossible, any dissemination of results (in any form, including electronic) must: (a) display the EU emblem and (b) indicate the following disclaimer (translated into local

languages where appropriate): “Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Union Agency for the Space Programme (EUSPA). Neither the European Union nor the granting authority can be held responsible for them.”

- When displayed together with another logo, the EU emblem is given appropriate prominence.

1.3. Open access to results

1.3.1. Open access to scientific publications

The DINOSAR partners are committed to **publishing scientific publications in open access.** The policy that will be implemented by the project will give priority to the Green model with the requirement to fix the embargo to 6 months after the first date of publication, as required by the EC. However, when not applicable, the publication policy of the consortium will be to pay the fees to make the scientific publications free of access. The costs related to paying the “Gold” open access for several publications have been integrated into the budget of the project.

The platform Sherpa/Romeo will be used to have a summary of permissions that are normally given as part of each publisher's copyright transfer agreement.

Further to this and whenever necessary, the addendum to the publication agreement provided by the European Commission (EC) will be used. This is an instrument that, if accepted by the editor, modifies the publisher’s agreement, and allows the researcher to keep key rights to your articles. The coordinator will support the researchers for these administrative issues related to the communication with the publishers.

All publications are stored in the **online project community created on Zenodo** within WP6: Search DINOSAR: Diagnostic tool that integrates optical, infrared and SAR data (zenodo.org). All uploads are thus directly indexed in **OpenAIRE**. A Zenodo guideline has been created by Euronovia and accessible on the DINOSAR repository.

1.3.2. Open access to data

The project will collect relevant research data, that will be managed according to the Data Management Plan (D7.3). In accordance with the rules of the Open Research Data Pilot of which DINOSAR is a part of, for each research dataset the DINOSAR partners will carefully study the possibility and pertinence to make them findable, accessible, interoperable, and reusable (FAIR). Data will be shared in accordance with recognized standards used in the research field, to maximize the opportunities for data linkage and interoperability. Sufficient metadata will be provided to enable the datasets to be used by others.

Generally, the data being produced will be shared and made accessible for verification and re-use, according to the provisions foreseen in the CA. Access to specific data may be restricted under limited circumstances (e.g. for national security, to protect personal data and where the relevant new know-how acquired in the project is protected in order not to endanger the exploitation of the project’s results).

The metadata of the datasets generated by DINOSAR will be published in the GEOSS portal: https://www.geoportal.org/.

The first version of the Data Management Plan (DMP) will be delivered at M6. Updates could be planned throughout the whole duration of the project, especially during reporting phases.

1.4. Prior notice protocol

According to the Article 8.4.2 Dissemination of Own Results for all types of Publications, Dissemination and Communication Activities in the CA and Article 17 Obligation to disseminate results in the GA, where DINOSAR results are presented (including scientific publications, datasets, oral and poster presentations, non-scientific and non-peer reviewed publications), the Prior Notice Procedure must be applied as outlined below.

Euronovia tracks all prior notice messages received from the consortium and abstracts/associated documents received are stored in the DINOSAR Share repository, easily accessible by all partners. A list can be provided to the EC upon request.

A partner who intends to publish / present results, should:

- Submit the information (including full draft publication, or at least the abstract and where it will be submitted/presented) directly to the Prior Notice folder in the share repository, **preferably latest 30 calendar days in advance of the activity for scientific publication and 15 calendar days for poster presentation** and **send email notification** to the WP6 leader (Euronovia) copying the project coordinator.
- WP6 leader Euronovia will subsequently immediately inform all partners by email.
- **Partners have 25 days to object for scientific publication or 10 days in case of oral presentation** (in writing) sent to the lead author and WP6 leader, any objection needs to be justified and give precise modifications. An objection is justified if:
    - it adversely affects protection of results/background of the objecting party
    - legitimate interests of the objecting party would be significantly harmed
- If no objection is received before the set date, the author(s) can assume that there are no objections to the publication.
- Partners must ensure that the EU is acknowledged (correctly) and in the case of a scientific publication, whether it will be published in Open Access.

2. Communication, dissemination and exploitation strategy

2.1. Objectives

The main ambition of the DINOSAR communication, dissemination, and exploitation strategy plan is to maximise the project impact. This main goal is declined into five specific objectives:

- Building widespread awareness about the project, its goals, activities and successful results/ outcomes and the importance of developed DINOSAR algorithms technology based on Copernicus to support smart farming applications among the targeted audiences;
- Engage with relevant stakeholders, policy-makers and in general targeted user communities including Sugarcane industrial community and professional networks (local farmers, cooperatives, technologists association of sugarcane etc.) and Earth observation community to optimise irrigation management, drought monitoring and the use of fertilisers;
- Encourage interactions/ networking, and foster partnerships, clustering and synergies to enhance Earth observation, smart farming and agricultural crops management practices;
- Coordinate all levels and types of exploitation of the knowledge produced by the project;
- Raise awareness about the potential of DINOSAR and reach out to wide audience/society in Colombia, the EU countries and beyond and show its impact and benefits.

2.2. Phases

The planning and execution of the project dissemination activities requires a schedule closely aligned with key project deliverables and milestones. Currently, the project is organised into 3 phases:

Initial awareness phase (Month 0-6) to ensure the project is known to relevant stakeholders and the public in general. In this phase, we developed the project website and various communication and dissemination materials, including the project graphical identity (i.e., project logo, branding guidelines, templates for project documents and presentations). During this phase, we also identified an initial mapping key stakeholders to be included in the project database to optimise targeted communication and dissemination. This database is regularly updated. *This phase is ongoing.*

Targeted dissemination phase (Month 6-24) to encourage a better understanding of the project results leading to greater engagement of external stakeholders and better future uptake of the project outcomes. We will disseminate project results and success stories showing how public value is created out of adaptation measures in DINOSAR. In this phase, the consortium is enriching the website and social media channels with new

content. DINOSAR's knowledge is collected and analysed by all partners. The targeted communication, dissemination and exploitation activities are identified and planned and discussed during monthly consortium meetings. Discussions are coordinated by Euronovia (Leader of WP6), with support of eLEAF. eLEAF is responsible to lead exploitation discussion, activities, and potential negotiations. The targeted communication, dissemination and exploitation activities include showcasing preliminary project results to the target audiences through scientific publications, participating in relevant conferences, seminars, workshops, and webinars though oral and poster presentations as well as project booths. Impact assessment is crucial at this stage to monitor and reorientate the strategy, if necessary. The impact assessment will be monitored for the mid-term report on communication and dissemination activities (D6.3) expected to be submitted in M18. In this phase, we have also started to map the project exploitable results and defined first knowledge transfer plans, as detailed in chapter 6. *This phase is starting.*

Presentation of results (Month 24-36): This represents the period just prior to the end of the project when the project reaches its most significant outputs. This will be the most active period in the whole PDEC strategy, matching with the finalisation of the project and the publications of the final project results. Exploitation of these results will also be ensured by outlining the actions required to fulfil their market potential. Final Knowledge Transfer Plans (KTPs) will be mapped, detailing customized transfer activities for the (target/end) users. This will contribute to maximizing the project's impact and legacy on a large range of stakeholders.

Table 1 presents more in details the main tasks planned within the dissemination and knowledge transfer strategy over the 3 years of the project.

Table 1: Dissemination and exploitation strategy planning

Main tasks	Task description	Year 1				Year 2				Year 3			
Communication, dissemination, and exploitation strategy definition	During the first months of the project, the consortium defined the communication, dissemination and exploitation strategies focusing on the planned project outcomes and targeted stakeholders. This strategy is annually monitored: corrections are made, and new activities are implemented, if needed, to meet the KPIs defined in the GA.												
Mapping, collaborating, and clustering with stakeholders' network	DINOSAR is developing a contact database consisting of the stakeholders, potential end-users, partners and other external actors in the field that are being targeted in the project. This database is updated all along the project duration. Partners are using their own networks of contact at the local level to make sure relevant people are reached and involved in DINOSAR activities.												
Targeted communication and	Participation in scientific conferences/workshops, outreach events, scientific publications, creation of												

dissemination events	communication materials, media general outreach through press releases and articles in magazines.											
Exploitation	Mapping of key exploitable results, implementation of exploitation strategy focusing on the adoption of project outcomes and directing further development of results beyond the project.											
Impact Assessment	Assess the project outcomes impacts with direct feedback; Stakeholder validated project outcomes.											
Intensive dissemination period	This final period will match with the finalisation of the project and publications of the final project results, resulting in an intensive communication and dissemination strategies.											

2.3. Target groups

The consortium has identified several groups that have an interest or will be affected by the DINOSAR project.

Specific stakeholders/organisations within each target group were identified by the project consortium throughout the lifetime of the project by means of:

- Internal partners networks
- Existing database from previous related projects
- People subscribing to the project newsletter.
- Contacts established at conferences and exhibition booths, B2B meetings or other networking events.
- General internet search
- Data gathering from the market study.

These are being targeted by different communication and dissemination actions and networking/clustering activities, as detailed in the table below. Targeted audiences could be refined throughout the project lifetime in relation to the various activities developed within the different work packages.

Table 2:Target audiences, objectives, and content for DINOSAR dissemination

Target and user groups	Description of the target groups	Objectives	Dissemination content and channels
TARGET GROUP #1 Academic and research communities	This group targets all research communities interested in the project's developments, results, and innovation, which can be beneficiary for their own research activities.	Transfer of knowledge, raise awareness, reuse of the scientific data, get support from the scientific community,	Scientific publications, conferences, and other scientific events

	This specifically targets a variety of disciplines, including earth detection, SAR observations and precision sugarcane agriculture sector in Colombia and the wider region. 3 main research communities have been identified: -Sugarcane agriculture, smart farming -Geospatial, radar remote sensing and GIS, Earth observation -Data sciences, computer vision, IT and software	Inform about the critical research conducted and the technology progress.	
TARGET GROUP #2 Sugarcane industrial community	This group targets companies and end-users in the whole supply chain of smart/precision farming and sugarcane industry in Colombia and the wider region The sugarcane industrial community is including farmers and mill managers who have direct interest in the outputs of the project	Demonstrate the business potential, push towards early adoption of products and services developed by the consortium, collect feedback on their expectations and requirement to adjust commercial exploitation plans, convince about the technical feasibility and competitiveness of the concept and tools developed.	Scientific publications, conferences, workshops and webinars, summary of deliverables, related project events and exhibition in trade fairs
TARGET GROUP #3 Earth observation-satellite companies and associations	This group targets companies and end-users in the whole supply chain: radar remote sensing and GIS consultors, geospatial, Earth observation and data sciences		
TARGET GROUP #4 Colombian, EU and international Professional networks& projects	General public with an interest in smart farming and actions towards a more sustainable use of agricultural resources	Ensure the replicability of the project's results and support their sustainability, facilitate synergies between projects and initiatives related to sugarcane farming and earth observation	Website, social media, press releases, final event
TARGET GROUP #5 Public authorities (EU and Colombia)	This is a wide group encompassing local, regional, national authorities, representatives especially in Colombia, south and central America, and EU countries. It includes Ministries, parliaments and Public Administrations at national, as well as European level.	Demonstrate the benefits of smart farming applications and Corpernicus algorithm prototype to reach the EU goals, raise awareness about optimize, water issue (irrigation management), environmental footprint and food security.	Website, social media, press releases, non-scientific articles, workshops, participation in policy events, motion design video, final event
TARGET GROUP #6 General audience/SOCIETY-	Civil society, citizens, local communities, activists	Raise awareness about the project and its social and economic benefits, highlight the	Website, social media, press releases, non-scientific articles,

citizens, students, associations of consumers		efforts done to green the farming sector.	motion design video final event.

During the first six months of the project, the DINOSAR consortium identified, for each of these target groups, a list of stakeholders that could be contacted to disseminate information on the project, constituting the future database of the project This group list will be continuously updated during the project lifetime.

It should also be noted that AgroAP is a key partner based in Colombia which has a very extensive and active network especially in Colombia, and more broadly in Central and Latin America, on which the consortium relies.

Table 3: Target group list

TARGET GROUP #1 Academic and research communities	
Community/organisation name	**Website**
Sugarcane Research Center (Cenicaña) Colombia	https://en.cenicana.org/
Cengicana (Centro Guatemalteco de Investigación y Capacitación de la Caña de Azúcar)	https://cengicana.org/
Sugarcane Research Center (CINCAE) Ecuador	https://cincae.org/
EMBRAPA Brasil	https://www.embrapa.br/
Universidad del Valle	https://www.univalle.edu.co/
Universidad Nacional de Colombia – Sede Palmira	https://www.palmira.unal.edu.co/
Universidad ICESI	https://www.icesi.edu.co/es/
Centro de Tecnologia Canavieira (CTC) Brasil	https://ctc.com.br/
International Society of Precision Agriculture (ISPA)	https://www.ispag.org/
Delft University	https://www.tudelft.nl/en/
Escuela Superior de Agricultura Luiz de Queiroz (ESALQ) - Universidad de São Paulo (USP)	https://en.esalq.usp.br/es
Associação Brasileira de Agricultura de Precisão e Digital	https://www.asbraap.org/
Wageningen University	https://www.wur.nl/en.htm
Bartens (The Sugar & Sweetener Publisher)	https://www.bartens.com/
Instituto de Promoción del Azúcar y Alcohol de Tucumán (IPAAT)	https://www.ipaat.gov.ar/
Centre Natiional d'Etudes Spatiales (CNES)	https://cnes.fr/fr
International Institute for Applied Systems Analysis (IIASA)	https://iiasa.ac.at/

TARGET GROUP #2 Sugarcane industrial community Smart - Precision Farming and Sugarcane Industry in Colombia and the wider region, *Agro-industry: sugar, honey, energy, bioethanol, paper, cartoon, organic fertilizers, compost.* *Including mill managers, operators and precision agriculture specialists*	
Community/organisation name	**Website**
Ingenio Carmelita	https://ingeniocarmelita.com/
Ingenio Manuelita	https://manuelita.com/
Ingenio INCAUCA	https://www.incauca.com/en/
Riopaila Castilla S.A	https://www.riopaila-castilla.com/en/
Ingenio San Carlos	https://www.sancarlos.com.ec/
Ingenio Risaralda	https://www.ingeniorisaralda.com/es/
Ingenio del Occidente	https://www.i-occidente.com/
Ingenio Pichichi	https://www.ingeniopichichi.com/pichichi/index.html
Ingenio Providencia	https://www.providenciaco.com/es/
Ingenio Mayaguez	https://ingeniomayaguez.com/inicio/
Ingenio La cabaña	http://www.ingeniolacabana.com/intranet/2022/
Bioenergy S.A	http://www.bioenergy.com.co/
SUCROAL	https://sucroal.com.co/en/
CIAMSA	https://www.ciamsa.com/es/
Grupo Agroindustrial Riopaila Castilla	https://www.riopaila-castilla.com/fr/
Ingenio Maria Luisa SA	https://ingeniomarialuisa.com/
Lucerna	Definition of contact details ongoing
ERCANE	www.ercane.re

TARGET GROUP #3: Earth observation, GIS, radar remote sensing, SAR- satellite companies and associations	
Organisation name	**Website**
European Space Agency (ESA)	https://www.esa.int/
Projects working on similar or associated topics (see Table 9)	Definition of contact details ongoing
European Association of Remote Sensing Companies (EARSC)	https://earsc.org/
Sociedad Latinoamericana en Percepción Remota y Sistemas de Información Espacial (SELPER)	https://selper.info/
GEOGLAM	https://earthobservations.org/geoglam.php

GEOGLOWS	https://www.geoglows.org/
The Group on Earth Observation	https://earthobservations.org/index.php
EuroGEO	https://www.eurogeosec.eu/
AMERIGEO	https://www.amerigeo.org/

TARGET GROUP #4 Professional associations/networks and international organisations	
Organisation name	**Website**
International Society of Precision Agriculture (ISPA)	https://www.ispag.org/
Sociedade dos Técnicos Açucareiros e Alcooleiros do Brasil (STAB)	http://www.stab.org.br
International Society of Technicians of Sugarcane (ISSCT)	https://issct.org/
Associação Brasileira de Agricultura de Precisão e Digital	https://www.asbraap.org/
Society of Technicians of Sugarcane (Tecnicaña)	https://tecnicana.org/
Sociedad de Agricultores de Colombia (SAC)-National Farmers Association	https://sac.org.co/
FAO Colombia	https://www.fao.org/colombia/es/
IHE Delft Institute for Water Education	https://www.un-ihe.org/
Sugarcane Association Farmers (Procaña)	https://procana.org/site/
Sugarcane Association Farmers and Mills (Asocaña)	https://www.asocana.org/
Association Professionnelle Sucrière (APS)	Definition of contact details ongoing
Association française de la canne à sucre (AFCAS)	afcas-asso.org/
Asociación de técnicos azucareros de el Salvador (ATASAL)	www.atasal.org
Chinese Sugarcane Industry Association for Technological Innovation (CSIATI)	www.chinasugar.org.cn
ASOCAÑA Asociación de Productores Cañeros SOCA (Bolivia)	Definition of contact details ongoing
Asociación de técnicos azucareros de Costa Rica (ATACORI)	www.atacori.co.cr
Asociación de Productores de Azúcar de Honduras. APAH	https://productoresdeazucarhonduras.com/en/
Asociación de Técnicos azucareros de Cuba (ATAC)	Definition of contact details ongoing

Sociedad Argentina de técnicos de la caña de azúcar (SATCA)	www.eeaoc.org.ar
Asociación de Técnicos Azucareros de Guatemala (ATAGUA)	https://www.atagua.org/
Asociación de Tecnicos Azucareros de Mexico (ATAM)	https://atamexico.mx/
Sociedade dos Técnicos Açucareiros e Alcooleiros do Brasil (STAB Sul)	http://www.stab.org.br/
The sugar technologists' association- INDIA (STAI)	https://www.staionline.org/
Sugarcane technologists' society of Nigeria (STSN)	Definition of contact details ongoing
Pakistan society of sugar technologists	http://psst.org.pk/
South African sugar technologists' association	https://sasta.co.za/
Thailand society of sugar cane technologists	https://tssct.org/
German Group of Sugar Cane Technologists- ISSCT Regional Group F.R. Germany	www.bartens.com
American Society of Sugar Cane Technologists (ASSCT)	https://www.assct.org/
Philippine Sugar Technologists Assn., Inc. (PHILSUTECH)	https://www.philsutech.com/

TARGET GROUP #5 Public authorities (EU and Colombia)	
Organisation name	**Website**
Ministry of Environment and Sustainable Development- Colombia	https://www.minambiente.gov.co/
Institute of Hydrology, Meteorology and Environmental Studies. (IDEAM)	http://www.ideam.gov.co/
Cali Metropolitan	Definition of contact details ongoing
Brazilian Commission on Precision Agriculture (CBAP)	Definition of contact details ongoing
Ministry of Agriculture- Colombia	https://www.minagricultura.gov.co/English/Paginas/Minister.aspx
Colombian Agricultural Research Corporation (AGROSAVIA)	https://www.agrosavia.co/
Instituto Greográfico Agustin Codazzi (IGAC) CIAF	https://www.igac.gov.co/
Directorate general – CLIMA- Climate Action	https://climate.ec.europa.eu/
Directorate general AGRI- Agriculture and Rural Development	https://agriculture.ec.europa.eu/index_en

Directorate general ENV - Environment	https://environment.ec.europa.eu/topics_en
Directorate general SANTE- Health and Food Safety	https://health.ec.europa.eu/latest-updates_en
Directorate-general DEFIS -Defence Industry and Space	https://defence-industry-space.ec.europa.eu/index_en
EU Cluster Green Transition Support	https://clustercollaboration.eu/green
EIT Climate Change	https://eit.europa.eu/our-communities/eit-climate-kic
EIT Food	https://eit.europa.eu/our-communities/eit-food

2.4. DINOSAR messages

There are many ways to communicate on the project activities and results, depending on the audience. For each audience, a distinct strategy using targeted messages, means and language is being used[1]. Here are some **key messages** that we are delivering through the dissemination activities:

- Raise awareness on the DINOSAR project (general scope, coverage, goals, milestones and plans to reach them) and why it is important.
- Disseminate DINOSAR results and publications.
- Promote the Copernicus based algorithms developed during DINOSAR project to improve crop monitoring, support smart agriculture by developing farming applications that can be used worldwide, clouds, or no clouds.
- Support farmers in the sugarcane monitoring to match agricultural inputs (fertilisers, water) with what the crop needs, decreasing their environmental footprint.
- Recall the importance of involving key users and public authorities at local, regional, and national levels in the project to guarantee the back-up of the project by stakeholders.
- Encourage the EU collaboration with international countries such as Colombia, and reinforce scientific and technical collaboration;

Also, for each different audience identified, a distinct strategy using targeted messages, means and language is being used. For each audience we are trying to answer the following questions and adapt the message we are delivering:

- Why do they need to know?
- What makes the issue urgent?
- What are the consequences if no action is taken?
- What solutions are we offering?
- How does our work relate to everyday life?
- Does it link to any broader societal issue?

Rather than focusing only on the provision of factual information, we are trying to position our research topic within a broader socio-economic and policy context, so that it is easier to explain the results and their relevance to both policymakers and citizens.

[1] http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf

3. Communication tools, materials, and activities

To reach the DINOSAR objectives and to ensure proper visibility and impact, different communication tools and materials are planned. The activities and materials are summarised in Table 4 and detailed in the following sub-sections.

Table 4: Main elements of the communication strategy

Visual Identity	The project branding supports all partners communicate about the project in a uniform, consistent, and professional manner. The project branding includes project **logo**, **visual identity**, written identity including **tagline** and **key messages** and DINOSAR **templates** for Word and PowerPoint.
Website	The **public website** contains information targeted for the general public (description of the project, the WPs, the partners, basic information on the technology) as well as specific information targeted towards the different types of stakeholders linked to the project (scientific papers; economical, environmental and societal impacts). The website will be published in English and in Spanish.
Communication materials	A **communication package (M6**) containing the main elements of the project is available. - 1 PPT presentation, - 1 roll-up banner - logo, visual identity materials and templates - 1 flyer **1 motion design video** (M18) to be promoted through Colombian and EU audiovisual channels. All communication materials will be done in English and in Spanish. Liaise with the different partners' communication departments for wider dissemination of these materials using the partners' existing communication channels.
Newsletter	- 6 **newsletters** (every 6 months: M6-12-18-24-30-36).
Social networks and online presence	- Social web-based media: creation of 1 **LinkedIn** page targeting the general audience as well as more technology related stakeholders (M1-M36) - All project partners regularly re-share content from their personal and institutional social media accounts to direct their audience to DINOSAR's channels and website, following an agreed-upon schedule. The consortium will therefore reap the benefits of the partners' combined audience base, while

	building a strong brand that is able to live beyond the 3-year project and thus have an extended impact on agriculture transformation. By adding relevant hashtags (such as #HorizonEurope, #EUSPA) DINOSAR's impact is further amplified.
Outreach events: participation/exhibition in science popularization events	- At least **3 participation/exhibition in science popularization events**, such as the EU researcher's night and national science festivals existing in the partner countries.
Press relations	- **2 press releases** (M6 and M36) and **2 articles in specialised magazines** (Y2 and Y3). - **Public relations and media coverage** -1 **final media press kit**

3.1. Visual identity

The project branding was created at the start of the project (during the first three months). The DINOSAR branding is supporting all partners to communicate about the project in a uniform, consistent, and professional manner: it includes the project logo, project identity and style guide, templates for Word and PowerPoint documents.

The **DINOSAR logo** is based on a futuristic and innovative design. The N letter is directly connected to the O letter for symbolising the data transmission and interoperability. A satellite icon above the top is included to refer Copernicus and more especially to SENTINEL 1 and SENTINEL 2. On the other hand, the yellow line is representing the agriculture and the sugarcane crop. This line is designed to illustrate how cultures are rooted in the land. Finally, the first letter D is representing a dinosaur to illustrate the acronym wordplay.

This logo will be used in all communications (written deliverables, journal papers, presentations, invitations etc.) to ensure project recognition and visibility. The project logo and symbol are available for download on the WP6 folder in the Google drive platform, with access restricted to project partners. The logo kit is also accessible on the DINOSAR website- Communication Material and can be downloaded.

Specific guidelines on how to use the logo both on a white and dark background, as well as indications on its placement, font and colours have been described in a specific brand manual created in the first months of the project. This charter is also accessible on the DINOSAR website- Communication Material and can be downloaded.

Figure 1: DINOSAR project logo

The **project's graphical identity** includes fonts, colours and texts directly derived from the project logotype. Visual identity is defined by the project logo and is being used in all dissemination tools and printed materials.

Templates for the project deliverables and meetings have also been produced during the first months of the project. A PowerPoint template was also created to be used by the partners for all presentations on DINOSAR both in internal and external events.

Figure 2 :Power Point template- page 1 to 4

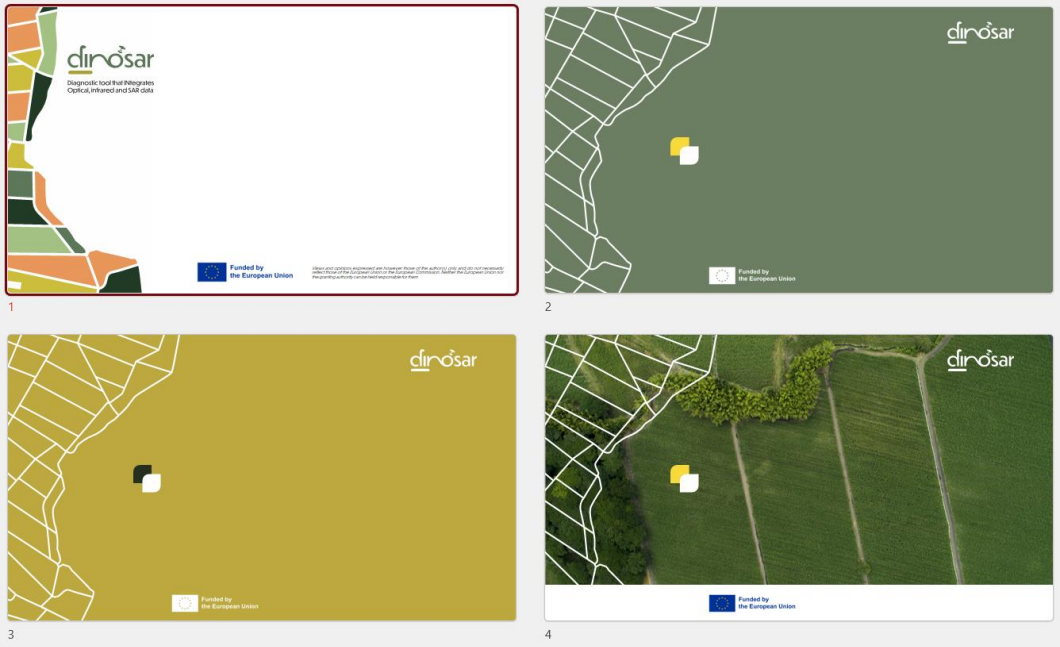


Figure 3: Power Point template- page 5 to 8

Figure 4: Word template

3.2. Website

The project website (https://dinosarproject.eu) is of crucial importance to enhance the visibility of DINOSAR as it will serve as the main communication tool for the wide dissemination of the project activities, deliverables, and outcomes.

The deliverable D6.2 submitted M5 is describing the website construction and content.

In parallel to the social media, the website is a key tool for reaching out to a wide audience, communicate about the project and its results. The website provides essential information on the project, such as its concept and objectives, workplan, partners, technology to be developed, news, publications, and more.

The website was launched by Euronovia in two phases:

- 1st phase: a first version of the full website in English was developed and published online at M5 (middle of May 2024) according to all comments received and according to the most recent standards and was optimised for search engines.
- 2nd phase: the website is also available in Spanish to reach the potential end-user in Colombia and more broadly in Latin America. It was published online at M5 (end of May 2024).

As the DINOSAR project evolves, the website will be regularly and accordingly updated with new contents, articles, deliverables, publications, inputs other resources provided by partners.

To provide a better access to our website for everyone, the consortium decided to apply an accessibility option, permitting visually impaired persons to increase or decrease the size of the text, apply grayscale or higher contrast, and more options.

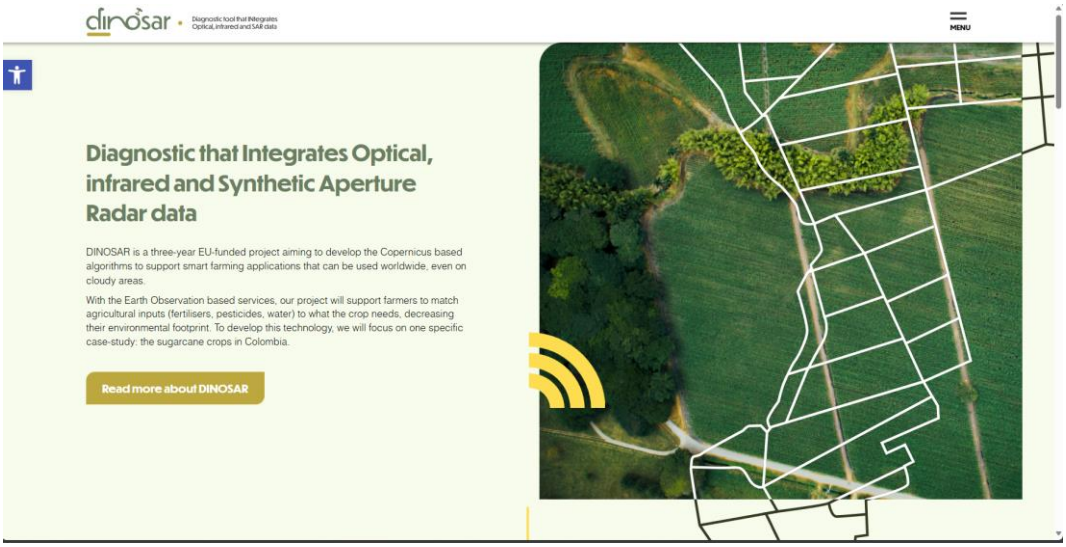


Figure 5: DINOSAR website homepage

3.3. Newsletter

A total of 6 newsletters (twice a year) are planned to be sent out to the newsletter subscribers during the duration of the project. Newsletters will be made available on the project website (https://dinosarproject.eu/category/news-and-events/newsletters/) and will be disseminated on social media.

A subscription form for the DINOSAR newsletter was created at M3 to constitute early on a sufficient list of subscribers. The newsletter will comprise news from the project and as well as news related to crop monitoring and smart agriculture.

3.4. Communication materials

3.4.1. E- printed communication materials

3.4.1.1. Roll-up banner

A roll-up banner was created using the project's visual identity and the same graphical elements used in other communication tools. The text content of the roll-up was kept to a minimum as its main functions is the easy recognition of the project during events. This banner will be used during internal and external events attended by the consortium to promote and present the project. For further information, refer to Annex section (Section 7.3).

3.4.1.2. Flyer

During discussions to define the communication, dissemination and exploitation strategy, the consortium decided to adapt the pre-defined communication materials, especially by replacing the digital factsheet initially planned at the start of the project into a flyer.

Therefore, a flyer has been prepared by Euronovia and will be used during external conferences and events attended by the consortium to promote and present the project. For further information, refer to Annex section (Section 7.2)

3.4.1.3. Audio-visual material

A motion design video to present the project activities in an attractive and dynamic way will be created by Euronovia in late 2025 – early 2026.

3.5. Social media and online presence

One social media is being used by the consortium to inform and connect with professionals, policymakers, and the scientific community as well as to reach out to the general public (students, citizens, local communities).

A LinkedIn page was created at the project start in January 2024 to inform researchers, stakeholders, and similar EU projects of the launch of the project.

The LinkedIn account is managed by Euronovia with the aim to disseminate official project information among a professional audience. Partners regularly contribute to write posts on LinkedIn using their personal/institutional LinkedIn accounts: this way they will be able to raise awareness of the project among their contact networks and the consortium will reap the benefits of the partners' combined networks to reach a wider audience. Middle of May 2024, the account currently has approximately 201 followers.

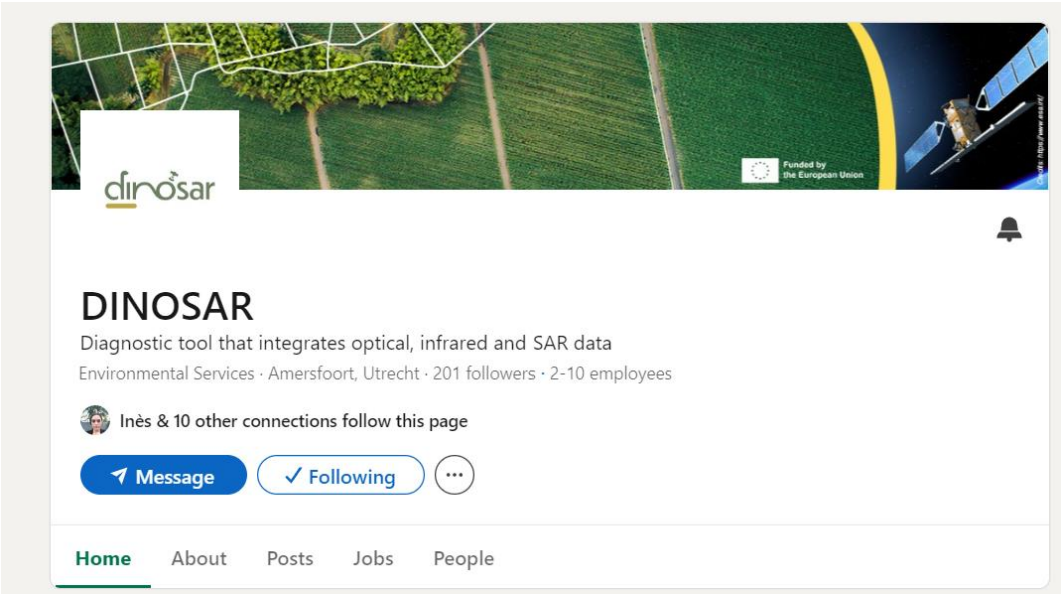


Figure 6: LinkedIn account.

The social media account contributes to the continuous development of a community of people interested in how the project is tackling sustainable agriculture and to raising awareness on the project and its objectives while allowing for more interaction with related initiatives.

DINOSAR has developed a **social media strategy** which involves the contributions of all DINOSAR partners to ensure an efficient and coordinated contribution from all the consortium to ensure maximal impact and that KPI targets are met.

- Partners are using their own institutional and personal accounts to share any news and updates on the activities developed within DINOSAR, to use pictures and hashtags and tag the DINOSAR project so that Euronovia can share the information on the official project accounts. To have a greater impact on local stakeholders, partners are also posting news in their native language. Middle of May 2024, 13 posts have already been published on the DINOSAR account;
- We have identified at the start of the project a list of similar projects whose followers could be interested in DINOSAR activities: we followed these accounts to increase the chances to be followed back, so that they receive our news in their profile. A special focus has been placed on the "sister projects" and other EU project projects identified in 2.2 section;
- News and updates are regularly posted on the DINOSAR official accounts, using tags, hashtags, pictures and videos to increase visibility as much as possible.

The impact of the **DINOSAR social media account** is regularly monitored by using the different social media statistic tools: statistics of the LinkedIn page is accessible by the group administrators.

3.6. Outreach events

Members of the DINOSAR consortium will participate in a series of different local, national and international outreach events to raise awareness of the project and engage with the large audience. For the whole project duration, we are planning to attend at list 3 outreach events by participating in exhibition and/or science popularisation events. Potential events have been pre-defined. This list is kept updated regularly by all consortium members when new events are announced.

Table 5: List of outreach and science popularisation events

Name	Partners attending	Date	Venue
Pint of Science Festival	To be defined	2025-2026	Several countries
European Researchers' night	UA	Every year, September	Several countries
EuroScience Open Forum (ESOF)	To be defined	2026	To be confirmed
Geography Awareness Week	To be defined	2025	To be confirmed

3.7. Press relation

Specific efforts will be dedicated to press relations to ensure a good media coverage about the DINOSAR project at national, and European levels. Press releases will be uploaded on the DINOSAR website on Communication materials:

- **2 press releases** (M6 and M36)
- **2 articles in specialised magazines** (Y2 and Y3).
- **Public relations and media coverage** (national/international press, communication to citizens and authorities). EUR will manage these actions in partnership with the press department of the partners.
- 1 **final media press kit** to be done at the end of the project (M36) and disseminated to the press.

4. Dissemination

To reach the DINOSAR objectives and to ensure proper promotion and impact, different dissemination activities and materials are planned. These activities and materials are summarised in Table 6 and detailed in the following sub-sections.

Table 6: Main elements of the dissemination strategy

Deliverables	**The 31 deliverables** will be accessible on the project's website
Scientific publications	**Scientific publications** in science, industry and social science journals to widely disseminate the project outcomes and results.
Events	- Organisation of one **final event** targeted at all audiences inlcluding general public and other non-experts - Participation in **external events and scientific conferences** to present the project activities and outcomes.
Clustering and synergies with other projects	Elaboration of collaborations, clustering and synergies for sharing knowledge, networking, looking for collaboration with organisations, experts, other EU projects etc.
Final event	A DINOSAR final event will be planned to disseminate the project's findings, achievements, and innovations and to foster collaboration and knowledge exchange among stakeholders, facilitating dialogue on best practices, challenges, and opportunities in the fields of sugarcane smart farming.

4.1. Deliverables

The list of the 31 deliverables will be accessible on the project's website, with the level of dissemination determining the extent of public availability (Public or Sensitive). When deliverable is classified as "sensitive", a condensed yet informative publishable summary will be provided on the DINOSAR website (https://dinosarproject.eu/outputs/deliverables/). This approach ensures transparency while respecting confidentiality concerns.

4.2. Scientific publications

The consortium will actively disseminate its results and outcomes through several scientific publications in science, industry, and social science journals: the partners are confident to publish **at least 4 scientific publications in peer-reviewed journals** and **10 publications in proceedings of research conferences** (refer to targeted external conferences and events indicated in 4.3 section).

The full list of scientific publications will be available in open access (refer to Section 1.3.1) and therefore be uploaded in the DINOSAR Zenodo community: https://zenodo.org/communities/dinosar-project. They will also be available in the Publications section of the website. DINOSAR partners will collaborate in submitting and publishing the results of DINOSAR in peer-reviewed articles in top-tier scientific journals and as contributions to international conferences/symposiums.

Table 7 shows which relevant journals, technical magazines, conferences and events the consortium has already identified.

Table 7: List of relevant scientific and technical journals, conferences and events

Dissemination channel	Identified journals and events
Scientific Journals	Remote Sensing of Environment
	Journal on GIScience & Remote Sensing
	International Journal of Applied Earth Observation and Geoinformation
Industry/Technical Magazines	International Society of Precision Agriculture (ISPA) magazine
	Cenicaña and Tecnicaña Magazine
	Associação Brasileira de Agricultura de Precisão e Digital (ASBRAGP)

4.3. Participation in events

During the project lifetime, partners are expected to take part in several **practitioner/industry events and scientific/academic events** to promote DINOSAR activities and disseminate the results and outcomes of the project.

- **12 scientific events (workshops, conferences, exhibitions, fair trades)** as key speaker to lead oral presentations, talks and/or posters.
- **5 technical workshops** in Colombia with potential end users

At this stage, the project partners have already identified relevant events and conferences to which a participation could be planned. Table 8 below is listing targeted external events and scientific conferences, workshops, seminars and webinars. This list is kept regularly updated by all project partners through a shared Excel file on the project's document repository.

Table 8: List of targeted external events and scientific conferences, workshops, seminars and webinars

Name	Partners attending	Date	Venue
Industrial/Practionner workshops, symposium			
EO FOR AGRICULTURE UNDER PRESSURE 2024 WORKSHOP (ESA event) https://eo4agri2024.esa.int/	HCP/eLEAF	13-16.05.2024	Frascati, Italy
AI4Copernicus https://www.ai4copernicus.org/	eLEAF/ HCP	21-22.05.2024	The Hague, The Netherlands

EO4AGRICULTURE workshop (GEO event)	eLEAF/HCP	13-16.05.2024	Frascati, Italy
Congreso International Society of Sugar Cane Technologists 2025	All partners	22-31.08.2025	Cali, Colombia
Congresso Brasileiro de Agricultura de Precisão e Digital (ConBAP)	AgroAP	July 2025	Porto Alegre, Brasil
International Conference on Precision Agriculture (ICPA)	AgroAP	21-27.07.2024	Manhattan, Kansas, USA
Academic/scientific conferences			
IEEE Geoscience and Remote Sensing Symposium (IGARSS)	UA	July 2024	Athens, Greece
GEO symposium and open data and open knowledge workshop	HCP	September 2024	Hangzhou, China
EuroGEO workshop	HCP	October 2024	Krakow, Poland
EGU General Assembly	UA	27.04-02.05.2025	Vienna, Austria
IEEE Geoscience and Remote Sensing Symposium (IGARSS)	UA	09-14.08.2026	Washington DC, USA

4.4. Clustering and synergies with networks and other projects

The project aims not only to maximise its impact by promoting its activities and results, but also to improve the efficiency of its actions and activities by learning from the experiences of other organisations. Therefore, the DINOSAR consortium places particular emphasis on **knowledge sharing and networking, looking for collaboration** with organisations, experts, as well as with aligned R&I projects and analogous projects with similar funding structures.

The DINOSAR project underlines the importance of interdisciplinary cross-collaboration with other high impact EU-funded projects as a catalyst for effective communication, dissemination, and outreach efforts. The main objectives of this cross-project collaboration are to explore synergies with sister projects funded under the same call, to establish two-way communication and dissemination channels, to promote the development of innovative ideas, and to promote the formation of future consortia aligned with the key ideas of DINOSAR, while providing support in resource identification.

To increase the visibility and impact of DINOSAR outcomes and events, the project started to identify relevant EU/ international projects and initiatives during the first six months. The first step in identifying relevant projects will be to explore initiatives suggested by consortium partners. This approach capitalizes on the extensive expertise of DINOSAR partners, leveraging their established networks and collaborations. As a result of the mapping exercise detailed above, identified projects are compiled and recorded in an online database accessible via DINOSAR repository. Table 9 is detailing the first draft of this mapping database.

For each project, the assessment will imply the general description of the project's objectives and activities, as well as any additional information available online, to determine whether they could be potential targets for networking activities.

The engagement strategy involves contacting identified projects. Coordinators will be directly emailed. A brief presentation of the DINOSAR project and collaboration opportunities suggestions will be offered. This may result in profiling their project on the DINOSAR website, supporting dissemination and communication through social media accounts, and featuring projects in the newsletter.

In addition, the impact strategy for DINOSAR will also focus on establishing fruitful collaborations and synergies through c**lustering with strategic networks at local, regional and international**. Key strategic partnerships can be established with specific organizations identified in the target groups (Table 3). The DINOSAR consortium already identified that we will work closely with GEOGLAM and the GEO in situ data working group. Making reliable and curated in situ data available is a shared interest of GEOGLAM and DINOSAR. In addition, support will be provided to GEOGLOWS related water use in agriculture. DINOSAR will be active in the relevant regional GEOs: EuroGEO and AmeriGEO. All DINOSAR datasets will be registered in GEOSS.

The FAO's WaPOR platform provides open and accessible data on evapotranspiration, biomass production, and water productivity. The new version of WaPOR will allow us to obtain data for Colombia at a higher resolution. This is particularly interesting for DINOSAR project as it enables a more robust combination of optical and SAR data.

The synergy lies in data validation and model adjustment. Field data collected and WaPOR data can be used to validate and refine the model developed in DINOSAR. This approach can help ensure that our models are accurate and useful for end-users.

Table 9: List of European projects related to DINOSAR

Project	Objective	Website
Sister projects- funded under the same Call HORIZON-EUSPA-2022-SPACE		
COMUNIDAD	Chile-Colombia	https://www.euspa.europa.eu/comunidad-combined-use-egnss-and-copernicus-data-develop-innovative-downstream-services-users-chile
SQAT	Soil Quality Analysis Tool: Implementing Smart Farming Applications using EO Data, Soil Sensors & Robotics	https://www.euspa.europa.eu/opportunities/horizon/project-portfolio/sqat-soil-quality-analysis-tool-implementing-smart-farming-applications-using-eo-data-soil-sensors
Other projects (H2020, Horizon Europe etc.)		

AgriBIT	AgriBIT aims to improve the agriculture chain by delivering higher precision, and continuously available Precision Agriculture services, combining GNSS, Earth Observation (EO) information with on-field and on-machine sensors and actuators, Artificial Intelligence (AI) technologies and expert agricultural knowledge.	https://h2020-agribit.eu/
AgriDataSpace	AgriDataSpace aims at building a European framework for the secure and trusted data space for agriculture (GA no. 101086461)	https://agridataspace-csa.eu/
COREGAL	COREGAL aims at developing a low-cost unmanned aerial platform and service for biomass mapping will allow wide scale mapping in the Brazilian context of forest management.	https://www.coregalproject.com/
EvoLand	EvoLand (Evolution of the Copernicus Land Service portfolio) will develop eleven new product candidates for Copernicus Land Monitoring Service (CLMS), through innovative approaches in data fusion, continuous monitoring, AI and biomass mapping, as well as through the integration of novel EO and in-situ data (GA no. 101082130).	https://www.evo-land.eu/
GALIRUMI	GALIRUMI aims to develop a Galileo-assisted robot to tackle the weed rumex obtusifolius and increase the profitability and sustainability of dairy farming	https://galirumi-project.eu/
MAGDA	MAGDA project aims to develop a high-resolution and short-range numerical weather forecasts and hydrological models for irrigation performance and water accounting	https://www.magdaproject.eu/
SCORPION	SCORPION's objective is to develop a safe and autonomous precision spraying tool integrated into a modular unmanned tractor (robotics platform) to increase spraying efficiency, while reducing human and animal exposure to pesticides, water usage and labour costs	https://scorpion-h2020.eu/
SPACE4GREEN	The overall goal of SPACE4GREEN is to propose a technological solution that enables a trusted platform among stakeholders of different natures for the automated certification that activity occurs or a thing is in a location at a certain point in time, without requiring a third-party human certification.	https://www.space4green.eu/
UDENE	UDENE -U(rban) D(evelopment) E(xplorations) using N(atural) E(xperiments)- aims to build sustainable urban environments and address the challenges posed by the effects of climate change and increasing urbanisation in Europe and North Africa.	https://udene.eu/
ScaleAgData	The vision of the ScaleAgData project is to gain insight into how integrated data streams should be governed	https://scaleagdata.eu/en

	to the benefit of all stakeholders, especially the farmers (GA no.101086355)	
SPATRA	SPATRA project is a pioneering initiative designed to leverage satellite technology for enhancing road and rail transportation systems across Europe.	https://spatra-project.eu/
WaterSense	WaterSENSE provides water managers with a toolbox of reliable and actionable information on water availability and water use, anywhere in the world, in support of sustainable water management and transparency across the entire water value chain.	https://www.watersense.eu/

At M6, the DINOSAR consortium will start contacting its 2 sister projects (Table 9). The coordinator (eLEAF) and Euronovia will offer them to establish an active collaboration. The expected joint activities that could be negotiated with these projects are the following:

- Launch and planning of bilateral meetings every 2 months with projects coordinators and Communication & Dissemination contact points;
- Continuous promotion of the sister project activities on social media and website;
- Shared list of conferences in which each project is participating to create synergies during events;
- Appearance of the sister project in the project video;
- Joint article in newsletter;
- Participation in the events organised by the project, including the final event.

4.5. Final event

A Final event will be organised by eLEAF with the support of Euronovia at the end of the project and co-timed with the final consortium meeting.

With an objective of engaging 80 participants, this final event (M34 or 35) aims to showcase the culmination of 3 years of research, innovation, and collaboration. This event will embrace a hybrid format to facilitate widespread accessibility. Serving as an open conference/workshop, the final event is designed to attract key stakeholders, including EU policymakers, industry experts, general public, and other non-experts. The agenda will be curated to spotlight the project's accomplishments, innovations, and future implications and foster dialogue through panel discussions, and Q&A segments.

The final conference may either be co-arranged with sister projects as to allow for clustering, or sister projects from the call will be invited to the DINOSAR final conference for joint dissemination purposes.

5. Tracking actions and impact monitoring

5.1. Tracking and monitoring of the actions

The partner leading WP6 (Euronovia) is responsible for tracking all the communication and dissemination activities of the partners, to be used to evaluate their impact. At this scope, a document composed of 3 different spreadsheets was created in March 2024 to gather information related to the activities implemented by each partner, namely:

- ***Communication actions***: partners list and give details about all the communication activities done at the level of their organisation to promote the project;
- ***Scientific dissemination activities***: partners list and give details about their dissemination activities aiming to share the project's results;
- ***Scientific publications:*** partners list all their publications (papers, conference proceedings, etc.) in which DINOSAR research and results are used.

Three additional tabs have been included later in the document to support partners sharing relevant information with the consortium:

- ***Events to target:*** partners regularly list interesting events and conferences relevant for DINOSAR where participation could be envisaged;
- ***EC reporting***: automatic analysis table based on 3 tabs (*Communication actions, Scientific dissemination activities and Scientific publications)*
- ***KPI monitoring:*** refer to Figure 7.

This document was uploaded to the project repository (Google Drive platform) in March 2024 and all partners are being reminded to update it as soon as they are involved in a communication or dissemination action to keep track of all the activities implemented within DINOSAR. For further information, refer to Section 7- Annex (7.4).

As explained in Section 4.4 Clustering and synergies with networks and other projects, a specific document is dedicated to the design a ***networking mapping database***. Partners will keep track of the list of networks they are in contact with and that can be reached to disseminate project activities, events, and results.

5.2. Communication and dissemination impact assessment

A detailed communication and dissemination table was created to check that all activities are planned and are effectively taking place, integrating KPIs to measure the impact of each activity. KPIs are a measuring factor for the performance and progress of an activity, message, task, etc. towards its expected impact. Several KPIs were defined for each communication and dissemination activity of the project. They are being used to assess the performance of our activities all along the project duration and potentially re-

orientate the dissemination plan if KPIs are not matched, or the expected impact is not reached.

Table 10: KPIs list - Outreach to the various target audience groups, including the general audiences

Category	Indicator action	KPIs- Target for the whole duration of the project
Communication materials	Number of motion design video	1
	Number of motion design video 'viewers	300
DINOSAR website	Number of project website's visitors	1000
	Progression of the number of news item posted on website	30
Events	Number of scientific events/conferences in which DINOSAR is presented	12
	Number of outreach participation/exhibition in science popularization events	3
Engaging with technical/ industrial stakeholders	Number of actions with end users (private companies/associations etc.)	To be defined
	Number of joint actions with other EU projects and initiatives	6
Social media (LinkedIn)	Progression of the number of followers on social media (LinkedIn)	300
	Progression of the number of posts on social media (LinkedIn)	30
Newsletters	Number of e-newsletters	6
	Number of e-newsletters' readers	120
Press relation	Number of press releases	2
	Number of articles in specialised magasines	2
	Number of press kit	1

Euronovia will perform an evaluation of these KPIs at mid-term and at the end of the project. The results will be used for the impact assessment analysis that will be included in the Final report on dissemination and communication activities (D6.4 due at M36). Each KPI will receive a grade (according to its percentage of completion) which will allow us to check if we are on track with the work plan. Depending on the results, corrective measures may be considered and implemented.

Euronovia is currently developing a monitoring tool to track KPI and their progress during the project lifetime. The first version of the KPI monitoring tool is displayed in Figure 7.

Actions	Metric	Objective	Excellent	Good	Moderate	Weak	Status
Communication materials	Number of motion design video	1	N/A				
	Number of motion design video 'viewers	300	≥ 400	≥ 300	≥ 150	<150	
Publications	No. of scientific publications in peer-reviewed journals	4					
	No. of publications in proceedings of research conferences	10					
DINOSAR website	Number of project website's visitors	1000	≥ 1500	≥ 1000	≥ 700	<700	
	Progression of the number of news item posted on website	30	≥ 40	≥ 30	≥ 15	<15	
Events	Number of scientific events/conferences/exhibitions/fair trades or other industry in which DINOSAR is presented	12					
	Number of technical workshop in Colombia	5					
	Number of outreach participation/exhibition in science popularization events	3					
Engaging with technical/ industrial stakeholders	Number of actions with end users (private companies/associations etc.)	to be defined					
	Number of joint actions/clustering with other EU projects and initiatives	6					
Social media (LinkedIn)	Progression of the number of followers on social media	300	≥ 400	≥350	≥150	<150	
	Progression of the number of posts on social media	30	≥ 50	≥ 30	≥ 15	<15	
E-Newsletter	No. of Newsletter	6	≥ 6	≥4	≥ 2	<2	
	Number of e-newsletters' readers	120					
Press relation	No. of Press releases	2					
	Number of articles in specialised magazines	2					
	Number of press kit	1					

Figure 7: First version of the KPI monitoring tool

6. Exploitation strategy

Creating markets from research results is becoming a requirement to boost research, towards a constant evolution in which universities and research centres are engaging with companies and the non-academic sector/private sector. In its nature, DINOSAR holds the potential for exploiting research results as 4 private companies specialised in smart agriculture are members of the consortium.

The exploitation is part of Task 6.4: Exploitation roadmap for project results, led: by eLEAF. This task is expected to start M18 and will define the Key Exploitable Results (KERs) as well as the project roadmap for exploitation beyond the project, both academically as well as commercially.

The exploitation roadmap is expected to include Intellectual Property (IP) agreements and conflict resolution procedures as defined by the consortium partners, building on the IP strategy in the consortium agreement. The Final plan for the exploitation of project results (D6.5) due to M36 will summarise the Key Exploitable Results, their transfer and exploitation strategies/activities.

DINOSAR's Knowledge Management and Transfer methodology is designed in a way to complement the planned dissemination and communication activities and overarchingly, to ensure the continued targeted impact of all knowledge transfer activities and foster exploitation of DINOSAR's results.

All captured knowledge will be assessed and recorded in line with the Consortium Agreement (CA), respecting privacy and Intellectual Property Rights (IPR) requirements. This approach is essential to avoid unforeseen delays or obstacles related to confidentiality or competitiveness and to provide partners with the security they need to allow them to be transparent in their findings, enabling the project to quickly identify opportunities for exploitation. The objective is to ensure the fastest route for new knowledge to where it can add value and create impact.

6.1. Preliminary list of Key Exploitable Results

DINOSAR will produce different exploitable results. It will be reviewed and updated during the implementation of the project. The project's KERs will be published with different levels of detail depending on their confidentiality.

The expected KER at the end of the project is the operational DINOSAR algorithms with an expected TRL-level 4. We expect these KER to be exploited academically, defining roadmaps for further research to be done in this domain, as well as commercially, where marketable applications will be built on DINOSAR algorithms. The exploitation is linked closely to the activities that will take place in WP1 where we will develop use cases and value propositions for potential customers. First within Colombia but planning towards the wider region. Similarly crucial for our exploitation plan will be the work done under WP6 where we will deliver a more technical roadmap, detailing a methodology to roll-out DINOSAR algorithms to other crops.

A first draft of concrete Key Exploitable Results (KER) that will have the most value for exploitation has already been identified. Key Exploitable Results (KER) will be updated during the planned consortium meetings and dedicated (internal) workshops to update these KER. eLEAF will lead discussion to define the ownership (with clear commitments from partners on how they will apply). Exploitation activities will be conditional to the achievement of interim and final project results, their actual scale and significance, and their timing. These KER are indicated in the Table 11 and the Knowledge Transfer Plan template to monitor these KER is detailed in the Annex section.

Table 11: List of DINOSAR Key Exploitable Results (KER)

Type of results to be exploited commercially or non-commercially	Owners	Exploitation routes and protection	Potential users	Dissemination to ensure the exploitation
Operational prototype algorithms that integrate optical, Synthetic Aperture Radar (SAR) and infrared data	eLEAF	Further commercialisation for clients in agro-sector as advisors, crop cooperatives, farm enterprises. Additional funding to increase the TRL to 8	eLEAF SarVision	Press releases, site visits, dissemination in Industrial Conferences, participation to trade fairs, direct prospection. Prototype in eLEAF's scalable production chain. Taken op in business opportunities, newly developed products are visible for clients in project via FieldLook
Monitoring and operationalisation methodologies	Open University of Allicante via	Publication of scientific papers	Researchers, private companies,	Publication in peer-reviewed articles
Methodology replicating/ extrapolating the technology to other crops and geographies	Open University of Allicante via	Publication of scientific papers	Researchers, private companies,	Publication in peer-reviewed articles
Marketable applications	eLEAF SarVision	Existing and new clients using Fieldlook and other portals that connect to our products via API. Agreement between eLEAF-SarVision to exploit results.	private companies,	Taken op in business opportunities, newly developed products are visible for clients in project via FieldLook

Observables database on crop's phenology and health	eLEAF	Publication of a database and datasets registered in GEOSS	Researchers, eLEAF and SarVision	Publication in conference article
Crop-agnostic integration protocol	Open	Publication of scientific papers	Researchers	Publication in peer-reviewed articles
Crop-specific part integration protocol	eLEAF SarVision	Business opportunities, protection via eLEAF's and SarVision's clients. Agreement between eLEAF-SarVision to exploit results.	eLEAF and SarVision	Taken op in business opportunities, newly developed products are visible for clients in project via FieldLook
In-situ data and field measurements entry and visualisation platform (FieldLook) for time series satellite data algorithm development	eLEAF	Funding of the future research and development	Researchers, research project with companies and clients Clients that want to test new products	Research workshops, conferences organised during the project
Techno-economic assessment to prove the reliability of the technology at large scale	ELEAF, AgroAP, SarVision	Funding of the future research and development	Investment sector (private or public agencies)	Business workshops organised during the project with business stakeholders

In addition, we will consider making use of the EC tools:

- Horizon Results Booster to receive expert guidance and training to improve the project strategy towards effective KER identification and exploitation.
- Horizon Result Platform to publish the results.

6.2. Knowledge transfer pathway and preliminary business plan

This section of the PEDC outlines the stepwise process which will be carried out within T9.3 and lead by eLEAF. This methodology will identify, collect, review, and prioritise project KERs with developed KTPs.

Erreur ! Source du renvoi introuvable. Figure 8 and Figure 9 inserted in sections 6.2.6 and 6.2.7 provide an overview of the full knowledge transfer pathway and preliminary Business Model Canvas for DINOSAR based services. The following sections will explain specific steps of this methodology and demonstrate how each step contributes to the overall knowledge transfer process.

The Knowledge Management and Transfer methodology consists of the following overall phases and is further described in detail below.

6.2.1. Data Collection and Understand

Development and validation of the forward, inverse, and integrated models require high-quality field data. Following the framework recommended by Molijn et al. (2018a) and leveraging local knowledge from AgroAP, we have identified the following in-situ data requirements:

- Phenological stage (BBCH scale)
- Cane height
- Cane diameter
- Number of canes per meter and spacing between rows
- Biomass
- Leaf Area Index (LAI)
- Soil moisture content
- Plant failure/substitution (e.g., weeds)

Photographs will be taken for an overview of the crop condition and future reference. Due to the complexity and cost of measuring soil moisture content directly, we will collect data on precipitation and irrigation volumes instead.
The field campaign will cover three different environments, each with varying soil textures and humidity conditions. In each environment, 12 fields (10 primary and 2 backup) will be selected, ensuring a minimum field size of 10 hectares to reduce issues from radar speckle and mixed pixel effects. Each field will have four measurement locations to account for intra-field variability, resulting in a total of 144 measurement locations.

The focus will be on the two main varieties of sugarcane (CC011940 and CC05430) and the most common irrigation method in the area (gravity-based using pipes). The campaign will span an entire production cycle (12-14 months), with data collected every 7 days for the first 60 days and every 15 days thereafter. Measurements will vary by phenological stage, with early stages focusing on cane height, diameter, and number of canes, and later stages including biomass measurements.

Historical field data from the mills will be used to develop a baseline model, requiring significant effort and travel by AgroAP. Additional qualitative and quantitative data (e.g., inspection reports, field samples, yield amounts) will be collected from the mills. Meteorological data will be essential for forward modeling, with AgroAP accessing the network used by sugarcane growers due to issues with national climatological stations**.**

6.2.2. Operational monitoring and validation

The data collected during the intensive field campaign will be used to calibrate the DINOSAR algorithms. Following this calibration phase, field data acquisition will continue, but at a reduced intensity. This ongoing phase is crucial for running the developed algorithms operationally to validate whether and how the model-predicted observables align with actual field observations. The validation process will involve comparing production maps (algorithm outputs) with field crop development assessments at months 3, 6, and 9.

During the validation phase, field workers will log all relevant field activities (e.g., ploughing, fertilization, pest control, weed control, ripening, irrigation, and drainage). These activities influence the biomass accumulation of the crop, and the DINOSAR algorithms should be able to detect these impacts with a certain level of sensitivity. Establishing such correlations will enable DINOSAR technology to support day-to-day management decisions in the field.

6.2.3. Prototype operationalisation and testing.

The project requires Copernicus-based algorithms that meet local user needs and can generate a marketable solution. For crop monitoring, a satellite-based solution must operate reliably and produce relevant near-real-time (NRT) data to support day-to-day decisions by producers.

- To operationalise these algorithms, we will utilise eLEAF's existing data processing factory (

Figure 8). This state-of-the-art, cloud-based infrastructure, built in 2022-23, uses the latest data processing software. It consists of three subunits covering the entire data processing pipeline:

1. Sourcing: This stage involves data acquisition from various sensors, meteorological data, and static inputs like land cover maps. SAR data is sourced either as raw data or as analysis-ready data (ARD), processed by the SV-developed pipeline.
2. Assembly: This subunit consists of two steps:
   a. Input Preparation: Prepares the data for model use.
   b. Model Execution: Runs the selected model to produce the data.
3. Packaging: Transforms the standard data produced during Assembly into any format requested by the client, including reprojecting, stitching of tiles, or temporal aggregation. For DINOSAR, this stage will also integrate SAR and Optical/IR-based intermediate data products into merged or or temporal aggregation. For DINOSAR, this stage will also integrate SAR and Optical/IR-based intermediate data products into merged or hybrid data products.

6.2.4. Quality Control (QC)

Is an integral part of our processing facility. QC data is collected at every stage of the production pipeline, providing direct insight into all parts of data production. Our QC system monitors both processing performance and data quality. Processing performance is assessed through a process management application (PMA) that converts data requests into production orders, which are monitored by an operator using a Process Monitoring Dashboard (PMD). Data quality is assessed by automatically analyzing statistical data for deviations and implausible values, flagging any issues and halting the production process if necessary.

Our complex processing infrastructure handles multiple data categories (satellite, meteorological, and static data) sourced from various locations. Daily input composites are created for our biophysical models, including filling, smoothing, sharpening, and aggregation to correct temporal gaps and inconsistencies, bringing all inputs to the same extent and resolution. Algorithms then run automatically to produce model outputs, which are aggregated to the desired frequency, merged, and reprojected to the required spatial extent. This complexity makes eLEAF one of the few companies capable of producing global datasets operationally (in NRT).

We employ the DTAP method for developing and deploying the DINOSAR algorithms, using separate environments for Development, Testing, Acceptance, and Production. This phased approach ensures deployment only if all requirements are met. After developing the DINOSAR algorithm (WP3), the prototype is tested iteratively. Once successful, the algorithms undergo acceptance testing by running the model for an entire growing season to verify performance. Upon meeting expectations, the DINOSAR algorithms are deployed into the near-real-time production environment of the data processing factory.

6.2.5. Calibration and validation

Throughout the development of the algorithms, intensive calibration (the response of the system to controlled signal inputs) and validation (the independent assessment of data quality) activities are conducted.

Calibration is performed during algorithm development in several ways:

a. Performance testing, benchmarking, and optimization: Ensuring process hygiene, computational efficiency, and reducing calculation time.
b. Deriving static model parameters: Using data gathered from field campaigns to evolve the baseline model into an empirically calibrated model.

Validation is done in the following stages:

a. Internal consistency and process output testing: Ensuring the model outputs are consistent.
b. Data quality control: Monitoring intermediate data products for accuracy.
c. Leave-one-out validation: Testing the model by excluding data from one field or parcel at a time to avoid bias.
d. Field data validation: Comparing the model with field data gathered after the initial growing season to ensure accuracy.

For calibration and validation of radar and optical inputs, in situ data gathered during the first growing season (12-14 months) will be used. This involves:

- Assessing model assumptions: Checking trends and dynamic ranges of the modeled data against field data.
- Detailed comparison and correlation analysis: Quantifying the uncertainty of the estimates provided by the models, measured in terms of root mean square error (RMSE) and bias.
- Integrated inversion approach validation: Comparing the combined models' estimates with field data to ensure accuracy.

During the growing season following the initial development stage, extended validation will be carried out with data acquired in a less intensive campaign.
Additionally, the detection of anomalies (e.g., health issues or cultivation problems) will be evaluated using the field data. This involves assessing the probability of detection and probability of false alarm to balance the trade-offs in identifying these situations. End-user requirements will be considered to decide whether to prioritize detection (even with more false positives) or minimize false alarms (even if some cases are missed).

Intermediate and final project stages will include statistical analysis of the similarity between the estimates and field data. This will cover data consistency over time and space, probability of detection of anomalies, probability of false alarms, and more.

6.2.6. Replication and scaling

Building on the detailed study of sugarcane in Colombia, a more general methodology for crop phenology and anomaly monitoring will be developed. This methodology will integrate combined observations from optical, infrared, and radar EO satellites. We will evaluate how well the methods developed for sugarcane can be replicated for other crops

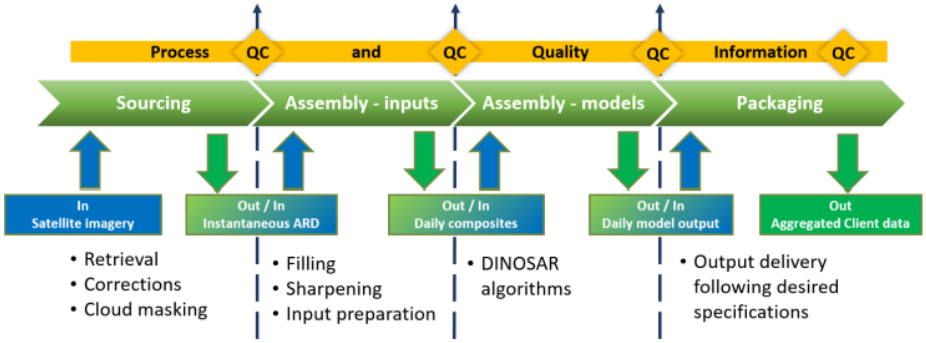
and scaled to different geographies. Additionally, the inclusion of future sensors (e.g., NISAR L-band radar) will be assessed.

DINOSAR's physical models provide a robust foundation for further development. However, not all developed methods will apply directly to different crops or regions. To determine which parts of the methodology are crop and location agnostic, and thus replicable in different contexts, we will analyze the factors of uncertainty and boundary conditions in depth.

During algorithm development, special attention will be given to aspects that are 'crop-agnostic' (e.g., dealing with terrain slopes and inhomogeneous fields) to ensure they are replicable in other situations. Crop-specific aspects (e.g., perennial, semi-perennial, or annual crops) will require methodological adaptations for broader application. We will assess how and to what extent these parts can be generalized.
We will also focus on the integration of different EO sensors, addressing challenges like differences in parallaxes, spatial and temporal resolution, and cloud conditions, as well as the opportunities provided by sensor synergy. Data requirements, both EO-based and in-situ/ancillary data, will be evaluated along with any specific preprocessing steps needed to achieve accurate results.

Looking ahead, the replicability of the methodology will be assessed for at least five major crops (likely rice, wheat, corn, soybean, and canola). We will consider their biophysical characteristics, geographical distribution (including cloud conditions), and the need for EO-based monitoring tools, covering both industrial-scale agriculture and smallholder farms. The additional steps or data required to apply the methods under these different conditions will be evaluated.

Figure 8: Data processing factory and knowledge transfer



6.2.7. Exploitation

The Key Exploitable Results (KER) will be defined during consortium meetings and internal workshops. These sessions will update the KER list, determine ownership, and secure commitments from partners on how they will apply, further develop, and/or commercially exploit the results. Exploitation activities will depend on the achievement of interim and final project results, their significance, and their timing.

At the project's conclusion, the expected KER is the operational DINOSAR algorithms at a Technology Readiness Level (TRL) of 4. These algorithms are anticipated to be exploited both academically, to define roadmaps for further research, and commercially, to build marketable applications. The exploitation plan is closely linked to the developing use cases and value propositions for potential customers, initially in Colombia and then expanding to the wider region; and delivering a technical roadmap for extending DINOSAR algorithms to other crops.

Early engagement with prospective end-users is critical to understand their 'Pains and Needs' (P&N) and guide research. Based on prior work in Colombia's sugarcane sector and AgroAP's local knowledge, two primary customer segments have been identified:

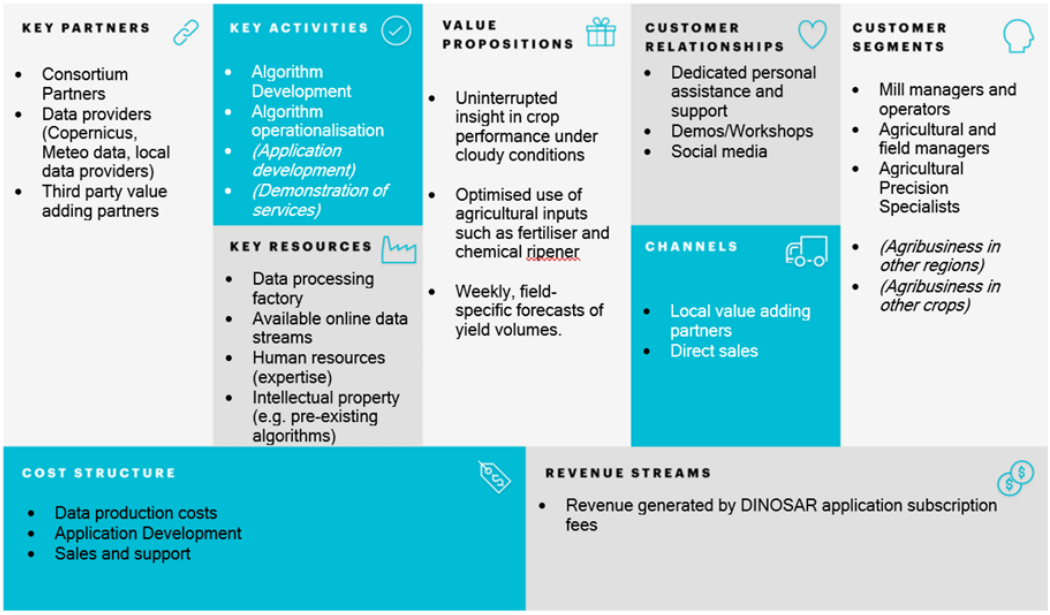
- **Sugarcane Mill Managers and Logistics Operators:**
  PAIN 1: Fluctuating sugarcane arrivals at mills lead to operational inefficiencies and losses.
  GAIN: DINOSAR enables early monitoring of crop development, allowing efficient planning and mitigation.
  PAIN 2: Over-application of chemical ripeners affects crop productivity.
  GAIN: DINOSAR optimizes ripener application based on actual crop development, preserving future productivity.

- **Sugarcane Farmers and Mill Field Managers:**
  PAIN 3: Lack of in-field heterogeneity information leads to inefficient fertilization.
  GAIN: DINOSAR allows precise monitoring and fertilization tailored to crop development variations within fields.
  PAIN 4: Late and inaccurate yield predictions limit effective mitigation measures.
  GAIN: Early yield estimates enable timely planning and performance improvement measures.

Business Model and Feasibility:

The approach is encapsulated in a business model canvas (Figure 9). During implementation, the feasibility and added value of using the Horizon Results Booster services will be explored to enhance the project's impact and exploitation potential.

Figure 9: Preliminary Business Model Canvas for DINOSAR based services



6.3. Analysis of potential competitors/ other players offering solutions

The DINOSAR consortium started to run a benchmark of the existing other platforms offering solutions that could be considered competitive.

Eight platforms have currently been identified at a worldwide level NAX Solutions

- Environment systems
- Agroscan
- Digital Harvest
- OKARATech
- EOS
- HEMAV
- Gamaya

Tableau 12: Analysis of potential competitors and differentiation of services offered

	eLEAF Fieldlook	NAX Solutions	Environment systems	Agroscan	Digital Harvest	OKARATech	EOS	HEMAV	Gamaya
Country	Holland	Spain	Colombia	Ecuador	EEUU	Uruguay	Ucrania-EEUU	Spain	Swiss
Parameter									
I.A.	+++	+++	+++		+++	++	++	++	++
Machine Learning	+++	++	+		+++	++	++	++	++
Weather forecasting	+++		+	+	++	++	+++		
Sugarcane forecasting	+++	+			+++			+	+
Vetetation Index		++	+	+		++	+++	+++	+++
Task and operation		+++	+	+	+++	+++	+++	+++	
App mobile		+++	+	+		+++	+++	+++	
Platform design	++	+++	+	+			+++	+++	
Easy to use	+	+++					++	++	
Predictable handling	+	+++					++	++	+
Radar (active)	+++	+	+++					+	
Satellite (pasive)	+++	+++			+++	+	+++	+++	+++
Imagery from drone (multispectral and hiperspectral cams)				+++				+++	+++
Weather Stations Network Cenicaña	+++								
Data validation and adjustment (field)	+++	+							
Commercial Contact in Colombia	+++	+	+++		+++		+	+	

	eLEAF Fieldlook	NAX Solutions	Environment systems	Agroscan	Digital Harvest	OKARATech	EOS	HEMAV	Gamaya
Mills:									
Riopaila Castilla	+++	+							
Incauca	+	+++							
Providencia	+++	+							
Mayaguez		+							
San Carlos									
Pichichi		+++							
Carmelita		+++							
Risaralda	+++	++							
Cabaña									
Manuelita	+++	+++							
Sugarcane Farmers Association PROCAÑA					+++				

+++	high level
++	medium level
+	low level
	it doesn't apply or no information

6.4. Protection of results and IP

Rules regarding intellectual property rights are exposed in the Consortium Agreement. As a general principle, the knowledge generated by the project remains the ownership of the team(s) who produced the results. This section outlines a brief summary of some key aspects of the rights and obligations relating to the protection of these results, but this is not an exhaustive summary. For further details on project and Horizon Europe rules surrounding ownership and protection of results please refer to the Grant Agreement (GA), Consortium Agreement (CA) and the Data Management Plan (DMP – D7.3).

6.4.1. Ownership of Results

Results are owned by the beneficiary that generates them. Joint ownership is considered if minimum two beneficiaries have jointly generated results and it is not possible to establish the respective contribution of each beneficiary, or separate them, for the purpose of applying for, obtaining, or maintaining their protection (GA Article 16). The joint owners must agree (in writing) on the allocation and terms of exercise of their joint ownership (joint ownership agreement), to ensure compliance with their obligations under the GA. If valuable results are not protected, the Commission may under certain circumstances assume ownership of the results (see GA Article 16 for further details).

6.4.2. Protection of Results

Each beneficiary has an obligation to protect its results. For any results that can reasonably be expected to be commercially or industrially exploited, beneficiaries must examine the possibility of protecting them and if possible, protect them even if this requires further research and development or private investment. If a beneficiary intends not to protect its results, to stop protecting them or not seek an extension of protection, the EU may under certain conditions (GA Article 26.4) assume ownership to ensure their (continued) protection.

6.4.3. Exploitation of Results

Each beneficiary has an obligation to exploit its results. They must, up to four years after the period set out in GA Article 3, take measures aiming to ensure exploitation of its results by: using them in further research activities; developing, creating, or marketing a product or process; creating and providing a service, or using them in standardisation activities (see GA Article 16). If a beneficiary breach any of its obligations under this Article, the grant may be reduced in accordance with GA Article 28 and 43.

6.4.4. Intellectual Property Rights (IPR) & Management

The DINOSAR Consortium Agreement follows the standard rules as outlined in the Development of a Simplified Consortium Agreement (DESCA, www.desca-2020.eu) model

for Horizon Europe, which defines the main approach regarding the ownership, protection, and access to key knowledge like intellectual property rights (IPR) and data. The objective is to ensure fair and transparent manners for exploiting and protecting the background information and the foreground results. This allows DINOSAR to pursue market opportunities arising collectively and individually from the project's results. DINOSAR follows the rules for IP set out by the EC, as regulated, and agreed upon by all partners in the CA.

More information can be found in GA ARTICLE 16 — INTELLECTUAL PROPERTY RIGHTS (IPR) — BACKGROUND AND RESULTS —ACCESS RIGHTS AND RIGHTS OF USE.

The committee supports IPR protection and ensure that effective protocols are established and adhered to for the management of IP during knowledge transfer and dissemination activities. All Key Exploitable Results produced during the project are assessed for the need of IPR protection through the Steering Committee, which will discuss strategic issues, ethics, and the exploitation of results. The partners ensure that adequate steps towards protection are taken prior to exploitation, dissemination, and communication, preventing unapproved public disclosure of results, tools, products and services.

6.5. Knowledge Transfer Impact Assessment

KERs are assigned a current **Impact Readiness Level (IRL)**, and a target IRL to be achieved near or just beyond the end of the DINOSAR project as a measure of impact quantification. The Impact Readiness Level (Section Annex- 7.1) provides an assessment of how 'actionable' knowledge is in the economical, societal and policy context. Proxy indicators are used to reflect various types of stakeholder engagement along the impact pathway that are conducive to impact generation. These indicators acknowledge that pathways are not always linear, recognising that in many cases systemic and/or sustained engagement can be required to achieve a desired impact. The IRLs have also been mapped to the more widely recognised Technology Readiness Levels and Societal Readiness Levels for comparison.

DINOSAR is expected to reach IRL 2 at the end of the project as it relates to the project's TRL4. IRL's have been selected as the mechanism to track the KER's impact and the holistic advancement of DINOSAR's knowledge. Therefore, DINOSAR do not have a traditional quantification measure (i.e., reach x number of stakeholders or x number of downloads) as these actions, while fulfilling dissemination/exploitation criterion does not necessarily measure impact holistically, but rather measures the progress of one or two specific knowledge transfer activities.

Certain knowledge transfer activities will be more impactful than others (i.e., having one-to-one meetings with a single sugarcane agro-industrial or such as a local policymaker), despite the action equating to a lower KPI.

Rather than selecting more traditionally quantifiable KPIs, which may assess the impact progression more narrowly, the IRL measures progress more holistically and is therefore the selected impact measurement for DINOSAR.

7. Annex

7.1. Impact readiness levels

IRL Level	SRL	TRL	Description of IRL
IRL 1: Conception	SRL 1	TRL 1 TRL 2 TRL 3	• Generation and/or identification of new knowledge awaiting validation through experimentation or peer-review • Research concepts or proposals generated following identification of stakeholder knowledge and evidence needs • Research knowledge requiring further definition to allow evaluation of the potential value chain • Anticipated research outputs require further development to enable progress along the value chain
IRL 2: Discovery	SRL2 SRL3	TRL 4	• Mapping and analysis of the stakeholders' landscape in order to grasp the value chain of the envisioned research outputs • Definition of knowledge outputs and strategic planning of knowledge transfer activities in order to create value • Successful communication of research to key target audiences at a medium/late stage of the project • Research agenda and process are co-designed with the potential stakeholders
IRL 3: Engagement	SRL4 SRL5 SRL6	TRL 5	• Organisation of and/or participation in multi-stakeholder events with a common agenda • Successful outreach and systematic, planned involvement of various media channels • Scientific knowledge circulates along various channels in a stakeholder sensitive language • Early systematic exploration with specific stakeholders about requirements, barriers, opportunities for potential application
IRL 4: Implementation	SRL7 SRL8	TRL 6 TRL 7	• The basis for research application is established through an iterative co-creation process • Consolidation and validation of 'actionable' results of research by stakeholders in practice • First implementation efforts can be demonstrated as single one-off events in a concrete societal context of application • Societal and political stakeholders are engaged in research evaluation and support learning feedback loops for researchers
IRL 5: Uptake	SRL9	TRL 8	• Demonstrable uptake of research results and their advancement through policy influence and/or entering an enduring partnership with stakeholders • Sustainability of the multi-stakeholder process is planned for in previous stages and appears highly probable • Beneficial outcomes on target stakeholder groups are verifiable • Research leverages additional research funding and/or a change in the visibility and the positioning of the research organisation
IRL 6: Sustained Change		TRL 9	• Demonstrable scale-up and follow-ups both in regional and sectoral terms; emergence of spin-offs • The initiators/researchers are recognised as innovators and are consulted for advice for replication of good practices • Long term research contracts/further commissioned work with Departments/Agencies for sustained policy influence • The application of research in different contexts generates additional demand with funding organisations for further innovative research • Beneficial outcomes are measurable and introduce not merely a change in practice/policy but moreover a sustainable change in mindsets, culture and/or regulation

7.2. DINOSAR flyer

7.2.1. English version

7.2.2. Spanish version

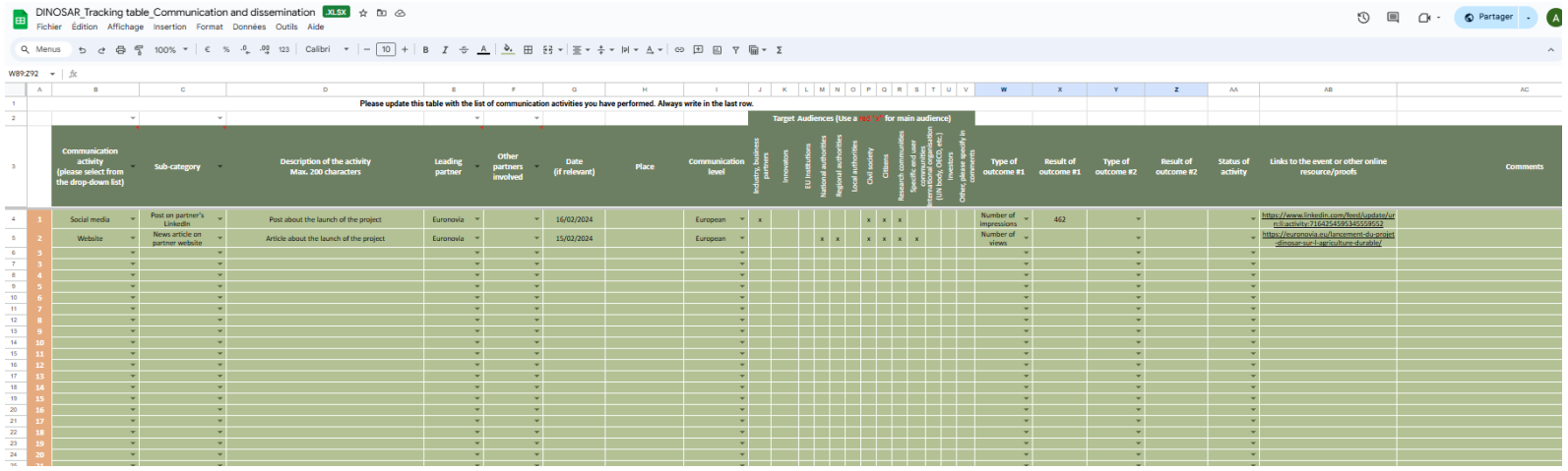
7.3. DINOSAR Roll up banner

7.3.1. English version

7.3.2. Spanish version

7.4. Overview of the excel tracking form to monitor communication and dissemination activities

Communication tab



DINOSAR_Tracking table_Communication and dissemination

Please update this table with the list of communication activities you have performed. Always write in the last row.

		Communication activity (please select from the drop-down list)	Sub-category	Description of the activity Max. 200 characters	Leading partner	Other partners involved	Date (if relevant)	Place	Communication level	Target Audiences (Use a x for main audience)												Type of outcome #1	Result of outcome #1	Type of outcome #2	Result of outcome #2	Status of activity	Links to the event or other online resource/proofs	Comments
										Industry, business partners	Innovators	EU institutions	National authorities	Regional authorities	Local authorities	Civil society	Citizens	Research communities	Specific end user communities	International organization (UN body, OECD, etc.)	Investors	Other, please specify in comments						
4	1	Social media	Post on partner's LinkedIn	Post about the launch of the project	Euronovia		16/02/2024		European	x						x	x	x					Number of impressions	462				https://www.linkedin.com/feed/update/urn:li:activity:7164254595345559552
5	2	Website	News article on partner website	Article about the launch of the project	Euronovia		15/02/2024		European				x	x		x	x	x	x				Number of views					https://euronovia.eu/lancement-du-projet-dinosar-sur-lagriculture-durable/
6	3																											
7	3																											
8	4																											
9	5																											
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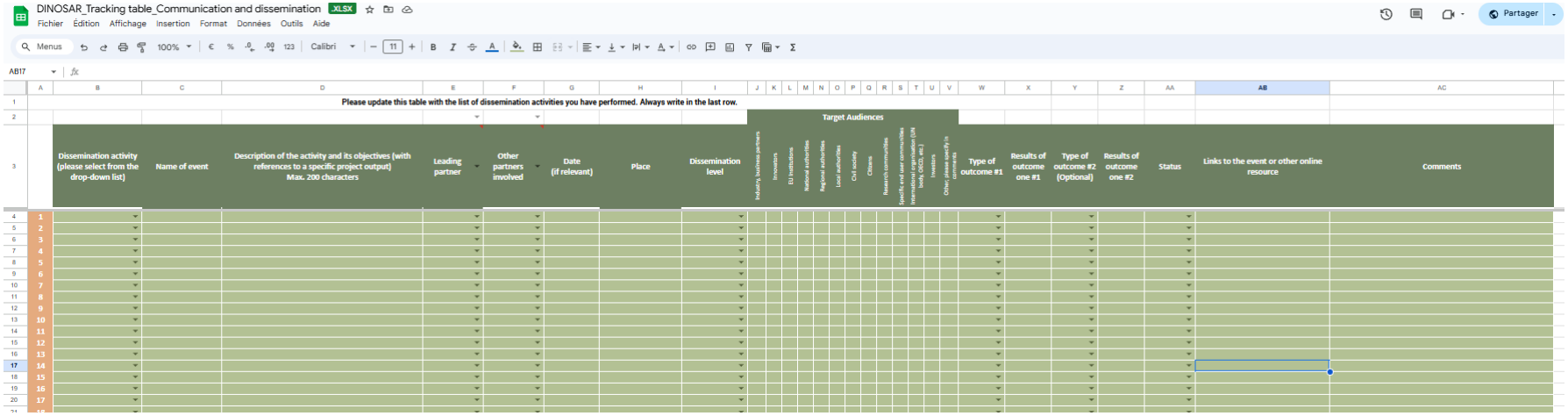
Dissemination tab


DINOSAR_Tracking table_Communication and dissemination .XLSX

Please update this table with the list of dissemination activities you have performed. Always write in the last row.

	Dissemination activity (please select from the drop-down list)	Name of event	Description of the activity and its objectives (with references to a specific project output) Max. 200 characters	Leading partner	Other partners involved	Date (if relevant)	Place	Dissemination level	Target Audiences: Industry, business partners	Innovators	EU institutions	National authorities	Regional authorities	Local authorities	Civil society	Citizens	Research communities	Specific end user communities	International organisation (UN body, OECD, etc.)	Investors	Other, please specify in comments	Type of outcome #1	Results of outcome one #1	Type of outcome #2 (Optional)	Results of outcome one #2	Status	Links to the event or other online resource	Comments
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
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15																												
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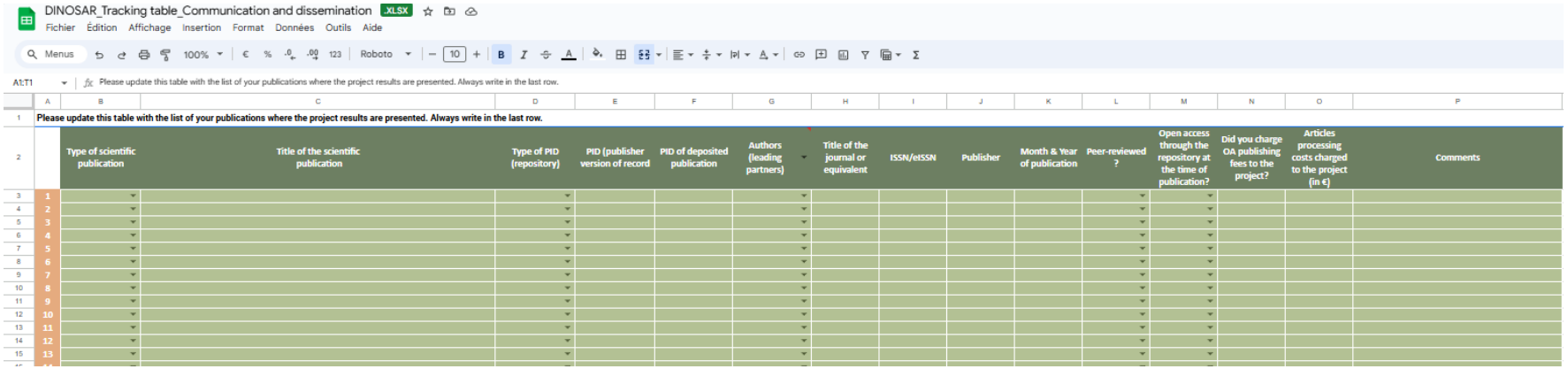
17																												
18																												
19																												
20																												

Publications


DINOSAR_Tracking table_Communication and dissemination .XLSX

Please update this table with the list of your publications where the project results are presented. Always write in the last row.

	Type of scientific publication	Title of the scientific publication	Type of PID (repository)	PID (publisher version of record	PID of deposited publication	Authors (leading partners)	Title of the journal or equivalent	ISSN/eISSN	Publisher	Month & Year of publication	Peer-reviewed ?	Open access through the repository at the time of publication?	Did you charge OA publishing fees to the project?	Articles processing costs charged to the project (in €)	Comments
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															

Events to target

SCIENTIFIC EVENTS						
Name	**Date**	**Venue/Location**	**Partner(s) planning to atte**	**Attended?**	**Comments**	**Link**
INDUSTRY EVENTS						
Name	**Date**	**Venue/Location**	**Partner(s) planning to atte**	**Attended?**	**Comments**	**Link**
Workshop WaPOR, Bogotá	?	Bogotà, Colombia	AgroAp	Yes		
AI4Copernicus	21-22.05.2024	The Hague	eLEAF	Not yet		
Congress of the International Society of Technicians of Sugarcane (ISSCT)	21-31.08.2025	Cali, Colombia	All	Not yet		https://issct.org/activities/xxxii-congress-2025/
Brazilian Congress on Precision Agriculture (ConBAP)	02-04.07.2024 or 2025?	Porte Alegre, Brazil	AgroAp	Not yet		https://asbraap.org/conbap/index.php
International Conference on Precision Agriculture (ICPA)	21-27.07.2024 or 2025?	Manhattan, Kansas, USA		Not yet		https://www.ispag.org/icpa
Seminario Internacional Agroindustria 4.0: AgroTech 2024	11-12.07.2024 or 2025?	Cali, Colombia	AgroAp	Not yet		https://tecnicana.org/2023/11/30/tecnicana/tecnicana-anuncia-la-segunda-edicion-del-seminario-internacional-agroindustria-4-0-agrotech-2024/?v=056158413026

EC reporting

A	B	C	D	E	F	G	H	I
Communication								
Category	**Sub-category**	**Type of outcome #1**	**Result of outcome #1**	**Type of outcome #2**	**Result of outcome #2**	**Type of outcome #3**	**Result of outcome #3**	*Other, please specify*
Exhibition	N/A	Number of participants	0	Number of people reache	0			0
Interview	N/A	Number of interviews	0					0
Media article	N/A	Number of articles	0					0
Newsletter	Partner's Newsletter	Number of newsletter	0	Number of subscribers	0			0
	Other Newsletter	Number of newsletter	0	Number of subscribers	0			0
Press Release	N/A	Number of PR	0					0
Print materials	N/A	Number of print materials	0					
Social media	Post on partner's LinkedIn	Number of impressions	462	Number of posts	1			0
TV/Radio campaig	TV	Number of TV appearances	0					0
	Radio	Number of radio appearances	0					0
	Podcast	Number of podcast appearances	0					0
Video	N/A	Number of videos	0	Number of views	0			0
Website	News article on partner's website	Number of articles	0	Number of views	0			0
	News article on other website	Number of articles	0					0
Event	Webinar	Number of webinars	0	Number of participants	0			0
	Popularisation event	Number of events	0	Number of participants	0			0
Other: Please specify in the comment								
Dissemination								
Category		**Type of outcome #1**	**Result of outcome #1**	**Type of outcome #2**	**Result of outcome #2**	**Type of outcome #3**	**Result of outcome #3**	*Other, please specify*
Clustering activities		Number of activities	0	Number of participants	0	Number of brochures distributed	0	0
Collaboration with EU-funded projects		Number of collaboration	0	Number of participants	0	Number of brochures distributed	0	0
Conferences		Number of conferences	0	Number of participants	0	Number of brochures distributed	0	0
Education and training events		Number of events	0	Number of participants	0	Number of brochures distributed	0	0
Meetings		Number of meetings	0	Number of participants	0	Number of brochures distributed	0	0
Other scientific collaboration		Number of collaboration	0	Number of participants	0	Number of brochures distributed	0	0
Other: Please specify in comments		Number of events	0	Number of participants	0	Number of brochures distributed	0	0

7.5. Knowledge Transfer Plan template

Expected result Description	
Short Title	
KER Description	
Owner(s)	
Readiness	
Patent or other IPR	
Knowledge Transfer Activity	
Target User: Public Sector Facilitators	
Target User identified as:	*Private sector* *Public sector facilitators/practitioners. Examples: Public authorities (i.e., municipal departments), people working in academia, researchers, civil society organisations, non-profit formal organisations (i.e., NGOs), organised communities, interest groups* *Public sector decision-makers, including city planning authorities, municipalities* *Other EU / National projects*
Awareness: *Is the Target User aware of the KO already?*	
Level of Understanding:	

What level of technical understanding does your Target User have of the surrounding topic? *Does the KO need translation (from technical to layman's terms)?* *Do they require training to take up the KO?*	
Knowledge Transfer Activities	
Message for Stakeholder *Reasons why the knowledge is innovative, beneficial and, addresses the Target Users needs*	•
Channel/Activities *i.e., Email, face-to-face, social media, active networks* *A more specific calendar of activities is available to the internal DINOSAR team.*	•


dinosar
Diagnostic tool that INtegrates
Optical, infrared and SAR data