D4.5 - Synergy building with other European initiatives – Draft 2

Work Package 4 - Observatory Data Collection and Analysis

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4Growth Consortium

	Participant organisation name	Short name	Country
1	STICHTING WAGENINGEN RESEARCH	**WR**	**NL**
2	EVENFLOW	**EVF**	**BE**
3	GEOPONIKO PANEPISTIMION ATHINON	**AUA**	**EL**
4	REFRAME FOOD ASTIKI MI KERDOSKOPIKI ETAIREIA	**RFF**	**EL**
5	LE EUROPE LIMITED	**LEE**	**IE**
6	DAHEIM CORNELIA	**FI**	**DE**
7	SIMBIOTICA SL	**VIZ**	**ES**
8	EIGEN VERMOGEN VAN HET INSTITUUT VOOR LANDBOUW- EN VISSERIJONDERZOEK	**EV ILVO**	**BE**
9	INSTITUTO NAVARRO DE TECNOLOGIAS E INFRAESTRUCTURAS AGROALIMENTARIAS SA	**INTIA**	**ES**
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Glossary of terms and abbreviations

List of Abbreviations and Acronyms	
ADSs	Agricultural Digital Technologies
AI	Artificial Intelligence
AKIS	Agricultural Knowledge and Innovation Systems
APIs	Application Programming Interfaces
CAP	Common Agricultural Policy
DIHs	Digital Innovation Hubs
EU	European Union
GDPR	General Data Protection Regulation
KPIs	Key Performance Indicators
LoI	Letter of Intention
ML	Machine Learning
MoU	Memorandum of Understanding
MMFT	Market Monitoring & Forecasting Tool
SMFs	Small and Medium-sized farmers
SIPs	Sustainable Innovation Pilots
UAVs	Unmanned Aerial Vehicles
WP	Work Package

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Executive Summary

The 4Growth Deliverable D4.5, “Synergy Building with Other European Initiatives – Draft 2”, presents the progress achieved in fostering collaborations with European projects and initiatives to support the uptake of digital and data-driven solutions in agriculture and forestry. Building on the initial mapping and strategy outlined in D4.4, this deliverable documents the outcomes of synergy-building activities conducted during the project’s first year, particularly from M4 to M12.

The achievements include the successful establishment of formal collaboration agreements with five European projects: ICAERUS, Smart Droplets, QuantiFarm, BEATLES, and PRUDENT. Four additional agreements with FoodDataQuest, Data4Food2030, CODECS, and D4AgEcol are anticipated in the coming weeks. These partnerships have enabled joint dissemination efforts, data sharing, and the alignment of objectives to enhance collective impact. The signing of Memoranda of Understanding (MoUs) and Letter of Intention (LoI) has formalised these synergies, laying the groundwork for expanded activities in the next phases of the project.

The deliverable also evaluates over 40 related EU projects and initiatives to prioritise future synergies based on their alignment with 4Growth’s goals, feasibility, and expected impact. A second round of contact with additional EU projects, including AgriDataValue, DigitAF, FARMTOPIA, and SPADE, is set to begin in M13 (January 2025).

The participation in Synergy Days 2024, held in Barcelona, was a significant milestone in 4Growth’s outreach efforts. The event featured a project pitch, an interactive exhibition booth, and a workshop on data flows and framework conditions in agriculture and forestry. These activities attracted a wide range of stakeholders, increasing project visibility and creating new collaboration opportunities.

Looking ahead, 4Growth will enter a more dynamic phase of synergy implementation. This will involve deepening partnerships through structured meetings, joint webinars, and coordinated participation in key events. A strong focus will be placed on data and best practice exchanges to enhance 4Growth’s tools, including the Digital Agriculture & Forestry Uptake Assessment Grid, the Visualization Platform, and the Market Monitoring and Forecasting Tool. The Project Management Team, with input from consortium partners, will continue evaluating synergies and adopt an adaptive approach to address emerging challenges and maintain progress.

The upcoming versions of this deliverable, scheduled for submission in M21 (Draft 3) and M30 (final), will build upon the current work, assess the effectiveness of the synergy-building strategy, and recommend corrective actions to ensure sustained impact and alignment with project objectives.

1. Introduction

This section provides an overview of the 4Growth project, focusing on its objectives, methodology and structure. The aim of this section is to highlight the project's key points for the reader to understand how the task of building synergies with other European initiatives described in the following sections fits within the overall project's structure.

1.1 Project Overview

4Growth is a Horizon Europe project comprising 13 partners from 9 EU Member States, all extensively involved in digital agriculture and forestry activities.

The objective of 4Growth is to understand **where, how and to what extent digital and data technologies and infrastructure in agriculture and forestry are being adopted as well as to look into the flows of data in the agricultural and forestry data market**. It will do so by collecting a wide range of ground truth data via distributed observatories across Europe and identifying key factors or constraints for uptake. Uptake will be showcased through the "4Growth Visualisation Platform" that will combine powerful storytelling with advanced visualisation of market data. This will contribute to a deeper knowledge of what influences market adoption, which in turn will allow 4Growth to develop robust forecasts to guide policymaking and increase further uptake.

4Growth will strive to (i) produce a solid understanding of the bigger picture of digital agriculture and forestry uptake as well as their fine details, (ii) make the collected insights accessible to the wider community, (iii) allow governance actors to make informed decisions based on solid data and projections and (iv) enable practitioners and value chain actors to adopt best practices and realise a wide range of socio-economic benefits.

This will be pursued through a multi-actor approach, with farmers, forestry actors, policymakers, market experts, and researchers working together in unison. In that regard, 4Growth has not only brought together an excellent blend of skills and capabilities among a cohort of partners with years of experience in the sector, but will also actively involve the wider community, linking with major projects, initiatives, and networks.

1.2 Synergy building with other European initiatives

This task aims to build transdisciplinary links and synergies among stakeholders, networks as well as other projects and initiatives relevant to 4Growth (e.g. SmartAgriHubs, AKISs, EU CAP Network, etc.). The aim is to nurture an open, expanding, and sustainable ecosystem on digital technologies in agriculture and forestry in order to enhance knowledge exchange. Networks and synergies will allow 4Growth to:

a) explore and harness further sources of quantitative and qualitative data on the uptake, use and impact of digital technologies which can inform the findings of 4Growth;
b) share relevant resources such as databases;
c) encourage the widespread exploitation of the 4Growth Visualisation Platform;
d) investigate the creation of links with other initiatives sharing the same goals related to the deployment of digital technologies in agriculture and forestry; and
e) allow the undertaking of joint communication and dissemination activities with other EU projects.

The starting point of this task is that there are several initiatives and solutions, whereby one can access information on digital agriculture and forestry technologies, their application, and the associated benefits.

1.3 Methodology and strategy

The synergy building with other European initiatives is a cross-cutting (horizontal) task (T4.3) with direct impact on other 4Growth's tasks within WP4 and WP5.

In the context of WP4 - Observatory Data Collection and Analysis, the outcomes of this task will:

i. contribute to a thorough analysis of the framework conditions, governance models, data sharing practices, technical aspects and socioeconomic impact of the adoption/use of digital technologies (T4.4 - Framework conditions and impact analysis).
ii. contribute to the production of some key outputs of the project, including policy recommendations for decision makers and governance actors to better facilitate and encourage the adoption of digital technologies in agriculture and forestry (T4.5 Policy Recommendations / Best Practices for Value Chain Actors).

The task of synergy building with other European initiatives will directly contribute to the objective of the WP5 (Impact Maximisation) which is to promote the project itself and its findings to target audiences.

Finally, through building transdisciplinary links and synergies among stakeholders, networks as well as other projects and initiatives relevant to 4Growth, T4.3 will have substantial impact towards achieving the project's KPI of more than 50 cases of user uptake directly triggered by 4Growth feedback from communication and synergy building activities, while also indirectly contributing in other KPIs, namely more than 5,000 instances of data collection (utilisation of the Digital Agriculture and Forestry Uptake Assessment Grid), more than 50,000 unique visitors of Visualisation Platform by project's end and more than 1,000 social media followers and email alert subscribers.

The strategy for building synergies with other European initiatives is multifaceted and was originally described in D4.4 – Synergy building with other European initiatives – Draft 1, which was officially submitted in April 2024. A detailed description of this strategy is provided below and is illustrated in Figure 1.

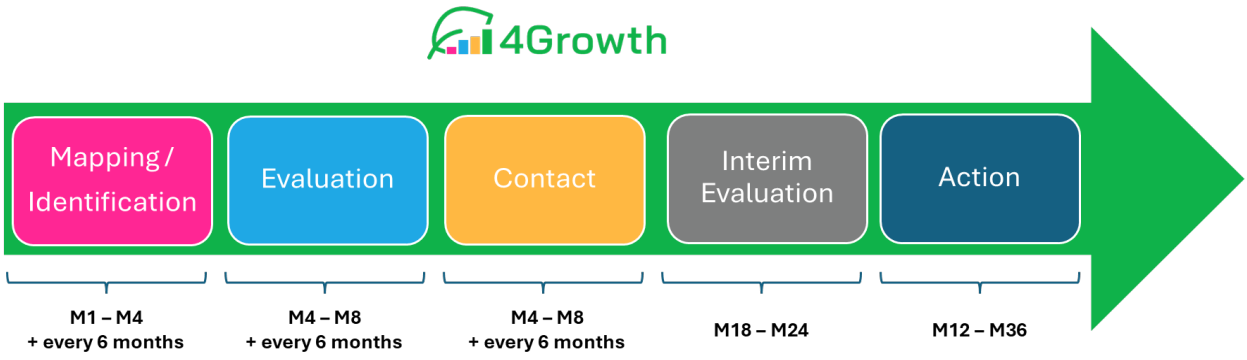


Figure 1: 4Growth strategy of synergy building with other European initiatives.

1.3.1 Phase 1: Mapping and Identification

Engaging with European initiatives and projects is central to successfully understanding the uptake of digital and data-driven solutions in agriculture and forestry. However, not all initiatives have the same level of involvement and means to engage. Therefore, the first step is to identify synergies and partnerships that could be mutually beneficial.

4Growth is a Horizon Europe project comprising 13 partners from 9 EU Member States, all extensively involved in digital agriculture and forestry activities. These activities include the partners active participation in other EU initiatives closely related to the objectives of 4Growth. A preliminary mapping and identification of EU initiatives for building synergies took place during the proposal phase, during which project partners identified and listed European and national projects and activities with participation or coordination of 4Growth partners and how the experiences and know-how would be exploited in 4Growth:

Table 1: *Related EU and national projects and activities from consortium partners*

Related EU and national projects and activities from consortium partners			
#	**Title**	**4Growth partner involved**	**Link to 4Growth**
1	Smart-AKIS	AUA, WR, INTIA	Extensive smart farming agriculture market and scientific article research, incl. several technologies/subsectors. Experience in gathering and handling data related to smart farming.
2	SmartAgriHubs	WR, AUA	Extensive experience in innovation/market analysis, development and sustaining of impactful, far-reaching initiatives in agri-tech.
3	FAIRSHARE	AUA, ILVO, INTIA, WR	Experience in data collection, analysis and the development of good practices to facilitate uptake of innovative agri-tools.
4	CYBELE	EVF, ILVO, WR	Extensive precision agriculture market research, spanning several technologies and subsectors (most notably HPC-enabled); Experience in innovation management and exploitation planning for cutting-edge digital agriculture technologies.
5	EU AgroBRIDGES	VTT, WR	Expertise and results to be used in Agriculture sector of the project.
6	EU BIGPROD	VTT	Expertise in technology foresight. Methods to be used in data collections and analysis.
7	MISPA	CTIFL	Experience in evaluating impacts of cutting-edge agriculture innovations.
8	Robs4Crops	WR	Experience in analysing impacts of digital technologies in agriculture.
9	QuantiFarm	AUA, RFF	Experience of applying a comprehensive and independent assessment of costs, benefits, and

			sustainability gains (economic, environmental, social) under real-life conditions.
10	ICAERUS	RFF, LITH, AUA	Experience in exploring new effects of new technologies in agriculture.
11	GSA MKD Lot 1	EVF, LEE	Direct exposure to digital agriculture and forestry as GNSS and EO-based solutions are included in the market monitoring and forecasting model with global coverage.
12	Portfolio of data visualisation platforms	VIZ	• Forest Forward – Predicts distribution of commercially important tree species • LandGriffon - measurement & management agricultural supply chain impacts. • TRASE - flow of global food commodities with focus on environmental impacts • Global Forest Watch (GFW) near real-time info about changes in our forests • ReFED Insights is a data and solutions hub for food waste reduction. • Soils Revealed visualising changes of soil organic carbon stocks globally. • Climate Watch open climate data, visualisations on the global progress of climate change.
13	Portfolio of relevant foresight studies	FI	• “Future of Crop Protection in Europe” - study for the European Parliamentary Research Service, Scientific Foresight Unit (STOA) • “Precision agriculture and the future of farming in Europe” - scientific foresight study for the Directorate-General for Parliamentary research Services (European Parliament)
14	Forestry-TEP platform	VTT	Forestry remote sensing expertise. Data platform management expertise.
15	NOF – National Observatory of Forests	AUTH	Experience in forestry technology foresight. Methods to be used in data collections and analysis.
16	ICT-agri-food	ILVO	ILVO are responsible for network development and management within this project.

From the list provided above, there are some projects and initiatives that have already been finished (marked in red) but still have the potential to have substantial impact on 4Growth’s objectives, either through building on the expertise, experience and knowledge exchange, or through the exchange of data that these projects have already collected, managed and analysed. At the same time, there are projects and initiatives that can serve as platforms for creating synergies and building networks with other EU projects and initiatives, such as SmartAgriHubs (see section 2.2.1).

Phase 1 officially began in the first four months of 4Growth’s implementation, from January 2024 to April 2024, during which project partners communicated to the consortium EU projects

and initiatives that they participate in and fall under the scope of 4Growth's objectives. These EU project and initiatives were:

Table 2: Identified related EU and national projects and activities from consortium partners (until M4 – April 2024)

Identified related EU and national projects and activities. from consortium partners (until M4 – April 2024)		
Project Name	**4Growth partner involved**	**Website**
AgriDataValue	EV ILVO	https://agridatavalue.eu/
CODECS	EV ILVO, AUA and WR	https://www.horizoncodecs.eu/
D4AgEcol	AUA	https://d4agecol.eu/
Data4Food2030	RFF, EV ILVO, WR	https://data4food2030.eu/
DigitAF	EV ILVO	https://digitaf.eu/
EU-FarmBook	AUA	https://eufarmbook.eu/en
FARMTOPIA	LITH and AUA	https://farmtopia.eu/
FoodDataQuest	EV ILVO, RFF, WR	https://fooddataquest.eu/
OpenAgri	AUA, EV ILVO	https://horizon-openagri.eu/
PATH2DEA	WR	https://www.path2dea.eu/index.html
PHITO Platform	WR	https://phito.eu/
ScaleAGData	EV ILVO	https://scaleagdata.eu/en
Smart Droplets	AUA, RFF, WR and LITH	https://smartdroplets.eu/
SPADE	AUTH	https://spade-horizon.eu/
BEATLES	AUA, WR, INTIA and LITH	https://beatles-project.eu/

Another round of mapping and identification took place from M8 (August 2024) to M10 (October 2024), the results of which will be presented in section 2 of this deliverable. This process is expected to continue throughout the whole duration of the project and will be accompanied by extensive research on online databases, such as CORDIS, when necessary.

To facilitate the process of collecting and organising input, a synergy mapping template has been developed (Table 3) and distributed to 4Growth's partners. This template served and will continue to serve as a dynamic tool for ongoing collaboration throughout the duration of the project.

Table 3: Synergy mapping template for project partners.

4GROWTH synergies and liaison mapping						
#	**Type of Initiative**	**Full Name**	**Website**	**Initiative Leader**	**Focus Area**	**Potential Joint Activities**
1						
2						
3						
4						

The “Potential Joint Activities” refers to a list of actions that 4Growth and the identified initiatives can build on and/or work together. In particular:

1. explore and harness further sources of quantitative and qualitative data on the uptake, use and impact of digital technologies which can inform the findings of 4Growth;
2. share relevant resources such as databases;
3. encourage the widespread exploitation of the 4Growth Visualisation Platform;
4. investigate the creation of links with other initiatives sharing the same goals related to the deployment of digital technologies in agriculture and forestry; and
5. allow the undertaking of joint communication and dissemination activities with other EU projects.

While filling the synergy mapping template, the project partners have been requested to identify in which of the five categories above, the initiative is relevant to, by selecting from a dropdown menu.

The document is available on the project’s online repository, so that partners can access it and provide updates and view the current list whenever they want, however every six months a reminder e-mail is sent to the entire consortium. During the project’s regular meetings, including Project Management Team online meetings as well as WPs’ biweekly and monthly meetings, partners may also share information on this topic and provide updates.

Partners are encouraged to actively contribute by adding potential projects, initiatives, working groups, networks, etc. that hold the potential for collaboration and synergy with 4Growth project.

1.3.2 Phase 2: Evaluation

To ensure synergies will benefit the project and align with 4Growth’s objectives, each potential project, initiatives, and network is assessed against the relevance, scope and potential for collaboration. In particular, 4Growth partner RFF, leading T4.3, together with the technical coordinator, Evenflow, has assessed the extent to which the objectives and focus areas of identified initiatives align with those of the project and will continue to do so. This involves analysing the projects’ objectives and description as well as their deliverables to determine compatibility. The expertise and capacity of each initiative is also taken into consideration during the evaluation process.

Furthermore, 4Growth is using the following qualitative/quantitative indicators, based on a 5-point rating scale:

- Relevance (how well the objectives and outcomes align);
- Further dissemination of 4Growth’s Digital Agriculture & Forestry Uptake Assessment Grid and the Visualisation Platform;
- Estimated impact (e.g., visibility, added value);
- Potential
- Feasibility (e.g., timeline and resources);
- Terms for collaboration.

Finally, the geographical area of each initiative is considered to ensure alignment with the scope and target areas of the 4Growth project, namely Spain, France, Benelux region, Greece/Balkan region, Lithuania/Poland/Hungary, Finland Northern Europe and Greece/Southern Europe.

An online preliminary assessment form has been created, based on the qualitative/quantitative indicators mentioned above. The purpose of the online form is to prioritise EU projects and initiatives for building synergies, using a “1-5” rating scale for each indicator. The scores from

all indicators are summed to calculate a total score for each project. Based on this total score, projects are categorised into priority statuses: Low, Moderate, High, or Strong.

Table 4: 4Growth online preliminary assessment form

4Growth preliminary assessment									
#	Potential Synergies	Relevance	Impact	Potential	Feasibility	Terms of cooperation	Geographical coverage	Total	Priority status
1	(name of project)	(1-5)	(1-5)	(1-5)	(1-5)	(1-5)	(1-5)	SUM	Strong
2	(name of project)	(1-5)	(1-5)	(1-5)	(1-5)	(1-5)	(1-5)	SUM	High
3	(name of project)	(1-5)	(1-5)	(1-5)	(1-5)	(1-5)	(1-5)	SUM	Moderate
4	(name of project)	(1-5)	(1-5)	(1-5)	(1-5)	(1-5)	(1-5)	SUM	Low
5	(name of project)								
6	(name of project)								
7	(name of project)								
8									

An aggregate score of the abovementioned evaluation criteria is calculated, which is consolidated with the information provided by partners, creating a priority list of initiatives, with the high-ranked initiatives indicating stronger potential for synergy building.

The Project Management Team, consisting of representatives from all WPs, is responsible for the evaluation process and for generating the priority list.

The first evaluation phase ran from M4 (April 2024) until M8 (August 2024) and will be repeated every six months when project partners will have provided their proposals for new synergy building.

1.3.3 Phase 3: Contact

Once the Project Management team agrees upon the synergies that should be established, the most appropriate approach for making contact is decided on a case-by-case basis.

A tailor-made synergy building proposal is developed, providing the general framework as well as specific steps and expected outcomes. In addition, project partners make use of their existing network and their involvement in other project and/or initiatives to reach out to the coordinators for making the first contact.

Another step is to establish regular communication with the stakeholders, provide updates on 4Growth's progress, address potential obstacles and seek feedback when necessary.

Finally, a more adaptive and flexible approach is followed when it comes to the next steps and timeline of the synergy building since the responsiveness and availability of the contacted initiative have to be considered.

During the interim evaluation, all these issues will be addressed and analysed determining any follow-up or corrective actions.

1.3.4 Phase 4: Action

The pathways and joint activities between 4Growth and other EU initiatives will be decided after discussions with their representatives and the project's consortium and will include (but are not limited to):

- Sharing data, inputs and/or outputs
- Joint policy events
- Coordinating research and/or joint publications
- Participation in the other's events and networks
- Links to project and project events on website, social media and other relevant online platforms and channels.

The envisaged timeline for the action phase is from M12 (December 2024) until the end of the 4Growth's end date (M36 – December 2026) and will align with the observatory data collection waves.

1.3.5 Interim evaluation

Considering the strategic value of synergy building with other European initiatives throughout the project's implementation, it is of crucial importance to set up an extra layer of assessment throughout the duration of the project.

While the T4.3 leader, RFF, together with the Project Management Team, consisting of representatives from all WPs, monitor the implementation of this task, and the follow-up deliverables D4.6 and D4.7 will provide an extensive description of the synergy building process, a separate procedure has been identified, running from M18 (June 2025) until M24 (December 2025), which will look into detail on the progress achieved so far as well as the next steps.

The primary objective of the interim evaluation phase is to assess the progress of synergy-building efforts and make any necessary adjustments to enhance effectiveness and address challenges. This phase serves as a crucial checkpoint to ensure that the task remains on track towards its goals and objectives. The following steps will be followed:

- **Step 1:** The status of communication and collaboration efforts, as described in the contact phase, will be evaluated, focusing primarily on the level of engagement and responsiveness from the selected initiatives. This will determine the effectiveness of the communication channels and whether any improvement is needed at this stage.
- **Step 2:** The partners involved in the synergy building process will be asked to provide their feedback on the positive and negative aspects of these collaborations.
- **Step 3:** Depending on the feedback received, the Project Management Team in collaboration with T4.3 leader, RFF, and the rest of 4Growth's consortium will propose a set of actions to improve the synergy building process where necessary.

The results of the interim evaluation as well as the follow-up actions taken will be described in the upcoming deliverables D4.6 and D4.7, in M21 and M30 respectively.

2. Synergy building activities from M4 to M12

This chapter outlines the synergy building activities carried out from M4 (April 2024) to M12 (December 2024), implementing the phases described in chapter 1. The implementation steps, identified synergies, and the role of the 4Growth Observatories are detailed in the subsequent sub-sections, highlighting progress toward the objectives of Task 4.3. The implementation steps, identified synergies, and the role of the 4Growth Observatories are detailed in the subsequent sub-sections, highlighting progress since the submission of D4.4 and toward the objectives of Task 4.3.

2.1 Synergy identification process

Considering the objectives and outcomes of task 4.3 and building upon the methodology and strategy outlined in D4.4 and Section 1.3 of this deliverable, the period from M4 (April 2024) to M12 (December 2024), was dedicated to mapping/identifying (phase 1), evaluating (phase 2) and contacting (phase 3) EU projects and initiatives.

Since the mapping that took place during the proposal phase and in the first four months of 4Growth's implementation (see section1.3.1), the following activities have taken place in each phase:

1. **Phase 1 - Mapping and identification:** From M8 (August 2024) to M10 (October 2024), project partners were requested to fill in the online synergy mapping template (table 3). The results of this exercise further enriched table 2, with the following EU projects and initiatives:
   - **AGRARIAN:** AGRARIAN project aims to establish an open and dynamic environment that enhances the sustainability performance and competitiveness of the agriculture sector. It will achieve this by developing tailored open-source digital solutions focused on tools, reuse, composability and orchestration. The project aims to provide smart connectivity, standardised management of distributed digital infrastructure, and dynamic deployment of services and applications that are time- and location-dependent. AGRARIAN will create a robust Agricultural Decision Support System tool that considers the specific needs of farmers in rural communities, enabling end users and stakeholders to maximise their benefits.

     AGRARIAN consortium consists of 13 partners from 9 different EU countries.

   - **AGRARSENSE:** AGRARSENSE is a large Chips Joint Undertaking consortium project aiming to develop microelectronics, photonics, electronic packaging for agricultural use and forestry. The project will also develop related ICT and data management to realise large scale field demonstrators for real industrial needs. The project will combine the efforts of large enterprises, SMEs and research and technology organisations, by developing several technologies like automated agricultural tools and improved sensor technology that will help improve efficiency and protect value chains.

     AGRASENSE consortium consists of 51 partners from 14 countries.

   - **COMMECT:** COMMECT project aims at bridging the digital divide, by providing quality, reliable, and secure access for all in rural and remote areas. The goal of extending broadband connectivity in rural and remote areas will be achieved by integrating Non-Terrestrial Networks with terrestrial cellular XG networks, and low-cost Internet of

Things (IoT). Artificial Intelligence, Edge and Network Automation will reduce energy consumption both at connectivity and computing level.

COMMECT consortium consists of 18 partners from 9 countries.

- **DIGIFOREST:** DIGIFOREST projects aims to develop the technology needed to achieve sustainable digital forestry. The following outlines four scientific ambitions which form the basis of our project. They include fundamental development for (1) mobile robotic navigation (multi-sensor motion estimation, 3D mission planning) and (2) data-driven semantic mapping. (3) This highly detailed data will be presented to a human supervisor, enabling him/her to make informed decisions and (4) to plan the deployment of a mobile robot harvester to selectively intervene in an environmental manner.

  DIGIFOREST consortium consists of 10 partners from 7 countries.

- **DIGIMEDFOR:** DIGIMEDFOR project aims to improve the technology of the Mediterranean forest-wood supply chain, by boosting its competitiveness and facilitating efficient management of forest resources and ecosystem services. Additionally, it will ensure the traceability of wood from forests to the wood industry. The project leverages digital solutions, including geospatial, AI, and modelling technologies, to monitor and manage forest resources.

  DIGIMEDFOR consortium consists of 21 partners from 11 countries.

- **DIVINE:** DIVINE project aims to show the cost benefits and added value of sharing agri-data. To do this, it will develop an agri-data ecosystem that combines data already commonly shared while also using industry-led pilots that are devised on data-sharing plans. The results would support policy makers, technology providers, farm representatives and other agri-data stakeholders.

  DIVINE consortium consists of 15 partners from 8 countries.

- **FORSAID:** FORSAID project aims to develop digital technologies for early detection of forest pests, monitoring their occurrence, and providing data to manage their spread effectively. The project will leverage the Internet of Things (IoT) to deploy networks of insect traps across forests, employing deep learning to analyse images transmitted remotely. Additionally, FORSAID will test robotic devices for automatic barcoding of captured pests and drones equipped with sensors to assess plant health status. AI and machine learning models will be developed to distinguish between various types of stress affecting forests.

  FORSAID consortium consists of 17 partners from 10 countries.

- **modernAKIS:** modernAKIS project will build and foster a European network of at least 1 000 key AKIS (Agricultural Knowledge and Information System) actors, including AKIS coordination bodies, from all EU Member States. They will serve as linchpins in the transformation of the AKIS systems towards more effective governance and modernisation of the European agri-food sector. The project will also build the capacities of these key AKIS actors towards systems understanding and engagement. This will allow them to put into practice long-term system changes that will improve the AKIS.

  modernAKIS consortium consists of 37 partners from 27 countries.

- **STELLA:** STELLA project aims to establish a real-time pest surveillance system comprised of three subsystems. The first is an early warning system that uses forecasting models and Internet of Things (IoT) sensors. The second is a pest

detection system that uses drones, satellites, and a smartphone application. The third provides data-driven recommendations for containment and counteractive measures. The project will test the system in six use-case pilots across five countries, addressing eight different diseases. Additionally, STELLA will develop a networking strategy to leverage existing knowledge and foster collaboration with stakeholders.

STELLA consortium consists of 14 partners from 7 countries.

An aggregate list of all the EU initiatives identified in the first two rounds of mapping and identification can be found on Annex F.

2. **Phase 2 - Evaluation:** In line with the methodology's phase 2, the online preliminary assessment form (Table 4) was used to evaluate the identified projects, based on the qualitative/quantitative indicators mentioned in section 1.3.The results of this first preliminary assessment can be found below in Table 5 as well as in annex G.

Table 5: Results of the first preliminary assessment

4Growth preliminary assessment								
Potential Synergies	Relevance	Impact	Potential	Feasibility	Terms of cooperation	Geographical coverage	Total	Priority status
AgriDataValue	5	4	5	4	4	4	26	Strong
CODECS	5	4	4	4	4	5	26	Strong
D4AgEcol	5	4	4	4	4	3	24	High
Data4Food2030	4	5	4	3	3	5	24	High
DigitAF	4	4	4	4	3	3	22	High
EU-FarmBook	4	4	3	4	3	4	22	High
FARMTOPIA	4	5	4	3	3	4	23	High
FoodDataQuest	3	4	3	4	4	4	22	High
OpenAgri	4	4	4	4	3	3	22	High
PATH2DEA	4	4	4	4	4	3	23	High
PHITO Platform	4	4	3	3	4	3	21	Moderate
ScaleAGData	4	4	3	3	3	3	20	Moderate
Smart Droplets	4	5	4	4	4	3	24	High
SPADE	5	4	5	3	4	4	25	Strong
Smart-AKIS	5	4	3	4	4	5	25	Strong
SmartAgriHubs	4	5	4	3	4	5	25	Strong
FAIRSHARE	5	4	3	3	4	3	22	High
QuantiFarm	4	4	4	4	4	4	24	High
ICAERUS	5	4	4	5	4	4	26	Strong

GSA MKD Lot 1	4	4	4	3	4	4	23	High
BEATLES	3	4	3	4	4	4	22	High
CYBELE	5	4	4	4	4	4	25	Strong
Portfolio of data visualisation platforms	3	4	3	4	4	3	21	Moderate
Portfolio of relevant foresight studies	4	4	4	4	4	3	23	High
Forestry-TEP platform	4	4	3	4	4	3	22	High
EU AgroBRIDGES	4	4	4	4	4	3	23	High
EU BIGPROD	3	3	4	4	4	4	22	High
NOF – National Observatory of Forests	4	3	3	4	4	4	22	High
ICT-agri-food	4	4	3	4	4	3	22	High
MISPA	3	3	3	3	4	3	19	Low
PRUDENT	4	3	4	4	4	3	22	High
AGRARIAN	4	5	4	4	3	3	23	High
AGRARSENSE	4	5	5	4	3	5	26	Strong
COMMECT	4	3	4	4	4	3	22	High
DIGIFOREST	4	4	3	3	4	3	21	Moderate
DIGIMEDFOR	4	4	4	4	3	4	23	High
DIVINE	4	4	4	3	5	3	23	High
FORSAID	4	4	4	4	3	4	23	High
modernAKIS	5	5	5	4	3	5	27	Strong
STELLA	3	4	4	5	4	3	23	High

3. **Phase 3 – Contact:** RFF, the project partner leading T4.3, initiated phase 3 – Contact with a first communication round with EU projects, in which 4Growth's partners actively participate in, to explore the possibility of establishing synergies with. The selection process of this first round was based on the status received in the evaluation phase, giving priority to the EU projects with "strong" and high" status. As a result, the following EU projects were contacted:

    i. **ICAERUS:** The ICAERUS project vision is to explore drone-based opportunities and provide a more complete and interconnected account of their potential and impacts as multi-purpose vehicles in EU agriculture, forestry and rural areas. The aim of ICAERUS is to apply, showcase and support the effective, efficient and safe deployment of drones as well as, identify the risks and added values associated with their use.

    The ICAERUS consortium consists of 13 partners from 8 countries, including 4Growth partners AUA, WR, RFF and LITH.

The communication between 4Growth and ICAERUS projects led to the mutual signing of a Letter of Intention (LoI) in M7 (July 2024).

ii. **Smart Droplets:** Smart Droplets' main objective is to advance both hardware and software capabilities to deliver a holistic system capable of translating large amounts of data into meaningful information and impactful spraying commands on the field.

To demonstrate substantial impact on the Green Deal, Smart Droplets will implement Autonomous retrofit tractors with Direct Injection System (DIS) for intelligent spraying – avoiding exposure of farmers to hazardous chemicals.

The Smart Droplets consortium consists of 9 partners from 6 countries, including 4Growth partners AUA, WR, RFF and LITH.

The communication between 4Growth and Smart Droplets projects led to the mutual signing of a Memorandum of Understanding (MoU) in M7 (July 2024).

iii. **QuantiFarm:** The QuantiFarm project aims to support the further deployment of digital agricultural technology solutions as key enablers for improving the sustainability performance and competitiveness of the agricultural sector. Thirty-two partners, thirty test cases, twenty countries, ten bio-geographical regions, seven agri-food sectors, one hundred digital technology solutions, a behavioural analysis, an evaluation framework, a digital toolkit, a digital innovation academy, a policy monitoring tool are some of the key features for successful implementation.

The QuantiFarm consortium consists of 32 partners from 20 countries, including 4Growth partners RFF and AUA.

The communication between 4Growth and QuantiFarm projects led to the mutual signing of a Memorandum of Understanding (MoU) in M10 (October 2024).

iv. **BEATLES:** The BEATLES project aspires to identify the individual, systemic and policy lock-ins and levers that influence entire food systems behavioural change and to develop transformation pathways of change to accelerate the systemic and systematic transition to climate-smart agriculture and smart farming technologies, fully aligned with the ambitions of the Farm to Fork and Biodiversity Strategies, and the new CAP at regional and EU levels.

The BEATLES consortium consists of 18 partners from 10 countries, including 4Growth partners AUA, WR, INTIA and LITH.

The communication between 4Growth and BEATLES projects led to the mutual signing of a Memorandum of Understanding (MoU) in M11 (November 2024).

v. **PRUDENT:** The PRUDENT project aspires to change the way agriculture and forestry systems currently operate and accelerate the transition to sustainable agriculture and forestry practices and smart farming technologies. PRUDENT will identify and evaluate the most effective green nudges that can enable behavioural change to more sustainable practices and develop innovative nudging tools and transformative pathways to encourage transition to fair, healthy and environmentally friendly agriculture and forestry systems.

The PRUDENT consortium consists of 15 partners from 6 countries, including 4Growth partners AUA, EV ILVO and LITH.

The communication between 4Growth and PRUDENT projects led to the mutual signing of a Memorandum of Understanding (MoU) in M11 (November 2024).

vi. **FoodDataQuest:** The FoodDataQuest project aims to promote sustainable and healthy diets by combining public and private data, engaging stakeholders across the food chain, and leveraging four usecases. Utilising various data sources and fostering enhanced data sharing, it will provide insights driving the shift toward healthier diets. Through a multi-actor approach, FoodDataQuest will co-create and test advanced AI and ML-powered solutions. This initiative stands for a fair, healthy, and eco-friendly food system, ensuring data openness while safeguarding stakeholders' privacy.

The FoodDataQuest consortium consists of 15 partners from 8 countries, including 4Growth partners EV ILVO, WR and RFF.

A first round of communication has been established with the project, discussing the type of synergy that will be followed by the two projects.

vii. **Data4Food2030:** The Data4Food2030 project aims to lay the foundation for a fair and inclusive data economy for food systems (DE4FS) in the EU by creating a universal definition, understanding stakeholders needs and developing a monitoring system to track the development, performance and impact of the DE4FS. Nine case studies from relevant agri-food and circular economy sectors are analysed to better understand the technical and regulatory requirements needed for a fair and improved DE4FS.

The Data4Food2030 consortium consists of 24 partners from 12 countries, including 4Growth partners WR, RFF and EV ILVO.

A first round of communication has been established with the project, discussing the type of synergy that will be followed by the two projects.

viii. **CODECS:** The CODECS project aims to advance sustainable digitalisation by developing methods, tools, and evidence to enhance our collective understanding, assessment, and foresight of the benefits and costs of farm digitalisation. The project initiatives foster the emergence of digital ecosystems that maximise the benefits of digitalisation for all.

The CODECS consortium consists of 33 partners from 20 countries, including 4Growth partners EV LIVO, AUA and WR.

A first round of communication has been established with the project, discussing the type of synergy that will be followed by the two projects.

ix. **D4AgEcol:** The overall objective of D4AgEcol is to provide knowledge for the transition to agroecological farming by identifying appropriate digital tools and technologies and suggest measures to adapt and exploit their potentials to the transition to sustainable food and agricultural systems. The project is driven by the vision of the rapid digitalisation of agriculture, which strengthens the agricultural sector.

The D4AgEcol consortium consists of 12 partners from 8 countries, including 4Growth partner AUA.

A first round of communication has been established with the project, discussing the type of synergy that will be followed by the two projects.

A table summarising this first round of communication with these projects can be found in annex B.

In order to better coordinate the process, the contacting of projects was split into two waves. The first, which includes the projects mentioned above, lasted from M4-M12, and the second wave is scheduled to start in M13 (January 2025) and will include the following projects:

Table 6: Second round of synergy building

4Growth second round of synergy building		
#	**Project Name**	**Short Description**
1	**AgriDataValue**	The ongoing EU-funded project aims to establish itself as the "Game Changer" in Smart Farming and agri-environmental monitoring, and strengthen the smart-farming capacities, competitiveness and fair income by introducing an innovative, intelligent and multi-technology, fully distributed platform of platforms. To achieve technological maturity and massive acceptance, AgriDataSpace adopts and adapts a multidimensional approach that combines state of the art big data and data-spaces' technologies (BDVA/IDSA/GAIA-X) with agricultural knowledge, new business models and agri-environment policies, leverages on existing platforms and edge computing, and introduces novel concepts, methods, tools, pilots and engagement campaigns to go beyond today's state of the art, perform breakthrough research and create sustainable innovation in upscaling (real-time) sensor data, already evident within the project lifetime. AgriDataValue will be validated via 24 Use cases in 23 pilots in 9 countries, representing more than 181,000ha with 25 types of crops that span from southwest to northeast Europe, outdoor and greenhouse crops, organic and non-organic production, and more than 2,000 animals of 5 types. More than 4,200 farmers will provide insights and more than 89,000 will be directly informed. More than 1,600 sensors will be utilised, and more than 4,500 additional sensors will be installed to measure (real-time) data, including more than 2,500 RFID tags. 4Growth aims to create synergies with AgriDataValue project and its extensive network, which includes (i) farmers, (ii) agronomists, (iii) researchers, (iv) suppliers, (v) citizens & civil society, (vi) governments and stakeholders, (vii) CAP paying authorities, and public organisations, (viii) urban authorities & municipalities, (ix) regulatory bodies. **This synergy building will be facilitated through the active involvement of 4Growth partner EV ILVO, which is also a member of the AgriDataValue consortium.**
2	**DigitAF**	The ongoing Horizon Europe project aims to: - Support policy actors at regional, national and European level in order to design more efficient and effective policies to support agroforestry adoption and monitor their impact on biodiversity, climate change mitigation and agricultural sustainability - Support farmers in designing and managing agroforestry systems in order to optimise agronomic, economic, social and environmental performances - Allow actors in agroforestry value chains in order to verify and market benefits, including enhanced biodiversity, carbon sequestration, soil health. DigitAF also supports consumers looking for food of high nutritional quality and farmed respecting the environment - Overcome socio-technical barriers to a widespread implementation of agroforestry by setting up six Living Labs across the EU - Provide researchers and software developers with FAIR (findable, accessible, interoperable and reusable) open platforms in order to encourage data sharing and software interoperability and foster open science practices - Convince decision-makers that agroforestry is a concrete solution to improve

		agricultural sustainability and resilience to climate change. Part of DigitAF's work is the collection of data and evidence to support policy and decision makers for the implementation of agroforestry systems, improving the communication and boosting networking to reach different targets and the implementation of tailored multi-actor approach directly engaging with stakeholders whose decision impact the spread of agroforestry practices. **This synergy building will be facilitated through the active involvement of 4Growth partner EV ILVO, which is also a member of the DigitAF consortium.**
3	**EU-FarmBook**	The ongoing Horizon Europe project aims to further develop the digital platform of an online, open-source, European knowledge reservoir about agriculture and forestry practical solutions, which was developed by the EU projects EURAKNOS and EUREKA. The overall aim is for the platform to stimulate knowledge exchange, user interaction and collaboration, ultimately resulting in innovation for environmentally, socially and economically sustainable agriculture and forestry. **This synergy building will be facilitated through the active involvement of 4Growth partner AUA, which is also a member of the EU-FarmBook consortium.**
4	**FARMTOPIA**	The ongoing Horizon Europe project aims to democratise digital farming by creating a paradigm shift in the way Agricultural Digital Technologies (ADSs) for small farms are created, deployed and paid for. This will be achieved by a) fostering co-creation of ADSs to ensure they will solve real problems and fit the needs of small farms; and b) lowering the cost for both farmers and ADSs providers, by creating a set of reusable software modules, a number of business and governance models, and identifying public provision of infrastructure that can enable scale-out of ADSs. Using a multi-actor approach, FARMTOPIA will engage farmers, ADSs providers, farm advisors, scientists, policy makers, AKIS actors and other relevant stakeholders in 18 Sustainable Innovation Pilots (SIPs) in at least 15 countries across Europe, and guide them in co-creating, deploying and piloting innovative ADSs while designing, adapting and validating appropriate business and governance models to support them (such as the French CUMA model, which is embraced by >225.000 farmers). **This synergy building will be facilitated through the active involvement of 4Growth partners AUA and LIT, which are also members of the FARMTOPIA consortium.**
5	**OpenAgri**	The ongoing Horizon Europe project aims to democratise digital farming by enabling the development and deployment of innovative cost-effective energy-efficient OS software and open hardware-based ADSs that can operate at a high performance even in remote areas with weak connectivity. This will be achieved by a) ensuring the co-creation of ADSs by engaging farmers and farm advisors in participatory prototyping activities inspired by the makerspaces approach; and b) providing access to a number of reusable OS software services designed to support the edge and mixed computing mode, and a "sociotechnical infrastructure". Using a multi-actor approach, OpenAgri will involve farmers, ADSs providers, farm advisors and scientists in 14 Sustainable Innovation Pilots (SIPs) in ≥10 countries across Europe, and guide them in co-creating and piloting edge, cloud and mixed-model ADSs addressing important challenges of agricultural production. 5 SIPs have been

		pre-selected and 9 more will be awarded through an Open Call, enabling a dynamic response to a changing policy and technology landscape. Finally, building on a thorough analysis of EU agriculture and the results from the SIPs, OpenAgri will create a Decision Support Tool that will allow Policy Makers, Farmers and Farm Advisors to select the best possible cloud, edge or mixed ADSs for any given set of conditions. **This synergy building will be facilitated through the active involvement of 4Growth partners AUA and EV ILVO, which are also members of the OpenAgri consortium.**
6	**PATH2DEA**	The ongoing Horizon Europe project aims to unlocking digitalisation's catalysing power to foster European agriculture's transition towards enhanced sustainability. It will build on farmers' competences and views and match them with the rich repertoire of digital solutions already available for agriculture, aimed at tailoring digital technologies to users' needs and fostering wide-range adoption of digital agroecological farming in the EU and associated countries. Strategic engagement by multiple actors includes early adopters of digital agroecological farming represented by six Showcase farms located in different pedo-climatic regions, with hands-on experience for solid consensus validation of the project's conclusions. PATH2DEA will deliver a robust knowledge base in the frame of an Open-Source Repository of digital tools and technologies in agroecology with decision support functionalities and a well-aligned R&I Roadmap for guiding digital agroecology transition. Finally, PATH2DEA will use its results for bridging towards the upcoming European Agroecology Partnership. **This synergy building will be facilitated through the active involvement of 4Growth partner WR, which is also member of the PATH2DEA consortium.**
7	**PHITO Platform**	The ongoing Horizon Europe project aims to empower farmers with digital agriculture, through the development of a platform to provide SMFs with the means to incorporate digital technology. Specifically, the platform connects SMFs with valuable resources, such as free soil, water and crop advice. This not only fosters collaboration among farmers but also strengthens local agricultural knowledge and innovation systems. PHITO's approach to digital farming is innovative, as it leverages open geo-databases and seamlessly integrates them into local food systems. The overarching goal of the project is to enhance SMFs' decision-making processes and improve their economic and environmental performance. **This synergy building will be facilitated through the active involvement of 4Growth partner WR, which is also member of the PHITO Platform consortium.**
8	**ScaleAGData**	The ongoing Horizon Europe project aims to obtain insights in how the complex data streams should be governed and organised, as well as to develop the data technology (from data streaming, data analytics and AI (Artificial Intelligence) applications) needed to scale data collected at the farm level to regional datasets built for agri-environmental monitoring and the management of agricultural production. **This synergy building will be facilitated through the active involvement of 4Growth partner EV ILVO, which is also member of the ScaleAGData consortium.**

9	**SPADE**	The ongoing Horizon Europe project aims to develop an intelligent ecosystem to address the multiple purposes concept in the light of deploying unmanned aerial vehicles (UAVs alias drones) to promote sustainable digital services for the benefit of a large scope of end users in sectors of crop production, forestry, and livestock. This includes individual UAV usability, UAV type applicability (e.g., swarm, collaborative, autonomous, tethered), UAV governance models availability and UAV-generated data trustworthiness. Multi-purposes will be further determined in the sensing dataspace reusability based on trained Artificial Intelligence (AI)/Machine Learning (ML) models. These models will enable sustainability and resilience of the overall life cycle of developing, setting up, offering, providing, testing, validating, refining as well as enhancing digital transformations and "innovation building" services in agriculture. Pilot prototypes will contribute toward greater goals, such as the reduction of deforestation, precision farming and animal welfare. **This synergy building will be facilitated through the active involvement of 4Growth partner AUTH, which is also member of the Spade consortium.**

2.2 Synergy implementation steps

This section outlines the current and future steps for the implementation of synergies between 4Growth and the five projects with which synergy agreement have been signed.

2.2.1 Initial Steps: Communication-Centric Activities

The submission of Deliverable 4.5 coincides with the completion of 4Growth's first year of implementation, during which project partners worked on the first drafts and versions of 4Growth's main tools, namely the Digital Agriculture & Forestry Uptake Assessment Grid, the 4Growth Visualisation Platform of Digital Agriculture and Forestry Uptake and the Market Monitoring and Forecasting Tool (MMFT). While these tools are now established and have been in and operational, they require modifications and adjustments based on the feedback received by the 4Growth's observatories, responsible for their management.

As a result, the first synergy implementation step has primarily focused on establishing communication-based activities to foster collaboration and mutual visibility among 4Growth and the aligned projects. These steps include:

- **Joint Social Media Engagement:** Use of the projects' social media channels to announce, communicate and disseminate the synergy agreements:

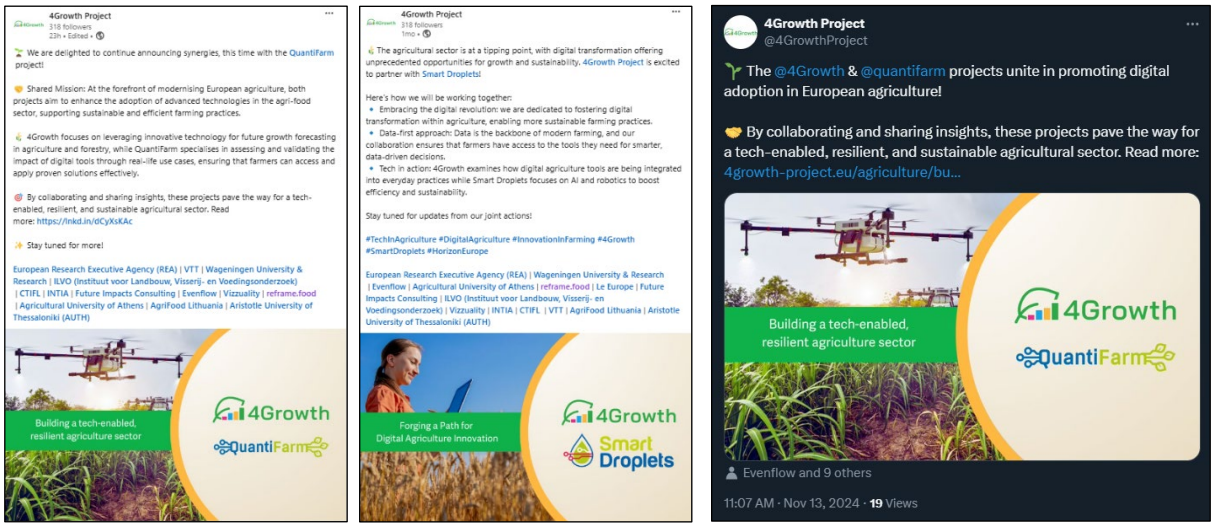


Figure 3: Examples of 4Growth's social media posts on synergies.

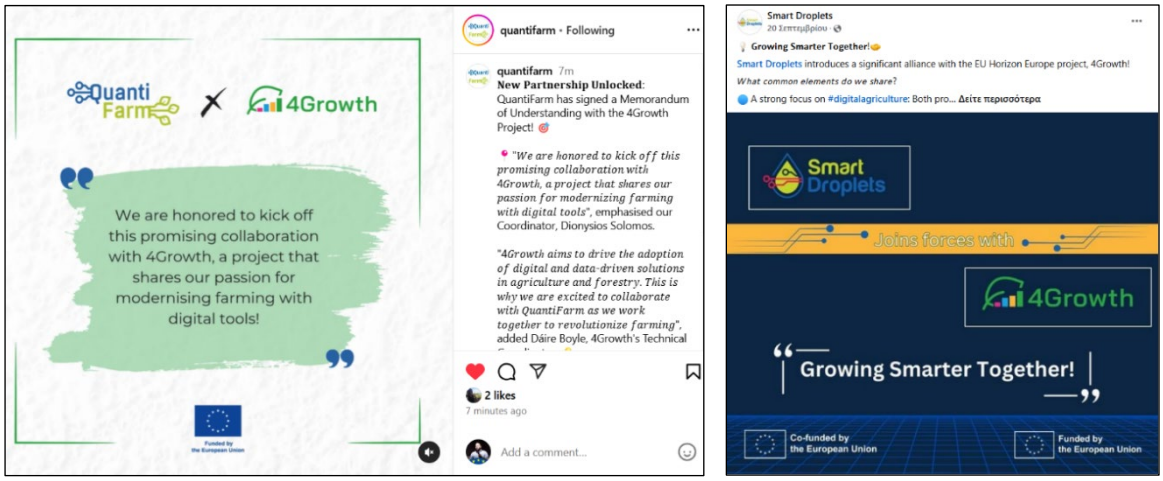


Figure 2: Examples of synergy projects social media posts.

Next step: At a later stage, 4Growth will set up individual meetings with the projects to explore the option of scheduling thematic posts that highlight joint milestones, achievements, and events, ensuring a unified voice that reaches diverse audiences across Europe. The collaborative social media strategy is expected to lead to increased visibility for each project, expanding the reach of shared messages.

- **Joint statements**: Publishing joint announcements and press releases that highlight shared goals and promote unified messages. These statements have been instrumental in showcasing the collective efforts of the projects, positioning them as leaders in the digital agriculture and forestry landscape. By aligning key messaging, the projects reinforce their commitment to advancing digital solutions and demonstrating solidarity in addressing common challenges.

In this context, 4Growth has published on the project's website a first round of short statements announcing the signature of the synergy agreements:

Figure 4: Examples of 4Growth synergy statements on the website

Next step: Similar activities are expected by the projects that synergies have been established with.

- **Cross-Linking on Websites**: Featuring project logos and reciprocal links on each project's website to signal partnerships and direct stakeholders to related initiatives.

Next step: There have been individual discussions between 4Growth and the respective projects with the expectation to facilitate greater web traffic and strengthen the network's online presence, making it easier for stakeholders to explore related efforts and access a broader range of resources. A key point would be the presence or promotion of 4Growth's tools, Digital Agriculture & Forestry Uptake Assessment Grid, the 4Growth Visualisation Platform of Digital Agriculture and Forestry Uptake and the Market Monitoring and Forecasting Tool (MMFT), through the partner projects' websites.

These initial actions have set the stage for further engagement by enhancing awareness and demonstrating alignment in objectives.

2.2.2 Next Steps: Expanding Joint Activities and Core Focus on Data and Best Practice Exchange

The objective of Task 4.3 - Synergy building with other European initiatives is to nurture an open, expanding, and sustainable ecosystem on digital technologies in agriculture and forestry in order to enhance knowledge exchange. Synergy building will allow 4Growth to:

a) allow the undertaking of joint communication and dissemination activities with other EU projects.

b) explore and harness further sources of quantitative and qualitative data on the uptake, use and impact of digital technologies which can inform the findings of the project.

c) encourage the widespread exploitation of the 4Growth Visualisation Platform; and

d) investigate the creation of links with other initiatives sharing the same goals related to the deployment of digital technologies in agriculture and forestry.

To deepen the collaboration and build on the initial communication efforts, described in section 2.1.1, a structured approach will be taken to organise and implement the following joint

activities, with a strong emphasis on data collection and knowledge exchange. More specifically:

- **Individual Project Coordinator Meetings:** Regular meetings with the coordinators of the synergised projects will be held to define tailored cooperation plans. These discussions will aim to align objectives, schedules, and resource allocation (when and if possible) for joint initiatives. The meetings will serve as a platform to explore collaborative opportunities, share project updates, and identify potential challenges and solutions.
- **Joint Webinars and Seminars:** Planning online knowledge-sharing sessions to discuss best practices, present findings, and promote collective learning. These webinars will focus on thematic areas relevant to all projects, such as advancements in digital technology adoption, stakeholder engagement strategies, and impact assessment. Engaging expert speakers and inviting wide-ranging audiences will be a priority to maximise participation and knowledge dissemination.
- **Participation in Events and Project Meetings:** Coordinated attendance and presentations at events to foster visibility and joint stakeholder engagement. These shared appearances will facilitate cross-promotion of the projects' work and encourage interaction with key stakeholders, including farmers, foresters and data sharing initiatives, policymakers, researchers, and industry representatives. Joint representation at conferences and workshops will reinforce the collaborative spirit and expand networks.
- **Data Exchange:** Sharing quantitative and qualitative data to enrich the analysis within the 4Growth project, while ensuring that GDPR compliance and data privacy measures are strictly adhered to. Data sharing agreements will be established to protect participant privacy and ensure data is used ethically and effectively. The data exchanged will provide valuable insights into technology adoption patterns and inform future project activities.
- **Best Practice Sharing:** Collaborating on strategies to effectively engage agricultural and forestry stakeholders, leveraging each project’s experiences to enhance outreach. This includes discussions on successful methods for training, dissemination, and feedback collection that have proven effective in other projects. The goal is to refine approaches that can be applied within 4Growth and shared reciprocally.
- **Common Dissemination Efforts:** Coordinating the dissemination of project materials, questionnaires, and other resources to a broader audience through joint campaigns. This collaborative distribution will involve synchronised releases across communication channels, ensuring consistent messaging and broader impact. Jointly created content such as infographics, reports, and video materials will further support outreach efforts.

It is important to highlight that the joint activities are not limited only to what is described in this section and can be reduced or further enriched.

2.3 Other relevant initiatives

2.3.1 Synergy Days 2024

The Synergy Days is the most important conference connecting the digital innovators of the European agri-food sector.

Building onto the legacy of the **SmartAgriHubs** Horizon2020 project, coordinated by 4Growth's coordinator WR, for 3 years in a row, the event aims to create a network of EU projects, policymakers, DIHs, agri-food operators and more, to boost the adoption of digital solutions by the agriculture sectors, through meetings, debates, and knowledge exchange.

This year's Synergy Days took place on 14-15 October 2024 in Barcelona, Spain. 4Growth actively participated in the 2-day event by realising the following activities:

- **Project pitch:** A 3-minute pitch presentation during the conference's plenary session, briefly describing the project's goals, mission, and core aspects to the diverse audience of the conference:

Figure 5: 4Growth's pitch presentation, Synergy Days 2024

- **Exhibition booth:** An interactive booth dedicated to the project, which provided a visual overview of the project's key concepts, through a banner, posters and brochures and included a QR code link to the 4Growth's Digital Agriculture and Forestry Uptake Assessment Grid (T2.2):

Figure 6: 4Growth's exhibition booth, Synergy Days 2024

- **Workshop:** 4Growth organised and led the workshop *"Data flows and framework conditions in agriculture and forestry"*, on the first day of the Synergy Days.

This workshop centred discussions around how we can best understand data flows and framework conditions in agriculture & forestry. Some of the key questions discussed during the workshop were:

- What are the types of data used in agriculture & forestry,
- How they are generated,
- Who has access,
- What do they do with this data.

Discussions also took place around how framework conditions affect the uptake of digital technologies in agriculture & forestry.

Synergy Days 2024 provided an excellent opportunity to create multiple synergies and collaboration opportunities and, even on practical terms, assisting towards the dissemination of 4Growth's Digital Agriculture & Forestry Uptake Assessment Grid to other projects' partners and networks as well as towards the collection of data that is relevant to 4Growth's scope.

2.3.2 Other activities

Throughout the duration of the project, 4Growth partners monitor, identify and participate in other relevant initiatives and network activities. By the time of the official submission of this deliverable (M12 – December 2024), project partners will have mapped the following activities planned for 2025 that have the potential to serve as an opportunity for establishing networks and building synergies:

- **Global Forum for Food and Agriculture (GFFA)**, International conference on global food security and sustainability, taking place on 17-19 January 2024 in Berlin, Germany.
- **International Green Week (IGW) 2025**¸ International exhibition for food, agriculture, and gardening industries, taking place on 17-26 January 2025 in Berlin, Germany
- **BIOFACH 2025**, leading international trade fair for organic food, taking place on 12-15 February 2025, in Nuremberg, Germany.
- **SIMA (Paris International Agribusiness Show),** Major event showcasing global farming innovations and solutions, taking place on 23-27 February 2025, in Paris, France.
- **5th Global Conference on Agriculture**, taking place on 13-15 March 2025, in Berlin, Germany.
- **FORECOMON Conference**, the Forest Ecosystem Monitoring Conference, taking place on 19-23 May 2025, in Dresden, Germany.
- **European Conference on Precision Agriculture (ECPA) 2025**, focused on precision agriculture technologies and their applications. taking place in July 2025 (place to be determined).
- **European Forest Institute (EFI) 2025 Annual Conference**, taking place on 17-19 September 2024 in Prague, Czechia.
- **AGRITECHNICA 2025**, World's largest trade fair for agricultural machinery and equipment, taking place on 9-15 November 2025, in Hanover, Germany.
- **EU Agricultural Outlook Conference 2025,** European Commission conference on agricultural market trends and policies, taking place in December 2025, in Brussels, Belgium.

2.4 4Growth Observatories

One of the core elements of the 4Growth approach is the collection of "ground truth" data via distributed observatories to inform the MMFT with rich insights into the uptake and utilisation of digital technologies at the micro scale. 4Growth gather and analyse data via 8 observatories across Europe using the Digital Agriculture & Forestry Uptake Grid developed in T2.2 to obtain a consistent and unbiased report that covers all topics of interest. The data gathered are used to investigate several parameters, including how respondents have adopted/used digital technologies, where and how they use them, what benefits they experience, what barriers there are to uptake etc. Through their already well-established positioning in the European agriculture and forestry sectors, each observatory partner (WR, AUA, ILVO, LITH, VTT, AUTH, CTIFL, INTIA) has cultivated their own networks, known as the "4Growth observatory ecosystem", to establish and tap into rich sources of data stemming from the likes of agricultural/forestry associations, cooperatives, data coalitions, R&I bodies etc. Each of these entities in turn has hundreds of sub-sets of potential data points (i.e., individual farmers, foresters, consultants, researchers, collaborators), meaning the vast network established by the 4Growth observatories will easily have access to thousands of sources of data points. A list of 4Growth's observatory partners can be found in Annex H.

An indicative list of the entities that each 4Growth observatory partner has within their current ecosystem is provided below, in table 6.

Table 7: *4Growth observatory partners' ecosystem*

Name	Type	Country	Relationship to 4Growth Observatory Partner
AgriDataCube	Hub	Netherlands	WR – host of the hub
SmartAgriHub	Network	Netherlands	WR – coordinator of the hub
NPPL	Ecosystem	Netherlands	WR – coordinator of the ecosystem
Dutch Blockchain Coalition	Association	Netherlands	WR – strong contact with the association
Farm Accountancy Data Network	Network	Netherlands	WR - member of the network
Ministry of Agriculture, Nature and Food Quality	Ministry	Netherlands	WR - has strong professional contacts
Robagri	Association	France	CTIFL - Member of the association
UMT ECOTECH	Network	France	CTIFL - has strong professional contacts
FNPF | Légumes de France	Associations	France	CTIFL – contribute to CTIFL research
Réseau DEPHY	Network	France	CTIFL – lead of DEPHY vegetable network
Pegasus	Cooperative	Greece	AUA - Projects: ROBS4CROPS, SMATAKIS
Nileas	Cooperative	Greece	AUA - SUPPORT (Horizon) IOF2020
ELGO-DIMITRA	Research Inst.	Greece	AUA - National Projects: DiVine

SEEDForest	Network	Finland	VTT - Network is established and lead by VTT
FinnCERES	Ecosystem	Finland	VTT - The ecosystem is coordinated by VTT
Finnish Forest Industries | Finnish Forest Association	Association	Finland	VTT - has strong professional contacts
FTP	Ecosystem	Europe	VTT - has strong professional contacts
Ministry of Agriculture and Forestry of Finland	Ministry	Finland	VTT - has strong professional contacts
International Association for Mediterranean Forests (AIFM)	Association	Mediterranean	AUTH - Members of AUTH's FMRS laboratory
EARSeL	Network	Europe	AUTH - FMRS laboratory is a member
European Forest Institute (EFI) / EFI's Mediterranean Facility	Research Inst.	Mediterranean	AUTH - FMRS laboratory has collaborated with EFI in several European projects.
MedRIN	Network	Mediterranean	AUTH - Members of AUTH's FMRS laboratory
INRAE	Research Inst.	France	AUTH - AUTH has liaison with units of INRAE
General Directorate of Forests and Forest Environment	Policy maker	Greece	AUTH - FMRS laboratory is a permanent collaborator with the Greek Central Forest Service
DjustConnect	Public org.	BE, NL, FR	ILVO - is part of the steering board/hosts platform
Wallonia Digital Farming | Smart Digital Farming	Public org.	Belgium	ILVO - Close cooperation with the CC ILVO
Boerenbond	Non-profit	Belgium	ILVO - part of an ILVO project
Agoria	Non-profit	Belgium	ILVO - Close corporation in projects and advisory
Agribusiness club	Non-profit	Belgium	ILVO - Networking partner for Business project
Experimental Poultry Center	Research Inst.	Belgium	ILVO - Direct contact with farmers
Cooperativa Cerealista Valdorba	Cooperative	Spain	INTIA - belong to the INTIA advisory network
AFNA	Association	Spain	INTIA - belongs to the INTIA´s Consultive Advice

DIH IRIS	Hub	Spain	INTIA - participates as research centre
Protected geographical indications	Initiative	Spain	INTIA - carries out controls/inspection for PGIs
LITMEA	Association	Lithuania	LITH – Close collaboration between clusters
National Paying Agency	Public org.	Lithuania	LITH - Collaboration on project BEATLES
Innoskart Cluster	Cluster	Hungary	LITH - Collaboration on the SUAVE Eurocluster
HPC4Poland EDIH	Hub	Poland	LITH – Close collaboration between clusters
Smart Food Cluster	Cluster	Lithuania	LITH – Close collaboration between clusters

Additional information will be added throughout the duration of the project, reflecting the true size of the 4Growth observatory ecosystem that includes associations/networks/clusters working in close collaboration with 4Growth partners.

After synthesising the data and information gathered, findings/best practices will be fed back into the observatories and underlying networks so that stakeholders, farmers, foresters etc. can use this to adapt their practices and strategies. In this way, a co-creation process and information exchange paradigm between the 4Growth project and the observatory ecosystems will be established through which the 4Growth project will gradually develop “living labs” across Europe.

Conclusion and next steps

The 4Growth D4.5 “Synergy Building with other European Initiatives – Draft 2” serves as an updated version of D4.4 “Synergy Building with other European Initiatives – Draft 1” and has provided an overview of the strategy and the specific steps and actions taken for synergy building with EU projects and initiatives during the first year of the project implementation, particularly focusing on the period from M4 (April 2024) to M12 (December 2024). Key achievements include establishing communication and formal agreements (MoUs and LoIs) with pivotal EU projects such as ICAERUS, Smart Droplets, QuantiFarm, BEATLES, and PRUDENT, while being in the process of concluding synergy agreements with four more EU projects and initiating a second round of communication with nine more. These initial steps laid a strong foundation for enhancing collaboration, expanding 4Growth’s network, and aligning mutual objectives.

Looking forward, the project will enter a more dynamic phase of synergy implementation. This will involve deepening partnerships through structured meetings, joint webinars, and coordinated participation in relevant events. Emphasis will be placed on data and best practice exchanges to enhance 4Growth project’s tools, such as the Digital Agriculture & Forestry Uptake Assessment Grid, the 4Growth Visualisation Platform of Digital Agriculture and Forestry Uptake and the Market Monitoring and Forecasting Tool. The Project Management Team, with input from consortium partners, will continue evaluating potential synergies and implement an adaptive approach to maintain progress, addressing any challenges that arise.

In parallel, 4Growth will prepare for another round of mapping and identifying EU initiatives to ensure continuous engagement and strategic alignment. This iterative process, combined with the upcoming M21 and M30 deliverables, will further refine the synergy-building strategy, incorporating lessons learned and supporting sustained outreach and impact throughout the project lifecycle.

ANNEX

Annex A: Synergy mapping template for project partners

4GROWTH synergies and liaison mapping						
#	Type of Initiative	Full Name	Website	Initiative Leader	Focus Area	Potential Joint Activities
1						
2						
3						
4						
5						
6						
7						
8						

Annex B: First round of synergy building

4GROWTH - First round of synergies					
#	Project	Status	Type of Synergy	Signature Date	Month
1	ICAERUS	Completed	Letter of Interest	July 2024	M7
2	Smart Droplets	Completed	Memorandum of Understanding	July 2024	M7
3	QuantiFarm	Completed	Memorandum of Understanding	October 2024	M10
4	BEATLES	Completed	Memorandum of Understanding	November 2024	M11
5	PRUDENT	Completed	Memorandum of Understanding	November 2024	M11
6	FoodDataQuest	In progress	To be defined	November 2024	M11
7	Data4Food2030	In progress	To be defined	November 2024	M11
8	CODECS	In progress	To be defined	December 2024	M12
9	D4AgEcol	In progress	To be defined	December 2024	M12

Annex C: Related EU and national projects and activities from consortium partners

Related EU and national projects and activities from consortium partners			
#	Title	4Growth partner involved	Link to 4Growth
1	Smart-AKIS	AUA, WR, INTIA	Extensive smart farming agriculture market and scientific article research, incl. several technologies/subsectors. Experience in gathering and handling data related to smart farming.

2	SmartAgriHubs	WR, AUA	Extensive experience in innovation/market analysis, development and sustaining of impactful, far-reaching initiatives in agri-tech.
3	FAIRSHARE	AUA, ILVO, INTIA, WR	Experience in data collection, analysis and the development of good practices to facilitate uptake of innovative agri-tools.
4	CYBELE	EVF, ILVO, WR	Extensive precision agriculture market research, spanning several technologies and subsectors (most notably HPC-enabled); Experience in innovation management and exploitation planning for cutting-edge digital agriculture technologies.
5	EU AgroBRIDGES	VTT, WR	Expertise and results to be used in Agriculture sector of the project.
6	EU BIGPROD	VTT	Expertise in technology foresight. Methods to be used in data collections and analysis.
7	MISPA	CTIFL	Experience in evaluating impacts of cutting-edge agriculture innovations.
8	QuantiFarm	RFF	Experience of applying a comprehensive and independent assessment of costs, benefits, and sustainability gains (economic, environmental, social) under real-life conditions.
9	ICAERUS	RFF, LITH, AUA	Experience in exploring new effects of new technologies in agriculture.
10	GSA MKD Lot 1	EVF, LEE	Direct exposure to digital agriculture and forestry as GNSS and EO-based solutions are included in the market monitoring and forecasting model with global coverage.
11	Portfolio of data visualisation platforms	VIZ	· Forest Forward – Predicts distribution of commercially important tree species
			· LandGriffon - measurement & management agricultural supply chain impacts.
			· TRASE - flow of global food commodities with focus on environmental impacts
			· Global Forest Watch (GFW) near real-time info about changes in our forests
			· ReFED Insights is a data and solutions hub for food waste reduction
			· Soils Revealed visualising changes of soil organic carbon stocks globally.
			· Climate Watch open climate data, visualisations on the global progress of climate change.
12	Portfolio of relevant foresight studies	FI	· "Future of Crop Protection in Europe" - study for the European Parliamentary Research Service, Scientific Foresight Unit (STOA)
			· "Precision agriculture and the future of farming in Europe" - scientific foresight study for the Directorate-General for Parliamentary research Services (European Parliament)
13	Forestry-TEP platform	VTT	Forestry remote sensing expertise. Data platform management expertise.
14	NOF – National Observatory of Forests	AUTH	Experience in forestry technology foresight. Methods to be used in data collections and analysis.
15	ICT-agri-food	ILVO	ILVO is responsible for network development and management within this project.

Annex D: Identified related EU and national projects and activities from consortium partners (until M4 – April 2024)

Identified related EU and national projects and activities from consortium partners (until M4 – April 2024)			
#	**Project Name**	**4Growth partner involved**	**Website**
1	AgriDataValue	EV ILVO	https://agridatavalue.eu/
2	CODECS	EV ILVO, AUA and WR	https://www.horizoncodecs.eu/
3	D4AgEcol	AUA	https://d4agecol.eu/
4	Data4Food2030	RFF, EV ILVO, WR	https://data4food2030.eu/
5	DigitAF	EV ILVO	https://digitaf.eu/
6	EU-FarmBook	AUA	https://eufarmbook.eu/en
7	FARMTOPIA	LITH and AUA	https://farmtopia.eu/
8	FoodDataQuest	EV ILVO, RFF, WR	https://fooddataquest.eu/
9	OpenAgri	AUA, EV ILVO	https://horizon-openagri.eu/
10	PATH2DEA	WR	https://www.path2dea.eu/index.html
11	PHITO Platform	WR	https://phito.eu/
12	ScaleAGData	EV ILVO	https://scaleagdata.eu/en
13	Smart Droplets	AUA, RFF, WR and LITH	https://smartdroplets.eu/
14	SPADE	AUTH	https://spade-horizon.eu/
15	BEATLES	AUA, WR, INTIA and LITH	https://beatles-project.eu/

ANNEX E: Identified related EU and national projects and activities from consortium partners (M8-M10)

Identified related EU and national projects and activities from consortium partners (M8-M10)			
#	**Project Name**	**4Growth partner involved**	**Website**
1	AGRARIAN	-	https://agrarian-project.eu/
2	AGRARSENSE	-	https://www.agrarsense.eu/
3	COMMECT	-	https://www.horizoneurope-commect.eu/
4	DIGIFOREST	-	https://digiforest.eu/
5	DIGIMEDFOR	-	https://digimedfor.eu/
6	DIVINE	-	https://divine-project.eu/
7	FORSAID	-	https://www.linkedin.com/company/forsaid-project/about/
8	modernAKIS	AUA	https://modernakis.eu/
9	STELLA	AUA, RFF, ILVO, LITH	https://stella-pss.eu/

ANNEX F: Full list of related EU and national projects and activities

Identified related EU and national projects and activities from consortium partners			
#	**Project Name**	**4Growth partner involved**	**Website**
1	AgriDataValue	EV ILVO	https://agridatavalue.eu/
2	CODECS	EV ILVO, AUA and WR	https://www.horizoncodecs.eu/
3	D4AgEcol	AUA	https://d4agecol.eu/
4	Data4Food2030	RFF, EV ILVO, WR	https://data4food2030.eu/
5	DigitAF	EV ILVO	https://digitaf.eu/
6	EU-FarmBook	AUA	https://eufarmbook.eu/en
7	FARMTOPIA	LITH and AUA	https://farmtopia.eu/
8	FoodDataQuest	EV ILVO, RFF, WR	https://fooddataquest.eu/
9	OpenAgri	AUA, EV ILVO	https://horizon-openagri.eu/
10	PATH2DEA	WR	https://www.path2dea.eu/index.html
11	PHITO Platform	WR	https://phito.eu/
12	ScaleAGData	EV ILVO	https://scaleagdata.eu/en
13	Smart Droplets	AUA, RFF, WR and LITH	https://smartdroplets.eu/
14	SPADE	AUTH	https://spade-horizon.eu/
15	BEATLES	AUTH, WR, INTIA and LITH	https://beatles-project.eu/
16	AGRARIAN	-	https://agrarian-project.eu/
17	AGRARSENSE	-	https://www.agrarsense.eu/
18	COMMECT	-	https://www.horizoneurope-commect.eu/
19	DIGIFOREST	-	https://digiforest.eu/
20	DIGIMEDFOR	-	https://digimedfor.eu/
21	DIVINE	-	https://divine-project.eu/
22	FORSAID	-	https://www.linkedin.com/company/forsaid-project/about/
23	modernAKIS	AUA	https://modernakis.eu/
24	STELLA	AUA, RFF, ILVO, LITH	https://stella-pss.eu/

ANNEX G: 4Growth online preliminary assessment form

4Growth preliminary assessment								
Potential Synergies	Relevance	Impact	Potential	Feasibility	Terms of cooperation	Geographical coverage	Total	Priority status
AgriDataValue	5	4	5	4	4	4	26	Strong
CODECS	5	4	4	4	4	5	26	Strong
D4AgEcol	5	4	4	4	4	3	24	High
Data4Food2030	4	5	4	3	3	5	24	High
DigitAF	4	4	4	4	3	3	22	High
EU-FarmBook	4	4	3	4	3	4	22	High
FARMTOPIA	4	5	4	3	3	4	23	High
FoodDataQuest	3	4	3	4	4	4	22	High
OpenAgri	4	4	4	4	3	3	22	High
PATH2DEA	4	4	4	4	4	3	23	High
PHITO Platform	4	4	3	3	4	3	21	Moderate
ScaleAGData	4	4	3	3	3	3	20	Moderate
Smart Droplets	4	5	4	4	4	3	24	High
SPADE	5	4	5	3	4	4	25	Strong
Smart-AKIS	5	4	3	4	4	5	25	Strong
SmartAgriHubs	4	5	4	3	4	5	25	Strong
FAIRSHARE	5	4	3	3	4	3	22	High
QuantiFarm	4	4	4	4	4	4	24	High
ICAERUS	5	4	4	5	4	4	26	Strong
GSA MKD Lot 1	4	4	4	3	4	4	23	High
BEATLES	3	4	3	4	4	4	22	High
CYBELE	5	4	4	4	4	4	25	Strong
Portfolio of data visualisation platforms	3	4	3	4	4	3	21	Moderate
Portfolio of relevant foresight studies	4	4	4	4	4	3	23	High
Forestry-TEP platform	4	4	3	4	4	3	22	High

EU AgroBRIDGES	4	4	4	4	4	3	23	High
EU BIGPROD	3	3	4	4	4	4	22	High
NOF – National Observatory of Forests	4	3	3	4	4	4	22	High
ICT-agri-food	4	4	3	4	4	3	22	High
MISPA	3	3	3	3	4	3	19	Low
PRUDENT	4	3	4	4	4	3	22	High
AGRARIAN	4	5	4	4	3	3	23	High
AGRARSENSE	4	5	5	4	3	5	26	Strong
COMMECT	4	3	4	4	4	3	22	High
DIGIFOREST	4	4	3	3	4	3	21	Moderate
DIGIMEDFOR	4	4	4	4	3	4	23	High
DIVINE	4	4	4	3	5	3	23	High
FORSAID	4	4	4	4	3	4	23	High
modernAKIS	5	5	5	4	3	5	27	Strong
STELLA	3	4	4	5	4	3	23	High

ANNEX H: 4Growth observatory partners' ecosystem

Name	Type	Country	Relationship to 4Growth Observatory Partner
AgriDataCube	Hub	Netherlands	WR – host of the hub
SmartAgriHub	Network	Netherlands	WR – coordinator of the hub
NPPL	Ecosystem	Netherlands	WR – coordinator of the ecosystem
Dutch Blockchain Coalition	Association	Netherlands	WR – strong contact with the association
Farm Accountancy Data Network	Network	Netherlands	WR - member of the network
Ministry of Agriculture, Nature and Food Quality	Ministry	Netherlands	WR - has strong professional contacts
Robagri	Association	France	CTIFL - Member of the association
UMT ECOTECH	Network	France	CTIFL - has strong professional contacts
FNPF | Légumes de France	Associations	France	CTIFL – contribute to CTIFL research

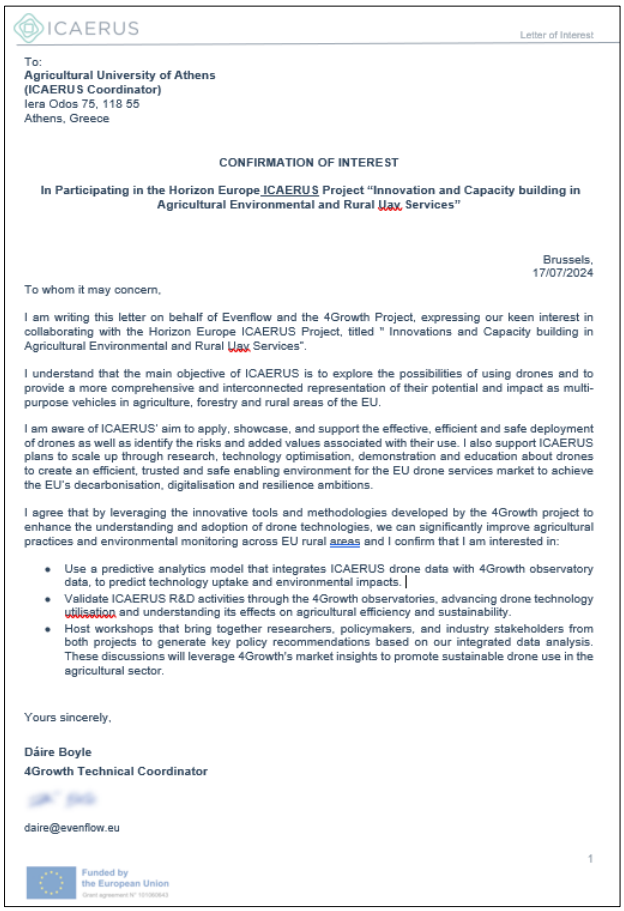
Réseau DEPHY	Network	France	CTIFL – lead of DEPHY vegetable network
Pegasus	Cooperative	Greece	AUA - Projects: ROBS4CROPS, SMATAKIS
Nileas	Cooperative	Greece	AUA - SUPPORT (Horizon) IOF2020
ELGO-DIMITRA	Research Inst.	Greece	AUA - National Projects: DiVine
SEEDForest	Network	Finland	VTT - Network is established and lead by VTT
FinnCERES	Ecosystem	Finland	VTT - The ecosystem is coordinated by VTT
Finnish Forest Industries | Finnish Forest Association	Association	Finland	VTT - has strong professional contacts
FTP	Ecosystem	Europe	VTT - has strong professional contacts
Ministry of Agriculture and Forestry of Finland	Ministry	Finland	VTT - has strong professional contacts
International Association for Mediterranean Forests (AIFM)	Association	Mediterranean	AUTH - Members of AUTH's FMRS laboratory
EARSeL	Network	Europe	AUTH - FMRS laboratory is a member
European Forest Institute (EFI) / EFI's Mediterranean Facility	Research Inst.	Mediterranean	AUTH - FMRS laboratory has collaborated with EFI in several European projects.
MedRIN	Network	Mediterranean	AUTH - Members of AUTH's FMRS laboratory
INRAE	Research Inst.	France	AUTH - AUTH has liaison with units of INRAE
General Directorate of Forests and Forest Environment	Policy maker	Greece	AUTH - FMRS laboratory is a permanent collaborator with the Greek Central Forest Service
DjustConnect	Public org.	BE, NL, FR	ILVO - is part of the steering board/hosts platform
Wallonia Digital Farming | Smart Digital Farming	Public org.	Belgium	ILVO - Close cooperation with the CC ILVO
Boerenbond	Non-profit	Belgium	ILVO - part of an ILVO project
Agoria	Non-profit	Belgium	ILVO - Close corporation in projects and advisory

Agribusiness club	Non-profit	Belgium	ILVO - Networking partner for Business project
Experimental Poultry Center	Research Inst.	Belgium	ILVO - Direct contact with farmers
Cooperativa Cerealista Valdorba	Cooperative	Spain	INTIA - belong to the INTIA advisory network
AFNA	Association	Spain	INTIA - belongs to the INTIA´s Consultive Advice
DIH IRIS	Hub	Spain	INTIA - participates as research centre
Protected geographical indications	Initiative	Spain	INTIA - carries out controls/inspection for PGIs
LITMEA	Association	Lithuania	LITH – Close collaboration between clusters
National Paying Agency	Public org.	Lithuania	LITH - Collaboration on project BEATLES
Innoskart Cluster	Cluster	Hungary	LITH - Collaboration on the SUAVE Eurocluster
HPC4Poland EDIH	Hub	Poland	LITH – Close collaboration between clusters
Smart Food Cluster	Cluster	Lithuania	LITH – Close collaboration between clusters

ANNEX I: List of 4Growth's observatory partners

Observatories	Region	Partner
Agriculture Observatories	Spain	INTIA
	France	CTIFL
	Benelux region	ILVO and WR
	Greece/Balkan region	AUA
	Lithuania/Poland/Hungary	LITH
Forestry Observatories	Finland/Northern Europe	VTT
	Greece/Southern Europe	AUTH

ANNEX J: Signed LoI and MoUs with other EU projects



ICAERUS

Letter of Interest

To:
Agricultural University of Athens
(ICAERUS Coordinator)
Iera Odos 75, 118 55
Athens, Greece

CONFIRMATION OF INTEREST

In Participating in the Horizon Europe ICAERUS Project "Innovation and Capacity building in Agricultural Environmental and Rural Uav Services"

Brussels,
17/07/2024

To whom it may concern,

I am writing this letter on behalf of Evenflow and the 4Growth Project, expressing our keen interest in collaborating with the Horizon Europe ICAERUS Project, titled " Innovations and Capacity building in Agricultural Environmental and Rural Uav Services".

I understand that the main objective of ICAERUS is to explore the possibilities of using drones and to provide a more comprehensive and interconnected representation of their potential and impact as multi-purpose vehicles in agriculture, forestry and rural areas of the EU.

I am aware of ICAERUS' aim to apply, showcase, and support the effective, efficient and safe deployment of drones as well as identify the risks and added values associated with their use. I also support ICAERUS plans to scale up through research, technology optimisation, demonstration and education about drones to create an efficient, trusted and safe enabling environment for the EU drone services market to achieve the EU's decarbonisation, digitalisation and resilience ambitions.

I agree that by leveraging the innovative tools and methodologies developed by the 4Growth project to enhance the understanding and adoption of drone technologies, we can significantly improve agricultural practices and environmental monitoring across EU rural areas and I confirm that I am interested in:

- Use a predictive analytics model that integrates ICAERUS drone data with 4Growth observatory data, to predict technology uptake and environmental impacts.
- Validate ICAERUS R&D activities through the 4Growth observatories, advancing drone technology utilisation and understanding its effects on agricultural efficiency and sustainability.
- Host workshops that bring together researchers, policymakers, and industry stakeholders from both projects to generate key policy recommendations based on our integrated data analysis. These discussions will leverage 4Growth's market insights to promote sustainable drone use in the agricultural sector.

Yours sincerely,

Dáire Boyle
4Growth Technical Coordinator

daire@evenflow.eu

1

Funded by the European Union

4Growth

Letter of Interest

To:
Evenflow
(4Growth Technical Coordinator)
Rue de la Loi 26/7th Floor, 1040
Brussels, Belgium

CONFIRMATION OF INTEREST

In participating in the Horizon Europe 4Growth Project "Digital Agriculture and Forestry: Understanding the Market to Forecast and Support Future Growth"

Athens, 19 July 2024

To whom it may concern,

I am writing this letter on behalf of Agricultural University of Athens and the ICAERUS project, expressing our keen interest in collaborating with the Horizon Europe 4Growth Project, "Digital Agriculture and Forestry: Understanding the Market to Forecast and Support Future Growth".

I understand that the main objective of 4Growth is to contribute to the uptake of digital and data-driven solutions in agriculture and forestry by documenting the current state-of-play and projecting the future evolution of the sector.

I am aware of 4Growth's aim to collect a wide range of ground truth data via distributed observatories across Europe and identifying key factors or constraints for uptake. I also support 4Growth's plans to showcase the uptake through the "4Growth Visualisation Platform" that will combine powerful storytelling with advanced visualisation of market data, providing a deeper knowledge of what influences market adoption and allowing the development of robust forecasts to guide policymaking and increase further uptake.

I agree that by leveraging the innovative tools and methodologies developed by the 4Growth project to enhance the understanding and adoption of drone technologies, we can

4Growth

Letter of Interest

significantly improve agricultural practices and environmental monitoring across EU rural areas, and I confirm that I am interested in:

- Using the 4Growth observatory data with the predictive analytics model that integrates ICAERUS drone data, to predict technology uptake and environmental impacts.
- Using 4 Growth observatories to validate ICAERUS R&D activities, advancing drone technology utilisation and understanding its effects on agricultural efficiency and sustainability.
- Host workshops that bring together researchers, policymakers, and industry stakeholders from both projects to generate key policy recommendations based on our integrated data analysis. These discussions will leverage 4Growth's market insights to promote sustainable drone use in the agricultural sector.

Yours sincerely,

Aikaterini Kasimati
Research Associate at the Agricultural University of Athens and ICAERUS Project Manager
akasimati@aua.gr
Aikaterini KASIMATI

Memorandum of Understanding
between

4Growth
&
Smart Droplets

This agreement is made between 4Growth and Smart Droplets.

1. Purpose

The purpose of this Memorandum of Understanding is to create the framework for cooperation that will enable each partner to benefit from the common activities in their respective strategies. The present agreement is intended to serve as a guideline for both Smart Droplets and 4Growth to enhance the relationship for the benefit of both partners, establishing the points and areas where both partners can meet interest developing a close coordination between the parties. This agreement will help both partners to pursue their respective goals and will help avoid any unnecessary duplication or inconsistency of work and publications.

Therefore, the partners agree that it is in their mutual interest to collaborate on specific activities aimed at facilitating and supporting mutual cooperation, the exchange of knowledge and good practices as well as to partner up in the organisation of future events (online or in-person). The collaboration of both partners should enable each one to better achieve its respective objectives. Thus, Smart Droplets and 4Growth agree to have a program of cooperation, which will include agreed actions and initiatives described in the following points.

2. Achievement of common goals

2.1. Meetings, events, and conferences

Smart Droplets agrees to invite 4Growth to its meetings, events, and conferences, and 4Growth agrees to invite Smart Droplets members to its meetings, events, and conferences. Both parties can provide collaboration in the organisation of national or international meetings, events, and conferences, collaborating with 4Growth and Smart Droplets.

2.2. Projects, development, and support

4Growth and Smart Droplets agree to collaborate in the creation and implementation of projects for their mutual benefit. This is aimed to enhance their respective impact on issues and topics where both partners have common interest.

2.3. Communication and renown

4Growth and Smart Droplets agree to display their logos, description texts and related links in their respective websites. Additionally, 4Growth and Smart Droplets shall provide bilaterally free dissemination of projects, events, information, and news from both parties through their websites, newsletters and social media.

3. Funding

The parties may jointly or independently mobilise resources for any activity, project, or program under this agreement. Prior to engaging in a collaborative activity, the parties shall stipulate the terms and conditions for the work to be performed as well as the financial arrangements of any such collaborative work through a separate written agreement. This agreement may also detail ownership of intellectual property rights and shall be signed and authorised by representatives of each party. The parties fully acknowledge that this agreement does not entail any funding obligation.

4. Monitoring and evaluation

The parties shall convene whenever necessary for consultation and further strategic collaboration. The consultation meetings shall serve to agree on and prepare an action plan for the successful implementation of activities necessary to meet the objectives of this agreement.

5. Intellectual property rights and publications

Both parties are responsible for providing the necessary technical elements for which they are the legal owner of graphic/image rights. For the activities that 4Growth and Smart Droplets agree to organise together, both parties have the right to include each other's logos and promote them in their network. Any publication resulting from this collaboration shall reflect the joint efforts of both institutions. The employees or volunteers of 4Growth and Smart Droplets shall not be entitled to any remuneration or other benefits respectively from 4Growth and Smart Droplets.

6. Relationship

The parties shall always remain separate and independent entities. This non-binding and a non-exclusive agreement will in no way hinder the ability of either party to work with any other person, organisation, in whatever scope. Given the separate relationship, neither party shall hold itself as an agent of the other party, enter into any arrangement or transaction with third parties on behalf of the other nor in any way pledge or bind the credit of the other party.

7. Duration

This agreement shall become effective upon signature by the authorised officials from both parties and will remain in effect until modified or terminated by mutual consent. In the absence of mutual agreement by the authorised officials from both parties to extend the terms of this agreement, this agreement shall end on 31/12/2026.

[Brussels – 26/07/2024]

On behalf of 4Growth	**On behalf of Smart Droplets**
Dáire Boyle – 4Growth Technical Coordinator	Spyros Fountas, Professor – Project Coordinator

Memorandum of Understanding
between

QuantiFarm
&
4Growth

This agreement is made between QuantiFarm and 4Growth.

1. Purpose

The purpose of this Memorandum of Understanding is to create the framework for cooperation that will enable each partner to benefit from the common activities in their respective strategies. The present agreement is intended to serve as a guideline for both 4Growth and QuantiFarm to enhance the relationship for the benefit of both partners, establishing the points and areas where both partners can meet interest developing a close coordination between the parties. This agreement will help both partners to pursue their respective goals and will help avoid any unnecessary duplication or inconsistency of work and publications.

Therefore, the partners agree that it is in their mutual interest to collaborate on specific activities aimed at facilitating and supporting mutual cooperation, the exchange of knowledge and good practices as well as to partner up in the organisation of future events (online or in-person). The collaboration of both partners should enable each one to better achieve its respective objectives. Thus, 4Growth and QuantiFarm agree to have a program of cooperation, which will include agreed actions and initiatives described in the following points.

2. Achievement of common goals

2.1. Meetings, events, and conferences

4Growth agrees to invite QuantiFarm to its meetings, events, and conferences, and QuantiFarm agrees to invite 4Grrowth members to its meetings, events, and conferences. Both parties can provide collaboration in the organisation of national or international meetings, events, and conferences, collaborating with QuantiFarm and 4Growth.

2.2. Projects, development, and support

QuantiFarm and 4Growth agree to collaborate in the creation and implementation of projects for their mutual benefit. This is aimed to enhance their respective impact on issues and topics where both partners have common interest.

2.3. Communication and renown

QuantiFarm and 4Growth agree to display their logos, description texts and related links in their respective websites. Additionally, QuantiFarm and 4Growth shall provide bilaterally free dissemination of projects, events, information, and news from both parties through their websites, newsletters and social media.

3. Funding

The parties may jointly or independently mobilise resources for any activity, project, or program under this agreement. Prior to engaging in a collaborative activity, the parties shall stipulate the terms and conditions for the work to be performed as well as the financial arrangements of any such collaborative work through a separate written agreement. This agreement may also detail ownership of intellectual property rights and shall be signed and authorised by representatives of each party. The parties fully acknowledge that this agreement does not entail any funding obligation.

4. Monitoring and evaluation

The parties shall convene whenever necessary for consultation and further strategic collaboration. The consultation meetings shall serve to agree on and prepare an action plan for the successful implementation of activities necessary to meet the objectives of this agreement.

5. Intellectual property rights and publications

Both parties are responsible for providing the necessary technical elements for which they are the legal owner of graphic/image rights. For the activities that QuantiFarm and4Growth agree to organise together, both parties have the right to include each other's logos and promote them in their network. Any publication resulting from this collaboration shall reflect the joint efforts of both institutions. The employees or volunteers of QuantiFarm and 4Growth shall not be entitled to any remuneration or other benefits respectively from QuantiFarm and 4Growth.

6. Relationship

The parties shall always remain separate and independent entities. This non-binding and a non-exclusive agreement will in no way hinder the ability of either party to work with any other person, organisation, in whatever scope. Given the separate relationship, neither party shall hold itself as an agent of the other party, enter into any arrangement or transaction with third parties on behalf of the other nor in any way pledge or bind the credit of the other party.

7. Duration

This agreement shall become effective upon signature by the authorised officials from both parties and will remain in effect until modified or terminated by mutual consent. In the absence of mutual agreement by the authorised officials from both parties to extend the terms of this agreement, this agreement shall end on 31 March 2026, as QuantiFarm concludes its operations at that date.

[Athens, 25/10/2024]

On behalf of Quantifarm	**On behalf of 4Growth**
Dionysios Solomos, Coordinator	Daire Boyle, Technical Coordinator

Memorandum of Understanding
between

BEATLES
&
4Growth

This Memorandum of Understanding is made between BEATLES and 4Growth.

1. Purpose

The purpose of this Memorandum of Understanding (MoU) is to create a framework for cooperation that will enable each partner to benefit from common activities foreseen in the context of their respective strategies. The present MoU is intended to enhance the relationship between the parties, establishing the points and areas where both can meet interest developing a closer coordination between their activities. This MoU will help both parties to pursue their respective goals and will help avoid any unnecessary duplication or inconsistency of work and publications.

Therefore, the partners agree that it is in their mutual interest to explore collaboration opportunities on dissemination and communication activities aimed at facilitating and supporting mutual cooperation, the exchange of knowledge and good practices as well as to partner up in the organisation of future events (be they online or in-person). The collaboration of both partners should enable each one to better achieve their respective objectives in the context of 4Growth and BEATLES.

2. Achievement of common goals

2.1. Meetings, events, and conferences

4Growth and BEATLES agree to invite each other to their respective meetings, events, and conferences when meaningful. Both parties may collaborate on the planning and organisation of national or international meetings, events, and conferences.

2.2. Projects, development, and support

BEATLES and 4Growth agree to collaborate, should the opportunity arise, in the planning creation and implementation of joint activities for their mutual benefit. This is aimed to enhance their respective impact on issues and topics where both parties have common interest.

2.3. Communication and renown

BEATLES and 4Growth agree to display their logos, and related links in their respective websites. Additionally, they may choose to freely share information, events, and news about their respective projects through their websites, newsletters and social media.

3. Duration

This agreement shall become effective upon signature by the authorised officials from both parties and will remain in effect until modified or terminated by mutual consent. In the absence of mutual agreement by the authorised officials from both parties to extend the terms of this agreement, this agreement shall end on 30 June 2026, as BEATLES concludes its operations at that date.

[Athens, 01/11/2024]

On behalf of BEATLES	On behalf of 4Growth
Dr. Marilena Gemtou, Project manager	Daire Boyle, Technical Coordinator

Memorandum of Understanding
between

4Growth
&
PRUDENT

This agreement is made between 4Growth and PRUDENT.

1. Purpose

The purpose of this Memorandum of Understanding is to create the framework for cooperation that will enable each partner to benefit from the common activities in their respective strategies. The present agreement is intended to serve as a guideline for both PRUDENT and 4Growth to enhance the relationship for the benefit of both partners, establishing the points and areas where both partners can meet interest developing a close coordination between the parties. This agreement will help both partners to pursue their respective goals and will help avoid any unnecessary duplication or inconsistency of work and publications.

Therefore, the partners agree that it is in their mutual interest to collaborate on specific activities aimed at facilitating and supporting mutual cooperation, the exchange of knowledge and good practices as well as to partner up in the organisation of future events (online or in-person). The collaboration of both partners should enable each one to better achieve its respective objectives. Thus, PRUDENT and 4Growth agree to have a program of cooperation, which will include agreed actions and initiatives described in the following points.

2. Achievement of common goals

2.1. Meetings, events, and conferences

PRUDENT agrees to invite 4Growth to its meetings, events, and conferences, and 4Growth agrees to invite PRUDENT members to its meetings, events, and conferences. Both parties can provide collaboration in the organisation of national or international meetings, events, and conferences, collaborating with 4Growth and PRUDENT.

2.2. Projects, development, and support

4Growth and PRUDENT agree to collaborate in the creation and implementation of projects for their mutual benefit. This is aimed to enhance their respective impact on issues and topics where both partners have common interest.

2.3. Communication and renown

4Growth and PRUDENT agree to display their logos, description texts and related links in their respective websites. Additionally, 4Growth and PRUDENT shall provide bilaterally free dissemination of projects, events, information, and news from both parties through their websites, newsletters and social media.

3. Funding

The parties may jointly or independently mobilise resources for any activity, project, or program under this agreement. Prior to engaging in a collaborative activity, the parties shall stipulate the terms and conditions for the work to be performed as well as the financial arrangements of any such collaborative work through a separate written agreement. This agreement may also detail ownership of intellectual property rights and shall be signed and authorised by representatives of each party. The parties fully acknowledge that this agreement does not entail any funding obligation.

4. Monitoring and evaluation

The parties shall convene whenever necessary for consultation and further strategic collaboration. The consultation meetings shall serve to agree on and prepare an action plan for the successful implementation of activities necessary to meet the objectives of this agreement.

5. Intellectual property rights and publications

Both parties are responsible for providing the necessary technical elements for which they are the legal owner of graphic/image rights. For the activities that 4Growth and PRUDENT agree to organise together, both parties have the right to include each other's logos and promote them in their network. Any publication resulting from this collaboration shall reflect the joint efforts of both institutions. The employees or volunteers of 4Growth and PRUDENT shall not be entitled to any remuneration or other benefits respectively from 4Growth and PRUDENT.

6. Relationship

The parties shall always remain separate and independent entities. This non-binding and a non-exclusive agreement will in no way hinder the ability of either party to work with any other person, organisation, in whatever scope. Given the separate relationship, neither party shall hold itself as an agent of the other party, enter into any arrangement or transaction with third parties on behalf of the other nor in any way pledge or bind the credit of the other party.

7. Duration

This agreement shall become effective upon signature by the authorised officials from both parties and will remain in effect until modified or terminated by mutual consent. In the absence of mutual agreement by the authorised officials from both parties to extend the terms of this agreement, this agreement shall end on 31 March 2026, as 4Growth concludes its operations at that date.

[Brussels, 5/11/2024]

On behalf of 4Growth	On behalf of PRUDENT
Daire Boyle, Technical Coordinator	Dr. Marilena Gemtou, Coordinator