

# D7.6 Clustering activities with EU platforms and agencies

GLOBAL 2000

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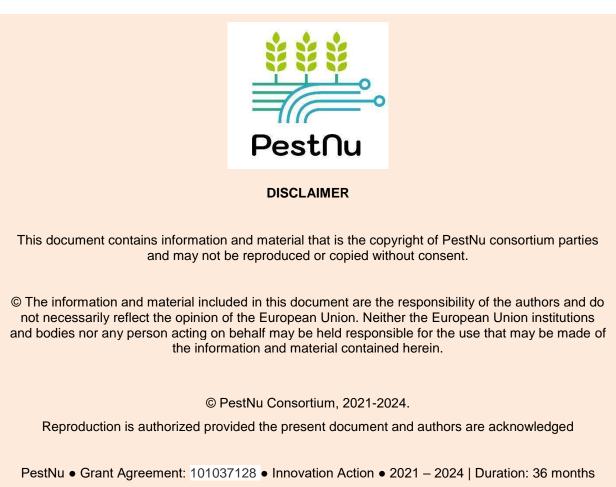


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DISSEMINATION LEVEL			
PU	Public	Х	
PP	Restricted to other programme participants (including the EC services)		
RE	Restricted to a group specified by the consortium (including the EC services)		
CO	Confidential, only for the members of the consortium (including the EC)		



Topic: LC-GD-6-1-2020: Testing and demonstrating systemic innovations in support of the Farm-to-Fork Strategy

# **List of Abbreviations & Definitions**

Abbreviation	Definition		
AGROINS	Agroinsider		
AGROVAS	AGROVÄST LIVSMEDEL AB		
Al	Artificial Intelligence		
AKIS	Agricultural Knowledge and Innovation Systems		
AOP	Agroecological and Organic Practices		
APEMETA	Portuguese Association of Environmental Technologies Companies		
CAP	Common Agricultural Policy		
CDTA	Centro de demostración y transferencia agraria El Mirador		
CERTH	Centre for Research and Technology Hellas		
COST	Cooperation in Sience and Technology		
loT	Internet of Things		
D	Deliverable		
DSS	Decision Support System		
DST	Digital and Space Based Technologies		
EEA	European Environmental Agency		
EFSA	European Food Safety Authority		
EU	European Union		
F2F	Farm-to-Fork		
Fertinagro	Fertinagro Biotech S.L.		
GD-SO	Green Deal Support Office		
GLOBAL	Global 2000 Environmental Research Institute		
IKH	AINOOUCHAOU PLIROFORIKI AE		
LCA	Life Cycle Analysis		
Mas	Masoutis		
Neoalgae	Neoalgae Micro Seaweed Products SLNE		
PAN Europe	Pesticide Action Network Europe		
SEVT	Syndesmos Ellinikon Viomichanion Trofimon Somateio		
SID	Sidrocco Holdings LTD		
STAM	STAM SRL		
SMEs	Small Medium Enterprises		

STRATA	Stratagem Energy LTD
Т	Task
TelLab	T.E. Laboratories Limited
Tilamur	Jardinería y Viveros la Noria S.L.
TRI	Trilateral Research LTD
UTH	University of Thessaly
WP	Work Package
R&I	Research and Innovation
BBI JU	Bio-based Industries Joint Undertaking

## **Executive Summary**

The present document constitutes the Deliverable 7.6, "Clustering activities with EU platforms and agencies", which is a part of Task 7.3 "Collaboration with Regional, National, and EU Agriculture agencies and platforms". In brief the report will show the efforts of the PestNu Consortium to cluster and collaborate with regional, national and European Union (EU) agricultural platforms & agencies within the first half of the funding period of the project. However, it should be noted that the COVID-19-pandemic still had an impact on the ability of the project to conduct effective networking. Networking and clustering activities in person were severely limited until mid-2022 and therefore most of the clustering activities were done online.

Consortium partners are already members of a number of agriculture associations and have already established collaborations. Moreover, PestNu relevant (EU) associations and platforms were identified and clustering efforts have proven to be successful through initial meetings and discussions on the options for collaboration and joint activities. The purpose of task 7.3 is to ensure interoperability and reusability of PestNu project results, to exploit already existing knowledge from research and industry and to make new knowledge from the PestNu project accessible. This is achieved through networking with institutions from the PestNu relevant areas.

The structure of the document is as follows:

Section 1 gives a brief introduction to the project and the purpose of the document itself for better understanding of the project PestNu.

Section 2 gives an overview over the first 18 months of the project regarding the efforts of the consortium partners in their engagement with regional, national and EU agricultural platforms & agencies. The first part of section 2 is about the engagement with EU agriculture agencies and platforms and the second part shows the efforts of the country clusters in engaging at regional and national level.

Deliverable 7.6 is a living updated document and the final, updated version of it, will be submitted as D 7.7 at the end of the project's duration, in month 36. The final Deliverable 7.7 will compile the results of clustering activities during the full length of PestNu and a summary of the clustering events and activities organised. It should also be noted that this report adds to information already reported as part of D7.1 and D7.3.

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## **1. Introduction**

## 1.1. About PestNu

PestNu targets the field-testing and demonstration of Digital and Space based Technologies (DST) and Agro-ecological and Organic Practices (AOP) under a systemic approach to reduce the pesticides and fertilisers use, and loss of nutrients. The consortium brings novel DST including Artificial Intelligence (AI) robotic traps for real time pest monitoring; Autonomous mobile robots for pesticide monitoring and 3D spot spraying; Earth Observation missions with robust AgroRadar AI algorithms to map soil/plant nutrients and pest plant inputs using Copernicus data/services; and in-situ and real-time nutrient analysers. All the DST will be interconnected to a user-centric cloud-based Farm Management System, which features a Decision Support System (DSS) integrated with a blockchain based system for DST data evidence, integrity, and AI models verification and with a cybersecurity platform to prevent cyberattacks and Internet of Things (IoT) vulnerabilities. The AOP include on-site production of biofertilizers from agricultural wastewaters through a robust automated drainage recycling system via an innovative enzymatic hydrolysis procedure; a novel foliar biopesticide formulated by circular bioeconomy operations, targeting fungal diseases with biostimulant effect; and advanced nutritional programs for organic farming. The showcase systemic DST & AOP solutions will be demonstrated and tested in aquaponic and hydroponic greenhouse and open-field vegetable cultivation in Greece and Spain. A Pesticide Reduction Program will evaluate the Maximum Residue and the Acceptable Daily Intake levels to ensure vegetable's food safety and Life Cycle Analysis (LCA) activities will be performed. All these systemic approaches will be performed under a strong collaboration among all the Farm to Fork (F2F) stakeholders and European Commission services.

## **1.2. Purpose of document**

Within the frame of WP6 and in addition to the input of D.7.1 and D 7.2, this report outlines the exchange of information between consortium partners and relevant associations and designs a potential network for cooperation that would ensure interoperability and reusability, and exploit already existing knowledge from research and industry, and make new knowledge from the PestNu project accessible. In the course of the first 18 months the consortium partners of PestNu have identified associations and platforms on regional, national and EU level that are relevant for the topics PestNu is occupied with and informed these associations and platforms about PestNu and its innovations and goals. With some of the identified associations the consortium partners could already exchange knowledge and share information by taking part in each other's events, such as the participation in PestNu's national workshops. In the following remaining 18 months of the PestNu project's duration, the consortium partners will increase their efforts to deepen and strengthen the already existing connections with agricultural agencies and platforms and to establish new ones. This report contains lists of the associations and platforms contacted by the PestNu consortium partners and describes the interactions to date.

Deliverable 7.4 seeks to provide an overview of the clustering activities envisaged for the duration of the PestNu project in order to maximise their impact. These Networking efforts aim to exchange and share knowledge, identify potential barriers and challenges when it comes to legislation and implementation on national but also on EU-level for pesticides, fertilisers, aquaponics, organic farming, circular economy, biodiversity, basically on all topics that are relevant for healthy and sustainable environment and agriculture for the future of the European Union. These thematics are to be discussed with stakeholders from all named above areas in workshops and events and to find common or diverging grounds and overall to deploy joint efforts to bring stakeholders from various Member States closer towards the EU's Green Deal goals: reduction of pesticides per 50 % and reduction of fertilisers per 20% by 2030.

# 2. Collaboration with Regional, National and EU Agriculture agencies & platforms

## 2.1. Collaboration activities on EU level

In order to engage with as many associations in PestNu related areas as possible, Global 2000 as the leader of Task 7.3 and in charge of dealing with associations and platforms on national but also on EU-Level reached out to several EU agriculture associations and platforms. Moreover, in the frame of WP6 a list of events and conferences relevant for PestNu is being kept up to date and circulating between consortium partners regularly. This activity allows us to identify the main events relevant for PestNu and coordinate the participation of the consortium partners. The interaction and collaboration is also expanded through the exchange of experiences and findings in the areas of interest for PestNu, or assisting the project by filling and promoting the questionnaires prepared within the context of PestNu.

**Table 1** lists the associations contacted at EU level. The third column under "Action" notes the current status of interactions.

The aim of collaborating with the associations, clusters and platforms in the following tables is to find common grounds and ways of collaborating on policies as well as the dissemination and communication of PesTNu innovations.

Association	Action	
European Phosphate Fertiliser Alliance (AEEP)	The AEEP was informed about the work of the PestNu Project via email and was asked for possibilities of collaboration.	
Circular Bio-based Europe Joint Undertaking (CBE JU)	CBE JU connected GLOBAL with interesting projects such as Biovexo, Virtigation and Susfert (Details on these collaborations are to be found in Deliverable 7.1) The aim of the synergies is the further exploitation of PESTNU innovations and to work on common policy recommendations.	
European Association of Research and Technology Organisations (EARTO)	The EARTO was informed about the work of the PestNu Project via email and was asked for possibilities of collaboration.	
European Food Safety Authority (EFSA)	EFSA was informed about the work of the PestNu Project via email and was asked for possibilities of collaboration- PestNu was asked to register as a stakeholder which still has to be sorted out.	
European Photonics Industry Consortium (EPIC)	EPIC was informed about the work of the PestNu Project via email and was asked for possibilities of collaboration	
EU Aquaponic Hub	The EU Aquaponics Hub has signed the PesTNu letter of intent; PestNu representatives had (GLOBAL 2000, CERTH) several meetings with representatives of the Hubfurther collaborations. The aim of the synergies is the further exploitation of PESTNU innovative technologies and to work on common policy recommendation.	
European Committee of Environmental Technology Suppliers Associations (EUCETSA)	EUCTCETSA was informed about the work of the PestNu Project via email and was asked for interest and possible areas of collaboration.	
Confederation of national associations of MANUFACTURERS of organic, organo-mineral and organic-based fertilizers (EUROFEMA)	EUROFEMA was informed about the work of the PestNu Project via email and was asked for interest and possible areas of collaboration.	
The Aquaponics Association	The Aquaponics Association has signed up to PestNu website to stay updated The aim of the synergies is the further exploitation of PestNu innovations, especially Aquaponics. Next steps could involve the organisation of a common event, participating in each other's events and working on joint policy recommendations.	
European Environmental Agency	GLOBAL 2000 had an online meeting on the 14th of September 2022 with a representative of EEA, discussing the finding of common grounds with PestNu. The aim of the synergies is the further exploitation of PESTNU innovative technologies and find possibilities to collaborate in order to push the goal of reducing the usage of pesticides and fertilisers	

#### Table 1: EU agriculture agencies and platforms

Food and Agriculture Organization(FAO)	FAO was informed about the work of the PestNu Project via email and was asked for interest and possible areas of collaboration
Fast digital service Platform- EU Space Data for Sustainable Farming	EUCTCETSAwas informed about the work of the PestNu Project via email and was asked for interest and possible areas of collaboration
Fertilizers Europe, Organics International (IFOAM)	Joint press conference with GLOBAL2000 campaigner on chemicals and pesticides and IFOAM on pesticides on 24/2/2023Future steps will be to connect IFOAM with PestNu to collaborate and to disseminate PestNu innovations.
Organic-Based Fertilizer Industry ( EFOCI)	Portuguese consortium member APEMETA connected ECOFI/ EBIC at EU CAP Network event (Details are to be found in Deliverable 7.2 and in Deliverable 6.4)
European SPES Institute (SPES)	SPES was informed about the work of the PestNu Project via email and was asked for interest and possible areas of collaboration
WATER EUROPE	Water Europe was informed about the work of the PestNu Project via email and was asked for interest and possible areas of collaboration
Circular Economy Coalition for Europe (CEC4Europe)	CEC4Europe was informed about the work of the PestNu Project via email and was asked for interest and possible areas of collaboration
European Biostimulants Industry Council (EBIC)	Portuguese consortium member APEMETA connected ECOFI/ EBIC at EU CAP Network event (Details are to be found in Deliverable 7.2 and in Deliverable 6.4)
EIP-AGRI	In October 2022 GLOBAL gave a representation on PestNu at an EIP - AGRI Event and participated in several online- events hosted by Zukunftsraum Land, the representative of EI- AGRI in Austria (13/10/2021: Green Deal for a better future: Regional services of general interest for better compatibility of family and career in rural areas ; 10/11/21 EU-forestry policy;
	The aim of the synergies is the further exploitation of PESTNU innovative technologies and to connect with stakeholders from all different areas of interest to PestNu

Below there is a brief summary of some collaboration activities of PestNu with these associations:

## **EU Aquaponics HUB**

The EU aquaponics HUB came out of a 4-year COST project and networking action (Cooperation in Science and Technology) which ran between 2014 and 2018. The project united a heterogenous group of scientists, researchers, and Small Medium Enterprises (SMEs) from across the EU and around the globe to better understand the state of knowledge in aquaponics in Europe and around the world, and to facilitate innovation and education in the field of sustainable fish and vegetable food production. Aims of the project were to figure out whether and how commercial aquaponics and urban aquaponics can be (commercially) viable, among other issues. The COST project led to the publication of the book: Aquaponics Food Production Systems, which can be freely downloaded online.

On 23<sup>rd</sup> of August 2022 a meeting among PestNu partners and representatives of EU Aquaponics HUB took place online. During this meeting a general interest regarding further collaboration activities was expressed from both sides and a Letter of Support was signed by EU aquaponics Hub on 5<sup>th</sup> of September 2022.

Following the first meeting on 23<sup>rd</sup> of August 2022 GLOBAL2000 conducted several meetings with representatives of the EU Aquaponics Hub, however, due to limited financial support from the HUB a clustering event about the topic could not be realised to date.

#### Circular Bio-based Europe Joint Undertaking (CBE JU)

CBE JU is a public-private partnership between the EU and the Bio-based Industries Consortium (BIC), managing a funding programme and evaluating project proposals. They are currently funding around 142 Research and Innovation (R&I) projects promoting circular bio-based industries in Europe. CBE JU is working under the EU's research and innovation programme\_Horizon Europe and building on the success of the Bio-based Industries Joint Undertaking (BBI JU), addressing many of the current challenges of the bio-based industry. CBE JU is working towards the European Green Deal objectives, such as reaching climate neutrality by 2050, by supporting competitive and resource efficient bio-based industries, producing renewable products from waste and biomass in a sustainable and circular system. Circular Bio-based Europe is bringing together different stakeholders, from farmers to scientists in order to tackle all the technical, regulatory and market barriers and challenges. Some of the projects funded by the CBE JU are similar and complementary to PestNu, such as the following projects on biopesticides: BIOVEXO, PHERA and BIOBESTICIDE. Through the following platform https://www.bbi.europa.eu/projects, keywords related to PestNu were used to identify further projects that have the most links with PestNu, such as the nutrient and fertiliser related project SUSFERT. One of the most related and interesting projects found through this website was VIRTIGATION. Furthermore, we were able to get in touch with the most relevant organisations of these projects, such as the coordinating organisations.

The main objectives of the CBE JU partnership:

- Supports the development of innovative bio-based solutions
- Increases market deployment of existing, future-proof innovations
- · Ensures environmental sustainability of bio-based systems

A call for relevant proposals was announced and its deadline was set for September 2022. The proposals which were granted with a funding, are going to initiate their activities the earliest on April, 2023.

## European Food Safety Authority (EFSA)

The European Food Safety Authorities (EFSA) core mission is food safety along the F2F value chain. EFSA builds on the latest scientific advancements and delivers independent advice to policy makers through cooperation with partners and in an open discussion with society. A collaboration request was sent to EFSA, after which we were informed about the different stakeholder engagement possibilities, depending on our level of interest and expertise. Many of the engagement possibilities are open to the public and accessible also to non-registered stakeholders, in the <u>catalogue of EFSAs stakeholder</u> engagement mechanisms. EFSA regularly engages with the registered stakeholder representatives seeking interest and participation to take part in different topic-based engagement activities.

The Pesticide Action Network (PAN) Europe, one of GLOBAL2000's umbrella organisations, is already an EFSA Registered Stakeholder. Therefore Global 2000 has already access to several tailored activities (see Table 1).

## **European Environmental Agency (EEA)**

The European Environmental Agency (EEA) is an agency of the EU, with its headquarters in Copenhagen, providing independent information on various environmental topics for policy makers, stakeholders and the general public. The EEA also works on agricultural topics and recently created a new indicator on pesticide residues in European water. This could, among others, be an interesting aspect to build collaboration upon. PestNu contacted the EEA in order to harmonise the PestNu approach with existing efforts, aiming to increase Farm to Fork impact towards 2030. GLOBAL 2000 had a meeting with a representative of the European Environmental Agency on 14<sup>th</sup> of September 2022. Besides disseminating PestNu with the representative of EEA, valuable knowledge was gained on agricultural topics and programmes, initiatives and trends in Europe, as well as on latest development and implementation of indicators.

#### Fertilizers Europe, Organics International (IFOAM)

IFOAM Organics Europe is the European umbrella organisation for organic food and farming. With almost 200 members in 34 European countries, their work spans the entire organic food chain and beyond: from farmers and processors organisations, retailers, certifiers, consultants, traders and researchers to environmental and consumer advocacy bodies.

On 23<sup>rd</sup> of February 2023 there was a joint press conference on conventional and organic pesticides: On behalf of IFOAM, GLOBAL 2000 subjected these alleged "ecological trade-offs" to a <u>fact check</u>. Therein, the differences between the 256 pesticide active substances only permitted in conventional farming and the 134 substances also allowed in organic farming have been analysed in terms of their hazard potentials and risks, as well as the frequency of their use. The toxicological evaluation on which this fact check is based, was then further developed and published in the peer reviewed scientific journal <u>Toxics</u>. The hazard classifications of the Globally Harmonized System (GHS) established by the European Chemicals Agency (EChA) and the dietary and occupational Health-Based Guideline Values established by the European Food Safety Authority (EFSA) in the approval process were used as a benchmark for the comparison.

# 2.2 Contribution of PestNu-Partners in Task 7.3 on national and international level

This chapter presents the collected inputs on networking activities shared between PestNu consortium partners on the basis of lists of networking partners.

#### 2.2.1 Contribution of the Greek cluster in Task 7.3

The Greek consortium country cluster consists of the following 5 partners: CERTH, MASOUTIS, UTH, IKH and SEVT.

On a national level, the Greek consortium partners have informed and engaged with the following associations about PestNU presented on **Table 2.** The second column under "Action" notes the current status of interactions.

Table 2:	Grook	agoncios	and	platforme
Table 2.	Greek	agencies	anu	platforms

Association	Action
The Hellenic Society of Agricultural Engineers	Interest in collaboration
University Centre For Research	Interest in collaboration
Innovation And Development "IASON", IsZEB Cluster	Informed
Agile4.0 Cluster - contacted by CERTH	Informed
I4byDesign Competence Center	Informed
Agrostis, Agricultural Information Systems	Informed
Agricultural Laboratory Ltd.	Informed
Agricultural University of Athens	Interest in collaboration. During the period from November 2021 to January 2023, regular contacts and meetings are held with the academic community at the Agricultural University of Athens for further collaborations. The aim of the synergies is the further exploitation of PESTNU innovative technologies.
SmartAgroHub	A Kick off meeting was organized in Athens under the Horizon program "Econutri" attended by partners from Smart Agro Hub and University of Athens. Dr. Katsoulas presented the aim of PestNu project highlighting the importance of collaborations between the two projects. On Monday, June 22, 2022, a meeting was held with the Director of the SmartAgro Hub cluster, Mr. Thomas Bartzana, (Associate Professor and member of the Sectoral Scientific Council for

Agrotechnology and Nutrition of the National Research and Innovation Council). Combining the main mission of the Smart Agro Hub - which is to conduct applied and technological research
leading to new products and services with industrial, economic and social impact in the agri- food sector - and presenting the innovative PestNu program we identified common development
strategies in the agri- food sector.

From the contacted institutions, the Hellenic Society of Agricultural Engineers, University Centre For Research, Innovation And Development "IASON and the Agricultural University of Athens have shown interest in collaboration. Next steps include setting further activities as sending out the prepared within the context of PestNu.

## 2.2.2. Contribution of the Portuguese cluster in Task 7.3

The Portuguese country cluster consists of the following 2 partners: AGROINSIDER and APEMETA.

On a national level, the Portuguese consortium partners have informed and engaged with the following associations about PestNU, as presented on **Table 3**. The second column under "Action" notes the status of interactions.

Table 3: Portugues	e agencies a	and platforms
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Association	Action
Confederation of Portuguese Farmers (CAP)	Engaged with practitioners questionnaire
INSURE.hub	Engaged as workshop speakers
Food4Sustainability Colab	Involved in the Portuguese DIH for agrifood; Interested in accompanying the project, training, events, etc.; engaged as speaker in the national workshop
ADITEC - Association for Technological Development and Innovation	Interested in circular economy approaches. Invited us to present APEMETA's activities, including PestNu project in the Iverian workshop of CE, Risk Management and Waste Management in 2/06/2022

Circular Economy Portugal	Yes, registered for receiving PestNu news.
Portugal Foods	Yes, not yet specified how.
ACOS - Southern Farmers Association	Yes, they hosted the PestNu national workshop in the national agriculture fair they organise and as a farmers association they are interested in accompanying the project.
AML - Lisbon Metropolitan Area	Yes, they are one of the leaders of Foodlink - the network for food transition in the Lisbon Metropolitan Area, a recent collaborative platform of public and private entities that emerged from the participation in the Living Lab of the H2020 ROBUST - Unlocking rural-urban Project. Foodlink is focused on using a multi- actor approach for planning territory from the perspective of a sustainable and resilient food system. This synergy will allow PestNu to act as a relevant tool, assessing Foodlink and also benefiting from its insights in fields like knowledge transfer, promotion of sustainable production practices, etc.
PT Space - Portuguese Space Agency	Yes, engaged as workshop speakers.
APSOLO - Portuguese Association for Soil Conservation Mobilisation	Yes, although yet not specified how. They have engaged with the practitioners questionnaire.

## 2.2.3 Contribution of the Spanish cluster in Task 7.3

The Spanish consortium country cluster consists of the following 4 partners: CDTA, TILAMUR, NEOALGAE and FERTINAGRO.

On a national level, the Spanish consortium partners have identified the following associations about PestNu presented on **Table 4.** The second column under "Action" notes the status of interactions.

Association	Action
Centre for the Development of Industrial Technology (CDTI)	Identified as potential partner have yet to be informed about PestNu. This centre is relevant to CDTA because it is also a Technological Transfer Centre.
Instituto de Fomento Región de Murcia (INFO)	Identified as potential partner have yet to be informed about PestNu
Plataforma tecnológica española del CO2 (PTECO2), Spanish CO2 Technology Platform	Identified as potential partner have yet to be informed about PestNu
Red Enterprise Europe Network	Identified as potential partner have yet to be informed about PestNu
Plataforma Española de la Biomasa (BIOPLAT), Spanish Biomass Platform	Identified as potential partner have yet to be informed about PestNu
European Algae Biomass Association (EABA)	Identified as potential partner have yet to be informed about PestNu
Red Enterprise Europe Network	Identified as potential partner have yet to be informed about PestNu
Council of Organic Agricultural Production of the Principality of Asturias (COPAE)	Identified as potential partner have yet to be informed about PestNu
REDEALGAE ( <u>http://redealgae.eu</u> ), Transborder Luso- Hispanic Network of Macroalgae, Microalgae and Low Trophic Level Organisms in the Field of Aquaculture	Identified as potential partner have yet to be informed about PestNu

#### Table 4: Spanish agencies and platforms

Furthermore, TILAMUR attended in the following other relevant clustering events:

### THE PESTNU PROJECT TRAVELS TO MAURITANIA ON HUMANITARIAN MISSION

Six agricultural technology companies from the Region ended the last 14-19 January with good expectations in the medium term for the commercial and institutional mission to Mauritania, where companies from the Region have visited possible production areas. In the coming months, the collaboration in terms of financing and training of local farmers will take shape. The mission, organised by the Development Institute (INFO), has had the institutional support of the Minister of Business, Social Economy and the Self-Employed, Valle Miguélez. The director of INFO, Joaquín Gómez, who also accompanied the business delegation, stressed the importance of markets with good opportunities and close geographically. "In certain areas, despite the fact that the country is mostly desert, water is abundant and the soil is quality, so the know-how and experience of our companies will be very useful."

Mauritania has great potential, the development of which, with Murcian technology, is of great interest to the Mauritanian authorities, since it would help fix its population and mitigate the problem of emigration to Europe, also contributing to guaranteeing food sovereignty and Production continues throughout the year.

### Visit of UNHCR and AECID

Tilamur visited two international cooperation agencies (UNHCR and AECID) to show the aquaponics technology as well as the objectives of the Pestnu project. During the interview with the coordinator of UNHCR Mr. Fabrice Igor Chuente Tejiom, an interest agreement was closed to implement a small aquaponics pilot plant in the Mbera refugee camp with an initial surface of 1000 m2. During the conversation with Mr. Fabrice he was informed of the importance of using new methods and new technology to achieve a more effective and environmentally friendly agriculture as dictated by the PESTNU project guidelines. On the other hand, Mariano Vidal also visited the facilities of AECID (Spanish Agency for International Cooperation and Development) coordinated by Mrs. Rita Santos Suarez, who was very interested in showing our technology to the NGOs that work under this Agency. The last of the stay in Mauritania, Mariano Vidal also met with Mr. Jean-Marc Dewerpe Alvaro, first Consellier in Mauritania of the E.C., who was informed of our interest in publicising our technology and the objectives of PESTNU.

## 2.2.4 Contribution of the Cypriot cluster in Task 7.3

The cypriot country cluster consists of the following 2 partners: STRATA and SIDROCO.

On a national level, the cypriot consortium partners have informed the following associations about PestNU, presented on **Table 5**. The second column under "Action" notes the status of interactions.

### Table 5. Cypriot agencies and platforms

Association	Action
Agrivi Platform	The SmartRoot consortium has been informed for the shared publication between SmartRoot and PestNu
Agricultural Research Institute	Informed the institute regarding the project.
Technological University of Cyprus, Department of Agricultural microbiology and biotechnology	Informed the responsible professor about the project. Collaboration interest has been expressed. Lol signed.
Pancypriot association of bioproducers	Informed the representative of the association about the project. Collaboration interest has been expressed. Lol signed.
Pancyprian Farmers Union	Informed the representative of the union about the project. Collaboration interest has been expressed. Lol signed.

#### Table 5: Cypriot agencies and platforms

Next steps on cypriot national level for the remaining 18 months of the PestNu project will be to set further activities and intensified efforts to find and engage with agencies and platforms relevant to PestNu on a national level. The Cypriot partners will also engage in events and activities on EU-Level.

#### 2.2.5 Contribution of the Italian cluster in Task 7.3

The Italian country cluster consists of the following 2 partners: STAM and AGROROBOTICA.

On a national level, the Italian consortium partners have identified the following associations relevant for PestNU, presented on **Table 6.** The second column under "Action" notes the current status of interactions.

#### Table 6: Italian agencies and platforms

Association	Action
Cluster Spring: Italian Cluster of Bioeconomy	Identified as an interesting stakeholder for PestNu. STAM is part of this cluster, focused on the bioeconomy. They have shown interest in the topics addressed in Pestnu and will follow the project's results.
Genova Smart City	Identified as an interesting stakeholder for PestNu STAM is part of this association that is close to sustainability and circular economy issues. STAM has brought the example of Pestnu as exemplary to follow and replicate.
CETMA - Centro di Ricerche Europeo di Tecnologie, Design e Materiali (European Research Centre of Technologies, Design and Materials)	CETMA has been a partner of STAM for several years. The research center is very attentive to issues of circular economy and sustainability. Identified as an interesing stakeholder for PestNu

## 2.2.6 Contribution of the UK & Ireland cluster in Task 7.3

Ireland & UK: The British country cluster consists of the following 2 partners: TRI and TelLAB.

On a national level, the Irish consortium partners have identified the following associations about PestNU presented on **Table 7.** The second column under "Action" notes the current status of interactions.

Table	7:	Irish	agencies	and	platforms
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Association	Action
Macra na Feirme	Identified as potential partner have yet to be informed about PestNu
Ireland's Seafood Development Agency	Identified as potential stakeholders for their expertise in the aquaculture industry. They will be invited to the national workshop in Ireland in September 2023 where more information about PestNu and partnership options will be discussed.
Bord Bia Irish Food Board	Identified as potential stakeholders for their expertise in the food industry, especially regarding fish production. They will be invited to the national workshop in Ireland in September 2023 where more information about PestNu and partnership options will be discussed.
Teagasc Agriculture and Food Development Authority	Identified as potential partners with valuable expertise in agriculture and food industry, as well as environmental sciences and research. Individual researchers have been contacted about PestNu project, but they haven't responded the PestNu questionnaire sent. They will be invited to the national workshop in Ireland in September 2023 where more information about PestNu and partnership options will be discussed.
Environmental Protection Agency Ireland	Identified as potential stakeholders since they are the environment regulators in Ireland. A questionnaire about PestNu was sent, but no response was received yet. Will follow up with them.
Department of Agriculture, Food and Marine	Identified as potential stakeholders since they are the regulators of agriculture and aquaculture, have yet to be informed about PestNu, an invitation to the national workshop in Ireland in September

	2023 will be sent.
Hatch	Identified as potential partners as Aquaculture industries accelerators. Will be informed about PestNu if the appropriate space is found.
University College Dublin - School of Agriculture and Food Science	Identified as potential partners. Two researchers have been informed about PestNu and have completed the questionnaire sent. An invitation will be sent for attending the Irish National Workshop in September 2023.

On a national level, the British consortium partners have identified the following institutions relevant to PestNU presented on **Table 8.** The second column under "Action" notes the current status of interactions.

#### Table 8: British agencies and platforms

Association	Action
National Farmers Union	Identified as an interesting stakeholder for PestNu
National Farmers Union Scotland	Identified as an interesting stakeholder for PestNu
Crop Protection Association	Identified as an interesting stakeholder for PestNu
Soil Association	Took part in the practitioners' survey and attended the national workshop.
Department for Environment, Food and Rural Affairs (DEFRA)	Interested in further collaboration with the PestNu project, took part in the practitioners' survey
Centre for Environment, Fisheries and Aquaculture Science (CEFAS)	Participated in the practitioners' survey
Science Advisory Council	Participated in the practitioners' survey
Animal and Plant Health Agency	Identified as an interesting stakeholder for PestNu, participated in the practitioners' survey
Innovation for Agriculture	On the IAB, participated in the national workshop as a discussion

	moderator, and participated in the practitioners' survey
Linking Environment and Farming (LEAF)	On the IAB, presented at the national workshop, and participated in the practitioners' survey

## 2.2.7 Contribution of the Austrian cluster in Task 7.3

The Austrian country cluster consists of one partner: GLOBAL 2000

On national level GLOBAL contacted and informed following regional and national agencies & platforms about PestNu presented on **Table 9.** The second column under "Action" notes the current status of interactions with each institution.

Association	Action
Bio-Austria	Bio-Austria was informed about the work of the PestNu Project via email and was asked for possibilities of collaboration.
Bioforschung	Bio-Austria was informed about the work of the PestNu Project via email and was asked for possibilities of collaboration.
Austrian Federal Ministry of Agriculture, Regions and Tourism	The ministry was informed about the work of the PestNu Project via email and was asked for possibilities of collaboration.
Demeter Austria	Demeter Austria was informed about the work of the PestNu Project via email and was asked for possibilities of collaboration.
Biokompetenzzentrum Schlägl	Biokomptenzzentrum Schlaegl has signed the PestNu letter of intent and is part of the industrial advisory board
	The aim of synergies with the Biokompetenzzentrum is to gain insight and advice and to collaborate in terms of healthy food and policy recommendations.
Zukunftsraum Land- EIP-AGRI representative office in Austria	GLOBAL 2000 is in contact with Austria Zukunftsraum Land and has signed up for their newsletter. In October 2022 GLOBAL gave a representation about PestNu at an EIP - AGRI Event and participated in several online- events hosted by Zukunftsraum Land (13/10/2021:

#### Table 9: Austrian agencies and platforms

	Green Deal for a better future: Regional services of general interest for better compatibility of family and career in rural areas ; 10/11/21 Aim of synergizing with Zukunftsraum Land and EIP -AGRI is to build connections with relevant stakeholders and to gain knowledge.
FIBL	The Research Institute of Organic Agriculture Austria FIBL has signed the PestNu letter of intent and is part of the industrial advisory board.Aim of this synergy is the exchange of knowledge and to disseminate the innovations from PestNu.
Association for the promotion of communication and mediation of research, technology and innovation (RTDS Austria)	Meeting to discuss possible joint activities and potential collaboration efforts in September 2022. The RTDS Group connected GLOBAL with projects such as Virtigation, SUSFERT, and BIOVEXO. Details on interaction with these projects are to be found in Deliverable 7.1
LFI Innovation Farm	The LFI innovation Farm was engaged as a speaker in Austrian national workshop 25/10/2022 GLOBAL attended in an online Workshop" "Innovation Farm Days
	LIVE" on 9/6/2022 The LFI Innovation Farm is working on the improvement of agriculture in an environmentally compatible way with the help of new technologies. The aim of the synergies is the further exploitation of PESTNU innovative technologies.
Federal Ministry for climate action, Environment, Energy, Mobility, Innovation and Technology	Representative of the ministry attended and was part of the round table at the 1st Austrian national Workshop on 25/10/2022
La Via Campesina	La Via Campesina is an international alliance of small farmers, agricultural workers, fishermen, landless and indigenous people. Representative Franziskus Forster engaged as one of the Speakers at the 1st Austrian national Workshop on 25/10/2022 The aim is the further exploitation of PESTNU innovations and to collaborate on policies and gain knowledge and insight into what

	small scale farmers need.
Umweltbundesamt	Expert institution for the environment in Austria.
	Dr. Andreas Bartel of the Umweltbundesamt attended and was part of the Round table of the 1st Austrian national Workshop on 25/10/2022
	The aim of the synergies is the further exploitation of PestNu innovations.
FIAN	FIAN is an Action Network that works to ensure that all people can live free from hunger and exercise their right to adequate food.
	Tina Wirnsberger from FIAN was planned to be one of the speakers at the round table of the 1st Austrian national Workshop on 25/10/2022, but had to cancel due to sickness.
	The aim of the synergies is to collaborate on policies and find other ways to push the goals of PestNu.

Of the national Austrian associations contacted RTSS Group and LFI Innovation Farm replied to the collaboration request:

#### RTDS Group

<u>RTDS Group</u> is a leading consultancy in Austria for EU-funded research and innovation projects development, implementation and management, with their headquarters in Vienna. RTDS Group's goal is to enable successful projects promoting sustainability, technology and societal objectives. They work in different areas in the context of sustainability, such as bioeconomy, digitalisation, energy, inclusive society and health and nutrition, among others.

RTDS agreed to a physical meeting in Vienna, in September 2022, with David Donnerer (also working on the VIRTIGATION project), Stephen Webb and Mikael Muegge (Coordination SUSFERT and BIOVEXO projects). Representatives of RTDS Groups also took part in the National Austrian workshop on 25<sup>th</sup> of October 2022 on the reduction of pesticides with the help of digital technologies ("Pestizide? Nein danke! Mit digitalen Technologien und Agrarökologie in die Landwirtschaft der Zukunft - die Innovationen des EU Projektes "PestNu"). The workshop was fruitful in establishing the needs of the PestNu partners, as well as considering the policy and legal framework implications for pesticide reduction. The workshop is described in detail in Deliverable 6.1.

#### LFI Innovation Farm

The goal of the Innovation Farm is to increase the use of new, innovative digital technologies in agriculture. The most important digital technologies for agriculture in Austria must be selected from the multitude of products on the market or about to be launched on the market and tested on the Innovation

Farm. Based on this, an assessment is made regarding practicability, labour economy, resource efficiency and economy. The work program of the Innovation Farm is processed in the form of use cases. Developments from different manufacturers are used, which makes it possible to compare functionality and quality. This is to ensure that users can make more targeted selections out of the large number of products available on the market.

Markus Gansberger from the Innovation Farm was engaged in the National Austrian workshop on 25<sup>th</sup> of October 2022 on the reduction of pesticides with the help of digital technologies and gave a talk on the use of new technologies in agriculture. Valuable liaisons were made in this workshop between staff from the Innovation Farm and partners in the PestNu consortium.

#### 2.2.8 Contribution of the Swedish cluster in Task 7.3

The Swedish country cluster consists of 2 partners: Agrovast and RISE. On a national level the Swedish partners contacted and informed following regional and national agencies & platforms about PestNu presented on **Table 10.** The third column under "Action" notes the current status of interactions.

Association	Action
POS - Precisionsodling Sverige (precision cultivation Sweden)	Interest in collaboration, especially in Agroinsiders product as POS has been working with satellite based solutions for many years.
Smart Agri Hubs	Interest in collaboration, project partners are generally interested in digitalisation on farms
Business region Skaraborg	Informed about the project but no concrete actions taken or planned yet. Business region Skaraborg works with all sectors such as automotive, gaming and logistics
Tillväxt trädgård	Interest in collaboration, good possibilities of cooperation in dissemination activities as new techniques are interesting for growers and advisors.
LRF	Interest in collaboration, good possibilities of cooperation in dissemination activities as new techniques are interesting for growers and advisors.

#### Table 10: Swedish agencies and platforms

Furthermore, Agrov attended in the following relevant clustering event:

#### Forum for the future of Agriculture – Sweden Regional event

On 12rd December 2022 Agrovast participated in a regional conference to discuss agriculture and the environment on a national level. Discussions about several topics, among them how to build bridges between COP27 and CDB COP15, about international negotiations of biodiversity and ecosystem services and how to integrate climate mitigation and biodiversity regeneration in food system transformation. Agroväst had the role of a participant and to talk to other participants and spread information about the PestNu project.

## 3. Conclusion

Overall, this report has demonstrated how in the first period Month 1-18 of the project the PestNu consortium partners reached out and connected with agricultural and other PestNu relevant agencies, platforms and networks on European and national level. The main area of focus was the collaboration with the following EU agencies: with the EU Aquaponics HUB, with the European Environmental Agency (EEA), the RTDS Group, IFOAM and also with EFSA (see Table 1).

On a national level, the consortium partners have identified numerous agencies and platforms relevant to the PestNu project and have been in contact with most of them and have discussed joint activities and opportunities for future collaboration (see Tables 2-9).

As PestNu will produce more and more outcomes, engaging with associations in relevant areas will become more constructive and beneficial. During the second half of the project, more focus will be put into this area and clustering events in the area of Circular Economy and Digitalisation will be organised in order to support the PestNu partners with their efforts.

Detailed information on the development and progress will be included in the updated version of this deliverable, which is D 7.7, which will be submitted on Month 36 by GLOBAL.

- Establishing new and enhancing the nature, content and type of collaborations with European and national agencies and platforms, external partners including businesses; and
- Participating in European network structures like the EU CAP Network etc.

In line with the PestNu project objective, guidance documents at the end of the project will provide necessary background and supporting information for the establishment of sustainable cooperation networks.



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