



Report on AgroFossilFree links with EU-wide initiatives

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Abstract

The aim of this document is to describe the activities developed to link the AgroFossilFree project with other EU-wide initiatives and the main results of the interactions and recommendations.

Abbreviations list

AU: Aarhus University
AFF: AgroFossilFree project
AGENSO: Agricultural & Environmental Solutions
AUA: Agricultural University of Athens
CAP: Common Agricultural Policy
CEMA: European Agricultural Machinery Industry Association
CERTH: The Centre for Research & Technology, Hellas
CONFIAGRICOLTURA: Italian Confederation of Agriculture
ECAF: European Conservation Agriculture Federation
EU: European Union
FEFT: Fossil Energy Free Technologies
ICOEL: Innovations Center for Okologisk Landbrug
INI: Iniciativas Innovadoras
IUNG: The Institute of Soil Science and Plant Cultivation
KoM: Kick off meeting
TTA: Trama Tecnoambiental S.L
TEAGASC: Agriculture and Food Development Authority
WIP: Wirstchaft Und Infrastruktur GMBH&CO Planung KG

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1. Introduction

Within the framework of Work Package 5- Dissemination and Communication is Task 5.4 Links of AgroFossilFree with EIP-Agri and other EU initiatives. The task started officially in October 2021 but activities were performed from the beginning of the project until its end. It compiles the interaction with ongoing and future EU projects that are working on subjects related to FEETS application in EU Agriculture and on the other hand other projects about de-fossilization systems. In particular, the project paid attention to linking the projects with other H2020 projects funded under the same call and others dealing with energy systems as those funded under the LC-SC3-ES-3-2018-2020 Call.

2. Methodology

This task has been performed thanks to a collaborative work with the participation of the Work Package 5 leader Iniciativas Innovadoras (INI) and the high implication of all project partners supported by the Coordinator (CERTH).

Partners have deployed their own strategies to carry out different activities in order to connect EU initiatives and establish collaborations. Communication materials and tools were also used to introduce the project and the outcomes to target groups.

The consortium is formed by entities with broad experience on EU projects having a wide network working in agriculture and energy. Most of them participate in other projects, clusters, groups, and networks. This knowledge and background have been very useful to approach different target groups interesting for AFF. A monitoring of the activities an carried out by partners has been done periodically to follow up the KPI (Key Performance Indicators) established at project level.

The activities performed are described in the following sections grouped by:

- Links with EU projects
- Multi-actor Innovation Collaborations
- Link with EIP-Agri

3. Links with EU projects

Networking between EU projects is very interesting, the exchange of information, results and methodologies provides important inputs, and provides access to collaboration strategies. During the project lifetime, a joint initiative at the project level, the participation in the cluster Area Zero, has been performed, and numerous initiatives at the partner level connecting EU initiatives with the AFF project.

3.1 Cluster Area-Zero

The AgroFossilFree project started officially the 1st of October 2020 but the first meeting with other projects funded under topics from Horizon 2020 Programme: FNR-06 (A and B) and LC-SC3-ES-3-2018/2020 was held on 5th of August 2020. The topic required to projects to link and the project officers put the coordinators in contact to start working. The coordinators of those projects involved the communication project managers in the process.

3.1.1 Cluster members

The creation of the cluster has been coordinated by the Communication manager of TheGreefa project. In October 2020 the cluster members started drafting the Collaboration Agreement (CA) and working in the activities to develop. The CA was signed in March 2021 by five projects: AgroFossilFree, TheGreefa, HyperFarm, RES4LIVE, and RENAISSANCE and the project AgroBioHeat did it in June. These initiatives combine the efforts of 83 unique partners across 20 countries, which have received a total of €23.14 million in funding.

The cluster was named Area Zero Cluster, Alliance for Renewable Energy in Agriculture and Zero Fossil Energy. Next there is the description of the cluster members:



the end-product.

TheGreefa project is aimed at a new technology for heating, cooling, air humidity control and water recovery in greenhouses as well as for drying of agricultural goods using thermo-chemical conversion principles based on the use of salt solutions (thermochemical fluids). Topic (FNR-06-2020; B) process from cradle to farm gate, while maintaining yield and quality of



acceptance, public perception analysis and farmer adoption studies. Topic (FNR-06-2020; B)

HyperFarm aims to demonstrate combined agrovoltaic systems, with dual land use for crop production and simultaneous power production. HyPERFarm joins multiple types of actors with the objective to optimize viable agrivoltaic business models as well as test the marketability of the products, via inclusion of new innovative photovoltaic technologies, radically new crop production systems, stakeholder innovation workshops, and citizen-consumer



supporting measures with respect to spatial planning, infrastructure, different business models and market organisation, trends that are not all under control from a farmer's perspective. Topic (FNR-06-2020;B).

RES4LIVE is an Innovation Action (IA) project dealing with the adaptation of RES technologies and machinery and their demonstration at a large-scale on farm level that require



implement new business models and technologies supporting clean production and shared distribution of energy in local communities. Topic (LC-SC3-ES-3-2018/2020).

The Renaissance project is an Innovation Action (IA) whose aim is to deliver a community-driven scalable and replicable approach, to



The project AgroBioHeat is a CSA (Coordination and Support Action) that aims to mobilize the large, underexploited potential of indigenous agrobiomass resources in Europe through the promotion of moder, market-ready and high-efficiency/low emissions heating solutions. Topic (LC-SC3-RES-28-2018-2019-2020).

3.1.2 Collaboration areas and tools

The main goal of this cluster is to establish collaboration and promote the developed technology solutions to potential stakeholder / end-users in a common way. The focus areas for future collaboration established on the collaboration agreement:

- Common organization of the Communication and Dissemination events (incl. common dissemination materials) on relevant Trade-Fairs, Scientific / technical Conferences, Workshops, Seminars etc. Each project decided on a case-by-case basis which common dissemination events are interesting for it to attend.
- Exchange the non-confidential information on the success stories, between the one or all projects, based on the achievements / outcomes.
- Exchange the insights (non-confidential information) on the development of innovative technologies, based on lessons learned during the projects' execution.
- Common organization of workshops, seminars, etc. among all the projects or during relevant external events in terms of the Exploitation Strategy development; Business Model and Plan creations, as well as in terms of Life Cycle Assessment / Sustainability Impact Assessment.
- Exchange of the knowledge and insights in terms of the Exploitation Strategy development. Business Model and Plan creations, as well as in terms of Life Cycle Assessment / Sustainability Impact Assessment.
- Exchange of the information on the non-technical barriers and the risks, in terms of the delivering of the technology solutions to the market.

The cluster has developed the image and some communication materials:

- Cluster image design: naming and logo.
- Website: the content was proposed and discussed by the cluster members and the technical development was done by TheGreefa project, the cluster coordinator. The initial web URL was <https://area-zero.eu/> but, it had to be changed in August 2023 <https://areazerocluster.eu/> because the previous became inaccessible.
- Communication materials: a brochure and a poster were created with the collaboration of all cluster members.
- [YouTube channel](#): the video of the cluster presentation is uploaded.



Fig.1. Old and actual AREA ZERO website with Cluster's logo



Fig.2. AREA ZERO communication materials

A specific section of the Fossil-Energy-Free cluster has been established on AFF website ([Members – AgroFossilFree](#)).

3.1.3 Cluster activities

Cluster events and meetings

Since the launching of the project the coordination and communication team of AFF have participated in regular meetings to prepare common activities such as:

- A **webinar** was organized in March 2022 with the aim of presenting the Cluster. Representatives of each project presented their main objectives and results. At the end of the webinar, there was time for questions and comments. The video of the cluster presentation webinar is available in the [AREA ZERO YouTube channel](#) and was shared by AFF and all projects' social media profiles.

- In the framework of the **EUSEW2022 (European Sustainable Week)** the Cluster prepared and sent an application to participate in the Policy Conference Agenda but finally the participation accepted was in the **EUSEW2022 Extended Programme** in a session called "Together towards energy-efficient and defossilised agriculture". The AFF project manager presented online the project. This event was organized in cooperation with The Greefa and RES4LIVE project that are cluster members.

Cluster members have taken the opportunity to profit the expert knowledge each other and have invited to participate as experts and present their projects in the events organized by them:

- RES4LIVE was presented by its Project Manager in the 2nd Greek Regional Workshop focused on Greenhouses (Athens, Greece).
- RES4LIVE was presented through its Project Manager in the 3rd Greek RIW focusing on Livestock Farming (Arta, Greece).
- The Greefa and RES4LIVE coordinators presented their projects in the audience of the **1st AFF Transnational Workshop**. Strong enhancement on the collaboration of these 3 projects. Both had 15 minutes to present their projects to the audience.
- AFF had the chance to participate in the **1st Regional Workshop of RES4LIVE project on September 2022 (Athens, Greece)**. AFF Project Manager participated in the discussion that was conducted about innovative sustainable technologies for poultry farms and AFF's objectives were communicated by individual discussions and showcasing of the AgEnergy platform and of course by brochure sharing.
- The Greefa was invited and participated in the **2nd AFF Transnational Workshop in Poland** and contribute to the scope of the discussion of the workshop among agriculture stakeholders.
- AFF and the HyperFarm participated and were presented on the Seminar '**Smart circular farming to address high energy and fertiliser prices**' conducted in Porto, Portugal. Both projects communicated to the participants their objectives and results and explained the cluster-concept of creating an alliance (AREA-ZERO) in order to promote defossilisation of EU agriculture as a cluster.
- **Brokerage Event:** all projects were represented at the **Agrofossilfree Brokerage Event** in Brussels held on 22nd June 2023. There was an AREA ZERO corner for the cluster and members presentations, with the different communication materials, such as flyers ,roll-ups and videos. The representatives of the Cluster members contributed also to the presentation of the policy recommendations and the following discussion.



Fig.3. AREA ZERO participation at the AFF Brokerage Event

Publications

- The Cluster has developed a **joint publication** in the **European Energy Innovation magazine 2023 edition**: taking advantage of the EUSEW 2023, the cluster prepared a publication called “The Green Deal: Paving the way to defossilise agriculture” published on the European Energy Innovation magazine, edition Summer 2023.

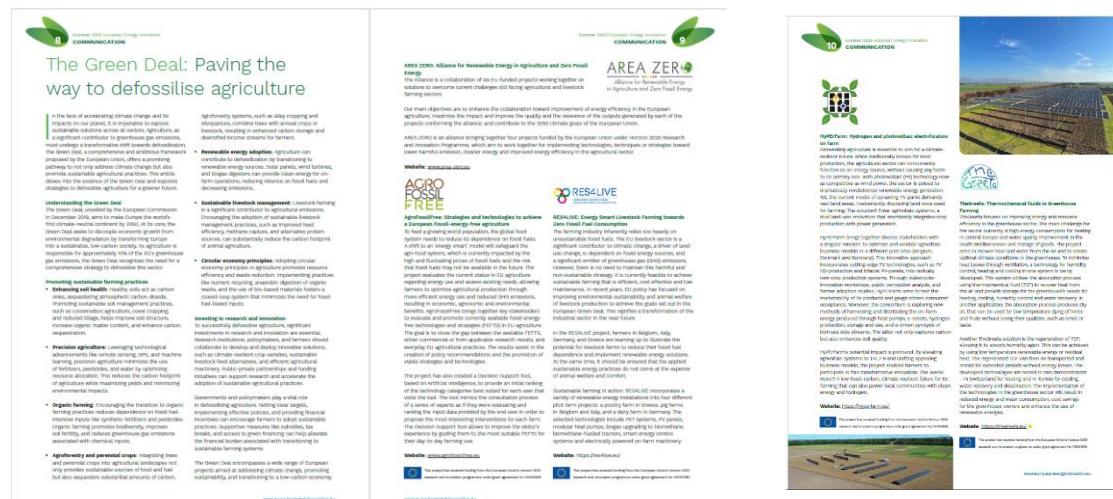


Fig.4. AREA ZERO publication

- Cluster members collaborated with AgroFossilFree project to co produce 5 **policy recommendations/briefs**:
 - Hyperfarm: “Agrivoltaics for open-field agriculture.”** Author: Alan Gonzalez Morales (PNO Innovation BE – Clustering activities leaders)
 - RES4LIVE:**
 - “Photovoltaics (PV) and Photovoltaic Thermal (PVT) Collectors and Systems for agricultural constructions rooftops.** Author: Alexander Loris, MG Sustainable
 - “Building Management Systems (BMS) for Agricultural Constructions.”** Author: Stelios Kalogridis, Plegma Labs.

- ["Heat pumps for HVAC \(Heating, Ventilation, and Air Conditioning\) of agricultural constructions."](#) Author: Dimitrios Tyris, Agricultural University of Athens.
- **The Greefa:** ["The use of thermochemical fluids for energy saving and storage in agriculture."](#) Authors: Begoña Benito, Serena Danesi, Jakub Pluta.

3.2 Other links with EU projects

The AFF consortium is formed by entities very active in research and networking. Many of them participate also in other European projects and networks as partners. This involvement allows the project to establish connections with other EU initiatives working in the same field via their partners.

3.2.1 List of EU projects linked with AFF



Agrifood4Future EU-project cofounded by the EACEA European Education and Culture Executive Agency. The operational objectives of the project aims to contribute to the transformation of the agri-food sector towards digitalization, decarbonisation and sustainability and support the large-scale implementation of new agriculture practices such as precision agriculture. The AFF platform and Decision Support Tool can be very useful for the project. In July, the common partner of both projects AGRIFOOD and AFF, TTA, introduced AFF project to the consortium that will explore in coming months how to use the project results.



SmartProject- Smart agriculture for innovative vegetable crop Protection: harnessing advanced methodologies and technologies. It is a **Thematic Network**, funded by the Horizon 2020 EU Program. The project intends to develop a smart IPM solution that will offer advanced farming technology and data analysis. SMARTPROTECT will identify the needs of farmers and propose IPM methodologies to apply in daily practices in both open fields and greenhouses. The common partner of both projects, AGENSO, introduced and linked the projects.



AgroPaper® is a project funded by LIFE+ EU Program. The project is focused on the reduction of plastic mulch use in agricultural practices through a paper mulch 100% biodegradable and compostable totally respectful environmentally. The project manager and the Communication team of AFF and AgroPaper® project exchange information about both projects and results via meetings and were invited to participate in the regional workshops. Both projects are linked on social media and presented in each website.



ClimatefarmDemo Climate Farm Demo is a unique pan-European network of Pilot Demo Farmers (PDFs), covering 28 countries and all pedo-climatic areas. Its overall aim is to accelerate the adoption of Climate Smart Farming (CSF) practices and solutions by farmers and all actors of the Climate Smart Agriculture Knowledge & Innovation

Systems (AKIS) to achieving a carbon neutral agricultural sector. The project started recently and will be running until 2029. The AgEnergy Platform and the Decision Support Tool of AFF could be interesting tools to identify CSF solutions. ICOEL, partner of AgroFossilFree is participating in ClimateFarmDemo and ClimateSmartAdvisors.



Climate Smart Advisors. For implementing ClimateFarmDemo approaches and solutions a network of agricultural advisors and advisory service providers will work. The partner ICOEL participate coordinating Communities of Practice, supporting training seminars for advisors and identifying Climate Smart AKIS-Network. The results of AFF project could be useful for trainings.



Re-Livestock

RESILIENT FARMING SYSTEMS

Re-livestock aims to understand and mobilize adoption of innovative practices, applied cross-scale to reduce the greenhouse gas (GHG) emissions of livestock farming and to increase the capacity for dealing with climate change impacts.



BECOOP: While community energy is about to play a huge role for the future energy transition, bioenergy has a very slow development in decentralised energy production. BECoop's ambition is to foster a broad deployment of bioenergy technologies in the heating sector by providing all the necessary conditions and support tools for unlocking the underlying market potential of community bioenergy. This project ends in October 2023 and CERTH is part of the consortium. They are linked through their websites and social media.



BE-Rural, Bio-based strategies and roadmaps for enhanced rural and regional development in the EU. The project aims to develop a circular, sustainable bioeconomy for Europe that increases the connection between the economy, society, and environment. This project finished in 2022 and WIP participated in the consortium.



BIOPLAT-EU, Promoting sustainable use of underutilized lands for bioenergy production through a web-based Platform for Europe. The project promoted and supported the uptake of sustainable bioenergy projects on marginal, underutilized, and contaminated lands. WIP was the coordinator in this project. AFF participated in a webinar where the project was taking part of it.



BioRural, Accelerating circular bio-based solutions integration in European rural areas. The project's goal is to create a European Rural Bioeconomy Network to promote small-scale bio-based solutions in rural areas and support the transition towards a sustainable, regenerative, inclusive, and just circular Bioeconomy across all Europe at local and regional scale. CERTH is coordinating the project, and IUNG, AU and DELPHY are also part of the consortium. Both projects are linked on social media and presented in each website. Also, during the KoM, AFF was presented.



COME-RES, Community Energy for the uptake of RES in the electricity sector. Connecting long-term visions with short-term actions. COME RES aims to facilitate the market uptake of RES in the electricity sector by supporting, with a set of specific activities, the implementation of the provisions for renewable energy communities (RECs) as defined in the new Renewable Energy Directive to be transposed in 2021. REScoop is part of the consortium. AFF is linked with it through the websites and social media.



COMPILE, Integrating community power in energy islands. The project aims to activate and use Local Energy Systems in order to support the fast growth of energy production from RES in constrained networks and foster the transition from centralized system with passive users into a flexible network of active users featuring energy communities. The project finished in 2022 and REScoop was part of the consortium.



NEFERTITI, Networking European Farms to Enhance Cross Fertilisation and Innovation Uptake through Demonstration. The overall objective of NEFERTITI is to establish an EU-wide highly connected network of demonstration and pilot farms designed to enhance knowledge exchanges, cross fertilization among actors and efficient innovation uptake in the farming sector through peer-to-peer demonstration of techniques on 10 major agricultural challenges in Europe. CEMA is part of the consortium.



SMARTPROTEC, SMART agriculture for innovative vegetable crop PROTECTION: A thematic network focusing on cross regional knowledge sharing of SMART IPM solutions for farmers and advisors. The aim is to stimulate knowledge flow in the regional AKISs across the EU and connect these on the innovative potential of advanced methodologies for Integrated Pest Management (IPM) in vegetable production, integrating precision farming technologies and data analytics. The project finished in June 2023 and AGENSO was part of the network. Both projects are linked through social media and a presentation on the website.



P2GreenN, Closing the gap between fork and farm for circular nutrient flows: This project will foster a paradigm shift, from a linearly organised resource and nutrient system within the agri-food supply chain, towards a circular material flow system between urban and rural areas thereby restoring the coupling of the water-agri-food system using a holistic symbiotic resource management approach following the 3R principle “Reduce, Reuse, Recover”. CERTH is part of the consortium and presented the AgEnergy platform presentation during the KoM.



MainstreamBIO, MAINSTREAMing small-scale BIO-based solutions across rural Europe via regional Multi-actor Innovation Platforms and tailored innovation support. It sets out to get small-scale bio-based solutions into mainstream practice across rural Europe,

providing a broader range of rural actors with the opportunity to engage in and speed up the development of the bioeconomy. During the KoM, IUNG presented AFF.



TANGO CIRCULAR, Training A New Generation Of farmers and agricultural entrepreneurs to implement the concept of Circular economy in agriculture: It aims to contribute to the development of regional eco-systems directly providing a valuable input to the economy by integrating work-based learning. The Italian partner CONFAGRICOLTURA presented AFF during a meeting of this project.

4. Multi-actor innovation collaboration

4.1 Multi-actor regional innovation collaborations

Multi-actor regional workshops (RIW) have been organized by the AgroFossilFree consortium (3 workshops per hub between), focused on open-field agriculture, greenhouses and livestock buildings with a multi-actor approach. In close collaboration with the relevant stakeholders, AgroFossilFree partners have selected the most relevant FEFTS solutions from the assessed in WP2 according to the subject of each workshop, the results gathered in WP1 and the geographical and thematic scope of the research partners. Representatives of the National associations of the machinery industry (CEMA), of RES (Renewable Energy Sources, e.g. REScoop) of conservation agriculture (ECAAF) of smart farming and of farmers have participated. All the workshops (RIW) were published on the AFF website in the news and events section, and they were also communicated through the AFF social media and newsletter.

In total, the 24 Multi-actor Regional Workshops involved more than 1000 participants and covering the Northern, Western, Southern and Central/East regions of Europe. Most of the attendants were farmers (38%) and advisors (27%), also to remark the high participation of people from scientific community (18%) and the industry (9%). Policy makers and investors were less represented (3%).

Table 1. Regional Workshops conducted by AFF partners

Nº	Hub	Sector	Date	Outreached people
1	Spanish	Greenhouses	24/11/2021	25
2	Polish	Open-field	20/01/2022	35
3	Dutch	Open-field	26/01/2022	155
4	German	Open-field	04/02/2022	85
5	German	Greenhouses	18/02/2022	100
6	Italian	Open-field	21/02/2022	52
7	Irish	Greenhouses	22/02/2022	51
8	Polish	Open-field	24/02/2022	36
9	Greek	Open field	01/03/2022	42
10	German	Livestock	11/03/2022	38
11	Irish	Open-field	23/03/2022	58

12	Polish	Livestock	24/03/2022	23
13	Italian	Livestock	29/03/2022	40
14	Greek	Greenhouses	08/04/2022	39
15	Irish	Livestock	29/04/2022	39
16	Spanish	Livestock	09/05/2022	20
17	Spanish	Open field	11/05/2022	14
18	Greek	Livestock	12/05/2022	79
19	Danish	Open-field	16/05/2022	17
20	Dutch	Livestock	18/05/2022	14
21	Dutch	Greenhouses	24/05/2022	30
22	Italian	Greenhouses	25/05/2022	17
23	Danish	Livestock	29/06/2022	31
24	Danish	Livestock	07/07/2022	13

During the workshops, feedback to the selected FEFTS presented was given. Needs and enablers, conditions and barriers for FEFTs adoption were also discussed to identify incentives, policy recommendations and collaborations.

The outcomes of the RIW are reported in detail in the public deliverable [3.1 Report from the regional workshops](#). Extracted from this report following the main conclusions concerning collaboration are presented.

The diversity and reality of different EU regions cannot fit into a detailed policy “for all”. Some of the most important views on collaborations identified were:

- *Collaboration among farmers, government, and financial institutions, better involvement of research centres, development of organizations for producers and consumers and collaboration among neighbouring farmers.*
- *Better alignment and harmonization between local governments and European policies. Components of the CAP of more interest for the FEFTS adoption: green deal, operative funds, uses compatibility, subsidies, but knowledge about CAP needs to be improved. Improvements to CAP to make FEFTS adoption more interesting (such as including a specific paragraph only for agrivoltaics adaptation and implementation).*
- *The main drawback of the CAP is that it does not allow compatibility with other land uses and it does not allow land use change, for instance agrivoltaics.*

It was observed that there was a unanimous view on the contribution of the new CAP in the implementation process of FEFTS and it was identified that there is a missing link between Green Deal and CAP. In general, according to the RIWs’ feedback, subsidies from EU would be praised, not only for the sector directly, but also indirectly for training and education of farmers, their employees, and advisors. In a multi-actor context, a need of EU offices that can help multi-actor collaboration projects get started was highlighted.

The information collected from these multi-actor innovation collaborations has been an important input for the [Policy Briefs](#) produced by the project partners.

4.2 Multi-actor cross-border innovation collaborations

A total of three Transnational Innovation Workshops (TIW) have been organized with stakeholders from all over Europe (farmers, industry, advisors, technicians, researchers, innovation brokers and policy makers). As for the regional workshops, the TIW were also based on open-field agriculture, greenhouses, and livestock, including the presentation of all types of FEFTS. These workshops were selected to be in parallel sessions on specific themes to generate exchanges between EU regions, disseminate results and practical solutions and create cross-fertilisation and cross-border collaborations in specific FEFTS innovations. Relevant networks and groups identified previously in Task 3.1 were invited to the Transnational Workshops.

Table 2. Transnational Innovation Workshops conducted by AFF partners

Place	Sector	Date	Participant	Link for info
Athens, Greece	Greenhouses	14/06/22	44	https://bit.ly/3PEC2sD
Warsaw, Poland	Open field	23/09/22	43	https://bit.ly/3BLlh9i
Herning, Denmark	Livestock	01/12/22	41	https://bit.ly/3jdMN9b

Regarding the response of the audience in the 3 TIWs (Transnational Innovation Workshops), it was clear that the stakeholders that joined the events were enthusiastic about their participation. The majority had a very active contribution on the formulation of the content gained and the final outcomes in general. A lot of them stated that such kind of events should be conducted more often, and they were very happy that had the opportunity to learn about the results of the project. Some shared with the organizers their willingness to participate in following events and that they will continue to watch AgroFossilFree's activities, looking forward for the new Practice Abstracts (WP5), the policy recommendations (WP3) and the videos with the successful case study stories (WP1). Moreover, they visited both the project's website and the platform and got registered.

In our effort to enhance the networking of the project and promote the platform more, some extra activities were done in the context of the 2nd and the 3rd TIW. These 2 workshops coincided with 2 big agricultural fairs/exhibitions. In this context, after the 2nd TIW in Warsaw, the Project Coordinator and the Project Manager of AgroFossilFree visit AgroShow 2022 Fair in Bednary, Poland, aiming to individually showcase the AgEnergy platform to relevant manufacturers and technology providers in their pavilions. In this way, they were informed that they could register their products in the platform and use it as a one-stop-shop to enhance their visibility. On the other hand, right after the end of the 3rd TIW in Herning, Denmark, the Communication Manager together with the Project Coordinator and the Project Manager visited again manufacturers and technology providers, sharing flyers about the Decision Support Toolkit that was recently incorporated in AgEnergy platform. The project objectives were directly communicated with many companies to attract them registering their FEFTS either for the first time on the platform (in case of new companies for the platform) or more FEFTS from the ones that they produce (in case they had already registered one or two products).

AgroFossilFree Brokerage Event

On June 22nd 2023 the project celebrated its Brokerage Event, organized by CEMA, REScoop, ECAF and CERTH in Brussels. After almost three years of work, the event was an opportunity to present the main results, such as the AgEnergy Platform and the Decision Support Tool. The project partners also presented [19 policy briefs](#) that compile all the conclusions pursued by the project to pave the way towards the de-fossilisation of EU agriculture by decreasing the dependency on fossil energy while maintaining the yield and quality of the final product and reducing the environmental impact. Selected stakeholders from the FEFTS community (farmers, energy systems producers, machinery manufacturers, advisors, innovation brokers, venture capitalists, etc.) of each of the eight hubs were invited to interconnect and come up with certain collaborations in research project consortia, business projects for new FEFTS development and training or advising schemes in European level.

A total of 64 people participated in a hybrid event, organised at Mundo Madou Building in Brussels. Attendants had the chance to get to know about multi-stakeholder and networking activities, such as the online, regional and transnational workshops results, learn about current energy use status in European agriculture, and also the farmers' and advisors' views about FEFTS. During the last part of the event, there was a panel discussion between representatives from CNH Group, John Deere, Bioenergy Europe, Solar Power Europe and the European Conservation Agriculture Federation.



Fig.5 Photos of the Brokerage Event celebrated in Brussels

Participation at a seminar organized by the EU CAP and DG AGRI

AgroFossilFree had also an active participation and was disseminated a lot in the context of a seminar co-organized by **EIP-AGRI**. More specifically, the project was presented from the Project Manager during the [Seminar 'Smart circular farming to address high energy and fertiliser prices' conducted in Porto, Portugal \(6-7/12/2022\)](#). The organizing authorities were The European Commission's Directorate-General for Agriculture and Rural Development (DG AGRI) and the EU CAP Network Support Facility for Innovation & Knowledge exchange | EIP-AGRI. It was a great opportunity to answer questions from the audience after the presentation, to further explain AFF through a poster session and explain how the AgEnergy platform works to many interested participants from the audience. Brochures to promote the project and flyers presenting the Decision Support Toolkit were also shared.

4.3 Other multi-actor collaboration activities conducted

Throughout the project lifetime, partners have been reporting their networking activities to the Dissemination Manager. Part of these activities are included in this section. It has been decided to remove the following activities from the national or international categories that are mentioned before. This time it has been preferred to categorize them by the type of audience, considering the variety of the AFF consortium, that comprises industry, agriculture and energy sector, advisors, and research. This diversity has allowed to approach the main actors involved into the agriculture defossilisation.

INDUSTRY

CEMA, partner of AFF is the association representing the European agricultural machinery industry. With 11 national member associations, the CEMA network represents both large multinational companies and numerous European SMEs active in the sector. The industry comprises about 7,000 manufacturers, producing more than 450 different types of machines and 150,000 direct employees. CEMA has played a key role developing networking activities focused on industry, researchers and policy makers.

The partner has carried out different activities depending on the target group, timing and objective:

- **Project and results presentations:**

Table 3. Activities conducted addressed to Industry presenting AFF results

Activities developed by CEMA	Target group
AFF Internal communication	Ag Machinery Industry (John Deere, CNH Industrial, AGCO Corporation, ARGO Tractors, CLAAS and FEDE Pulverizadores)
AFF General presentation to CEMA Technical Board.	Ag machinery industry experts - CEMA Technical Board.
External communication to establish cooperation with expert. Links to AFF social networks provided	Research community
Internal comm. towards CEMA High Level Group Research	Experts from John Deere, CNH Industrial, AGCO Corporation, ARGO Tractors, CLAAS and FEDE Pulverizadores
Internal communication towards CEMA High Level Group Research	Experts from John Deere, CNH Industrial, AGCO Corporation, ARGO Tractors, CLAAS and FEDE Pulverizadores
Internal communication towards VDMA - CEMA German member	VDMA (German Association of machinery and equipment manufacturing industry)
Internal meeting where Platform was highlighted	CEMA Board of Directors
Internal online meeting Where Platform was presented	CEMA High Level Group research (HLG)
Internal communication on policy recommendations and feedback on CEMA role and contribution	Industry

Board meeting, update on policy briefs, brokerage event and AgEnergy Platform	Industry
Internal online meeting with CEMA High Level Group research including promotion of the Platform and Brokerage event, policy recommendations	Industry

- **Feedback request:** with the aim of getting information and feedback about the project outcomes, experts from the industry have been invited to participate via consultation or participation in the 3 transnational workshops (TIW) and online workshops organized by the project.

Table 4. Activities conducted addressed to Industry requesting feedback

Activities developed by CEMA	Target group
Internal consultation towards CEMA High Level Group Research	Experts from John Deere, CNH Industrial, AGCO Corp, ARGO Tractors, CLAAS and FEDE
Internal consultation towards CEMA High Level Group CO ₂ - FEFTS survey	Industry specialized
Request for feedback on examples of fossil free	Industry specialized
Internal communication for industry for TIW in Warsaw	Experts on CO ₂
Internal communication on promotion to participate in the 2nd TW in Warsaw	Industry experts
Internal meeting where Platform was highlighted, and feedback on 2nd TIW	CEMA Board of Directors
2 nd online workshop and 3 rd TIW Denmark	Industry experts
Internal meeting, promotion of Platform and 3 rd TIW	CEMA High Level Group research (HLG)
Invitation to register in the 3 rd Online Workshop	Industry
Invitation to the Brokerage Event	Industry (HLG Research and CO ₂)
Internal online meeting with CEMA High Level Group research including promotion of the Platform and Brokerage event, policy recommendations	Industry

SCIENTIFIC COMMUNITY

The AFF consortium has a broad representation among its members from the research and science. Through them, different activities have been developed intended to establish links and collaborations with scientists.

Table 5. Activities conducted addressed to Scientific Community

Partner	Activity
IUNG	AFF General presentation to IUNG employees
AUA	Summer school: Energy as a commons, organized by Cosmolocalism H2020 project
AUA	"Projects2Projects" workshop on bioeconomy, organized by EUBIONET
CERTH	31st meeting of the Club of Bologna "The challenges for Agricultural Mechanization"
IUNG	Co-organisation of a conference together with Puławy Science and Technology Park Sp. z o. o. - conference for startups, where AFF will be presented
ICOEL	Networking meeting: input to Farmers organisation strategy fossilfree still high priority

AGRICULTURE

Farmers and related associations were also approached through different activities.

Table 6. Activities conducted addressed to Agriculture sector

Partner	Presentation
RESCOOP	Visit to Bierbeek organised with the ECCO project to show a project with solar panels on a pear orchard
ECAF	Presentation FEETS platform to the National associations
ECAF	Communications about Subscription to the AFF newsletter, Platform registration and workshops invitations.
LODR	Community workshops in Kluczkowice. Distribution of leaflets.
LODR	Promotion of the project at community workshops in Trzydnik Duży. Distribution of leaflets to farmers, presentation of a poster
IUNG	Meeting with local administration and Local Action Groups; organised by the local government of the Mazowieckie Voivodeship and the Mazovian Science and Technology Park (SmartVillages project)
IUNG	AFF presented at the public hearing regarding the energy efficiency on farms at the Committee meeting on Agriculture and Rural Development
IUNG	Co-organisation of a conference together with Puławy Science and Technology Park Sp. z o. o. - conference for startups, where AFF will be presented
ICOEL	Networking meeting: input to Farmers organisation strategy fossilfree still high priority
Confagricoltura	Networking at COPA COGECA
TTA	Dissemination of 3rd TIW outcomes to livestock stakeholders.

The results of those interactions gave the project the opportunity to involve the different target groups in the activities of the project as workshops and events and provided relevant information to produce policy recommendations.

5. Links with EIP-Agri

The main instrument to promote innovation in rural areas is the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI). The EIP-AGRI aims to speed up innovation in the agri-food and forestry sector, and therefore in rural areas, as well as to disseminate successful examples of experience in the territory through specific innovative projects.

Recently, the EIP-AGRI has become part of the European CAP Network. The EU CAP Network brings together stakeholders from the European Network for Rural Development and EIP-AGRI. The website of the EIP-Agri is still running but not updated from April 2023 and redirecting many contents to the EU Cap Network website. On this document we refer to the EIP-Agri as it was operational during the most time of the AFF project.

Through the EIP-Agri it's possible to find different kind of initiatives working on Agriculture and related topics with AgroFossilFree project such as Operational Groups, Focus Groups, Multi-actor projects, Thematic Networks or the EIP-Agri Subgroup on Innovation and Knowledge Exchange (SolKE).

Following a more detailed explanation about the groups and activities developed.

OPERATIONAL GROUPS (OG) from EIP-Agri are intended to bring together multiple actors such as farmers, researchers, advisers, businesses, environmental groups, consumer interest groups or other NGOs to advance innovation in the agricultural and forestry sectors. They are funded by EAFRD through national and regional rural development programmes to set up the group and prepare its innovation project, as well as to implement it. The EIP-Agri website publishes the OG Database that counts almost 3,000 OG from different countries, thematic and years. Each country use to have its own national OG database linked to the National or Regional Authorities.

Partners contacted OG ongoing working or related topics with AFF. More than 30 OG have been contacted from Denmark, Germany, Greece and Spain. The main difficulty found approaching this target is the lifetime of the OG that is different from AFF timeline.

Table 7. Operational Groups contacted

OPERATIONAL GROUPS
Bouw Boeren
Reduction of CO2 emissions in rBilk production in Baden-Württemberg
FitFarmers- Digital Innovation Academy for Agriculture
Biochar and flowering areas in vegetable production: optimizing practicality and ecological benefits (PK-BIG)
Fit for climate change - Breeding strategies for location-adapted dairy farming in Baden-Württemberg
innovative plant protection strategies to reduce the use of resources for sustainable fruit production in the face of climate change
Improvement of resource efficiency in dairy farming through artificial intelligence in farm feed purchasing (FEED 4.0)
Intelligent decision making to preserve fruit quality while reducing energy consumption

Adaptation of the decision support tool Pasture Base to North German conditions to optimise grazing
Green bridge to regenerative climate-adapted agriculture: Biotisation of seeds for nutrient management, humus formation and CO2 binding in maize
Social farming as an instrument for the diversification of agricultural enterprises in Bavaria - Development of innovative model projects
Agriplus: Increasing efficiency in agriculture in Hohenlohe through nutrient recovery from farm fertilizers
Integrated system of harvesting and in-field handling - standardization of cotton in the A.M.Th Region
Automatic design and installation preparation system for tree nuts
Automatic lameness recognition system in sheep and goat breeding units
Holistic Process of Traceability and Placement in Fresh Vegetable Markets
Lameness identification system in sheep and goat breeding units in the Region of Western Macedonia
Automatic lameness identification system in dairy cow breeding units in the A.M.Th Region
Lameness identification system in cattle breeding unit
Welfare monitoring and management system of small ruminants in the wider area of Burinos
Utilization of residual agricultural biomass for the production of animal feed supplements
Application of Precision Agriculture Practices in Whet Farming to Increase production, improve product quality and reduce input.
Development of an innovative mechanical weeding system
Design of Smart Agriculture services to improve the economic efficiency of olive cultivation
Real-Time Control System of Olive Fruit Fly Spraying in the district of the Agricultural Cooperative of Paleopanagia.
Optimizing the irrigation and fertilization system in table olive crops using innovative precision agriculture methods
Maximizing the efficiency of olive crops using an innovative precision spraying system
Creation of a system of differentiated dose of fertilizer in linear crops using an innovative implement to increase crop yield
AGROVOLTAICA. Innovative Project aims to preserve, restore and improve the agricultural use of soils in solar farms.
AVIENERGY. valorisation of the waste generated in poultry farms for use as an input for obtaining a source of renewable energy and fertilisers and components for the use of nutrients in the soil.
MAIZSOSTENIBLE. works to boost the sustainability and profitability of maize cultivation in Spain, through a combination of methodologies based on the application of digital technologies and tools.
INNOWATER. SUPRA-AUTONOMOUS OPERATIONALimproving energy and water use efficiency in modernised irrigation of fruit orchards
ENOVOLTAICS. the development and demonstration of innovative symbiotically integrated photovoltaic systems in vineyards,
VIDEXPERT. Intelligent system for diagnosing carbon footprint and climate change mitigation in the wine industry

All those OG have been contacted by mail sharing with them the main results of the project: the AgEnergy Platform, the Decision Support Tool, the Policy Briefs and the Practice abstracts and inviting to identify and generate synergies with AFF.

Focus Groups

Focus Groups are temporary groups of selected experts focusing on a specific subject, sharing knowledge and experience. The EIP-AGRI set up 46 Focus Groups from 2013 to 2021. Since 2022 the 'Support Facility for Innovation and Knowledge Exchange including EIP-AGRI' has set up 3 new Focus Groups under the new EU CAP Network. An analysis of the FC and its thematic have been done and some focus were identified with relation to AFF (e.g Carbon storage of the Renewable energy on the farm: Moving from source to sink in arable or Enhancing

production and use of renewable energy on the farm) but both are closed years ago. At national level it was contacted the Spanish focus group RESFARM.

The three new Focus Group from EU Cap Network have been analysed, but they don't match AFF topic. At EU level, the AFF have contacted with the Support Facility for Innovation and Knowledge Exchange to share the results of the project and trying to publish on the newsletter. All of them have been approached in the same way as Operational Groups by email.

Table 8. Focus Groups contacted

FOCUS GROUPS
RESFARM . A sustainable model for promoting sustainable energy production on farms
National Spanish Focus Group for Innovation in irrigation, energy and the environment
EU CAP Subgroup on Innovation and Knowledge Exchange (SOIKE).

National Networks

In the new EU programming period (2023-2027) each Member state has the task of establishing a national network that includes stakeholders from all areas of the CAP. Within the framework of the new EU-CAP Network, the National Networks, launched in 2023 have a key role in steering and driving forward policy as well as promoting stakeholder engagement, knowledge sharing and capacity building for EU Member States and other actors.

The national Networks from AFF partner's countries have been approached sharing with them the results of the project.

Table 9. National Networks contacted

NATIONAL NETWORKS
Spanish Network. Red rural nacional
German Network. DVS Netzwerk Ländliche Räume
Danish Network. Danish Agricultural Agency
Greek National Rural Network
CAP Network Ireland
Italian Network. Reterurale

The approach of the activities performed to link EIP-Agri initiatives have been carried out in the way of dissemination and exploitation activities more than for collaboration.

Table 10. Networking Key Performance Indicators: Target value & Achievement at M36

BSC Indicator	Target Value	Period Value	% Achievement at M36
Nº of Links with EIP-Agri, Operational Group & FEETS clusters	40	34	85%
Nº of EIP-Agri Thematic Networks coordinated with.	20	7	35%
Nº of EIP-Agri Focus Groups coordinated with.	5	3	60%
Nº of EU-related projects coordinated with.	15	15	100%
Nº of multi-actor innovation collaborations (5 per region)	40	53	>100%
Nº of multi-actor cross-border innovation collaborations	10	24	>100%
Nº of policy makers reached with policy briefs	50	12	20%

6. Conclusions and recommendations

Networking gives the project the opportunity to disseminate the activities and the results to a wider audience through projects, initiatives, and entities connected. Nevertheless, to go deeper in the collaboration a commitment from both sides is needed. Usually, projects and entities are busy with their own research and activities and it's difficult to work together, also budget could be a restriction to collaborate. In this sense, the creation of a stable framework of collaboration as a cluster is revealed very fruitful.

Clustering offers projects the chance to join efforts, research, and information to produce common outcomes as publications amplify the scope of the projects themselves and contribute to achieving the goals of the topics and calls under which are funded. The results of the networking with partners from Area Zero Cluster have been very fruitful. Cluster with other initiatives should be included as a task with specific budget and resources allocated.

Connecting with other projects at the partner level provides results in terms of dissemination and feedback as a very important input to increase the knowledge on common issues and to draft and discuss policy recommendations. Also, those connections allowed the project to involve other experts in the events enriching the discussion and providing essential information.

At the level of the EIP-Agri, the interaction faces some barriers as the different timelines of the different groups (operational and focus) with the AFF project and it has difficulties in connecting them to collaborate. The new EU CAP Network has recently launched and surely will be helpful for future networking. The outcomes of the AFF project will be available to all the new EU CAP Network initiatives to be used.

As demanded by the agricultural and energy sectors, the support of the CAP and EU policies is needed. The involvement of policy makers on AFF networking activities has been crucial, mainly their participation in the consultation workshop and the brokerage event. To share and discuss with them the results and recommendations of the project is a success.

For networking, having results of the project is also very useful. In this sense, AFF had the chance to present the AgEnergy Platform since very early. In addition, other interesting outcomes to share came later, as the policy recommendations included in the policy briefs. Some efforts done to connect other initiatives have been carried out at the end of the project. Results from those networking activities take time to be shown and for sure will arrive in coming months.

The submission of this deliverable is due by the end of AgroFossilFree (September 2023), but in the following months, the project outcomes will continue been disseminated.