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# D8.11 Summary of dissemination events and launching feather-based clusters.











#### **Technical References**

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## **Summary**

The UNLOCK project aims at unlocking a feather bioeconomy for keratin-based agricultural products. The overall objective is to contribute to replacing fossil-based raw materials with biobased, renewable material by valorizing current underused byproducts of poultry processing.

This deliverable includes a summary from the organization of the dissemination events and launching feather-based clusters using the bottom-up, participatory and synergistic methodology for cluster development. The clustering process has been performed in synergy with complementary projects and relevant stakeholders identified in the deliverable D8.3. *Stakeholder and related projects mapping.* 

As part of its replication process, different events were organized in three countries – Poland, Spain and France, as well as Pan-European level to engage in a staged process cross-sectoral communities, identify their needs and challenges and codesign general strategy axis and its implementation roadmap together with potential funding sources for cluster management.

In total, the dissemination events attracted more than 280 participants representing clusters, academia, civil society (NGO) and regional authorities, as well as other innovation actors and synergic projects relevant for the development of feather-based economy.

The clustering process also included the organization of two pilot workshops based on practical experiences gained during the UNLOCK implementation that were described in the D8.12 *Summary of pilot workshops of bio-based job opportunities creation*, as well as online networking and matchmaking activities.

Connections, relationships, insights and learnings gained have laid the ground to ensure that UNLOCK concept, solutions and legacy will be disseminated at wider level within S3 Agri-Food Thematic Platform in the field of Ingredients for Circular Economy (Task 8.4.3). This Pan-European collaboration space, together with holistic, cross-border, highly interactive and multilevel approach implemented during the UNLOCK project will enable further cooperation and development of new, joint and interregional projects, as well as cross-sector connections in bio-based economy.





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### 1. Introduction

The European poultry sector produces 3.6 million tons of waste feathers annually, mainly valorised in low added value products. In line with EU Bioeconomy strategy, the UNLOCK project aims to transform this waste into valuable raw material to create a new sustainable value chain.

UNLOCK is led by CIDETEC and driven by a well-balanced consortium of 15 partners that covers the whole value chain, from feedstock and supply chain analysis to processes, end-product fabrication and sustainability assessments.

The main objective of the UNLOCK project is the design and demonstration of an economically and environmentally sustainable supply-chain for a feather-based bioeconomy which will generate innovative bio-based functional materials for agricultural applications.

The initiative is working on the creation of bio-based products for agriculture, such as:

- Seed trays
- Mulch films
- Hydroponic foams
- Nonwoven geotextiles

And to do it, is using three different technologies for feather treatment:

- Mechanical grinding
- Steam explosion
- Microbial fermentation.

This project has received funding from the Bio-based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement N° 101023306.



## 2. Objectives

The UNLOCK clustering events were organized as part of the communication, dissemination and exploitation activities organized within the UNLOCK project to promote feather-based bioeconomy clusters.

The main objectives of the events were to:

- to raise awareness of the UNLOCK project within participants, showcase innovative solutions and work together on their applications in agriculture and other potential sectors.
- to interact directly with current and future stakeholders to explore technological, project and business cooperation opportunities.
- to cross-fertilize with projects and initiatives related to circularity, sustainable innovations and bioeconomy developments to discover new areas for collaborations.
- to enable attendees to explore UNLOCK solutions and develop actionable activities, also using digital and deep-tech technologies, tailored to their specific business contexts in the bioeconomy.
- to foster an interactive learning environment using dynamic tools that encourage participation and collaboration among attendees
- to connect participants with industry experts, potential investors, and other stakeholders in the bio-based sector, facilitating future partnerships and collaborations.
- to lay the ground to create Pan-European space for further collaborations after the end of UNLOCK financing.

Having in mind those objectives, the format of the events, venue and participants were wisely selected to bring added-value to UNLOCK's project, partners and stakeholders and contribute to boosting feather-based industries clustering activities and further uptake of UNLOCK's developments.



## 3. Dissemination and clustering events

As part of the UNLOCK dissemination, clustering and replication activities, Pan-European dissemination roadshows have been organized to support the uptake of UNLOCK solutions (Figure 1), experiences and legacy and to build cross-border network of feather- based bioeconomy clusters.



Figure 1. UNLOCK treatment technologies and end-products.

With a pragmatic approach of showcasing the potential of feathers to foster circularity in agriculture, the dissemination activities contributed to raise awareness and support preparing the ground for launching feather-based clusters for market uptake of feather conversion technologies and new products.

Its format, approach and methodology were designed in accordance with the UNLOCK stakeholder engagement strategy to ensure collaboration spaces for diversity of





innovation actors. The staged processes of engaging cross-sectoral entities and participants were designed to enable interactions, learning from each other and creating or discovering new knowledge, technology, products and services along the bio-based innovation process. They also included cross-cluster cross-fertilisation perspective to generate interlinks and synergies between different projects, initiatives and networks that can support promotion of circular innovations and releasing the potential of feathers to create feather-based bioeconomy.

The organization of the events in the relevant countries was meant to help make the concept and results of UNLOCK known and, more importantly, to identify synergies among other technologically relevant promising projects and businesses to create new connections and ensure the continuation of the UNLOCK concept.

To do it, tailored, logically interconnected and synergic events were organized and were aligned to specific local needs in three target countries: Poland, Spain and France. Having in mind the need to ensure UNLOCK continuation after the end of project financing, participation in relevant events at Pan-European level took place from the very beginning to unlock and support building feather-based value chains and involve wide audiences involving industries, academia and public organizations.

This way, a total of nine UNLOCK regional events took place and included cross-sectorial collaborative workshops, regional roadshows and dissemination events, combined with several European events (Figure 2).

Concept	Country/ activity	UNLOCK Collaborative workshop	Pan-European and networking events	UNLOCK Roadshow	Pan-European and networking events	UNLOCK Dissemination Events	
New feather- based bioeconomy clusters	Poland	UNLOCK Cross- sectoral workshop - Warsaw, Poland 29 February 2024	European Cluster Conference 2024 Brussels, Belgium 8 May 2024 UNLOCK Networking Event Warsaw, Poland 15 October 2024 UNLOCK Networking Event Brussels, Belgium 23 October 2024	Poultry Fair and BioAgro Fair - Warsaw, Poland 13-15 October 2024	BIO-BOOST Final Conference Brussels, Belgium 23 January 2025 BIC Matchmaking	Bioeconomy Conference and CBE JU - Warsaw, Poland 05 March 2025	
	France	UNLOCK Cross- sectoral workshop Reims, France 20-21 March 2024		Bio360 Nantes, France 5-6 February 2025		SIA Pro / Salon D'Agriculture Paris, France 23-25 February 2025	
	Spain	UNLOCK Cross- sectoral workshop Granada, Spain July-August 2024		p UNLOCK Pain Networking Event	Expo AgriTech 4.0 Malaga, Spain 26-28 November 2024	Event Brussels, Belgium 11 February 2025 BIOKET	Foro Transflere Malaga, Spain 12-14 March 2025
	Starting month	M34		M40	Brussels, Belgium 12-14 March 2025	M46	

Figure 2. Overview of UNLOCK clustering and dissemination events.





The whole process was undertaken using bottom-up, participatory and synergistic methodology for cluster development and involved a staged process of engaging cross-sectoral communities, identifying their needs and challenges and co-designing general strategy axis and its implementation roadmap together with potential funding sources for cluster management.







Figure 3. Pictures from UNLOCK clustering and dissemination events.

The clustering process was performed aligned with relevant projects identified in stakeholders mapping that has been evolving during the implementation of the UNLOCK activities

In addition, several events were organized by stakeholders or related organizations as follow-up and/or collaborative activities to intensify the UNLOCK clustering process.

## 3.1 Regional events

The implementation of dissemination and clustering events was based on UNLOCK developments and solutions. It included organization of several events in Poland, Spain and France aimed at engaging communities, stakeholders and projects relevant to the UNLOCK project to identify their needs, challenges and co-design implementation roadmap to support the uptake of UNLOCK solutions, development of new bio-based value chains and to ensure the continuation of the UNLOCK concept. In total, UNLOCK regional events reached a total of **286 participants across the regions and countries**. In Poland all the events attracted 104 participants, in France 98 participants and in Spain 84 participants.

## 3.1.1 UNLOCK cross-sectoral collaborative workshops

The process of promoting feather-based clusters started with the organization of three cross-sectoral collaborative workshops. They were organized in Poland, Spain and France with a focus put on launching the initiative, presenting the project and engaging main innovation actors, startups, SMEs, universities, entrepreneurs interested in developing bio-based feather business and seeking collaboration in this field.

#### UNLOCK cross-sectoral collaborative workshop in Poland

The first cross-sectoral workshop was organized on 29 February 2024 in Warsaw, Poland. It introduced the initiative, and its aim was related to fostering innovation in the





bio-based feather industry and bringing together startups, SMEs, universities, and entrepreneurs. Organized by UNIMOS, the event counted with participation of the UNLOCK partner the Łukasiewicz-Łódź Institute of Technology and Professor Krystyna Wrzesińska-Tosik who showcased the UNLOCK project's achievements, highlighting bio-based innovations and circular economy approaches. Additionally, the event-built relationships with synergic projects previously identified through stakeholder mapping, emphasizing the collaborative aim of the initiative. For the collaborative session, a dedicated template with eight steps from challenge to action has been prepared and participants focused on six challenges identified by the UNLOCK project, discussing solutions, partnerships and commercialization strategies. As a result, commercialisation paths and business-science cooperation models were designed as an added value, and new challenges and business opportunities driven by industry needs were discussed and identified.

#### UNLOCK cross-sectoral collaborative workshop in France

The second cross-sectorial workshop was organized in Reims, France on 19-20 March 2024 within the BIOKET conference and in synergy with EU-funded project BIO-Boost related to boosting bioeconomy innovations and interconnecting European innovation ecosystems (EIE) that was engaging all three UNLOCK target countries (France, Spain and Poland) and relevant stakeholders from agriculture and digital sectors. The UNLOCK approach and the experiences from the first workshop in Poland served as inspiration for further organization of cross-industry hackathons to solve the challenges identified in the UNLOCK and related to creating new feather-based value chains. The main objective of the workshop was to engage French innovation actors seeking collaboration in circular economy and engaging different types of entities. During the BIOKET conference, CBE JU Programme for 2024 was presented and potential funding and collaboration opportunities has been identified. The event served also as an opportunity to get first-hand insights on the benefits and networking opportunities from joining Bio-Based Industries Consortium (BIC) as Associate Member having access to 300+ industry members and 250+ associate partners, pitching, matchmaking platform, inspirations and market reports, relevant for UNLOCK further clustering. Following, different regional and Pan-European opportunities for UNLOCK clustering and dissemination arose.

#### UNLOCK cross-sectoral collaborative workshop in Spain

Based on the outcomes from the two previous workshops and searching for opportunities to engage investors, startups, academia and young innovators, the third cross-sectorial workshop was organized in staged iterative format in Spain during July





- August 2024. It started within the Alhambra Venture - the largest entrepreneurship event in the south of Spain held in Granada on 10-12 July 2024 that brought together national and international investors, leaders, startups, scaleups and business support organizations, having innovation in agriculture as one of the main axes. The focus was put on relationship building around UNLOCK concept with diverse organizations interested in bio-based solutions, including cluster and educational organizations, as well as potential bio-innovators connected to agriculture and supporting technologies. It was also an opportunity to connect and establish synergies for applications of UNLOCK developments in local environments by establishing generating linkages with traditional and tech-oriented organizations engaged in cluster-focused programmes financed in Spain, especially AEI projects.

#### 3.1.2 UNLOCK roadshows

Learning from the collaborative workshops, as well as from UNLOCK Networking events in Poland and Brussels (October 2024) served as a basis for the organization of three regional roadshows in Poland, Spain and France. UNLOCK Roadshows were focused on presenting project results and start organizing a roadmap using participatory diagnosis approach. In this stage, three fairs were selected to ensure participatory, bottom-up and cross-disciplinary approach.

#### UNLOCK Roadshow Poland

UNLOCK Roadshow Poland was held between 13-15 November 2024 at PTAK Warsaw Expo, Nadarzyn, during two complementary fairs: Poultry Tech Expo and Bioagro. The fair was open to public and driven by a dynamic environment with about 5000 visitors from different backgrounds where more than 70 expositors, and industry leaders, from 14 countries, presented the latest, novel technologies and innovative solutions for the poultry sector. Poultry Tech - Poultry Farming and Egg Production Industry Trade Fair was a premier edition of an event related to presentation of the latest technologies and innovative solutions in poultry distribution and breeding. The industry congress, an integral part of the fair, enabled participants to update their knowledge, acquire new skills, and learn about the latest development trends in the poultry industry. Visitors included poultry farmers (poultry farm owners), poultry traders and exporters, investors and entrepreneurs interested in the poultry industry, poultry slaughterhouses, poultry processing industry, distributors and wholesalers of poultry meat, representatives of research institutions and scientific organizations related to poultry farming, representatives of industry organizations and associations





associated with the poultry sector, among others. BioAgro Poland was an international trade fair for technologies and products of organic agriculture and its visitors included manufacturers and suppliers of technology for organic farming, machinery and equipment, irrigation and water management systems, renewable energy-based solutions, natural plant protection products, logistics and packaging companies, agricultural organizations and associations promoting BIO agriculture, among others. The idea of connecting Poultry Fair (UNLOCK technologies and products) and exploring opportunities within the BioAgro Fair (UNLOCK end-users) was aimed at supporting UNLOCK dissemination, clustering and further exploitation. It was done through exhibition zone showcasing UNLOCK samples and leaflets, presenting the project on the main stage with Łukasiewicz-Łódź Institute of Technology UNLOCK partner, exploration of synergies and inter-insititutional cooperations between exhibitors of poultry and organic agriculture. The Polish Roadshow attracted over 70 attendees and facilitated meaningful exchanges with key stakeholders, such as the National Poultry Council, Warsaw Technological Institute, and others from academia, research, and industry. Discussions ranged from product pricing to potential applications in agriculture, emphasizing UNLOCK's relevance across diverse sectors.

#### UNLOCK Roadshow Spain

UNLOCK Roadshow Spain took place in the city of Malaga within the Expo AgriTech organized between 26-28 November 2024. The fair had a triple approach being technological, industrial, and innovation event for the agricultural sector that brought together industry leaders with the aim of helping farms improve their competitiveness and productivity. The main audience were farm owners, agricultural professionals, agronomists, agricultural engineers, agricultural technicians, cooperatives, and agricultural associations, together with industrial and technological partners for a field 4.0. The congress offered a whole range of conferences and thematic workshops, as well as startups pitches, investors presentations and showcasing funding opportunity. The event served as a holistic platform to showcase UNLOCK project innovative solutions, and to establish contacts with agriculture professionals, explore business cooperation opportunities and generate synergies, conduct networking activities with stakeholders from wide range spectrum from public and non-governmental, private, and academia sectors. The strong engagement from the attendees has delivered highly valuable insights about the particularities of the region and local needs, which could be covered by implementing of UNLOCK project solutions throughout the sector. Several bilateral and multilateral meetings were held – including with UNLOCK partner AIMPLAS – to explore opportunities for sectoral and cross-sector synergies, bringing together partners interested in collaboration and development of feather-based





bioeconomy. In addition, the UNLOCK project was featured in podcast and interview for online channels, widening this way audiences to more public.

#### **UNLOCK Roadshow France**

The third roadshow was held at the Nantes Exposition Center during the Bio360 fair held between 5-6th of February 2025, in Nantes, France. This fair was a high-profile international event focused on sustainable bioeconomy, aligned with UNLOCK's mission. More than 5000 attendees from over 45 countries have passed through the fair and about 450 exhibitors from 25 countries had their stand under the Nantes Exposition Center roof. The UNLOCK Roadshow concept consisted of exhibition of UNLOCK solutions in the stand with samples demonstrations, leaflet distributions and relationship building with visitors and other exhibitors. UNLOCK project was presented at the Circular Stage to wider audiences, attracting potential end-users, entrepreneurs, researchers and business agents, as well as exhibitors from a wide range of industries, including biomass, biomaterials, logistics, energy, among others. The selection of the venue was also motivated by cross-fertilization with another EU-funded project called SCALE-UP which focuses on community-driven bioeconomy development and support of twelve new bio-based solutions across European regions and countries of UNLOCK interest: France, Poland and Spain. Sharing the same space with this project representatives made this event a great opportunity to connect, exchange knowledge, and contribute to empowering cooperation linkages with strategic cross-fertilization to explore additional synergies, ensuring impactful discussions and feedback to support promotion of feather-based products and innovations for circular bioeconomy.

#### 3.1.3 UNLOCK dissemination events

With the lessons learned from the UNLOCK Roadshows and with view of supporting the uptake of UNLOCK solutions, the three final dissemination events took place in Poland, Spain and France with the objective of showcasing successful business cases and launch the roadmap for cross-border network of feather-based bioeconomy clusters.

#### **UNLOCK Dissemination France**

The first dissemination event was organized in France was organized between 23-25 February 2025 during the International Salon of Agriculture in Paris—SIA´PRO – premier focused on new agricultural technologies and solutions that gathered professional farming community. In collaboration with French cluster AgriSud Quest Innovation, UNLOCK project had a possibility of showcasing UNLOCK developments and disseminating results to wide audiences, including French and European entities





interested in feather-based solutions for agriculture, as well as delegations from Africa, Asia and North America. The visitors represented, among others, public institutions, companies from private sector dedicated to agriculture and farming interested in applying the technology on their fields, waste management enterprises, local farmers interested in converting to more circular agriculture among many others. During the event, establishment of cooperation and strategic connections to build partnerships with local European companies took place with the aim to search for new solutions eliminating fossil-based solutions in the agriculture. The event also contributed to exploration and facilitation of post-project commercial developments of UNLOCK results by building and strengthening a stakeholder network between primary sector and bio-industries.

#### **UNLOCK Dissemination Poland**

The second dissemination event took place in Warsaw, Poland on 5 March 2025 and was organized in synergy with the conference « Bioeconomy - Innovation and Sustainable Development » organized by the National Contact Point (KPK) and the National Centre for Research and Development (NCBR) in partnership with the National Bioeconomy Hub. It was also connected with the CBE JU Info Day 2025 in Poland. This conference gathered experts, scientists, and key stakeholders from both the public and private sectors. The main focus was to explore the latest trends, identify growth opportunities and challenges within the bioeconomy sector, with special emphasis on the strategic use of EU funding to drive innovation and sustainability. The dissemination of the UNLOCK project consisted in presentation of the UNLOCK project as examples of BBI JU / CBE JU funded projects and organization of a dedicated stand with UNLOCK samples visited by representatives of public, private, research, cluster and bioeconomy-related actors. During the event, participants explored various multilevel collaboration opportunities, alongside funding avenues related to the upcoming calls for proposals within the CBE JU 2025 framework. Additionally, insights were gathered from representatives of the Ministry of Climate and Environment, NCP, the Institute of Soil Science and Plant Cultivation (IUNG), InventionBIO S.A, Wroclaw University of Economics, and others regarding the pursuit of a more sustainable bioeconomy. The discussions highlighted various funding and support mechanisms, such as Horizon Europe and the European Regional Development Fund, aimed at promoting research and innovation across Europe. These initiatives are designed to accelerate growth in the bioeconomy by scaling up green technologies developed during the process and facilitating the adaptation and integration of sustainable and circular solutions into business operations, ensuring long-term sustainability across cross-border sectors.





#### **UNLOCK Dissemination Spain**

The third dissemination event was organized between 12 and 14 March 2025 in Málaga, Spain within the European Forum for Science, Technology, and Innovation – Foro Transfiere 2025. Having in mind that this event is one of Europe's leading forums for innovation, attracting +600 organizations, including leading companies, research institutions, innovative enterpreneurs, policymakers and public administrations from over 30 countries, the dissemination of the UNLOCK solutions were meant to reach wide audiences from Spain and abroad, fostering international collaboration and knowledge transfer in science, technology, and innovation. The showcasing of the UNLOCK solutions was organized in collaboration with a Spanish stakeholder onTech Innovation and was a complementary event to Roadshow Spain at AgriTech Expo in November 2024, also held in Malaga. This event was mainly focused on building and streightening relations with industry stakeholders, end-users, researchers, and policymakers to showcase UNLOCK advancements and discuss the project's impact on sustainable agricultural practices. It also served as a platform to discuss potential research and collaboration opportuntiies related to the valorization of feathers from poultry production and its application in Spain.

## 3.2 Pan-European events

Apart from the UNLOCK Networking event held in Brussels (October 2024) and UNLOCK Final Conference in San Sebastian (March 2025), different clustering and dissemination events were held at European level between 2024-2025 that were oriented on showcasing UNLOCK solutions, building relationship with potential endusers, generating interproject synergies and laying the ground for clustering and collaborations after the end of UNLOCK financing.

#### CBE JU Info Day 2024 in Brussels (April 2024)

CBE JU Info Day 2024 was a brokerage and informative event organized in Brussels to showcase the funding opportunities and upcoming calls within the CBE JU open calls for 2024. Online networking platform served as a channel to book matchmaking meetings and post cooperation offer. It was also an opportunity to present UNLOCK both at online networking platform as cooperation opportunity, as in-person during the meetings with bio-based leaders, clusters, representatives of academia, research,





CBE JU, BIC consortium and other EU-initiatives. During the event, several meetings were held with UNLOCK stakeholders from Poland, Spain and France, as well as other European countries to engage in further UNLOCK clustering activities.

#### European Cluster Conference 2024 in Brussels (May 2024)

The European Cluster Conference 2024 was the largest event related to clusters and cooperation organized on 8<sup>th</sup> May 2024 by the European Commission that gathered +500 representatives of clusters, network organizations, academia and policy makers. Individual and group meetings were held with a wide range of European clusters, including Valorial, Polish Cluster Association, Mazovia ICT Cluster, AgriFood Lithuania DIH, Latvian Food Clusters, among others. Matchmaking sessions has been held with above mentioned organizations to explore synergies with the UNLOCK project. The event took place just after the UNLOCK project meeting in Saragosa and counted with the presence of S3 Platforms, including Ingredients for Circular Economy closely related to the developments of UNLOCK solutions and treatment technologies.

#### BIO-Boost Final Conference 2025 in Brussels (January 2025)

BIO-Boost Final Conference "The Future of the Bioeconomy" was an event held at Polish National Research and Development Center (NCBR) premises by the project consortium in charge of implementing EU-project related to boosting bioeconomy innovations and financed from Horizon Europe programme related to European Innovation Ecosystems (EIE) with which several interproject synergies have already been established in 2024 during the implementation of UNLOCK regional workshops in Poland, Spain and France. The conference brought together high-level representatives of European policymakers in the field of bioeconomy, including representatives of the European Commission (Coordinator of European Innovation Ecosystems, DG RTD and Deputy Head of Unit, Circular Economy, DG ENV), as well as representatives of EIT Food, BIOEAST initiatives, different European cluster organizations, innovation networks and academia. The UNLOCK project, its samples and promotional material was showcased to the diverse sectors that came together to explore advancements, challenges, and innovations shaping the future of sustainable development. A dedicated exhibition zone was organized, where UNLOCK project streghtened interproject relashionships with synergic EU-projects such as Brilian and BioSoilutions from UNLOCK Networking event in Brussels in October 2024.

#### BIC Matchmaking Event 2025 organized by Bio-Based Consortium (February 2025)

BIC Matchmaking Event 2025 was an annual event organized by Bio-Based Consortium in Brussels to meet, exchange ideas and start building consortia for the





CBE calls for proposals 2025. UNLOCK project was showcased via poster and samples in the exhibition zone. The event was an opportunity to meet with UNLOCK partner Tecnopackaging, as well as many stakeholders and synergy projects representatives during the one-to-one sessions and workshops on a variety of themes relevant to the bio-based industries. Support of the uptake UNLOCK solutions via Pan-European S3 Community of Practice platform related to Ingredients for Circular Economy (I4CE) to further disseminate UNLOCK results beyond project was discussed, as well as new project and consortia opportunities with French, Spanish and Polish potential partners within the CBE calls for proposals 2025.

#### BIOKET Conference 2025 in Brussels (March 2025)

BIOKET 2025 was organized between 11-13 March 2025 by Bioeconomy for Change (B4C) with support of Region Hauts-de-France, La Region Grand East and ADEME. It is an annual international Conference that serves as a premier platform dedicated to advancing Key Enabling Technologies and innovations applied to biomass valorization. The conference was aimed at promoting the production of high added value products across diverse sectors of the economy through sustainable practices and cutting-edge technologies. UNLOCK partner Greenovate! participated promoting the UNLOCK project, its treatment technologies and innovative solutions.

#### CBE JU Info Day 2025 in Brussels (April 2025)

Similar to the CBE JU Info Day 2024, the edition held in 2025 event brought together close to 450 potential applicants interested in the CBE JU 2025 call for project proposals, as well as research, innovation and collaboration opportunities in bio-based sectors. It also served as an opportunity to meet with representatives engaged in S3 COP platform to ultimate details related to continuation of UNLOCK activities within the interregional Pan-European platform focused on ingredients for circular economy.

## 3.3 Synergies and cross-fertilization

During the implementation of the UNLOCK project, synergy building and cross-fertilization between sectors, industries, EU-funded projects and stakeholders have been continuously developed by identifying and seizing opportunities for joint activities, mutual learning and further uptake of UNLOCK solutions.





#### BIO-Boost hackathon in Poland

Based on the experiences of two UNLOCK workshops in Poland and France, crossfertilization activity with synergic EU-project (BIO-Boost) on boosting bioeconomy innovations was held in Warsaw on May 15<sup>th</sup>, 2024 during agile hackathon held in National Centre for Research and Development with international partners, including France and Spain. Within the hackathon, a working group on feathers and biomaterials was established to explore cross-disciplinary to promote bio-based innovations. Additionally, the UNLOCK project was presented to Polish stakeholders from academia, research and business support organizations, including soil health and bioeconomy research organizations. Relationship building with academics, chambers of commerce, representatives of farmers and public administration at European and Polish level were strengthened towards upcoming roadshows and dissemination events.

#### National Field Days in Poland

Another opportunity to present UNLOCK and its solutions was the event called "Modern Agriculture" the largest agricultural event in Poland held between 14-16 of June 2024, in Boguchwała. The event was organized by the Podkarpackie Agricultural Advisory Center (PODR). The honorary patronage was assumed by the head of the Ministry of Agriculture and Rural Development, Dr. Czesław Siekierski. PODR divided this 3-day "farmer's festival" into various thematic zones such as: Innovation, Rural Development, the 25th Regional Livestock Exhibition, Renewable Energy Sources, Horticulture, Beekeeping, Science and Advisory, Market Town, Agricultural Machinery, Hunting and Game Management, Discover Podkarpackie, and Organic Farms. The promotion of the UNLOCK project included several activities, such as visiting on the field agriculture companies, relationship building, UNLOCK project presenting and gathering feedback on the needs. It was also an opportunity for the identification of needs and challenges. UNIMOS representatives participated as a speaker in the debate on innovations in agriculture presenting UNLOCK developments and discussing funding opportunities, challenges and trends with high-level representatives of regional government, clusters and companies.

#### St. Joseph Agricultural Fair, Mollerussa in Spain

On March 21, 2025, project partner ACUDAM presented the UNLOCK project at the St. Joseph Agricultural Fair in Mollerussa, Spain—one of Southern Europe's premier agricultural events and the largest in Catalonia. This venue was strategically selected to showcase the project's innovative framework and technical sessions, focusing on new uses of bioplastics in agriculture. The presentation attracted a diverse audience, including farmers, agricultural wholesalers, students, and professors. Feedback





revealed a strong interest in the end products developed by the Unlock Project, with attendees expressing concerns about agricultural sustainability and the need for greener solutions. However, farmers also raised worries about the financial investment required to adopt these solutions and emphasized the importance of delivering competitively priced products to compete with conventional plastics.

#### **BIOKET 2025**

BIOKET 2025 – The Global Bioeconomy's Key Enabling Technologies | Conference & Exhibition was a global event dedicated to the processes and technologies applied to biomass. It gathered 77 sponsors & exhibitors – including 16 groundbreaking Startups in our Start-up Village, over 150 inspiring speakers on stage, 619 registered, with 592 fully engaged participants. It counted with 3 keynote sessions, 6 hands-on Workshops and 9 cutting-edge technical sessions. During the meeting, 1290 B2B meetings – fostering collaboration and innovation was organized together with 3 Innovation Tours – exclusive visits to industrial sites. During the event, Exhibition of the UNLOCK solutions was organized together with the presentation of the UNLOCK project as speaker and participation in debate and interviews. Several B2B, networking and brokerage activities was organized, including participation in Workshops and conference about EU Policy and identified barriers on biomass and innovative technologies. As key takeaway, feathers seem to raise interest and bioplastics are a great alternative, but the high price of the products is still a barrier, as they not competitive compared to fossil based materials.

## 4. Lessons learned and follow-up

As part of its dissemination, clustering and replication process, UNLOCK partners have been working actively on boosting feather-based bioeconomy and generating opportunities for further research, innovation, business and collaboration.

During the clustering process, direct interactions with representatives of public, private, scientific, cluster and non-governmental organizations took place and first-hand experiences, barriers and challenges have been constantly gathered to be included in follow-up activities. The process was highly interactive, bottom-up and dynamic where diverse participatory and synergistic methodology for cluster development have been used in different stages of engaging cross-sectoral communities, identifying their needs and challenges and co-designing strategy axes and its implementation roadmap together with potential funding sources for cluster management.





During the dissemination, clustering and replication process several needs, challenges and insights have been received from stakeholders and include:

#### Challenges

- Price of new feather-based solutions remains a critical factor affecting adoption decisions – it is especially noted for farmers and actors positioned at the beginning of the agricultural value chain.
- Awareness, knowledge, and access to feather-based solutions and their developers among potential adopters are still limited and is hindering realworld implementation.
- Cross-sector collaboration remains weak due to fragmented value chains and limited spaces and opportunities to build meaningful sectoral and crosssectoral linkages and connections.
- Many stakeholders struggle to identify and access suitable funding opportunities in a timely manner to finance bio-based development.
- Differences between business, science, and public sectors—such as drivers, timelines, organizational cultures, languages used, and entrepreneurial approaches—pose collaboration challenges.

#### Needs

- Considering geography, climate, soil, and crop characteristics is crucial, as different regions have unique environmental conditions and the same UNLOCK end product can be adapted for different purposes in various regional applications – it is important to recognize that one product designed and validated in one area may need to be adjusted or tailored to suit the specific conditions of other regions.
- Creating collaboration spaces to foster safe, effective linkages between private, academic, public and non-governmental stakeholders for business, innovation, and research is needed, as well as engaging, inspiring and motivating facilitation to further turn those linkages into real collaborations.
- Ongoing monitoring of private and public financial opportunities and support for regional and international partnership building, project development, and proposal writing are essential to advance feather-based bioeconomy development.
- A role of neutral facilitator or broker that understand different sectors and industries could be helpful to build and facilitate cross-sectoral cooperation and support the discovery of business and research opportunities.





#### Insights

- Small-scale pilots and demonstrations in target countries would be valuable to support the adoption of UNLOCK solutions and speed up the transition towards circular bioeconomy.
- Existing cluster relationships and networks can be leveraged to reinforce and complete UNLOCK value chains.
- Active involvement of youth stakeholders, including students, entrepreneurs, innovators, with fresh ideas, perspectives, and technological savviness could lead to find new applications of UNLOCK solutions, adopt them faster and better align with societal needs.
- Cross-sectoral, virtual collaborative sessions and industry events also enhanced by Al and digital technologies - can boost R&D and accelerate cross-sector partnerships for feather-based bioeconomy development.
- Facilitated international networking, including synergies between EU projects, could promote experience exchange, contacts, and joint activities addressing common challenges.
- Organizing multiple dissemination events across countries in limited timeframe - despite logistical, linguistic and cross-cultural challenges provides key cross-border feedback to support and advance further UNLOCK uptake and exploitation.

Above mentioned insights, learnings and connections will be further used in the development of the S3 interregional platform, as well as support for the exploitation and replication activities.

The clustering process was enhanced by the organization of two pilot workshops for new job opportunities development and organization of online matchmakings to promote multilevel and multi-sectoral collaborations to further update the three UNLOCK treatment technologies and four new products for agriculture. Additionally, the contacts and relationships built during clustering events will serve to complete UNLOCK value chains and work together of further leveraging the UNLOCK legacy.

