The Standing Liaison Round Table (SLRT): Fostering Continuous Collaboration for European Innovation

"Co-Creating Policy Recommendations for a Rural Bioeconomy"

Ephy Kouzi, FOCUS STC

BBioNets, Head of Synergies/SLRT

Brussels, Belgium & Online, 27/05/2026

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SLRT – A Collaborative Ecosystem

A 20-Project Alliance for EIP-AGRI & Bioeconomy Innovation





Collaboration & Innovation in Action

Policy-Driven Dialogue & Position Paper

Joint online workshop ***"The Future of EIP-AGRI Operational Groups"*** and subsequent cross-project Position Paper *(partnering with FOREST4EU, NUTRI-KNOW, Soil-X-Change, and AQUAGRI-KNOW)*.

Institutional Synergies

Reciprocal representation within **Advisory Boards** and **Stakeholder Panels**.

Knowledge Exchange across Projects

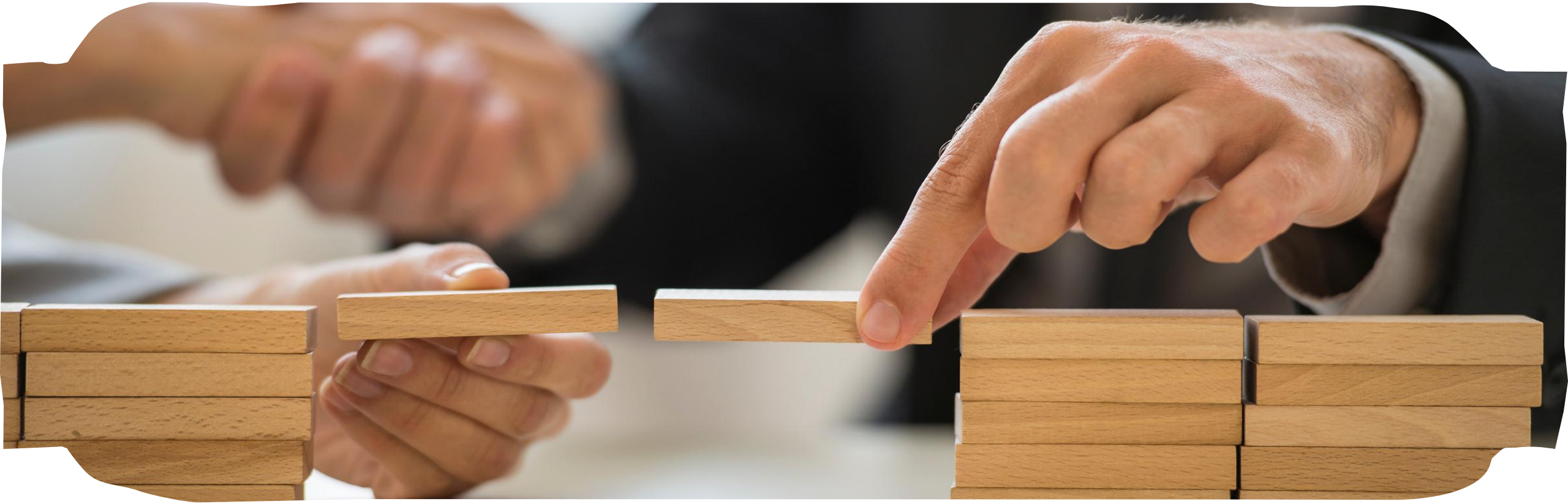
Active partner project involvement in BBioNets' two rounds of **Cross-Fertilisation Meetings** and reciprocal contributions to final project events, ensuring multi-actor feedback loops.

Collective Outreach

BIOPILLS

Two collaborative ***"BioPills"*** social media campaigns featuring insights on diverse bioeconomy aspects and showcasing how individual projects collectively drive positive regional change.

Bridging the Gap:
From Local Innovation to European Policy



Thank you!

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Workshop Orientation: Briefing on the day's methodology

"Co-Creating Policy Recommendations for a Rural Bioeconomy"

CREA

Brussels, Belgium & Online, 27/05/2026

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Session 1 – Strategic Projects Insights (Plenary)

- Comprehensive overview of the current rural bioeconomy landscape, hihlighting challenges and opportunities
- Project presentation and focus on policy evidence and barriers
- Presentation of main tools and instruments used or developed in the project

Group A: The Role of OGs in the Sustainable Management of Natural Resource

Group B: Navigating EU Regulations: Impact on Bioeconomy Stakeholders & Future Growth

BBioNets Soil-X-Change AQUAGRI-KNOW

BRILIAN C4B Rural SOUL

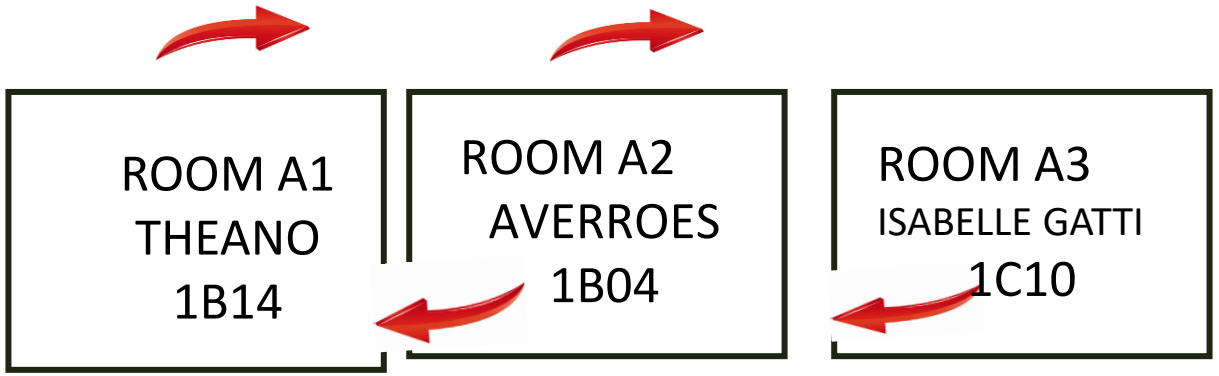
Session 2 – Policy Lab

Table A: The Role of OGs in the Sustainable Management of Natural Resource

- **GOAL**: to co-produce a shared set of key recommendations, identify barriers and stakeholders, and prioritise actions that can strengthen the role of OGs in sustainable biomass, soil, and water management.
- **METHOD**: participatory, idea-generation–oriented approach inspired by Metaplan techniques, followed by a structured prioritisation phase using dot voting.

Group B: Navigating EU Regulations: Impact on Bioeconomy Stakeholders & Future Growth

- **GOAL:** to assess EU regulatory barriers and drivers, identify key challenges and opportunities across circular bio-based systems, and co-design targeted policy interventions to enable effective and scalable green biorefinery models
- **METHOD**: participatory, idea-generation–oriented approach inspired by Metaplan techniques, followed by a structured prioritisation phase using dot voting.



SPECIFIC SECTION FOR ON LINE PARTECIPANT

PLENARY
Hybrid mode

Session 3 – Strategic Synthesis & Validation (Plenary)

Multi-Actor Roundtable consolidating and debating Policy Lab findings into a unified Policy Roadmap

- Results from Table A (Carmen Dominguez, coordinator of Bbionets) & Table B (Flavia Marucci, partner of the HE project C4B)
- **May Hobeika** from DG AGRI, unit F4 Research and innovation
- **Oana Neagu** from COPA-COGECA
- **Samuele Pii** representing ERIAFF (European Innovation Network for Agriculture, Food and Forestry)
- **Kelly Dimitroulia**, a professional journalist of Fertile land

Thank you!

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Valorisation of agricultural and forestry residues and by-products through bio-based technologies

"Co-Creating Policy Recommendations for a Rural Bioeconomy"

Carmen Girón Domínguez – MTU

BBioNets, Project Coordinator

Brussels, Belgium & Online, 27/05/2026

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What is BBioNets?

- Horizon Europe project- Thematic Network
- Born to support **Primary Production (Agriculture and Forestry)** through knowledge transfer to:



- Be more involved in the early stages of **Supply Chains**.
- Learn about **Bio-Based Technologies (BBTs) and Solutions from EIP-AGRI and beyond!**
- Promote and further advance the work carried out by EIP-AGRI **Operational Groups** (OGs)
- Contribute to boost agricultural and silvicultural **economic growth** in an environmentally sustainable way

What is BBioNets?

- Dissemination of knowledge already developed by **EIP-AGRI Operational Groups (OGs) and beyond**
  - about management and/or processing of agricultural and forest biomass through **Bio-Based Technologies (BBTs) and/or solutions.**

Bio-Based Technologies

> *Technologies or practices that use non-food feedstock, circularity principles or both to deliver diverse products*

What is a BBT?

Energy

- Energy production using fruit tree pruning wood that generates farm-scale gasifiers

Animal Feedstock

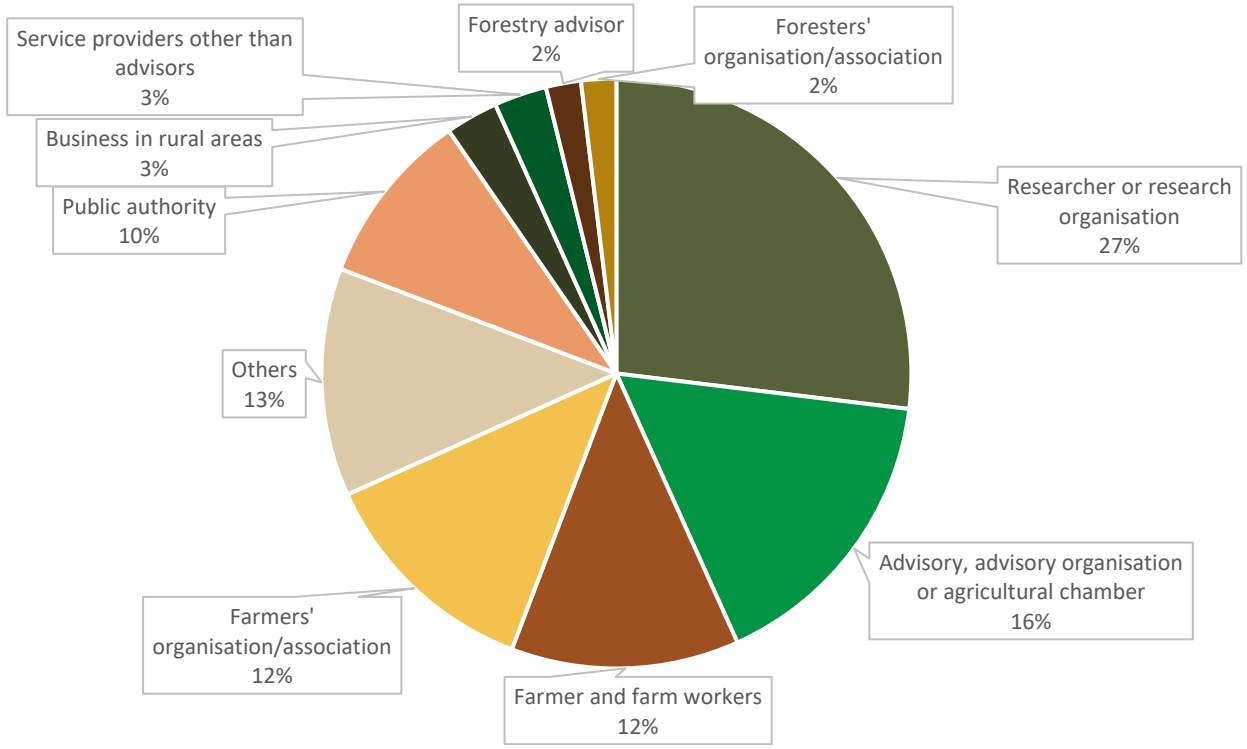
- Press cake and protein for cattle and pig feed, respectively, using green biorefineries processing grasses and other green leaves

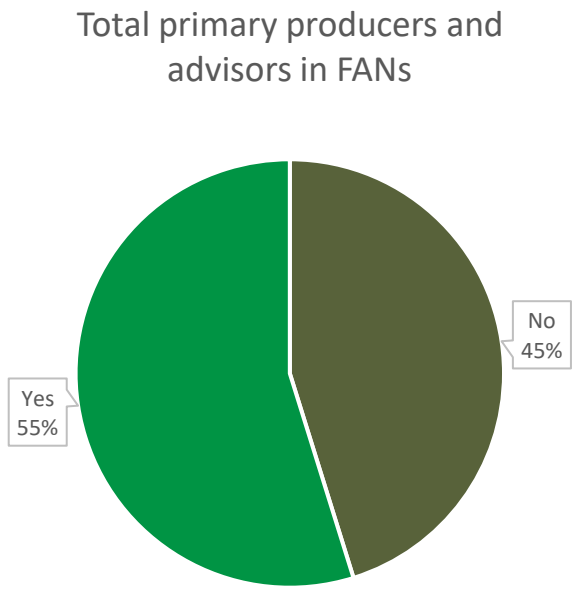
Soil Management

- Biochar for soil amendment, feed, and other applications produced with pyrolysis from various waste streams

How? – Multilevel engagement

- Forest and Agriculture Networks: 104 organisations in total (and growing) throughout FANs (%55 being primary producers and their advisors)





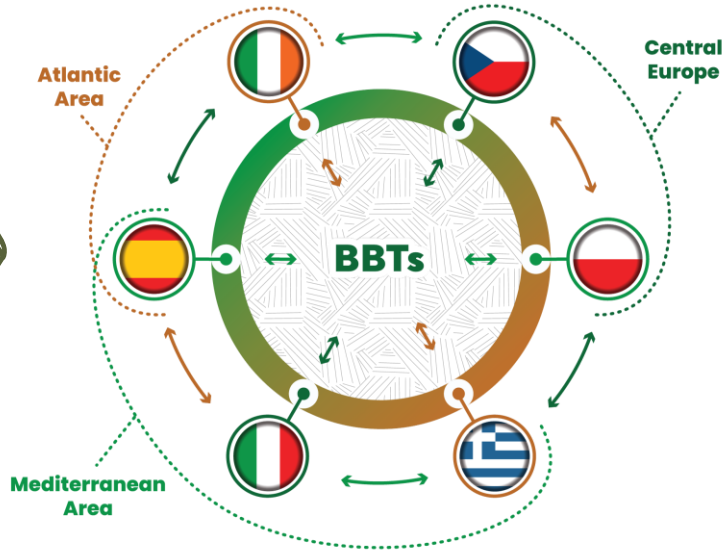
How? – Multilevel engagement

- Cross-fertilisation: interconnection of FANs

BBioNets Forest & Agriculture Networks (FANs)



BBioNets European Transnational Regions (ETRs)



1. **Inform** stakeholders across ETRs of different /similar regional practices and results related to OGs and BBTs
2. **Exchange knowledge** on regional concerns, solutions, opportunities and their potential transfer at a wider geographical scale
3. **Promote OG creation** and future collaboration across ETRs and at European level

Summary of Process & Outputs

Identification of needs and resources

- 🔹 Validated Needs
  - 🌍 Italy: Shift to sustainable materials (e.g., thermoplastic starch).
  - ⚖️ Spain: Greater focus on financial & policy support for circular bioeconomy.
  - 📚 Greece: Farmer education & access to technology prioritised.
  - 🔗 Czech Republic: Value chain development & biomass innovation.
  - 🐄 Ireland: Shared infrastructure & funding for collaboration.
  - 🌲 Poland: Optimising forestry resources & carbon-rich biomass.

Match BBTs to regional dynamics and potential

- Inventory of Bio-Based Technologies and Practices
- Bio-Based Technologies Assessment Tool

NEXT SLIDE

Raise awareness and increase capacity of AKIS actors

- Educational materials
- Online knowledge platform
- Knowledge Transfer activities

Secure long-term sustainability of project outcomes

- SLRT & Collaborations
- Policy recommendations

Strategic planning programs & policy recommendations

- 👩‍💼⚡ **Italy:** Focus on policy integration & coordination (agriculture-energy), with financial support from banking foundations and stronger forestry knowledge networks.
- 📚🗓️ **Ireland:** Emphasizes education & collaboration, proposing longer EIP-AGRI projects (3–5 years) and regional bioeconomy hubs led by cooperatives.
- 🌲🗺️ **Spain:** Prioritizes sustainable forestry & biomass valorisation, including updated biomass mapping and tech feasibility studies to advance innovation.
- 📜♻️ **Poland:** Calls for a national strategy with clear monitoring, simplified AKIS, and integration of BBTs into CAP eco-schemes (e.g., biostimulants).
- 🏛️🧢 **Greece:** Promotes “Democratization of Innovation” via lighthouse farms, biomass energy communities, and incentives to reduce biomass waste.
- 🏭🔬 **Czech Republic:** Targets better institutional coordination, stronger SME access to testing infrastructure, and increased visibility of innovation groups

Online repository

BBioNets

Home EU CAP NETWORK

BBioNets knowledge platform

a single access point to all project outcomes to encourage and speed up the uptake of BioBased Technologies (BBTs) in agriculture and forestry

BioBased Technology Inventory

Inventory providing easy access to information about BBTs collected from OGs and EU-funded projects & initiatives



BBTs assessment tool

BBioNets assessment tool for cost-effectiveness analysis of BioBased Technologies (BBTs)



Regional dynamics

A high-level study of specific regional economic, environmental and technical parameters of the Represented Regions



Knowledge transfer

Educational and training material to promote the faster and wider co-creation and transposition of innovative solutions into practice



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Cross-border knowledge exchange on sustainable soil management

"Co-Creating Policy Recommendations for a Rural Bioeconomy"

Barbara Pápai – Innomine DIH

Soil-X-Change, Project Lead

Brussels, Belgium & Online, 27/05/2026

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Soil-X-Change Background

Environmental challenges

Soil degradation and biodiversity loss

Declining soil organic carbon and water retention

Increasing **climate vulnerability** in agriculture

Low uptake of sustainable farming practices despite available solutions

Knowledge and implementation gaps

Research results and EIP-AGRI outputs remain **fragmented**

Digital tools and DSS are often:

- **too complex**,
- **poorly adapted** to local conditions,
- **disconnected** from farm realities,
- **difficult** for non-technical users

Limited farmer involvement in innovation processes

Weak transfer of practical knowledge into everyday farming

Regulatory and economic pressures

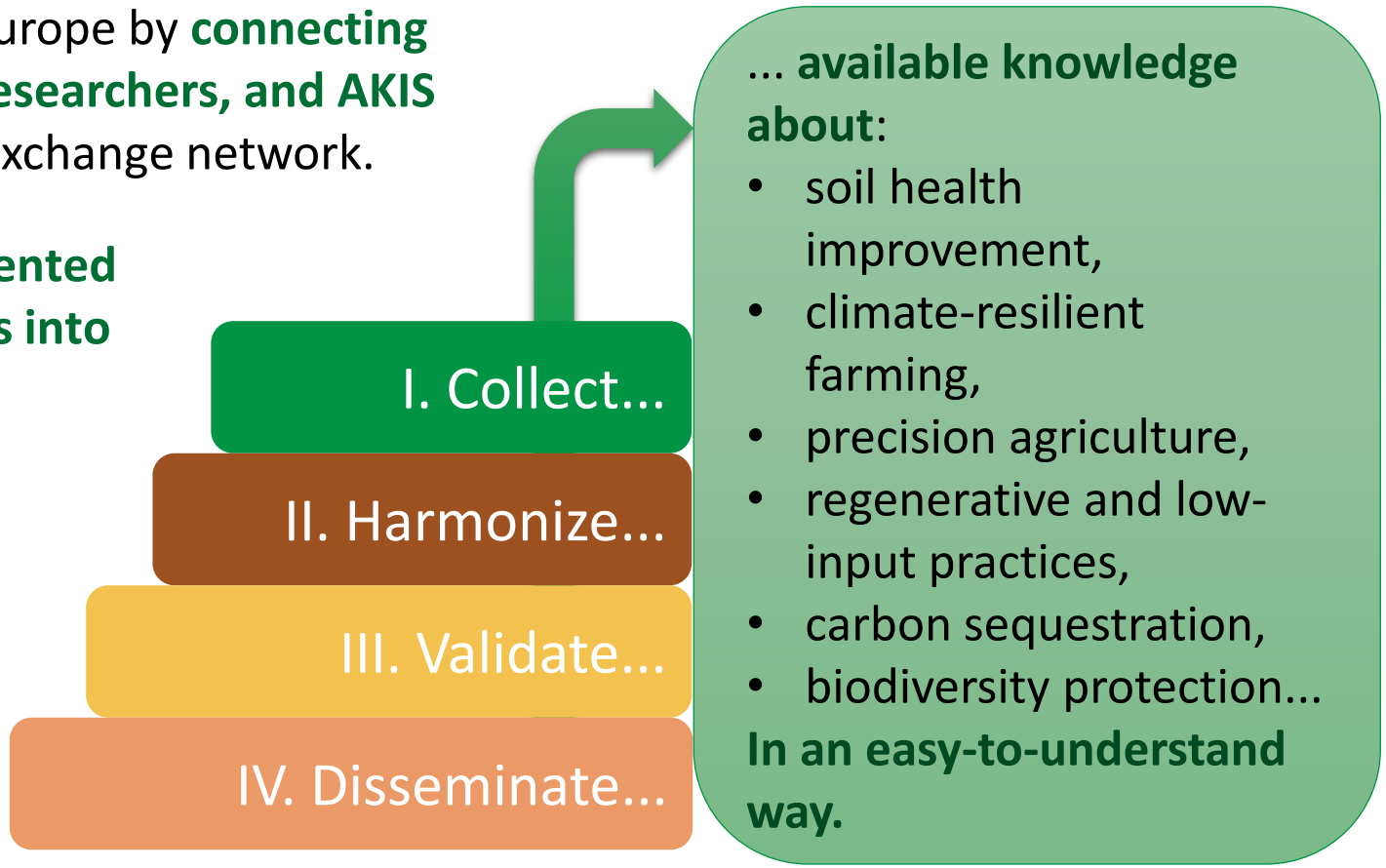
Farmers **must comply with EU targets** (e.g Green Deal, CAP, Farm-to-Fork, and EU Soil Strategy), still lack of:

- practical and harmonised guidance,
- accessible knowledge platforms,
- peer-learning and cross-border exchange,
- adaptable solutions for different regions,
- support for reducing inputs and improving resilience

Soil-X-Change Objectives

Soil-X-Change aims to **accelerate the adoption** of sustainable soil and farm management practices across Europe by **connecting farmers, Operational Groups, advisors, researchers, and AKIS actors** into one cross-border knowledge exchange network.

A central objective is to **transform fragmented research results and isolated innovations into ready-to-use solutions** that farmers can actually apply under different regional conditions across Europe.



Innovation in Action

Soil-X-Change Network across 9 countries

National Nodes with engagement activites:
- Workshops
- Webinars

OGs' operational experiences survey: **141** feedbacks
SSM practices technical survey: **391** feedbacks

Digital Dashboard with 60+ SSM practices
(additional PAs)



18 „Best Practices" (based on climate change resilience, soil health improvement and adaptibility) **with Training Packages:**
- Farm demonstration videos
- Adaptation Guidelines
- Factsheets
- Practice Abstracts

Policy Evidence & Barriers

80.1% of farmers identified economic constraints as the main barrier to adopting sustainable soil management practices.

52.7% highlighted policy frameworks as a major obstacle, showing current regulations and support schemes are not sufficiently enabling adoption

Although **awareness of sustainable practices exceeds 90% for many methods**, implementation remains significantly lower, revealing a major implementation gap

53.9% of Operational Group participants reported administrative overload, indicating excessive bureaucracy in innovation support systems

OGs' operational experiences: **141** feedbacks
SSM practices technical survey: **391** feedbacks

The most requested improvements were:

- simplification of application procedures,
- faster payment processes,
- less administrative burden,
- longer-term financing mechanisms.

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AQUAGRI-KNOW

Practical, tailored solutions for sustainable on-farm water use

"Co-Creating Policy Recommendations for a Rural Bioeconomy"

Sergi Muñoz Brugués, Beta Tech Center

AQUAGRI-KNOW, Project Capitalisation Specialist

Brussels, Belgium & Online, 27/05/2026

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40–60%

of all EU water use comes from agriculture.
But water resources are under acute wide pressure



Water Stress & Quality Decline

All EU Member States report water stress or quality decline

Climate change worsens scarcity & unpredictability

The Regulatory Gap

Ambitious EU policy frameworks,
but a critical knowledge deficit at farm level



Water Stress
& Quality Decline

Farmers lack practical tools and peer networks to translate complex EU mandates into on-farm action, as innovation exists but does not reach practitioners in time or in usable form.

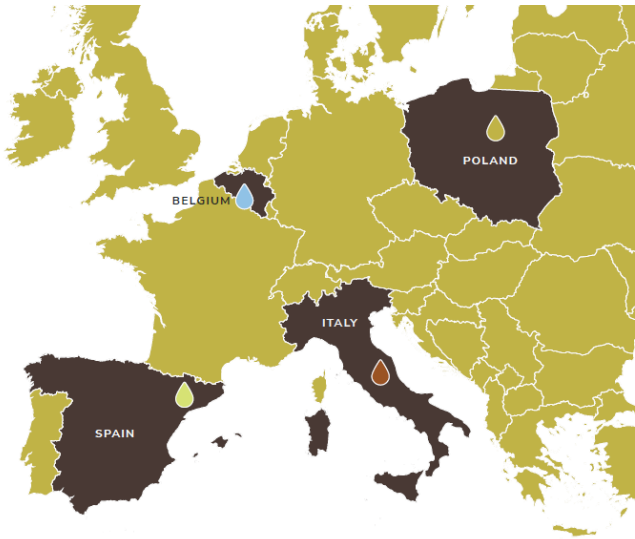
Productivity ↑

Environmental Cost ↓

Climate Resilience

This impossible balancing act — without knowledge, tools, or peer support — is the core economic challenge **AQUAGRI-KNOW** addresses.

AQUAGRI-KNOW Objectives



OBJECTIVE

AQUAGRI-KNOW aims to improve on-farm water management by translating technical knowledge from EIP-AGRI Operational Group outcomes into practical, farmer-friendly tools to support sustainable practices through knowledge sharing, adaptation, and cross-border collaboration.

By **collecting**, **translating** and **sharing** knowledge that is easy to understand and practice-oriented

KNOWLEDGE
from 12 OGs



knowledge-to-application

GAP

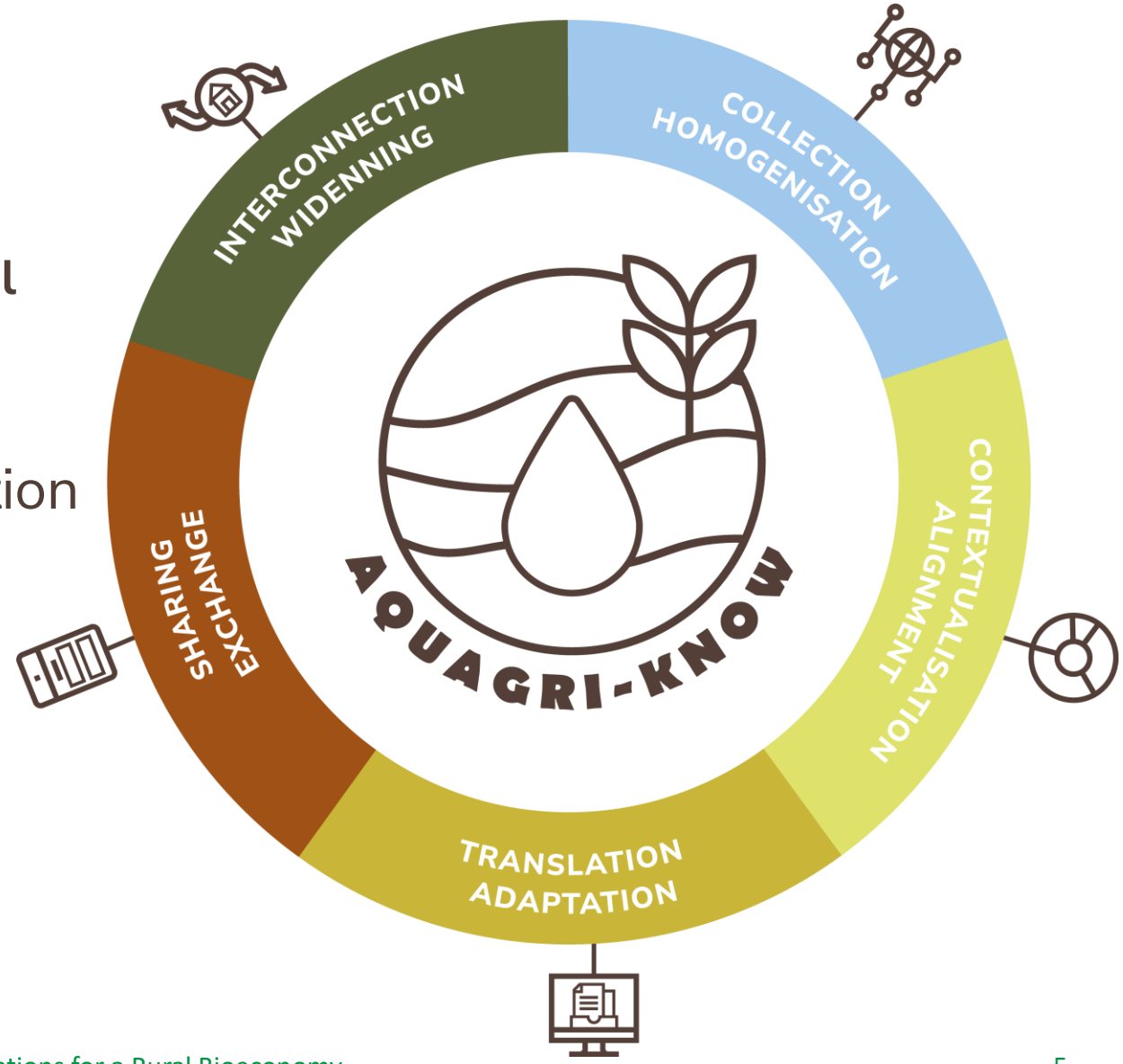
PRACTICE



Our Methodology

AQUAGRI-KNOW will build-up practical knowledge through a five-step methodology:

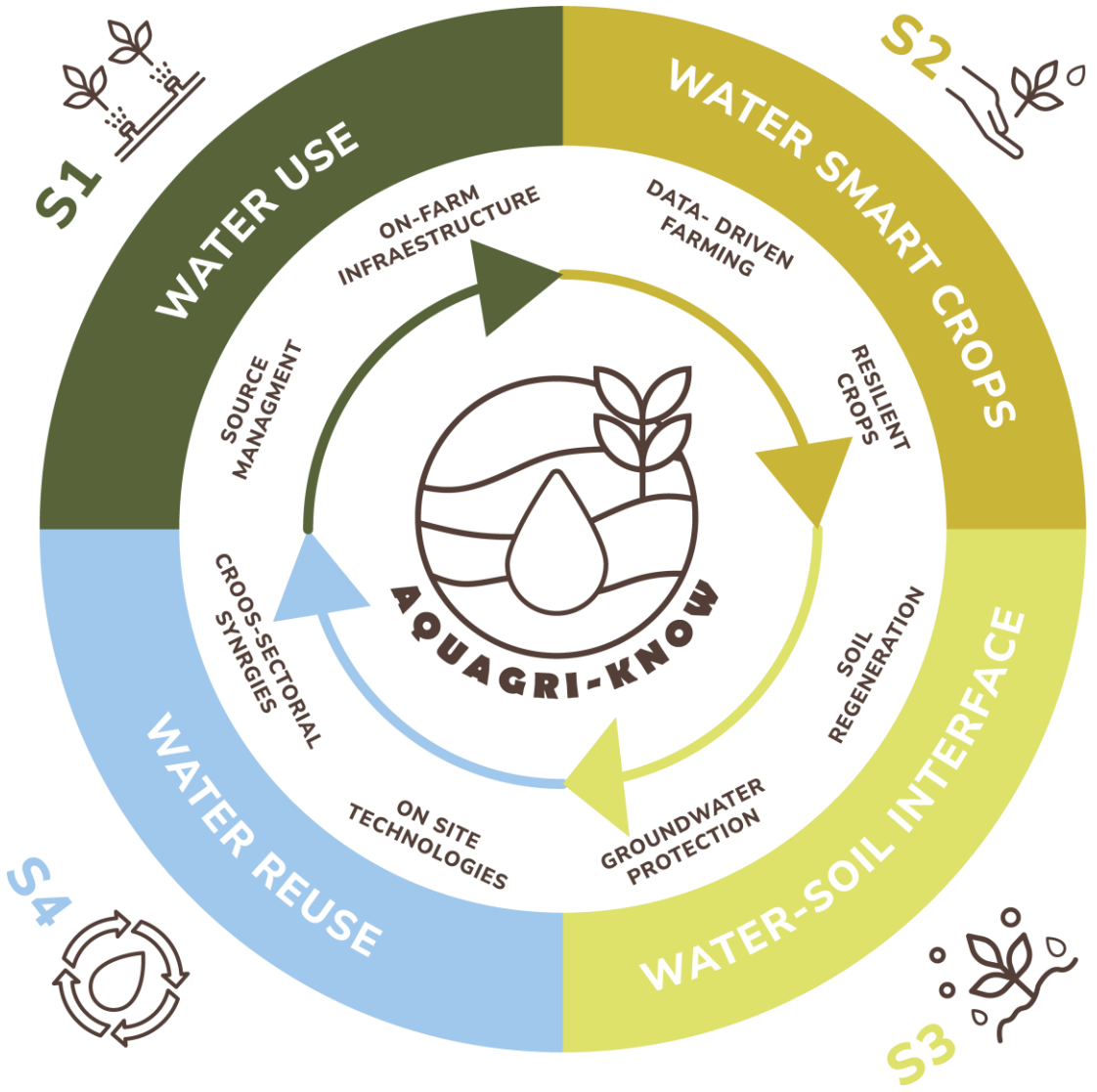
1) Knowledge collection & homogenisation
2) Contextualisation & alignment
3) Translation & adaptation
4) Sharing & exchanging
5) Interconnecting & widening



Our Strategy

AQUAGRI-KNOW addresses water scarcity and water quality concerns focusing on four strategies ensuring a circular water value chain:

1) Water Use
2) WaterSmart Crops
3) Water-Soil Interface
4) Water Reuse



Innovation in Action

The project **addresses water scarcity and water quality** concerns, focusing on four strategies:

Water use, Water Smart Crops, Water-Soil interface, and Water Reuse

1. Meta-Database on efficient water management

containing the outcomes from 12 OGs and current innovative farming knowledge in efficient water management on-farm, cost-benefit and sustainability analyses to facilitate access to collected outcomes.

2. Thematics Roadmaps and Regional Social Labs

to broader the screening of practices beyond the 12 engaged Ogs and to co-asses the alignment of current on-farm water management practices and specific territorial challenges and requirements faced by the sector.

3. Kit of practice-oriented material



- *40 Practice Abstracts*
- *4 Interactive Booklets*
- *improvements for existing Decision Support Systems (DSSs)*

4. Massive Open Online Course (MOOC)

together with farming and agricultural schools including educational material targeting farmers and practitioners

5. Knowledge dissemination, transfer, and advocacy strategies for enhanced impact



- *Synergy Action Plan*
- *5 Regional Webinars*
- *Community of Thematic Networks*
- *Focus Group*
- *2 Policy Briefs*

6. AQUAGRI-KNOW Ambassador Programme

including the development of guidelines, selection and mentoring of Ambassadors, technical assistance for regional upscaling initiatives, face-to-face training, joint events, and cross-visit activities.

- *10 Ambassadors' Suitcases in new regions*

Policy Evidence & Barriers

Policy alignment

9/10

average score

12 OGs assessed
7 very high | 5 good

No moderate / low cases

Policy evidence

a) EU water acquis + CAP are **coherently reflected** in OG outcomes.

b) **Strongest evidence**: irrigation efficiency, digital control, groundwater/nutrient protection.

c) Existing policy and innovation systems **more easily support** solutions aimed at **improving irrigation performance** and **crop adaptation** than those focused on soil-water regeneration, ecosystem functions or circular water systems

Barriers to uptake

a) Fragmented and instable rules & permitting for reuse / controlled drainage.

b) **Technical complexity** and **high upfront investment costs**.

c) Scaling needs **CAP** + **investment aid** + **cooperation** and **advisory** support.

Country policy alignment work

Italy
ND/GD/WFD/CAP
Nitrates Ferrara/INNOVARE/ INNOVALEGUMI: groundwater protection, nutrient control and precision irrigation.

Spain/CAT
WRR/UWWTD + RD 1085/2024
REAQUA/GRANGES: water reuse, alternative water sources, livestock systems

Belgium/FL
WFD, VLAREM, MAP, Watertoelating
Waterketen/Healthy Water for Happy Cows /WaterReserve: livestock water quality, controlled drainage, water reuse and retention.

Poland
Water Law, CAP, WRS
Water for Kuyavia/Nova Trawa/SatAgro : digital irrigation planning, satellite DSS, nutrient management and drought-resilient crops.

Cyprus
RBMP, CAP, Drought plan
OLIVER Nicosia Vegs: soil regeneration, soil-water retention, lower irrigation needs and fertiliser reduction.

Key fundings:
innovation remains more established for S1 Water Use and S2 Water Smart Crops,
while S3 Water-Soil Interface and S4 Water Reuse require stronger support, clearer rules, pilot funding and advisory accompaniment.

DATA SOURCE

- D2.1 policy mapping and OG alignment matrix (12 selected Operational Groups) (WP2 Task 2.1)
- Regional Social Labs (WP2 Task 2.3)

crea
Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria

Thank you!

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Beta
Biodiversitat, Ecologia,
Tecnologia Ambiental i Alimentària

BRILIAN

Circular Future for Rural Areas

Cooperative bio-based value chains for rural development

Maider Gomez

May, 27th

Co-Creating Policy Recommendations for a Sustainable Rural Bioeconomy

Circular Bio-based Europe Joint Undertaking

Bio-based Industries Consortium

Co-funded by the European Union

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BRILIAN aims to support the adoption of sustainable and cooperative business models in rural areas in three pilots located in Italy, Spain and Denmark.

Feedstocks: cardoon, safflower, and sunflower (in Italy), potato rejections and water from potato processing (in Spain), and rapeseed (in Denmark) as feedstock.

The sustainable business models will encompass a wide range of high-value-added bio-products, such as vegan proteins, bioadhesives, bioplastics, biolubricants, bioherbicides, biostimulants, products for animal feed, substrate for mushroom cultivation or the cosmetic sector.

BRILIAN aims to minimise environmental negative potentials of bieconomy by setting-up and optimising 10 bio-based value chains.

Increase in the products portfolio of primary production by valorising side streams and by-products will enable primary producers to diversify their income while reducing risk, with associated new jobs creation.

- CBE JU contribution: €6,167,721 million
- Duration: June 2023 – May 2027

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3 RTOs



3 SMEs



3 Large Companies



4 Clusters & Associations





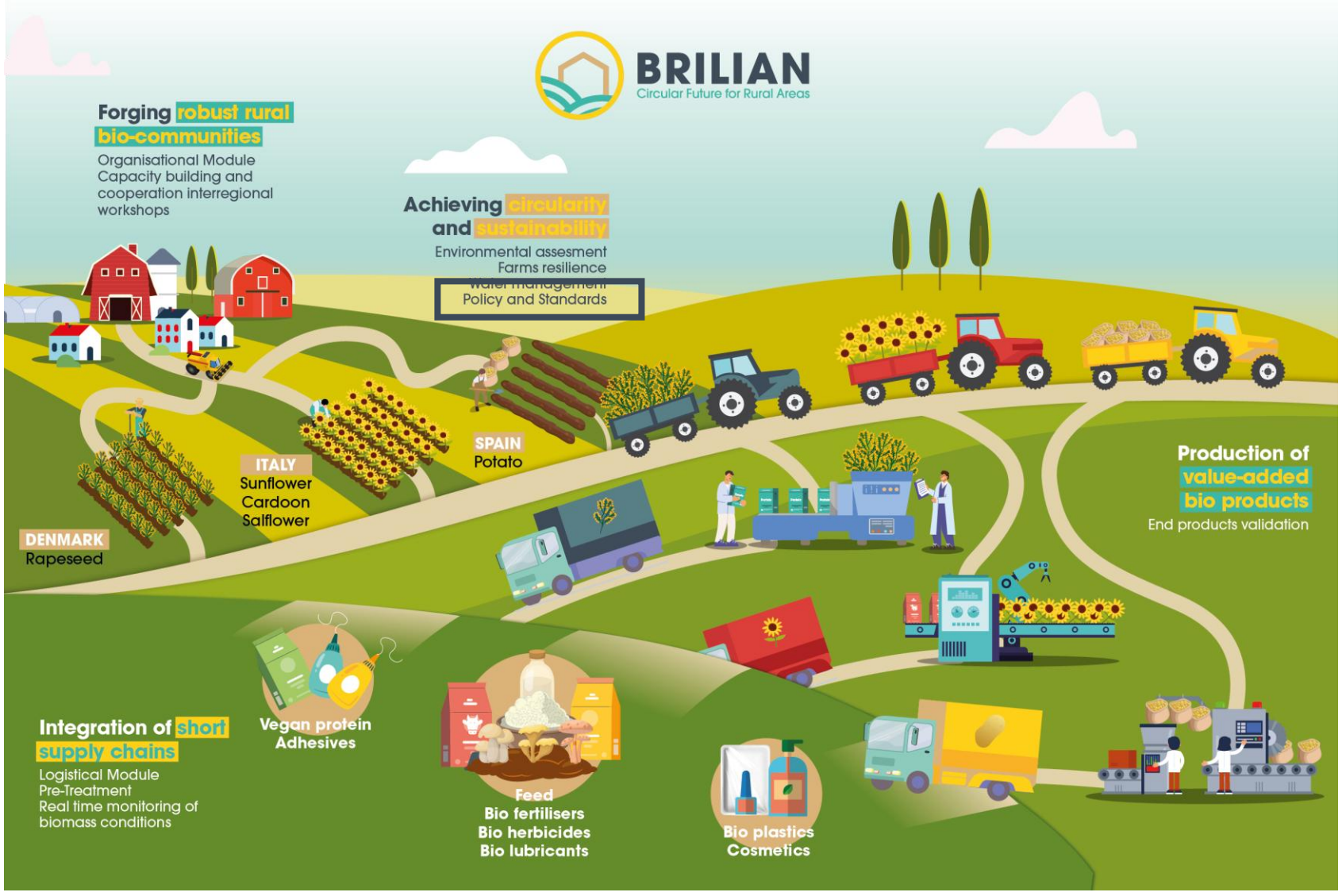
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CHALLENGES

- Demonstrate the suitable supply of bio-based feedstock.
- Political and legal barriers.
- Economic feasibility.
- Social issues such as consumers acceptance.
- Validation at industrial scale.
- Promotion of schemes enabling a decrease of the environmental impact.

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Cooperative and sustainable biobased business models



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ABF (Advisory Board of Farmers)

ABF purpose

Multi-stakeholder group created to:

- Support social acceptance of BRILIAN solutions
- Promote sustainable supply chain.
- Policy update to primary producer and biobased actors.
- Assess the replicability of BRILIAN business models.
- Help identify living examples for replication.

Why the ABF matters

- Connects stakeholders across the value chain
- Helps gather feedback on project results
- Improves trust, awareness, and knowledge exchange
- Supports the project's SSH-based approach.

Key insights

Common interests and needs:

- Interest in practical project results.
- Exchange of information with peers.
- Policy update.
- Solutions to shared farming challenges.
- Explore opportunities.

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Policy bulletin and policy updates



D3.3 Policy Bulletin

September 2024. Focus on Green Deal, CAP, climate goals, biotech roadmap, biomass strategy gap, Packaging and Packaging Waste Regulation (PPWR), Waste Framework Directive (WFD), Renewable Energy Directive II (RED), soil/nature restoration, carbon farming, etc..

D3.6 Policy Bulletin

January 2026. Focus on simplification, new Bioeconomy Strategy, plastics circularity, CAP simplification, EU Deforestation Regulation, Single-Use Plastics Directive (SUPD) evaluation, PPWR, WFD, soil and water policies.

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CAP, rural development and biomass supply

CAP 2023-2027 / post-2027

- Current CAP supports income, market stability and rural development while requiring environmental performance.
- Post-2027 proposals point to simplification, National and Regional Partnership Plans and a stronger active-farmer focus.

Farmer business model impact

- Bio-based value chains diversify income through side streams, by-products and dedicated crops.
- Eco-schemes, rural funds and regional plans can support feedstock logistics and local processing.

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Environmental framework

Soil Monitoring Directive

- EU-wide monitoring framework for soil health, contamination, etc.
- Supports investor confidence by improving evidence on long-term feedstock productivity and sustainability.

Nature Restoration Law & water resilience

- Restoration plans, peatland measures, biodiversity indicators and water-efficient practices affect land management and feedstock availability.
- Potential compensation and rural development opportunities.

Carbon farming / CRCF

- Voluntary certification can support new revenue streams from soil carbon, peatland restoration, biochar and long-lasting bio-based materials.

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Impact matrix for bio-based business models

Policy impacts differ across feedstock, conversion, product design, finance and market uptake.

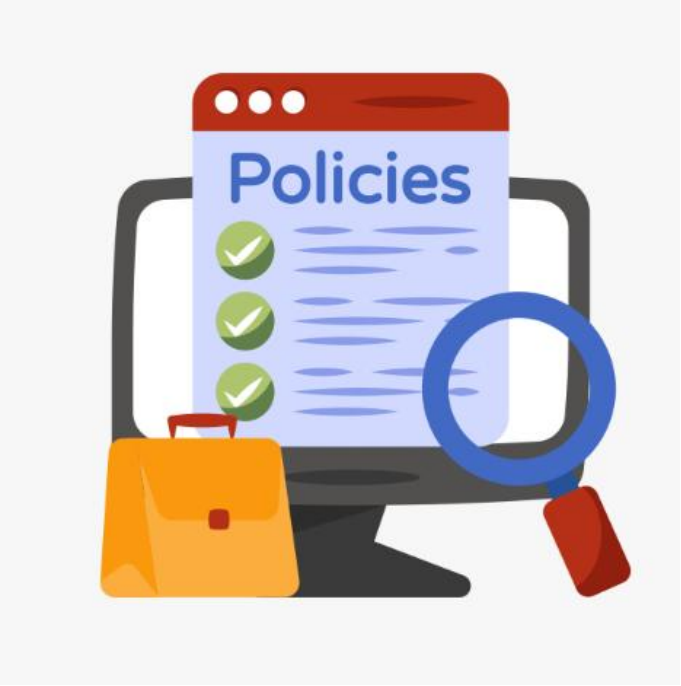
Feedstock	Conversion	Product	Market	Finance
Sustainable sourcing Logistic implementation	Technology Validation Scale-up	Recyclability content /Biodegradable and traceability	Demand creation and trusted claims	Blended finance and risk sharing

A bankable bio-based model must combine sustainable feedstock access, technology readiness, compliance-ready product design, verifiable claims and access to demand-side instruments.

Treat policy compliance as part of the value proposition

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EU policies impacting bio-based business models



- Bioeconomy is increasingly framed as a competitiveness, industrial resilience and rural development agenda.
- The 2025 Bioeconomy Strategy reinforces scale-up, regional deployment, biorefineries and sustainability boundaries.
- So far demand-side measures remain weaker for bio-based materials compared with bioenergy.
- Targets, procurement criteria, standards and finance must converge to create lead markets.

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Circular Bio-based Europe Joint Undertaking

Bio-based Industries Consortium

Co-funded by the European Union

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C4B Fair business models for rural bioeconomy and by-product valorisation

"Co-Creating Policy Recommendations for a Rural Bioeconomy"

Flavia Marucci, APRE

C4B, Project Management

Brussels, Belgium & Online, 27/05/2026

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Project Objectives: in a nutshell

C4B aims at accelerating the development of rural communities and their economic viability by developing **new fair and sustainable business models** for different agricultural and forestry value chains → C4B business models designed to **balance the share of power and profits** across novel bio-based value chains and to **enhance the cooperation** among farmers, foresters and industry.

Project Objectives: from challenges to solutions

Economic & Structural Challenge:

- **Limited involvement of primary producers (PP)** in the circular bio-based economy.
- **Unfair distribution of benefits** along bio-based value chains (VCs), disadvantaging primary producers.
- **Lack of fair and sustainable business models (BMs)**.

Regulatory & Policy Challenge:

Need for Research and Innovation (R&I) priorities and policy guidance that can support Member States in implementing realistic and effective national CAP Strategic Plans and support the EU Bioeconomy Strategy.

Operational & Knowledge Challenge:

- **Limited understanding of bio-based value chains**
- **Scalability and replication barriers** for new Business Models.

→ **Include primary producers** through a structured multi-actor approach (**MAA**), including co-creation events/activities, and a C4B Stakeholders' Panel.

→ **Balance the share of power and profits** across novel bio-based VCs and to **enhance the cooperation** among farmers, foresters and industry by developing **new fair and sustainable BMs** based on the analysis of the C4B case studies.

→ To demonstrate the scalability and replicability of the C4B fair and sustainable BMs in different business settings and geographical areas through the **Financial Support to Third Parties**, eventually stimulating the uptake of the results developed in the project.

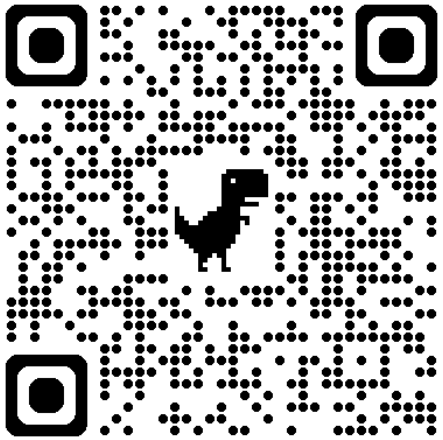
→ To promote **bioeconomy-related interventions** in the new common agriculture policy (CAP) by active exchange with diverse stakeholders.

→ To advance the understanding of bio-based VCs by carrying out a **holistic analysis** that considers multiple aspects such as technological factors, business models and business environment, primary producers' behaviour, contractual agreements and ownership, fairness and power balance, and sustainability.

→ To develop **indicators** to evaluate the impact for farmers, foresters and rural actors, and to assess the sustainability benefits of the innovative BMs.

Innovation in Action

- **9 BMs** co-created using the Triple Layered Business Model Canvas and fairness principles, with primary producers at the core of development, testing, and implementation.
  - Forestry:
    - Forestry Residue for Volatile Aromatic Compounds and Essential Oils Extraction Model
    - Industrial Biocarbon from Forestry Substitution Model
  - Agrifood:
    - Cereal Residue Multi-Product Valorisation Model
    - Milling Residue Nutraceuticals Model
    - Small-scale Cooperative Potato Residue Valorisation Model
    - Centralised Industrial Potato Residue Valorisation Model
    - On-Farm Biorefinery for Apple Residues Model
    - Regional Supply of 70% Purity Polyphenol from Grape Pomace for Supplements Valorisation Model
    - High Purity Cosmetic-Grade Polyphenol Extraction Cooperative from Grape Pomace Model
  - Peatlands:
    - Wetland Biomass Biorefinery and Eco-system Services Model



- The applicability, scalability and replicability of the circular and fair business models of the C4B project will be tested through FSTP: **Open Call-funded project proposals**.

Policy Evidence & Barriers

Based on early-stage research on bioeconomy strategy and CAP measures, using online questionnaires with case study owners, primary producers, and C4B Panel stakeholders:

- Stakeholders are generally aware of the **EU Bioeconomy Strategy**, especially in institutional and project roles, but understanding of **CAP measures** is uneven.
- **Bureaucracy, limited funding, unclear eligibility**, and **fragmented policies** hinder engagement with bioeconomy initiatives. While **financial incentives, stakeholder engagement, and regulatory clarity** are key drivers enabling bioeconomy development and innovation.
- **Sustainable biomass production, circular farming, bio-based innovation**, and **rural bioeconomy development** are clear priorities for future CAP and related policies.
- **Bioeconomy targeted CAP measures** are needed, alongside simplified administrative processes, greater policy coherence, and funding focused on bio-based innovation and circular systems.
- **Awareness** and **capacity-building** initiatives can improve uptake of CAP opportunities.
- The upcoming **CAP 2028–2034 reform** offers opportunities for better coordination and value-chain development but also risks increased competition for resources and reduced income support budgets, which could limit bioeconomy investments without compensatory measures.

Thank you!

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Circular bio-based products and sustainable end-of-life

"Co-Creating Policy Recommendations for a Rural Bioeconomy"

Margherita Caggiano, Re Soil Foundation

SOUL, WP 8 leader (C&D)

Brussels, Belgium & Online, 27/05/2026

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SOUL

From the Earth, for the Earth.

- SOUL is a co-funded **Horizon Europe project** under the Circular Bio-based Europe Joint Undertaking (CBE JU).
- The project is funded under GA 101214822.
- Project starting date: 01/09/2026
- Project ending date: 31/08/2029
- Project duration: 48 months

SOUL

Problem and background information



In **agriculture, farming & gardening**, plastics represent 3.1% of the end-use market, with crop production and livestock sectors as the largest users, accounting for **10 Mt annually**.

The agricultural plastic industry forecasts the **global demand** for greenhouse, mulching and silage films to **increase by 50 %** from 6.1 million tonnes in 2018 to **9.5 million tonnes in 2030.**

Around **63%** of **agriplastic** non-packaging **waste generated** in the EU was reported as collected in 2019 by **APE Europe**. The fate of the remaining **37% of agriplastics is not known** – as by definition this is not recorded – but the agriplastics may be stored, burnt, buried, or collected with another waste stream.

Environmental Impact

- **Soil & Crop Impact:** Accumulation of mulching film residues in soils reduces agricultural productivity.
- **Health & Wildlife Risks:** Plastics and their toxic additives harm wildlife and pose potential risks to human health through food chain transfer.
- **Pollution & Contamination:** Microplastics spread pathogens and chemicals; burning or dumping releases persistent toxic pollutants.
- **Climate Contribution:** Fossil-based plastic production and degradation add to global greenhouse gas.

SOUL

Problem and background information

In this context, **SOUL** will develop novel biomaterials with **high renewable material content** and biodegradable in soil to find solutions that complies with regulations (microplastics) and that do not hamper soil fertility.

RENEWABILITY BPSs will be based on high renewable content biomaterials **(>95% RRM)** by valorising industrial biobased building blocks (1,4 bio-BDO, C18-DCA, Azelaic acid)

VALIDATION The industrial **manufacturers** will ensure full validation of technical requirements at high TRL, and **end users** will ensure **in-field** validation in **5 demo** sites (Spain, Italy, Portugal, Poland and Ireland).

REPLICABILITY products with direct exposure to soil or at high **risk of dispersion in the open environment** even in other sectors than those studied at the project, ensuring **cross-fertilization**

FLEXIBLE PRODUCTION **Innovative platform** ensuring the BPS to meet the different application needs in terms of mechanical properties, time of use and EOL options.

SAFETY **Design** of novel biomaterials following EU methodological approach to **SSbD** and combining the **biodegradability-in-soil** with **different end-of-life** options



SOUL Objectives

SOUL's main objective is to **develop and bring to market novel biobased** (>95%) **and biodegradable-in-soil product solutions** that can reduce carbon footprint, preserve soil quality, and provide various end-of-life alternatives, including composting, reuse and recycling for products not intended to remain in soil after their use, while ensuring compliance with regulations and supporting the transition to a circular bioeconomy.

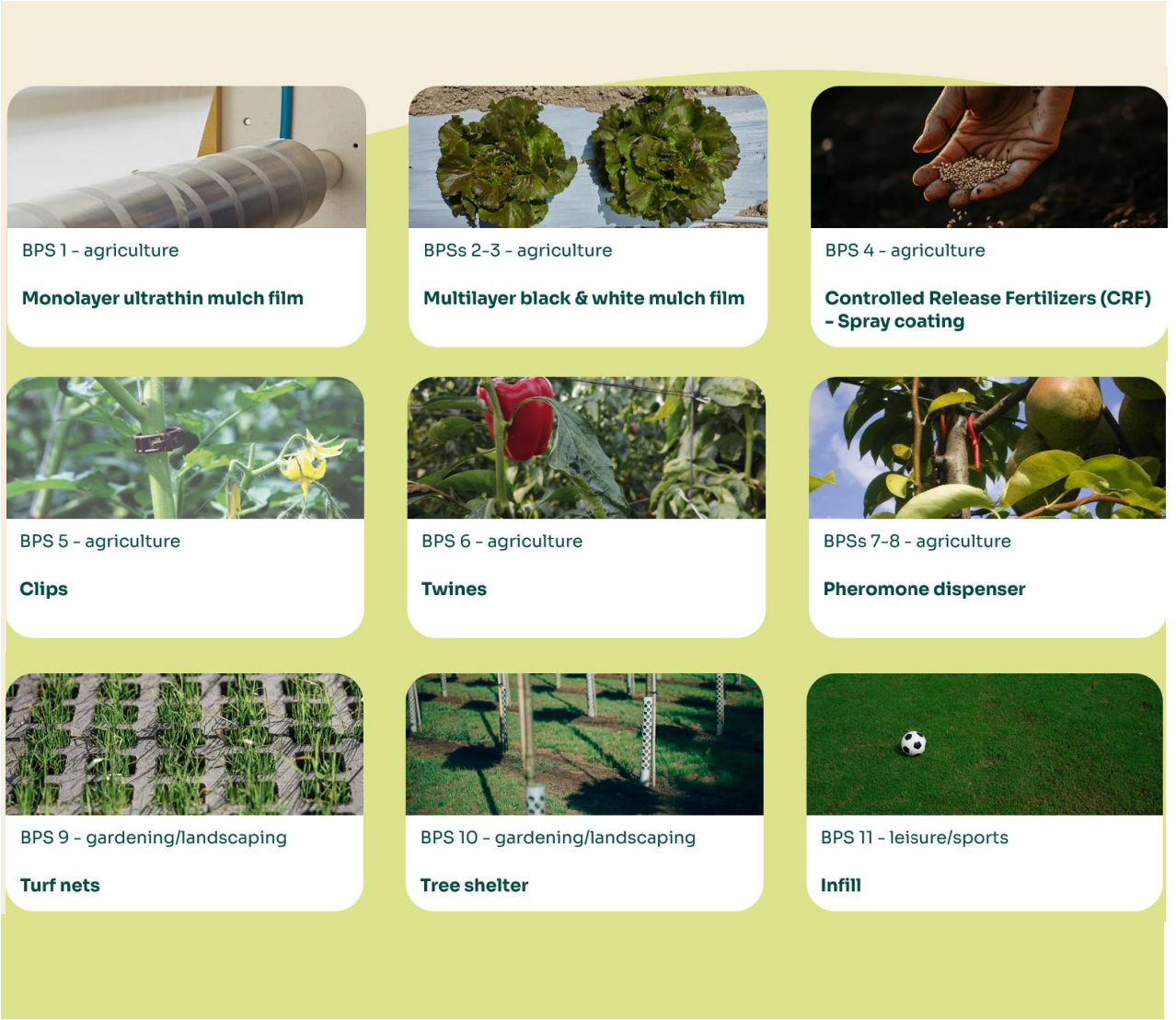
SOUL Objectives

- **SO1:** To scale up at TRL8 the production of novel high renewable content biomaterials tuned for biodegradable-in-soil product solutions.
- **SO2:** To develop novel biomaterials with enzymes for *ad hoc* degradation in open environments.
- **SO3:** To develop biobased, high-performing biodegradable-in-soil product solutions by means of industrial technologies.
- **SO4:** To demonstrate the performance of biodegradable in soil product solutions across 5 real demonstration sites with different climatic conditions (Spain, Italy, Portugal, Poland and Ireland) and in different sectors of application (e.g.: agriculture, landscaping, sports)
- **SO5:** To test and model the biodegradation pathways for the biopolymers developed and assure soil quality.
- **SO6:** To amplify the EOL of relevant biodegradable in soil product solutions.
- **SO7:** To comply with the Safe and Sustainable by Design initiative and provide recommendations.
- **SO8:** To define a sound business case for the commercial exploitation and replication of SOUL innovations.
- **SO9:** To engage end users to achieve a high societal impact creating synergies with similar initiatives.

Innovation in Action

Our 11 product solutions are designed to:

- work with **existing** plastic manufacturing technologies
- **perform** well during use
- fully **biodegrade** in soil



Policy – relevant aspects

MAIN DOSSIER/PROPOSAL

- CAP reform
- Soil monitoring law
- New EU Bioeconomy strategy
- PPWR
- Revision of the Fertiliser Regulation
- Circular Economy Act
- Pilot for boosting the circularity of plastics
- Standardization landscape

RISKS

- Regulatory uncertainty and fragmentation
- Lack of harmonized monitoring framework and data
- Member State uneven implementation
- Lack of harmonized and missing standard

Thank you!

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Rural BioReFarmeries - Decentralised green biorefineries for grassland biomass

"Co-Creating Policy Recommendations for a Rural Bioeconomy"

Liz Gavin, NuaFund

Rural BioReFarmeries, Project Management

Brussels, Belgium & Online, 27/05/2026

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Project Objectives

Environmental

Foster more sustainable practices among grassland farmers that can also have positive socio-economic and environmental impacts.

Optimise a small-scale and decentralised green biorefinery system that can be replicated and implemented across grassland areas in Europe, while identifying and exposing the regulatory barriers and bottlenecks that constrain its wider scale-up.

Regulatory

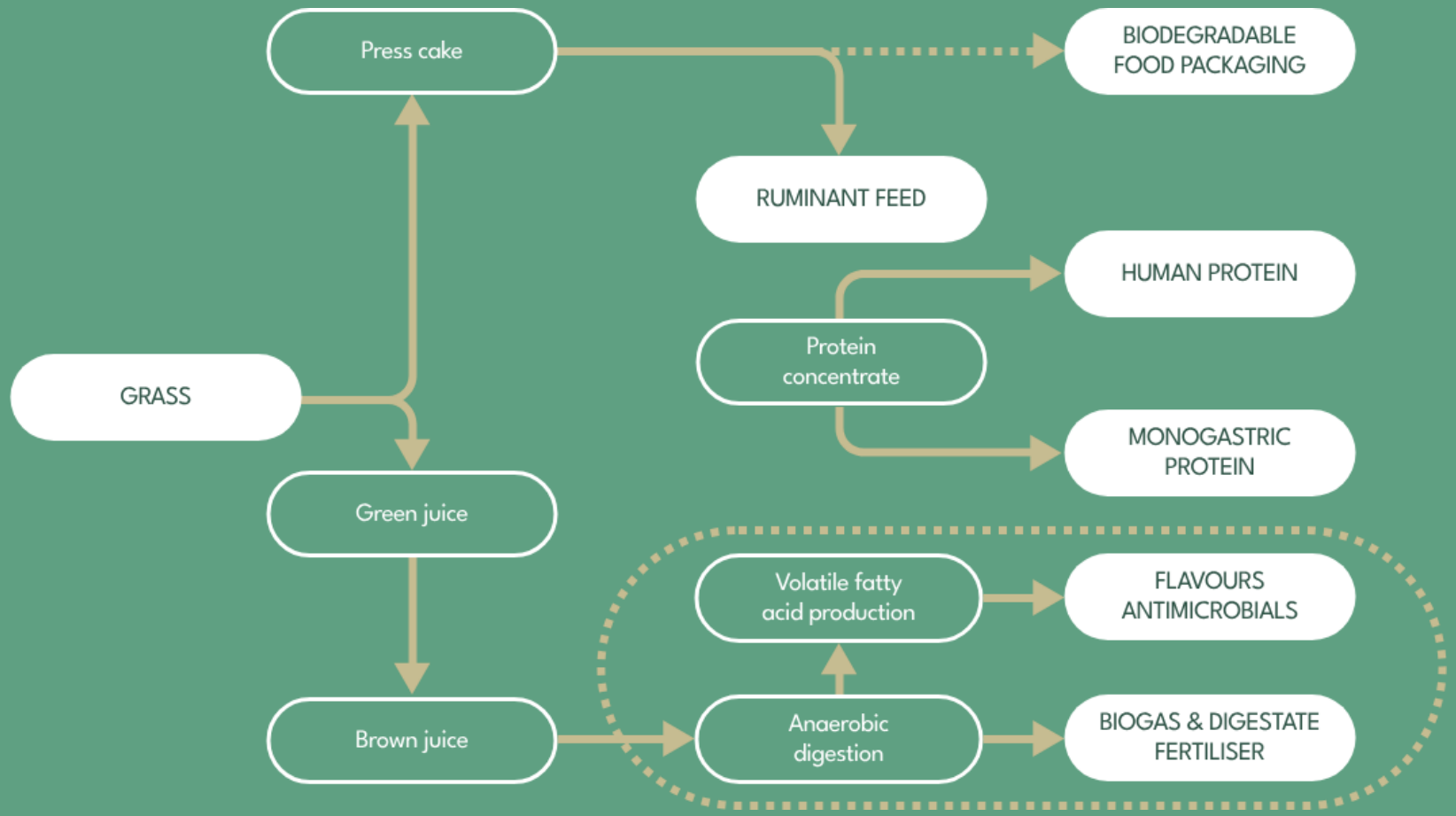
Scale up and replicate the proposed circular biorefinery models across the EU, implementing knowledge sharing activities with farmers through the Rural Green Biorefinery Network to inform a set of policy and practical recommendations to support development and up-take.

Economic

Support farms in developing new revenue streams by collaborating with industry partners in their efforts to convert grass into green bio-based products, by testing and co-creating innovative farming business models.

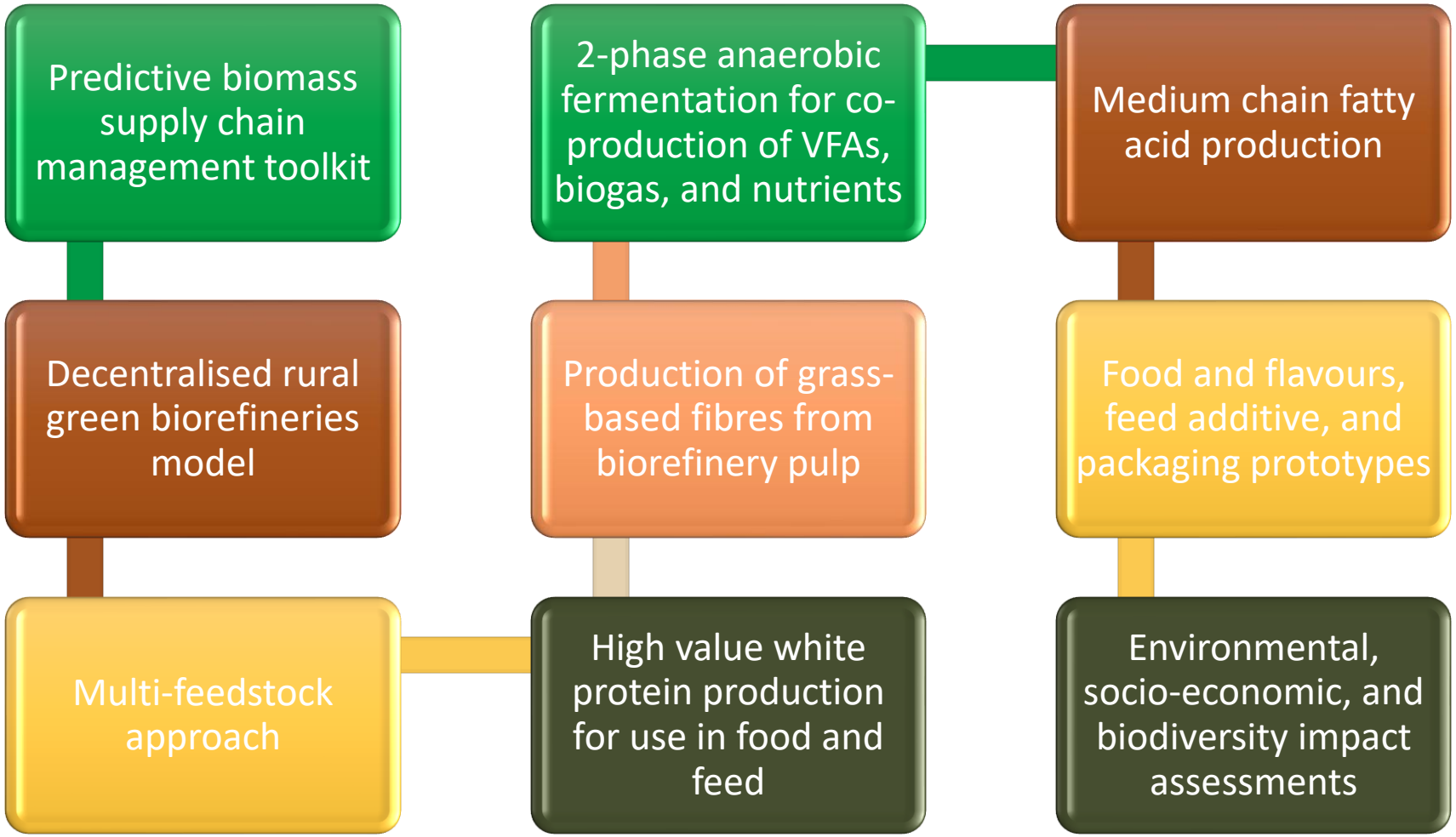
Develop a Smart Biomass Supply Chain (SBSC) tool using ICT technologies to improve the chain's logistics, ensuring high-quality biomass delivery.

The Rural BioReFarmeries Approach



- Sustainable local supply chain optimisation
- Production of fatty acids, biogas, and nutrients
- Rural, green, biorefineries
- High value food, flavours, and antimicrobials
- Efficient protein extraction
- Business models and ecosystem building
- Bio-based fibre and packaging development and validation

Innovation in Action



Policy Evidence & Barriers

Regulatory and Enabling Environment Challenges Identified Through Implementation

- Regulatory complexity impacting market access
- Limited harmonisation slows implementation and replication potential
- Economic viability linked to regional conditions, local infrastructure and availability of stable biomass supply chains
- Investment and operational barriers when engaging in bio-based value chains
- Sustainability validation can create implementation complexity
- Stakeholder engagement and local governance structures
- Demonstration-scale implementation essential to reduce uncertainty among farmers, cooperatives, and regional stakeholders
- Need for tailored policy support mechanisms for decentralised and cooperative rural bioeconomy models

Thank you!

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