Soil-X-Change

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INITIATIVE OF FOSTERING CROSS-BORDER KNOWLEDGE EXCHANGE AND CO-CREATION ON SUSTAINABLE SOIL AND FARM MANAGEMENT

Soil-X-Change has received funding from the European Union's Horizon Europe Framework Programme, Coordination and Support Actions under grant agreement No. 101133914

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Fostering cross-border knowledge exchange and co-creation on sustainable soil and farm management

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HORIZON Coordination and Support Actions

Deliverable 3.3

Policy Recommendations on Sustainable Soil and Farm Management

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DEC	Websites, patent fillings, videos, etc.	☐			
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List of abbreviations

Abbreviation	Full term
AECM	Agri-Environmental and Climate Measure
AKIS	Agricultural Knowledge and Innovation System
CAP	Common Agricultural Policy
CB	AKIS Coordination Body
CRCF	Carbon Removal and Carbon Farming Certification Framework
EIP-AGRI	European Innovation Partnership for Agricultural Productivity and Sustainability
IPM	Integrated Pest Management
OG	EIP-AGRI Operational Group
RDP	Rural Development Programme
SP	CAP Strategic Plan

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Executive Summary

The transition to sustainable soil and farm management is central to EU agricultural policy, with the post-2027 CAP reform offering a critical window to translate strategic ambition into farm-level practice. D3.3 draws on the empirical evidence accumulated by the Soil-X-Change (SxC) project — a 391-farmer survey across 13 EU countries (D4.2), and three years of National Node field engagement across nine partner countries — to formulate concrete, evidence-based policy recommendations at EU and national level.

The survey sample is non-probability and self-selected, overrepresenting organic farms, larger operations and farmers already engaged with extension services or EIP-AGRI Operational Groups. Findings are therefore treated throughout this deliverable as exploratory evidence about a sustainability-engaged farming community, not as statistically representative of European agriculture as a whole (Section 3.1).

Seven empirical patterns emerge from the survey (Chapter 4). Awareness of sustainable practices is high, but implementation lags substantially behind for all but four practices (cover crops, minimum tillage, liming, mulching); economic constraints are the dominant perceived barrier across every country, farm size and farming method; peer-to-peer learning is the most used and most valued information channel, ahead of formal advisors; larger and organic farms consistently implement more practices than smaller and conventional ones; clear regional specialisation patterns exist; over a third of experienced farmers have abandoned at least one practice, with discontinuation concentrated in a 2–5 year "consolidation phase"; and 68% of farmers intend to adopt further practices, representing substantial latent demand.

Taken together, these patterns point to structural rather than informational barriers, converging on four EU-level policy gaps (Chapter 5): the absence of dedicated support for farmer-led knowledge networks despite their demonstrated primacy; financial instruments that address initial adoption but not the multi-year transition lifecycle; insufficient practice-specific technical support during the critical consolidation phase; and inconsistent policy coherence across CAP pillars and governance levels.

The fifteen recommendations (R1–R15) address four interconnected domains. On knowledge systems, they call for structural recognition and resourcing of farmer-led peer networks within CAP AKIS provisions — shifting investment from formal advisory channels alone toward the knowledge flows that the evidence shows farmers actually rely on. On financial instruments, the focus is on extending support beyond initial adoption into the consolidation phase where abandonment risk peaks, with practice-differentiated payment structures and simplified access mechanisms for smaller operations. On practice-specific technical support, the recommendations target the evidence and advisory gaps that prevent motivated farmers from successfully implementing complex or knowledge-intensive practices, including through EU-level monitoring frameworks and on-farm demonstration infrastructure. On policy coherence, they address the translation gap between EU-level soil objectives and what reaches farmers through national CAP Strategic Plans — calling for stronger guidance to member states, systematic uptake monitoring, and capacity-building for the managing authorities responsible for implementation.

Chapter 6 translates these EU-level findings into nine national profiles (Austria, Bulgaria, Germany, Hungary, Italy, Poland, Slovak Republic, Slovenia, Spain), each combining country-specific survey findings with field-based evidence from National Node activities to formulate recommendations directly relevant to national CAP Strategic Plan development and implementation. Detailed working versions of these profiles, developed for ongoing national consultation, are provided in Annex A.

D3.3 is intended as a reference document for consortium partners and national stakeholders engaging with policy communities during the ongoing post-2027 CAP reform process, and is scope-delimited from D3.2, which addresses the operational and administrative dimensions of Operational Group establishment and funding.

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1. Introduction

Deliverable 3.3 constitutes the principal policy output of Work Package 3 of the Soil-X-Change (SxC) project, translating three years of empirical evidence gathered across nine partner countries into actionable recommendations for the ongoing post-2027 CAP reform process. It complements D3.2, which addresses the operational and administrative dimensions of Operational Group establishment and funding, by focusing exclusively on the policy-level implications of the project's findings on sustainable soil and farm management.

The deliverable was developed through a structured, iterative process led by Discovery Center (DC) as WP3 lead, in close coordination with all nine National Node partners (BOKU, NAAS, ATB, AKI, UNISS, CDR, BEC, KGZS, AMB). Work began with the consolidation and analysis of the D4.2 farmer survey dataset (391 respondents across 13 EU countries), which was triangulated with three years of field-based evidence from National Node stakeholder engagement, farm visits and Operational Group consultations. Building on this combined evidence base, an initial policy gap analysis was circulated to all partners for review, covering four domains: farmer-led knowledge systems, financial instruments, practice-specific technical support, and policy coherence across governance levels. Draft EU-level recommendations and country-specific profiles were subsequently developed in dialogue with each National Node, incorporating partner feedback through multiple review cycles to ensure that the recommendations remain grounded in documented national realities alongside the EU-level evidence base.

The remainder of this deliverable is structured as follows. Chapter 2 situates the project's findings within the evolving EU policy framework on soil health and agricultural innovation. Chapter 3 sets out the deliverable's objectives. Chapter 4 describes the methodology and evidence sources underpinning the analysis, and Chapter 5 presents the key empirical findings from the farmer survey. Chapter 6 develops these findings into four EU-level policy gaps and fifteen corresponding recommendations (R1–R15). Chapter 7 translates the EU-level analysis into nine national profiles, with detailed working versions provided in Annex A. Chapter 8 concludes.

2. Policy Context: Soil Health and Innovation in the Evolving EU Agricultural Policy Framework

The transition towards sustainable soil and farm management is one of the key objectives for the EU agricultural policy to achieve to reconcile agriculture with nature and with society. The urgency of this transition is underscored by the scale of the challenge: according to the European Commission, 60–70% of soils in Europe are currently degraded due to unsustainable practices (Veerman, 2020; Virto et al., 2014). The longstanding crises (climate change, biodiversity loss, soil degradation, water pollution) have recently been exacerbated by new challenges (COVID-19 pandemic, new and ongoing wars), resulting in unprecedented circumstances for those thinking and addressing the future of Europe's food provision. The current CAP reform process presents a critical juncture: decisions taken now will determine whether the progress made in soil regeneration and agricultural innovation over recent years can be maintained, deepened and scaled to navigate European farming systems through this global polycrisis (Rakowski et al., 2025).

This Deliverable aims to contribute to the public discourse on the future of the CAP by integrating two key aspects: soil regeneration and agricultural innovation.

The Soil-X-Change project has been uniquely positioned to contribute with on-field evidence on both soil regeneration and agricultural innovation. Over three years, the project's nine National Nodes maintained strong *stakeholder engagement activities across nine participating countries*, *conducted*

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a large-scale farmer survey and *EIP-AGRI Operational Group (OG) consultations*, and *actively participated in both EU-level and national AKIS initiatives*. All this accumulated evidence-based knowledge now provides the empirical foundation for the policy recommendations set out in this deliverable.

This section intends to outline the positions of soil regeneration and agricultural innovation within the ongoing policy discourse. The landscape of our inquiry was delineated by three fundamental documents that have been the reference points in the ongoing policy reform. These key reference documents include **the Strategic Dialogue on the Future of EU Agriculture** (European Commission, 2024); the **Vision for Agriculture and Food** (European Commission, 2025a); and the **CAP 2028-2034 proposal** (European Commission, 2025b).

Through these three documents, the evolution of European Commission's strategic thinking about the future of the CAP can be traced chronologically. **The Strategic Dialogue on the Future of EU Agriculture** was a European Commission initiative launched in January 2024 to bring together key stakeholders from across the agri-food sector and develop a shared vision for the future of European farming and food systems. This shared vision was later manifested in the **Vision for Agriculture and Food**, presented in February 2025 and made by the European Commission as long-term strategy for the future of the EU agri-food sector. The **CAP 2028–2034 proposal**, presented in July 2025 as part of the EU's next long-term budget was designed to implement many of the objectives set out in the Vision for Agriculture and Food.

The **Strategic Dialogue** represents a further step towards recognising soil health as a strategic foundation of the future European agricultural model. Its importance is expected to increase through the development of result-based payments, improved monitoring systems and stronger integration of soil-related outcomes into CAP performance frameworks

The **Strategic Dialogue** presents innovation, research and knowledge as important factors related to the future of the European agricultural and food system. According to the main findings of the document, strengthening innovation requires: improving the creation and exchange of knowledge; strengthening AKIS systems; developing links between research and practice; supporting farmers' skills and knowledge; making better use of digital opportunities; strengthening cooperation between relevant stakeholders.

The **Vision for Agriculture and Food** presents soil as a fundamental resource for the long-term sustainability and resilience of European agriculture. The document explicitly states that healthy soil is the basis for farming, today and tomorrow, and identifies soil degradation, climate change, biodiversity loss and pollution as major challenges affecting agricultural production.

The document emphasises the need to support farming practices that recover, maintain or improve soil health, while continuing support for organic farming and encouraging other integrated farming approaches. It also highlights the importance of independent advisory services in helping farmers apply knowledge and best practices for sustainable soil management.

Soil is further linked to climate action through carbon removals and carbon farming, with reference to the development of the Carbon Removal and Carbon Farming (CRCF) certification framework. In addition, the document recognises the role of research and innovation, notably through the Horizon Europe Mission Soil, in supporting farmers through research, experimentation and the development of sustainable soil practices.

Overall, the document presents soil as a cross-cutting element connecting sustainable farming, climate mitigation, knowledge transfer, advisory services and research. Throughout the Vision, soil is consistently addressed as an essential component of a sustainable and resilient European agri-food system, rather than as a standalone policy area.

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The **Vision for Agriculture and Food** present innovation as a fundamental enabling factor for the future of the European agri-food sector. Throughout the document, innovation is closely associated with research, knowledge, digitalisation, skills development and advisory support. The Communication emphasises that innovations should reach farmers more rapidly, be practically applicable and be supported by effective knowledge transfer mechanisms.

The document identifies a broad range of innovation-related actions, including the continuation of the Horizon Europe Mission Soil, the development of a new EU strategic approach to research and innovation, the strengthening of AKIS and the European Innovation Partnership (EIP), the deployment of digital technologies, regulatory sandboxes, innovation procurement, biotechnology and new genomic techniques, as well as stronger research partnerships and international cooperation. It also highlights the importance of creating appropriate regulatory conditions and developing farmers' skills to facilitate the uptake of innovation.

The **CAP 2028–2034 proposal** refers to soils as resources under pressure and links soil-related objectives to sustainability, climate action, biodiversity conservation and natural resource protection. Soil is explicitly included among the environmental and climate priority areas and is addressed through farm stewardship requirements, agri-environmental and climate actions, and investment support measures. The proposal therefore gives soil a visible and explicit place within the environmental architecture of the post 2027 CAP. The following calls for actions will likely to be manifested in this architect: protection of soil against erosion; maintenance of soil organic matter; protection of carbon-rich soils.

Based on the **CAP 2028–2034 Proposal**, innovation is explicitly recognised as one of the objectives of the future CAP. The document reinforces the links between innovation access to knowledge, the digital transition, competitiveness, resilience and sustainability. Innovation is again reflected through specific provisions related to knowledge sharing, advisory services, EIP-AGRI operational groups, training activities and Agricultural Knowledge and Innovation Systems (AKIS). The proposal therefore integrates innovation both into the objectives of the post-2028 CAP and into its implementation provisions.

Taken together, the three documents trace a clear and consistent policy trajectory: soil health and agricultural innovation are no longer peripheral concerns in EU agricultural policy but have become central to its strategic architecture. From the stakeholder-driven recommendations of the Strategic Dialogue to the legislative provisions of the CAP 2028–2034 proposal, the policy signal is unambiguous — the post-2027 CAP is expected to deliver measurable progress on soil regeneration and knowledge-driven farming transitions. What remains is the translation of these ambitions into instruments that are accessible, coherent and effective at farm level. It is precisely this translation gap — between stated policy objectives and documented farm-level realities — that the Soil-X-Change project has been positioned to illuminate, and that the recommendations in this deliverable directly address.

3. Objectives

The primary objective of D3.3 is to translate the empirical findings and field experiences gathered through the Soil-X-Change (SxC) project into actionable policy recommendations that can be directly incorporated into ongoing discussions on CAP reform — specifically the reform's provisions on regenerative agriculture and AKIS.

The deliverable aims to:

1. Synthesise evidence on the adoption, barriers, drivers, abandonment patterns and support needs of European farmers regarding sustainable soil and farm management, drawing on

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the D4.2 farmer survey (391 farmers across 13 EU countries) and national-level engagement activities.

2. Identify policy gaps at both EU and national levels, comparing the stated ambitions of current CAP instruments with the on-the-ground realities documented through SxC field activities.
3. Formulate concrete, evidence-based policy recommendations at EU level and for each of the nine project partner countries (Austria, Bulgaria, Germany, Hungary, Italy, Poland, Slovak Republic, Slovenia, Spain).
4. Provide a reference document that consortium partners and national stakeholders can use to engage with their respective policy communities during the ongoing post-2027 CAP reform process and consultations.

D3.3 is scope-delimited from D3.2 (Policy recommendations on Operational Group establishment, management and funding in EU countries), which addresses issues and requirements throughout the life cycle of OG establishment, operation, monitoring and funding in the partner countries. While OGs feature in this deliverable as a relevant AKIS mechanism, the operational and administrative aspects of OG management are addressed in detail in D3.2, and recommendations on these aspects are not duplicated here.

4. Methodology and Evidence Sources

D3.3 builds on a multi-layered evidence base, triangulating quantitative survey data with qualitative field-based evidence gathered through three years of multistakeholder engagement across nine partner countries. The recommendations in this deliverable draw on three primary sources, described below and illustrated in Figure 1.

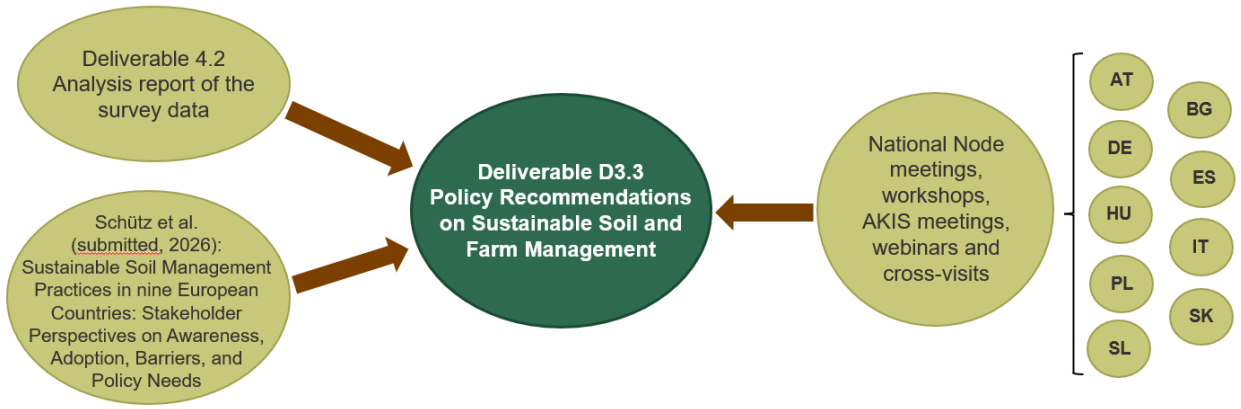

Figure 1: Evidence base and knowledge inputs underpinning Deliverable D3.3

4.1. The Soil-X-Change Farmer Survey (T4.1, D4.2)

The primary quantitative evidence base is the farmer survey analysed in **Deliverable D4.2** (submitted April 2025). The survey collected **391 completed responses** from farmers in 13 EU countries (of which 9 are project partners in SxC), between August and November 2024, through multi-channel collection covering online, in-person group sessions and individual farm visits. It addressed four thematic domains regarding sustainable soil and farm management: general knowledge and attitudes; information-seeking behaviour; implementation experiences; and future adoption plans and support needs. The raw individual-level dataset (translated, anonymised) forms the basis for the country-specific profiles in Chapter 6 and Annex A; detailed data tables

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disaggregated by country are available in D4.2, with practice-level breakdowns by country provided in the Supporting Information of the peer-reviewed manuscript (Schütz et al., submitted).

The survey employed a **non-probability, network-based sampling strategy** — an approach well-established in cross-national agricultural research, where General Data Protection Regulation (GDPR) constraints and participation dynamics preclude random sampling from official farm registers. The resulting sample is not statistically representative of the European farming population. Compared to EU structural averages, it overrepresents organic farming (27% vs. approximately 10,5% EU average, Eurostat 2024), larger farm operations, and farmers already engaged with extension services, innovation networks or EIP-AGRI Operational Groups. Country-level subsamples range from 28 to 65 respondents and illuminate patterns within a specific, sustainability-engaged farming community in each country — not the national farming population as a whole.

The survey does not provide a census of current practice adoption across European agriculture. What it provides is a detailed, multi-country **picture of barriers, drivers, information preferences and support needs** among farmers at the leading edge of sustainable soil management adoption — a group that is arguably the most relevant audience for policy design. The patterns identified are treated throughout this deliverable as exploratory evidence warranting policy attention, not as statistically validated estimates of population-level behaviour.

4.2. Field-Based Evidence from SxC National Node Activities

Over three years, the **nine SxC National Nodes** maintained sustained engagement with farmers, advisors, researchers, Operational Group practitioners and national policymakers across the partner countries. Through National Node meetings, AKIS Coordination Body (CB) meetings, national workshops, webinars, farm visits and international cross-visits, SxC partners were consistently close to the realities of sustainable soil management on the ground — observing implementation challenges, listening to farmer perspectives, and building the relationships with national experts and stakeholders that inform the contextual judgements underlying this deliverable's recommendations.

This **accumulated field-based evidence** does not constitute a formal qualitative dataset, but it provides the interpretive layer that transforms survey numbers into policy-relevant conclusions. Where the survey identifies a pattern — such as the prominence of advisory dependency in Bulgaria or the infrastructure barrier in Slovenia — it is the National Node experience that explains why that pattern exists and what it means for policy design. The national recommendations in Chapter 6 are grounded in this combination of quantitative evidence and field-based contextual knowledge. Institutional engagement with national AKIS Coordination Bodies — covering OG funding and approval processes, dissemination linkages and the development of national policy recommendations — forms a particularly important strand of this field experiences, providing direct evidence for the policy coherence analysis in Section 5.4. Full documentation of National Node establishment, membership and AKIS CB engagement is available in **D2.4** and **D2.9**; activity from the second half of the project will be documented in **D3.4** (concurrently prepared) and the forthcoming **D5.4**.

4.3. Additional Evidence Sources and Cross-Linkages

In addition to the farmer survey and the field-based evidence from National Node engagement activities, D3.3 draws on the following sources and is linked to a number of concurrently prepared or recently completed project deliverables and wider EU frameworks.

The **SxC project deliverables** provides further relevant evidence streams and mutually reinforcing linkages across the project's knowledge outputs. **D3.1** (Updated Synergy Map of EU networks, similar projects and initiatives) contextualises SxC findings within the broader EU soil innovation landscape. **D5.3** (Cost-benefit and impact analysis of the selected 18 use cases, under preparation)

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will provide economic evidence directly relevant to the financial instrument recommendations in Section 5.2. **D4.5** (Adaptation guide of the selected 18 use cases, under preparation) will provide practice-level evidence on the transferability and contextual conditions of sustainable soil management practices across partner countries.

The **EU policy and legislative framework** — including the CAP Strategic Plans of partner countries, the EU Soil Strategy 2030, the Farm to Fork Strategy, relevant EIP-AGRI Focus Group reports, the EU Soil Monitoring Law (European Parliament and Council, 2025), and the Carbon Removal and Carbon Farming Certification Framework (Delegated Act EU 2026/285) — provides the normative context within which the recommendations are positioned. The ongoing post-2027 CAP reform process — traced in Chapter 1 through the Strategic Dialogue on the Future of EU Agriculture (2024), the Vision for Agriculture and Food (February 2025), and the CAP 2028–2034 proposal (July 2025) — defines the policy window that this deliverable addresses.

The **peer-reviewed publication** *(Sustainable Soil Management Practices in nine European Countries: Stakeholder Perspectives on Awareness, Adoption, Barriers, and Policy Needs)* of the Soil-X-Change Farmer Survey findings (Schütz et al., submitted to Soil Use and Management, 2026, based on a partner-country subsample of 361 farmers) will provide an independently citable evidence base for the survey findings referenced throughout this deliverable, including an external validation of the sample bias discussed in Section 3.1 against expert-based studies using independent methods (Heller et al., 2024; Jaworski et al., 2023; Jug et al., 2025).

5. Key Empirical Findings from the Farmer Survey

This section summarises the survey findings that most directly inform the policy analysis in Chapter 5. The evidence draws on the full SxC farmer survey dataset (391 respondents, 13 EU countries), analysed in detail in D4.2. The methodological details and country-level data tables are available in D4.2, and in the peer-reviewed publication (Schütz et al., to Soil Use and Management, 2026). Given the exploratory character of the evidence base described in Section 3.1, findings are presented as patterns within a specific, sustainability-engaged farming community rather than as estimates of the broader European farming population.

5.1. The Awareness-Implementation Gap

The most policy-relevant headline finding is the substantial gap between awareness and actual implementation of sustainable soil and farm management practices. Among survey respondents, awareness exceeds 90% for most practices, while implementation rates range from 4% (biochar) to 45% (cover crops). Only four practices — cover crops, minimum tillage, liming and mulching — have achieved implementation rates that approach or exceed awareness-only rates. For many high-awareness practices, severe gaps remain: terracing (73% aware, 7% implementing), agroforestry (71% aware, 10% implementing), rotational grazing (69% aware, 12% implementing). This pattern holds consistently across countries, farm sizes and age groups, and is corroborated by the finding that 89.4% of farmers who have implemented a practice would recommend it to others — suggesting that the barrier to adoption is not dissatisfaction with outcomes but the difficulty of getting started.

5.2. Economic Constraints as the Dominant Barrier

Economic constraints are the single most important perceived barrier to adoption across all countries, farm sizes, farming methods and age groups — cited by 80.1% of respondents in their top three barriers. Despite strong environmental motivations in theory, actual implementation decisions are nearly equally influenced by economic factors (63.2%) and environmental concerns (61.7%). Farmers experience environmental benefits more frequently than economic ones: improved soil

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health is reported by 85.7% of implementing farmers, while economic benefits appear far less consistently. This divergence suggests that sustainable practices deliver stronger ecological than financial returns at farm level — or that economic returns materialise too slowly and unpredictably to be relied upon as an adoption driver without additional support.

5.3. The Primacy of Peer Learning

Other farmers and end-users are the most commonly used information source (69.8%), significantly ahead of formal advisors (58.6%) and researchers (38.1%). This preference is not merely a ranking artefact: peer learning is also cited by 51.7% as a primary desired support mechanism, equal to subsidies. The preference strengthens markedly with farm size — 91.3% of larger farm (251–500 ha) operators cite other farmers as their primary information source — suggesting that peer networks are not a fallback for those without access to formal advice, but an actively chosen channel across the sample. Government authorities, by contrast, are consistently among the least-used information sources (13%), a gap that warrants attention in AKIS design.

5.4. Farm Structure Effects on Adoption

Organic farmers implement nearly twice as many sustainable practices on average as conventional farmers (6.1 vs. 3.7 practices). Larger farms (251–500 ha) implement an average of 7.5 practices compared to 3.7 for farms under 5 ha. Middle-aged farmers (40–64) achieve the highest implementation rates (approximately 4.6 practices per farmer); younger farmers show high awareness but lower implementation, pointing to capital access rather than knowledge as the binding constraint for this group. The barrier profiles differ systematically by farm type: smaller farms are disproportionately constrained by knowledge gaps, larger farms primarily by economic and regulatory factors. These structural differences are consistent across countries and suggest that uniform policy instruments will reach some farm types more effectively than others.

5.5. Regional Variation

Clear geographic patterns reflect differences in agricultural traditions, soil and climate conditions, and national policy environments. Austria leads in cover crop adoption (83%) and contour farming (45%); Italy in minimum tillage (64%); Slovakia in mulching (79%) and precision agriculture site-specific management (56%); Hungary in microbiological product use (43%); Spain in agroforestry (34%). However, as with all findings in this section, these figures should be read against the sample limitations discussed in Section 3.1. The conversion from awareness to active implementation also varies considerably: Germany, Austria and Slovakia show the most successful conversion; Hungary, Slovenia and Bulgaria show the greatest implementation challenges despite comparably high awareness levels. These contrasts point to national-level enabling conditions — advisory infrastructure, subsidy accessibility, farming system tradition — as decisive factors beyond practice-level characteristics.

5.6. Practice Abandonment

35.7% of farmers with sustainable soil practice experience had abandoned at least one practice. Minimum tillage shows the highest absolute discontinuation count in the sample (7.1% of all experienced farmers) — though given that it is also the most widely adopted practice, its discontinuation rate relative to adopters is not the highest; this distinction matters for how the finding should be read. Discontinuation is primarily due to soil compaction, weed management challenges and yield decreases that typically emerge after 2–5 years of use. The concentration of abandonment in the 2–5 year window (45% of instances) points to a specific vulnerability during the consolidation phase — after initial enthusiasm but before the practice is fully integrated into the farming system.

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Biochar shows the highest discontinuation rate (24.2%) and rotational grazing the third highest (16.9%), both reflecting practice-specific implementation complexity. Microbiological products show the second highest absolute discontinuation count, largely due to perceived ineffectiveness — a pattern consistent with their unstandardised nature: effectiveness depends strongly on soil and crop type (Schütz et al., 2018). The pattern across practices suggests that abandonment is rarely a rejection of the underlying principle but a response to inadequate technical support during a critical transition window.

5.7. Strong Future Adoption Intent

68% of survey respondents plan to implement new sustainable practices, with minimum tillage the clear priority across all countries (42.3% of planning farmers). Farmers value peer learning and subsidies equally as desired support mechanisms (51.7% each) — a finding that applies with remarkable consistency across farm sizes and countries, and that signals both what is valued and what is missing: neither financial support nor knowledge exchange alone appears sufficient. The scale of future adoption intent represents a significant policy opportunity. Latent demand of this magnitude can be activated — or squandered — depending on whether the right support structures are in place when farmers are ready to act.

5.8. Cross-cutting patterns

Taken together, the seven findings above describe a situation that is neither one of ignorance nor of indifference. The farmers in this survey are aware of sustainable practices, largely positive about their effects, and in a majority of cases planning to adopt more. What holds them back is a set of structural conditions — economic risk during transition, insufficient practice-specific technical guidance, peer networks that exist but are not formalised or resourced, and support instruments that tend to address initial adoption but not the critical consolidation phase.

These patterns consistently converge on four areas where the current policy framework falls short of what the evidence suggests is needed. Chapter 5 analyses each of these as a policy gap and develops corresponding recommendations: the design and resourcing of farmer-led knowledge systems; the structure of financial support for sustainable transitions; the availability of practice-specific technical assistance; and the coherence of policy frameworks across EU and national levels.

6. EU-Level Policy Gaps and Recommendations

The findings summarised in Chapter 4 point to a consistent pattern: the primary obstacles to wider adoption of sustainable soil management practices in Europe are mainly not informational but structural. Farmers are aware, motivated and — in a large majority — planning to do more. What is missing is a policy environment that reliably supports them through the economic risks of transition, connects them with the practical knowledge they need, and maintains consistent signals over the timeframes that soil management decisions require. This chapter analyses four areas where that structural gap is most evident, drawing on both the survey evidence and the field-based ecperiences accumulated through SxC National Node activities. For each gap, a targeted set of EU-level recommendations is formulated, expressed as specific actions for CAP reform and AKIS policy design.

6.1. Farmer-Led Knowledge Systems: Recognising What Already Works

The gap. The SxC survey identifies other farmers and end-users as the dominant information source for sustainable soil management (69.8% of respondents), significantly ahead of formal advisors (58.6%), agricultural journals (54.5%), and researchers (38.1%). This is not a peripheral preference:

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peer learning is valued as a primary support mechanism by 51.7% of respondents — equal to subsidies — and the preference strengthens with farm size, reaching 91.3% among larger operators. Yet current CAP AKIS provisions are structured primarily around formal advisory services, extension organisations and research-to-practice transfer channels. This structural emphasis on formal channels is reinforced by a wider pattern documented across EU member states: advisory services for private entities are largely regulated by market forces, resulting in fragmented or inconsistent guidance on implementing SSMPs (Laurent et al., 2006; Falcão et al., 2024). Farmer-to-farmer networks receive no dedicated recognition or funding stream in most national CAP Strategic Plans. The result is a persistent misalignment between how farmers actually learn and how public investment in agricultural knowledge is organised.

National Node experience across the nine partner countries corroborates this picture. In Austria, the combination of formal AKIS channels with OG-based knowledge exchange proved effective at the international conference organised with the AKIS CB, yet no structural mechanism exists to resource private farmer networks outside of official institutional relationships. In Slovakia, the cooperative structure has historically functioned as an internal knowledge system, but the gradual shift towards smaller family farms is eroding this model without an adequate AKIS alternative emerging to fill the gap. The Spanish AKIS Advisors Platform event (May 2026) highlighted growing policy recognition of advisors as central AKIS actors while simultaneously revealing persistent knowledge access gaps at farm level — an indication that expanding the formal advisory workforce alone does not resolve the underlying connectivity problem. In Italy, the National Node workshop (February 2025) and Slovak Agrolesfest session (April 2026) both confirmed that well-designed, user-oriented knowledge tools can bridge the research–practice divide, but only when actively embedded in systems that farmers already use and trust.

Policy relevance. The post-2027 CAP reform represents a critical juncture for AKIS design. The current architecture risks investing further in formal channels that reach a minority of farmers while leaving the peer networks that reach the majority structurally unsupported. As the reform debates the future of Farm Advisory Services and OG funding, the SxC evidence suggests that effectiveness gains are more likely to come from formalising and resourcing existing peer relationships than from expanding formal advisory capacity alone.

Policy Recommendations
R1. Introduce a dedicated funding stream within CAP AKIS provisions for farmer-led knowledge networks, including lighthouse farm programmes, field day hosting and peer mentoring arrangements. Farmers who actively share practical experience, host demonstrations or mentor peers should be eligible for recognition and compensation through CAP measures or OG funding mechanisms.
R2. Establish structural linkages between farmer-led networks and formal advisory services at national level, so that peer-generated knowledge is captured, quality-assured and fed back into extension systems rather than remaining informal and non-cumulative.
R3. Design OG dissemination funding to explicitly support knowledge transfer beyond the OG membership — recognising OGs not only as innovation units but as nodes in the wider practical AKIS infrastructure.

6.2. Financial Instruments: Supporting the Full Transition Lifecycle

The gap. Economic constraints are cited as the primary barrier to sustainable practice adoption by 80.1% of respondents across all countries, farm sizes, farming methods and age groups — a finding

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of exceptional consistency. Yet the survey also reveals that the economic challenge is not simply one of upfront costs. Practice abandonment data shows that 45% of discontinuation instances occur in the 2–5 year window after adoption — the consolidation phase — when initial enthusiasm has passed but the practice is not yet fully integrated into the farming system. Minimum tillage, the most widely adopted and most frequently abandoned practice in the sample, illustrates this clearly: yield losses and soil compaction challenges typically emerge after two to three seasons, precisely when standard agri-environment payment commitments may be ending or when farmers feel least supported. Current Eco-scheme and AECM payment structures are generally designed around annual compliance rather than transition support, and Austrian National Node partners describe income loss compensation as frequently inadequate for the transition period.

For smaller farms, the financial barrier compounds with an administrative one. Bulgaria and Slovenia, both dominated by small farm structures, documented specific difficulties in accessing and administering support payments under RDP 2014–2020. In Poland, CDR's engagement with Innovation Brokers and Payment Agency representatives (April 2025) revealed structural bottlenecks in OG funding delivery that act as disincentives independent of payment levels. These are not marginal implementation problems: they represent a systematic pattern in which the farms most exposed to economic risk during transition are also the least well-served by existing support architecture.

The EU's new Carbon Removal Certification Framework (Delegated Act EU 2026/285, February 2026) opens an additional instrument for rewarding sustainable soil management outcomes, including carbon sequestration and soil organic matter improvement. Its integration into national CAP implementation remains nascent but represents a significant policy opportunity for aligning financial incentives with measurable ecological outcomes.

Policy relevance. The post-2027 CAP reform debate on Eco-scheme design and AECM duration provides a direct entry point for addressing the consolidation-phase gap. The evidence from SxC suggests that payment architecture — not only payment levels — is a critical variable: instruments that do not span the full adoption lifecycle will continue to generate the abandonment patterns documented in this survey.

Policy Recommendations
R4. Design multi-year transition support packages within Eco-schemes and AECMs that provide sustained payments through at least the first five years of practice implementation, with payment profiles that reflect actual cost and yield risk distribution over time rather than flat annual rates.
R5. Introduce practice-differentiated payment structures that reflect the genuine complexity and transition costs of different sustainable soil management practices — distinguishing, for example, between low-cost mulching and high-risk minimum tillage conversion or infrastructure-intensive agroforestry establishment.
R6. Develop dedicated financial instruments for small farms (under 50 ha) that reduce administrative burden and lower the threshold for accessing transition support — including simplified application procedures, lump-sum payment options, and collective application mechanisms through farmer groups or cooperatives.
R7. Integrate the Carbon Removal Certification Framework into national CAP Strategic Plan provisions, establishing clear pathways for farmers to access carbon credit systems as a complementary financial incentive for sustainable soil management outcomes.

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6.3. Practice-Specific Technical Support: Closing the Consolidation Knowledge Gap

The gap. The awareness–implementation gap documented in Section 4.1 affects different practices for different reasons. For the four practices that have achieved mainstream adoption — cover crops, minimum tillage, liming and mulching — the primary remaining challenge is not adoption but retention: minimum tillage alone accounts for 7.1% of experienced farmers having discontinued the practice, the highest absolute discontinuation count in the sample, though not the highest rate relative to its own high adoption (see Section 4.6), predominantly due to soil compaction and weed management problems emerging after 2–5 years. The critical issue here is not awareness but the availability of highly specific, context-sensitive technical guidance when problems arise. Advisory systems across the partner countries are generally not consistently equipped to provide this level of practice-specific support, particularly for the consolidation phase when farmers most need troubleshooting rather than general promotion.

For a second group of practices — microbiological products, biochar, intercropping, agroforestry — the gap is different: high awareness but very low implementation, driven by a combination of effectiveness uncertainty, lack of farm-level evidence, and supply chain or infrastructure gaps. Microbiological products show both notable adoption in Hungary (where the National Node identified specific knowledge and supply chain issues) and the second-highest discontinuation rate in the sample, largely attributed to perceived ineffectiveness. This pattern suggests that adoption without adequate monitoring and feedback mechanisms leads to premature abandonment rather than informed adaptation. The Slovak Agrolesfest workshop (April 2026) documented significant farmer interest in agroforestry alongside concrete knowledge barriers to implementation at scale, while the German field day on digitisation and remote sensing (November 2024) illustrated how precision agriculture tools can support more complex management decisions — but only where digital infrastructure and advisory capacity exist to apply them meaningfully.

A cross-cutting concern raised by BEC partners is the absence of a shared European framework for regenerative agriculture: without common definitions, recommended practice pathways and monitoring indicators, both farmers and advisors lack the conceptual structure needed to navigate the expanding landscape of sustainable soil management options. This is not only a knowledge gap but a governance gap — it affects the coherence of CAP provisions, the comparability of monitoring data, and the ability of financial actors to reward environmental outcomes with confidence. Field experience from National Node activities further suggests that farmers show stronger uptake of practices demonstrated under conditions resembling their own biogeographical and climatic region — a consideration that should inform the design of the on-farm trial networks recommended below.

Policy relevance. Practice-specific technical support sits at the intersection of AKIS design and financial instruments: it requires both advisory investment and evidence generation at EU level. The current framework tends to invest in general awareness and initial adoption support; the SxC evidence suggests the greater leverage point is the consolidation phase, where targeted technical assistance can prevent abandonment and generate the farm-level evidence base that accelerates subsequent adoption by peer networks.

Policy Recommendations
R8. Develop a common European framework for regenerative and sustainable soil management that provides clear practice definitions, recommended implementation pathways, and harmonised monitoring indicators. The framework should be designed for regional adaptation while enabling comparability across member states and providing a shared reference for farmers, advisors, policymakers and financial actors.

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R9. Invest at EU level in evidence generation for high-awareness, low-implementation practices — particularly microbiological products, agroforestry and biochar — through structured, regionally clustered on-farm trial networks organised by biogeographical zone, with systematic monitoring of implementation outcomes made accessible to advisory systems and farmer networks in usable formats.
R10. Establish practice-specific technical support programmes for practices with documented abandonment risks — particularly minimum tillage and cover crop establishment — that provide proactive guidance during the 2–5 year consolidation window, including soil-type-specific management protocols and integrated weed management strategies.
R11. Strengthen the capacity of national Farm Advisory Services to provide practice-specific guidance beyond general promotion, including advisor training on soil biology, precision soil management, and the implementation challenges associated with conservation agriculture systems. Advisor training on sustainable soil management should be explicitly eligible for CAP Strategic Plan funding.

6.4. Policy Coherence: Aligning Signals Across Governance Levels

The gap. Slovakia stands out in the survey as the country where policy coherence is identified as the primary desired support mechanism (79.4% of respondents) — far above any other country in the sample. This finding reflects the experience of large farm operators navigating multiple, sometimes conflicting regulatory frameworks across CAP pillars, environmental regulations, and national administrative requirements. Spain and Poland, where EU agricultural policies appear among the top three adoption motivations, reveal a related vulnerability: farmers who are policy-responsive are also the most exposed when policy signals are inconsistent, subsidies are discontinued, or administrative bottlenecks undermine the accessibility of support that exists in principle. The Hungarian National Node's work on Soil Mission living labs (February 2026) illustrates a specific dimension of this gap: living labs represent a powerful instrument for connecting innovation with practice, but their integration into CAP implementation frameworks remains underdeveloped, leaving a structural disconnect between the EU's research and innovation investments and what reaches farmers on the ground. For a practice-oriented perspective on this challenge, see also SxC D5.1 ("*How to build soil Living Lab including organisation of farm demonstration*" Guide)

In Slovenia, the policy coherence gap takes a distinctive form. The survey identifies infrastructure and technology limitations — not economic constraints — as the primary barrier to adoption, the only country in the sample where this is the case. This suggests that in certain national contexts, coherent policy means not only aligning financial incentives with environmental objectives, but coordinating investment in technical infrastructure and advisory capacity as a precondition for any incentive to be actionable. Coherence, in other words, is not only a matter of regulatory alignment but of sequencing: financial support for a practice that farmers lack the technical infrastructure to implement is not coherent support.

A structural dimension of this problem operates at the governance level itself. BEC partners note that strengthening AKIS should not focus exclusively on farmers and advisors: the managing authorities and policymakers responsible for CAP implementation also require targeted capacity-building on sustainable soil management and innovation systems, if policy design and implementation are to reflect the evidence base that projects like SxC generate.

Policy relevance. The post-2027 CAP reform process offers an opportunity to address coherence proactively rather than retrospectively. National CAP Strategic Plans are the primary instrument through which EU-level objectives are translated into farm-level realities; the consistency and

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accessibility of this translation — across pillars, across regulatory frameworks, and across the AKIS–finance–technical support triad — is itself a policy variable that the reform can address.

Policy Recommendations
R12. Provide strengthened guidance to member states on the coherent translation of EU sustainable soil management objectives into national CAP Strategic Plans, with explicit requirements to align Eco-scheme design, AKIS investment, and practice-specific technical support within a single, accessible framework for farmers.
R13. Establish a systematic EU-level mechanism for monitoring the gap between stated CAP ambitions for sustainable soil management and documented farm-level uptake, with results feeding into mid-term CAP reviews and informing adaptive management of national provisions.
R14. Integrate Soil Mission living lab findings and EIP-AGRI OG results into national CAP Strategic Plan review processes through structured knowledge exchange mechanisms, ensuring that innovation-level evidence reaches CAP implementation in a timely and usable form.
R15. Extend AKIS capacity-building provisions to include managing authorities and policymakers responsible for CAP implementation, equipping them with the technical and conceptual knowledge needed to design coherent, evidence-based provisions for sustainable soil management.

7. National Profiles and Country-Level Recommendations

The country-level profiles below translate the EU-wide patterns analysed in Chapter 5 into nationally specific contexts. They cover the nine SxC consortium partner countries; the remaining four countries captured in the D4.2 survey (Belgium, Ireland, Lithuania, Portugal) were excluded from country-specific analysis due to their very small subsample sizes and are reflected only in the EU-level findings in Chapters 4 and 5. Each profile is structured around three elements: the distinctive characteristics of the national farming community as reflected in the SxC survey; the survey findings that diverge most significantly from the EU-level pattern and therefore carry specific policy relevance; and recommendations directed at national CAP Strategic Plan implementation and AKIS design. Issues that are broadly uniform across all partner countries are not repeated for each country unless the national data reveals a distinctive dimension.

The profiles are based on analysis of the country-level survey subsamples (n = 28–65 per country) and informed by National Node field-based evidence accumulated over the project period. Given the subsample sizes and the self-selection characteristics described in Section 3.1, these profiles do not represent national farming populations; they illuminate patterns within a specific, engaged farming community in each country, to be confirmed and enriched through national consultation. The country profile versions developed for national consultation workshops, are provided in Annex A.

7.1. Austria (AT)

Country profile. Austria has the highest share of organic farmers in the SxC sample (52%), more than double the EU sample average, and the joint-highest rate of sustainable practice experience (93%). Farm sizes are concentrated in the small-to-medium range (6–100 ha), and the farming community is comparatively young, with 64% of respondents under 50. The alpine topography shapes practice profiles in distinctive ways: contour farming adoption (45%) is uniquely high in the sample, and agroforestry features among future priorities more prominently than in any other partner country.

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Country-specific findings. Austrian farmers are the most strongly motivated by improving soil properties of any country in the sample (79% first-choice motivation), with EU policy compliance playing a comparatively minor role (7%) — suggesting that intrinsic values and farm economics are the primary drivers rather than regulatory incentives. Agricultural journals are the most-used information source (cited most frequently in the sample), a pattern unique among partner countries where peer learning dominates; this points to a farming culture that is particularly receptive to written knowledge materials. However, digital media use is growing rapidly alongside print sources and should not be overlooked in national knowledge transfer strategy. Despite high adoption rates, policy frameworks emerge as a stronger secondary barrier (26%) than in most countries. Expert consultees and National Node partners attribute this partly to a prevalent perception among Austrian farmers that regulatory constraints originate at EU level — a framing that may amplify feelings of powerlessness even where national CAP SP implementation choices play a significant role. Austrian National Node partners have also noted that income loss compensation under current Eco-scheme provisions is frequently described as inadequate.

Country-level recommendations. The Austrian CAP SP should address the specific transition cost gap that the survey and National Node activities document for organic farming systems, where Eco-scheme payment levels do not consistently compensate for the complexity of practice integration. The strong interest in modern agroforestry – an area in which Austrian research institutions and the National Focal Point possess specialist expertise – should be harnessed through additional specialised advisory and support programmes. Given Austrian farmers' demonstrated receptiveness to written and journal-based knowledge, investment in high-quality, practice-specific technical publications and digital knowledge tools represents a particularly effective channel for reaching this audience. Expert consultees characterise current programme design — including the ÖPUL agri-environment scheme — as excessively input-oriented and bureaucratically structured, with implementation timetables driven by administrative requirements rather than soil and weather cycles. A shift toward output- and performance-based payment frameworks, which reward documented ecosystem service delivery rather than compliance with prescribed inputs, is identified as a priority for the Austrian CAP SP revision.

7.2. Bulgaria (BG)

Country profile. Bulgaria has the lowest sustainable practice adoption rate in the entire sample (33% with experience), a predominantly small-farm structure (53% under 5 ha), and the oldest farming population among partner countries (56% aged 50 or over). The survey was distributed almost exclusively through NAAS advisors, which means the sample likely captures the more advisory-connected segment of Bulgarian farmers — making the low adoption rates all the more significant as a signal. National Node partners note that some survey responses for agroforestry and water harvesting may reflect confusion with afforestation schemes and large-farm drainage infrastructure respectively, and should be interpreted with caution.

Country-specific findings. Bulgaria is one of only two countries in the sample where climate and environmental risks emerge as a co-equal primary barrier alongside economic constraints — a pattern that reflects the country's documented exposure to drought, desertification and erratic precipitation. Uniquely in the sample, mulching outranks minimum tillage as the top future practice priority, alongside IPM and microbiological products, indicating a preference for soil biology and moisture-retention approaches over tillage system change. Advisors are both the dominant information source and the most desired support mechanism — a pattern that makes the quality and reach of Bulgaria's national advisory infrastructure a critical and direct policy lever, distinct from most other partner countries where peer networks play a stronger role.

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Country-level recommendations. The Bulgarian CAP SP 2023–2027 EIP call should be designed with accessibility to small farms as an explicit criterion, addressing the administrative and financial obstacles that prevented OG engagement under RDP 2014–2020. Given the documented climate vulnerability and the farming community's preference for moisture-retention practices, national agri-environment measures should explicitly include mulching, water harvesting and IPM within accessible payment schemes targeted at small farms — not only as environmental obligations but as economically viable adaptation strategies. Strengthening and expanding NAAS advisory capacity specifically in sustainable soil management — including advisor training and the development of farmer demonstration networks — is the highest-leverage policy action available in the Bulgarian context.

7.3. Germany (DE)

Country profile. Germany has the largest farm sizes in the SxC sample (77% of respondents operate farms over 100 ha), predominantly conventional farming (69%), and the highest conversion rate from awareness to active implementation in the entire sample (36.2%). Sustainable practice experience is near-universal (92%), with strong adoption across cover crops (77%), liming (74%) and minimum tillage (59%). The German subsample represents a farming community that has moved beyond initial adoption of basic conservation practices and is actively seeking to deepen and diversify its sustainable management portfolio. This farm-size and organic-share profile diverges substantially from German agricultural structure as a whole, where average farm size and the share of organic operations are considerably lower; the sample should be read as describing an engaged, larger-farm subset rather than the German farming sector overall.

Country-specific findings. German farmers are unique in the sample in ranking environmental concerns above economic factors as implementation drivers (63.9% vs. 58.3%) — a reversal of the pattern seen across most partner countries. Their top future practice priorities are intercropping and precision agriculture rather than minimum tillage, reflecting a more advanced adoption stage where farmers are seeking to integrate and upgrade existing systems rather than adopt foundational practices. Correspondingly, knowledge gaps — not economic constraints — are the primary future adoption barrier (17 of 33 future planners), suggesting that German farmers have largely addressed financial access but now face implementation knowledge as the binding constraint. Trade fairs and exhibitions are unusually prominent as information sources (highest in sample), pointing to the importance of events like DLG-Feldtage in the German agricultural knowledge ecosystem.

Country-level recommendations. German AKIS investment should shift its emphasis from general awareness and basic advisory support towards advanced, practice-specific technical guidance for the consolidation and integration phase — including soil-type-specific minimum tillage protocols, intercropping system design, and precision agriculture applications to soil health management. The prominence of trade fairs and exhibitions as knowledge channels should be explicitly leveraged in national extension strategy, establishing sustainable soil management as a featured topic at major agricultural events and using these platforms to connect EIP-AGRI OG results with wider audiences. The German National Node's engagement with the German Rural Network and the DLG-Feldtage 2026 workshop provide concrete entry points for translating project findings into national policy dialogue.

7.4. Hungary (HU)

Country profile. Hungary has the most diverse farm size distribution in the SxC sample and the highest rate of conventional farming (88%). Sustainable practice experience is mid-range at 65%. The country's distinctive characteristic in the sample is an exceptionally strong tradition of biological soil management: microbiological product adoption (43%) is significantly above the EU sample

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average of 26%, and these products are also the top future practice of interest among Hungarian respondents. However, this figure should be read in national policy context: a specific Hungarian eco-scheme measure provides targeted support for microbiological products, which partly explains the elevated adoption rate and limits direct comparability with other partner countries. AKI's and DC's work on Soil Mission living labs and the Budapest Soil Health Forum (December 2024) positions Hungary as an active participant in EU-level soil policy dialogue.

Country-specific findings. Hungarian farmers report profitability as a top-three experienced benefit more frequently than in most other countries (19 of 42 respondents), suggesting that sustainable practice adoption is achieving more visible economic returns in the Hungarian context — a potentially powerful message for outreach to the country's large conventional farming majority. Peer-to-peer knowledge exchange is the dominant information source among Hungarian respondents at a rate that exceeds the already high EU sample average — reinforcing farmer-led networks as the primary AKIS intervention point in the Hungarian context. Infrastructure and technology limitations emerge as a notably strong secondary barrier (69.4%) — the second highest rate in the sample — alongside knowledge gaps, pointing to a compound constraint profile that distinguishes Hungary from most other partner countries. Land tenure and property rights appear as a future adoption barrier more frequently than in most partner countries, likely reflecting Hungary's specific land ownership structure and the prevalence of rented land, which constrains long-term soil health investment.

Country-level recommendations. Hungarian AKIS should prioritise the development of evidence-based advisory support for microbiological products — including soil- and crop-specific application protocols, monitoring frameworks, and farmer-accessible outcome data — to ensure that the high adoption levels driven by eco-scheme support translate into genuine and lasting soil health benefits rather than compliance-motivated uptake without verifiable outcomes. The Soil Mission living lab framework being developed by DC and AKI should be formally linked to OG formation and national CAP SP provisions, creating a structured pathway from innovation-level evidence to farm-level adoption. **T**he prominence of infrastructure and technology barriers (69.4% of respondents) points to a need for Hungarian CAP SP investment provisions that explicitly address digital infrastructure gaps and access to precision agriculture tools, particularly for medium-sized farms where the constraint is most acute. Given the land tenure constraints on long-term investment, Hungary's CAP SP agri-environment measures should include provisions that make sustainable soil management practices accessible and economically viable specifically for tenant farmers — for example, through shorter commitment periods for basic practices or collective application mechanisms for land under fragmented ownership.

7.5. Italy (IT)

Country profile. Italy has the smallest country subsample in the SxC survey (n = 28), with a notable share of non-farming respondents — likely researchers and advisors affiliated with UNISS — which should be borne in mind when interpreting the data. Despite this, 79% report sustainable practice experience and 79% plan new adoption, both among the highest rates in the sample. Italy leads the sample in minimum tillage adoption (64%) and has notable use of microbiological products (32%) and intercropping (25%). Liming is very low (7%), consistent with Mediterranean soil chemistry.

Country-specific findings. Italy is unique in the sample in identifying researcher collaboration as the primary desired support mechanism (ahead of subsidies), alongside unusually prominent demand for innovation support services. This pattern — whether reflecting the respondent composition or a broader Italian farming culture — points to a genuine appetite for research-practice linkages that is not adequately captured in standard AKIS advisory frameworks. Economic benefit realisation is also distinctively high: 59.1% of Italian respondents report economic benefits as a top-three outcome of sustainable practice adoption, the highest rate in the sample, suggesting that the

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economic case for sustainable practices is more visible in Italian agricultural contexts than elsewhere and could serve as a compelling communication tool for wider outreach.

Country-level recommendations. Italy's CAP SP AKIS provisions should formalise the research-practice collaboration model that the survey and UNISS National Node activities demonstrate is valued by the farming community — for example, through dedicated funding for university-linked demonstration farms, applied research partnerships between OGs and academic institutions, and structured researcher participation in national extension activities. The documented economic benefit realisation among Italian adopters should be systematically documented and communicated through national dissemination channels, providing evidence-based economic arguments that can reach the conventional farming majority. Given the diversity of Italian farming systems and the prominence of knowledge and infrastructure gaps as secondary barriers, national CAP SP technical assistance provisions should include regionally differentiated advisory packages rather than uniform national guidance.

7.6. Poland (PL)

Country profile. Poland has a predominantly small-to-medium farm structure (79% under 50 ha), near-universal conventional farming (88%), and a comparatively young sample (40% under 40). The Polish subsample overrepresents medium and larger farms relative to the national structure — where approximately 75% of farms are under 10 ha — and organic farmers (13% in the sample vs. approximately 4–5% nationally), which means adoption rates in the survey likely exceed national averages. 67% of respondents have sustainable practice experience. Poland leads the sample in liming adoption (62%), and water harvesting adoption (29%) is notably above the EU average.

Country-specific findings. EU agricultural policies appear among the top three adoption motivations for 31% of Polish respondents — the highest rate in the sample alongside Spain — making Polish farmers both highly policy-responsive and particularly exposed to policy inconsistency or subsidy discontinuation as an adoption risk. Climate and environmental risks dominate as future adoption barriers (cited by 28 of 29 future planners), the highest concentration in the sample, reflecting Poland's continental climate and increasing drought frequency. Economic factors are the primary implementation driver (71.4%), and economic benefits are among the most frequently experienced outcomes (64.3%), giving Poland a strongly economically motivated adoption profile that distinguishes it from the more environmentally oriented Western European partner countries.

Country-level recommendations. Polish CAP SP provisions should ensure that subsidy payment structures and OG funding delivery mechanisms are administratively accessible and reliable — the policy-responsiveness of Polish farmers means that payment bottlenecks and regulatory inconsistency have a disproportionate negative effect on adoption momentum. Given Polish farmers' strong economic motivation, national outreach and extension materials should lead with the documented economic case for sustainable practices — soil erosion reduction, yield stability under drought, and input cost savings — rather than primarily environmental framing. Climate adaptation measures relevant to Polish soil and water management conditions, including drought-resilient cover crop mixes, water harvesting and soil organic matter management, should be explicitly prioritised in the Polish CAP SP agri-environment scheme design.

7.7. Slovak Republic (SK)

Country profile. Slovakia is dominated by large farm structures: 53% of respondents operate farms over 500 ha, the highest concentration of large operations in the sample. This reflects the legacy of collectivised agriculture and the cooperative legal form, which has historically internalised advisory functions rather than relying on external services — a structural reason for the relatively weak public and private advisory sector that BEC partners have documented. Sustainable practice experience is

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joint-highest in the sample (91%), with strong adoption of mulching (79%), cover crops (62%), and precision agriculture site-specific management (56% — highest in sample).

Country-specific findings. Policy coherence is identified as the primary desired support mechanism by Slovak respondents at a rate far exceeding any other country in the sample (79.4%), most plausibly reflecting the complexity of regulatory frameworks navigated by large farm operators across CAP pillars and national requirements. Slovakia is also unique in having farmers' values and beliefs as the primary implementation driver above economic factors — suggesting that intrinsic motivation is strong among Slovak sustainable farmers and that values-based framing may be more effective in outreach than purely economic arguments. Climate and environmental risks are cited as future adoption barriers by virtually all planning farmers (28 of 28), the most concentrated pattern in the sample.

Country-level recommendations. The Slovak CAP SP should address the policy coherence problem directly — engaging with the specific regulatory overlaps and administrative complexity that large cooperative and joint-stock farm structures experience, and working towards a more streamlined, predictable support architecture. The existing strong base of large-farm conservation agriculture should be leveraged as a platform for scaling more complex practices: BEC network and farmers matchmaking activities provide concrete infrastructure for facilitating farmer-to-farmer knowledge exchange on regenerative agriculture, agroforestry and microbiological products, and should receive dedicated support within the national AKIS framework. Land tenure constraints — most agricultural land in Slovakia is rented — should be explicitly addressed in CAP SP agri-environment design, for example through collective application mechanisms and longer payment commitment options that provide security for both landowners and tenants.

7.8. Slovenia (SI)

Country profile. Within the Slovenian survey sample, farms were predominantly small (86% under 50 ha), conventional (86%), and managed by older farmers (51% aged 50 or over). Sustainable practice experience is among the lower rates in the sample (58%). The country's alpine and pre-alpine terrain, highly fragmented land ownership, and limited precision agriculture infrastructure shape a farming context that differs markedly from the Eastern European large-farm patterns.

Country-specific findings. Slovenia is the only country in the SxC sample where infrastructure and technology limitations rank above economic constraints as the primary barrier to sustainable practice adoption — a finding with direct policy implications for the sequencing and design of support instruments. This infrastructural barrier is closely linked to Slovenia's farm structure: the large number of small and highly fragmented holdings makes investment in advanced technologies — precision agriculture systems, digital tools, modern machinery — difficult to justify economically at individual farm level. Climate change mitigation is reported as the second most experienced benefit (behind improved soil health), at a rate notably higher than in most partner countries, suggesting that Slovenian farmers are among the most climate-aware in the sample. Advisory services are both the primary information source and the most desired support mechanism — a consistent pattern that makes the reach and quality of the Slovenian advisory system a critical lever, particularly for an older, small-farm population where digital and peer channels are less prominent. This advisor-dependency is structurally supported by Slovenia's publicly funded national extension service, which ensures professional advice is accessible to all farmers regardless of farm size — a distinctive institutional feature that differentiates Slovenia from partner countries with more market-regulated advisory systems.

Country-level recommendations. Slovenian CAP SP provisions should prioritise coordinated investment in technical infrastructure and advisory capacity as preconditions for financial incentives to be actionable — specifically addressing digital connectivity gaps, shared machinery access

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mechanisms, and advisor capacity in sustainable soil management for fragmented, small-scale alpine farming systems. The relatively high precision agriculture adoption rate (35%) should be interpreted in light of the CAP SP Precision Fertilisation and Spraying intervention and the prevalence of contractor-based service models, which allow small farms to access these technologies without capital investment; policy support should therefore focus on sustaining and expanding this contractor infrastructure rather than assuming individual farm-level equipment ownership. Given the older farming population and advisor-dependency, KGZS and national advisory services should receive dedicated support for developing targeted outreach programmes that reach small, older farmers through trusted channels — including in-person advisory visits and the national webinar format that has proven effective (as demonstrated by the December 2025 precision fertilisation webinar attracting over 100 participants). Climate adaptation should be more explicitly reflected in the national agri-environment design, connecting Slovenian farmers' demonstrated climate motivation with accessible practice packages specifically suited to alpine and pre-alpine conditions.

7.9. Spain (ES)

Country profile. Spain has a predominantly small-farm structure (76% under 50 ha), conventional farming (74%), and the youngest sample in the survey (19% under 30). The Spanish subsample is geographically concentrated in Andalusia and Extremadura, meaning responses are shaped disproportionately by the farming systems dominant in these regions — olive groves, cereals, irrigated grassland and dehesa systems — and by associated socio-territorial factors such as rural depopulation, generational renewal and land-tenure patterns, which likely contribute to some of the barriers and motivations reported. Only 49% have sustainable practice experience, among the lower rates in the sample. Spain leads in agroforestry adoption (34%), rooted in the traditional dehesa and olive grove systems that integrate trees, crops and livestock in a sophisticated land management model with no direct equivalent elsewhere in the partner countries.

Country-specific findings. Spain is the country most strongly driven by EU agricultural policy incentives in the sample (43% cite EU policies in their top three motivations, the highest alongside Poland), creating both a strong uptake potential and a significant vulnerability to policy inconsistency. Climate risk dominates as a future adoption barrier — virtually universal among planning farmers — while climate adaptation simultaneously serves as a top-three motivation, making Spain the country where climate pressure is most clearly both an obstacle and a driver. Land tenure emerges as a secondary future barrier more prominently than in most partner countries, reflecting the complexity of land ownership and access in Spanish agricultural landscapes. The May 2026 AKIS Advisors Platform event documented persistent knowledge access gaps at farm level despite relatively well-developed advisory infrastructure, pointing to a distribution rather than a capacity problem.

Country-level recommendations. The Spanish results should be interpreted in light of the regional profile of the sample, which appears to be mainly concentrated in Andalusia and Extremadura. In this context, the dehesa agroforestry and olive grove tradition represents a nationally distinctive knowledge asset that should be formally supported through the Spanish CAP Strategic Plan, including dedicated advisory programmes, OG funding for knowledge transfer, and possible integration into Spanish Soil Thematic Network being developed with the Spanish Ministry of Agriculture, Fisheries and Food (MAPA)/AKIS actors and University of Córdoba (UCO). Given Spain's strong EU-policy responsiveness, the national CAP SP should maximise accessibility and continuity of agri-environment payments — administrative simplification and reliable payment delivery will have outsized adoption effects in a context where farmers are already positively motivated to respond to policy incentives. Climate adaptation instruments specifically designed for semi-arid Mediterranean soil and water management conditions — covering drought-resilient

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practices, water harvesting, and soil organic matter management — should be a central pillar of the national agri-environment scheme rather than optional additions.

8. Conclusions

The evidence assembled in this deliverable points to a conclusion that has significant implications for how the post-2027 CAP reform should be approached: the primary obstacle to wider adoption of sustainable soil management practices in Europe is not a deficit of farmer awareness, motivation or intent, but a structural misalignment between the architecture of existing policy instruments and the actual decision-making, learning and risk management patterns of farmers.

This misalignment operates at four levels. Current AKIS provisions invest primarily in formal advisory channels, while farmers demonstrably learn through peer networks that receive no dedicated recognition or funding. Financial instruments are calibrated for initial adoption, while the evidence shows that abandonment risk peaks in the consolidation phase — precisely when support is most needed and least available. Practice-specific technical guidance is weakest for the practices with the highest awareness-to-implementation gap, where the need for contextualised, evidence-based support is greatest. And EU-level ambitions for sustainable soil management are not consistently translated into coherent, accessible support at national level, exposing policy-responsive farmers to the consequences of regulatory fragmentation and subsidy discontinuity.

These are not failures of ambition. The three EU policy documents examined in Chapter 1 — the Strategic Dialogue, the Vision for Agriculture and Food, and the CAP 2028–2034 proposal — collectively signal a clear and consistent commitment to soil health and agricultural innovation. What the SxC evidence reveals is a translation gap: between what is stated at policy level and what reaches farmers in a form they can act on. Closing this gap does not require new objectives; it requires redesigning the instruments through which existing objectives are implemented.

The fifteen recommendations in this deliverable are formulated as specific entry points into this redesign — grounded in evidence from a farming community that is, by and large, ready to act, and constrained primarily by the support structures that surround it.

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10. Annexes

Annex A: Detailed Country Profiles

This annex provides the full country profiles from which the condensed summaries in Chapter 6 are derived, including the detailed survey indicators and discussion prompts developed for national consultation workshops. The profiles below are based on analysis of the raw survey dataset disaggregated by country. They were designed as **working documents for national consultations**: starting points to be confirmed, qualified and enriched by national stakeholders. Each profile focuses on findings that are nationally distinctive — elements that diverge from the EU-level pattern and therefore merit specific policy attention at national level. Issues that are broadly uniform across all countries (e.g. economic constraints as primary barrier, minimum tillage as future priority, peer learning as preferred information source) are not repeated in each profile.

AUSTRIA (n = 42)
Farming profile: highest share of organic farmers in the sample (52%) — more than double the EU sample average of 27%. Farm sizes concentrated in 6-100 ha range. Relatively young farming community, with 64% under 50.
Implementation strength: highest cover crop adoption (83%) and liming (74%) in the sample; 93% of surveyed farmers have experience with sustainable practices — the joint-highest rate across all countries.
Distinctive features: contour farming adoption (45%) is uniquely high, reflecting alpine topography. Agroforestry is among future priorities (9 of 26 planning farmers selected it), unusual compared to most other countries. Intercropping is also notably high (45% use rate).
Barrier profile: economic constraints dominant (36%), but policy frameworks are a stronger second barrier (26%) than in most countries — suggesting that Austria's farmers are particularly sensitive to regulatory and subsidy design. Climate risk is the top-ranked future adoption barrier (26/42 future planners).
Motivation: 79% cite improving soil properties as top motivation — the highest rate in the sample. Profitability is in the top 3 for 33%. EU policies are relatively low (7%), suggesting intrinsic values and farm economics drive Austrian farmers more than compliance.
Information: Agricultural journals are the most-used source (38 mentions) — unique in the sample; most other countries are led by other farmers. Suggests Austrian farmers are particularly receptive to written knowledge materials.
Support needs: subsidies and peer learning valued equally (32 and 29 mentions). Financial incentives close behind (27). Strong future adoption intent (62%), primarily for minimum tillage and agroforestry.
Policy discussion prompts for national consultation: Does current Austrian AKIS adequately support the scaling of agroforestry, given the traditional presence of alpine farming systems? How do current Eco-scheme provisions address the specific transition challenges documented for organic farms? Is the unusually high policy frameworks barrier linked to specific CAP SP implementation issues in Austria?

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BULGARIA (n = 45)
Farming profile: predominantly small farms (53% under 5 ha) with only 38% organic — the lowest rate among Eastern European partner countries. The most age-skewed sample (56% aged 50-64 or over).
Implementation challenge: only 33% of Bulgarian respondents have experience with sustainable practices — the lowest rate in the entire sample. Practice adoption rates are consequently very low across all categories.
Distinctive features: climate and environmental risks appear as a co-equal primary barrier alongside economic constraints — unusual in a sample where economic dominance is near-universal. This likely reflects Bulgaria's exposure to drought, desertification and erratic precipitation. Water harvesting (13% use rate) is notably higher than the EU average given the country's water stress context.
Future priorities diverge from EU norm: Mulching (17 mentions) outranks minimum tillage (16) as the top future practice — unique in the sample. IPM and microbiological products also rank highly. This suggests a focus on soil biology and moisture retention rather than tillage system change.
Knowledge ecosystem: advisors are the primary information source (35 mentions) — above the EU average — and also the top desired support mechanism (36 mentions). This suggests Bulgarian farmers rely heavily on formal advisory channels, making the quality and density of advisory services a critical policy lever. Peer networks are weaker than in most partner countries.
Motivation pattern: Bulgaria is one of only two countries (with Slovakia) where climate change adaptation ranks equal to or above improving soil properties as the top motivation — reflecting awareness of Bulgaria's climate vulnerability.
Support needs: advisors clearly dominant, with subsidies second and on-farm demonstrations third. Peer learning and policy coherence less prominent than in other countries.
Policy discussion prompts for national consultation: What was the experience of Bulgarian OGs under RDP 2014-2020? What specific administrative or financial obstacles led to the low adoption experience rate? How can the upcoming CAP SP 2023-2027 EIP call be designed to be more accessible to small farms? What climate adaptation measures are needed specifically for Bulgarian soil conditions?

GERMANY (n = 39)
Farming profile: largest farm sizes in the sample — 77% of respondents operate farms over 100 ha, 31% over 500 ha. Predominantly conventional (69%). Strong implementation rates across all practices.
Implementation strength: highest conversion rate from awareness to implementation in the sample (36.2% currently using rate). 92% have sustainable practice experience. Strong adoption of cover crops (77%), liming (74%) and minimum tillage (59%).

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Distinctive features: German farmers uniquely rank environmental concerns above economic factors as implementation drivers (63.9% vs. 58.3%) — in contrast to most Eastern European partner countries where economics dominates. Resilient agriculture systems (25 mentions) is unusually prominent as a reported benefit, suggesting a long-term systemic perspective.
Future priorities: unlike most countries, Germany's top future practices are intercropping and precision agriculture rather than minimum tillage — indicating a desire to diversify and upgrade existing sustainable systems rather than adopt basic practices. This points to a more advanced adoption stage.
Barrier profile: knowledge gaps are the primary future adoption barrier (17/33 future planners) — unusual compared to economic dominance elsewhere. This may reflect that German farmers have addressed initial financial barriers and now face implementation knowledge as the binding constraint.
Information: peer learning leads (34 mentions), but exhibitions/fairs are unusually prominent (29 mentions — highest in sample) reflecting the importance of trade events like DLG or Öko-Feldtage for German agricultural knowledge exchange.
Support needs: peer learning and on-farm demonstrations valued almost equally alongside subsidies. Financial incentives important. Policy coherence relatively less prominent than subsidies.
Policy discussion prompts for national consultation: Germany's knowledge-gap-as-primary-barrier profile suggests a need for more advanced, practice-specific technical guidance beyond awareness materials — what content gaps exist? How can the prominence of trade fairs and exhibitions be leveraged for sustainable soil knowledge transfer? What is the experience of German EIP-AGRI OGs with translating innovative practices to wider adoption?

HUNGARY (n = 65)
Farming profile: most diverse farm size distribution in the sample; predominantly conventional (88% — highest in sample alongside Poland). 65% have sustainable practice experience — mid-range in the sample.
Distinctive features: microbiological products have uniquely high adoption in Hungary (43% use rate — significantly above the EU sample average of 26%) and are also the top future practice of interest (21 of 41 future planners). This reflects a strong tradition of biological soil management and a particular openness to soil biology approaches. Profitability is reported as a top-3 experienced benefit more frequently than in most countries (19/42 respondents), suggesting Hungarian farmers who do adopt sustainable practices are achieving more visible economic returns.
Barrier profile: knowledge gaps are an unusually prominent second barrier (10 mentions as primary barrier, after economic constraints at 33). This is consistent with the Hungarian National Node's focus on capacity building and living lab development.
Climate risk and land tenure: land tenure and property rights appear as a future adoption barrier for 4 of 41 future planners — more prominent than in most other countries. This may reflect Hungary's

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specific land ownership structure and the role of rented land in limiting long-term soil health investments.

Information: peer learning strongly dominant (54 mentions) with advisors second (37). High peer network orientation despite conventional-farming majority.

Support needs: advisors are the primary desired support mechanism (39 mentions) — higher than in most countries. Subsidies second (34), then peer learning (33). This advisor-preference may reflect an appetite for expert guidance on the more complex practices (microbiological products, precision agriculture) that Hungarian farmers are interested in.

Policy discussion prompts for national consultation: What is the current state of Hungarian AKIS in supporting microbiological product adoption — are there specific knowledge or supply chain gaps? How does the land tenure structure affect farmers' willingness to invest in long-term soil health practices? What has been the experience of the Hungarian Soil Living Lab (DC) in translating innovative approaches to OG networks? How can the Soil Mission capacity-building work feed into national policy?

ITALY (n = 28)

Farming profile: small sample with a notable share of non-farming respondents (6 of 28 report 'no land') — likely researchers and advisors affiliated with UNISS. 79% have experience with sustainable practices; 79% plan new adoption — both among the highest rates in the sample.

Practice profile: Italy leads the sample in minimum tillage adoption (64%) and has notable use of microbiological products (32%) and intercropping (25%). Liming is very low (7%) — in contrast to northern/central European countries — reflecting soil chemistry differences in Mediterranean conditions.

Distinctive features: Italy is unique in its support preferences — researcher collaboration is the primary desired support mechanism (19 mentions, ahead of subsidies at 16). This stands out sharply from all other countries and likely reflects both the composition of respondents and a genuine Italian farming culture that values research-practice links. Innovation support services (17 mentions) are also unusually prominent.

Economic benefit orientation: despite strong environmental motivations (72.7% of implementation drivers), economic benefits are reported as a top-3 experienced benefit by 59.1% of respondents — the highest rate in the sample. This suggests Italian farmers who adopt sustainable practices are seeing tangible financial returns, which could be a powerful communication message.

Barriers: knowledge gaps and infrastructure/technology limitations are co-equal secondary barriers (5 mentions each as primary), both more prominent than in most other countries. This may reflect the diversity of Italian farming systems and the need for highly localised technical guidance.

Future practices: IPM and precision agriculture rank above minimum tillage as future priorities — suggesting Italian farmers are looking to upgrade practice portfolios rather than adopt basic techniques.

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Policy discussion prompts for national consultation: How can the research-practice collaboration model that Italian farmers value be formalised in AKIS design — what institutional structures would support this? What explains the economic benefit realisation reported by Italian adopters — are there specific sectors or practice combinations that are more financially viable? What technical and knowledge barriers prevent broader adoption of microbiological products, given Italy's lead in this area?

POLAND (n = 42)

Farming profile: predominantly small-to-medium farms (79% under 50 ha), conventional (88%), with a young sample (40% under 40). 67% have sustainable practice experience.

Practice profile: Poland leads the sample in liming adoption (62%), consistent with the country's agricultural tradition and soil chemistry context. Cover crops (48%) and mulching (40%) also strong. Water harvesting adoption (29%) is notably higher than EU average, suggesting climate adaptation pressures.

Distinctive features: EU agricultural policies appear in the top 3 motivations for 31% of Polish respondents — the highest rate in the sample alongside Spain. This strong policy motivation is a double-edged signal: Polish farmers are more likely to respond to policy incentives, but also more exposed to policy inconsistency or subsidy discontinuation as an adoption risk. Liming is also the top future practice of interest (15 mentions), unusual compared to other countries — suggesting significant unmet demand for basic soil chemistry management support.

Barrier profile: climate and environmental risks are the top future adoption barrier (28 of 29 future planners cited it) — the highest rate in the sample. This is striking given Poland's continental climate and increasing frequency of drought events. Knowledge gaps are also a prominent secondary barrier.

Economic orientation: economic factors are the primary driver (71.4% of Q13 responses — highest in sample after Slovakia), and economic benefits are a top-3 experienced benefit for 64.3% — second highest in sample. Polish farmers are strongly economically motivated in both their adoption decisions and their experience of outcomes.

Information: advisors are the primary source (33 mentions), suggesting Poland relies heavily on formal advisory channels. This makes the quality and reach of Polish agricultural advisory services a critical policy variable.

Support needs: subsidies lead (27), then peer learning and advisors (both 23). Financial incentives close behind (20). Strong financial orientation consistent with economic motivation profile.

Policy discussion prompts for national consultation: What is the relationship between Poland's CAP SP subsidy structure and sustainable practice adoption — are there specific bottlenecks in payment delivery that act as disincentives? How can the demonstrated economic benefits of sustainable practices (soil erosion reduction, yield stability) be better communicated to Polish farmers given their strong economic motivation? What specific climate adaptation measures are needed for Polish agricultural conditions, given the prominence of climate risk as a future adoption barrier?

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SLOVAK REPUBLIC (n = 34)
Farming profile: dominated by large farms — 53% over 500 ha, the highest concentration of large operations in the sample. 91% have sustainable practice experience — joint highest with Austria and Germany.
Practice profile: mulching (79%) and cover crops (62%) are among the highest adoption rates in the sample. Precision agriculture site-specific management (56%) is notably high — highest in sample. Intercropping adoption is also very high (50%).
Distinctive features: policy coherence is the primary desired support mechanism (27 mentions, equal to subsidies) — far above any other country in the sample. The Slovak farmers' exceptionally strong demand for policy coherence likely reflects the experience of large farm operators navigating multiple, sometimes conflicting regulatory frameworks. Climate and environmental risks dominate as the future adoption barrier (28 of 28 future planners) — virtually universal, and the most concentrated pattern in the sample.
Motivation pattern: Slovakia is unique in having farmers' values and beliefs as the primary implementation driver (23 mentions, above economic factors at 21) — suggesting that Slovak sustainable farmers are strongly intrinsically motivated. EU policies appear in top 3 motivations for 29% — relatively high.
Future priorities: intercropping (20), minimum tillage (20) and cover crops in multiple forms are top future intentions — consistent with already-strong adoption and a desire to further deepen conservation agriculture systems. Microbiological products are also a strong future interest (close 4th).
The agroforestry conversation: the Slovak Agrolesfest II workshop (April 2026) revealed significant farmer interest in agroforestry as a practice system, combined with knowledge barriers to implementation. Given that Slovakia already has the highest precision agriculture adoption in the sample, there may be specific synergies between precision agriculture tools and agroforestry management.
Support needs: subsidies and policy coherence tied at top (27 each), followed by on-farm demonstrations and researcher collaboration. The combination of policy coherence and on-farm demonstration preferences suggests Slovak farmers want both regulatory stability and concrete evidence of practice performance at scale.
Policy discussion prompts for national consultation: What specific aspects of current Slovak CAP SP implementation create the policy coherence problems that farmers identify? How can the strong existing base of large-farm conservation agriculture be used as a platform for scaling more complex practices like agroforestry and microbiological products? What is the current state of Slovak AKIS in supporting the transition from precision agriculture to integrated soil health management?

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SLOVENIA (n = 43)
Farming profile: small farms dominate (86% under 50 ha), predominantly conventional (86%), older farming population (51% aged 50-64 or over). Only 58% have experience with sustainable practices — among the lower rates in the sample.
Distinctive features: Slovenia is the only country in the sample where infrastructure and technology limitations rank above economic constraints as the primary barrier (10 vs. 8 first-mentions respectively). This is a striking and important finding: it suggests that in the Slovenian context, the primary binding constraint is not financial but technical and infrastructural. This may relate to Slovenia's terrain (alpine and pre-alpine farming systems), farm fragmentation, and relatively underdeveloped precision agriculture infrastructure.
Implementation pattern: liming (51%) and cover crops (47%) are the most adopted practices, with relatively balanced uptake across basic practices. Precision agriculture (35%) is higher than might be expected given the infrastructure barrier — this is partly explained by the CAP SP intervention on Precision Fertilisation and Spraying (PGS), which enables participation for a broader range of farms, and by the prevalence of contractor-based service models that allow even small farms to access precision agriculture operations without capital investment in equipment.
Climate orientation: soil properties improvement and climate adaptation are co-dominant as top motivations (77% and 35% respectively). Climate change mitigation is reported as the second most experienced benefit (18 mentions, behind improved soil health at 20) — notably higher than in most countries. This suggests Slovenian farmers are among the most climate-conscious in the sample.
Advisory dependency: advisors are the primary information source (35 mentions) and also the top desired support mechanism (33 mentions) — consistent with a farming population that values expert guidance. Access to knowledge and extension services is also uniquely prominent as an implementation driver (9 mentions — higher than in most countries).
Support needs: advisors dominant, then subsidies and financial incentives roughly equal. Peer learning relatively less prominent than in most countries, consistent with the advisor-orientation.
Future focus: minimum tillage (17) and various cover crop forms (13+12+11) dominate future intentions — suggesting Slovenian farmers are at an earlier stage of adoption transition and focusing on consolidating basic conservation practices.
Policy discussion prompts for national consultation: What specific infrastructural and technological barriers are most significant for Slovenian farmers — digital connectivity, machinery access, or advisory capacity? How does farm fragmentation and land ownership affect the viability of specific sustainable practices in Slovenian conditions? What is the experience of Slovenian advisory services in reaching small, older farmers? How can climate adaptation — already a strong motivation — be better reflected in national policy support?

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SPAIN (n = 47)
Farming profile: dominated by small farms (38% under 5 ha, 38% 6-50 ha), 74% conventional. Relatively young sample (19% under 30 — highest in the sample). Only 49% have experience with sustainable practices — among the lower rates.
Practice profile: mulching (34%) leads as the most adopted practice — unique among partner countries — reflecting the importance of moisture retention in semi-arid Mediterranean conditions. Minimum tillage (32%) and cover crops (28%) follow. Water harvesting (17%) is above the EU sample average. Liming is very low (15%), consistent with Mediterranean soil chemistry. Agroforestry (34%) is the highest in the sample, rooted in the traditional dehesa and olive grove farming systems.
Distinctive features: Spain is the country most strongly driven by EU agricultural policies — 43% of respondents mention EU policies in their top 3 motivations for sustainable practice adoption (highest in the sample alongside Poland). Climate risk dominates as the future adoption barrier (33 of 30 future planners — virtually universal). Land tenure is the second most common future barrier (5 mentions), unusually prominent in the Spanish context of large landholdings.
Climate vulnerability as driver: Spain is among the most climate-affected countries in the sample. Unlike Bulgaria (where climate appears as barrier), Spanish farmers show it both as motivation (climate adaptation) and barrier (climate risk). The May 2026 AKIS Advisors Platform event highlighted connections to EU initiatives addressing soil health and climate resilience.
AKIS reform orientation: the AKIS Advisors Platform event (May 2026) and the existence of a well-developed advisory infrastructure suggest Spain is actively engaged in AKIS reform. However, the survey data shows that 'access to knowledge and extension services' appears as an implementation driver for 8 respondents — notably high — suggesting that knowledge access gaps persist despite advisory infrastructure.
Support needs: subsidies lead (30), followed by policy coherence (24 — second highest in sample) and advisors and peer learning tied (23 each). The combination of high EU-policy sensitivity and strong demand for policy coherence suggests Spanish farmers are particularly attuned to the quality of CAP implementation.
Policy discussion prompts for national consultation: How can the traditional agroforestry knowledge embedded in traditional dehesa agroforestry and olive grove systems be translated into scalable policy support within the CAP framework? What specific climate adaptation instruments are needed for Spanish soil and water management conditions? How does land tenure — both concentration and fragmentation depending on region — affect sustainable practice adoption? What specific barriers prevent higher adoption rates given the strong EU-policy motivation?

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