

Bio Monitor 4CAP

POLICY BRIEF

BIO-SCHEMES PROPOSAL

A new approach to supporting biodiversity under the **Common Agricultural Policy**

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Why this matters now?

Biodiversity on European farmland keeps declining, even though the CAP has become greener with every reform. The main reason is simple: today's CAP requires farmers to apply prescribed practices, and does not reward for the biodiversity results those practices deliver. It is not measured whether birds, insects or soil life actually recover. The farmer protests of 2023–2024 also showed that measures seen as complex, unfair or badly paid quickly lose support. With the post-2027 CAP now under negotiation, and the Nature Restoration Regulation and EU nature-credit initiatives creating demand for credible biodiversity data, this is the moment to decide how we can truly move towards a CAP that will reward results.

What BioMonitor4CAP did :

The project turned its new biodiversity monitoring tools into four ready-to-use CAP measures - the "Bio-Schemes" - one for each sphere of biodiversity on a farm: Green Spaces (landscape), Soil Health, Beneficial Insects and Birds Diversity. Each Bio-Scheme pairs a menu of farm practices with one robust indicator (satellite images, soil DNA, insect DNA, sound recorders) and a hybrid payment: an annual base payment for the practices, plus a bonus when monitoring confirms improvement. The schemes were written as CAP intervention fiches and then tested with the people who will have to use them: 524 farmers in six countries, 166 stakeholders in workshops and CAP policy makers at national and EU level.

Main results :

- **The four indicators meet the European Commission's RACER quality criteria** (Relevant, Accepted, Credible, Easy to monitor, Robust) and are automated or laboratory-based, so results are objective and hard to manipulate.
- **Farmers are willing**: motivation to adopt is high for all four Bio-Schemes and adoption likelihood is medium-high to high (3.5–3.6 on a 5-point scale). The real bottleneck is capability – costs, technical know-how and labour – not willingness.
- **Fair payment levels differ widely**. Farmers need on average about €180–230 per ha per year for Green Spaces or basic soil measures, about €370 for insect measures and up to about €650 for ambitious bird measures. Once farmers adopt basic soil-health practices they seem ready to go further with no extra payment.
- **Policy makers support the indicator-based, hybrid design and want it voluntary, simple, low-cost to monitor and compatible with existing CAP databases** (LPIS, IACS, FSDN). They see 2028–2034 as the window for pilots and 2035–2041 for full result-based schemes.

Paying for biodiversity results under the CAP is technically feasible and politically timely – provided the schemes stay voluntary, simple, well advised and fairly paid. The Bio-Schemes offer Member States a tested, replicable template for doing exactly that.

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Recommendations for policy makers.

1 Cover the four spheres of farm biodiversity

- **Support landscape, soil, insects and birds together**: they deliver different ecosystem services (habitat, fertility, pollination, pest control) and respond to different farm practices (p. 1).
- **Start with Soil Health and Green Spaces,** where farmers are most ready and payment needs are lowest; phase in Beneficial Insects and Birds Diversity with stronger support (p. 3-4).

2 Pay for measured results, using robust indicators

- **Adopt one outcome indicator per sphere:** LAI from satellites, eBII from soil DNA, MIDI from insect DNA, AADI from sound recorders - all RACER-compliant, automated or lab-based and manipulation-resistant (p. 2).
- **Standardise low-cost monitoring protocols at EU level**, with clear rules for third-party sampling and auditing, and plug them into LPIS/IACS/FSDN rather than creating a parallel reporting layer.
- **Build an EU-wide public agricultural data backbone** so farmers can see the ecological status of their land.

3 Key messages for the post-2027 CAP

- **Define a CAP that rewards ecosystem services**, not only compensates costs: hybrid "base + bonus" payments, with the result-based share starting at 20–30 % and growing as monitoring matures (p. 5).
- **Keep participation voluntary**, on top of the regulatory baseline (GAEC/SMR), with strong advisory support as a condition of entry.
- **Keep farmers the primary beneficiaries**, but open the schemes to collective applicants (cooperatives, landscape partnerships, local authorities).
- **Pilot the Bio-Schemes in 2028–2034** and link them to the emerging Nature Credits and carbon-farming frameworks to blend public and private finance.

4 Design around what farmers told us

- **Set payments at evidence-based levels**: modest for soil and landscape measures, substantially higher for insect and bird measures (p. 3).
- **Invest in capability :** start-up grants, technical assistance, demonstration farms and peer learning, because motivation and opportunity are already high (p. 4).
- **Cut bureaucracy:** simple rules, a menu of practices to choose from, stable and predictable payments, and monitoring done for the farmer rather than by the farmer.
- **Combine money with recognition:** certification, awards and monitoring feedback that makes ecological gains visible.

5 Use the Bio-Scheme fiches as they stand

- **The four fiches follow the official CAP intervention-fiche template** (objectives SO4–SO6, result indicators, eligibility, GAEC/SMR baseline, WTO green box) and can be dropped into a CAP Strategic Plan or piloted under Pillar II (p. 6-9).
- **Use the transparent payment calculator** (base rate × area × practice difficulty + result bonus) and adapt base rates and bonus thresholds to national conditions.
- **Require a minimum 3-5-year commitment** matching the monitoring cycle, with baseline and follow-up measurement.

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FINAL BIO-SCHEME PROPOSAL

- **Land-cover:** Green Spaces ----------**p.6**
- **Soil:** Soil health ----------**p.7**
- **Insects:** Beneficial Insects ----------**p.8**
- **Birds:** Bird diversity ----------**p.9**

FIND OUT MORE

- **D5.2 CAP agro-biodiversity measures** (Bio-Scheme fiches, payment calculator, policy consultation).
- **D4.2 Socio-economic proofing** (farmers' choice experiment, COM-B workshops)
- **Other Deliverables of BioMonitor4CAP**

Project website: https://www.biomonitor4cap.eu

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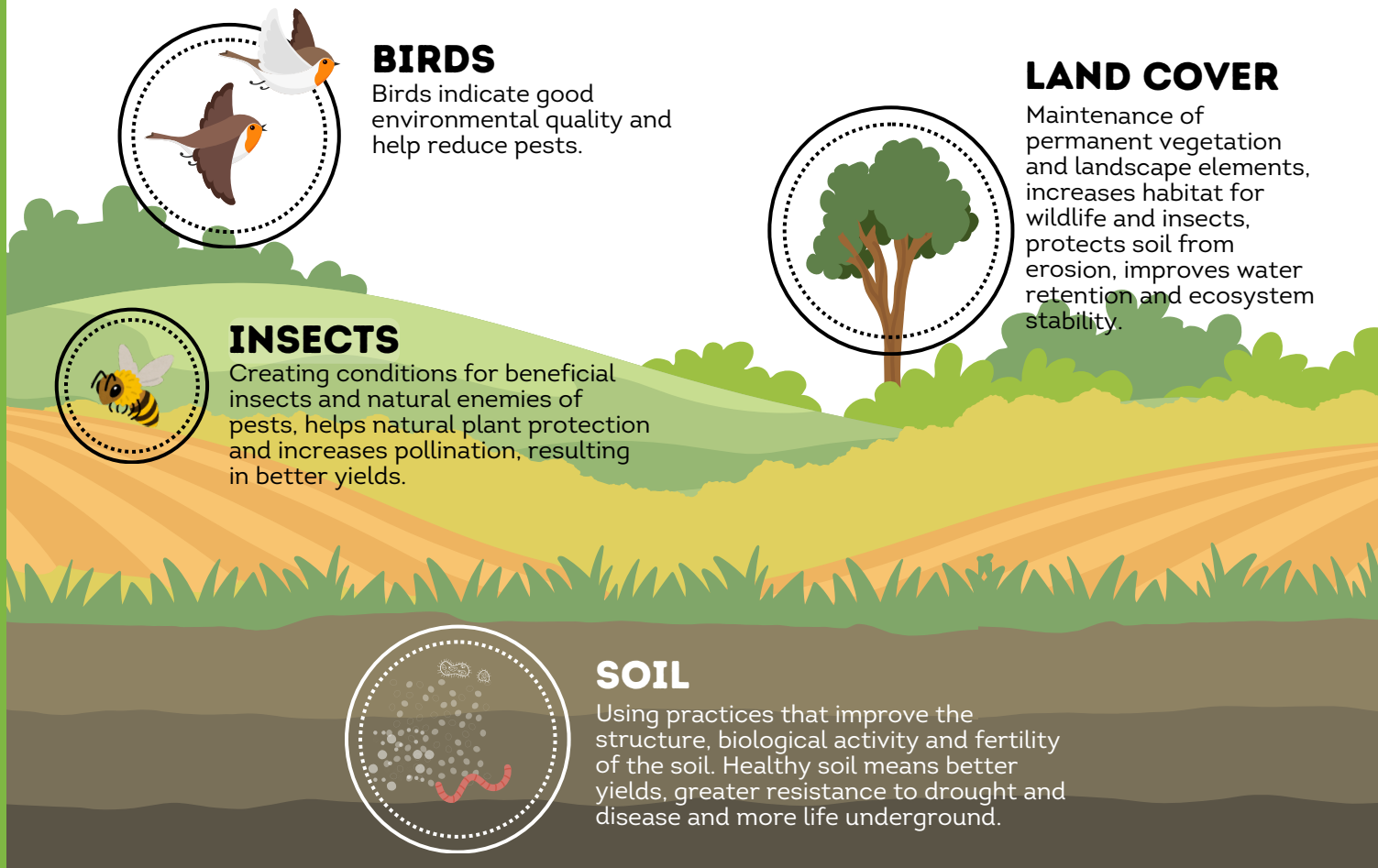
To represent the four main areas of biodiversity on the farm

A farm is not one habitat but four connected ones: the **landscape** above ground (hedges, trees, margins, ponds), the **soil** below it, the **insects** that live in both, and the **birds** at the top of the food chain. Together they provide services that farmers and society depend on – pollination, natural pest control, fertile and water - retaining soils, protection against erosion and drought, carbon storage and attractive rural landscapes. When one sphere is neglected, the others suffer too; when all four are supported, farms become more productive and more resilient.

Public policy has to step in because most of these services are public goods: the farmer bears the cost of a hedge or a flower strip, while the benefits are shared by neighbours, consumers and future generations.
The CAP is the main tool for this, but its current measures pay for practices and cannot show whether biodiversity has actually improved.

That is why BioMonitor4CAP built each Bio-Scheme on three pillars:

1. a clear **biodiversity sphere** with practices farmers recognise;
2. an **indicator and monitoring tool** – advanced enough to be credible, simple enough to be applied at scale – so that results can be measured and paid for;
3. a design that fits the **CAP intervention logic** (eco-schemes and agri-environment-climate measures), so Member States can adopt it without inventing new administrative structures.



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Robust and easy to use indicators and monitoring methods

The project set out to identify indicators that are both scientifically robust and policy-relevant. The selection followed two principles:

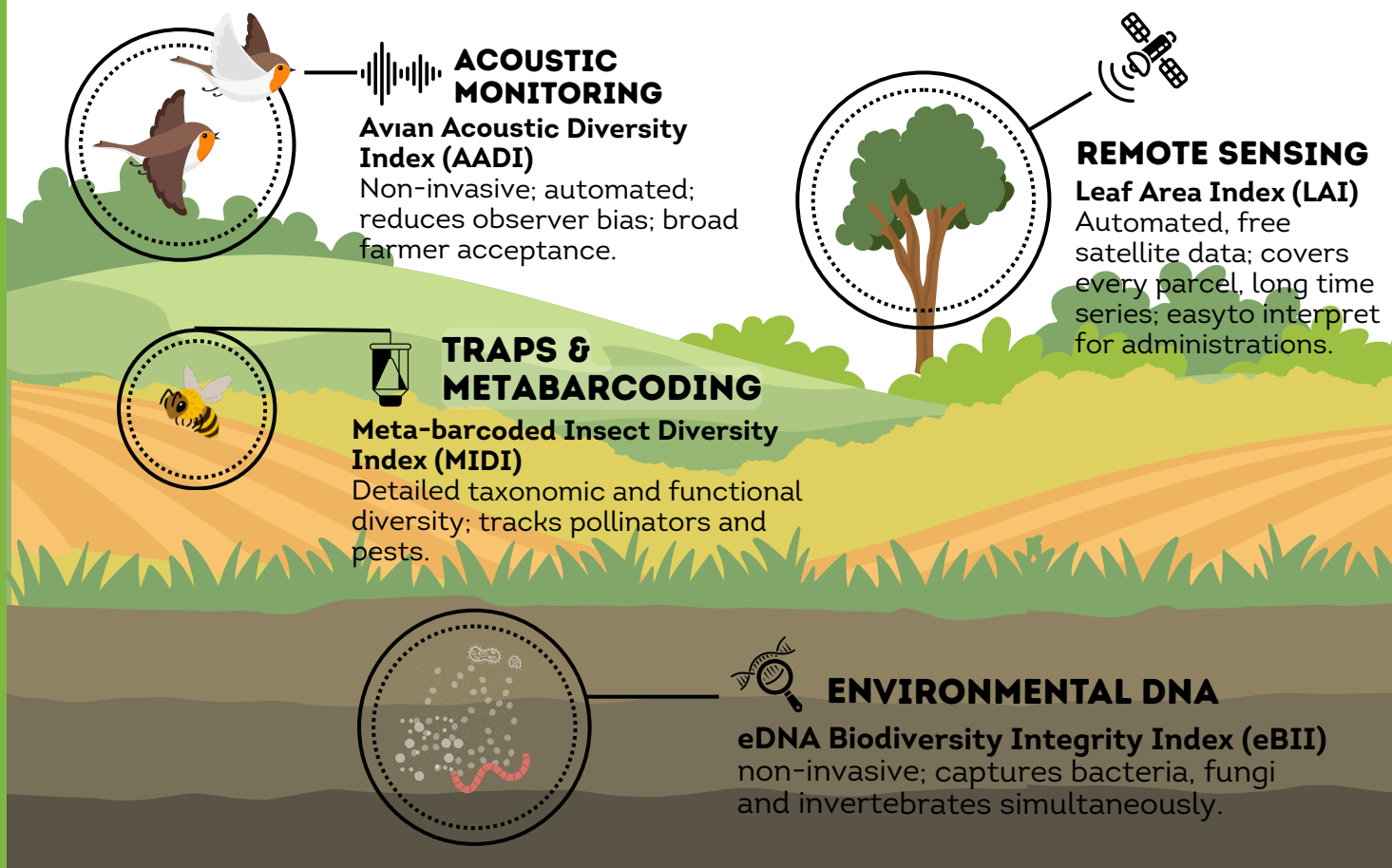
- **Indicators must capture actual biodiversity outcomes** (not only management practices);
- **Indicators must be measurable through standardised, auditable and scalable monitoring methods** suitable for a result-based CAP scheme.

How were the four indicators chosen ?

Work Packages 1 and 2 screened the available biodiversity metrics and measurement technologies against the Essential Biodiversity Variables (EBVs) – the global standard for what biodiversity monitoring should capture – and shortlisted one indicator per sphere (see D1.2, D2.1, D2.3). Each was then scored against the European Commission's own **RACER** test for policy indicators: Relevant, Accepted, Credible, Easy to monitor and Robust. All four score high on relevance, credibility and robustness. Their common strengths are what a result-based payment needs: they give direct ecological information, they rely on objective automated or laboratory methods, they can be repeated over the years to track change, and they are very hard to manipulate.

Trade-offs, clearly stated:

Satellite indicators (LAI) are free, automated and cover every parcel in Europe, but they are a proxy for habitat quality rather than a species count – which is why the project replaced the initially considered fAPAR with the Leaf Area Index, easier to interpret and to operationalise for administrations. DNA-based indicators for soil (eBII) and insects (MIDI) are the most detailed, but samples must go to a laboratory, so sampling protocols and costs need to be standardised. Acoustic monitoring of birds (AADI) is automated, non-invasive and well accepted by farmers, and replaces observer-dependent field counts. Field trials (D3.2) and policy consultations (p. 8) confirmed that all four are suitable for CAP performance frameworks. The full assessment is published in Ecological Indicators (2026): "Measuring what matters".



Socio-economic proofing of agrobiodiversity CAP measure : better understand farmers' needs and challenges

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Even a well-designed biodiversity measure fails if farmers do not sign up. Socio-economic proofing is an early-warning and early-learning mechanism: it shows where farmers are intrinsically motivated to adopt biodiversity practices – and where insufficient compensation, complexity or unclear rules could trigger resistance. It makes CAP measures socially legitimate, which is indispensable for achieving policy goals without conflict. BioMonitor4CAP did it twice over: a choice experiment with farmers (this page) and behavioural workshops with a wider group of stakeholders (next page). Full results in D4.2.

What level of compensation (€/ha/year) do farmers consider necessary to adopt a Bio-Scheme?

We asked farmers to choose, ten times each, between their current farm management and two alternative packages combining the four Bio-Schemes at different ambition levels and different payments (€0, €200 or €400 per ha). From these choices we can calculate the payment that makes a farmer indifferent to adopting a measure , the compensation they need.

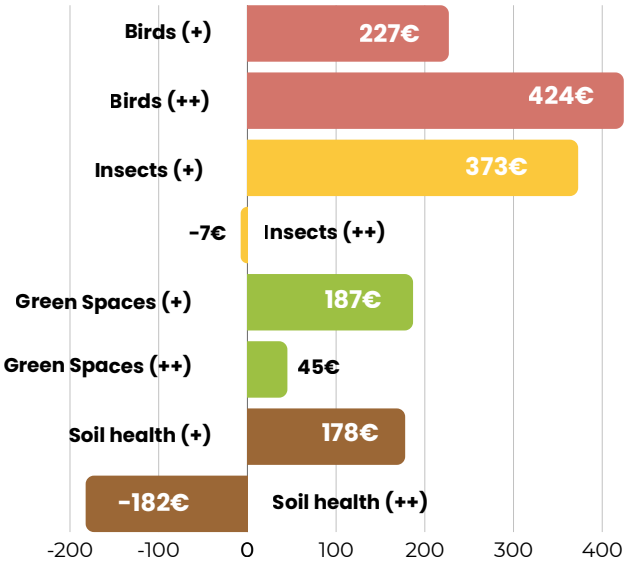


Figure: Payment farmers need (€/ha/year) to adopt each Bio-Scheme: (+) from no measure to simple measures; (++) extra amount to move from simple to ambitious measures. Negative = farmers would go further without extra payment. Weighted sample, 524 farmers. **Source:** BioMonitor4CAP, D4.2.

Two steps were tested for each scheme:

- **(+) from the status quo to simple measures** (e.g. single trees, minimal tillage, insect hotels, winter food strips)
- **(++) from simple to more ambitious measures** (e.g. hedgerows, no-till with organic amendments, pesticide reduction, wetland restoration)

Method in brief:

Discrete choice experiment with 524 farmers in six countries (PL, PT, FI, DE, AT, BG) - 5,240 recorded choices, March–October 2025 - weighted to Eurostat farm-structure data so that results represent European farmers, not only those who answered. Choice experiments are a standard tool of agricultural economics, used by the Commission's Joint Research Centre to design agri-environmental schemes. All values shown are statistically significant (5 % level) except Green Spaces (++) and Insects (++), which are not different from zero.

Main results:

Soil Health is the cheapest win. Farmers ask about €180/ha to start with cover crops and reduced tillage – and once they are in, they would move to advanced practices for €180/ha *less*: they see the private benefit in their own soil.
Green Spaces need moderate payments (about €190–230/ha/year), driven mainly by the land taken out of production.
Beneficial Insects need around €370/ha/year, whatever the ambition level – the barrier is the first step, not the second.
Birds Diversity is the most demanding: about €230/ha for basic measures and about €650/ha for ambitious ones, because these measures are labour-intensive, delay farm operations and bring few private benefits.
Farmers are open to change: attachment to the status quo was close to zero once payments were adequate; needs are higher on larger, intensive farms (Poland) and lower in Finland.

KEY RECOMMANDATIONS

Prioritise the Soil Health Bio-Scheme: high intrinsic motivation and low payment needs make it a low-cost, high-impact entry point; reward increasing ambition progressively.

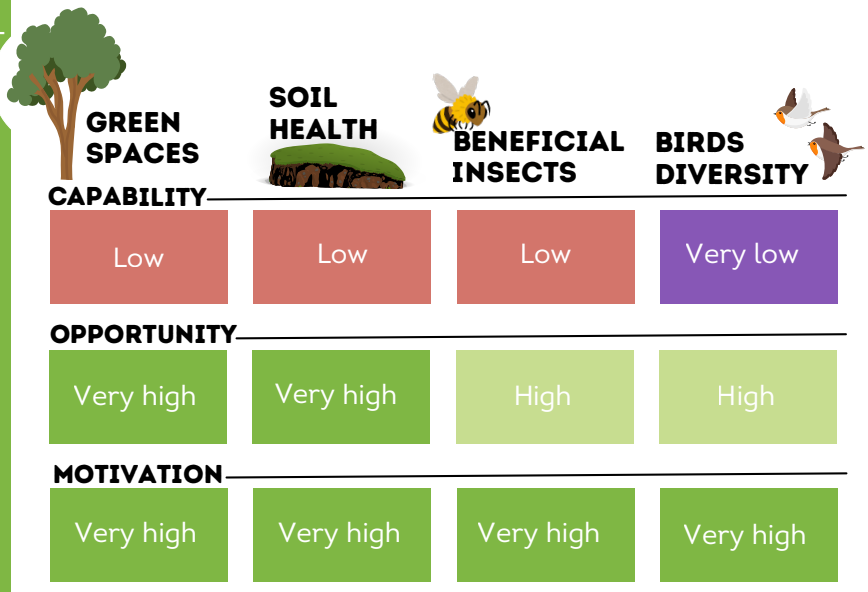
Set payment rates per scheme on evidence, not uniformly: insect and especially bird measures need substantially higher rates than most current eco-schemes offer.

Let payments reflect the area under practice and the land-use trade-off, and calibrate base rates regionally - needs vary with farm size, intensity and country.

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What are the main barriers for farmers to adopt Bio-Schemes?

Money is not the whole story. To understand *why* farmers adopt or resist a measure, we asked farmers, advisors, administrations, NGOs, researchers and businesses to assess each Bio-Scheme and its 79 farm practices through the COM-B lens: does the farmer have the **Capability** (skills, labour, equipment, money), the **Opportunity** (payments, advice, clear rules, flexibility) and the **Motivation** (perceived benefits) to change **Behaviour**?



Method in brief:

Hybrid workshops (on-site and online) with 166 stakeholders in six countries, 2025. Every practice was scored 1–5 on each COM-B component from the frequency and strength of what participants said; adoption likelihood is the average of the three. COM-B (Michie et al., 2011) is the most widely used behaviour-change framework in public policy.

Figure: Summarised COM-B scores for the four Bio-Schemes (1 = very low, 5 = very high). Capability 2.4–2.9, Opportunity 3.9–4.0, Motivation 4.0–4.2; adoption likelihood 3.50 (Birds) to 3.63 (Green Spaces). **Source:** BioMonitor4CAP, D4.2.

Main results:

Farmers' main barriers are capability barriers: financial constraints (especially for Green Spaces and Birds Diversity), technical and operational challenges (notably for Soil Health and Beneficial Insects), and knowledge gaps affecting all Bio-Schemes.
Opportunity conditions – payments, advice, regulatory clarity and flexibility – are already strong but must be kept stable, predictable and easy to access. Simplifying administrative procedures and enabling farm-specific and landscape-scale implementation will help maintain these favourable conditions.
Farmers' motivation is high for all four schemes: they value soil regeneration, natural pest control, landscape quality and long-term resilience. Policy should leverage this by communicating tangible benefits, supporting best-practice visibility (certification, awards) and offering monitoring tools that make ecological gains visible.
Adoption is likely for all four schemes (3.5–3.6 on a 5-point scale), highest for Green Spaces and lowest for Birds Diversity, which carries the largest land-use and maintenance demands.
Overall, capability-building is the highest-impact lever for the CAP. Farmers are willing and institutionally supported to adopt biodiversity-enhancing measures, but they need the financial, technical and knowledge capacity to implement them confidently and at scale.

KEY RECOMMANDATIONS

Make capability-building the core of every Bio-Scheme: start-up grants and risk-sharing tools, technical assistance and ecological advisory services, demonstration farms and peer-learning networks.

Set realistic, scheme-specific payments: bird and advanced insect measures need substantially more support than soil and landscape measures.

Simplify administrative procedures and enable farm-specific and landscape-scale implementation (important for insect corridors and bird habitats), including group applications.

Communicate tangible benefits, support best-practice visibility (certification, awards) and offer monitoring tools that make ecological gains visible to the farmer.

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Policy makers' assessment of the proposed bio-schemes

Purpose:

Before a measure can be recommended for the CAP it has to pass the test of the people who would administer it. The draft Bio-Schemes were therefore checked for administrative feasibility, CAP alignment, payment logic and realistic timing with those responsible for designing and implementing the CAP.

How it was done:

Two rounds. First, semi-structured interviews (Q4 2024) with the three Polish institutions that run the CAP Strategic Plan – the Ministry of Agriculture (MRiRW), the paying agency (ARiMR) and the advisory centre (CDR). Second, an EU-level written consultation (2025) organised with Farm Europe: a harmonised set of nine questions, sent with the Bio-Scheme fiches and a leaflet to DG AGRI and DG ENV, Members of the European Parliament, Permanent Representations, national ministries and farm organisations in Italy, France and the Czech Republic. Responses were few but detailed, so they are read as expert key-informant evidence, not as a representative survey. All details are in D5.2, chapter 7.

Key insights from policy makers:

Strong interest in advanced, low-manipulation indicators (remote sensing, eDNA, acoustic monitoring) – "a step in the right direction" for the monitoring the CAP lacks – provided protocols are simple, low-cost and auditable.
Preference for hybrid payment models combining a practice-based base payment with a result-based bonus; the paying agency suggested a result-based share of 20–30 % at first, rising as monitoring systems mature.
Emphasis on administrative feasibility, simplicity of monitoring, clear definitions and compatibility with existing CAP databases (LPIS, IACS, FSDN) – no parallel reporting layer.
Farmers must remain the primary beneficiaries, with collective applicants (cooperatives, local authorities, advisors) as partners, and participation in training or advisory services as a condition of entry.
Biodiversity monitoring must remain voluntary, on top of a regulatory baseline that prevents irreversible damage, and be backed by advisory services.
Realistic timeline: pilots under Pillar II-type instruments in 2028–2034; fully result-based schemes more likely in 2035–2041. Some respondents warned that the July 2025 CAP proposal, which drops EU-wide eco-schemes, would leave no common EU tool to reward environmental performance; others cautioned that any new measure needs a prior cost–benefit assessment for farmers and must not add bureaucracy.
Gaps named by policy makers: the CAP still does not treat biodiversity as equal to food security, rewards costs rather than ecosystem services, and lacks an EU-wide public agricultural data infrastructure.

KEY RECOMMANDATIONS

Maintain voluntary participation with strong advisory support.

Use simple, low-cost, standardised monitoring protocols that allow independent validation.

Strengthen the CAP architecture to reward ecosystem services through hybrid payments, simplified eco-schemes and landscape approaches.

Link the Bio-Schemes to the emerging Nature Credits and carbon-farming frameworks to create blended finance and long-term incentives.

GREEN SPACES

INDICATOR
Leaf Area Index (LAI) - amount of green vegetation per m² of ground

MONITORING METHOD
Remote sensing - free satellite imagery, automated

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BENEFICIARY:
Active farmer (individual or legal person) managing agricultural land within the EU. The scheme may also include collective beneficiaries, such as **agricultural cooperatives, landowner groups, local governments** or landscape partnerships coordinating Green Spaces at landscape scale.

PAYMENT METHOD:
Two-component payment system:
- **Annual practice-based payment** for implementing Green Spaces practices;
- **Result-based bonus** paid at the end of the monitoring period, based on the improvement in LAI.

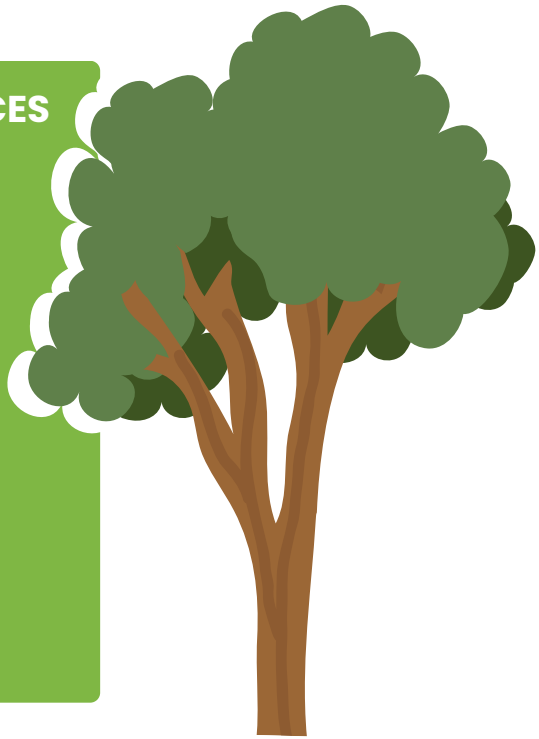
PAYMENT CALCULATOR:
Base = base rate (€/ha) × area × practice difficulty (1–3)
Bonus on base: ΔLAI 0–10 % → +5 %; 10–30 % → +10 %; >30 % → +20 %

MONITORING TIMELINE:
T_1 baseline LAI → annual base payments → T_n follow-up LAI after min. 3 years → bonus paid on ΔLAI

CONDITIONS OF ELIGIBILITY:
Eligible area: Arable land, permanent grasslands, permanent crops and other agricultural parcels, including linear elements such as hedgerows, buffer strips and tree rows.
Minimum parcel size: 0.10 ha for area-based features; for linear elements, minimum national length and width requirements apply.
Minimum total eligible holding area: 1.00 ha.
Commitment period: Minimum of 3 years (one full LAI monitoring cycle), preferably 5 years.
Monitoring condition: The beneficiary agrees to vegetation monitoring under the standardised BioMonitor4CAP LAI protocol (baseline and follow-up) and provides basic management information on the implemented Green Spaces.

MOST RELEVANT FOR POLICY MAKERS:
CAP objectives SO4, SO5, SO6 · Result indicators R.34 + new LAI indicator · Goes beyond GAEC 8 (non-productive areas) by creating and managing quality habitat networks · Pillar II, 2028–2034 · Farmers' compensation need ≈ €190–230/ha/year (D4.2)

OVERVIEW OF GREEN SPACES FARM PRACTICES
Planting and maintaining hedgerows / green borders
Establishing and maintaining flower strips
Maintaining field margins / unmown field edges / baulks
Planting and maintaining trees and bushes / shrubs
Planting rows or belts of native trees between pastures
Preservation of riparian galleries
Perennial crops
Maintaining a herbaceous ground cover between crops
Buffer zones along watercourses and water bodies
Maintenance of natural water areas
Creation of biodiversity islands
Increase connectivity between habitats
4 m to 12 m grass buffer strip on arable and horticultural land
Manage woodland edges on arable land
Buffer in-field ponds on arable land / improved grassland
Create and manage scrub and open habitat mosaics
Arable reversion to grassland with low fertiliser input



SOIL HEALTH

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INDICATOR
Soil Biodiversity Integrity Index (eBII) - diversity of soil bacteria, fungi and fauna (0–1)

MONITORING METHOD
Soil sampling + environmental DNA (eDNA) lab analysis

BENEFICIARY:
Active farmer (individual or legal person) managing agricultural land within the EU. The scheme may also include collective beneficiaries such as **agricultural cooperatives, producer groups or landowner associations, local governments** or landscape partnerships coordinating soil-health measures at farm or catchment scale.

PAYMENT METHOD:
Two-component payment system:
- **Annual practice-based payment** for implementing soil-health practices;
- **Result-based bonus** paid at the end of the monitoring period, based on the improvement in soil biodiversity (eBII).

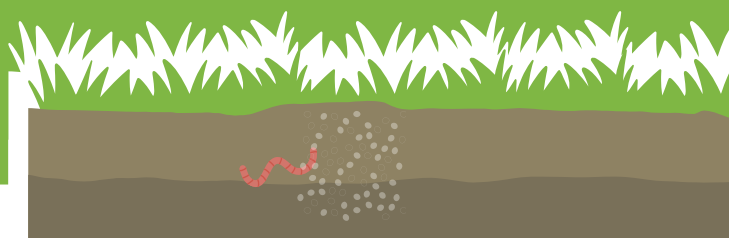
PAYMENT CALCULATOR:
Base = base rate (€/ha) × area × practice difficulty (1–3)
Bonus on base: soil-diversity gain ΔH 0.10–0.30 → +5 %; 0.30–0.50 → +10 %; 0.50–0.80 → +15 %; ≥0.80 → +20 %

MONITORING TIMELINE:
T_1 baseline soil eDNA → annual base payments → T_n follow-up after min. 3 years → bonus paid on ΔeBII

CONDITIONS OF ELIGIBILITY:
Eligible area: Arable land, permanent grassland, permanent crops and other agricultural land where soil-improving practices can be implemented.
Minimum parcel size: 0.10 ha.
Minimum total eligible holding area: 1.00 ha.
Commitment period: Minimum of 3 years (one full soil monitoring cycle), preferably 5 years, to allow detectable change in soil biodiversity.
Monitoring condition: The beneficiary agrees to standardised soil sampling and eDNA analysis at baseline (T_1) and follow-up (T_n) and provides basic management data on soil practices.

MOST RELEVANT FOR POLICY MAKERS:
CAP objectives SO4, SO5, SO6 · Result indicators R.36 + new eBII indicator · Goes beyond GAEC 4–8 by rebuilding organic matter and soil life · Pillar II, 2028–2034 · Farmers' compensation need ≈ €180/ha/year for basic practices; none for the step to advanced practices (D4.2)

OVERVIEW OF SOIL HEALTH FARM PRACTICES
No-till / minimal tillage systems
Cover crops and catch crops
Healthy and diverse crop rotation
Use of organic mulches, manure and compost
Agroecological and regenerative farming practices
Agroforestry and integration of trees into farmland
Use of nitrogen-fixing plants
Improving and maintaining soil organic matter
Regular soil testing and monitoring
Regular liming and soil pH management
Optimisation of fertilisation
Reduction of pesticides and chemical fertilisers
Appropriate use of plant protection products
Precision farming techniques
Water retention and improved water management
Installation of retention basins and drainage management
Adaptation of irrigation to crop needs
Perennial green manures and cover grasses
Multi-species winter, spring and summer cover crops
Herbal forage mixtures (herbal leys)
Conversion of arable land to permanent grassland with low fertilisation
Reduced fertilisation and grazing near watercourses
Integrated Pest Management (IPM) plan



BENEFICIAL INSECTS

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INDICATOR
Meta-barcoded Insect Diversity Index (MIDI) - diversity of the insect community (0–1)

MONITORING METHOD
Insect traps + DNA metabarcoding in the laboratory

BENEFICIARY:
Active farmer (individual or legal person) managing agricultural land within the EU. The scheme may also include collective beneficiaries such as agricultural cooperatives, beekeepers' associations or local governments coordinating actions at landscape scale.

PAYMENT METHOD:
Two-component payment system:
- **Annual practice-based payment** for implementing insect-friendly practices;
- **Result-based bonus** paid at the end of the monitoring period, based on the improvement in insect diversity (MIDI).

PAYMENT CALCULATOR:
Base = base rate (€/ha) × area × practice difficulty (1–3)
Bonus on base: ΔMIDI 0.05–0.10 → +20 %; 0.10–0.20 → +30 %; >0.20 → +50 %

MONITORING TIMELINE:
T_1 baseline MIDI → yearly monitoring and annual base payments → bonus paid after an evaluation window of minimum 3 monitoring years on ΔMIDI

CONDITIONS OF ELIGIBILITY:
Eligible area: Arable land, permanent grasslands, orchards, field margins and other agricultural land suitable for biodiversity measures.
Minimum parcel size: 0.10 ha.
Minimum total eligible holding area: 1.00 ha.
Commitment period: Minimum of 5 years.
Monitoring condition: The beneficiary agrees to insect monitoring under the standardised BioMonitor4CAP protocol (traps and DNA metabarcoding, MIDI) and provides basic management data.

MOST RELEVANT FOR POLICY MAKERS:
CAP objectives SO4, SO5, SO6 · Result indicators R.34 + new MIDI indicator · Goes beyond GAEC 5–7 and 9 and pesticide SMRs by actively creating insect habitat and cutting pesticide dependency · Pillar II, 2028–2034 · Farmers' compensation need ≈ €370/ha/year (D4.2).



OVERVIEW OF BENEFICIAL INSECTS FARM PRACTICES
Planting flower strips
Insect-friendly agroforestry
Reduction in pesticide use / biological plant protection
Dead wood conservation and promotion
Maintaining woody vegetation (trees and shrubs)
Planting aromatic, perennial or medicinal / flowering plants
Maintenance and creation of nesting sites / aids (e.g. bee hotels, bare banks)
Maintenance of water features
Creation of beetle banks / biodiversity hotspots
Widening field margins and opening forest edges
Pollen and nectar flower mix
Companion cropping
No use of insecticides, nematicides or acaricides
Mechanical or robotic weeding
Precision spraying guided by cameras or sensors
Integrated Pest Management (IPM) plan

BIRDS DIVERSITY

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INDICATOR
Avian Acoustic Diversity Index (AADI) - richness and evenness of birds in sound recordings

MONITORING METHOD
Autonomous sound recorders + automated analysis, with field checks

BENEFICIARY:
Active farmer (individual or legal person) managing agricultural land within the EU. The scheme may also include collective beneficiaries such as agricultural cooperatives, producer groups or landowner associations, local governments or landscape partnerships, for measures implemented at landscape or catchment scale.

PAYMENT METHOD:
Two-component payment system:
- **Annual practice-based payment** for implementing bird-friendly habitat and landscape practices;
- **Result-based bonus** paid at the end of the monitoring period, based on the improvement in bird diversity (AADI).

PAYMENT CALCULATOR:
Base = base rate (€/ha) × area × practice difficulty (1–3)
Bonus on base: ΔAADI ≤0.02 → +5 %; 0.02–0.05 → +10 %; 0.05–0.10 → +15 %; >0.10 → +20 %

MONITORING TIMELINE:
T_1 baseline acoustic survey → annual base payments → T_n follow-up after min. 3 years → bonus paid on ΔAADI

CONDITIONS OF ELIGIBILITY:
Eligible area: Agricultural land declared for support, including arable land, permanent grassland, orchards and non-productive features suitable for bird habitat measures.
Minimum parcel size: 0.10 ha.
Minimum total eligible holding area: 1.00 ha.
Commitment period: Minimum of 5 years, allowing stable habitat management and detectable change in bird populations.
Monitoring condition: The beneficiary agrees to acoustic and field monitoring based on the Avian Acoustic Diversity Index (AADI) and provides relevant management data.

MOST RELEVANT FOR POLICY MAKERS:
CAP objectives SO4, SO5, SO6 · Result indicators R.36 + new AADI indicator · Goes beyond GAEC 2, 4–9 and the Birds/Habitats SMRs by creating habitats for the whole bird life-cycle · Pillar II, 2028–2034 · Farmers' compensation need ≈ €230/ha/year (basic) to €650/ha/year (ambitious) (D4.2).

OVERVIEW OF BIRDS DIVERSITY FARM PRACTICES
Providing winter food strips
Basic / enhanced overwinter stubble
Maintenance of hedgerows; planting of trees, shrubs and green hedges
Installing nest boxes and artificial nesting platforms; maintenance of nesting structures
Providing perches for birds
Wetland restoration and water retention areas
Bird-friendly grassland management; haymaking – late cut; lenient grazing
Reduced pesticide use
Agroforestry and field–forest area development
Preservation of trees, shrubs and field margins
Preservation of habitats along watercourses and meadows
Preservation of peat bogs and landscape features
Reduction in crop area or intensity
Maintenance of open field areas and/or meadows with spontaneous flora
Creation of ecological corridors; reinforcement of field boundaries
Promotion and restoration of extensive grazing; extensive management of heathlands and pastures
Maintenance of native livestock breeds on pastures

