

Way forward:

Towards an operational
benchmarking system

Forum for the Future of Agriculture

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Way forward: Towards an operational benchmarking system

From principles to operational substance

The discussions in the Forum have led to a common understanding of the guiding principles and possible paths for a European benchmarking system for sustainability. The next step is to give substance to the benchmarking system.

At present, the benchmarking system is still just a good idea. To make it work in practice, we need to flesh out the framework by selecting a limited number of indicators that are scientifically credible, but also simple, feasible and affordable to use at farm level.

Only once such a benchmarking system has been tested, verified and approved can it potentially serve as a benchmark for existing and future private or public sustainability standards.

The immediate goal is therefore to translate the principles into an operational benchmarking system by determining what is measured, how it is measured and how progress is assessed, while keeping the administrative impact to a minimum.

Recent discussions within the Forum have further highlighted the importance of linking sustainable farm performance with the long-term productive capacity, resilience and viability of farms. Productivity remains a core objective of European agriculture, but future competitiveness increasingly depends on the capacity to maintain and improve productive capacity within environmental, climate and resource constraints.

The benchmarking framework should therefore support sustainable farm performance, understood as the balanced interaction between economic viability (Profit), environmental stewardship (Planet) and social responsibility (People). Soil health should therefore be considered not only as an environmental objective, but also as a foundation for long-term farm performance, resilience and viability. It is proposed as a pragmatic operational entry point, while recognising that soil, biodiversity, water and climate are complementary dimensions requiring dedicated indicators. Economic viability remains an essential enabling condition for farmers to invest in environmental and social progress.

In parallel, the benchmarking system must be designed to create tangible value for farmers and other actors in the value chain. Its operational success will depend not only on measurement capacity, but also on its ability to unlock incentives, reduce administrative burden, and support access to markets, finance, and policy instruments

The benchmarking system does not replace the enforcement of existing EU legislation. Compliance with applicable EU legislation — including environmental, climate, water, soil, biodiversity, animal welfare, food safety and labour obligations — constitutes the non-negotiable baseline of the system. The benchmarking framework strengthens transparency and comparability but cannot serve as an alternative to regulatory enforcement. The framework should build on these requirements and support their coherent application, without diluting or substituting applicable environmental standards.

The operationalisation described in this document should be understood as contributing to the development of the European Commission's On-farm Sustainability Compass, which aims to establish a voluntary benchmarking system for on-farm sustainability assessments. The Compass should support a "report once, use many times" approach, while the benchmarking framework should enable the re-use of sustainability data across multiple policy, market and financial reporting needs.

The Forum does not seek to duplicate the scientific work of the European Commission, the Joint

Research Centre or other ongoing initiatives supporting the On-farm Sustainability Compass. Rather, it aims to contribute to the practical implementation of the emerging Common Reference Framework by validating its operational feasibility against existing public and private sustainability systems. In particular, the Forum provides a platform where scheme owners, value-chain partners, farmers and other stakeholders can jointly explore indicator equivalence, methodological compatibility, governance arrangements and practical interoperability.

The Forum therefore seeks to create convergence between existing sustainability approaches rather than replacing them, recognising that many existing public and private initiatives already share common sustainability objectives, indicators and methodologies.

The system should function as a “report once, use many times” framework, enabling farmers to collect sustainability data once and reuse it across multiple policy, market and financial reporting needs.

Anchoring operationalisation in the guiding principles

Operationalisation must remain firmly anchored in the principles already agreed.

First, the system must **build on existing requirements**. Indicators should, wherever possible, draw on data already collected through existing legal obligations, CAP reporting, farm management systems, or recognised private schemes. The benchmarking system should integrate and streamline existing information flows rather than introduce new reporting layers.

The baseline of the benchmarking system shall be set at the level of established sustainability standards derived from applicable EU legislation and conditionality requirements under the Common Agricultural Policy (CAP). This ensures coherence with the Strategic Dialogue recommendation that benchmarking builds upon legally binding obligations and reinforces their effective implementation.

Second, indicators must ensure clarity and usability. The system should avoid complex composite indices or methodologies that are difficult to understand or apply in practice. Farmers and land managers must be able to clearly understand what is measured and how improvement can be achieved.

Third, the benchmarking system must remain **science-based**, relying on robust and transparent methodologies. At the same time, scientific robustness and practical feasibility must go hand in hand. Indicators should be scientifically credible while remaining operationally feasible and proportionate in terms of cost and administrative burden. Indicators that are scientifically ideal but operationally unrealistic should be avoided at this stage.

Indicators should capture the multiple dimensions of sustainability, including resilience (economic and ecological robustness), efficiency (resource-use performance), and sufficiency (reduction of negative externalities), in line with the holistic whole-farm approach recommended in the Strategic Dialogue.

Fourth, the system must reflect **all dimensions of sustainability** — environmental, economic, social, and circular — while maintaining a limited number of high-impact indicators capable of delivering systemic benefits.

Finally, operationalisation must respect **regional diversity**. Indicators should allow benchmarking against regional or local baselines, recognising different starting points and agro-ecological conditions across Member States. Benchmarking should not only assess current performance but also recognise progress over time. The framework should therefore combine status-based assessment with progress-based benchmarking, allowing farmers to demonstrate continuous improvement relative to their starting point and regional context.

The system should be designed dynamically, allowing for periodic revision and progressive raising of the baseline in line with evolving EU climate, biodiversity, soil and water objectives. Continuous improvement must be embedded in the governance structure of the benchmarking framework.

Bridging public and private sustainability systems

Market access as the common foundation

A central concept emerging from discussions is that of market access as the common denominator across sustainability initiatives. Many existing sustainability schemes and labels already incorporate baseline requirements related to environmental protection, food safety, animal welfare, and social standards. These requirements increasingly function as minimum expectations for participation in European agri-food markets.

The operational certification framework should therefore build on this reality by recognising market access standards as the foundational level of sustainability requirements. This baseline would:

- reflect existing legal obligations and interprofessional standards;
- integrate widely recognised sustainability requirements already applied within supply chains;
- ensure a level playing field across Member States and market actors;
- avoid duplication of audits and reporting requirements.

The objective of the benchmarking system is therefore not to replace existing sustainability schemes, but to create a common measurement and benchmarking framework that allows different public and private initiatives to align around shared indicators and methodologies.

By establishing a common benchmarking language, the system can reduce duplication of reporting for farmers while allowing value chains and certification schemes to continue differentiating their sustainability performance beyond the common baseline.

In this way, certification would not replace existing market access conditions but provide a coherent structure that aligns them within a common EU benchmarking logic. Establishing this shared baseline would simplify the sustainability landscape for farmers and other operators while reinforcing trust and transparency throughout the value chain.

Participation in the benchmarking system should remain voluntary for farmers, while the baseline reflects mandatory legal requirements applicable to all operators. The system therefore distinguishes between:

- mandatory baseline (market access conditions) derived from legislation;
- voluntary benchmarking participation enabling performance assessment and access to incentives.

Commercial sustainability add-ons and market differentiation

Beyond the common market access baseline, the framework should recognise the role of commercial sustainability initiatives that go further than minimum requirements. A significant number of consumers and downstream market actors are willing to reward additional sustainability efforts through price premiums, long-term contracts, or preferential sourcing arrangements.

The certification framework should therefore enable commercial add-ons that:

- build on the common benchmarking and certification structure;
- remain coherent with EU-level methodologies and indicators;
- allow differentiation without fragmenting the internal market;
- reward additional environmental, social, or quality outcomes where market demand exists.

In this architecture, benchmarking functions as the shared measurement infrastructure, while certification schemes and commercial initiatives build upon this foundation to deliver differentiated sustainability outcomes and market signals.

Such an approach preserves innovation and market dynamism while ensuring that additional claims remain credible and comparable. It also enables private initiatives to contribute to the transition without creating parallel or conflicting sustainability systems.

Private initiatives remain free to innovate and develop additional indicators, standards or value propositions beyond the common benchmarking framework, ensuring continued market dynamism and differentiation.

Incentives and value creation

The operational success of the benchmarking system depends on the existence of clear and credible incentives for farmers.

The benchmarking framework should therefore function not only as a measurement tool, but as an enabling mechanism for value creation across policy, markets and finance.

Potential incentive pathways include:

- Policy incentives: alignment with CAP instruments (eco-schemes, conditionality, future stewardship models);
- Market incentives: preferential sourcing, long-term contracts, and price premiums linked to verified sustainability performance;
- Financial incentives: improved access to credit, reduced risk premiums, and integration into ESG frameworks;
- Administrative simplification: reduced reporting burden and recognition of compliance through benchmarking participation.

The system should function as a gateway to these incentives, ensuring that sustainability performance is recognised and rewarded.

Benchmarking existing sustainability systems

The next phase of the Forum's work should focus on benchmarking the proposed framework against existing public and private sustainability systems.

This benchmarking exercise should go beyond comparing individual indicators and examine five complementary building blocks:

- sustainability architecture;
- impact areas and indicators;
- measurement methodologies;
- data architecture and governance;
- opportunities for interoperability.

The objective is not to harmonise existing sustainability schemes, nor to question their added value, but to identify the conditions under which different systems can contribute to a common European reference framework while preserving their own governance, market differentiation and innovation capacity.

The benchmarking exercise should be conducted in close collaboration with existing public and private sustainability initiatives, certification schemes and value-chain programmes. The objective is not to develop an alternative sustainability framework, but to build upon operational experience, identify methodological equivalence and facilitate interoperability between existing systems and the emerging Common Reference Framework. Particular attention should be given to widely adopted sectoral initiatives that already support sustainability reporting and verification, recognising that many existing systems share a substantial proportion of their sustainability requirements while differentiating themselves through a more limited number of additional criteria. This creates important opportunities to reduce duplication of monitoring, auditing and reporting while preserving innovation and market differentiation.

Learning from existing EU methodologies

The Carbon Removal Certification Framework (CRCF), currently under development through EU delegated acts, serves as a methodological reference for outcome-based measurement, robust MRV, and independent verification. While the CRCF focuses on carbon, its methodological principles — transparency, additionality, credibility, and

independent verification — provide lessons for operationalising indicators across multiple sustainability dimensions. While the CRCF emphasises additionality, the broader sustainability benchmarking system must also ensure fair recognition of early movers. The framework should therefore combine: progress-based assessment (improvement over time), and status-based recognition (current performance levels). This approach ensures that farmers who have already achieved high levels of sustainability are not disadvantaged.

While the Carbon Removal Certification Framework (CRCF) provides methodological inspiration, it does not serve as a structural template for the broader sustainability benchmarking system. The benchmarking framework must remain holistic and whole-farm based, covering environmental, economic and social dimensions beyond carbon performance.

The benchmarking system should therefore enable existing sustainability initiatives - both public and private - to align with a common measurement framework while maintaining their specific objectives, additional criteria, and market differentiation.

Methodology for selecting indicators for the European Sustainability Benchmarking System

To give substance to the benchmarking system, a structured indicator selection methodology is essential. This ensures that indicators are credible, achievable, and practical.

The indicator selection methodology should be consistent with the structural logic proposed for the On-farm Sustainability Compass, which organises sustainability assessment through a hierarchical structure:

Sustainability dimension → impact areas (core issues) → indicators → measurement methods → assessment process → context for comparison.

Aligning the benchmarking framework with this architecture will ensure interoperability with the Compass and with other EU sustainability data initiatives.

Step 1: Define selection criteria

Indicators must satisfy the majority of the following criteria:

- Relevance: Linked to one of the sustainability dimensions and systemic outcomes.
- Scientific robustness: Clear causal link to outcomes; established methodology.
- Operational feasibility: Measurable at reasonable cost; uses existing data where possible.
- Comparability and flexibility: Benchmarkable across regions while respecting diversity.
- Incentive compatibility: Understandable, actionable, and avoids perverse incentives.

Step 2: Prioritise a limited set of high-impact indicators

Prior to selecting indicators, a limited set of impact areas (core sustainability issues) should be identified within each sustainability dimension.

For environmental sustainability, potential impact areas include soil health, water resources, biodiversity, climate performance and air quality.

Indicators should then be selected to measure performance within each impact area. Where appropriate, the benchmarking framework should combine practice indicators, result indicators and outcome indicators. Practice indicators capture the implementation of recognised management actions; result indicators measure intermediate effects; and outcome indicators assess the final sustainability impacts. These three categories should be regarded as complementary rather than hierarchical, recognising that their relative importance depends on scientific maturity, operational feasibility and the purpose of the assessment.

Indicators should focus on the leverage points identified in the workshop and be structured to reflect operational relevance while remaining aligned with the three core sustainability dimensions: Economic, Social, and Environmental:

Economic indicators:

These capture the financial realities of the sustainability transition and ensure that progress is economically viable:

- Net farm income evolution: tracking income trends over time relative to regional baselines.
- Profitability: monitoring profitability across production systems.
- Investment capacity and access to finance: ability to invest in sustainable practices and adopt new technologies.

Data can be collected at farm level through farm records or CAP reporting; regional baselines can contextualise performance.

Social indicators:

Social indicators focus on human and community dimensions, ensuring fair and inclusive participation:

- Labour compliance: adherence to basic labour standards.
- Participation in training or advisory systems: adoption of knowledge-sharing initiatives supporting sustainable practices.

These can be measured through existing administrative, advisory, or certification records, reducing additional reporting burden.

Environmental indicators:

Environmental indicators measure outcomes across multiple ecological dimensions and are the most directly linked to sustainability impact. As a pragmatic starting point, the operationalisation of the benchmarking system could prioritise soil health as a core entry domain, given the availability of existing indicators, strong scientific consensus, and its links to climate, biodiversity and productivity. The selection of soil-related indicators is further supported by recent policy developments, including the EU Fertiliser Action Plan. These developments underline the strategic importance of nutrient optimisation, including nutrient balance, nutrient use efficiency and integrated nutrient management, organic matter management and soil fertility for food security, competitiveness and sustainability. In this context, soil health represents both an environmental objective and an economic production factor. This provides a pragmatic entry point for early implementation while maintaining a pathway towards a progressively more comprehensive sustainability assessment framework.

While soil health provides a pragmatic operational entry point for the benchmarking framework, it should not be interpreted as a substitute for dedicated biodiversity, water or climate indicators, which remain essential components of a comprehensive sustainability assessment.

Discussions within the Forum confirmed broad support for soil health as a pragmatic entry point for operationalising the benchmarking framework. Soil indicators combine strong scientific maturity with practical feasibility and create important links between environmental outcomes, productive capacity, climate resilience and biodiversity objectives.

Within this framework, the objective of nutrient management is nutrient optimisation, ensuring that nutrients are supplied from appropriate sources, at the right rate, timing and placement to maximise productivity, resource-use efficiency and environmental performance. Nitrogen, phosphorus and potassium should form the core nutrient scope for benchmarking purposes, reflecting their central role in crop nutrition and the availability of established nutrient-balance methodologies. Where existing soil testing or nutrient management systems support it, assessment may also include secondary nutrients and micronutrients that are agronomically relevant to the production system concerned. Nutrient balance and nutrient use efficiency should therefore be understood as complementary indicators supporting this broader objective.

Field and farm level indicators:

- Soil health: soil organic matter, nutrient optimisation (based on nutrient balance and nutrient-use efficiency for N, P and K), pH, water retention, soil compaction, soil erosion;

- Adoption of practices with proven impact: crop diversification, cover crops, minimum or no-tillage, integrated nutrient and plant protection management, and other resource-efficient management practices;
- Resource efficiency: nutrient use efficiency, input intensity, water use.

Mixed farming systems and livestock can contribute positively to soil health and nutrient cycling through the maintenance of permanent grasslands, diversified crop rotations and the production of organic matter. The benchmarking framework should therefore recognise these contributions where scientifically justified.

Likewise, crop diversification and the integration of legumes can simultaneously contribute to soil health, nutrient efficiency, biodiversity, climate resilience and protein autonomy. This illustrates the systemic nature of sustainable farm performance and the importance of assessing interactions between indicators rather than considering them in isolation.

The contribution of crop diversification and legumes should also be viewed in the broader context of European protein resilience, reducing dependency on imported protein sources while enhancing soil fertility and nutrient efficiency.

Landscape and ecosystem indicators:

- Biodiversity¹ indicators (farm and landscape level):
 - Farm-level biodiversity: presence and diversity of species (e.g. pollinators, indicator species), habitat quality, and on-farm ecological infrastructure
 - Landscape-level biodiversity: farmland biodiversity indices and regional biodiversity trends;
 - Landscape features: hedgerows, ponds, ecological connectivity elements.
- Water quality trends: where catchment-level data are available.

Animal welfare indicators:

- Compliance with established welfare standards (as reflected in market access requirements).

Outcome indicators are prioritised where feasible; proxies are used when direct measurement is not yet practical, and are reviewed periodically for replacement with outcome-based measurements.

The identification of indicators should build on the technical work carried out by the Joint Research Centre (JRC), which is currently developing a harmonised framework for farm-level sustainability assessment and compiling a list of candidate indicators based on international frameworks and existing public and private schemes. The shortlist should also draw upon relevant Horizon Europe projects, Mission Soil initiatives, the EU Soil Monitoring Law, including relevant work on soil health and soil biodiversity, and other scientifically robust sustainability assessment frameworks where these provide operationally relevant indicators. In this context, soil health should encompass its physical, chemical and biological dimensions, including soil biodiversity.

Indicator categories and benchmarking logic

The categorisation of indicators as Core, Complementary and Context Indicators is independent from the proposed tiered implementation approach. The categories describe the role of indicators within the framework, whereas the tiers describe the sequence in which indicators may be introduced over time.

Not all indicators play the same role within a sustainability benchmarking framework. To ensure operational simplicity while maintaining scientific credibility, the proposed indicators can be grouped into three complementary categories.

¹ Biodiversity should be assessed at both farm and landscape level, recognising that individual farm management decisions can significantly contribute to biodiversity outcomes

Core benchmark indicators

Core benchmark indicators form the foundation of the benchmarking system. They should:

- be directly linked to farm management decisions;
- be measurable at reasonable cost;
- rely largely on existing data sources;
- be understandable to farmers and land managers;
- allow benchmarking against relevant peers or regional baselines.

These indicators constitute the primary basis for benchmarking sustainability performance and progress.

Examples include:

- Net farm income trend;
- Income stability;
- Nutrient Optimisation (based on nutrient balance and nutrient-use efficiency);
- Soil organic matter (where soil test data are already available);
- Soil cover;
- Crop diversity.

Complementary indicators

Complementary indicators provide additional information on specific sustainability dimensions or regional priorities. They may be particularly relevant for certain sectors, production systems or geographic conditions.

These indicators can progressively be integrated as methodologies mature and implementation experience grows.

Examples include:

- Investment capacity;
- Water use efficiency;
- Hedgerows and landscape features;
- Animal welfare indicators;
- Energy efficiency.

Context indicators

Certain sustainability outcomes are influenced not only by individual farm management but also by wider landscape, environmental or socio-economic conditions. Such indicators may therefore be better used as contextual benchmarks rather than as direct farm performance indicators.

Context indicators can provide important reference information without creating additional reporting obligations for farmers.

Examples include:

- Regional biodiversity trends;
- Regional species trends;
- Habitat connectivity;
- Catchment-level water quality trends;
- Regional soil and environmental baselines.

Over time, such contextual information could increasingly be supplied through public monitoring systems, including JRC, EUSO, EEA and comparable national or regional monitoring initiatives.

This distinction between core, complementary and context indicators helps maintain a farmer-centred benchmarking system while preserving the ability to progressively expand its analytical scope. The distinction between Core, Complementary and Context Indicators reflects the need to balance scientific completeness with operational simplicity. The

framework should initially focus on a limited number of mature and actionable indicators while preserving the possibility of progressively expanding its analytical scope over time.

Landscape-level indicators should therefore complement farm-level assessment by providing relevant environmental context, without attributing wider landscape outcomes to individual farm management where this cannot be scientifically justified.

Step 3: Balancing practice-, result- and outcome-based indicators

- Outcome indicators should be prioritised where scientifically robust, operationally feasible and sufficiently responsive to farm management to allow meaningful changes to be detected within an appropriate time frame. Where an indicator is used as a proxy rather than measuring the sustainability outcome of interest directly, this should be made explicit and scientifically justified.
- Practice indicators remain valuable where there is a scientifically validated relationship with sustainability outcomes and where they provide an affordable and practical basis for monitoring progress.
- Result indicators provide an important bridge between management actions and long-term sustainability outcomes.
- The appropriate balance between these three categories should evolve over time as methodologies and monitoring technologies mature.
- Some indicators represent intermediate outcomes or scientifically validated proxies for broader sustainability outcomes. Their use should therefore be transparent and explicitly justified within the benchmarking framework.

Step 4: Define measurement protocols

The Farm Sustainability Data Network (FSDN), evolving from the Farm Accountancy Data Network (FADN), should serve as the core data backbone for economic indicators and selected environmental and social indicators where feasible. The FSDN can provide harmonised methodologies for data collection, support pilot testing of sustainability indicators, and ensure comparability across Member States.

FSDN should however be understood as one component within a broader interoperability architecture combining public and private data sources.

For each indicator:

- Specify data sources, frequency, aggregation level, and responsible entity.
- Prioritise existing CAP, farm management, and national monitoring data.
- Ensure quality control and consistency.

Data governance should ensure compatibility with FSDN methodologies and enable use of aggregated sustainability data by the European Board on Agri-Food (EBAF) for monitoring progress and identifying structural barriers to transition.

Data protocols should ensure interoperability between existing public and private data systems and allow the default re-use of existing data sources, including CAP reporting, FSDN data, private certification data, and supply-chain reporting systems.

Future implementation of the benchmarking framework will depend not only on the selection of common indicators but also on the development of interoperable data ecosystems.

Interoperability should enable farmers to collect sustainability information once and re-use it, with their consent, across multiple policy, commercial and financial applications. At the same time, interoperability should respect commercial confidentiality and the legitimate governance arrangements of existing public and private sustainability systems. Farmers should retain control over the sharing of farm-level information through transparent governance arrangements based on informed consent and clearly defined access rights.

Different sectors may currently operate with different levels of data maturity. The benchmarking framework should therefore progressively accommodate multiple data sources and measurement approaches, including farm records, modelling, remote sensing,

precision agriculture technologies and recognised private sustainability systems, provided methodological robustness and transparency are ensured.

The long-term success of the benchmarking framework may depend as much on data interoperability as on indicator selection. Particular attention should therefore be given to interoperability between public reference datasets, farm-level information systems and private sustainability assessment platforms.

The digital infrastructure supporting the benchmarking system should therefore align with the architecture foreseen for the On-farm Sustainability Compass and the European Business Wallet in agriculture.

Emerging initiatives such as natural capital cadastres may provide complementary spatial information on habitats, ecological infrastructure, landscape connectivity and biodiversity assets. Such systems could support the interpretation of farm-level indicators by providing landscape-level context without creating additional reporting obligations for farmers.

Step 5: Pilot testing and cost assessment

- Test indicators across regions, farm sizes, and production systems.
- Evaluate administrative burden, financial cost, data reliability, and farmer understanding.
- Adjust or postpone indicators if complexity or cost is disproportionate.

Pilot testing should be implemented through collaboration between the European Commission and willing stakeholders, including Forum partners, who may act as testing and validation platforms across sectors and regions.

Step 6: Establish regional baselines

- Define benchmarking baselines using the most appropriate reference context, which may include region, agro-ecological zone, soil type, production system or other scientifically justified comparison groups.
- Measure progress relative to these baselines over a defined period (e.g., five years).
- Recognise early movers where historical data is available.

Future benchmarking approaches could combine publicly available reference information, such as regional soil and environmental baseline data developed through JRC and EUSO initiatives, with farm-level information generated through farm management systems, advisory tools and private sustainability schemes. Such an approach could strengthen benchmarking accuracy while preserving interoperability between public and private data infrastructures.

Pilot testing should evaluate not only indicator feasibility but also the interoperability of existing sustainability systems, including data governance arrangements, methodological compatibility and practical implementation across different value chains.

Step 7: Governance and review mechanism

The benchmarking system should be understood as a coordinated framework embedded within existing EU structures, rather than as a standalone institution.

Its governance should be structured along complementary roles:

- The European Commission (through the On-farm Sustainability Compass): overall responsibility for the development of the framework, including indicator definitions, methodological coherence, and digital infrastructure;
- The Farm Sustainability Data Network (FSDN): provision of the core data infrastructure, harmonised data collection methodologies, and support for monitoring and analysis;
- The European Board on Agri-Food (EBAF): multi-stakeholder platform contributing to the development, refinement and practical implementation of the benchmarking framework, ensuring alignment with sector realities and facilitating stakeholder dialogue;
- Private and sectoral initiatives: operational implementation, testing, and scaling

of indicators and methodologies across value chains.

An independent scientific and technical advisory function bringing together scientific experts, technical specialists and practitioners should support the benchmarking system by ensuring methodological robustness, consistency and alignment with the latest scientific knowledge.

The system should include:

- periodic review (e.g. every 5 years);
- structured stakeholder consultation processes;
- progressive adjustment of indicators and methodologies;
- gradual raising of baseline ambition levels in line with EU sustainability objectives.

Step 8: Iterative scaling and future linkages

- Scale only once indicators are stable, usable, and cost-effective.
- Future linkages may include CAP incentives, private initiatives, and potential certification.
- CRCF serves as a methodological reference for MRV, but not as a structural template.

Operationalising the European sustainability benchmarking system is the essential next step before any certification. By defining simple, feasible, and affordable indicators, the EU can:

- create a farmer-centric, credible, and scientifically grounded system;
- provide transparency and comparability across Member States;
- respect regional diversity while maintaining coherence;
- set the stage for future certification or market recognition once the system is fully established.

This approach ensures that the benchmarking system remains practical, effective, and aligned with the guiding principles and potential pathways, forming a solid foundation for Europe's sustainable agri-food transition.

Bridging the benchmarking system and an operational certification framework

Carbon Removal Certification Framework (CRCF)

The proposed European benchmarking system provides a common analytical foundation for assessing sustainability performance across the agri-food sector. Its primary function is to create a shared understanding of progress, enable comparability across Member States, and guide both policy and investment decisions through science-based indicators and measurable outcomes. To translate this analytical framework into practical implementation, a next step is required: the gradual development of an operational certification framework that allows sustainability performance to be recognised, rewarded, and operationalised within both public policy and market dynamics.

In this transition from benchmarking to certification, the Carbon Removal Certification Framework (CRCF), as proposed by the European Commission and currently under development through delegated acts, provides an important methodological reference. The CRCF demonstrates how outcome-based environmental performance can be translated into an operational certification system built on robust monitoring, reporting and verification (MRV), independent certification, and clear governance rules. While focused specifically on carbon removals, its principles — including transparency, additionality, credibility, and avoidance of double counting — offer relevant lessons for the broader sustainability certification framework envisaged for the agri-food sector.

Recognition of certification schemes within the future operational framework must be conditional upon independent accreditation, transparent methodologies, third-party verification, and periodic review. Recognition cannot weaken or substitute regulatory enforcement and must demonstrably contribute to the objectives of relevant EU legislation.

At the same time, the future operational framework should reflect the reality that sustainability in European agriculture already evolves through multiple channels, including legislation, market requirements, voluntary standards, and private initiatives. A key objective should therefore be to bring coherence to this landscape rather than adding complexity. While the primary objective of the benchmarking system is technical harmonisation and operational feasibility, its results may also provide valuable input into future policy discussions, including CAP evolution and sustainability incentive design.

Where a certification scheme is formally recognised as adequately contributing to the objectives of specific EU legislation (e.g. Nitrates Directive, animal welfare provisions, CAP conditionality), farmers holding such certification may benefit from reduced administrative duplication, provided robust verification safeguards are in place to prevent misuse or circumvention of legal obligations.

From benchmarking to certification: A coherent architecture

Taken together, the benchmarking system, the operational certification framework, and the CRCF can be understood as complementary components of a coherent architecture:

- Benchmarking provides the common scientific basis, indicators, and measurement framework;
- Market access standards define the minimum sustainability foundation applicable to all market participants;
- Compliance with applicable EU legislation constitutes the mandatory baseline for all operators and is subject to continued public enforcement by competent authorities.
- Operational certification translates performance and progress into recognised outcomes linked to policy support and market incentives;
- Commercial add-ons allow further differentiation and value creation where consumers and markets reward additional efforts;
- The CRCF serves as an operational reference demonstrating how outcome-based certification and MRV can function at EU level.

This layered approach reflects the direction outlined in the Strategic Dialogue and in Commissioner Hansen's vision for agriculture: moving from fragmented compliance towards a system that rewards measurable progress, strengthens economic viability for farmers, and provides clarity for markets and consumers.

By structuring sustainability efforts around a common baseline and transparent progression pathways, the EU can reduce administrative burden, increase coherence between public and private initiatives, and create the conditions for scaling sustainability across the agri-food system while maintaining a level playing field within the internal market.

The benchmarking system should also support public and private financial institutions by providing credible, harmonised sustainability indicators that help overcome barriers to financing the transition, in line with the Strategic Dialogue recommendations.

Testing, learning and progressive refinement

Given the diversity of European agriculture, operationalisation should proceed through an iterative approach:

1. Testing indicators in pilot regions and sectors, assessing feasibility and cost.
2. Refining methodologies based on farmer experience and scientific evaluation.
3. Gradual scaling, once indicators demonstrate reliability and usability across different production systems.
4. Evaluating whether the proposed indicators effectively support progress-based benchmarking and recognise improvement trajectories over time.
5. Assessing the interaction between farm-level indicators and contextual reference indicators.

This learning-based approach is essential to ensure that the benchmarking system remains farmer-centric and avoids creating unintended administrative or economic burdens.

The iterative refinement process should include structured feedback loops through EBAF and FSDN testing phases, ensuring that lessons from pilot regions are systematically integrated into indicator refinement and baseline adjustment.

Voluntary sectoral arrangements, potentially including Memoranda of Understanding (MoUs), could in the future provide practical vehicles for applying the benchmarking framework in specific agri-food sectors. Such arrangements could address sector-specific indicators, measurement methods, benchmarking contexts and data protocols, while remaining aligned with the Common Reference Framework.

Conclusion

Operationalising the European sustainability benchmarking system requires a shift from conceptual ambition to practical implementation. The immediate priority is therefore to define a limited set of simple, feasible, and affordable indicators that can credibly measure progress across environmental, economic, and social dimensions while respecting regional diversity. Particular emphasis should be placed on indicators that are scientifically robust, operationally mature and capable of demonstrating progress over time. Starting with a limited set of indicators should not be seen as reducing ambition, but rather as a pragmatic pathway towards a more comprehensive sustainability assessment framework.

The system must remain anchored in the enforcement of existing EU legislation, progressively raise ambition levels over time, and operate under clear multi-stakeholder governance through EBAF, supported by FSDN as a harmonised data infrastructure.

By focusing first on operational substance — rather than certification — the EU can establish a benchmarking system that is trusted by farmers, credible for policymakers, and capable of supporting future alignment between public support, private initiatives, and market incentives. Only once such a system is fully established and functioning should further steps towards certification or market recognition be considered.

By linking measurement to incentives, reducing administrative burden, and enabling alignment across public and private initiatives, the benchmarking system can become a central enabler of the sustainable transition in European agriculture.

Consultation process and outcomes to date

The consultation process described below should be considered complementary to the stakeholder discussions organised by the European Commission within the development of the **On-farm Sustainability Compass**, contributing practical experience from farmers, private initiatives, financial institutions and sustainability schemes.

Objective: Build stakeholder alignment, validate operational feasibility, and progressively converge towards a **limited, implementable set of indicators and methodologies**, enabling pilot deployment of the benchmarking system.

The consultation process should follow a **progressive, multi-phase approach**, where each session builds towards operational decisions:

Phase 1 – Validation and convergence

→ Confirm principles, structure, and initiate convergence towards a shortlist of indicators

Phase 2 – Operational alignment

→ Define measurement protocols, data flows, and governance roles

Phase 3 – Implementation readiness

→ Prepare pilot testing, incentive linkages, and sectoral deployment pathways

Each session aimed to produce **concrete outputs**, rather than solely collecting feedback.

The consultation process combines stakeholder dialogue with iterative technical drafting. Between sessions, the rapporteur will prepare proposals — including indicator shortlists and methodological options — which will be reviewed, challenged, and refined through subsequent sessions.

Session 1 (19 March 2026) – Forum for the Future of Agriculture partners

Objective: Validate guiding principles, high-level indicator selection, operational feasibility.

Q&A focus:

1. Are the Economic / Social / Environmental indicators comprehensive and relevant for your sector?
2. Which indicators are operationally feasible to measure at farm level today?
3. Are the proposed proxies for Environmental outcomes acceptable?
4. How should regional diversity and agro-ecological differences be addressed?
5. Are there data sources already available through your members that can feed into the system?
6. Are there early-mover practices that should be recognised in baselines?

The outcome of Session 1 showed:

- Validation of the overall concept note and proposed architecture of the benchmarking system;
- Confirmation of the guiding principles and strategic direction;
- Agreement on the need to move towards a limited and operational set of indicators.

The first session established the overall architecture of the proposed benchmarking system, discussed the principles for indicator selection and confirmed the readiness-based implementation approach.

Session 2 (22 April 2026) – DG CLIMA / DG ENV

Objective: Align on environmental outcomes, climate ambition, and MRV approaches.

Q&A focus:

1. Are the Environmental indicators consistent with EU climate, biodiversity, and soil policies?
2. Does the use of CRCF as a methodological reference meet transparency and credibility requirements?
3. How can landscape-level and farm-level indicators be integrated in monitoring?
4. What is the appropriate frequency and granularity of data collection?
5. Which proxies are scientifically validated and acceptable for temporary use?
6. Are there regulatory constraints or reporting overlaps to consider?

Expected outputs:

- Building on the preliminary shortlist of indicators proposed following Session 1
- Validation of environmental indicators against EU policy frameworks;
- Agreement on acceptable proxies and outcome indicators;
- Initial alignment on MRV principles and data granularity.

The second consultation session did not take place as originally foreseen. Nevertheless, the work continued through exchanges with Forum partners and through the ongoing development of the Concept Note and preliminary shortlist of indicators. These activities provided the basis for the subsequent discussions with DG AGRI. The planned dialogue with DG CLIMA and DG ENV will be taken forward in the next consultation phase, with particular attention to environmental indicators, biodiversity, soil monitoring, landscape-level assessment and relevant MRV approaches.

Session 3 (19 May 2026) – DG AGRI

Objective: Align benchmarking with CAP and farm support mechanisms.

Q&A focus:

1. How can the benchmarking system integrate existing CAP reporting requirements to reduce administrative burden?
2. Which economic and social indicators are critical for farm viability?
3. How can early-mover recognition be operationalised in policy instruments?
4. Are market access baselines sufficiently captured by current compliance frameworks?
5. How can commercial add-ons be incentivised without fragmenting the internal market?

Outputs:

- Further refining the preliminary shortlist of indicators in light of CAP and FSDN considerations
- Alignment with CAP reporting and FSDN data structures;
- Identification of potential CAP-linked incentives;
- Clarification of administrative simplification opportunities.

The outcome of Session 3 showed a confirmed broad support for:

- benchmarking existing sustainability systems rather than developing a new one;
- soil health as a pragmatic operational entry point;
- a progressive implementation approach;
- continued work on indicator selection and methodological development.

Parallel exchanges with DG AGRI

Building upon the discussions held during Session 3, Forum representatives participated in several DG AGRI workshops on the development of the On-farm Sustainability Compass. These workshops provided valuable insights into the emerging Common Reference Framework, the Common Data Layer, the inventory of private sustainability schemes and implementation methodologies. The lessons learned from these workshops have been progressively reflected in the revised Concept Note and Annex.

Session 4 (16 June & 6 July 2026) – Private initiatives (OP2B, SAI, etc.)

Objective: Integrate private sustainability schemes, align methodologies, avoid duplication. The objective is to identify those elements that are already functionally equivalent across existing systems and therefore capable of contributing directly to the Common Reference Framework. Particular attention should be given to opportunities for mutual recognition, reduced duplication of reporting and auditing, and more efficient implementation across value chains.

Q&A focus:

1. Which private indicators and metrics could complement the EU benchmarking system?
2. How can private schemes adopt the same indicator definitions for comparability?
3. Are there existing outcome-based indicators that can be scaled at EU level?
4. How can commercial add-ons be harmonised with private labelling?
5. Which verification or MRV processes can be mutually recognised?

Outputs:

- Benchmark existing public and private sustainability systems against the proposed Common Reference Framework.
- Identify common indicators and areas of methodological equivalence.
- Compare underlying data architectures and governance arrangements.
- Identify practical opportunities and barriers for interoperability.
- Formulate recommendations for the future Common Data Layer supporting the On-farm Sustainability Compass.

The fourth consultation phase was organised in a different format, combining plenary discussions with targeted exchanges. By this stage, the work had evolved beyond the selection of indicators towards benchmarking existing sustainability systems and exploring interoperability.

Several Forum partners also participate in initiatives such as SAI Platform, OP2B and other sectoral sustainability programmes. Their contributions therefore enriched the discussions from the perspective of practical implementation. One of the main outcomes of this consultation phase was the explicit agreement to establish a structured dialogue with SAI Platform, OP2B and other relevant sustainability initiatives as part of the next phase of the Forum's work. The objective is to benchmark existing sustainability systems, identify functional equivalence and explore practical pathways towards interoperability with the emerging Common Reference Framework.

Session 5 – Banking and finance sector

Objective: Explore links to investment incentives, risk assessment, and ESG alignment.

Q&A focus:

1. Which indicators are most relevant for assessing farm-level climate and sustainability risks?
2. Can the benchmarking system be used as a tool for credit or investment eligibility?
3. Are Economic and Social indicators sufficient for financial decision-making?
4. How can verification and reporting be aligned with existing ESG frameworks?
5. Which market add-ons or performance signals would support investment incentives?

Expected outputs:

- Identification of indicators relevant for financial risk and investment decisions;
- Alignment with ESG reporting frameworks;
- Initial proposals for linking benchmarking performance to financing conditions.

The fifth consultation session has not yet taken place. Rather than representing a gap in the process, it provides the opportunity to build on the substantial progress made during the previous consultations. The next consultation phase will include the planned engagement with the banking and finance sector, while also building upon the conclusions of Session 4 by engaging directly with SAI Platform, OP2B and other relevant public and private sustainability initiatives. This will focus on identifying functional equivalence and exploring practical pathways towards interoperability with the European Commission's emerging Common Reference Framework.

Next Steps in the consultation process

- Consolidate answers from each session into a structured decision log, identifying agreed elements, open issues, and required follow-up actions.
- Identify commonalities, divergences, and practical constraints.
- Refine indicator selection methodology and measurement protocols accordingly.
- Use consultation outputs to pilot test indicators in select regions and production systems.
- Iterate the framework before considering certification or market recognition.
- Submit refined framework to EBAF for structured review and validation before any legislative or delegated act proposals.
- Develop a **preliminary core indicator set** based on consultation outcomes;
- Define pilot regions and participating stakeholders;
- Launch pilot phase to test indicators, data flows, and incentive linkages in practice;
- Use pilot results to refine the benchmarking framework before any certification or policy integration.

Building upon the conclusions of Session 4, bilateral exchanges will be organised with interested Forum partners and relevant sustainability initiatives (including SAI Platform, OP2B and other initiatives represented within the Forum) to benchmark the proposed framework against existing sustainability systems. These exchanges will involve both policy representatives and technical sustainability experts from participating organisations. Their objective is to better understand existing methodologies, indicators, governance models and data architectures, identify areas of functional equivalence, and explore practical pathways towards interoperability while fully respecting commercial confidentiality and farmer control over data sharing.

Following publication, the Forum should move from conceptual development towards practical validation. This should include structured dialogue with existing public and private sustainability initiatives, assessment of functional equivalence and interoperability, completion of outstanding stakeholder consultations, further refinement of indicators and measurement methodologies, and identification of opportunities for pilot testing. Lessons from this process can contribute to the practical development of the On-farm Sustainability Compass and emerging Common Reference Framework.

Biography

Strategic-dialogue-report-2024

Strategic Dialogue on the Future of EU Agriculture, 04.09.2024, A shared prospect for farming and food in Europe, Deploying a new approach to deliver on sustainability, p10 and Part C, 1.2 A new approach to deliver on sustainability, p40-42.

2) Deploying a new approach to deliver on sustainability:

The Strategic Dialogue supports and commits to the maintenance and enforcement of existing EU legislation and to finding actionable leverages to improve its implementation. Members call for launching an EU-wide benchmarking system in agriculture and food systems aiming to harmonize methodologies of on-farm sustainability assessments. This system should be based on common objectives, principles, and criteria, and include monitoring and verification tools with common metrics and indicators. It should measure where each farm and sector stands, facilitate comparisons across diverse sustainability objectives and ambitions and thus contribute to carry out the necessary steps to increase sustainability standards (Part C.1.2.).

C.1.2. A new approach to deliver on sustainability

- o ***Enforcement of existing legislation***
- o ***Deployment of a new sustainability benchmarking system in agriculture and food systems***
- o Therefore, the Strategic Dialogue proposes that the European Commission establishes a benchmarking system that will harmonize methodologies of on-farm sustainability assessments. The system should focus first on benchmarking of agriculture and could in further steps be extended to the whole agri-food system. This benchmarking system should be based on common objectives, principles, and criteria, and include monitoring and verification tools with common metrics and indicators (see C.1.5).
- o The benchmarking system proposed requires a clearly defined baseline that ought to be set at the level of established sustainability standards derived from the applicable legislation. The European Commission should monitor the system and take the appropriate legislative measures to guarantee an appropriate enforcement of the standards.
- o The benchmarking system for agriculture should measure where each sector and farm stands and thus help to navigate towards the best options, contribute to the development of appropriate labelling and certification systems, and carry out the necessary steps to increase sustainability standards. The system should facilitate comparisons across diverse sustainability objectives and ambitions (e.g., biodiversity conservation and restoration, GHG emissions reduction or sequestration, pollution reduction, increasing animal welfare, improvement of water quality, working

conditions) to promote a comprehensive approach to sustainability. It should enable comparability among products within specific sectors and between farming models for effectively assessing sustainability farm performance and could help public and private institutions in overcoming existing obstacles to finance the transition (see C.1.4).

- o The system should rely on scientifically sound indicators that factor in all externalities and sustainability dimensions encompassing resilience, sufficiency, and efficiency. Adopting a holistic whole-farm approach and recognizing the specificities of currently legally regulated existing schemes will help minimize unintended consequences of farm optimizations.
- o The Farm Accountancy Data Network (FADN) should be further developed into the Farm Sustainability Data Network (FSDN) and implement methodologies to collect sustainability data at farm level. The FSDN should be used by the European board on Agri-food (EBAF, C.1.6) to assess sustainability indicators, to test data collection methods for farmers and to monitor sustainability. In the future, a methodology for product-level assessment needs to be developed.
- o In order to implement this new system, the following elements also need to be taken into consideration:
 - **Dynamics:** the benchmarking system should serve as a common language for sustainability across the agri-food sector and with civil society and government. It should be designed dynamically by thriving to continuously raise the baseline and be open for revision and adaption. Its assessments will help drawing conclusions on why certain sectors, products and players are struggling to raise this baseline and how these barriers can be overcome, keeping in mind the pace of the transition, given the market situation and government support.
 - **Bottom-up approach:** The new multistakeholder body, the European board on agri food (EBAF), which the Strategic Dialogue recommends establishing (see C.1.6.), should play an important role in developing, implementing, overseeing, and refining the benchmarking framework, addressing and resolving inconsistencies and monitoring progress.
 - **Private-public partnership:** Organisations and institutions that support the implementation of the benchmarking system at farm level must be recognised by the Member State and regularly inspected by independent official authorities.
- o **A tailored approach:** The European Commission should design an administrative framework that reduces administrative burden for farms which are actively contributing to reducing negative externalities. Farmers who voluntarily comply with certification schemes recognised by the EU as relevant to reducing negative externalities are deemed compliant with EU legislation. Each certification/standard will have to be duly assessed for its contribution to the objectives and targets of a specific regulation or element within it and only be acknowledged if it adequately complies or goes beyond its goals (e.g. Nitrate Directive, Conditionality).

A system of sound verification of this approach is crucial and should be achieved by working with certification schemes that use authorised and accredited standards (whether public or private) under independent third-party supervision. If a certain accredited certification/standard is recognised to adequately contribute to the objectives of a specific legislation, it proves that farmers holding this certificate are compliant with generic measures and obligations stemming from this legislation. This should bring an advantage and reduce administrative burden for farmers who are already engaged in certified sustainable farming methods and be an incentive for others to transition their farm system as well (e.g. through proven lower Nitrate-Balances as targeted in legislation).

While recognising the potential positive contribution of this tailored approach, the Strategic Dialogue also recognises the need for examination, regular observations and audits of its implementation process and to ensure it is not misused to circumvent environmental obligations.

A new vision for Agriculture and Food

COM(2025) 75 final, 19.2.2025, A Vision for Agriculture and Food. Shaping together an attractive farming and agri-food sector for future generations, Incentivising sustainability, p18-19.

Incentivising sustainability

- o Environmental sustainability is increasingly a license to produce for farmers. The opportunities from nature and climate protection can provide a positive agenda for European agriculture. Working with nature provides resilience for farming for future generations, and it has started its incremental steps to draw in financing from the private sector, which should be further explored as a complementary source of income, in addition to public support. When it comes to carbon removals, carbon farming and carbon storage, these approaches will become more harmonised in the EU thanks to the Carbon Removal and Carbon Farming (CRCF) certification framework. The upcoming harmonised CRCF methodologies and verification rules will bring more clarity in that regard.
- o However, in recent years European farms have seen a substantial multiplication of sustainability standards, certifications and reporting requirements, set by various actors, organisations and institutions, both public and private. These different methodologies and reporting requirements touch on wide range of aspects related to sustainability and are resulting in a fragmented landscape, characterised by inconsistencies between standards, incomparability of initiatives, and misleading signals as to the direction to take. This creates high transaction costs and confusion for farmers and bears the risk of 'greenwashing' practices.
- o To address this problem, in addition to simplifying and streamlining EU requirements, the Commission will also develop and gradually phase in a voluntary benchmarking system for on-farm sustainability assessments, thus allowing simplification and benchmarking to go hand in hand. Similar benchmarking approaches could be developed together with and extended to the whole agrifood sector, including supporting consumer choices.
- o An example of benchmarking: On-farm Sustainability Compass
The sustainability compass should act as a one-stop-shop that streamlines reporting and reduces administrative burdens for farmers, allowing them to monitor and record sustainability data only once. Secondly, it will support farmers in gradually adopting more sustainable practices and attracting new sources of financing. It will allow them to better measure and benchmark their sustainability farm performance and demonstrate their provision of ecosystem services through easier data sharing. Thirdly, improved measurement and reporting can help design public policies in a proportionate way. This voluntary system for on-farm sustainability assessments will be developed based on a bottom-up, participatory and 'customer-driven' approach.

Preliminary shortlist of sustainability indicators

Introduction

The operationalisation described in this document should be understood as contributing to the development of the European Commission's **On-farm Sustainability Compass**, which aims to establish a voluntary benchmarking system for on-farm sustainability assessment. The Compass is expected to function as a practical one-stop shop, enabling farmers to collect sustainability data once, benchmark their performance, and share verified information with public authorities, supply chains and financial institutions.

Following the previous discussions within the Forum for the Future of Agriculture, a broad consensus has emerged on the guiding principles that should underpin any future European sustainability **benchmarking system**, supported by a coherent methodological **framework**. Partners agreed that the system should be:

- **Farmer-centred**, reducing administrative burden rather than adding new layers of reporting;
- **Science-based and credible**, using robust indicators and transparent methodologies;
- **Practical and affordable**, relying as much as possible on existing data systems;
- **Comparable yet flexible**, allowing benchmarking across regions while recognising different farming realities;
- **Built around a common framework** with a core set of indicators, complemented by regional or sector-specific modules where justified;
- **Supportive of market innovation**, enabling existing sustainability initiatives and labels to continue differentiating themselves beyond a common baseline;
- **Progress-oriented**, rewarding both improvement over time and high existing performance.

In line with these principles, the present shortlist of indicators is structured around the three core sustainability dimensions - economic, social and environmental - within the proposed methodological framework. To strengthen methodological coherence, indicators should where relevant be distinguished between practice indicators (actions undertaken), result indicators (measurable intermediate effects), and outcome indicators (final sustainability impacts). Certain indicators may legitimately fulfil more than one role within the framework. For example, landscape elements represent both a management intervention and a biodiversity outcome. The categorisation should therefore support interpretation rather than impose rigid classifications. The benchmarking framework should maintain an appropriate balance between these three categories. Practice indicators remain particularly valuable where they are scientifically linked to sustainability outcomes and provide a practical and affordable means of monitoring progress. This allows benchmarking systems to recognise both immediate action and longer-term performance improvements.

Different dimensions require different data approaches:

- Economic indicators can largely rely on farm records, CAP reporting systems and Farm Sustainability Data Network (FSDN) data, while regional baselines help contextualise performance.
- Social indicators can build on existing administrative, advisory and certification records, limiting additional reporting obligations.
- Environmental indicators should prioritise measurable outcomes wherever feasible, complemented by robust proxies where direct measurement is not yet practical. These indicators are the most directly linked to sustainability impact.

Data collection should draw pragmatically on five complementary channels: farm declarations and surveys; administrative and statistical records; earth observation and geospatial data; field sampling and testing; and model-based calculations where scientifically robust.

Over time, the effectiveness of the benchmarking framework will depend not only on the quality of the selected indicators but also on interoperability between public reference datasets, farm-level information and private sustainability assessment systems. Improving such interoperability should therefore be considered an integral part of the operational development of the benchmarking framework.

As a pragmatic starting point, operationalisation could prioritise soil health as a core entry domain, given the availability of existing indicators, strong scientific consensus, and its direct links to climate, biodiversity and productivity. This progressive approach would enable early implementation while maintaining a pathway towards a progressively more comprehensive sustainability assessment framework.

The identification of indicators should also build on the technical work carried out by the Joint Research Centre (JRC), which is currently developing a harmonised framework for farm-level sustainability assessment and compiling candidate indicators based on international frameworks and existing public and private sustainability schemes.

The shortlist below therefore distinguishes between:

- **Ready now** – can be deployed using existing data and accepted methods;
- **Needs piloting** – promising indicators requiring testing or refinement;
- **Future development** – strategically relevant indicators not yet mature for broad implementation.

The objective is to move pragmatically from concept to practice: starting with indicators that are measurable, useful and trusted today, while keeping an open pathway toward a more comprehensive sustainability benchmarking system over time.

The shortlist should also support the benchmarking of existing sustainability systems by facilitating comparisons between indicator sets, methodologies and data architectures.

Functional Equivalence

Existing sustainability systems should not necessarily use identical indicators or methodologies to contribute to the Common Reference Framework.

The benchmarking exercise should therefore assess whether different indicators or methodologies produce functionally equivalent sustainability information capable of supporting common reporting, benchmarking and interoperability.

Shortlist of indicators

The indicators below should be understood as a full menu from which operational tiers can progressively be constructed. *The shortlist combines three complementary categories of indicators:*

Core benchmark indicators

- directly benchmarked at farm level;
- operationally mature;
- central to benchmarking.

Complementary indicators

- progressively integrated;
- sectoral or regional relevance.

Context indicators

- supplied increasingly through public monitoring systems;
- provide reference values without increasing reporting obligations.

These categories are independent from the tiered implementation pathway presented earlier in this document.

Economic Indicators

Sustainable farm performance is a central objective of the benchmarking framework. Long-term competitiveness depends on maintaining productive capacity, resilience and farm viability while operating within environmental, climate and resource constraints. Economic indicators therefore complement environmental and social indicators in assessing overall sustainability performance. This is also the area where FSDN is currently strongest. Taken together, the proposed indicator set is intended to assess sustainable farm performance by capturing the economic viability, environmental stewardship and social responsibility of farms in an integrated manner.

Indicator	Readiness	Description	Main Source
Net Farm Income Trend	●	Evolution of farm income over time relative to peers or baseline.	Farm records/FSDN/CAP reporting
Investment Capacity	●	Ability to invest in equipment, sustainability measures or innovation.	Farm accounts/FSDN/banking data
Income Stability	●	Volatility of income over several years.	Farm accounts/FSDN
Productivity Efficiency	●	Output per hectare, labour unit or livestock unit.	Farm records/FSDN
Access to Finance	●	Ability to obtain loans or sustainability-linked finance.	Banking sector/EIB/surveys
Debt Resilience	●	Capacity to manage debt exposure and financial shocks	Farm accounts/lenders

Social Indicators

Social sustainability ensures that farming remains attractive, fair and resilient. Administrative and advisory systems are often stronger sources than farm surveys alone.

Indicator	Readiness	Description	Main Source
Labour Compliance	●	Compliance with labour legislation and working conditions.	Labour authorities/certification audits
Training Participation	●	Participation in advisory systems, AKIS or training programmes.	CAP AKIS systems/advisory records
Health & Safety	●	Safety measures, accident prevention and risk management.	Labour systems/insurers/farm records
Generational Renewal	●	Presence of succession planning or young farmer participation.	CAP beneficiary data/FSDN
Farmer Well-being	●	Stress, well-being or quality of life indicators.	Dedicated surveys/research institutes
Workforce Retention	●	Ability to attract and retain skilled labour.	Labour records/surveys
Advisory Engagement	●	Participation in farm advisory or innovation systems.	AKIS/advisory systems

Environmental Indicators

Environmental indicators should prioritise measurable outcomes wherever feasible, complemented by robust result indicators and practical proxies where direct measurement is not yet feasible.

Soil and Nutrients

Soil is the most practical starting point for benchmarking because it links productivity, water retention, biodiversity and climate resilience. It is also widely accepted by farmers and policymakers. Soil health indicators should be interpreted as proxies for sustainable farm performance, reflecting the capacity of agricultural soils to maintain productive potential while delivering climate, biodiversity and water-related benefits. The Forum discussions confirmed broad support for using soil health as the operational entry point for the benchmarking framework because soil combines scientific robustness, practical feasibility and direct links with productive capacity, climate resilience, biodiversity and water management.

Indicator	Readiness	Description	Main Source
Soil Organic Matter	●	Indicator of soil fertility, resilience and carbon storage.	Soil tests/ farm records
Nutrient Optimisation	●	Assessment of nutrient optimisation through nutrient balance and nutrient use efficiency, taking account of the supply, utilisation and cycling of essential plant nutrients. Particular attention should be paid to nutrient circularity and the interaction between crop and livestock systems. This indicator is also directly relevant to the objectives of the EU Fertiliser Action Plan, which seeks to improve nutrient-use efficiency, strengthen circular nutrient management and enhance the resilience of nutrient supply systems.	Farm records/FSDN/ nutrient plans
Nutrient Use Efficiency	●	Efficiency with which nutrients are converted into output.	Farm records/FSDN
Soil Cover	●	Protection of soil through vegetation cover.	CAP declarations/ satellite data
Soil Erosion Risk	●	Vulnerability of land to erosion losses.	JRC models/parcel data
Permanent Grassland Maintenance	●	Share of permanent grassland and duration since last reseeding or ploughing.	CAP declarations, LPIS, Farm records

Water

Water indicators are particularly important in drought-prone and irrigated regions. A modular approach is recommended rather than one-size-fits-all EU application.

Indicator	Readiness	Description	Main Source
Water Use Efficiency	●	Output produced per unit of water used.	Farm irrigation records/water systems
Water Compliance	●	Compliance with abstraction permits and water rules.	Water authorities
Water Quality Impact	●	Contribution to wider catchment water quality trends.	Water Framework Directive monitoring
Irrigation Risk Exposure	●	Exposure of the farm business to water scarcity or irrigation restrictions.	Water authorities/farm records

Biodiversity

Biodiversity should be assessed at both farm level and landscape level. Individual farms can deliver meaningful biodiversity gains even in more intensive regions, while wider ecological outcomes often depend on habitat connectivity and regional land-use patterns.

Indicator	Readiness	Description	Main Source
Habitat Share	●	Share of farm area in habitats, buffers, trees or margins.	CAP eco-schemes/farm declarations
Landscape elements (Hedgerows/Ponds/Flower Strips)	●	Percentage of the farm occupied by ecological infrastructure including hedgerows, ponds, field margins, flower strips, woodland patches and isolated trees.	LPIS, Farm declarations/geospatial data
Crop Diversity	●	Diversity of cropping systems and rotations. Crop diversification may also contribute to protein resilience, biological nitrogen fixation and reduced dependency on external inputs.	CAP declarations/farm records
Pollinator Proxy	●	Proxy for pollinator-friendly habitat and management.	Certification schemes/surveys/JRC
Regional Biodiversity Trend	●	Wider biodiversity benchmark in surrounding region.	National monitoring/EEA/JRC
Habitat Connectivity Proxy	●	Degree to which habitats are linked across the surrounding landscape.	JRC/GIS tools
Regional Species Trend	●	Benchmark trend for farmland birds, pollinators or indicator species in the region.	National monitoring/EEA

Landscape-level biodiversity indicators may in the future be complemented by information derived from natural capital cadastres or comparable spatial monitoring systems.

Climate Indicators

Climate indicators are strategically important but can become complex quickly. A progressive approach with sector modules is more realistic than immediate full carbon accounting.

Indicator	Readiness	Description	Main Source
Energy Efficiency	●	Energy use per unit of production.	Farm energy records
GHG Intensity	●	Greenhouse gas emissions per tonne, litre or hectare.	Farm records/FSDN/JRC methodologies
Carbon Credits	●	Verified removals or sequestration outcomes.	CRCF-type certification systems
Renewable Energy Share	●	Share of farm energy demand met through renewable generation	Farm energy records

Animal Welfare

Animal welfare is an important market and societal expectation. Sector-specific modules are preferable to generic EU-wide metrics.

Indicator	Readiness	Description	Main Source
Welfare Compliance	●	Compliance with recognised welfare rules or schemes.	Veterinary authorities/certification systems
Mortality / Health Proxy	●	Mortality, disease or treatment indicators.	Farm records/veterinary databases
Behaviour Metrics	●	Advanced sensor-based welfare indicators.	Precision livestock systems/pilots

Tiered operational implementation pathway

Once a preliminary shortlist of indicators has been established, implementation should proceed progressively and in line with the operational readiness of indicators.

The tiered approach proposed in this document is intentionally structured around the readiness status of indicators and their capacity to be deployed credibly, practically and at reasonable cost.

Operational readiness is assessed through three filters. These readiness categories inform, but do not mechanically determine, the tiered implementation pathway set out below.

1. Data readiness

Can the indicator be sourced now from existing systems, without creating disproportionate new reporting obligations?

Examples of existing data sources include:

- farm records;
- CAP declarations and reporting systems;
- FSDN data;
- advisory and AKIS systems;
- veterinary and certification records;
- geospatial and monitoring systems.

2. Methodological maturity

Is there already a broadly accepted and scientifically credible way to calculate or assess the indicator?

Examples include:

- Strong maturity:
 - net farm income trend;
 - nutrient balance;
 - soil cover;
 - crop diversity.
- Medium maturity:
 - soil organic matter;
 - water use efficiency;
 - greenhouse gas intensity.
- Lower maturity:
 - pollinator metrics;
 - biodiversity outcome indicators;
 - farmer well-being indicators.

3. Implementation practicality

Can farmers understand the indicator easily, and can it be deployed without major administrative burden, excessive cost or disproportionate complexity?

This includes:

- clarity for farmers and land managers;
- affordability of measurement;
- limited reporting burden;
- compatibility with existing farm management systems;
- usefulness for policy, market or finance purposes.

This tiered approach bridges the gap between a simple entry-level benchmarking option that can be deployed rapidly and a broader long-term sustainability framework that can mature progressively over time.

The tiered implementation pathway reflects the broad consensus reached during the Forum discussions that operational simplicity should precede completeness, allowing the benchmarking framework to mature progressively as methodologies and data systems evolve.

Tier 1 – Core entry-level benchmarking set

A limited number of highly practical indicators that are measurable today, easy to understand, and based largely on existing data flows.

A pragmatic Tier 1 set could focus on:

- net farm income trend;
- income stability;
- nutrient balance;
- soil cover;
- crop diversity;
- where soil test data are already available, soil organic matter;
- landscape elements.

Tier 1 indicators should primarily prioritise high-readiness metrics with strong data availability and low reporting burden. The objective of Tier 1 is to enable rapid uptake, low administrative burden, and early confidence in the benchmarking system.

Tier 2 – Expanded sustainability dashboard

Tier 2 indicators are relevant but may be region-specific, more data-intensive, or require further methodological alignment.

Once Tier 1 is operational and trusted, additional indicators may progressively be integrated, including:

- investment capacity;
- training participation;
- water use efficiency;
- habitat share;
- hedgerows and landscape features;
- energy efficiency;
- animal welfare compliance.

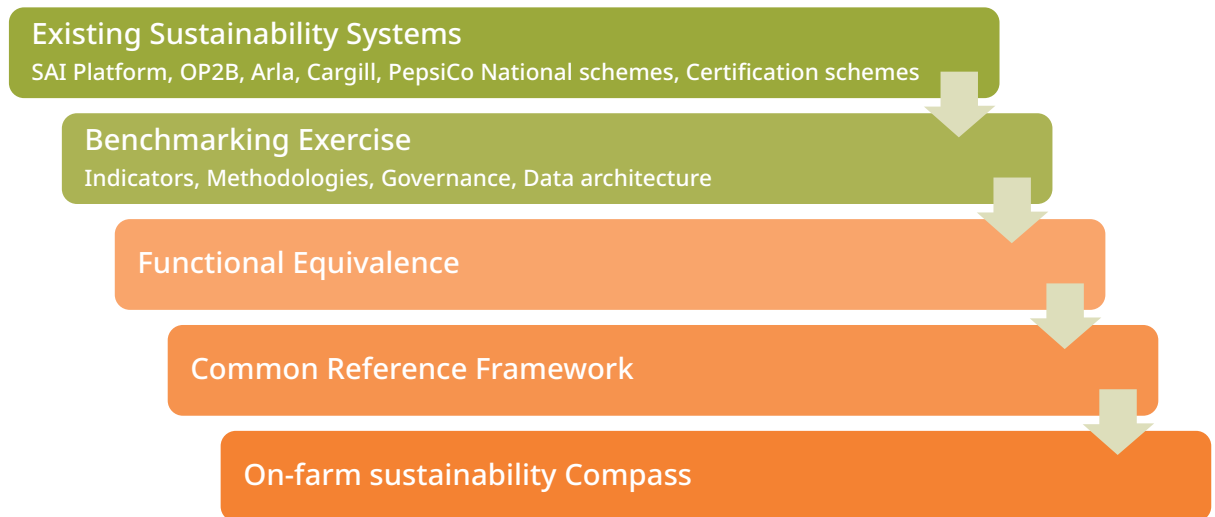
Tier 2 may progressively incorporate more region-specific, model-based or biodiversity-related indicators once methodologies are sufficiently mature.

Tier 3 – Advanced / future modules

More sophisticated indicators may be introduced over time where methodologies and data systems mature sufficiently, including:

- greenhouse gas intensity;
- biodiversity outcome indicators;
- water quality impact indicators;
- pollinator metrics;
- regional biodiversity trends;
- carbon removals or sequestration metrics;
- advanced animal welfare metrics;
- farmer well-being indicators.

Operational Logic



This progressive structure allows the benchmarking framework to:

- start simple and credible;
- minimise initial reporting burden;
- encourage early farmer participation;
- progressively increase ambition;
- remain aligned with future policy, market and financial needs.

In this way, the benchmarking system can begin with what is measurable, useful and trusted today, while maintaining a clear pathway toward a broader sustainability benchmarking system tomorrow.

The approach should also recognise farms already performing strongly, ensuring that early movers are not disadvantaged.

Conclusions

The proposed shortlist demonstrates that a practical benchmarking system can be built largely using existing data flows. Where robust data already exist, indicators can be deployed quickly. Where methodologies remain immature, piloting should precede wider use.

This approach allows the **Compass** to evolve pragmatically as the practical delivery mechanism for the wider benchmarking **system**, while progressively strengthening the underlying methodological **framework**.

This progressive architecture allows the system to begin with trusted and practical indicators today, while maintaining a credible pathway toward more outcome-based sustainability benchmarking over time.

Questions

1. Does the proposed approach strike the right balance between practicality, credibility and ambition?
2. Which indicators should be considered essential for Tier 1 entry-level implementation?
3. Are any proposed Tier 1 indicators still too complex, too costly, or insufficiently mature for immediate deployment?
4. Which existing data sources or sustainability schemes could already support implementation today?
5. How can the system best deliver a genuine “collect once, use many times” model for farmers?
6. What would be the strongest incentives for farmer participation: simplified reporting, sourcing preferences, finance access, or future public incentives?
7. How can the common benchmark coexist with existing private sustainability labels and differentiation strategies?
8. What should be the immediate next priority: refine Tier 1 indicators, map data availability, launch pilots, or align with existing schemes?
9. Which elements of your existing sustainability system could be recognised as functionally equivalent to the proposed Common Reference Framework?
10. What practical conditions would enable interoperability between your sustainability system and the future Common Data Layer while preserving commercial confidentiality and farmer control over data sharing?



Forum for the Future of Agriculture®

Founding partners



Strategic partners



Supporting partners



The Forum for the Future of Agriculture (ForumforAg) is one of the leading international forums committed to help building a more resilient, sustainable, climate-smart and nature-positive food and agriculture system.

The Founding Partners came together in 2008 to create a new, open and inclusive place in Europe where all stakeholders interested in contributing to a more sustainable agriculture system could come together to debate and share knowledge and expertise on how this could be achieved.

The Forum's Annual Conference, which takes place in Brussels every spring, has established itself as one of the premier meeting places in Europe and globally for stakeholders meeting in open dialogue on the future of the food and agriculture system.

The Forum's Secretariat, under the guidance of the Forum Chairman and the Advisory Council, work with our founding, strategic and supporting partners to achieve the mission of the Forum to contribute to the development of a more sustainable food and agriculture system.

Our partners support the mission of the Forum to contribute to the development of a more sustainable food and agriculture system. The Founding and Strategic Partners also act as a sounding board and provide counsel on our thought leadership activities and positions, such as the Call to Action. The Partners also exchange knowledge and expertise on what works on the ground, as well as constructively challenging each other, as well as other stakeholders in their community, to help create a more sustainable food system.

Find out more at www.forumforag.com