

February 2025 By Louise Berrebi, Jack Bugas, Peter Jameson, Shalini Unnikrishnan, Casper Zulim de Swarte







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The World Business Council for Sustainable Development (WBCSD) is a global community of over 220 of the world's leading businesses, representing combined revenue of more than USD \$8.5 trillion and 19 million employees. Together, we transform the systems we work in to limit the impact of the climate crisis, restore nature and tackle inequality. We accelerate value chain transformation across key sectors and reshape the financial system to reward sustainable leadership and action through a lower cost of capital. Through the exchange of best practices, improving performance, accessing education, forming partnerships and shaping the policy agenda, we drive progress in businesses and sharpen the accountability of their performance.

The UN Climate Action Summit saw the launch of the One Planet Business for Biodiversity (OP2B) coalition in 2019 as part of the One Planet Lab. Since 2021, OP2B has been a program of the World Business Council for Sustainable Development (WBCSD). Now comprised of 26 companies representing a collective market value of more than USD \$893 billion, OP2B is an international, cross-sectoral and actionoriented business coalition on biodiversity with a specific focus on regenerative agriculture. We are determined to transform agricultural models and catalyze action to protect and restore cultivated and natural biodiversity in agricultural value chains. The Coalition focuses on scaling up regenerative agriculture through three key levers:

- 1. Harmonizing measurement, reporting and accounting methods to attract investments
- 2. Scaling transition finance to support farmers with flexible financing and assistance
- 3. Fostering public and private sector collaborations to create an enabling environment and harmonize guidelines.

We are working to create the conditions that will enable all farmers to adopt practices that improve soil health and water resources, enhance biodiversity, increase carbon sequestration in soil, reduce greenhouse gas emissions and improve farming livelihoods.



### **Foreword**

Nature is at the heart of agriculture. Agricultural value chains are under significant threat from climate change, biodiversity loss, extreme weather events, soil erosion, and water shortages. Farmers are at the forefront, and acutely vulnerable, to these environmental and economic shocks.

Regenerative agriculture offers a way forward. It is a holistic, outcome-based farming approach that generates agricultural products while measurably having net-positive impacts on soil health, biodiversity, climate, water resources, and farming livelihoods at the farm and landscape levels. It holds the promise of a positive business case for farmers, increasing farm profitability and the resilience of farming communities. To create meaningful change, regenerative agriculture needs to scale from isolated farm pilots to large, landscape-level transformations. This requires coordinated action between businesses, policymakers, and financial institutions.

We call upon the entire value chain, including financial actors and policymakers, to unite in creating an enabling environment and the right public and private incentives for farmers to implement new practices that make sense for their own unique agricultural systems. To make this shift more viable, farmers require stronger financial support that prioritizes measurable outcomes for nature and farm sustainability over simply rewarding specific practices. Although the (CAP) Common Agricultural Policy has made significant progress in promoting sustainability, its primary focus remains on supporting farmer incomes and specific practices rather than measuring outcomes. Together, we have the power to pave the way for more resilient and equitable agricultural value chains that not only meet the needs of present and future generations, but also positively impact farmer livelihoods, nature, and the climate.







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## **Executive Summary**

#### Regenerative agriculture could represent a critical solution for a pressured food system in Europe.

- 1 The agri-food system faces growing challenges: increasing demand, climate-related risks, resource constraints, and pressure to reduce emissions.
- Regenerative Agriculture offers a response to these challenges by improving soil health, enhancing biodiversity, and increasing water efficiency, enabling resilience to climate change while offering a positive business case for farmers.
- This report identifies four key drivers to scale regenerative agriculture—sustainable economics, cross-value chain partnerships, standardized metrics, and farmer training—and one enabler (supportive policy frameworks).

#### The current EU political moment presents a unique opportunity to accelerate regenerative agriculture.

- Regulatory advancements in regenerative agriculture have been limited globally, with most policies either falling short of driving large-scale adoption or being too recent to show results.
- The EU, recognized as a global leader in climate and sustainability policy, has made significant progress in agriculture through initiatives such as the Green Deal and the Farm to Fork Strategy.
- 3 Existing EU legislation lacks the alignment and funding needed to fully support the key drivers.
- The new EU political cycle, with milestones such as the CAP review and the Strategic Dialogue on the Future of EU Agriculture, presents a timely opportunity to embed regenerative agriculture into policy.

Six opportunities were identified by food and beverage companies and farmer organizations to promote farmer-centric regenerative agriculture in Europe and provide a supporting ecosystem to undergo the transition:

- 1 Create an EU-level outcome-based definition of regenerative agriculture with clear key performance indicators (KPIs).
- 2 Develop an EU-wide and interoperable protocol for measurement, impact assessment, and reporting methodologies.
- 3 Integrate the outcome-based criteria into CAP Pillar I to link payments with environmental outcomes.
- Improve regenerative agriculture financing by creating a transition fund under the European Investment Bank (EIB), including land banks conditioned on regenerative agriculture practices, public-private partnerships with insurers for crop protection, and capital loan programs.
- 5 Launch a knowledge-sharing program with in-person engagement combined with an online platform for case studies, financing opportunities, and farmer peer-to-peer learning.
- 6 Develop a public-private partnership initiative to support ecosystem services valorization by facilitating investments in regenerative agriculture and developing schemes linking payments to ecosystem services outcomes.



# Regenerative Agriculture: A Critical Solution for a Stressed Food System

#### Growing Pressures Demand Urgent Transformation of the Food System

he existing agri-food system is no longer fit for the future. The growth of the global population and the rising demand for food are central concerns, with the former expected to surpass 8.5 billion by 2030.¹ Meanwhile, agriculture faces escalating climate risks (transition and physical) and economic instability marked by global competition, geopolitical instability, and rising costs.

In Europe, drought-related losses alone could reach €65 billion annually by 2100.² These severe weather events are in turn worsened by climate change, for which agriculture is one of the primary contributors, accounting for 22% of global greenhouse gas (GHG) emissions.³ Additionally, urban expansion and soil degradation are shrinking arable land, while agriculture's use of 70% of global freshwater resources is leading to greater water shortages, putting agricultural production at risk.

These risks highlight the pressing need to transition toward a sustainable and equitable agri-food system, not only to lessen its environmental footprint, but also to strengthen its ability to handle physical challenges and adapt to changing circumstances while maintaining an equitable business model for farmers. Agriculture has sustained human life for millennia, adapting to population needs and a changing climate. However, the current pace of change—driven by rapid climate impacts and growing demand—outpaces the slower adaptations of the past. This accelerating shift calls for a transformation of the agricultural system, rather than incremental evolution. Regenerative agriculture is one of several solutions that can make this transformation a reality.

- 1. Population estimates and projections (2024), World Bank.
- 2. Marinho Ferreira Barbosa et al. (2021), Droughts in Europe and Worldwide 2019–2020, JRC.
- 3. Climate Change 2023, IPCC.



## Regenerative Agriculture: A Game-Changer for Resilience and Sustainability

Widely recognized as transformative, regenerative agriculture currently lacks a universally accepted definition. The core principles of regenerative agriculture that are broadly agreed upon are building long-term resilience and productivity in the soil, fostering systems that are environmentally sustainable and economically beneficial, and emphasizing outcomes over prescriptive practices. The definition offered by One Planet Business for Biodiversity (OP2B), which represents 26 companies across the agri-food value chain, is an "outcome-based farming approach that generates agricultural products while measurably having net-positive impacts on soil health, biodiversity, climate, water resources and farming livelihoods at the farm and landscape levels." 5

Regenerative agriculture offers a range of environmental, economic, and ecosystem benefits, making it a transformative approach to sustainable farming.

As previous studies from Germany, Denmark, and the US show, farmers adopting regenerative practices have seen a 40% increase in farmer profits. In addition, they have cited a myriad of tangible benefits, including healthier soil with enhanced water retention, reduced input costs, and improved biodiversity. Research also indicates that these benefits extend to supply chain stability, profitability, and carbon sequestration, further boosting farmers' financial outcomes.

Regenerative agriculture is most impactful when adopted at the landscape, rather than individual, level. This tailored landscape-level approach rooted in systems-level coordination is needed to achieve scale, catalyze demand, and overcome challenges throughout the value chain. This allows for flexibility, where mechanisms are customized to the unique circumstances of each landscape, as well as broadened economic and environmental impact.

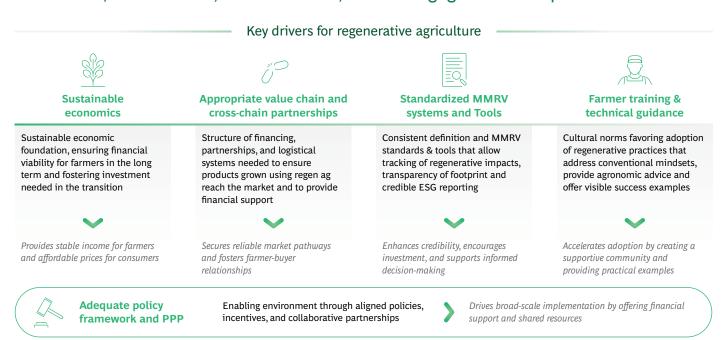
- 4. Food and beverage, farm inputs, cooperatives, traders, banks, etc.
- 5. Assessed across eight pillars: (1) reducing greenhouse gas emissions, (2) increasing carbon sequestration, (3) enhancing environmental water flows, (4) minimizing water pollution, (5) fostering cultural biodiversity, (6) improving ecological integrity, (7) reducing pesticide risks, and (8) boosting soil health.
- 6. The Potential of Regenerative Agriculture in Denmark (2024), BCG report.

#### Four Key Drivers and One Enabler to Help Scale Regenerative Agriculture

The transition to regenerative agriculture requires careful planning and collaboration across supply chains. There is no silver bullet; to increase and accelerate the adoption of regenerative agriculture, a combination of measures needs to be developed in parallel. Through interviews with food company and farming organization stakeholders, this report identifies four key drivers that enable success and are essential for driving the transition: (1) sustainable economics; (2) appropriate value chain and cross-chain

partnerships; (3) standardized Measurement, Monitoring, Reporting, and Verification (MMRV) systems and tools; and (4) farmer training and technical guidance. It also identifies one key enabler: policy framework and public-private partnerships. Taking a farmer-centric approach that prioritizes farmer engagement will be a critical success factor to scaling regenerative practices in a viable and enduring fashion. (Exhibit 1)

## Exhibit 1 - Achieving scale in Regen Ag requires a holistic approach across economics, value chains, measurement, farmer engagement and policies



Source: Expert interviews; BCG analysis.

MMRV: Measuring, Monitoring, Reporting & Verification; PPP: Public-Private Partnership.

#### **Bearing the Cost of Transition Across the Value**

**Chain:** Collectively, these four drivers and one enabler are critical components for a transition that puts farmer welfare at the center and distributes costs and risks across the value chain with positive, measurable impacts on long-term sustainability, resilience, and profitability. Whom the burden should primarily fall on, whether it be the public sector subsidizing necessary measures, food-, beverage-, cosmetics- or fashion supply chains absorbing costs, consumers paying a green premium, or farmers continuing to shoulder most of the burden, has been

a paramount part of the conversation around regenerative agriculture. While farmers are at the forefront of implementing these changes, expecting them to bear the full financial impact is neither fair nor feasible. Mechanisms must be established to share the costs and transition risks equitably, ensuring that each stakeholder—governments, farmers, private value chain actors, and consumers—contributes in proportion to their role and capacity within the system. With additional public funding uncertain, this will require a full value chain approach.



# The EU Political Moment Provides a Unique Opportunity to Accelerate Regenerative Agriculture

Policy Plays a Pivotal Role in the Agricultural Transformation

olicy—along with supply chain actors, financial institutions, consumers, and farmers—is one of the main puzzle pieces when it comes to creating a more sustainable food system. Each of these actors has an essential role to play in achieving meaningful and widespread transformation, from shifting behaviors to boosting investments to adopting sustainable practices.

Although collaboration across the agri-food value chain is essential, there is also a specific need for policy intervention to create an enabling environment to scale regenerative agriculture. Policy can introduce measures that drive the regenerative agriculture transition; define standards that create transparency for all actors and unlock collaboration and investment; enable a level playing field and competitive advantage for EU actors;

introduce financial support for farmers implementing sustainable practices with a view on reducing costs; and ensure that results are delivered with speed and scale.

By strategically employing policy instruments, legislators can guide the agri-food sector toward practices that balance environmental restoration, economic viability, and social well-being. The impact of these policies can be furthered through the strategic employment of public-private partnerships to increase the reach and operability of regulations.

## Global and EU Policy Efforts Show Promise for Regenerative Agriculture but Lack the Scale for Systemic Change

While policy remains a cornerstone for scaling regenerative agriculture, the global landscape reveals a patchwork of initiatives—which have not proven sufficient to fully address the complexities of the transition. Notably, countries such as the United States, Australia, New Zealand, and various European Member States have been at the forefront of experimentation in this field.

Most policies have focused their efforts primarily on creating the enabling economics to encourage farmer adoption of regenerative practices. Although they have aided in the uptake of regenerative practices, the policies tend to take a practice-rather than outcome-driven approach. The US Inflation Reduction Act, coupled with the US Department of Agriculture's (USDA's) Climate-Smart Commodities Program, establishes a framework of incentives<sup>1</sup> for sustainable agriculture, promoting practices such as cover cropping, conservation tillage, and soil carbon sequestration. Similarly, the UK's Environmental Land Management scheme, introduced in 2021, aims to finance regenerative agriculture through subsidies that reward farmers for adopting practices delivering environmental benefits. However, as its original design was too restrictive, focusing on a limited set of practices, its scope was broadened the following year, showing that defining practice-based approaches is inherently challenging.<sup>2</sup>

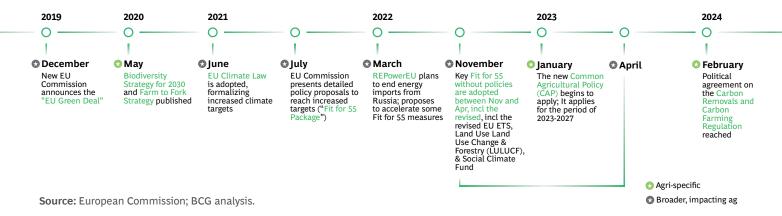
In addition to these practice-based approaches, some countries have experimented with outcome-based incentives. Most of these policies, such as Ireland's Results-Based Environment Agri Pilot Program, are too

new to assess their long-term success, including scalability potential across a broader agricultural context. Ireland's program links payments to measurable improvements of environmental features such as biodiversity, buffer zones, and soil health. Although the success of the program remains to be seen, it showcases a potential avenue for outcome-based programs.

The EU has also taken steps to advance regenerative agriculture. The bloc has positioned itself as a global leader in climate and sustainability policy through several broad and targeted policies and initiatives, including in the agricultural sector (Exhibit 2). These have allowed the EU to actively advance its climate and sustainability agenda across all member states and to push for climate action abroad. The most significant measures adopted include the overarching European Green Deal and its accompanying Farm to Fork Strategy; sustainability provisions within the Common Agricultural Policy (CAP) such as eco-schemes; and complementary policies such as the Carbon Removals and Carbon Farming Regulation (CRCF) and the Soil Monitoring Law (see Annex 4.1).

To date, no country has implemented a comprehensive legislative plan that would fully enable farmers to undertake the transition to regenerative agriculture. With its many initiatives already on-going, the EU stands uniquely positioned to become the first global region to establish an all-encompassing regulatory framework for regenerative practices.

## Exhibit 2 - The EU is a leader in climate policy, with significant legislative progress made in the past five years and a crucial window of opportunity in the next two years



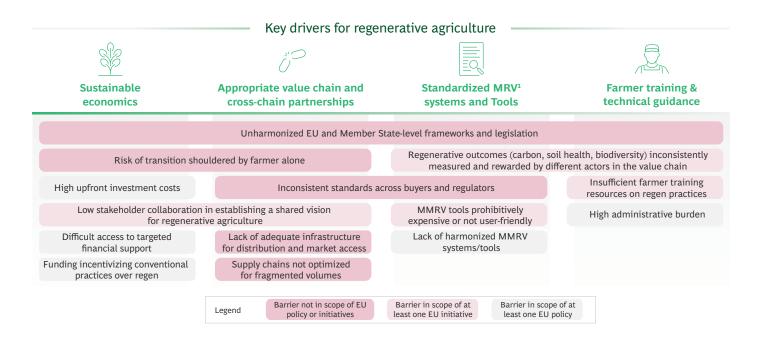
- 1. Many of which are employed within public-private partnerships.
- 2. Environmental land management: Recent changes to the sustainable farming incentive (2024), UK Parliament.





#### Despite These Pioneer Regulatory Developments, the Current Frameworks Do Not Address All of the Barriers to Scaling Regenerative Agriculture

Exhibit 3 - The four key drivers for regenerative agriculture to scale are currently not completely addressed by EU policies, with barriers remaining



Source: Expert interviews; BCG analysis.

MMRV: Measurement, Monitoring, Reporting and Verification.

Despite significant policy efforts, barriers to scaling regenerative agriculture persist. Existing analyses, including reports by Regenagri, European Environmental Bureau and AgriCaptureCO<sub>2</sub>, and Wageningen University highlight barriers that remain to scaling regenerative agriculture. These include unharmonized frameworks and definitions, a lack of scalable and affordable MMRV tools, insufficient or misaligned economic incentives, large administrative burdens for farmers, and fragmented supply chain and market structures. Crucially, as outlined in a WBCSD report, existing incentives often reward factors that are not conducive to the farmer transition, such as farm size and yield.

These systemic gaps are exacerbated by regulatory complexity and administrative burdens. As a result, regenerative agriculture in Europe remains low, despite pioneering efforts (Exhibit 4). For the eight practices assessed as evaluation proxies for an otherwise outcome-based concept, a majority of EU regions are early adopters at best. Without addressing these issues, the EU risks falling short of its climate and sustainability targets while adoption of regenerative practices remains confined to early stages across most regions.

To foster meaningful progress, policy solutions must carefully consider the pain points felt across the agri-food value chain (for context on these pain points, see Annex 4.2). Farmers require clear and fair regulatory frameworks that provide both environmental and economic incentives. Addressing these issues is critical to creating a balanced approach that supports environmental targets while ensuring the economic viability of stakeholders.

These measures will be crucial to both creating the enabling conditions needed for regenerative agriculture's widespread adoption and meeting the EU's ambitious climate and sustainability targets. They will also help create a more economically competitive agricultural industry, which in turn will strengthen the EU's position in global markets, boost exports, and create new economic opportunities for farmers and rural communities. Enhanced competitiveness also encourages innovation and efficiency, driving sustainable growth while ensuring food security across the region.



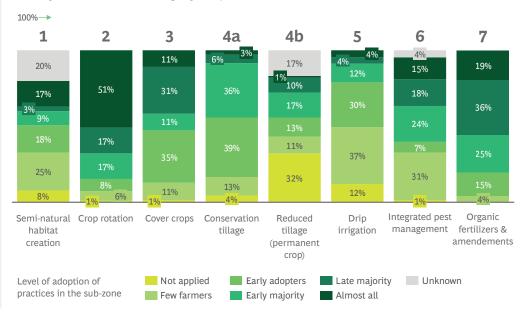
Exhibit 4 - Adoption of regenerative agriculture (with seven practices as proxies) is in the early stages, with significant variation across geographies

## Seven practices used as assessment proxies for adoption

Although regenerative agriculture is an outcome-based approach, with practices dependent on crop, geography, local conditions, etc., seven practices (in line with the OP2B metrics) are used as proxies to assess adoption

#### Regenerative Agriculture practices show variable adoption levels across EU

Penetration of Regenerative Agriculture practices in Europe in 2024 in % of sub-zones at this stage of adoption



Source: British Society of Soil science; Financial Times 2022; BCG analysis.

**Note:** Results of a survey among soil scientists and farmer in 55 environmental sub-zones in 24 European countriesIn the study, level of adoption was defined as: few farmers=<2.5% of surface, early adopters = 2.5 to 16%, early majority = 16 to 50%, late majority = 50 to 84%, almost all = >84%

## The New Political Cycle Creates Opportunities to Drive Regenerative Agriculture Solutions

Following the European Parliament elections and the formation of the new European Commission, there is a unique opportunity to prioritize sustainability as well as competitiveness and farmer prosperity in policy discussions.

Key milestones, such as the President Ursula von der Leyen's upcoming "Vision for Agriculture and Food" roadmap, the review of the CAP in 2025, and the new iteration of the CAP in 2027/2028 present concrete avenues for focusing on these priorities by embedding regenerative practices into EU frameworks. These developments provide a timely platform to both align sustainability goals with farmer competitiveness and strengthen the sector's resilience.

The Strategic Dialogue on the Future of EU Agriculture, launched in January 2024, has already laid the groundwork for action. The dialogue yielded actionable recommendations, including support mechanisms to ease the adoption of sustainable practices and ensure economic viability. These insights provide an initial set of potential actions that can help scale regenerative agriculture and foster resilience and competitiveness of the agri-food sector.

Building on this momentum, the EU has established the European Board on Agriculture and Food (EBAF). This initiative will maintain the momentum of the Strategic Dialogue by both institutionalizing stakeholder collaboration across the agri-food value chain and fostering

consensus. The EBAF is poised to play a crucial role in ensuring that the green transition remains a priority across EU policy, facilitating ongoing engagement and action toward a sustainable and resilient agricultural sector. Going forward, the EBAF presents a significant opportunity for stakeholders along the agri-food value chain¹ to continue the work done in the Strategic Dialogue and pave a path forward for implementation of the final conclusions as well as other pertinent actions. The six opportunities identified in this report (see Section 3) should be considered suggestions for further discussion as part of the EBAF work.

Inaction in transforming the agricultural sector risks severe consequences. As outlined in an Anthesis Group report, farmers are citing unpredictable and extreme climate events as one of their main challenges, with impacts on agriculture causing yield loss, livestock mortality, landslides, and soil erosion. The industry also sees growing regulatory pressure and decreased competitiveness in a market taking an increasing interest in sustainability. The EU has a critical opportunity to act now, leveraging political momentum, structured dialogue, and upcoming policy milestones to scale regenerative practices and establish agriculture as a key pillar of its sustainability efforts, creating a resilient and environmentally responsible food system.

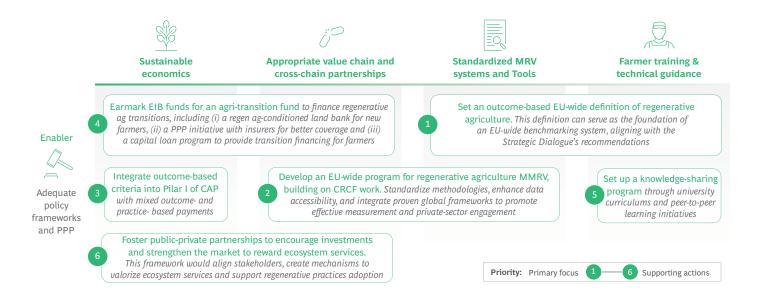


1. The EBAF has invited the following stakeholders: the farming community, other actors in the food supply chain, and civil society including in areas such as environment and climate, animal welfare, and/or consumer issues.

## Building the Foundation for Scaling Regenerative Agriculture in Europe

Six Opportunities to Drive the Transition to Regenerative Agriculture

Exhibit 5 - We have identified six high-impact policy and public-private partnerships (PPP) interventions to unlock regenerative agriculture at scale



Source: Expert interviews; BCG analysis.

EIB: European Investment Bank. CAP: Common agricultural policy. MMRV: Monitoring, reporting & verification.

To enable the transition to regenerative agriculture, we identified six key opportunities for intervention (Exhibit 5) which we suggest should be further discussed within the EBAF. These opportunities, designed to support the scaling of regenerative agriculture across the EU, are the following: (1) Set an outcome-based definition of regenerative agriculture on which to base an EU-wide benchmarking system, (2) build on the Carbon Removals Certification Framework to launch an EU-wide Measurement, Monitoring, Reporting and Verification program to track regenerative agriculture outcomes, (3) integrate an outcome-based criteria into Pillar 1 of the CAP with mixed outcome and practice-based payments, (4) create an Agri-Transition Fund through the European Investment

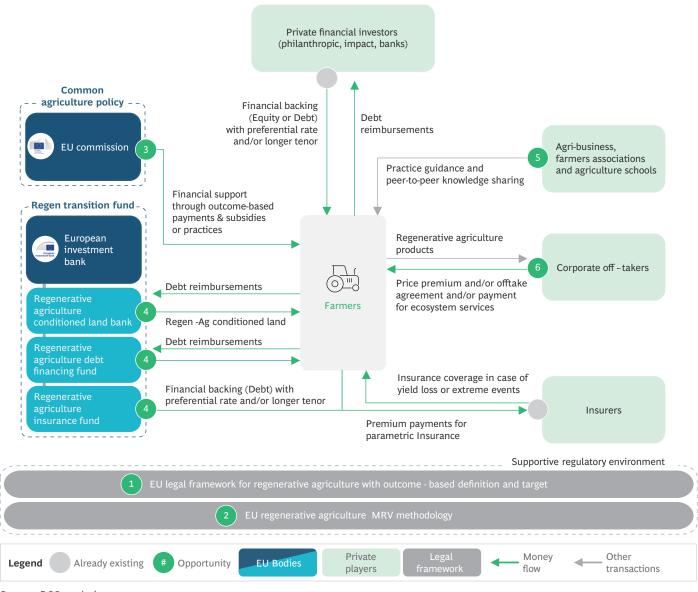
Bank to finance the transition, (5) set up a knowledgesharing program building on Living Labs and Lighthouse farm experimentations, and (6) foster public-private partnerships to both encourage investments from the value chain and reward ecosystem services.

These opportunities were selected based on their potential impact on the four key drivers for the development of regenerative agriculture developed in Section 1 and their feasibility with regard to speed of implementation, expected stakeholder support, and alignment with existing frameworks. Notably, they have been placed in the order of priority.

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#### Building a Farmer-Centric Ecosystem for Farmers' Success

Exhibit 6 - The six proposed recommendations will help develop a supportive environment for farmers to undergo their Regen Ag transition



Source: BCG analysis.

The six opportunities combined, provide a supportive farmer-centric environment by establishing a clear regenerative agriculture definition and efficient MMRV systems, offering financial backing through the CAP and the EIB, and facilitating private sector support via ecosystem services valorization and knowledge sharing.

The opportunities can create a clear framework for decision-making by introducing an outcome-based definition and set a regenerative agriculture-specific MMRV methodology, ensuring that progress is measurable and transparent. This will enable farmers, policymakers, and stakeholders to make informed decisions and investments into regenerative agriculture practices.

These six opportunities will also alleviate financial barriers by combining CAP funding with additional financial support from the EIB and the private sector, ensuring that farmers receive the necessary financial resources to reconcile economic viability with regenerative agricultural practices.

Furthermore, private sector support will be coordinated through a knowledge-sharing program and the development of ecosystem services valorization. This will foster collaboration between agribusinesses, insurers, and off-takers, providing farmers with essential knowledge, incentives, and tools to scale regenerative practices effectively.

#### In-Depth Breakdown of the Six Opportunities

## 1. Set an outcome-based definition for regenerative agriculture on which to base the EU-wide benchmarking system

An outcome-based framework definition incorporated into EU legislation is an important step in upscaling regenerative agriculture at the landscape level. This framework definition will serve as the foundation both to reward systems that incentivize more sustainable farming methods and ensure that all actors in the value chain thrive. This opportunity directly addresses the critical need highlighted in the Strategic Dialogue on the Future of EU Agriculture for a harmonized benchmarking system.

The Dialogue emphasizes that such a system must include standardized methodologies, outcome-based indicators, and robust monitoring and verification tools to measure impact and facilitate adoptions of sustainable practices across farms and sectors. By basing the benchmarking system on a broader, context-specific, farmer-centric, and bloc-wide definition, the EU can help farmers adopt and implement sustainable agriculture practices, facilitate investment in sustainable farming practices, ensure that agricultural reward systems incentivize regenerative agriculture, and establish a level playing field for all actors in the value chain. We propose basing it on recognized frameworks, such as OP2B or the Sustainable Agriculture Initiative, aligning clear metrics on outcomes such as GHG emissions, water pollution, biodiversity, soil health, and farmer livelihoods. Based on this robust foundation, the benchmarking system would ensure that these metrics are harmonized across the EU, taking into account

geographical differences, and tied to clear performance thresholds, enabling comparability across farming systems and regions.

This definition will support the development of progressive outcome-based targets, focusing on measurable environmental impacts such as carbon sequestration, water use efficiency, and biodiversity improvements. These targets will align with Europe's broader GHG reduction ambitions for 2030, 2040, and 2050. To ensure transparency and accountability, the system will incorporate robust monitoring and verification mechanisms, leveraging scientifically validated tools and methodologies.

An EU-wide outcome-based framework definition of regenerative agriculture overcomes the shortcomings of a prescriptive, practice-based approach, outlined further in a EARA report. By focusing on measurable outcomes such as reduced and sequestered emissions, improved soil health, and enhanced biodiversity, this approach amplifies environmental impact while fostering alignment across the agri-food chain. It ensures that regenerative agriculture delivers meaningful results, with measurable impacts, trust and transparency. Additionally, it offers farmers flexibility to adapt practices to their specific conditions, enabling scalable implementation across diverse geographies and farming systems.



## 2. Develop an EU-wide program for regenerative agriculture-focused MMRV building on CRCF work

Expanding existing carbon MMRV initiatives into an EU-wide MMRV program for regenerative agriculture will ensure standardized, high-quality measurements of outcome measurement data. This program should align with globally recognized MMRV methodologies to promote consistency and interoperability, while being tailored to regional agricultural contexts. This opportunity addresses the need for MMRV identified both in the Strategic Dialogue on the Future of EU Agriculture's conclusions on harmonized benchmarking and a recent BCG report that highlighted barriers such as expensive and inconsistent testing, challenges with data collection and integration, and a lack of a credible authority in the marketplace. The program addresses these challenges through three main components: (1) defining a standardized EU methodology with KPIs linked to an outcome-based definition of regenerative agriculture (see Opportunity #1), (2) investing in the development of low-cost and efficient data collection technologies, and (3) creating secure and accessible data storage and management systems. This comprehensive system will enable more effective decision-making and support outcome-based policies and ecosystem services initiatives.

The EU has already made significant progress in this area with the establishment of the CRCF, which sets up a voluntary MMRV system for certifying permanent carbon removals, carbon farming, and carbon storage in products. These initiatives provide a solid foundation for advancing MMRV frameworks, establishing methodologies and criteria for credible carbon removal practices. Building on this foundation, the CRCF approach could be expanded into a dedicated framework for regenerative agriculture, encompassing critical indicators such as biodiversity and water health, as defined in Opportunity #1.

To develop this comprehensive methodology for regenerative agriculture, the EU could integrate best practices from established global MMRV frameworks. For example, WBCSD's framework provides detailed metrics to measure broader sustainability impacts. By leveraging and adapting these proven methodologies, the EU can develop its own regenerative agriculture MMRV system that ensures interoperability with global standards while remaining regionally relevant.

To scale the MMRV program, significant investments in research and development are essential. Current data collection methods are costly and complex, so alongside defining methodologies, the program must focus on developing low-cost, efficient, and scalable technologies. Establishing public-private partnership initiatives will foster collaboration between the two sectors, encouraging investments and innovation in these technologies. Making these technologies accessible and user-friendly will increase adoption rates and ensure that they are utilized.<sup>1</sup>

Data collection and storage systems should be designed to ensure accessibility, integration across platforms, and trust in the system. For instance, a robust MMRV solution could leverage satellite data from the Copernicus program, integrate farm-level data inputs from sensors and manual records, and incorporate existing solutions such as the Cool Farm Tool<sup>2</sup> to enhance data accuracy and usability.

A secure data storage system, coupled with a data wallet for farmers, would provide transparency, control, and trust, allowing farmers to manage their data while ensuring the system's integrity. A robust MMRV system would further attract investment in regenerative agriculture by enhancing transparency, enabling the private sector to invest more confidently in the sector.

Developing an MMRV program would position the EU as a global leader in regenerative agriculture. By establishing a robust and adaptable system, the EU could build on existing private initiatives to ensure alignment and efficiency while advancing regenerative practices. The system's integration with international frameworks would strengthen its relevance in global supply chains and ESG reporting.

- 1. Smart Farmers for Smart Farming (2023), European Council of Young Farmers (CEJA).
- 2. Decision-support tool that enables farmers to measure and optimize GHG emissions, biodiversity, and nutrient management, Cool farm tool website.
- 3. Examples include biodiversity improvements, carbon sequestration, and soil health restoration.
- 4. Common Agriculture Policy, Eco-schemes (2023), European Commission.

## 3. Integrate outcome-based criteria into Pillar 1 of the CAP with mixed outcome- and practice-based payments

Aligning a share of the CAP's direct payments (Pillar I) with the definition for regenerative farming defined in Opportunity #1, and in particular with an outcome-based framework, is essential to achieving broader sustainability goals. This change would significantly enhance the shift from compliance with prescriptive practices to rewarding measurable environmental outcomes,<sup>3</sup> ensuring that capital is aligned with a harmonized, outcome-based framework definition and that public funds deliver tangible benefits. This integration would require the MMRV program to be in place, a key foundation for designing and implementing effective outcome-based payments. These payments can be structured by reorganizing the existing Pillar I budget, such as eco-schemes, which currently account for approximately 25% of it.<sup>4</sup>

We recommend combining outcome-based payments with practice-based support at the start, thereby supporting farmers throughout the process.

- **Practice-based payments** enable farmers to access essential tools, materials, and knowledge required for adopting regenerative practices, such as specialized machinery, cover crop seeds, and trainings on managing soil health and biodiversity. A potential method for implementation is providing payments at the start of the year in the form of vouchers, which can only be redeemed for specific items or services identified by each member state as critical for transitioning to regenerative agriculture. These items or services could include training on regenerative agriculture practices, machinery for mechanical weeding, and monitoring devices. This approach ensures that funds are directed toward targeted, effective practices that align with broader sustainability goals.
- Outcome-based payments, as a complementary mechanism, would reward farmers for proving positive impacts, such as improvements in biodiversity, soil health, or emissions reductions, with KPIs defined in line with Opportunity #2 (MMRV program). These payments would be issued based on measurable results within a set timeframe, with rules on disbursement and outcome measurement determined by the Commission in collaboration with farmer advisory groups as part of the CAP.



#### 4. Earmark EIB funds toward an agri-transition fund

The creation of an agri-transition fund through the EIB would unlock the financing of the early stage of the transition and mitigate the associated risks. An analysis published by EIB estimates that, in 2022, the financing gap for agriculture in the EU was €62.3 billion, while the gap for the agri-food industry was €5.5 billion.¹

As part of this opportunity, various actions were considered and three were identified as addressing the most urgent barriers to transition: (1) land banks conditioned on regenerative agriculture practices, (2) a public-private partnership initiative to develop tailored insurance products, and (3) a capital loan program dedicated to supporting regenerative agriculture development. The proposed transition fund should focus on supporting farmers specifically during the critical first five- to sevenyear transition period. Earmarking existing resources such as a share of the €5 billion allocated annually to the agriculture and bioeconomy sector, the newly committed €3 billion to support green agriculture and young farmers,<sup>2</sup> alongside the EIB's existing framework for providing intermediary loans to SMEs could enable streamlined access to financing.

• Regenerative Agriculture-Conditioned Land Banks. Access to farmland is becoming increasingly difficult, with 50% of loan applications from young farmers rejected in 2022, compared with just 30% for older farmers.3 The establishment of regenerative agricultureconditioned land banks could help overcome barriers to scaling regenerative agriculture and address the land access issue. In this initiative, the EIB funds land banks that acquire agricultural land at risk of land-use change or degradation. This land is then resold to beneficiaries committed to putting in place regenerative practices, ensuring sustainable land management and improving access for new farmers. The initiative aligns with CAP 2023's generational renewal goals and addresses issues of land concentration. To operationalize this, the EIB can either establish a dedicated fund or team, or create a public-private partnership based on the model used for SME loans.4

- Public-Private Partnership Initiative for Tailored Insurance. The fund could also address the unique risks of transitioning to regenerative agriculture through a public-private partnership initiative with insurers. In this initiative, the EIB collaborates with private insurers and agribusinesses to create a fund that develops tailored insurance products to address the challenges of regenerative agriculture, including changes in yields during the transition and the increasing occurrence of extreme weather events. With limited and expensive access insurance coverage for farmers, this partnership would increase accessibility by combining CAP subsidies to offset the costs of insurance premiums with private sector innovation to make coverage more affordable.
- Capital Loan Program. Finally, the fund could provide dedicated capital loans to enable farmers to transition to regenerative agriculture. Regenerative practices often require significant up-front investments in equipment, soil remediation, and training, which can be prohibitively expensive for many farmers. A dedicated capital loan program, funded through the EIB and designed specifically for regenerative agriculture projects, would offer flexible repayment terms and low interest rates to make these investments accessible. In addition to supporting farmers directly, this program would play a critical role in de-risking investments and attracting private capital. By leveraging existing mechanisms such as the InvestEU guarantee, the program could mitigate financial risks, providing an incentive for financial institutions and private investors to fund regenerative projects and scale their impact.

- 1. Financing gap in the agriculture and agri-food sectors in the EU (2022), EIB.
- 2. €3 billion of EIB Group financing announced for farmers and bioeconomy, EIB website.
- 3. Annual EU conference on EAFRD financial instruments (2023), European Commission.
- 4. Intermediated loans for SMEs, European Investment Bank website.



#### 5. Set up a farmer knowledge-sharing program

The goal of Opportunity #5 is to accelerate the adoption of regenerative agriculture practices by providing farmers with accessible, actionable knowledge. Indeed, peer-to-peer knowledge transmission has proven to be one of the most efficient and cost-effective methods for encouraging the adoption of new agricultural practices,<sup>5</sup> and the importance of this form of knowledge exchange has been identified as crucial by farmer groups, including the European Council of Young Farmers (CEJA).<sup>6</sup>

This recommendation builds on the experimentation already extensively financed through the Soil Deal for Europe, which successfully established Living Labs and Lighthouse Projects to test and develop sustainable soil management practices across diverse regions in Europe. While these efforts generated valuable insights and innovative practices, they have faced challenges in scaling and spreading these best practices to a wider audience. Continued support is crucial, but it must now focus on bridging the gap between experimentation and widespread adoption by farmers.

To leverage this and facilitate effective knowledge sharing, the program will establish a network of in-person training sessions, supported by an online resource hub. These sessions are to be coordinated through established

networks such as farmer associations and chambers of agriculture, with a focus on peer-to-peer knowledge exchange. Furthermore, integrating regenerative agriculture into agricultural trade schools, university curricula, and public advisory services is key to ensuring long-term adoption. By embedding regenerative agriculture into formal education, the EU builds a sustainable knowledge pipeline and prepares future farmers to lead the transition.

A critical component of the program is the creation of a resource hub for regenerative agriculture practices and materials. This hub would consolidate existing knowledge, focusing on high-impact crops and practices, and serve as a one-stop resource for stakeholders seeking to transition. It would provide guidelines, best practices, region-specific opportunities, and resources to help farmers access funding and navigate administrative processes. Additionally, targeted funding supports experimentation with regenerative practices across various crops and regions, with the condition that participants share data and insights to continuously enrich the platform's resources.

- 5. The Art of Knowledge Exchange (2015), World Bank.
- 6. Smart Farmers for Smart Farming (2023), (CEJA).
- 7. A soil deal for Europe (2023), EU Commission

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#### 6. Foster public-private partnerships to encourage investments from the value chain and strengthen the European market to reward ecosystem services

Public-private collaboration will play a critical role in mobilizing resources, reducing risks, and ensuring that farmers receive fair compensation for delivering ecosystem services. A strong European Ecosystem Services Market (ESM) would offer a critical opportunity to accelerate the shift to regenerative agriculture.

The development of a dedicated public-private partnership to strengthen the European market for ecosystem services would be a significant step toward scaling regenerative agriculture practices. This approach builds on the success of initiatives such as the Landscape Enterprise Networks (LENs), which have demonstrated the value of connecting regional actors to align investments and achieve sustainable outcomes. The EU can create a framework that unifies stakeholders and accelerates the adoption of regenerative practices.

Public-private initiatives need to bring together the entire value chain—industrial players, banks, insurers, and other key stakeholders—by creating mechanisms to valorize ecosystem services such as carbon sequestration, biodiversity enhancement, and improved water quality. Players within the ecosystem of a farm practicing regenerative methods (off-takers, input and equipment

providers, banks, local governance, etc.) could collaborate to ensure that all outputs are valued appropriately, with additional recognition of the environmental benefits provided by regenerative agriculture. This would create stable demand and revenue streams for farmers. Banks and insurers could further support farmers by offering accessible financing and tailored insurance products tied to ecosystem service outcomes, de-risking transitions and sustaining long-term practices. This unified approach would provide farmers with the confidence and resources they need to adopt regenerative methods at scale.

By fostering co-investment, public and private sectors can combine resources to de-risk the initial investments required for farmers to transition and secure long-term funding to maintain regenerative practices. Public funds could be tied to measurable ecosystem service outcomes, creating a marketplace that links payments to performance-based environmental improvements. This collaborative funding mechanism would not only address financial barriers, but also attract private capital to support the growth and scalability of regenerative agriculture.



#### Clear Implementation Timeline for Successful Transition

The EU has committed to reducing emissions by 55% of 1990 levels by 2030,¹ a target the European Commission states is achievable with existing legislation. However, achieving the next milestone—such as the 90% reduction by 2040 target—will demand additional efforts, particularly in addressing emissions from agriculture, which account for 11% of the EU's total emissions.² Transitioning to regenerative agriculture is a critical piece in achieving both near-term and long-term climate goals, as doing so can substantially reduce GHG emissions, enhance climate resilience, and support broader sustainability objectives.

Europe has already made significant progress in transitioning to regenerative agriculture, driven by initiatives such as the Soil Deal for Europe and various pilot programs financed through Horizon Europe and the EIB. However, further efforts are needed to scale adoption and address implementation challenges effectively. To ensure the success of this transition, certain foundational actions should begin as soon as possible. Defining regenerative agriculture through an outcome-based framework (Opportunity #1) and integrating a robust MMRV system (Opportunity #2) should be prioritized as the first steps. These measures will create the necessary regulatory framework to track, measure, and evaluate progress consistently, forming the foundation for more systemic changes.

Building on these foundational actions, it is essential to start preparing for deeper structural changes, such as aligning the CAP's direct payments with outcome-based criteria and incentivizing measurable environmental benefits (Opportunity #3). While such reforms will take time to fully implement, early planning and alignment with ongoing programs will ensure a smooth transition.

In the meantime, creating a supportive ecosystem to accelerate the transition and provide immediate help to farmers is crucial. This includes providing financial support through EIB funds (Opportunity #4), launching knowledge-sharing programs (Opportunity #5), and establishing public-private partnerships to link investments to ecosystem services (Opportunity #6). These initiatives will give farmers the tools, resources, and support needed to start adopting regenerative practices today, paving the way for broader systemic changes as CAP reforms are introduced. By fostering collaboration between public and private sectors, the EU can ensure the transition to regenerative agriculture progresses without delay, positioning itself to achieve both near-term sustainability goals and long-term emission reduction targets.

- 1. European Climate Law (2021), EU Commission.
- European emissions database (2022 data), European Environmental Agency.



#### Annex

## The EU is a Leader in Climate and Sustainability Policy and is Advancing Several Initiatives for Regenerative Agriculture

The European Green Deal: Serving as the EU's overarching framework for achieving its ambitious climate objectives, the Green Deal was launched in 2019 under the first von der Leyen Commission and was the first continent-wide commitment to carbon neutrality by 2050. Its cross-sectoral strategy highlights agriculture as a critical area for transformation. The Farm to Fork Strategy, published in May 2020 as part of the Green Deal, specifically outlines measures to make food systems environmentally sustainable while addressing emissions, biodiversity, and health outcomes in the agricultural sector.

The Common Agricultural Policy: The CAP is the EU's primary agricultural legislation, shaping farming practices across the bloc. While emphasis remains on ensuring the EU's food sovereignty, the latest iteration (2023–2027) places an unprecedented emphasis on sustainability. This version is the first in which CAP funding is explicitly tied to environmental standards, encouraging farmers to adopt greener practices. Additionally, the new CAP introduced its first ever eco-schemes, a dedicated budget for direct payments reserved for environmental and climate actions.

Other Policies: Complementing the Green Deal and the CAP, a series of targeted laws aim to accelerate regenerative practices by addressing soil health, biodiversity, and carbon sequestration. These include the Biodiversity Strategy for 2030, which commits to protecting 30% of the EU's land and sea areas and restoring degraded ecosystems; the EU Soil Strategy for 2030, which is a comprehensive framework aimed at achieving healthy soils by 2050; the Nature Restoration Law, which mandates the restoration of 20% of the EU's land and sea areas by 2030; and the CRCF, which establishes a voluntary framework to certify high-quality carbon removals, including in agriculture.

## The Last Years Have Seen Significant Tension Between Sustainability and Farmers' Competitiveness

Starting in late 2023 and continuing into 2024, farmers across Europe staged widespread protests in their Member States and Brussels. These demonstrations highlighted the growing tension between ambitious environmental policies and the realities faced by farmers operating within the EU.

One of the farmers' key concerns was waning competitiveness. Factors that farmers said attributed to this include growing regulatory and administrative burdens imposed by environmental policy, including the more stringent ones tied to the CAP; globalized supply chains that favor cheaper goods from outside the EU; the economic obstacles of maintaining functioning farmland; and the lack of sufficient EU incentive mechanisms to help farmers overcome these challenges.<sup>1</sup>

In parallel, farmers faced the challenge of maintaining agricultural productivity to serve an increasing demand

for food across the EU and beyond. The combination of the above, climate change impacts such as droughts affecting crop viability, and geopolitical uncertainties including supply chain disruptions caused farmers feel that their economic viability was in peril.

In response, EU policymakers adjusted existing frameworks to ease some of the strain. For example, the conditions tied to CAP funding, known as Good Agricultural and Environmental Conditions (GAECs), were made less stringent. Additionally, Member States were granted allowances to issue temporary derogations to GAEC requirements in cases of unforeseen climate events. While these adjustments addressed immediate grievances, they also underscored the broader need for systemic change to better balance sustainability requirements with the realities of farming, including food security and resilience.

1. Why are farmers across Europe protesting? (2024), DW.

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