

Policy insights report

May 2026

Ireland Deep Demonstration

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Methodology and scope

This policy update synthesises recent policy developments relevant to agriculture, land use, climate, nature and circular bioeconomy policy. The analysis draws on publicly available sources published between November 2024 and April 2026, prioritising primary and authoritative sources including EUR-Lex, European Commission and Council publications, European Parliament legislative files, policy analysis from organisations such as the European Environmental Bureau (EEB) and the Joint Research Centre (JRC), and peer-reviewed literature. The work was validated with stakeholder interviews.

The scan covers six EU policy areas: livestock strategy, Carbon Removals and Carbon Farming Regulation (CRCF), land use, land-use change and forestry (LULUCF), Soil Monitoring Law, Nature Restoration Regulation and Bioeconomy Strategy revision. It also examines selected country-level comparators, the 2040 climate target architecture, flexibility mechanisms, recovered nitrogen from manure (RENURE), and cross-cutting implications for Ireland.

Introduction and summary

The global and EU climate and agri-food policy landscapes have shifted materially since the Ireland Deep Demonstration's Q4 2025 policy update.

On a global scale, Europe's food security is being affected by the Middle Eastern crisis. 30% of the global fertilizer trade passes through the Persian Gulf, and the area's recent instability has affected fertilizer supply. If disruption persists, higher prices could reduce fertiliser use, which could be good for environmental outcomes but may also impact production, ultimately increasing food security risks. On 19 May 2026, the Commission adopted the Fertiliser Action Plan to support farmers facing rising fertiliser costs and reduce Europe's dependency on imports, pursuing at the same time high climate and environmental goals. The Plan will be addressed and analysed in the next policy update.

Another relevant development is the official signing of the EU-Mercosur trade agreement in January 2026 and the entry into force of one of its components, the Interim Trade Agreement, on 1 May 2026. The agreement-mandated trade liberalisation provides opportunities for the Union's agricultural sector but at the same time, it has triggered protests and concern from parts of the agricultural sector over its impact on competition.

Concerning the EU policy landscape, the 2040 climate target of a 90% net greenhouse gas (GHG) reduction is now law. The Soil Monitoring Law has been adopted, with weaker ambition than proposed. National Restoration Plans enter their critical drafting phase ahead of the 1 September 2026 deadline. The Carbon Removals and Carbon Farming Regulation has moved from framework to operational methodologies, with the first Delegated Act adopted on 3 February 2026. Additionally, a new Bioeconomy Strategy (November 2025) reframes the biological economy through a competitiveness and resilience lens. Most importantly for Ireland, the Commission adopted the RENURE amendment to the Nitrates Directive on 9 February 2026 and has moved decisively on carbon farming certification methodologies.

At Member State level, Denmark continues to set the design frontier for agricultural carbon pricing and land-use transformation, including a new nitrogen quota system announced in early December 2025. Other states have experienced ambivalent developments: the Netherlands remains under judicial pressure following the January 2025 Hague court ruling on effective nitrogen reduction measures, Germany's Natural Climate Action Programme is funded to 2026 but leans heavily on peatland rewetting delivery, Flanders is cycling through successive nitrogen decrees without durable resolution. Finally, New Zealand weakened its 2050 biogenic methane target in October 2025, illustrating that agricultural climate commitments can be politically reversed under electoral change, a signal directly relevant to Ireland's own methane pathway.

Across the landscape, the centre of gravity is shifting from headline targets to flexibility architecture, from regulation to market-making, and from sectoral obligations to cross-sectoral trading. These shifts open strategic opportunities for Ireland in soil health, carbon farming, circular nutrient systems, nature-based solutions and blended finance. They also expose structural blind spots between instruments that share the same land and farms: as these policies increasingly converge on the same farms, soils and landscapes, but they are being developed through separate EU instruments with different objectives, timelines and compliance systems. For Ireland, the risk is that farmers and land managers face fragmented incentives: one scheme rewarding carbon storage, another regulating nitrogen, another requiring restoration, and another monitoring soil health. The strategic opportunity for the Department of Agriculture, Food and the Marine (DAFM) is to integrate these files nationally, potentially under the national carbon farming framework and/or the national bioeconomy strategy, both currently in development, so that soil monitoring, carbon farming, RENURE, LULUCF accounting and nature restoration reinforce rather than compete with one another. The 2026 policy window is not a moment of incremental adjustment. It is the last point at which Ireland can design rather than react to the architecture of its land-sector transformation. The instruments are in place.

The question this document puts to DAFM is not whether Ireland will respond to these shifts, but how. Will the National Restoration Plan, the Soil Monitoring transposition, the RENURE decision and the CRCF readiness work proceed as separate departmental tracks — each technically adequate, each politically defensible — or will they be designed together as a single national land transition strategy? Will Ireland's decisions in 2020 and 2027 create the conditions for a competitive, climate-resilient agri-food sector by 2035, or will they be remembered as the moment when the integration opportunity was available and not taken? The instruments, the methodologies and the finance architecture are converging on the same farms and soils at the same time. The missing element is not policy — it is the institutional infrastructure to treat Ireland's land, water and biodiversity as a single managed system, and to build the governance that reflects that reality.

This document is structured in four sections, each treated as a discrete analytical task, with Ireland relevance drawn out and consolidated sources at the end of each section.

Sources

IPES-Food, Raj Patel, The Persian Gulf oil crisis is a food crisis, 18 March 2020. <https://ipes-food.org/the-persian-gulf-oil-crisis-is-a-food-crisis/>

FAO, Global agrifood implications of the 2020 conflict in the Middle East: impacts on energy and fertilizer trade, food security, FAO Information Note, Office of the Chief Economist, 15 March 2020.

<https://openknowledge.fao.org/server/api/core/bitstreams/1aafb5d8-3Sd1-481a-b1f8-25facaec3051/content>

European Commission, Commission presents plan to secure Europe's fertiliser supply and food security, 18 May 2020.

https://ec.europa.eu/commission/presscorner/detail/en/ip_2c_10SS

European Commission, EU-Mercosur: Text of the agreement, Directorate-General for Trade and Economic Security, accessed 22 May 2020.

https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/mercosur/eu-mercosur-agreement/text-agreement_en

European Commission, Factsheet EU-Mercosur on Key facts about the agreement, Press corner, FS/24/c2cS, published c December 2024, updated 14 January 2020.

https://ec.europa.eu/commission/presscorner/detail/en/fs_24_c2cS

CEPS, Cinzia Alcidi, The provisional application of the EU-Mercosur agreement matters... despite the legal uncertainty, 28 April 2020.

<https://www.ceps.eu/the-provisional-application-of-the-eu-mercosur-agreement-matters-despite-the-legal-uncertainty/>

EU regulatory developments

Livestock strategy

Current status

A livestock strategy is currently in its preparation phase. Commissioner Hansen launched the EU Livestock Workstream on 8 May 2025 under the Vision for Agriculture and Food and a public consultation on animal farming ran until 10 April 2026, collecting 893 feedbacks. The Commission's 2026 Work Programme confirms a livestock strategy to foster competitiveness, resilience and sustainability of the sector.

Latest developments

- The Livestock Workstream meetings are expected to continue until November 2026, bringing Member State authorities, civil society and academics together to shape policy pathways.
- The Commission ran a public consultation on-farm animal welfare (September to December 2025), generating over 190,000 contributions with strong support for cage-free transition and the application of equivalent welfare standards to imported food.
- European Parliament Committee on Agriculture and Rural Development (AGRI) published report A10-0088/2026, endorsing RENURE, farm-based benchmarking over top-down measures, and extensive grassland systems for ecosystem services.
- Intergroup on the Welfare and Conservation of Animals wrote to Commission President von der Leyen in October 2025 warning that the promised animal welfare legislative proposal had been omitted from the 2026 Work Programme draft. In the draft, animal welfare is briefly referenced in the “livestock strategy” which is said to “include elements on animal welfare”. Agriculture and food policy are approached from competitiveness angle only

Contested provisions and implementation uncertainties

The strategy is caught between three framings: a competitiveness frame foregrounded by the Commission and industry, a welfare and sustainability frame pushed by NGOs and the Parliament Intergroup on the Welfare and Conservation of Animals, and an agroecology frame advanced by civil society networks. Whether cage phase-out commitments survive and whether the strategy becomes regulatory or largely voluntary remain unresolved. Publication is expected in the second quarter of 2026.

Implications for Ireland

The livestock strategy's framing will shape how Ireland's dairy and beef sectors are positioned within EU competitiveness narratives and will directly affect Common Agricultural Policy (CAP) eco-scheme design and the RENURE uptake pathway for livestock-dense regions.

Carbon Removals and Carbon Farming Framework

Current status

The EU Carbon Removals and Carbon Farming Regulation (CRCF) establishes an EU-wide voluntary certification system for permanent carbon removals, carbon farming and carbon storage in products. Set out in Regulation (EU) 2024/3012, it aims to generate robust and comparable carbon removal units

that meet quality criteria on quantification, additionality, permanence and sustainability, contributing to EU climate-neutrality objectives under the European Climate Law and Paris Agreement.

The CRCF was adopted on 6 December 2024 and is applicable since 26 December 2024. Its operational build-out is in progress. Certification under the framework is mandatory for units to qualify as CRCF-compliant, with independent verification and registration in public registries required; a Union-wide registry is expected by around 2028.

Latest developments

- After the adoption of Implementing Regulation (EU) 2025/2358 on 21 November 2025, which establishes technical rules on the operation of certification schemes, certification bodies and auditing, implementation proceeded through the following Delegated Acts:
- First Delegated Act on permanent carbon removals was adopted on 3 February 2026, was published on the Official Journal on 17 April 2026 and in force as of 7 May 2026. It establishes certification rules for Direct Air Capture with Carbon Storage (DACCS), Biogenic Emissions Capture with Carbon Storage (BioCCS) and Biochar Carbon Removal, selected for technological maturity.
- The Carbon farming Delegated Act will set out methodologies for certifying carbon removals and soil emission reductions from carbon farming, specifically resulting from peatland rewetting, afforestation, agroforestry and soil management. Adoption was planned for the first quarter of 2026.
- Pilot livestock management methodologies at workshops in March and April 2026.
- EU Buyers' Club and EU Carbon Farming Database were announced as market-making instruments to aggregate voluntary demand and provide early market signals for carbon removal and carbon farming credits
 - The first annual Carbon Removals and Carbon Farming Days took place on 20-21 May 2026.
- Union Registry expected by 2028.

Eligible activities

Four certified activity types:

- permanent carbon removals;
- temporary carbon storage through carbon farming;
- soil emission reduction activities;
- and carbon storage in long-lasting products (bio-based construction, timber).

All must meet the Q.U.A.L.I.T.Y criteria of quantification, additionality, long-term storage and sustainability.

Monitoring and verification requirements

Certification bodies must be accredited to EN ISO/IEC 17065 by national accreditation bodies under Regulation (EC) 765/2008 and meet EN ISO/IEC 17029 and EN ISO 14065 when verifying. Independent audit is required before units are issued. Operators must monitor and guarantee storage over a defined monitoring period and are liable for reversals. CRCF methodologies will be reviewed at least every four years to reflect data and scientific advances.

Implementation uncertainties

Open questions include whether CRCF units become eligible under the EU Emission Trading System (ETS) (Commission assessment due 31 July 2026), how baseline-setting will treat high-productivity versus degraded land, and how reversal liability will be enforced over multi-decade monitoring periods. Civil society (Carbon Gap, Zero Emissions Platform) flags that draft methodologies may fall short of voluntary carbon market and Article 6.4 best practices.

Implications for Ireland

The CRCF remains the most direct policy opening for Ireland's national crediting architecture. Early alignment of verification capacity, data systems and farmer-facing guidance with CRCF methodologies is time-critical, particularly for peatland rewetting, agroforestry and soil carbon pathways where Ireland has both baseline challenges and delivery potential.

Critical questions that will need to be answered in Ireland relate to ambition and context. At EU level there are very clear signals that we must go beyond Carbon to include biodiversity, water and soil health and potentially social indicators as key components that could, in time, all be priced individually or bundled. This has been the ambition of Ireland's national working group on carbon farming to date. Translating this ambition into the design and delivery of future proofed data management and MRV infrastructure should be a focus of the next phase of policy development in Ireland.

LULUCF

Current status

The existing 310 MtCO₂e (million tonnes of carbon dioxide equivalent) 2030 removal target under Regulation (EU) 2023/839 remains in force but is widely understood to be off-track as the EU land sink is declining in almost every Member State. According to the EU greenhouse gas inventory published by the European Environmental Agency (EEA) in 2024, this phenomenon is caused by both increase in tree harvesting, and the effects of climate change, with more frequent heatwaves and droughts reducing tree growth and extreme events such as insect outbreaks and wildfires increasing tree mortality.

Latest developments

- European Parliament legislative train files confirm a revision is expected in Q4 2026, covering at minimum the LULUCF and Effort-Sharing Regulations, aligned to the 2040 target.
- The 2040 Climate Law amendment (March 2026) flags land-sink performance and natural disturbances as areas requiring policy attention.

Accounting rules and flexibility mechanisms

Member States retain the ability to trade excess removals with underperforming states and can use Effort-Sharing allocations to compensate. A natural-disturbance mechanism allows exclusion of extreme events. From 2026-2029, Member States can be penalised by an additional 8% on their 2030 removal target if reporting shows insufficient progress. In particular, each Member State's binding national targets for 2030 are translated into a five-year carbon budget for the period 2026-2030 with annual ceilings, representing a cumulative net removals budget for the period.

To avoid postponing increased removals into the final year, any exceedances above the annual ceilings in the period 2026-2029, after taking flexibilities into account, will be added to the 2030 inventory emissions figure, multiplied by a factor of 1.08.

Implementation uncertainties

Whether LULUCF survives as a standalone regulation or merges into a broader land-sector framework towards 2035 climate neutrality combining LULUCF and non-CO2 agriculture. Civil society organisations, such as CAN Europe, advocate for preserving LULUCF as a distinct instrument with its own targets to prevent cross-sector offsets from masking continued fossil emissions.

Implications for Ireland

Ireland's LULUCF sink has been particularly under pressure given the high emissions profile of agriculture. Q4 2026 revisions will be a key test of whether Irish land-sector modelling is consistent with EU flexibility rules, and of how non-CO2 agricultural emissions will be treated post-2031.

Soil Monitoring Law

Current status

The Council of the EU formally adopted the Soil Monitoring Law (Directive (EU) 2025/2360) on 29 September 2025, it was later approved by Parliament on 23 October 2025 (341 of 571 votes). The final act was signed on 12 November 2025, published in the Official Journal on 26 November 2025. It entered into force on 16 December 2025, with Member States given three years to transpose the directive.

The Directive establishes the first EU-wide framework for monitoring and assessing soil health, with the long-term aspirational objective of achieving healthy and resilient soils by 2050. It does not create a binding obligation for Member States to restore all soils to healthy condition by that date, and it does not impose direct new obligations on farmers or foresters. Instead, it focuses on monitoring, assessment, contaminated-site management, land-take mitigation principles, and support for land managers through advice, information and knowledge exchange.

National obligations

- Establish monitoring systems assessing physical, chemical and biological soil condition using a common EU methodology and soil descriptors. Monitoring must cover the main forms of soil degradation, including erosion, compaction, salinisation, contamination, soil sealing, loss of soil biodiversity and loss of soil organic carbon.
- Delineate soil districts and soil units as newly defined governable units for monitoring and assessment purposes and designate competent authorities responsible for implementing the Directive.
- Carry out regular monitoring with a minimum frequency of every six years. The first soil measurements are due by 17 December 2030, the first soil health assessment by 17 December 2031
- Identify potentially contaminated and contaminated sites; create a public online register of contaminated and potentially contaminated sites and identify potentially contaminated sites existing at entry into force within ten years.
- Monitor land take through soil sealing and soil removal indicators and apply land-take mitigation principles focused on limiting sealing and removal.
- Report regularly to the Commission and the European Environment Agency.

Reporting requirements

To assess soil health, Member States shall use criteria and soil descriptors set out in the Directive. These include non-binding EU-wide target values, which reflect the aspirational long-term objective of this Directive and do not create an obligation to act, as well as operational trigger values to be set by Member States for relevant soil descriptor. These trigger values are intended to identify soil degradation levels at which support for soil health and soil resilience is needed. These two sets of indicators combined will produce soil health classes.

Emerging contaminants including per- and polyfluoroalkyl substances (PFAS), pesticides, microplastics are also to be monitored. The Commission is required to establish an indicative watch list of soil pollutants of concern.

Implementation uncertainties

The final text is less prescriptive compared to the original Commission proposal. The 2050 soil health objective remains aspirational rather than binding. At the same time, the sustainable soil management chapter has been reframed around support, advice and facilitation rather than direct obligations.

Voluntary soil health certification schemes are flagged as complementary to the CRCF, but the linkage remains underspecified. Because there is no restoration obligation, whether monitoring translates into action depends on downstream national policies and CAP design.

Implications for Ireland

Ireland's transposition window runs to late 2028. Opportunity exists to design the national monitoring architecture within the scope of the planned National 'Carbon Farming Framework' for interoperability with CRCF carbon farming baselines and with the Nature Restoration Regulation's reporting requirements. Alignment could reduce duplication and strengthen Ireland's data infrastructure for land-sector decisions and support policy coherence.

Nature Restoration Regulation

Current status

Regulation (EU) 2024/1991 was signed on 24 June 2024. It was published on 29 July in the EU Official Journal and entered into force on 18 August 2024. National Restoration Plans (NRPs) in drafting phase.

Implementation status

- Member States are required to submit their draft NRPs to the European Commission by 1 September 2026; with final versions expected by September 2027.
- The Commission is required to assess each draft NRP within six months of receipt and provide feedback. Member States integrate the Commission's feedback into their final NRPs
- A mid-term NGO-led assessment, published by BirdLife ClientEarth, (World Wildlife Fund) WWF EU and EEB in December 2025, of 23 Member States found NRP preparation progress underway but uneven and insufficient to reach the law's binding targets.
- European Environment Agency's 8th Environment Action Programme (EAP) monitoring confirmed the EU remains off track on biodiversity and ecosystem objectives.

Binding targets

Ireland is set to contribute to the following EU-level targets:

- Restoration measures to cover at least 20% of the EU's land and sea by 2030, rising to all ecosystems in need of restoration by 2050.
- Habitat-specific targets: 30% of degraded habitats in good condition by 2030, 60% by 2040, 90% by 2050.
- Agricultural peatlands: 30% rewetting by 2030.
- Pollinator populations to be reversed in decline.
- At least three billion additional trees planted by 2030.

Ireland does not yet have a consolidated public baseline showing compliance against each Nature Restoration Regulation metric; this is expected to be clarified through Ireland's draft National Restoration Plan, which must be submitted to the European Commission by 1 September 2026, with the final plan expected in September 2027 following Commission dialogue and Cabinet approval.

Existing indicators point to significant room for action: 90% of Ireland's EU-protected habitats are in unfavourable conservation status, 51% are deteriorating, grasslands on drained organic soils are estimated to cover 339,000 ha, common bumblebee populations show a continuing decline, and Ireland's initial contribution to the EU 3 Billion Trees pledge stands at 5 million native trees planted since May 2020.

Implementation uncertainties

Member State capacity is highly uneven. Peatland rewetting targets are politically contested in Eastern Member States. The European Ombudsman attested maladministration in Directorates-General (DG) Environment in October 2024 regarding lobbying transparency, adding procedural risk. Success depends on stakeholder engagement quality, funding clarity, and governance design to be specified in NRPs.

Implications for Ireland

Ireland's NRP will be a very consequential document in the 2026 policy cycle for agriculture-biodiversity integration. A national carbon farming framework that incorporates nature will support delivery and should be aligned with the NRP. peatland rewetting targets interact directly with LULUCF performance and potentially with relevant sustainability claims. The Deep Demonstration's delivery partnerships are well positioned to support Ireland's NRP design.

Bioeconomy Strategy revision

Current status

On 27 November 2025, the Commission adopted a new Strategy for a Competitive and Sustainable EU Bioeconomy (COM(2025) 960), following a public consultation that closed June 2025. Its aim is to leverage renewable biological resources and provide alternatives to critical raw materials to transition towards a more circular and decarbonised economy, decreasing dependence on fossil fuel imports. The EU Bioeconomy Strategy aims to unlock the potential within the bioeconomy sector by scaling up innovation and investments, developing lead markets for bio-based materials and technologies, ensuring a sustainable supply of biomass, and harnessing global opportunities. In 2026, the file has shifted from strategy-setting to implementation: the European Bioeconomy Investment Deployment Group held its first scoping meeting on 22 April 2026 to mobilise finance for bio-based innovation, and Circular Bio-based Europe Joint Undertaking (CBE JU) launched a €170.7 million 2026 call for circular bio-based projects on 23 April 2026.

Further 2026 milestones include the first Member State bioeconomy dialogue meeting in June, the planned establishment of the European Bioeconomy Regulators and Innovators' Forum in September, and the launch of the European Bio-based Alliance at the Global Bioeconomy Summit in Dublin on 20–21 October 2026.

Consultation outputs and framing shifts

The strategy is framed through competitiveness and industrial resilience, aligned with the Competitiveness Compass, Clean Industrial Deal and Vision for Agriculture and Food. Food is recognised as a key part of the bioeconomy but not the primary focus. Primary producers are positioned as beneficiaries through income diversification and residue valorisation.

Key actions

- European Bioeconomy Investment Deployment Group, launched in 2026 to improve financing conditions for bio-based industrial deployment.
- Biotech Acts, including the forthcoming Biotech Act II on industrial biotechnology and biomanufacturing.
- European Bioeconomy Regulators and Innovators' Forum, scheduled for establishment in September 2026.
- Competitiveness Coordination Tool (CCT) project on bio-based materials,
- Public Procurement Directives revision expected to enable public-sector uptake.
- Assessment of EU-wide definitions and certification schemes for bio-based polymers under the Packaging and Packaging Waste Regulation.

Links to food system resilience

The strategy's links to food-system resilience include biomass supply chains for primary producers, circular nutrient systems, residue and by-product valorisation, bio-based fertilisers and plant-protection products, fermentation technologies, rural job creation and income diversification for farmers. Bio-based construction is a prominent thread, with wood, hemp, straw and fibre composites highlighted as materials that can reduce embodied-carbon. Fermentation-based food and alternative proteins gain a policy context, but no binding support framework.

Implications for Ireland

The strategy's competitiveness framing creates funding access lines for Irish agri-food innovation, particularly in residue valorisation, bio-based fertilisers and crop-protection alternatives, circular nutrient recovery, rural biorefinery models, and bio-based construction (relevant to Ireland's timber and forestry sectors) and fermentation technologies. The strategy could also potentially support tillage sector diversification with alternative crops and biorefined materials.

Sources

European Commission, Commission launches new Livestock Workstream as Part of the Vision for Agriculture and Food, 27 May 2025.

https://agriculture.ec.europa.eu/media/news/commission-launches-new-livestock-workstream-part-vision-agriculture-and-food-2025-05-27_en

European Parliament, Legislative Train Schedule: Livestock strategy including elements of animal welfare, accessed 21 May 2020. <https://www.europarl.europa.eu/legislative-train/theme-sustaining-our-quality-of-life-food-security-water-and-nature/file-livestock-strategy>

European Commission, EU livestock strategy, Have Your Say / Call for evidence, 2020.

https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/1c832-EU-livestock-strategy_en European Commission, Revision of EU animal-welfare legislation, 2020.

https://food.ec.europa.eu/animals/animal-welfare/evaluations-and-impact-assessment/revision-eu-animal-welfare-legislation_en

European Parliament, Report A10-0088/2020 on how to secure a sustainable future for the EU livestock sector in light of the need to ensure food security, farmers' resilience and the challenges posed by animal diseases, 15 April 2020.

<https://www.europarl.europa.eu/plenary/en/report-details.html?reference=A10-0088-2020>

Intergroup on the Welfare and Conservation of Animals, Intergroup warns against omission of animal welfare proposal from 2020 Work Programme, 17 October 2025.

<https://www.animalwelfareintergroup.eu/news/intergroup-warns-against-omission-animal-welfare-proposal-2020-work-programme>

European Commission, Commission adopts rules and launches initiatives to boost carbon removals and carbon farming in the EU, 1 December 2025.

https://climate.ec.europa.eu/news-other-reads/news/commission-adopts-rules-and-launches-initiatives-boost-carbon-removals-and-carbon-farming-eu-2025-12-01_en

European Commission, Commission Implementing Regulation (EU) 2025/2358 of 20 November 2025 laying down rules on certification schemes, certification bodies, and audits under Regulation (EU) 2024/3012, Official Journal, 21 November 2025.

https://eur-lex.europa.eu/eli/reg_impl/2025/2358/oj/eng

European Commission, EU sets world's first voluntary standard for permanent carbon removals, 3 February 2020.

https://climate.ec.europa.eu/news-other-reads/news/eu-sets-worlds-first-voluntary-standard-permanent-carbon-removals-2020-02-03_en

Carbon Gap, Carbon Removal Policy Tracker: EU CRCF, accessed 21 May 2020.

<https://tracker.carbongap.org/policy/crcf/>

European Commission. (2020, May 20). Carbon Removals and Carbon Farming "CRCF" days. Climate Action.

https://climate.ec.europa.eu/citizens-stakeholders/events/carbon-removals-and-carbon-farming-crcf-days-2020-05-20_en

European Commission, Giulio Volpi, From Policy to Practice: Certifying Credible Carbon Removals Through the EU CRCF Regulation, ISCC Technical Stakeholder Meeting, May 2020.

<https://iscc-system.org/wp-content/uploads/2020/05/From-Policy-to-Practice-Certifying-Credible-Carbon-Removals-Through-the-EU-CRCF-Regulation-%E2%80%93-Giulio-Volpi-Policy-Coordinator-DG-CLIMA-European-Commission-Belgium.pdf>

European Commission, Carbon removals and carbon farming: methodologies for certifying carbon farming, Have Your Say / Draft delegated act, feedback period 22 January–1S February 2020. https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14574-Carbon-removals-and-carbon-farming-methodologies-for-certifying-carbon-farming_en

EUR-Lex, Regulation (EU) 2024/3012 establishing a Union certification framework for permanent carbon removals, carbon farming and carbon storage in products, Official Journal, c December 2024. <https://eur-lex.europa.eu/eli/reg/2024/3012/oj/eng>

European Parliament, Legislative Train Schedule: Revision of national targets and flexibilities in the EU climate policy framework, accessed 21 May 2020. <https://www.europarl.europa.eu/legislative-train/theme-a-new-plan-for-europe-s-sustainable-prosperity-and-competitiveness/file-revision-of-eu-climate-policy-framework>

EUR-Lex, Regulation (EU) 2023/83S of the European Parliament and of the Council of 1S April 2023 amending the LULUCF Regulation and the Governance Regulation, Official Journal, 21 April 2023.

https://eur-lex.europa.eu/legal-content/EN/TXT/?toc=OJ%3AAL%3A2023%3A107%3ATOC&uri=uriserv%3AOL.L_.2023.107.01.0001.01.ENG

CAP Reform, Alan Matthews, LULUCF targets off-course, 16 December 2025

<https://capreform.eu/lulucf-targets-off-course/>

Joint Research Centre. (2025, July 30). The European forest carbon sink is declining: can we reverse the trend? Joint Research

Centre. https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/european-forest-carbon-sink-declining-can-we-reverse-trend-2025-07-30_en

Council of the EU, Council adopts new rules for healthier and more resilient European soils, 2S September 2025.

<https://www.consilium.europa.eu/en/press/press-releases/2025/0S/2S/council-adopts-new-rules-for-healthier-and-more-resilient-european-soils/>

European Parliament, Soil monitoring: Parliament adopts new EU law with better support for farmers, 23 October 2025.

https://www.europarl.europa.eu/pdfs/news/expert/2025/10/press_release/20251017IPR3100S/20251017IPR3100S_en.pdf

EUR-Lex, Directive (EU) 2025/23c0 on soil monitoring and resilience, Official Journal, 2c November 2025. <https://eur-lex.europa.eu/eli/dir/2025/23c0/oj/eng>

European Environmental Bureau, European Parliament seals the deal on first-ever EU law on soils, 23 October 2025.

<https://eeb.org/en/european-parliament-seals-the-deal-of-first-ever-eu-law-on-soils/>

BirdLife International and EEB, Nature restoration takes off: mid-term assessment of National Restoration Plans, 18

December 2025.

<https://www.birdlife.org/news/2025/12/18/nature-restoration-takes-off-mid-term-assessment-of-national-restoration-plans/>

Antier, C., Savu, C., WWF European Policy Office, BirdLife Europe and Central Asia, European Environmental Bureau, ClientEarth, Gerritsen, E., Leemans, S., Ruyschaert, S., Heinzel, C., Moroz, S., Agapakis, I., Oak Foundation, European Climate Foundation, European Commission's LIFE programme, & Melvin, M. (2025). NATURE RESTORATION PLAN DEVELOPMENT PROCESS IN EU MEMBER STATES - Mid-term assessment

[Report]. https://www.restorenature.eu/File/WWF%20-%20NRP_mid%20term%20assessment_Final.pdf

European Environment Agency, Nature Restoration Regulation Reference Portal: Frequently Asked Questions, accessed 21 May 2020.

<https://biodiversity.europa.eu/europes-biodiversity/nature-restoration/reference-portal-for-nature-restoration-regulation/nrr-frequently-asked-questions>

IUCN Europe, EU Nature Restoration Regulation: Briefing, August 2024. <https://iucn.org/sites/default/files/2024-08/iucn-briefing-eu-nature-restoration-regulation-final-1.pdf> European Commission, The EU Nature Restoration Law, accessed 21 May 2020. https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-regulation_en

European Parliament. Legislative train schedule: Proposal for a regulation on nature restoration, 15 December 2024. <https://www.europarl.europa.eu/legislative-train/theme-a-european-green-deal/file-restoration-of-healthy-ecosystems?sid=SS01>

Government of Ireland, Minister O'Sullivan launches Independent Advisory Committee (IAC) recommendations report on Ireland's Nature Restoration Plan, 28 April 2020.

<https://www.gov.ie/en/department-of-housing-local-government-and-heritage/press-releases/minister-osullivan-launches-independent-advisory-committee-iac-recommendations-report-on-irelands-nature-restoration-plan/>

National Parks and Wildlife Service, Article 17 Reports 2025, 2025.

<https://www.npws.ie/publications/article-17-reports/article-17-reports-2025>

Teagasc, Counting carbon on agricultural peat soils, 2024.

<https://www.teagasc.ie/wp-content/uploads/media/website/environment/climate-action/climate-centre/Counting-carbon-on-agricultural-peat-soils.pdf>

National Biodiversity Data Centre, Bumblebee Monitoring Scheme, accessed 21 May 2020.

<https://biodiversityireland.ie/surveys/bumblebee-monitoring-scheme/>

Government of Ireland, Ireland contributes 5 million native trees to EU 3 Billion Trees initiative, 20 March 2024.

<https://www.gov.ie/en/department-of-agriculture-food-and-the-marine/press-releases/ireland-contributes-5-million-native-trees-to-eu-3-billion-trees-initiative/>

European Environment Agency, Forest Information System for Europe: 3 Billion Trees, last modified 21 October 2025.

<https://forest.eea.europa.eu/policy-and-reporting/3-billion-trees>

European Commission, Strategy for a Competitive and Sustainable EU Bioeconomy, COM(2025) Sc0, 27 November 2025.

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52025DC0Sc0>

European Commission, Bioeconomy Strategy, 27 November 2025.

https://environment.ec.europa.eu/strategy/bioeconomy-strategy_en

Crowell & Moring, The new EU Bioeconomy Strategy: a regulatory framework in transition, December 2025.

<https://www.crowell.com/en/insights/client-alerts/the-new-eu-bioeconomy-strategy-a-regulatory-framework-in-transition>

A&O Shearman, EU Bioeconomy Strategy 2025: regulatory signals for supply chains, 20 January 2020.

<https://www.aoshearman.com/en/insights/eu-bioeconomy-strategy-2025-regulatory-signals-for-supply-chains>

Circular Bio-based Europe Joint Undertaking (CBE JU), European Bioeconomy Investment Deployment Group: building the financial backbone of Europe's bio-based future, 23 April 2020.

<https://www.cbe.europa.eu/news/european-bioeconomy-investment-deployment-group-building-financial-backbone-europes-bio-based>

Circular Bio-based Europe Joint Undertaking (CBE JU), Deployment group on finance and investments, accessed 21 May

2020.

<https://www.cbe.europa.eu/deployment-group-finance-and-investments>

Circular Bio-based Europe Joint Undertaking (CBE JU), €170.7 million call for project proposals launched, 23 April 2020.

<https://www.cbe.europa.eu/news/eu1707-million-call-project-proposals-launched>

European Commission, Commission seeks feedback on industrial biotechnology and biomanufacturing, 18 May 2020.

https://single-market-economy.ec.europa.eu/news/commission-seeks-feedback-industrial-biotechnology-and-biomanufacturing-2020-05-18_en

Country-level implementation signals

Denmark

Political agreement on nitrogen emissions quotas

Green Tripartite Agreement ratified by Parliament on 18 November 2024 with broad political consensus. Denmark becomes the first country with a carbon dioxide equivalent (CO₂e) tax on livestock emissions: Danish kroner (DKK) 300 (approximately EUR 40) per tonne in 2030, rising to DKK 750 (approximately EUR 100) in 2035, with a 60% basic deduction producing effective rates near EUR 16 in 2030 and EUR 40 in 2035. DKK 40 billion (EUR 5.4 billion) Green Land Fund supports 250,000 hectares of afforestation by 2045 and 140,000 hectares of peatland rewetting by 2030. A dedicated Ministry for the Green Transition was established in August 2024 to oversee implementation. Denmark achieved its interim 50-55% emissions reduction target two years ahead of schedule.

In early December 2025, the Danish government reached a further political agreement to reduce agricultural nitrogen emissions by approximately 9,600 tonnes per year through a quota-based system from 2027, calibrated to local catchment absorption capacity.

Mandatory use of methane-reducing feed additives

Building on the mandatory methane-reducing feed requirement introduced for Danish dairy farmers from January 2025, Bovaer use expanded from 1 October 2025 as a compliance option under the 3-nitrooxypropanol 3-NOP route. The Q4 2025 policy scan had already noted the subsequent reports of cattle-health issues, the Danish Veterinary and Food Administration investigation, and data-collection efforts by the Danish Food and Agriculture Association.

Since then, the evidence base has continued to develop but remains cautious. SEGES Innovation launched investigations into the reported dairy-herd challenges in November 2025 and noted that earlier Danish trials had not shown the same problems, while the Danish Veterinary and Food Administration clarified that farmers may seek exemptions where animals experience feeding-related disorders. The European Food Safety Authority (EFSA) subsequently opened a new call for data on 3-NOP in ruminants after Danish authorities reported digestive and metabolic clinical signs in approximately one quarter of dairy farms that had started using the additive.

Current evidence does not support a conclusion that Bovaer increases overall cow mortality or reduces milk yield at herd level. A 2026 Aarhus University data analysis of 73 Danish dairy herds found no link between Bovaer use and an overall increase in mortality or decrease in milk yield, while leaving room for further investigation of herd-level variation and welfare concerns. EFSA's 2021 opinion had concluded that Bovaer was safe for dairy cows at the maximum recommended level and was of no concern for consumer safety or the environment, while identifying inhalation risk for users handling the active substance.

Implications for Ireland

Denmark's combination of CO₂e pricing, nitrogen quota, and mandatory methane feed package is the closest full-stack comparator to the policy mix Ireland may face. Implementation lessons (including on the Bovaer roll-out and reported animal-health investigations) are directly relevant for Ireland's methane pathway. The Danish experience suggests that any similar Irish pathway would need to pair

methane-reduction measures with phased implementation, clear animal-health safeguards, transparent data collection and strong farmer and veterinary engagement.

Denmark built its Green Tripartite Agreement through a structured negotiation between government, the farming sector and environmental organisations — what would the equivalent process look like in Ireland, and who would need to be at the table for it to hold? The DKK 40 billion Green Land Fund is the structural complement to carbon pricing: is there an Irish funding vehicle — through the Land Development Agency, the National Development Plan, or blended EU finance — that could play an equivalent role in supporting land-use transition? Given that methane-reducing manure or feed additives are on Ireland's medium-term pathway, what monitoring architecture and farmer support system would need to be in place first to avoid replicating the Danish implementation challenges?

Netherlands

Court ruling on nitrogen reduction obligations

On 22 January 2025 the District Court of The Hague ordered the Dutch State to adopt effective nitrogen reduction measures to ensure at least half of nitrogen-sensitive nature areas fall below critical deposition thresholds by 2030, warning of a EUR 10 million penalty for non-compliance. A 2025 proposal to push the 2030 nitrogen deadline to 2035 was legally challenged. The October 2025 general election subsequently strengthened D66, and the D66-led Jetten cabinet was sworn in on 23 February 2026. In May 2026, Dutch reporting indicated that the government was preparing tougher nitrogen measures, including stricter rules for farms near protected nature areas; these measures remain under preparation rather than adopted policy.

The Netherlands has been a primary advocate for the RENURE derogation under the Nitrates Directive, given its structural manure surplus. Separately, a September 2025 Staatscourant decision increased the Dutch CAP young farmer subsidy ceiling from EUR 47.36 million to EUR 60.13 million, enabling support for more than 200 additional young farmers in the 2025 round.

Implications for Ireland

the Dutch judicial precedent under the Habitats Directive is a live risk for any EU Member State with nitrogen-sensitive Natura 2000 exposure, including Ireland. The combination of court enforcement, RENURE uptake, and young-farmer support offers a compressed case study on sequencing pressure, technical pathways and incentives together.

Germany

Natural climate action and peatland restoration

Germany's Federal Action Plan on Nature-based Solutions for Climate and Biodiversity provides one of the most substantial national-scale EU examples of nature-based climate investment. The programme allocates EUR 4 billion to 2026 for measures including peatland protection and rewetting, forest restoration, floodplain restoration, urban greening and other ecosystem-based climate and biodiversity actions.

Peatlands are a central focus as drained peat soils are a significant national emissions source. German federal sources estimate that drained peatlands accounted for around 53 million tonnes of CO₂-equivalent emissions in 2020, equivalent to more than 7% of total German greenhouse-gas emissions. Research on peatlands and paludiculture highlights the role of rewetting, wet agricultural production systems and of value-chain development as part of Germany's transition from conventional drained peatland use toward climate-compatible land management.

Germany is also moving into the implementation phase of the EU Nature Restoration Regulation. The Ecologic Institute is supporting the Federal Agency for Nature Conservation in developing national restoration planning, with Member

States required to submit draft National Restoration Plans to the Commission by 1 September 2026.

At EU level, German conservative opposition was visible in the final stages of the Soil Monitoring Law. Environmental organisations reported attempts by German conservative representatives to derail the agreement, while the final directive was nevertheless adopted in 2025 and is expected to provide a more harmonised framework for soil monitoring across Member States.

Implications for Ireland

Germany's peatland programme provides a useful benchmark for the scale and institutional architecture required for national peatland transition. For Ireland, the most relevant elements are not only the EUR 4 billion allocation, but the combination of rewetting, paludiculture, regional value-chain development and nature-restoration planning. The German case suggests that peatland policy is most likely to become investable where restoration targets are linked to viable land-use alternatives, advisory capacity, monitoring systems and funding.

Belgium

Flemish nitrogen governance

Flanders remains a relevant comparator for nitrogen governance in intensive agricultural regions. The Flemish nitrogen decree was narrowly adopted in January 2024 and remains contested by agricultural stakeholders, including legal challenges from farmers' organisations. The Council of State criticised the decree's use of impact scores as lacking legal robustness.

The Flemish nitrogen framework provides for external offsetting between farms, allowing ammonia emission space from another livestock farm or manure-processing installation to be taken into account, subject to conditions set by the Flemish Government following plan-level environmental assessment and appropriate assessment. The decree provides that such external offsetting may be taken into account from 1 January 2025, provided those conditions are met. A November 2025 Sociologia Ruralis paper characterises Flemish nitrogen governance as a cycle in which judicial openings are systematically reabsorbed by administrative mechanisms and neo-corporatist bargaining. The paper argues that more durable nitrogen governance would require more transparent evidence practices, deliberative policy design and transition finance capable of supporting structural change rather than incremental pollution management. At Wallonia and federal level no single concrete development directly linked to the six EU instruments could be identified.

Implications for Ireland

Flanders is a cautionary tale on how nitrogen governance can become trapped in decree-court-amendment loops without structural resolution if legal design, scientific evidence and stakeholder legitimacy are not aligned. The case is instructive for Ireland's design of enforcement-sensitive measures.

New Zealand

Reset of the biogenic methane target

October 2025: the Coalition Government weakened the 2050 biogenic methane target from the previously legislated 24-47% reduction below 2017 levels to a new 14-24% range, while keeping the 2030 target at 10% reduction and ruling out a methane tax, even though the Climate Change Commission had advised tightening the target to 35-47%, not weakening it. The amended framework also builds in a future review point: the government has committed to reviewing the 2050 biogenic methane target again in 2040 to ensure it remains relevant. The Climate Change Response (2050 Target and Other Matters) Amendment Act 2025 has enacted the revised target into law.

The 'no additional warming' framing was used to justify the reset. Official sources state that the government is committing over New Zealand dollars (NZD) 400 million (EUR 201 million) to methane-reducing technology (breeding, vaccines, inhibitors). The amended second emissions reduction plan, published in January 2026,

confirms the same technology-led approach for agricultural emissions mitigation. In parallel, an on-farm emissions calculator is publicly available through AgMatters, the tool is designed to help farmers understand and reduce on-farm emissions.

Implications for Ireland

The single most transferable lesson from New Zealand is that agricultural emissions-pricing pathways are politically reversible under electoral change, even where targets have already been legislated. The 'no additional warming' framing is directly relevant for Ireland, as it may be used to argue for weaker methane targets. This is directly relevant to how Ireland's methane pathway and any future agricultural pricing architecture are designed for political durability.

If New Zealand's experience shows that legislated agricultural targets can be weakened under a single electoral cycle, what design choices would make an equivalent Irish pathway more durable? Would statutory embedding of agricultural methane targets within the Climate Action Act — rather than in ministerial plans — raise the political cost of future reversal? Would multi-party pre-legislative consultation on the methane pathway create a broader ownership coalition that is harder to unwind? And what role could the Climate Change Advisory Council play in making any future target revision a publicly contested process rather than a quiet policy reset?

Sources

World Resources Institute, *Denmark's Agriculture and Climate Policy Sets Strong Example*, 12 November 2024.

<https://www.wri.org/insights/denmark-agriculture-climate-policy>

CONCITO, *Paving the Way for Agriculture Emission Reductions: the Danish case*, 2024. <https://concito.dk/en/node/3817>

Danmarks Naturfredningsforening, *Ny kvælstofaftale er et vigtigt skridt mod bedre havmiljø og natur*, 3 December 2025.

<https://www.dn.dk/nyheder/2025/ny-kvaelstofaftale-er-et-vigtigt-skridt-mod-bedre-havmiljo-og-natur/>

European Environment Agency, *Total greenhouse gas emissions (without LULUCF), Denmark country profile*, September 2025.

<https://www.eea.europa.eu/en/europe-environment-2025/countries/denmark/total-greenhouse-gas-emissions>

Landbrug & Fødevarer, *Nye krav om metanreducerende foder til malkekøer*, 23 October 2024. <https://lf.dk/for-medlemmer/nyt-fra-lf/2024/uge-43/nye-krav-om-metanreducerede-foder-til-malkekoeer/>

Aarhus University, *New project to investigate whether Bovaer impacts cows' welfare*, 4 February 2025.

<https://anivet.au.dk/en/current-news/news/show/artikel/new-project-to-investigate-whether-bovaer-impacts-cows-welfare>

Agriland, *Bovaer maker actively engaging after Danish farmers raise concerns*, 12 November 2025.

<https://www.agriland.ie/farming-news/bovaer-maker-actively-engaging-after-danish-farmers-raise-concerns/>

Agriland, *European Food Safety Authority reviewing Bovaer data*, 17 February 2026.

<https://www.agriland.ie/farming-news/european-food-safety-authority-reviewing-bovaer-data/>

Agriland, *Study finds no evidence of increased cow mortality after Bovaer use*, 13 May 2026.

<https://www.agriland.ie/farming-news/study-finds-no-evidence-of-increased-cow-mortality-after-bovaer-use/>

Danish Agricultural Agency, *Obligatory requirement for methane-reducing feed: the executive order has now been published*, 23 October 2024.

<https://lbst.dk/alle-nyheder/nyheder/2024/okt/obligatorisk-krav-til-metanreducerende-foder-bekendtgoerelsen-er-nu-offentliggjort>

Danish Agricultural Agency, *Methane-reducing feed – 1-year commitment*.

<https://lbst.dk/tilskud/tilskudsguide/2023-og-senere/metanreducerende-foder-1-aarigt-tilsagn>

Danish Veterinary and Food Administration, *Guidance on exemption options in relation to methane-reducing feed*, revised 22 November 2025.

<https://foedevarestyrelsen.dk/Media/639010507413886318/Vejledning%20om%20undtagelsesmuligheder%20i%20forhold%20til%20metanreducerende%20foder.pdf>

EFSA, *Safety and efficacy of a feed additive consisting of 3-nitrooxypropanol (Bovaer® 10) for ruminants for milk production and reproduction*, 19 November 2021. <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2021.6905>

EFSA, Call for data on the use of 3-nitrooxypropanol in ruminants, 3 February 2026.

<https://www.efsa.europa.eu/en/call/call-data-use-3-nitrooxypropanol-ruminants>

Euronews, Fact check: Are cows in Denmark dying over Bovaer additive?, 24 November 2025.

<https://www.euronews.com/my-europe/2025/11/24/fact-check-are-cows-in-denmark-dying-over-bovaer-additive>

Green Transition Denmark, Stopping Bovaer leaves a gap in agriculture's climate accounts, 15 December 2025.

<https://www.rgo.dk/en/Stopping-bovaer-leaves-a-gap-in-agriculture%27s-climate-accounts/>

SEGES Innovation, Bovaer: SEGES Innovation researchers investigate possible causes of challenges in dairy herds, 13 November 2025.

<https://segesinnovation.com/about-us/news-and-media/seg-es-innovation-news/bovaer-seges-innovation-researchers-investigate-possible-causes-of-challenges-in-dairy-herds/>

Undark, In Denmark, Sick Cows and a Lot of Questions, 5 January 2026.

<https://undark.org/2026/01/05/denmark-cows-bovaer/>

FiscalNote, Farms to Courts: An Overview of the Dutch Nitrogen Crisis, January 2020.

The Independent, Dutch government ordered to drastically cut nitrogen emissions by court, 22 January 2025.

Library of Congress, Netherlands: District Court Orders Government to Adhere to 2030 Nitrogen Reduction Targets, 5 February 2025.

<https://www.loc.gov/item/global-legal-monitor/2025-02-05/netherlands-district-court-orders-government-to-adhere-to-2030-nitrogen-reduction-targets/>

DutchNews.nl, Cabinet plans to push back nitrogen targets to 2035, say reports, 25 April 2025.

<https://www.dutchnews.nl/2025/04/cabinet-plans-to-push-back-nitrogen-targets-to-2035-say-reports/>

European Commission, Commission welcomes RENURE agreement in Nitrates Committee, 1S September 2025.

https://environment.ec.europa.eu/news/commission-welcomes-renure-agreement-nitrates-committee-2025-0S-1S_en

Staatscourant, Regeling van de Minister van Landbouw (Stcrt. 2025, 312S3), 23 September 2025.

Government of the Netherlands, Jetten government sworn in, 23 February 2020.

<https://www.government.nl/latest/news/2020/02/23/jetten-government-sworn-in>

Ecologic Institute, Supporting the National Implementation of Nature Restoration Targets (Germany), 2025. Ecologic Institute, Draft of the First National Restoration Plan, 2020.

<https://www.ecologic.eu/20427>

Frontiers in Climate, Unlocking the potential of peatlands and paludiculture to achieve Germany's climate targets, May 2024.

Bundesamt für Naturschutz, Federal Action Plan on Nature-based Solutions for Climate and Biodiversity. Belga News Agency and VRT NWS, Flemish nitrogen decree coverage, January to November 2025.

Vandenberghe et al., Nitrogen policy in Flanders: Who unchains a locked-up debate?, Sociologia Ruralis, November 2025.

New Zealand Legislation, Climate Change Response (2050 Target and Other Matters) Amendment Act 2025.

<https://www.legislation.govt.nz/act/public/2025/80/en/latest/>

New Zealand Ministry for the Environment, Government resets 2050 biogenic methane target, 12 October 2025.

<https://environment.govt.nz/news/govt-resets-2050-biogenic-methane-target/>

Science Media Centre NZ, Expert reaction: NZ's new targets to manage its methane emissions, 13 October 2025.

<https://www.sciencemediacentre.co.nz/2025/10/13/nzs-new-targets-to-manage-its-methane-emissions-expert-reaction/>

Beehive.govt.nz, New methane target set in Parliament, 10 December 2025.

<https://www.beehive.govt.nz/release/new-methane-target-set-parliament>

New Zealand Ministry for the Environment, Climate Change Response (2050 target and other matters) Amendment Bill: Regulatory Impact Statement, 9 December 2025.

<https://environment.govt.nz/what-government-is-doing/cabinet-papers-and-regulatory-impact-statements/ccr-amendment-bill/>

New Zealand Ministry for the Environment, Amendment to the second emissions reduction plan, 29 January 2026.

<https://environment.govt.nz/news/amendment-to-the-second-emissions-reduction-plan/>

New Zealand Ministry for the Environment, New Zealand's second emissions reduction plan 2026–30: Amended January 2026.

<https://environment.govt.nz/publications/new-zealands-second-emissions-reduction-plan/>

New Zealand Ministry for the Environment, New Zealand's second emissions reduction plan 2026–30: January 2026 amendment addendum.

<https://environment.govt.nz/publications/new-zealands-second-emissions-reduction-plan-202630-january-2026-amendment-addendum/>

New Zealand Ministry for the Environment, Agricultural emissions calculator. <https://environment.govt.nz/what-you-can-do/calculate-your-emissions/agricultural-emissions-calculator/> AgMatters, Agricultural emissions calculator.

<https://agmatters.nz/estimate-your-emissions/>

Newsroom NZ, Govt warned new methane target aligned with 'catastrophic' warming, 4 December 2025.

<https://newsroom.co.nz/2025/12/04/govt-warned-new-methane-target-aligned-with-catastrophic-warming/> IBAN,

Currency Converter: New Zealand Dollar to Euro, accessed 21 May 2026. https://www.iban.com/currency-converter?from_currency=NZD&to_currency=EUR&amount=1#

2040 climate target, flexibilities and RENURE

Target status and sectoral KPIs

The Council formally adopted the amended European Climate Law on 5 March 2026 and subsequently published in the Official Journal as Regulation (EU) 2026/667, setting a binding 90% net GHG reduction by 2040 relative to 1990. At least 85% must be achieved through domestic reductions and removals; from 2036 up to 5% may come from high-quality international carbon credits under Article 6 of the Paris Agreement (two percentage points higher than the Commission's originally proposed 3%). The ETS2 (concerning road transport and buildings) is postponed from 2027 to 2028.

Implementation planning is active. On 9 February 2026, the Commission launched two public consultations and calls for evidence on the post-2030 EU climate policy framework, open until 4 May 2026, covering national climate targets and flexibilities as well as the possible use of international carbon credits toward the 2040 target, while no sector-specific 2040 targets are set in the Climate Law itself.

The operational detail for post-2030 sectoral key performance indicators (KPIs) is expected through subsequent revisions: an EU ETS review is expected in July 2026, while revisions to LULUCF and Effort-Sharing Regulations are expected in Q4 2026.

Flexibilities for land use and agriculture

Three flexibility areas are flagged in the agreed text:

- High-quality international carbon credits up to 5% of 1990 EU net emissions from 2036, subject to safeguards preventing funding of projects contrary to EU strategic interests.
- Domestic permanent carbon removals to compensate residual hard-to-abate emissions under the ETS, to be operationalised through the ETS review.
- Enhanced flexibility within and across sectors and instruments, enabling Member States to offset under-performance in one sector (e.g. agriculture or land use) with over-performance in another (e.g. waste or transport).

A distinction between temporary land-based removals and permanent (industrial) removals is widely expected in follow-on legislation. Civil society coalitions (Carbon Gap, Zero Emissions Platform) are pushing for separate targets so that temporary, reversible land-based removals cannot compensate continued fossil emissions, applying the so-called 'like-for-like' principle.

Implications for Ireland

The amended European Climate Law strengthens the long-term policy signals for Ireland: post-2030 climate planning will need to align with a binding EU-wide 90% net reduction target by 2040, while agriculture and land use will remain central to Ireland's delivery challenge. For Ireland, this increases the importance of setting out clear national assumptions on the expected contribution of agricultural emissions reductions, LULUCF removals, and wider cross-sector flexibilities before the next round of EU sectoral legislation is finalised.

RENURE regulatory status

Commission Directive 2026/288, amending Annex III of the Nitrates Directive (91/676/EEC), was adopted by the Commission on 9 February 2026 as C(2026) 662 and published in the Official Journal on 10 February 2026. The Directive concerns the use of RENURE fertilisers (derived from processed manure) above the limit set by the Nitrate Directive for the use of manure and processed manure. The amendment aims to reduce farmers' dependence on chemical fertilisers, reduce costs, and strengthen the EU agricultural sector's strategic autonomy. Safeguards have been included to ensure water and environment safety.

Process

- Public consultation closed 17 May 2024 on draft Commission Directive.
- Nitrates Committee vote on 19 September 2025.
- Three-month scrutiny by Parliament and Council under comitology.
- Commission adoption 9 February 2026.
- Transposition deadline for Member States: 2 March 2028.

Key provisions

RENURE fertilisers can be applied above the 170 kg N/ha/year manure limit in Nitrate Vulnerable Zones, up to an additional 80 kg N/ha/year. Three eligible product types are included: mineral concentrates from ultrafiltration or reverse osmosis; ammonium salts from gas scrubbing; precipitated struvite. The following technical criteria were set by the Joint Research Centre: total organic carbon to total N ratio at or below 3, or mineral N to total N ratio at or above 90%.

Safeguards

The amendment includes safeguards on product quality and use. These include upper limit values for copper, zinc and pathogens, as well as nutrient-content information requirements, balanced fertilisation rules, ammonia-loss precautions, and safeguards for Natura 2000 areas, water-quality objectives and drinking-water abstraction points. It also requires Member States authorising RENURE to ensure that livestock numbers and manure production do not increase as a result. The amendment applies only in Member States that choose to authorise RENURE and requires national transposition.

Critical reception

The Directive was met with controversy: the European Environmental Bureau characterised the final text on 10 February 2026 as 'Science ignored as EU weakens nitrate rules favouring Big Agribusiness', raising concerns that the proposal could weaken water protection and legitimise excessive manure production in already overloaded regions, potentially worsening soil and water pollution.

From an economic perspective, a study published by Vingerhoets et al. (2025) estimates cost reductions in several live-stock dense regions. The decreases amount to approximately 5% in the Netherlands, 4.8% in Catalonia and North Rhine-Westphalia, 4.7% in Lower Saxony, 2.6% in Flanders, and 2.3% in Lombardy, with a 1.3% improvement in nitrogen circularity and 6% GHG reduction in those areas.

Implications for Ireland

Ireland has a structural case for RENURE given its livestock intensity, ammonia pressures and existing nitrates derogation context. A transposition decision will be needed by March 2028. Early engagement

with DAFM on the cost-benefit case, Natura 2000 safeguards and integration with Food Vision 2030, sectoral ceilings and Climate Action Plans is now time-critical.

What would conditional transposition look like — a national authorisation framework that unlocks RENURE for eligible processors while embedding Natura 2000 safeguard conditions co-designed with the EPA and the NPWS? If RENURE uptake were linked from the outset to a national register of eligible processors and a monitoring protocol for water quality indicators, would that address the environmental concerns raised by the EEB while preserving the economic case for livestock-dense regions? And critically: if Ireland's nitrates derogation review arrives before March 2028, does the absence of a RENURE decision weaken or strengthen Ireland's negotiating position — and who in DAFM owns that calculation? There is also huge opportunity here in the development of Ireland's bioeconomy with potential for scaled up investment in biorefineries that can tackle multiple issues including nitrates issuers, high fertiliser prices, water quality, rural employment, and decarbonisation of energy.

Sources

Council of the EU, 2040 climate target: Council and Parliament agree on a 50% emissions reduction, 10 December 2025.
<https://www.consilium.europa.eu/en/press/press-releases/2025/12/10/2040-climate-target-council-and-parliament-agree-on-a-50-emissions-reduction/>

Council of the EU, 2040 climate target: Council gives final green light, 5 March 2020.

<https://www.consilium.europa.eu/en/press/press-releases/2020/03/05/2040-climate-target-council-gives-final-green-light/>

European Commission, Have your say on the EU's post-2030 climate policy framework, 5 February 2020.

https://climate.ec.europa.eu/news-other-reads/news/have-your-say-eus-post-2030-climate-policy-framework-2020-02-05_en

European Parliament, EU climate law: a 2040 emissions reduction target of 50% for the EU, 10 February 2020.

https://www.europarl.europa.eu/pdfs/news/expert/2020/2/press_release/20200205IPR33c20/20200205IPR33c20_en.pdf

Carbon Gap, EU 2040 Climate Targets: Emissions Reduction and Carbon Removal, Carbon Removal Policy Tracker, accessed 23 May 2020.

<https://tracker.carbongap.org/policy/2040-targets/>

CAP Reform, Alan Matthews, LULUCF targets off-course, 1c December 2025.

<https://capreform.eu/lulucf-targets-off-course/>

Morgan Lewis, 2040 EU Climate Target and Related EU Climate Policy Developments, 7 January 2020.

<https://www.morganlewis.com/pubs/2020/01/2040-eu-climate-target-and-related-eu-climate-policy-developments>

European Commission, Commission Directive (EU) 2020/288 of 5 February 2020 amending Council Directive 91/676/EEC as regards the use of certain fertilising materials from livestock manure, Official Journal, 10 February 2020.

<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32020L0288>

European Commission, Nitrates – updated rules on the use of certain fertilising materials from livestock manure (RENURE), Have Your Say / Draft act, feedback period 15 April–17 May 2024.

https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14242-Nitrates-updated-rules-on-the-use-of-certain-fertilising-materials-from-livestock-manure-renure_en

European Commission (DG ENV), Commission welcomes RENURE agreement in Nitrates Committee, 15 September 2025.
https://environment.ec.europa.eu/news/commission-welcomes-RENURE-agreement-nitrates-committee-2025-05-15_en

European Commission (DG ENV), Fresh measures to reduce farmers' dependency on imported fertilisers, 5 February 2020.
https://environment.ec.europa.eu/news/fresh-measures-reduce-farmers-dependency-imported-fertilisers-2020-02-05_en

Joint Research Centre, Huygens et al., Technical proposals for the safe use of processed manure above the threshold established for Nitrate Vulnerable Zones by the Nitrates Directive (S1/c7c/EEC), JRC Science for Policy Report, 2020.
<https://publications.jrc.ec.europa.eu/repository/handle/JRC121c3c>

European Environmental Bureau, RENURE: Science ignored as EU weakens nitrate rules favouring Big Agribusiness, 10 February 2020.

<https://eeb.org/en/renure-science-ignored-as-eu-weakens-nitrate-rules-favouring-big-agribusiness/>

Vingerhoets et al., Economic potential for nutrient recovery from manure in the European Union, *Journal of Cleaner Production*, December 2024.

<https://www.sciencedirect.com/science/article/pii/S0959652624000000>

Signals, blind spots and strategic opportunities

Signals of change

Shift from targets to flexibility architecture

The 2040 target outcome is not the 90% headline. It is the construction of a flexibility stack (international credits, permanent removals inside ETS, cross-sectoral offsetting) that allows agriculture and land use to underperform if other sectors over-perform. Simultaneously, this creates a new governance and market space where definitions of equivalence across flexibility pathways matter more than absolute targets. The post-2030 implementation consultation (closed 4 May 2026) is where sectoral KPIs are being defined now.

Voluntary carbon markets as a core climate-finance instrument for land

The CRCF, the planned EU Buyers' Club and EU Carbon Farming Database, and the CRCF-ETS integration assessment (due 31 July 2026) together will constitute a new de facto carbon market for land-sector activities, layered on top of CAP. This is no longer fringe. Methodology design choices being finalised in 2026 will shape which practices, actors and geographies can enter. Clarity on definitions, methodologies and principles will bring greater trust, and value, to voluntary markets. However, agri-food value chains actors are keen to 'inset' the costs of improved ecosystem service outcomes and retain the valuer within the supply chain. Regardless of who pays, the data infrastructure and methodologies must be common to enable the highest possible value to flow to primary producers and land managers, enabling the broadest and fastest possible delivery of climate, biodiversity, water and soil health outcomes.

Soil health demoted in law, elevated in markets

The Soil Monitoring Law is weaker than its initial Commission proposal (no binding 2050 soil health obligation), but soil enters market architecture via CRCF carbon farming methodologies and indirectly via RENURE-enabled circular nutrient flows. This means soil policy is increasingly market-making rather than regulatory, with consequences for who benefits: large farm operators and technology providers are currently advantaged relative to smallholders or agroecology networks.

Structural blind spots

Integration gap between instruments

CRCF, LULUCF, the forthcoming livestock strategy, and the Nitrates Directive amendment share the same physical land and farms but are designed by different Commission DGs with different incentive logics, compliance periods and actor relationships. No instrument coherently addresses the farm-level decision calculus of a livestock operator facing carbon pricing (via Carbon Border Adjustment Mechanism (CBAM)-exposed inputs), soil monitoring (via national transposition), nutrient recycling incentives (via RENURE), methane mitigation pressure, and carbon farming monetisation. The result is incentive fragmentation at the scale where coherence matters most.

Land-sink fragility undermining 2040 flexibility logic

The 2040 target assumes cross-sectoral flexibility works, which in turn assumes the LULUCF sink stays at or near 310 MtCO_{2e}. The sink is declining, National Restoration Plans are uneven, and peatland rewetting targets under the Nature Restoration Regulation are politically contested. If LULUCF

underperforms, the flexibility architecture allows agriculture and land use to continue emitting rather than triggering structural change. The design creates a plausible pathway for deferred rather than delivered land-sector transformation.

Strategic opportunities

Soil health

The post-2030 implementation consultation is the immediate window to shape sectoral KPIs that align soil health with LULUCF accounting and CRCF carbon farming methodologies. Further opportunities lie at the interface of CRCF Delegated Acts on carbon farming, where methodology shapes what counts, and national Soil Monitoring Law transposition, where baseline data could be harmonised with CRCF registry needs and the development of a National Carbon Farming Framework.

Nature-based solutions

The National Restoration Plan drafting window to September 2026 is the primary policy entry point. Frontrunner Member States where partner networks are strong offer leverage to shape ambition and delivery design. Expected under-performance on peatland rewetting and pollinator targets creates demand for systemic action to scale up delivery

Circular economy

RENURE creates a compliance-and-market space where processors, technology providers and livestock regions converge. The Commission's three-product limit (mineral concentrates, ammonium salts, struvite) narrows the field and concentrates opportunity in livestock-dense regions: Lombardy, Flanders, Netherlands, Lower Saxony, Catalonia, North Rhine-Westphalia, Brittany. Ireland's position should be assessed against this cluster.

Blended finance

The 2040 implementation package, the ETS review expected July 2026, and the planned CRCF Buyers' Club together create a public-private finance architecture channelling tens of billions of euros through a combination of CAP, Just Transition, Innovation Fund, Competitiveness Fund¹ and voluntary carbon markets into land and agriculture. The gap is not capital, but intermediation capacity connecting EU-level instruments and national ambitions to place-based delivery.

Implications for Ireland

Based upon the document's content and takeaways, Ireland's strategic position sits at the intersection of five compounding pressures and five compounding opportunities.

Compounding pressures

¹ The European Competitiveness Fund (ECF) is being developed as part of the proposal for the next multiannual financial framework (MFF) for the 2028-2034 period. It is currently in its proposal stage: the EU Commission proposed a final version of the legislative proposal, and it is undergoing the ordinary legislative procedure. Its objective is to increase EU competitiveness, especially in strategic sectors including "Clean Transition and Industrial Decarbonisation" and "Health, Biotech, Agriculture and Bioeconomy". To accomplish this, the ECF would merge 14 current funding instruments into a single, cohesive framework. Source: Carbon Gap. (2026, January 15). European Competitiveness Fund. Carbon Removal Policy Tracker. Accessed May 26, 2026, from <https://tracker.carbongap.org/policy/european-competitiveness-fund-ecf/>

- Methane pathway exposure: Ireland's 37% agriculture share of national emissions is the highest in the EU, making methane a central strategic risk. The New Zealand methane reset demonstrates the political reversibility of agricultural targets. At the same time, if Ireland maintains a credible methane-reduction pathway, it could use higher-integrity climate action as a point of differentiation against lower-ambition export competitors.
- LULUCF fragility: declining land sinks across the EU, combined with Ireland's peatland emissions profile, make 2040 flexibility arithmetic tight.
- Nitrogen and water: the Dutch judicial precedent, alongside Ireland's own Water Framework Directive pressures, signals judicial risk around nitrogen-sensitive Natura 2000 sites.
- RENURE transposition: a national decision about whether and how to authorise RENURE has to be made by March 2028, with implications for dairy processing, biogas, water quality and fertiliser strategic autonomy.
- Bioeconomy competitiveness framing: Ireland's agri-food sector will need to navigate the competitiveness-sustainability tension embedded in the 2025 Bioeconomy Strategy.

Compounding opportunities

- CRCF carbon farming methodologies: early Irish alignment on verification capacity, farmer-facing guidance and data infrastructure can position Ireland as a leader in outcomes-based payments for ecosystem services and the ability to stack private and public payments, thus offsetting impacts of a reduced CAP budget while delivering environmental outcomes and reducing bureaucracy.
- National Restoration Plan: the September 2026 deadline is a strategic design moment to integrate peatland, biodiversity, water and carbon farming objectives in a coherent delivery architecture.
- Soil Monitoring transposition (by late 2028): provides an opportunity to design a national soil data system that is interoperable with CRCF and NRP reporting, reducing duplication and creating a stronger evidence base for land-based policy.
- RENURE uptake: RENURE should be treated not only as a compliance issue, but as a circular economy and strategic autonomy opportunity. Ireland's livestock intensity gives it a genuine economic and circularity case, subject to Natura 2000 safeguards. Simultaneously, a timely decision on RENURE could contribute to accelerating biomethane production (supporting national targets) and could also feed influence any new derogation decision, which will be due by the end of 2028 as well. This is also important in the development of Ireland's National Carbon Farming Framework from both water quality and mitigation perspectives.
- Blended finance intermediation: with the EU instruments generating capital supply, Ireland's Deep Demonstration architecture is positioned to act as an intermediation capacity connecting EU instruments to place-based delivery.

Three decisions that cannot wait

Synthesising across the four sections of this document, three decisions stand out as pivotal — not because they are the most technically complex, but rather because the window for making them well is closing. Each is framed here as a question, because the answer depends on choices that have yet to be made.

Integrate the files before the instruments do it for you

The National Restoration Plan, the Soil Monitoring transposition, the RENURE decision and CRCF readiness work are currently proceeding as distinct policy tracks within DAFM and across departments. Each is technically adequate in isolation. The risk is that by the time each track reaches implementation, between 2027 and 2029, farmers and land managers face competing and contradictory incentives from instruments that could have been reconciled at design stage.

What if Ireland used the NRP drafting window, closing September 2020, and the development of a National Carbon Farming Framework, as an opportunity to align all four tracks under a single national land transition framework that could support the new national CAP Strategic Plan? Not a new agency, not a new strategy document, but a named coordination process with cross-departmental ownership. What would it take to ensure that a farmer rewetting peat on the Midlands is simultaneously earning a CRCF credit, contributing to an NRP peatland target, meeting a Soil Monitoring baseline, and not falling foul of a Nitrates compliance rule — all from a single scheme?

Transpose RENURE as a circular nutrient strategy, not a compliance exercise

Ireland has until March 2028 to transpose the RENURE Directive, but in practice the decision is needed much sooner, since it will interact directly with the nitrates derogation review, biomethane production targets and the design of a National Carbon Farming Framework. Treated as a narrow transposition exercise, RENURE solves a manure surplus problem for livestock-dense regions. Treated as a strategic opening, it could become the foundation for a national circular nutrient economy that simultaneously reduces dependence on synthetic fertiliser imports, supports biomethane production while considering water quality pressures.

What if the RENURE transposition were designed from the outset as one pillar of a circular nutrient strategy, co-owned by DAFM and the Department of Climate, Energy and the Environment? What conditions — on Natura 2000 safeguards, on processor eligibility, on monitoring requirements — would make that strategy credible to the environmental community as well as to the agriculture sector? And what would it mean for Ireland's negotiating position in the next nitrates derogation review if RENURE were already operational?

Accelerate development of Ireland's National Carbon Farming Infrastructure to gain competitive advantage

The Carbon Farming Delegated Act is expected imminently. Once methodologies for peatland rewetting, agroforestry and soil carbon are finalised, the verification and certification market will begin to form around them — with or without Ireland. Member States with established baseline data, accredited certification bodies and farmer-facing guidance will attract early investment and shape practice standards. Member States without that infrastructure will become price-takers in a market designed elsewhere.

What if Ireland accelerated development of its national carbon farming infrastructure before the end of 2020 — establishing governance structures, naming the lead verification body, committing to a timeline for farmer-facing guidance, and designating the data systems that will include carbon removals, emissions reductions biodiversity quality and quantity, soil health and improved water quality? Not a strategy for consultation, but a public signal of intent that shapes how the EU Buyers' Club, private carbon buyers and agri-food value chains position Ireland on their maps.



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