

Deep Demonstration

**Transforming Ireland's food systems
for climate resilience**

The transformation needed

Ireland has committed to reducing agricultural emissions by 25% by 2030 and achieving a climate-neutral food system by 2050. Delivering this transition requires action across the entire food system, while safeguarding rural livelihoods, food production, biodiversity and economic resilience.

Our approach

Through our 'Deep Demonstration' model of innovation, we are supporting farmers and their communities to transition to sustainable practices across carbon farming, dairy production (with a focus on reducing methane) and circular bioeconomy, aligning with EU climate goals and bringing all actors together around a shared vision for 2050.

Our commitment

We work with all actors across the land use and agrifood systems, from both public and private sectors, including finance and education, as well as civil society, to develop and deploy coordinated innovation actions that work – in practice and at scale – and to obtain insights and lessons about a range ('portfolio') of solutions.

Progress so far

72%

of CO₂e reduced on 9 farms
(241 tonnes), equivalent to
6 flights around the globe



€1.2 million

raised in new funding
with private partners



31

local authorities supported
in developing circular bioeconomy
initiatives



1,300+

farmers, advisors, industry actors
and experts across the agri-food
value chain mobilised



17

start-up and entrepreneurship
organisations supported
in scaling agri-tech solutions



Co-designed Ireland's

**national carbon
farming framework**



Proof it works

Climate KIC is helping turn Ireland's climate ambitions into practical action. In West Cork, a pilot led with farmers, cooperatives and technology providers demonstrated a 72% average reduction in methane emissions from slurry storage across nine dairy farms, cutting 241 tonnes CO₂e in just one season. The project is now expanding to 18 additional farms while helping create the verification, policy and market conditions needed to scale agricultural methane solutions nationally.



What we are demonstrating

Carbon farming

Co-designing Ireland's National Carbon Farming Framework to reward farmers for ecosystem services like biodiversity and water quality.

Sustainable dairy

Testing methane reducing technologies on 27 dairy farms in West Cork and building long-term, market-based financing solutions.

Regional bio-economy

Working with local authorities and partners on community-led, circular solutions such as co-owned biorefineries and using bio-fertilisers.

Innovation ecosystems

Identifying, supporting and scaling companies and 'ready now' agri-tech solutions for farm-level sustainability.

Policy Innovation Labs

Building on this portfolio, we are creating structured spaces where policymakers, researchers and communities co-design and stress-test agri-food policy in real settings.

Proof it works

Climate KIC is building the partnerships and business models needed to accelerate Ireland's bioeconomy transition. Through Comhar BIA, we brought together cooperatives, industry partners and local communities to demonstrate the viability of a cooperative-owned biorefinery model that converts agricultural and food-processing side streams into renewable energy and bio-based products. The initiative has already attracted interest from five of Ireland's largest dairy cooperatives and is advancing towards implementation of its first regional bioindustrial hub.



Support us achieving our roadmap to 2030

Partner with us to keep delivering a national sustainability programme where scientifically sound and safe innovations are being demonstrated on real-world farms.

Join the dairy transition and support at least 1,000 farmers reducing 1 million tonnes of CO₂e through innovative technologies.

Are you a food retailer, manufacturer or secondary processor? **Reduce emissions from your entire value chain**, including Scope 3.

Help build a national carbon and nature credit system, including governance, registries and validation bodies.

Accelerate agri-tech adoption and scale companies and new technologies improving biodiversity, water quality or soil health.

Invest in regional bioeconomy. We have an active pipeline of initiatives requiring up to €300,000 in early-stage feasibility assessment, with a potential of €20 million capital mobilisation.

Contribute to turning pilots into policy. Our Policy Innovation Labs are where we work directly with regulators and local authorities to co-design an enabling policy environment for long-term adoption and impact.

About Climate KIC

Climate KIC is Europe's foremost climate innovation agency: an independent non-profit that for over 16 years has been embedded in the places where climate ambition meets the friction of the real world. Partnering with governments, multilateral institutions, philanthropies, and the private sector, we mobilise large-scale climate action across cities, regions, and value chains, using systems innovation as a service.

The Ireland Deep Demonstration, established in 2022 in partnership with the Department of Agriculture, Food and the Marine, has mobilised over 27 core partners and 54 implementation partners, and it was recognised as a key enabler to keep Ireland on track of its climate goals in the country's Climate Action Plan.

Get in touch



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