BASE-Line EIP - Restoring Soil Health and Enhancing Biodiversity through Regenerative Agriculture

Project Summary (September 2025)

BASE-Line European Innovation Partnership (EIP): The BASE-Line EIP is a 4½ year regenerative agriculture project seeking to implement, evaluate and promote regenerative agriculture practices to restore soil health, increase biodiversity, and improve the resilience of farming systems in Ireland. It is co-funded by the European Union and the Department of Agriculture, Food and Marine (DAFM), under the European Innovation Partnership Scheme, which funds projects that allow farmers, scientists, and other experts, to collaborate together to develop new practices that are environmentally friendly, and economically sustainable. The BASE-Line EIP fully adheres to the aim of such innovation partnerships, funded to test new ideas and practices, which can then be used more widely by farmers and others to improve productivity, and enhance resource efficiency.

Lead Coordinator: BASE Ireland is the lead coordinator of the BASE-Line EIP. BASE (Biodiversity, Agriculture, Soil and Environment) Ireland is part of an international community of farmers and agriculture professionals committed to advancing the knowledge and practice of Conservation Agriculture and Regenerative Agriculture. BASE Ireland member farmers have extensive experience in this area and have been to the forefront of sustainable agriculture and innovation.

BASE-Line EIP Approach: Regenerative agriculture (RA) is focused on restoring and enhancing the natural resources of farms with particular emphasis on soil health, biodiversity, and ecosystem services. The predominant current agricultural model in Ireland, heavily reliant on excessive tillage, synthetic fertilizers and pesticides, has led to significant soil degradation, reduced biodiversity, nutrient leaching, soil runoff, a high carbon footprint on farms, and climate-related challenges such as drought and flooding. RA seeks to work with nature through the implementation of RA practices, where the land is farmed and steadily improved. Techniques such as no-till farming, cover cropping, agroforestry, reduced fertiliser use, holistic grazing, and integrated pest management, can help improve soil structure, increase carbon sequestration, improve local water quality and restore biodiversity. The approach is centered on a renewed emphasis on soil health as the cornerstone of sustainable agriculture, but the BASE-Line EIP will go much further. It will utilise the extensive practical experience that BASE Ireland member farmers have gained over the past 20 to 25 years. More importantly the EIP will assess and monitor work by participants to develop a robust scientific foundation supporting the practical experiences of farmers. This will be used to effectively demonstrate the environmental benefits to policymakers, and bridge the gap in our understanding of the benefits of regenerative agriculture by quantifying the impacts (social, economic, environmental) of regenerative practices on key environmental indicators within an Irish context.

Project Objectives: The BASE-Line EIP will deliver the following project objectives:

- Develop a comprehensive understanding of the regenerative agriculture practices currently implemented on participating farms, with both BASE farmers and non-BASE farmers, in Ireland
- Quantify the impacts of regenerative agriculture on key environmental indicators
- Perform an economic impact assessment of regenerative agriculture practices
- Examine influences on farm systems change, including farmer behavioural change
- Broaden the knowledge sharing network of peer-to-peer learning and 'Farmers Educating Farmers'
- Propose a scalable model for farm system change

Start Date & Timeframe: The BAS-Eline EIP formally got underway in June 2025 and will have a 4½ year (54-month) implementation timeframe, ending in late December 2029.

Who Is Involved: The EIP includes numerous stakeholders including BASE Ireland member farmers, other farmers, experienced researchers, leading academics (SETU – Department of Land Sciences; UCD – Department of Agriculture Extension & Innovation) and others who have extensive expertise in managing and delivering collaborative projects focused on regenerative agriculture, soil health, nutrient management, biodiversity enhancement, water quality, farmer based research, filed survey work, economic and environmental assessment, peer-to-peer knowledge exchange, dissemination, farmer and community outreach.

Overall Aim: The project will combine innovative farming techniques, farmer-led research, and data-driven monitoring to demonstrate the potential of RA practices to enhance soil biology and fertility, mitigate climate change through carbon sequestration, ensure cleaner air and enhanced water quality. It also aims to provide an evidence base highlighting the economic viability of sustainable farming. It aims to demonstrate and provide farmers with a pathway towards an economically sustainable business model working in harmony with nature.

Operational Area: The operational area of the BASE-Line EIP will be farms across the island of Ireland. This will ensure the project gets to work with different farming systems, which will include arable, beef, and dairy farms of varying size, and soil type. It will ensure a good representative sample of both part-time and full-time farmers across Ireland.

Budget: The overall approved budget is €1.45 million. Of this, an amount of €572,000 will be assigned to implementation activities, including farmer payments, across 7 major work packages. Approximately €291,000 will be allocated to dissemination, outreach, publication and multimedia production costs. An amount of €531,000 will be assigned to project coordination, project management and administration, monitoring, data collection and analysis, and on external assistance.

Key Activities: The EIP will implement a diverse range of work packages. It will develop and present a robust scientific foundation, focused on the practical experience of participating EIP farmers, for regenerative agriculture. This will include:

- Data Collection & Analysis: Soil, biodiversity, and water quality monitoring will be conducted throughout the EIP.
- Social Research: Interview and survey work will explore motivations, barriers, and social influences on RA adoption.
- Economic Assessment: A comprehensive evaluation will be conducted focused on a comparative financial analysis of regenerative agriculture versus conventional farming to determine cost-effectiveness and profitability.
- Stakeholder Engagement: Work focused on encouraging RA adoption and farmer-led knowledge-sharing platforms, workshops, and advisory support and services.
- Scalability & Policy Work: Development of guidelines and a suite of recommendations for integrating RA into conventional systems, which will be informed by the findings of the EIP.

Expected Results: The EIP, having implemented a diverse range of work packages, will present a resilient case, science based and science led, outlining the benefits of RA. This will be based on the practical experience of participating farmers. Having identified RA practices across multiple farm systems, and having systematically monitored their impact, the BASEline EIP will present to policymakers the environmental benefits of mainstreaming RA, and of integrating RA practices into conventional farming systems. It will provide comprehensive research, having quantified the impacts of RA on key environmental indicators in an Irish context. In addition, it will provide a road map to address barriers for the adoption of regenerative agriculture in Ireland and, informed by project findings, will provide a suite of recommendations.

More Information & To Stay Connected: If you would like more information on the work of the BASE-Line EIP or if you wish to stay connected to the progress of the project, then please email eipbaseline@gmail.com. The projects website (www.base-lineeip.ie) and other social media channels are currently under development.